

UKRAINE MACROECONOMIC HANDBOOK

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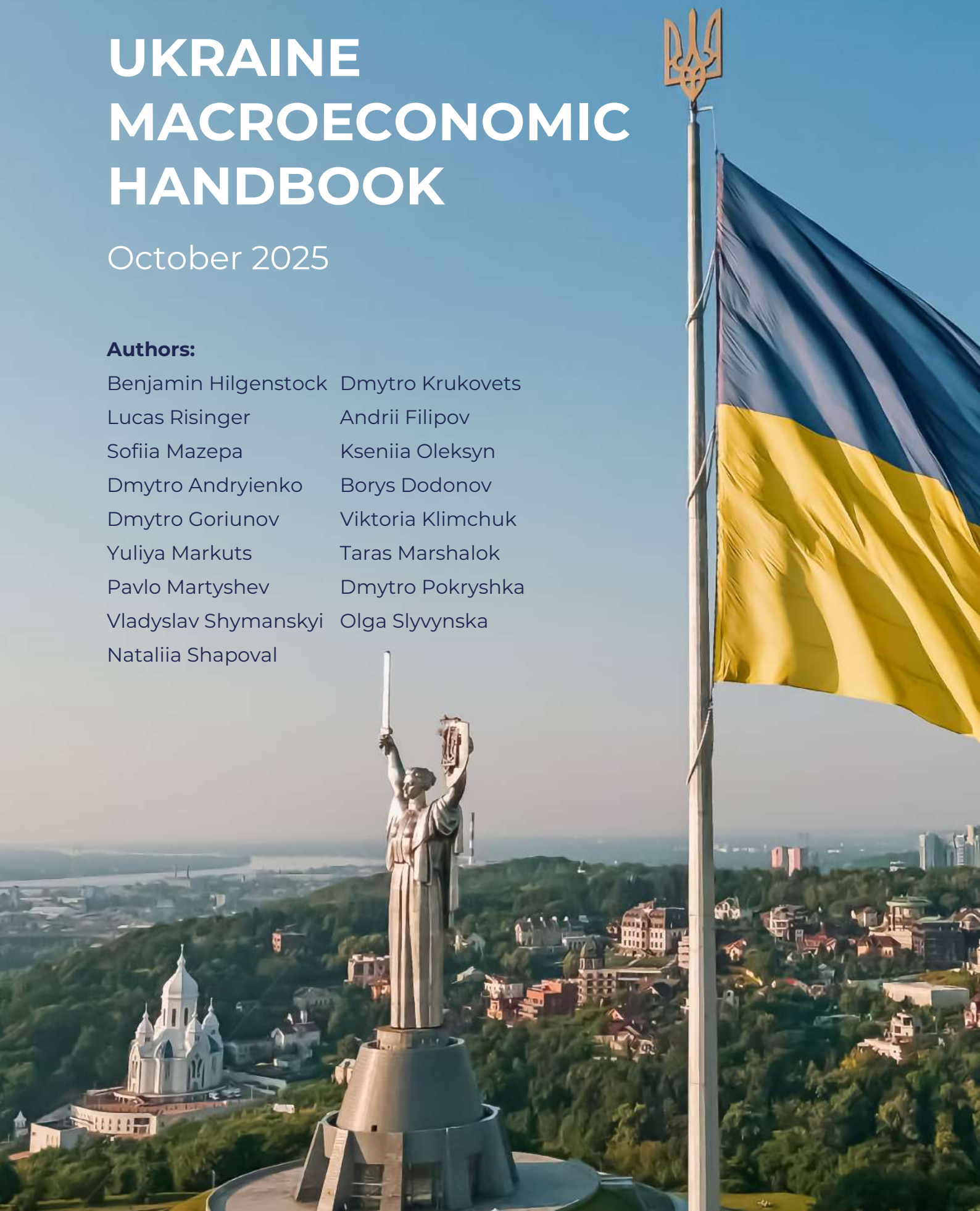


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Introduction and Assumptions

This forecast covers Ukraine's macroeconomic trajectory for 2025-28 in the context of ongoing Russian aggression, taking into account current and future opportunities once the war comes to an end. Projections rely on the Quarterly Projection Model (QPM) for the majority of macroeconomic indicators, with accounting-based modeling used for external, fiscal, and real sector dynamics—accompanied by expert assessments of issues related to current and future policy implementation. The transparent discussion of assumptions allows readers to adjust key forecast indicators based on their own beliefs. Assumptions are a major challenge given the extraordinary situation that Ukraine's economy has been facing for more than three-and-a-half years. The assumptions are based on expert judgments by the KSE Institute team and are summarized in Table 1 below.

Table 1. Key assumptions

	2021	2022	2023	2024	2025	2026	2027	2028
War intensity	Low int.	Full-scale					None/low int.	
Financial assistance, \$ bn	7.5	31.3	42.4	41.4	42.5	27.5	22.1	1.4
o/w ERA	...	...	...	1.0	31.9	11.5	6.6	...
o/w EU Ukraine Facility	...	...	...	17.4	9.7	10.8	8.4	1.4
o/w IMF program	0.7	2.7	4.5	5.3	0.9	2.4	1.1	...

We maintain the view that the full-scale war is unlikely to come to an end in 2025. Despite various diplomatic efforts, most importantly by the United States, Russia is clearly not interested in any ceasefire or peace agreement at this point. Stepped up economic pressure on Russia—notably through the US' sanctioning of Russia's two biggest oil companies and the European Union's adoption of its 19th sanctions package—is promising. Whether it will change the Kremlin's calculus regarding serious negotiations remains to be seen, however. Thus, it remains prudent to base our economic projections on the **assumption that the full-scale war will continue throughout most of 2026**. Many other institutions have come to the same conclusion—including the IMF in its assessment of Ukraine's financing needs in the coming years. Moreover, Ukraine's partners are discussing future funding mechanisms, such as the reparations loan, recognizing that a quick end to the war is unlikely.

For Ukraine's macroeconomic stability, as well as budget and external financing, foreign assistance remains critically important. We assume that Ukraine will receive \$93.5 billion in foreign grants and loans over 2025-28. This is essentially unchanged from the July forecast as no new commitments have been made. While we believe that a new (~\$8 billion) IMF program for Ukraine will be approved before the end of the year and European partners will finalize the currently-discussed ~€140 billion 'reparations loan' mechanism, we do not include funding under these instruments in our forecast yet. For more details on the reparations loan, see Special 1. Our assumptions regarding foreign financial support differ from the July forecast in two ways. *First*, we have reassessed the composition of funding under the ERA and shifted ~\$8 billion from grants to loans. And *second*, we have moved the disbursement of ~\$16 billion from 2025 to 2026-27, leading to more stable external budget financing. Nevertheless, committed support is set to essentially vanish by 2028, illustrating the urgent need for new support mechanisms.

The future trajectory of the war remains the key risk to the forecast. While we believe that assuming a conclusion to the full-scale war before the end of 2026 is realistic, hostilities may continue into 2027. As noted earlier, much depends on the approach that Ukraine's key allies take towards Russia. An even longer war would add to destruction and recovery needs, weigh on economic activity, prevent Ukraine from reducing defense and security spending or pursuing much needed fiscal consolidation, and reduce foreign capital inflows. In addition, risks stem from a potential redirection of partners' attention and support away from Ukraine; domestic imbalances, including regulated gas and electricity tariffs that remain below market levels; demographic pressures related to population decline and the non-return of migrants; and debt sustainability concerns that may require continued diplomatic engagement and tailored restructuring solutions. As a result, fiscal and external financing gaps could widen substantially. We will reassess developments continuously in future editions of the *Ukraine Macroeconomic Handbook*. More immediately, Ukraine faces serious challenges due to the destruction of energy infrastructure in recent weeks and months, including natural gas production. This issue is discussed in Special 2.

Summary of Forecast

The key takeaways from KSE Institute's October 2025 Ukraine Macroeconomic Handbook are:

- (1) *Ukraine is in urgent need of additional financing from international partners as the continuation of the war drives up defense spending and energy sector reconstruction needs, weighs on the balance of payments, and slows economic growth. We assess that the budget financing gap over 2025-28 amounts to \$53.3 billion—a significant increase from our July forecast (of \$27.8 billion) due to higher spending on the war and social protection. This is broadly in line with the IMF's estimate of a \$65 billion gap over 2026-29. On the external side, a widening and increasingly-structural trade deficit, together with the war's impact on capital flows and a projected sharp drop in committed foreign support, will dramatically reduce reserves to \$12.4 billion at the end of 2028 (from \$43.5 billion in 2024). Future funding arrangements must recognize the need to maintain debt sustainability. Thus, a new IMF program and the adoption of the currently-discussed €140 billion reparations loan mechanism, which would be non-interest bearing with repayments conditional on reparations from Russia, are critical for Ukraine's macro-financial stability.*
- (2) *Despite the war, Ukraine's economy continues to demonstrate remarkable resilience, with inflation moderating due to prudent monetary policy reinforced by the National Bank of Ukraine's credibility. Weak economic activity in the first half of the year (with growth of only 0.8% y-o-y) and renewed Russian attacks on civilian infrastructure, including natural gas and electricity production and distribution, have weighed on the economy and prompted us to revise our real GDP growth forecast downward by 0.6pp in 2025 and 0.5pp in 2026 compared to the July forecast. After the end of the war, i.e., in 2027-28, the recovery is set to gain momentum with growth averaging ~5% per year. This is, however, dependent on sufficient foreign and domestic investment as we expect post-war growth to be primarily driven by capital formation while government spending declines and private consumption cannot sustain the economy by itself. Foreign direct investment dynamics in the first eight months of the year are worse than expected and illustrate that efforts to attract reconstruction funding must be stepped up.*

Table 2. Forecast for key indicators

	2021	2022	2023	2024	2025f	2026f	2027f	2028f
Real GDP growth, %	3.4	-28.8	5.5	2.9	2.0	2.6	4.3	5.9
Nominal GDP, UAH bn	5,451	5,239	6,628	7,659	8,961	9,982	11,473	13,369
Nominal GDP, \$ bn	200.6	160.5	181.2	190.2	215.1	230.5	244.3	279.4
Budget balance, \$ bn	-7.1	-28.4	-37.9	-33.4	-41.7	-44.8	-33.8	-22.2
Foreign grants, \$ bn	0.9	17.5	14.1	14.0	7.4	1.0	1.9	...
Foreign loans, \$ bn	2.3	16.6	30.7	28.3	35.1	26.5	20.2	1.4
Budget financing gap, \$ bn	...	...	...	...	8.4	17.1	12.5	15.3
Headline inflation, % avg	9.4	20.2	12.8	6.5	13.1	7.0	8.5	8.8
Exchange rate (USD), avg	27.3	32.3	36.6	40.2	41.7	43.2	46.9	47.8
Policy rate, % avg	7.5	18.6	22.4	13.7	15.2	13.8	10.0	8.0
Current account, \$ bn	-3.9	8.0	-9.6	-15.1	-33.6	-39.2	-34.0	-32.3
External financing gap, \$ bn	0.2	2.3	-11.4	-2.9	2.8	17.8	1.4	9.4
Total reserves, \$ bn eop	30.9	28.5	40.5	43.8	41.0	23.2	21.8	12.3
Unemployment rate, % avg	9.9	20.6	18.2	13.1	10.6	8.9	9.9	7.9
Nominal wage, UAH avg	13,992	14,863	17,442	21,491	26,396	32,029	36,399	41,107

Ukraine's economy remains resilient but a weak performance during the first half of the year and risks from renewed Russian attacks on the energy infrastructure have led us to revise our forecast for GDP growth downward—to 2.0% in 2025 (vs. 2.6% in the July edition) and 2.6% in 2026 (vs. 3.1%). After the end of the war, growth is projected to pick up markedly—to 4.3% in 2027 and 5.9% in 2028. Economic activity in the near term will remain constrained by energy and other war-related disruptions, though positive base effects, a strong harvest, and a construction recovery will offer partial relief. Growth will gradually shift from consumption-led stabilization to investment-driven expansion after the war, underpinned by infrastructure reconstruction, industrial renewal, and private sector revival. Private consumption has been among the key drivers of growth in 2024-25 but will not maintain such a positive contribution next year due to high base effects. In 2027, it will rise strongly, however, as the recovery gains pace with rising wages and employment.

Government spending has been a key stabilizer, focused on defense and social support, before its postwar transition toward investment in reconstruction and human capital. From 2027, investment will become the main growth engine—supported by reforms, public-private partnerships, and FDI—while exports recover and the trade deficit narrows, moving Ukraine toward a more balanced and sustainable growth model.

Ukraine's trade deficit has become a serious structural challenge with important implications for external financing needs from the current account. While exports have largely been in line with our July forecast, higher-than-expected imports have led to an upward revision in the trade deficit over 2025-28, reaching ~\$42 billion in 2025 and 2026, before gradually moderating to ~\$38 billion by 2028 due to an increase in exports during the post-war recovery. Closing the deficit will be quite challenging as imports are now effectively twice the size of exports, which means that the latter must grow at twice the rate of the former just to maintain the gap in absolute terms. Policy actions to support export-oriented industries and remove problematic incentives, such as those driving the import of small parcels, are needed. While we expect a gradual improvement in Ukraine's services trade over the forecast period, the current account deficit will widen significantly this year—and remain elevated in 2026-28—due to the broad shift in foreign financial assistance away from grants (in the secondary income account) and towards loans (in the financial account).

In the absence of additional foreign support, Ukraine will sustain significant foreign reserve losses of \$31.3 billion over 2025-28, driven by the aforementioned current account dynamics, while capital flows dynamics are somewhat improved from the July forecast. Due to the underperformance of non-resident direct investment over the first eight months of the year (-62% y-o-y), we have revised our forecast downward for this year and beyond. Portfolio investment is expected to be broadly unchanged over 2025-28, while other investment will be higher due to a reassessment of some ERA funds (i.e., as loans vs. grants). Most impactful for the improved capital flows, however, is the faster-than-expected normalization in resident capital outflows, which fell 64% y-o-y year-to-date. Altogether, the wider trade balance and drop in committed foreign support will lead to a significant drop in foreign reserves—from \$43.8 billion (or 5.5 months of imports of goods and services) at the end of 2024 to \$12.5 billion (or 1.4 months of imports) at the end of 2028. While this represents a much more negative view than those of other institutions, we believe that it reflects the challenges from war-related distortions and insufficient foreign funding—in line with the fiscal financing challenges outlined below. Additional support from partners is urgently needed to preserve macro-financial stability.

Due to persistently elevated defense and security needs during the war and thereafter, Ukraine's fiscal financing gap is expected to reach a cumulative \$53.3 billion over 2025-28. Compared to the July forecast, when the respective number was \$27.8 billion, we have revised spending on defense and security upward during the remainder of the full-scale war—to \$83.0 billion in 2025 and \$85.6 billion in 2026 (vs. \$74-75 billion per year in the July forecast). We now also expect a more gradual decline after the (assumed) end of the war, with \$63.7 billion in 2027 and \$57.2 billion in 2028 (vs. ~\$45 billion per year previously) as Ukraine will need to maintain deterrence against future Russian aggression, which includes refilling depleted weapons stocks. In addition to a cumulative \$50 billion upward revision of defense and security spending over 2025-28, we also project \$14.5 billion in additional expenditures for social protection. Higher spending will be partially offset by \$29.5 billion in additional revenues. Altogether, we expect a cumulative budget deficit of \$143.2 billion and available financing—most importantly through foreign loans—of \$89.4 billion over 2025-28, resulting in the aforementioned gap. As an acceleration of disbursements under the ERA mechanism is the most likely approach to funding the budget in the final months of 2025, the same financing gap will then apply to 2026-28. Our assessment is, thus, relatively close to the IMF's, which recently determined the financing gap over 2026-29 (i.e., including an additional year) to be \$65 billion. This illustrates why a new IMF program and adoption of the proposed €140 billion reparations loan (see Special 1) is urgently needed.

Ukraine's state debt has increased considerably since the full-scale invasion, and its future trajectory depends on how Ukraine and its partners manage to close the fiscal financing gap. Our baseline scenario, which does not account for how the budget gap over 2025-28 is covered, projects a debt-to-GDP ratio of ~80% in 2025-27 and a decline to ~72% in 2028. However, leaving critical budget needs, including for defense and security, underfinanced is an untenable position that would fundamentally undermine Ukraine's ability to withstand Russian aggression, invest in its economic reconstruction and recovery, and address urgent social needs. In our downside scenario, we model the opposite extreme, where the entire financing gap is covered through external borrowing. As a result, debt would rise to ~95%—an unsustainable level that would seriously jeopardize macro-financial stability for the foreseeable future. Therefore, it is critical to conclude negotiations with partners over the reparations loan, which would provide ~€140 billion to Ukraine

at zero interest and with repayment conditional on the receipt of reparations from Russia. This new funding mechanism would preserve debt sustainability as the debt-to-GDP ratio would mirror our baseline scenario.

Headline inflation has continued to ease since its peak of 15.9% in May 2025 and is expected to continue declining through 2026 before rising again temporarily to ~10% in 2027 when the economic recovery picks up speed. Headline CPI fell to 11.9% y-o-y in September on the back of relatively stable food and energy prices, and the NBU's tight monetary stance. Core inflation slowed as well (to 11%), and producer price index (PPI)—an important leading indicator for inflation dynamics—remains moderate in summer 2025, supporting our view that inflationary pressures are subsiding. Inflation expectations remain well-anchored, reflecting confidence in the NBU's monetary policy framework. A positive harvest has cooled food inflation (except for fruits and animal products), the increase in administrative prices is largely a reflection of the implementation of a tobacco excise in line with EU standards, and service price inflation is moderate. While fuel and energy price developments have been benign, there is a significant pro-inflationary risk from renewed Russian attacks on Ukraine's civilian infrastructure, particularly electricity production and distribution as well as natural gas production.

The NBU maintained a tight monetary policy in Q3, keeping the key rate at 15.5% to control inflation and stabilize expectations, with easing expected only once inflation falls below 10%. Financial sector assets expanded by 13% y-o-y to UAH7.7 trillion, driven by increases across asset classes, with deposits and loans registering the largest increases. Despite persistently elevated loan interest rates (~28% for households and ~17% for corporations), lending has gradually recovered in real terms, especially for households—signaling an improvement in economic sentiment. Government bond holdings rose sharply, with banks and individuals increasing purchases, reflecting successful NBU efforts to promote savings in domestic currency. This is also the case for household deposits, which have grown considerably. At the same time, the declining share of deposits by businesses, together with the aforementioned credit dynamics, signals a gradual moving away from enterprises' extra-cautious approach in recent years. Despite negative real returns, high nominal deposit rates continue to encourage savings in Hryvnia.

The Hryvnia remained broadly stable in Q3 2025, trading around 41–42 UAH/USD, supported by sustained NBU interventions of \$2-4 billion per month and large inflows of foreign assistance. This has offset depreciation pressures from a widening trade deficit, which reached \$24.6 billion in H1. Ukraine's currency is expected to weaken modestly in 2026 to ~45 UAH/USD amid growing uncertainty over future foreign aid. Against the Euro, the Hryvnia depreciated to 48.5 UAH/EUR, reflecting overall Dollar weakness. One-year-ahead expectations stabilized between 43.8–45.3 UAH/USD but remain sensitive to external funding developments. Meanwhile, the NBU has diversified its international reserves. The Euro's share rose from 10.1% to 26.2% since June as a result of the deliberate decision to better reflect Ukraine's economic ties to Euro zone in the country's reserves (as discussed in the previous edition). This rebalancing will help mitigate Hryvnia volatility and smooth import price dynamics going forward.

Ukraine's labor market continues to show resilience during the war, though structural challenges persist. The unemployment rate has declined substantially—from ~25% in 2022 to ~10% in Q3 2025—and is projected to fall further until Q1 2027, when the return of a large number of veterans to the labor market after the (assumed) end of the war will likely lead to a temporary spike. Structural skills mismatches nonetheless remain and are behind companies' ongoing difficulties in finding (qualified) employees, as consistently highlighted in surveys. However, recent data show growing activity in the labor market in terms of both demand and supply, which points to further normalization. For now, labor market conditions continue to put upward pressure on real wages, which are projected to increase by ~10% over 2025.

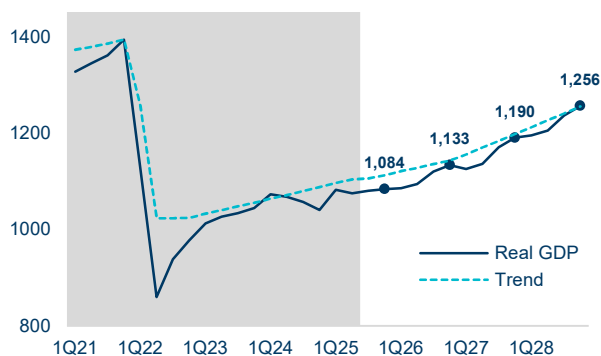
Differences between our forecast and the projections of other institutions stem from differing assumptions about when the war will end and how Ukraine will cover its fiscal financing gap. KSE Institute's assumption that the full-scale war will continue throughout most of 2026 leads to more pessimistic near-term growth, budget deficit, reserve depletion, and external balance projections than other institutions. Regarding state debt, we present two scenarios of how Ukraine and its partners manage to cover the financing gap; there is a consensus expectation of large wartime debt peaks followed by more sustainable debt on the back of robust growth, fiscal consolidation, and debt restructuring. Other institutions fundamentally align with our view of the postwar economy's gradual recovery, the overall inflation and exchange rate outlook, and wage dynamics. Sustained robust growth, fiscal consolidation, and external support are seen as keys to macroeconomic stability by KSE Institute, Ukrainian authorities, and the IMF.

Economic Activity

Ukraine's economy will be affected by renewed Russian attacks on energy infrastructure in 2025-26 but remain resilient overall before gaining momentum due to post-war reconstruction. We have revised our forecast of real GDP growth in 2025 to 2.0%, down from 2.6% in the July edition (see Figure 1), due to weak H1 2025 performance (average growth of 0.8% y-o-y) and serious economic impacts from recent—and, presumably, future—attacks on critical infrastructure, including the energy grid and natural gas production (see Special 2). Positive base effects, a good harvest, and the recovery in construction cannot fully offset these developments. We have also downwardly revised our 2026 forecast to 2.6% from the 3.1% projected in July, as the energy situation will continue to weigh on economic activity. From 2027 onward, the recovery is expected to gain momentum with GDP growth of 4.3-5.9%—largely unchanged from the July forecast—as reconstruction activity expands and domestic as well as foreign investment picks up.

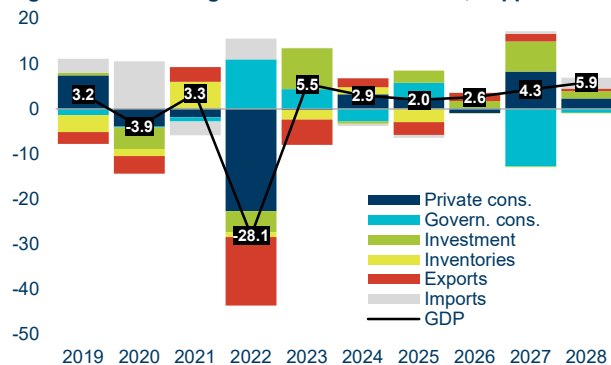
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Figure 1: Real GDP and trend, 2021 UAH billion



Source: SSSU, KSE Institute

Figure 2: Real GDP growth and contributions, %/pp

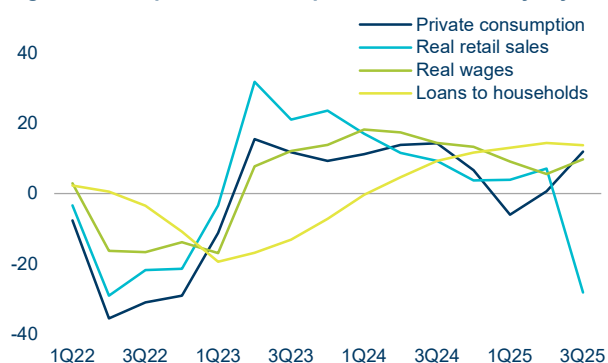


Source: SSSU, KSE Institute

The economy will gradually transition from short-term stabilization to investment-led expansion, driven by large-scale infrastructure rebuilding, housing reconstruction, and industrial modernization. Rising employment and wages will reinforce household demand, while government expenditures remain focused on essential public services and defense. The post-war phase will see productivity gains due to substantial investments, a revival of the private sector, and strong private consumption while Ukraine is fully reintegrated into regional and global supply chains after the disruptions of the war. For the moment, however, economic expectations stopped improving due to the aforementioned energy challenges.

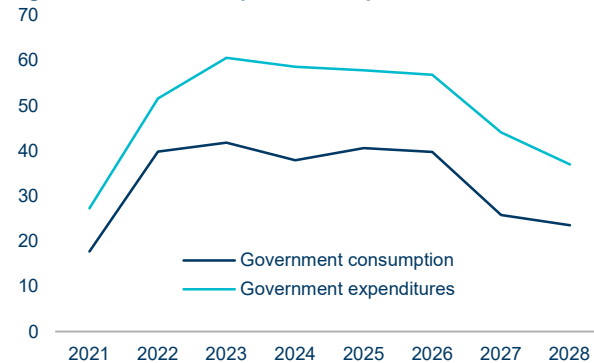
Growth during the war is largely consumption-driven but investment will play a crucial role during the recovery in 2027-28, while foreign trade is set to improve from 2026. Ukraine's growing and increasingly-structural trade deficit (see the Balance of Payments section below) weighs on GDP growth with a negative contribution of 3.5pp in 2025. This is offset by large-scale government spending due to the war (+3.5pp). The composition of GDP growth will change considerably in the coming years as net exports' impact turns positive starting next year and rising capital investments become the main driver of Ukraine's economic development in the post-war period, i.e., in 2027-28. At the same time, the contribution from government spending will become negative and that of consumption will decrease (see Figure 2).

Figure 3: Real private consumption and drivers, % y-o-y



Source: NBU, Info Sapiens, KSE Institute

Figure 4: Gov. consumption and expenditures, % GDP

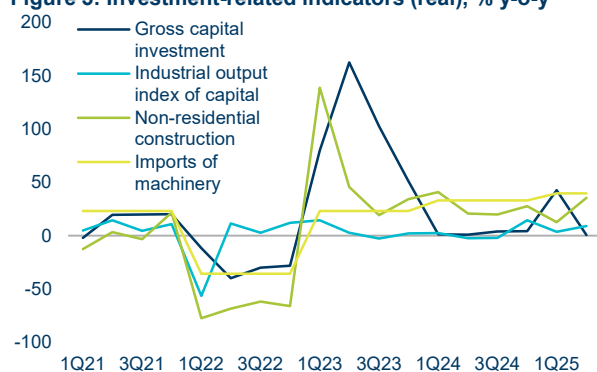


Source: SSSU, KSE Institute

Private consumption has shown notable resilience despite the war. Supported by strong real wage growth, social transfers, and business adaptation, private domestic demand avoided a serious drop (see Figure 3) and remained a neutral-to-positive contributor to growth in 2023-25. However, the expected Russian attacks during the upcoming winter will suppress the consumption in 2026; combined with a high base effect, the growth contribution is projected to be negative (-1pp) in 2026. From 2027, rising real wages, growing employment, and soft monetary policy should stimulate purchasing power, allowing for private consumption to once again become a key growth driver. In 2027, 14% real growth will compensate for the drop in government spending after the war and private consumption's share of GDP will increase to 60-65%—slightly below pre-war levels (~70%) as investment takes on a larger role.

Government consumption has played an important stabilizing role during the war, expanding from 19% of GDP in 2021 to ~40% due to large-scale spending on defense and security but also social programs (see Figure 4). In 2025-26, public consumption will be ~40% of GDP before gradually declining toward ~25% in 2027-28, somewhat above pre-war levels. Importantly, the structure of public spending will shift from urgent defense needs and social support toward reconstruction of infrastructure, industrial renewal, and investment in human capital, while maintaining deterrence against future Russian aggression. Even as the private sector regains momentum, government spending will remain essential for social stability and support of long-term productivity through education and healthcare.

Figure 5: Investment-related indicators (real), % y-o-y



Source: SSSU, KSE Institute

Figure 6: Real growth of trade in goods/services, % y-o-y



Source: SSSU, KSE Institute

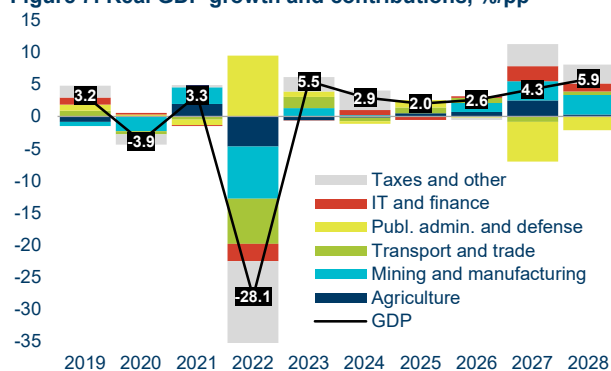
Investment will become the main growth engine in the medium term, with 30% growth in 2027. Gross fixed capital formation, which collapsed early in the war, is projected to rise, lifting its GDP share from 18% before the invasion to 26% by 2028 (see Figure 5). Reconstruction of energy, transport, and housing infrastructure, together with stronger private investment and support from partner governments, will underpin the recovery. This is one of the key focus areas of the government's long-term strategy outlined in the Government Action Plan. Investment will be supported by reforms in PIM, privatization of SOEs, war-risk insurance, PPPs, and an "FDI strategy". Private enterprises will remain the dominant source of capital spending, while public investment—backed by international partners—will focus on critical infrastructure. The rebound in investment will initially be import-intensive, deepening the trade deficit, but as industrial and export capacities are restored, exports (including in defense-related industries) are expected to strengthen.

By 2028, Ukraine's trade balance will improve—and Ukraine's economy will transition toward a more balanced and sustainable growth model. The large and increasingly-structural trade deficit is one of the economy's key macro stability issues. Due to significant destruction in critical industries as well as serious logistical challenges due to the war, the share of exports in GDP has dropped sharply from ~40% of GDP to 25% during the full-scale war—and is projected to remain on this level during 2027-28 despite focused government programs such as support to export-oriented companies. Meanwhile, imports have stood at ~50% of GDP in recent years and will not revert to pre-war levels (of ~40%) until the post-war period, i.e., in 2027-28 (see Figure 6). While the recovery will be import intensive at first, and higher purchasing power will pass through into demand for imported consumer goods, policy actions can address some of the current drivers of elevated imports, e.g., expiring EV tax benefits and exemptions for small parcels. One key risk is the need for additional energy imports—natural gas and electricity—due to Russian attacks on Ukraine's civilian infrastructure. This issue is discussed further in Special 2.

Sectors

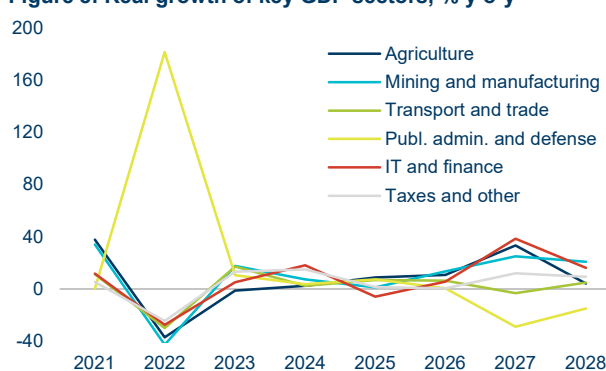
Ukraine's economic recovery remains uneven across sectors, reflecting differences in war-related damage, reconstruction capacity, and investment flows. During the war, economic resilience has relied heavily on investment in the energy, transport, and defense-industrial sectors, which have become essential anchors of stability under continuous Russian attacks. However, reconstruction needs remain vast, with critical infrastructure losses weighing on productivity and supply chains. As the security situation improves, post-war growth will be driven primarily by industry, led by mining (+1.5pp to real GDP average in 2027-28) and manufacturing (+1.6pp), alongside steady expansion in agriculture, construction, and IT services (see Figures 7 and 8). The gradual withdrawal of wartime fiscal support will reduce public administration and defense growth by 6.2pp in 2027 and 2.2pp in 2028, though spending will remain above pre-war levels.

Figure 7: Real GDP growth and contributions, %/pp



Source: SSSU, KSE Institute

Figure 8: Real growth of key GDP sectors, % y-o-y



Source: SSSU, KSE Institute

The agricultural sector, traditionally a cornerstone of Ukraine's economy and export capacity, continues to face severe operational constraints. Despite its adaptability, productivity remains below potential due to extensive landmine contamination, high input costs, and damage to logistics infrastructure. In 2024, agriculture's contribution to GDP growth turned slightly negative (-0.23pp), as unfavorable weather and limited access to finance weighed on yields. A gradual recovery is projected from 2025, with contributions rising to +0.51pp in 2025 and +0.67pp in 2026 as demining advances and export routes stabilize. Government support programs, including grants for horticulture and small-scale farming, provide critical investment flows and sustaining rural employment. Focus on the agriculture support is listed among priorities in the Government Action Plan, with grants for demining and irrigation systems, support of frontline regions, and farmers. By 2027–2028, agriculture could add roughly 2% to total GDP growth, contingent on irrigation rehabilitation, logistics improvements, and a full reopening of maritime trade corridors. In the longer term, the sector's resilience will depend on its transformation from raw commodity exports toward value-added, technology-driven, and EU-aligned production.

The mining sector remains under acute pressure as front-line risks and energy disruptions constrain operations. Production declined sharply through early 2025, with coal and metal-ore output down by double digits amid closures in Donetsk region (Selidove and Pokrovsk) and continued attacks on transport routes. The sector's contribution to GDP was negative in both 2024 (-0.14pp) and 2025 (-0.58pp). Nevertheless, Ukraine retains a strong resource base—iron ore, titanium, cobalt, and other CRM—for a post-war recovery, with potential to become a crucial supplier for EU customers. Recent reforms simplifying access to subsoil-use permits and the minerals partnership with the United States have already attracted renewed investor interest. Establishing the US-UA Fund and numerous CRM-related reforms, as stated in Government Action Plan, reinforces the investment attractiveness of the sector. Stabilization is expected from 2026 (+8.7%), with a stronger rebound in 2027-28 (+37% in average) as energy supply and infrastructure are restored.

Manufacturing has emerged as the most dynamic component of Ukraine's medium-term recovery, set to become among key GDP contributors by 2028. The sector's share of output is projected to rise from 8% in 2024 to ~11% in 2028, underpinned by strong defense production, export-oriented food processing, and a gradual revival of heavy industry. In the meantime, performance across industries remains highly uneven. The defense industry and metallurgy are (and will be) growth anchors, while traditional food and energy-related branches continue to contract. Machinery and electronics sectors have been weak overall but have been selectively boosted by defense procurement and domestic substitution of imports, with this trend set to continue. After a mixed performance in 2024-25, when energy shortages and high input costs weighed

on some branches, output growth is expected to accelerate from 2026 as confidence and financing improve. Defense and high-tech industries, including drones, electronics, and pharmaceuticals, are increasingly driving innovation and capital investment, while traditional sectors will be slower to adapt to the elevated post-war demand. Manufacturing's contribution to GDP growth is forecast at +0.68pp in 2025 and +1.16pp in 2026, strengthening to +1.69pp by 2028 as reconstruction and EU integration projects expand.

The construction sector entered a transition phase in 2025, balancing strong investment momentum with significant operational challenges caused by labor shortages, funding delays, and energy disruptions. Following a growth from 2023, the sector entered a short correction phase in early 2025 before regaining momentum by mid-2025 thanks to resumed donor flows and major public infrastructure projects. Value added is expected to rise by nearly 18% in 2025 and over 40% in 2026, led by housing reconstruction and transport rehabilitation under the National Program for Recovery and Modernization of Housing and Regional Infrastructure. Growth will moderate thereafter, averaging about 18% annually in 2027-28 and shifting manufacturing capital growth—assuming the absence of an extra-large recovery fund in the baseline scenario that would have prompted corresponding infrastructure building projects.

Ukraine's service sectors continue to show mixed performance, shaped by wartime constraints, shifting consumer patterns, and gradual adaptation to the EU market environment. Wholesale and retail trade, which accounted for ~13% of GDP during the war, is expected to moderate to 11% of GDP by 2028 as global consumption trends shift. Retail growth is increasingly driven by essential goods and online channels, while import substitution and localization of supply chains will support domestic wholesalers. The issue of “parcel imports”—extensive growth of non-taxed consumption-oriented parcels—has negatively influenced the retail sector. Financial and professional services are gradually recovering as banking stability improves, the financial system's assets grow, and capital returns to the economy, supported by regulatory convergence with the EU and the return of skilled labor. The IT sector, after temporary wartime setbacks, remains a strong global player and is expanding into dual-use and AI-based solutions, linking closely with manufacturing and defense-tech industries and bringing Ukraine into EU production chains.

The energy sector remains both a critical vulnerability and a foundation for post-war modernization. Repeated Russian attacks continue to damage power generation and transmission infrastructure, leading to periodic blackouts and higher operating costs, especially expected during the winter 2025-26, that will lead to the 2.5% decline in 2026 (see also Special 2). Nonetheless, integration with the European electricity network (ENTSO-E) and diversification of generation sources have supported gradual stabilization and will continue further. Electricity exports reached record highs in mid-2025, while imports filled seasonal gaps. Nuclear energy continues to anchor supply, with seven of nine Energoatom units expected to operate through the winter, and new battery-storage projects, totaling nearly 300 MW, enhancing system resilience. Gas and coal reserves remain sufficient for winter operations, backed by EBRD-financed imports and domestic storage programs, which will ultimately lead to significant (31.5%) growth in 2027 and continue on with 6% in 2028 under large recovery projects that are ultimately crucial for growth in other sectors of the economy.

Transport and logistics remain structural bottlenecks but also a focus of reconstruction and European integration. Wartime damage to ports and critical routes has cut the sector's share in GDP to ~4% from ~7% pre-war. Efforts to re-route trade flows toward EU corridors are yielding results, however. The gradual recovery of maritime shipping through partial reopening of Odesa ports and the launch of a new European-gauge rail link between Chop and Uzhhorod both mark important milestones. Road and freight transport reforms, including simplified licensing and digital queue systems, are addressing acute labor shortages and reducing border delays. With large-scale donor support and investment under the TEN-T framework, Ukraine aims to restore transport's GDP share to 5% and fully integrate its logistics network into the European transport market, enabling smoother flows of goods and people once security conditions allow.

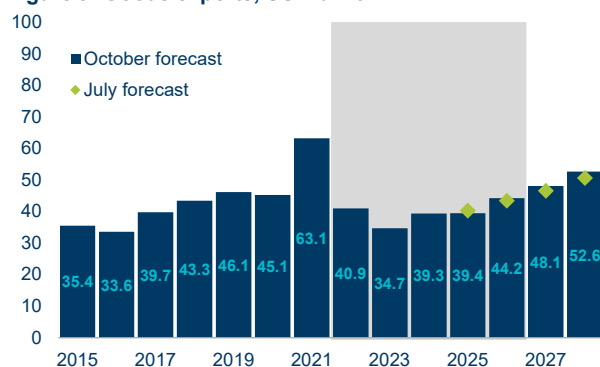
Public administration and defense remain large relative to the pre-war economy, and will remain above previous levels despite declining. Their combined share in GDP has nearly tripled—from around ~7% to ~21% during the war—reflecting sustained defense, social, and administrative spending. In 2025-26, the sector will continue to support aggregate demand, though gradual fiscal consolidation will begin as emergency expenditures taper. From 2027 onward, the reduction in defense outlays will weigh on GDP growth, offset in part by increased allocations to education, healthcare, and institutional development. Tax revenues are expected to stabilize, with declining military levies partially compensated by higher excise and import taxes as a part of Eurointegration process. Despite consolidation, the public sector will remain larger than before the war in both scope and employment, ensuring continuity of public services and coordination of reconstruction efforts during Ukraine's transition to a peacetime, investment-driven economy.

Balance of Payments

Ukraine's trade deficit is growing and turning into a serious structural challenge. Over the first eight months of the year, goods exports were quite weak—declining by 4% year-over-year—but performed in line with expectations. As a result, our forecast remains broadly unchanged, with total exports expected to reach \$39.4 billion in 2025 vs. \$40.2 billion in the July forecast (see Figure 9). Weak exports of agricultural goods and minerals were an important factor, while those of metals and machinery increased. For imports, we are revising our forecast significantly based on year-to-date information. Over January-August, total imports increased by almost 20% year-over-year. While the dynamics are quite broad-based and extend to many key categories such as minerals, chemical products, and metals, the increase has been particularly pronounced for machinery and transport equipment. War-related imports of weaponry play a key role here, but so does a boom in electric vehicle purchases from abroad as an important tax benefit will expire at the end of the year.

Due to the developments observed during the year so far, we have increased our forecast for goods imports from \$75.0 billion (in July) to \$81.4 billion (see Figure 10). In our view, imports will continue to grow at a fast pace for the remainder of the war and beyond, as Ukraine will need further weapons to build deterrence against future Russian aggression and the projected post-war pick-up in economic growth will drive up demand for imported goods. Altogether, this means that the trade deficit will continue to widen—to \$42.1 billion in 2025 from \$33.0 billion last year—and stay elevated for the foreseeable future (see Figure 11). With Ukraine now importing twice as much in goods as it exports, it will be challenging to reduce an increasingly-structural deficit. For the potential impact of recent attacks on the energy system, see Special 2.

Figure 9: Goods exports, USD billion



Source: NBU, KSE Institute

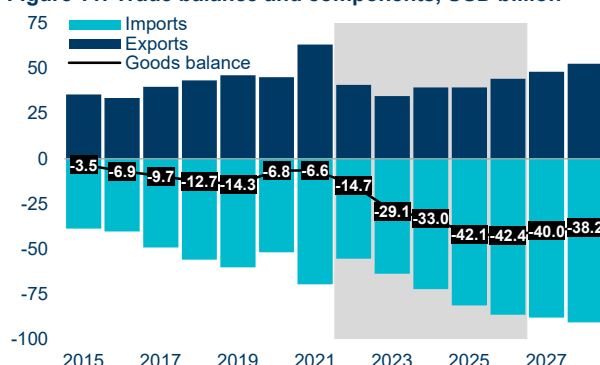
Figure 10: Goods imports, USD billion



Source: NBU, KSE Institute

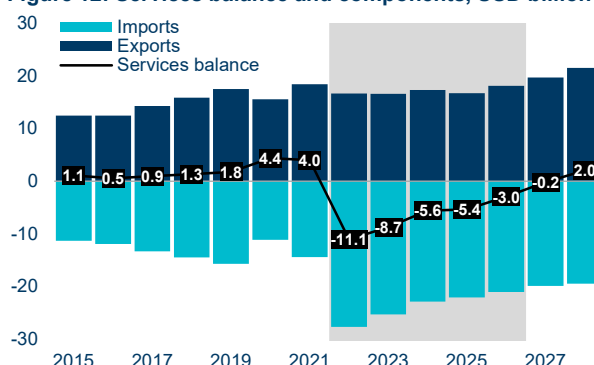
Ukraine's services balance is expected to improve in the coming years. Significant improvements will not materialize until the end of the war, however. After a deficit of \$5.6 billion in 2024, we project deficits of \$5.3 billion and \$3.0 billion in 2025-26, respectively, a marginal deficit in 2027, and a surplus of \$2.0 billion in 2028 (see Figure 12). Payments related to travel services have been a major driver of Ukraine's services balance since 2022 due to the large number of refugees abroad, and are expected to decline to pre-war levels only in 2028, as the return of Ukrainians living abroad will take time and not start in earnest until the end of the war. Economic growth will partially offset these dynamics and limit the decrease in total services imports—from a peak of \$27.7 billion in 2022 to \$19-20 billion in 2027-28. Despite the loss of pipeline transport receipts after the end of the transit agreement with Gazprom at the end of last year, services exports are expected to grow strongly—by 24.2% in 2028 vs. 2024—resulting in an improving services balance.

Figure 11: Trade balance and components, USD billion



Source: NBU, KSE Institute

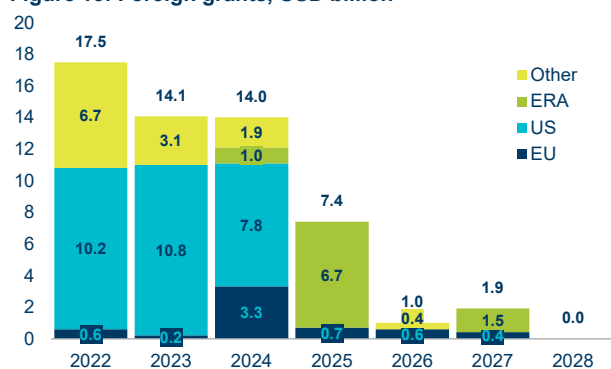
Figure 12: Services balance and components, USD billion



Source: NBU, KSE Institute

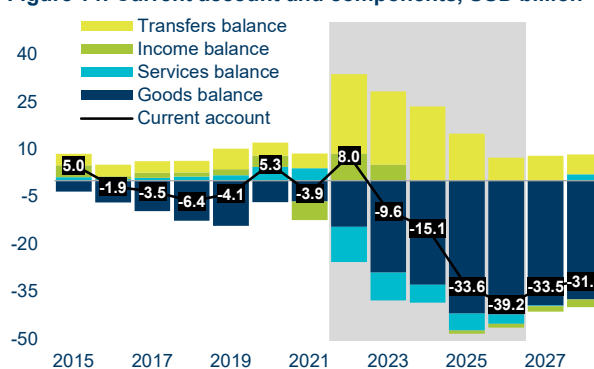
The current account deficit widens as lower foreign grants weigh on the transfers balance. In addition to the aforementioned dynamics with regard to goods and services trade, Ukraine's current account is heavily influenced by foreign grants, i.e., secondary income credits. They increased from less than \$1.0 billion in 2021 to \$17.5 billion in 2022 and remained at ~\$14 billion in 2023-24, thereby limiting the war's impact on the current account. In 2025 and beyond, however, the shift from grants to loans—together with an overall decline in committed foreign financial assistance—leads to a dramatic decline of secondary income credits, which will lead to a significant widening of the current account deficit. For this year, we expect total foreign grants of \$7.4 billion—markedly smaller than in the July forecast (\$16.7 billion) as more information on specific arrangements under the ERA mechanism has emerged—followed by \$1-2 billion each in 2026 and 2027 (see Figure 13). While a shift from grants to loans is immaterial for overall external financing needs, it shifts money from the current account to the financial account. As a result, we expect Ukraine's current account deficit to grow from \$15.1 billion in 2024 to \$33.6 billion this year and \$39.2 billion next (see Figure 14).

Figure 13: Foreign grants, USD billion



Source: KSE Institute

Figure 14: Current account and components, USD billion



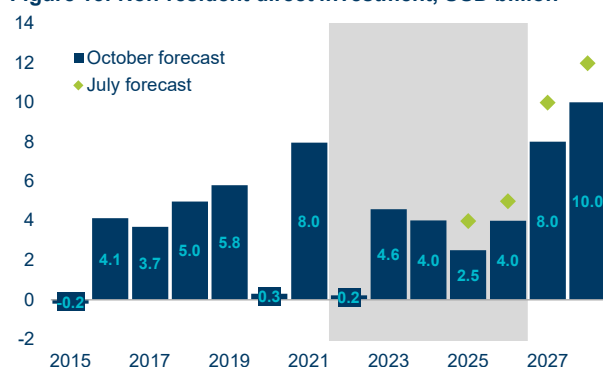
Source: NBU, KSE Institute

Capital flows dynamics improve despite weaker non-resident direct and portfolio investment.

Inflows of direct investment from abroad have been significantly lower than previously expected. Over the first eight months of the year, total FDI stood at \$1.4 billion—62% lower than over the corresponding period of 2024. Thus, we have revised our forecast for the full year from \$4.0 billion (in July) to \$2.5 billion, and now take a less optimistic view on the future recovery of non-resident direct investment (see Figure 15). Portfolio inflows have been essentially absent during the war—outflows last year are a reflection of the restructuring of Eurobonds—but we now assume a smaller pickup in 2027 and somewhat higher inflows in 2028 (see Figure 16). This is due to revisions to the timeline of foreign investors' return to the market for domestic sovereign debt as well as lower Eurobond issuance planned in Ukraine's tentative 2027 budget.

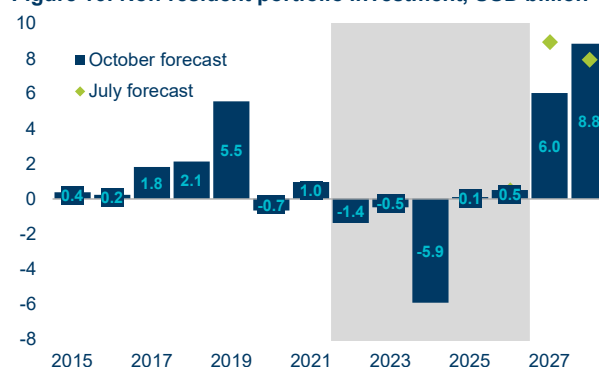
As far as non-resident other investment is concerned, total inflows over 2025-28 are now expected to be somewhat higher (see Figure 17)—\$95.7 billion vs. \$89.6 billion—due to the reassessment of ERA funds (i.e., loans instead of grants). In addition, we have revised the timeline of disbursements, resulting in a somewhat smaller amount this year and higher numbers in 2026-27. Altogether, the amount of committed foreign loans is set to decrease in the coming two years and will effectively vanish by 2028 (see Figure E18). At the same time, Ukraine's financial account benefits from a faster-than-expected drop in resident capital outflows. Over January-August, these reached \$3.6 billion—64% less than over January-August 2024. We have therefore revised our full-year forecast for 2025 from \$16.8 billion (in July) to \$9.1 billion, with a similar number expected next year as the war continues and a further decline projected in 2027-28 (see Figure E19).

Figure 15: Non-resident direct investment, USD billion



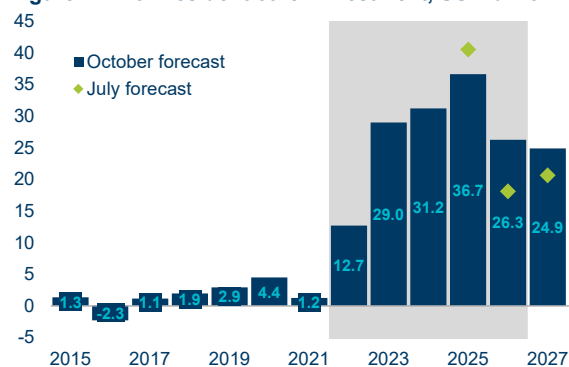
Source: NBU, KSE Institute

Figure 16: Non-resident portfolio investment, USD billion



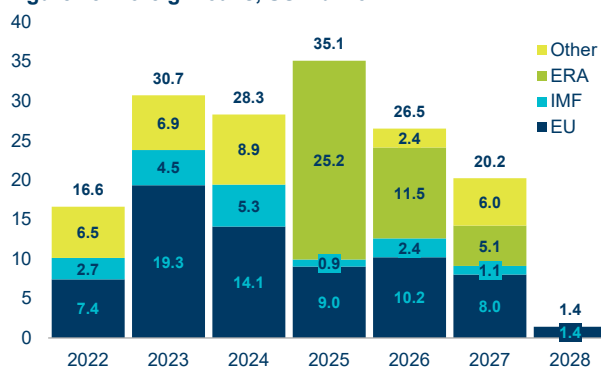
Source: NBU, KSE Institute

Figure 17: Non-resident other investment, USD billion



Source: NBU, KSE Institute

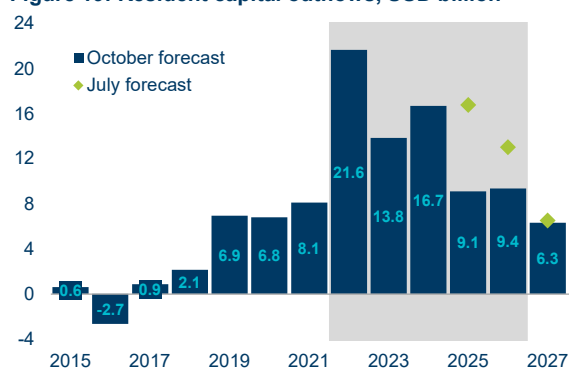
Figure 18: Foreign loans, USD billion



Source: KSE Institute

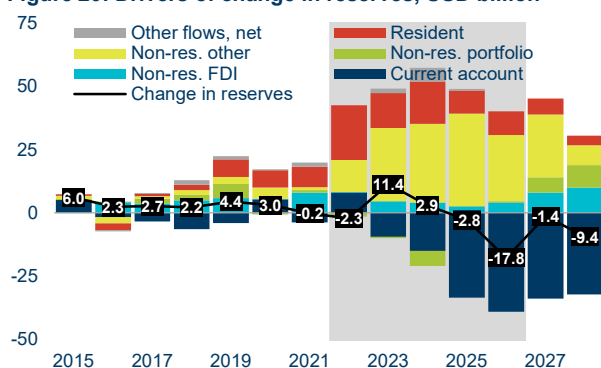
The decline in committed foreign loan disbursements will lead to significant reserve losses. While the structural challenges in Ukraine's balance of payments—in particular the large trade deficit—are likely to persist for the foreseeable future, and post-war adjustments in other categories such as services will take time, foreign grants and loans are set to drop from \$42.5 billion this year to \$27.5 billion in 2026, \$22.1 billion in 2027, and \$1.4 billion in 2028. Therefore, despite the significant support that the country will receive under the EU's Ukraine Facility, the ERA mechanism, and the IMF program, the external financing gap is large. We expect that, in the absence of new funding schemes, foreign reserves will fall by a cumulative \$31.5 billion over 2025-28 vs. a decline of only \$13.0 billion in the July forecast—resulting in precariously low reserve levels (see Figure 20 and Table 4). For this reason, it is critically important for Ukraine's partners to finalize the currently discussed reparations loans as well as a new IMF program before the end of the year.

Figure 19: Resident capital outflows, USD billion



Source: NBU, KSE Institute

Figure 20: Drivers of change in reserves, USD billion



Source: NBU, KSE Institute

Table 4. External sector forecast

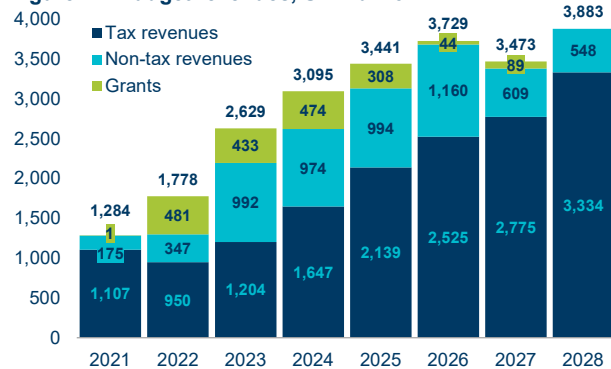
\$ billion	2021	2022	2023	2024	2025f	2026f	2027f	2028f
Current account balance	-3.9	8.0	-9.6	-15.1	-33.6	-39.2	-34.0	-32.3
Goods balance	-6.6	-14.7	-29.1	-33.0	-42.1	-42.4	-40.0	-38.2
Exports	63.1	40.9	34.7	39.3	39.4	44.2	48.1	52.6
Imports	69.8	55.6	63.8	72.3	81.4	86.6	88.1	90.8
Services balance	4.0	-11.1	-8.7	-5.6	-5.4	-3.0	-0.2	2.0
Primary income balance	-5.8	8.5	5.1	0.1	-1.0	-1.1	-1.7	-2.4
Secondary income balance	4.6	25.2	23.2	23.4	14.9	7.3	7.9	6.3
Foreign grants	0.9	17.5	14.1	14.0	7.4	1.0	1.9	0.0
Non-resident capital flows	12.9	11.5	33.1	29.3	39.3	30.8	38.9	26.7
Direct investment	8.0	0.2	4.6	4.0	2.5	4.0	8.0	10.0
Portfolio investment	1.0	-1.4	-0.5	-5.9	0.1	0.5	6.0	8.8
o/w public Eurobonds	0.8	-0.3	-0.1	-5.4	0.0	0.0	1.4	3.2
o/w domestic gov. debt	0.2	-1.1	-0.4	-0.5	0.0	0.0	2.1	3.1
Other investment	3.9	12.7	29.0	27.6	31.2	23.0	17.4	-1.0
o/w public loans	0.9	15.3	28.0	27.6	31.2	23.0	17.4	-1.0
Resident flows (- = outflow)	-8.1	-21.6	-13.8	-16.7	-9.1	-9.4	-6.3	-3.8
Change in reserves	-0.2	-2.3	11.4	2.9	-2.8	-17.8	-1.4	-9.4
Total reserves	30.9	28.5	40.5	43.8	41.0	23.2	21.9	12.5
in months of imports	4.4	4.1	5.5	5.5	4.7	2.6	2.4	1.4

Budget and Financing

State budget revenues are projected to grow robustly over 2025-28, primarily driven by stronger tax collection. In 2025, total revenues are expected to reach UAH3.4 trillion, including UAH2.1 trillion in tax receipts, nearly UAH1.0 trillion in non-tax revenues (largely reflecting military assistance in the form of own revenues of budgetary institutions), and UAH308 billion in foreign grants (see Figure 21). Next year, revenues are forecast to rise to UAH3.7 trillion, with tax and non-tax revenues reaching UAH2.5 trillion and UAH1.2 trillion, respectively, while grants will decline sharply to only UAH44 billion (due to a shift from grant-based support toward concessional lending and stronger mobilization of domestic resources). In 2027, total revenues are expected to decline to UAH3.5 trillion as non-tax revenues drop markedly, before stronger tax collection leads to a rebound in 2028 (to UAH3.9 trillion). Revenue growth will be supported by tax reforms (including a potential excise on sugary beverages and taxation of digital income), intensified efforts to combat the shadow economy, improved revenue administration, and record profit transfers from the NBU.

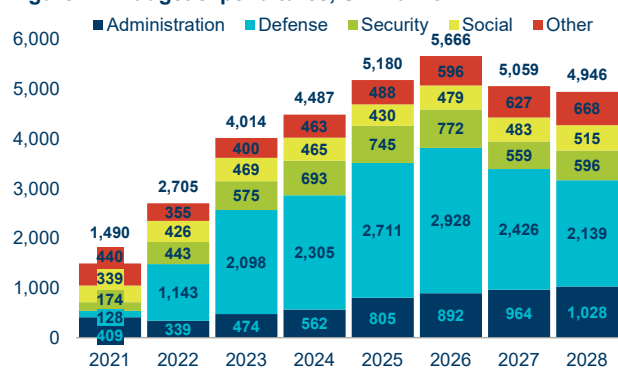
The medium-term outlook foresees the formation of a more sustainable model of public finance. Following the 2026 peak in non-tax revenues driven by military support from Ukraine's partners, the system will gradually transition toward reliance on stable tax receipts, reinforced by structural reforms under the **National Revenue Strategy**. This includes the introduction of a progressive personal income tax, elimination of inefficient tax exemptions, a reform of the simplified taxation system, de-shadowing of the economy, and large-scale digitalization of the tax administration. It marks a shift from wartime fiscal flexibility to the restoration of financial stability grounded in an expanded and more resilient tax capacity.

Figure 21: Budget revenues, UAH billion



Source: Ministry of Finance, KSE Institute

Figure 22: Budget expenditures, UAH billion



Source: Ministry of Finance, KSE Institute

Budget expenditures are projected to reach UAH5.2 trillion in 2025 and rise to UAH5.7 trillion in 2026—a 26.3% increase over two years from UAH4.5 trillion in 2024 (see Figure 22). This is driven by persistently high defense and security spending—UAH3.7 trillion (\$85.6 billion) in 2026 vs. UAH3.5 trillion (\$83.0 billion) in 2025 and UAH3.0 trillion (\$74.6 billion) in 2024. Non-defense spending will rise as well—by 15.7% this year and 14.1% next—on the back of higher allocations for social protection measures, state functions, and economic activity. After the war, total expenditures are expected to gradually decline—to UAH5.1 trillion in 2027 and UAH4.9 trillion in 2028. The key factor will be reduced defense and security spending, which is projected to decline to UAH3.0 trillion (\$63.7 billion) in 2027 and UAH2.7 trillion (\$57.2 billion) in 2028. Even so, we assess that this reduction will be more gradual than previously expected as Ukraine will need to maintain deterrence against future Russian aggression and refill stocks of military equipment. Thus, defense spending will remain significantly above NATO averages at 21.0% and 15.9% in 2027-28, respectively. Social spending, including education, healthcare, housing, and social protection, will rise moderately after the war, with targeted increases for teachers' and doctors' salaries and expanded programs for IDPs and veterans.

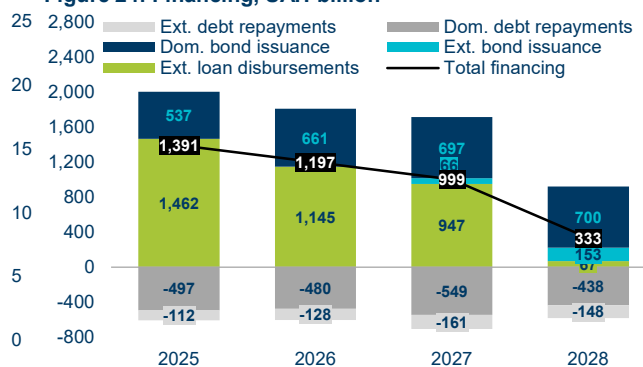
Ukraine's state budget deficit will remain exceptionally high for the duration of the full-scale war. In 2025, we project a deficit of UAH1.7 trillion—\$41.7 billion or 19.4% of GDP—compared to UAH1.3 trillion (\$33.4 billion or 17.5% of GDP) in 2024 (see Figure 23). The deficit is expected to rise further in 2026 as expenditures outgrow domestic revenue collection and grants plummet—to UAH1.9 trillion (\$44.8 billion or 19.4% of GDP). For the post-war period, we expect a gradual decline to UAH1.6 trillion (\$33.8 billion or 13.8% of GDP) in 2027 and UAH1.1 trillion (\$22.2 billion or 7.9% of GDP) in 2028. Despite this adjustment, the burden on public finances will persist beyond the end of the full-scale war as defense spending needs remain substantial, vulnerable populations require extensive support, and reconstruction depends partially on public investment. At this point, committed financial assistance from Ukraine's partners is insufficient.

Figure 23: Budget deficit



Source: Ministry of Finance, KSE Institute

Figure 24: Financing, UAH billion



Source: NBU, KSE Institute

Due to the longer war, Ukraine's fiscal financing gap is estimated to reach \$53.3 billion over 2025-28.

This represents a significant increase compared to the July forecast (of \$27.8 billion) and is driven by markedly higher expenditures over the four-year period (+\$65 billion) with defense and security spending accounting for a large share of this increase (+\$50.0 billion). Revenues are also expected to be higher over 2025-28 (+\$30.1 billion), while financing sources are estimated to be \$9.5 billion above the July forecast—primarily due to a shift of funds under the ERA mechanism from grants (i.e., budget revenues) to loans (i.e., financing). Other financing sources—debt issuance in the domestic and external markets—are largely unchanged from the previous forecast; however, the specific timeline has been revised (see Figure 24).

Our view is broadly consistent with the IMF's recent assessment, which identified a financing gap of \$65 billion over 2026-29—i.e., the period of a new Fund program. We find a cumulative gap of \$44.9 billion over 2026-28 and believe that needs will remain considerable in 2029, while no additional support has been identified. Accelerating the disbursement of \$8.4 billion in ERA funds from 2026 to 2025 to fund the budget would increase the 2026-28 financing gap to \$53.3 billion, which brings our estimate relatively close to the IMF's. Thus, it is critical to conclude ongoing negotiations over a new IMF program—rumored to be around \$8 billion—and adopt the currently-discussed “reparations loan” scheme (see Special 1), through which the EU and other partners could provide ~€140 billion to Ukraine backed by immobilized Russian sovereign assets held at Euroclear. For a closer look at local budgets, see Special 3.

Table 5. Fiscal sector forecast

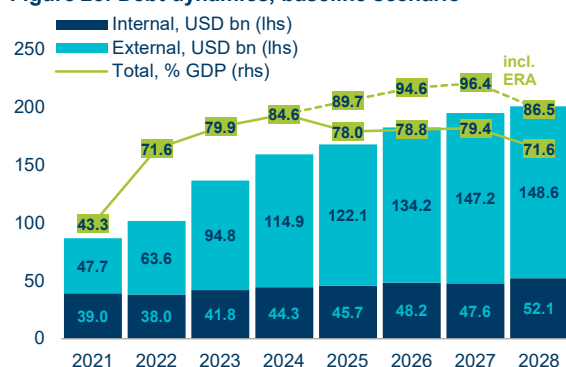
	2021	2022	2023	2024	2025f	2026f	2027f	2028f
State budget								
Total revenues, UAH bn	1,297	1,788	2,629	3,145	3,441	3,729	3,473	3,883
in % of GDP	23.8	34.1	39.7	41.1	38.4	37.3	30.2	29.0
Tax revenues, UAH bn	1,107	950	1,204	1,647	2,139	2,525	2,775	3,334
Foreign grants, UAH bn	1	481	433	474	308	44	89	0
Total expenditures, UAH bn	1,490	2,705	4,014	4,487	5,180	5,666	5,059	4,946
in % of GDP	27.3	51.6	60.6	58.6	57.8	56.6	44.0	36.9
Defense & sec., UAH bn	302	1,586	2,672	2,997	3,456	3,700	2,985	2,735
Overall balance, UAH bn	-193	-918	-1,386	-1,342	-1,739	-1,937	-1,586	-1,063
in % of GDP	-3.5	-17.5	-20.9	-17.5	-19.4	-19.4	-13.8	-7.9
Balance excl. grants, UAH bn	-195	-1,399	-1,819	-1,815	-2,047	-1,981	-1,675	-1,063
in % of GDP	-3.6	-26.7	-27.4	-23.7	-22.8	-19.8	-14.6	-7.9
Financing, UAH bn								
Domestic financing					40	180	148	262
Debt issuance					537	661	697	700
Repayments					497	480	549	438
External financing					1,351	1,017	852	72
Debt issuance					0	0	66	153
Loan disbursements					1,462	1,145	947	67
Repayments					112	128	161	148
Financing, \$ bn								
Needs					41.7	44.8	33.8	22.2
Sources					33.4	27.7	21.3	7.0
Gap					8.4	17.1	12.5	15.3

State Debt

Since the start of the full-scale invasion, Ukraine's state debt has risen considerably to UAH7.9 trillion (or \$192.7 billion) in September. Persistently high reliance on external borrowing has contributed to a shift in the composition of debt. The majority of external loans currently extended to Ukraine are provided on highly concessional terms, making them very advantageous and imposing minimal additional debt service burden. However, a growing share of external debt introduces additional risks from exchange rate depreciation.

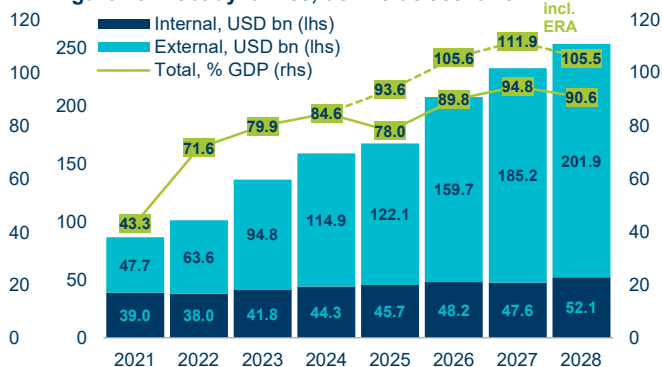
In the baseline scenario, state debt as a share of GDP will remain around 80% over 2025-27 before declining towards 70% in 2028 (see Figure 25 and Table 6). These numbers exclude obligations under the ERA loan mechanism as repayments are conditional on the (unlikely) receipt of reparations from Russia. This is the main reason for the decline in the debt-to-GDP ratio in 2025 and beyond as Ukraine receives a large amount of foreign financial support under a mechanism that effectively does not increase the debt burden. Including the ERA, debt would rise to above 96% of GDP by 2027 before beginning to decline to below 87%. The moderately elevated debt-to-GDP ratio (above the fiscal rule limit of 60%) conceals, however, that **critical budget needs would remain underfinanced in this scenario**. This is, of course, an untenable proposition as Ukraine would be unable to defend itself against Russian aggression, invest in its economic reconstruction and recovery, and address urgent social needs.

Figure 25: Debt dynamics, baseline scenario



Source: Ministry of Finance, KSE Institute

Figure 26: Debt dynamics, downside scenario^x



Source: Ministry of Finance, KSE Institute

In a scenario where financing gaps will be addressed through additional external borrowing—the outcome with the biggest impact on debt—debt-to-GDP ratios would rise to ~95% in 2027 (see Figure 26). For this downside scenario, we make two key assumptions. First, the financing gap of \$8.4 billion in 2025 will be addressed by accelerating disbursements under the ERA. Though this does not have an impact on the overall debt-to-GDP ratio, the ratio including ERA funds would rise earlier, i.e., in 2025. Second, we posit that the gap over 2026-28 will be addressed with external borrowing (due to the earlier disbursement of \$8.4 billion in ERA funds, it would be \$25.5 billion instead of \$17.1 billion in 2026). This financing model leads to a sharp increase in the debt-to-GDP ratio in 2026-27—to 94.8%—before stronger growth offsets the rising debt stock somewhat. This is **an unsustainable level that would seriously jeopardize macro-financial stability** for the foreseeable future. Including the ERA, debt would rise to above 110% of GDP in 2027.

Table 6. Debt dynamics forecast

	2021	2022	2023	2024	2025f	2026f	2027f	2028f
Total debt, UAH bn	2,363	3,715	5,188	6,477	6,990	7,882	9,133	9,603
o/w external	1,300	2,325	3,600	4,613	5,087	5,799	6,902	7,110
o/w domestic	1,063	1,390	1,588	1,863	1,903	2,083	2,231	2,493
Alternative scenario*					6,990	8,984	10,914	12,152
Total debt, \$ bn	86.6	101.6	136.6	159.2	167.8	182.4	194.8	200.7
o/w external	47.7	63.6	94.8	114.9	122.1	134.2	147.2	148.6
o/w domestic	39.0	38.0	41.8	44.3	45.7	48.2	47.6	52.1
Alternative scenario*					167.8	207.9	132.8	254.0
Total debt, % GDP	43.3	71.6	79.9	84.6	78.0	78.8	79.4	71.6
o/w external	23.9	44.8	55.4	60.2	56.8	57.9	60.0	53.0
o/w domestic	19.5	26.8	24.4	24.3	21.2	20.8	19.4	18.6
Alternative scenario*					78.0	89.8	94.8	90.6

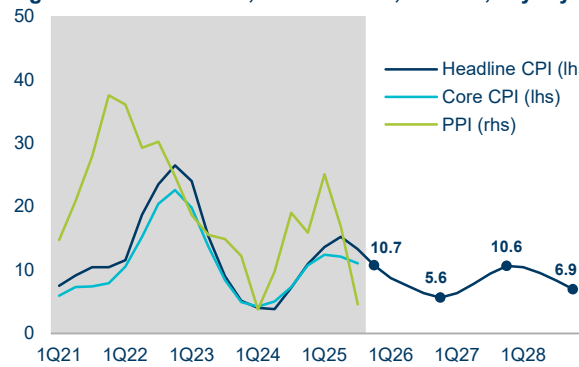
*Based on the assumption that the fiscal financing gap is closed with additional external debt.

Inflation

Headline and core inflation eased in Q3 2025 on the back of cheaper non-animal food prices and stable tariffs, while PPI re-accelerated due to energy costs. In September 2025, headline CPI reached 11.9% y-o-y—down from a peak of 15.9% in May—while core inflation slowed to 11% (see Figure 27). The latter reflects slower growth in processed food, non-food goods, and services prices as demand pressures eased and energy costs moderated. While inflation is expected to gradually decline during the remainder of this year and in 2026, we project a pickup to ~10% in 2027 as the recovery strengthens and the output gap turns positive, leading to demand growth and upward pressure on wages. We also expect a normalization (i.e., increase) in administrative prices, including energy tariffs, after the war. Producer price inflation (PPI), which traditionally lies above headline inflation, increased marginally to 7.3% in August (see Figure 28), largely driven by food production (e.g., meat, dairy, and wheat products) and prices for computers and other electronics (15.4%). PPI is expected to increase further, as cost-push risks are strongly skewed upward.

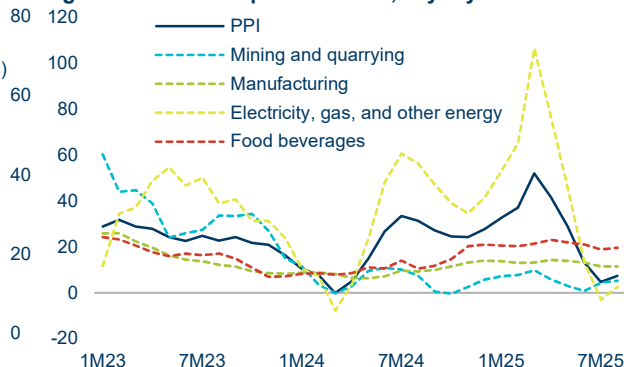
Inflation expectations are declining as the economy enters a disinflationary period. This shows their well-anchored nature due to consistent monetary policy and effective communication by the NBU, including a credible inflation-targeting framework and successful proactive policy tightening in recent months. Inflation expectations currently lie around 10%, with financial analysts more optimistic than the actual forecast and expectations of households and businesses remaining broadly stable (see Figure 29).

Figure 27: Headline CPI, core inflation, and PPI, % y-o-y



Source: NBU, KSE Institute

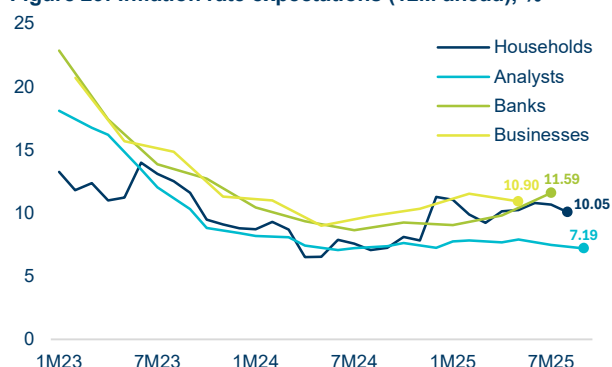
Figure 28: Producer price inflation, % y-o-y



Source: SSSU

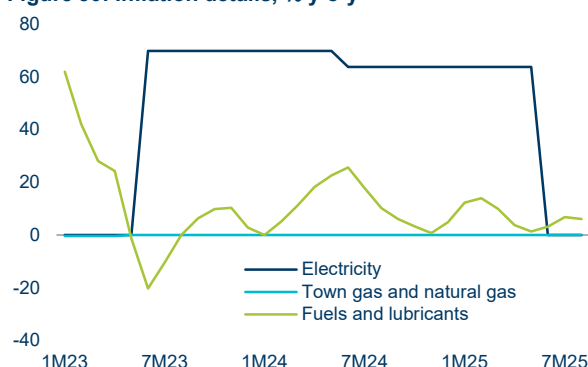
Fuel and energy prices remained stable in Q3 2025, partially due to regulations and amid global price decreases since 2022, but a significantly elevated risk of energy shortages during the winter remains (see Figure 30). Gas and electricity prices for households remain constant at 7.96 UAH/ m³ (since 2022), and 4.32 UAH/KW (since June 2024, fixed at least until November 2025). The increase in fuel prices is below that of the overall consumer basket, with gasoline (A-95 at 58.7 vs 56.6 UAH/L) and diesel (55.9 vs 52.8 UAH/L) growing by less than 10% y-o-y. Global energy price dynamics are benign, with oil and gas significantly cheaper than in 2022 and markets expecting further moderation on the back of hopes for a Gaza ceasefire, suppressed global demand due to trade tensions, higher production within and outside of OPEC+, and the entry-into-service of several large scale LNG facilities (in the United States and Qatar). While this is beneficial for Ukraine's trade balance and budget, it reduces the incentive to move household prices to market levels. In addition, there are serious upside risks to energy prices due to recent Russian attacks on gas production facilities that drive up imports and repair costs, putting additional pressure on the budget (see Special 2).

Figure 29: Inflation rate expectations (12M ahead), %



Source: NBU

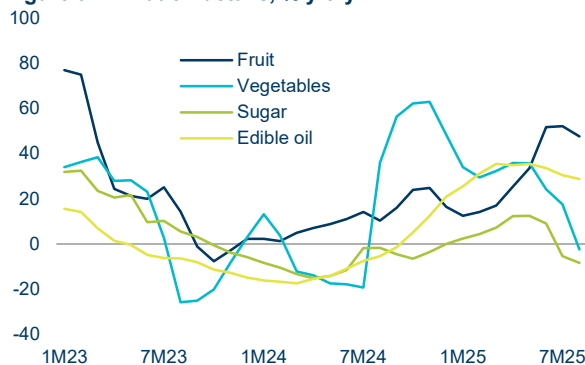
Figure 30: Inflation details, % y-o-y



Source: SSSU

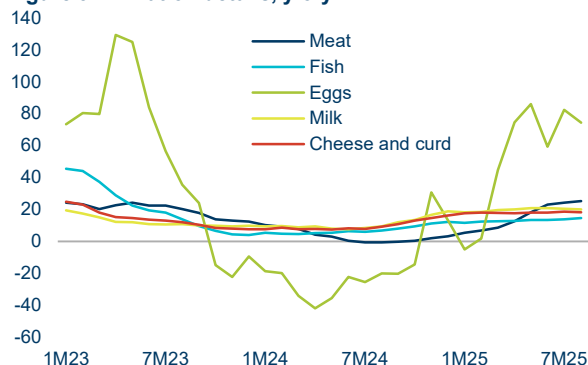
A positive harvest cooled food inflation, but animal products will remain a pressure point. Food prices continued to be a major inflation driver in September at 17.4% y-o-y, although signs of relief emerged as the harvest arrived on the market in July-September and price growth for many items started to slow. Vegetable prices had spiked dramatically in summer 2024 due to the poor previous harvest but now dropped by 16% (see Figure 31). Fruit inflation worsened mostly as a result of weather conditions in Q1. Meanwhile, meat and eggs will present a challenge going forward, with prices for the former rising by 24.8% and for the latter by 50.9% due to high feed costs and reduced livestock (see Figure 32). PPI for meat production stands at 23.4%. Altogether, these developments pushed food inflation above headline inflation despite beneficial base effects from 2024's large price increases. Concerns over future dynamics persist as base effects will drive up vegetable inflation in 2026 and the animal and livestock situation is likely to continue worsening next year.

Figure 31: Inflation details, % y-o-y



Source: SSSU

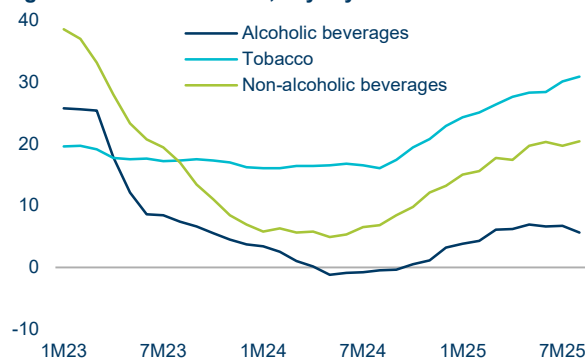
Figure 32: Inflation details, y-o-y



Source: SSSU

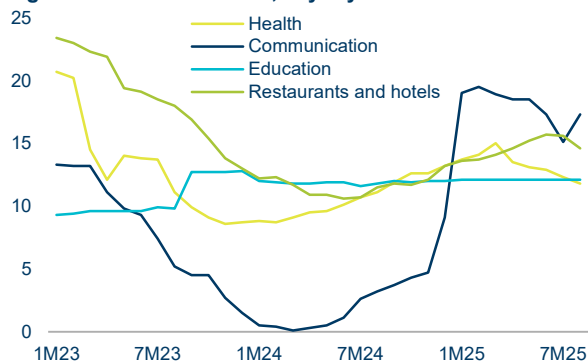
The implementation of a tobacco excise drives most of the inflation in administrative prices, while prices for alcohol rose moderately, and a soft-drink excise is on its way. The gradual increase of an excise tax—following legislation adopted in March 2025 to align with EU standards by 2028—is having an impact on tobacco prices, which rose by 29.3% y-o-y in September (see Figure 33). In contrast, alcoholic beverage prices saw only mild growth (of 3-8% for beer, wine, etc.), partly constrained by Ukraine's minimum alcohol price policy, which helped cap further price grains. Soft drinks, on the other hand, have become a topic of debate. Parliament is considering a new excise tax on sugar-sweetened beverages, which could raise soda prices by an estimated 10-20%. The measure is already in the 2026 budget and will lead to UAH 8.5 billion in additional revenues.

Figure 33: Inflation details, % y-o-y



Source: SSSU

Figure 34: Inflation details, % y-o-y



Source: SSSU

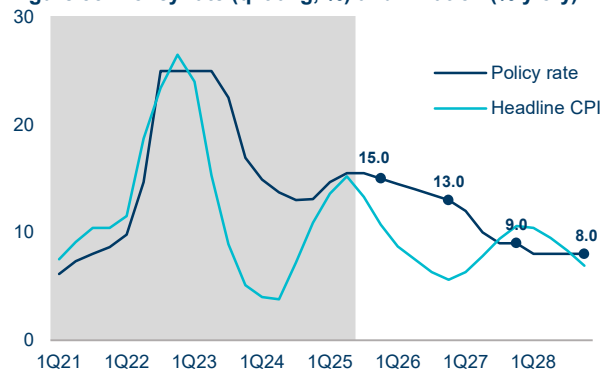
Service price inflation has remained moderate, as limited demand increases partially offset wage-driven cost pressures. Key service categories, namely healthcare, education, and accommodation, continue to show steady annual growth in the 10-15% range, close to overall headline inflation and broadly aligned with nominal wage dynamics in labor-intensive sectors. In contrast, telecommunication services, which displayed near-zero inflation in 2024 due to delayed cost adjustments, have seen a sharp price acceleration (>15%) in 2025. This reflects the normalization of earlier underpricing as well as increased investment needs with regard to network maintenance and security infrastructure amid high import and energy prices and in light of expected energy shortages during the winter (see Figure 34). Cost-push factors (e.g., wages and investment needs), will persist and lead to above-average inflation over 2026-28.

Monetary Policy

The NBU continues to pursue a tight monetary policy, with the primary objective of bringing inflation below 10%. Since March 2025, the policy rate has been maintained at 15.5% (see Figure 35), reflecting the central bank's cautious stance after the inflation peak of 15.9% y-o-y in May. Policy easing will only be feasible once inflationary pressures abate noticeably in late-2025 as serious uncertainty surrounding Ukraine's macroeconomic situation requires a conservative strategy. We expect the NBU to allow for a temporary increase in inflation after the end of the full-scale war (i.e., in 2027)—driven by reconstruction activities and a positive output gap—to support borrowing by domestic businesses and further strengthen capital investment.

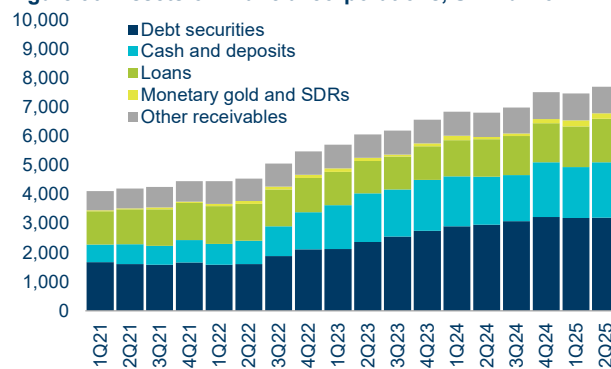
The assets of financial corporations amounted to UAH7.7 trillion in Q2 2025, growing 13% y-o-y (see Figure 36). Their structure shifted significantly in the aftermath of the full-scale invasion—from loans towards securities and deposits—and has remained stable since then, with debt securities accounting for the largest share in (41.6% in Q2). The recent steady growth in loans (16.1% y-o-y) implies a gradual recovery in real terms, however. Cash and deposits rose to UAH1.9 trillion, maintaining high liquidity buffers, while other holdings remained small; monetary gold grew quickly (62% y-o-y in H1 2025) due to soaring gold prices.

Figure 35: Policy rate (qvt avg, %) and inflation (% y-o-y)



Source: SSSU, NBU, KSE Institute

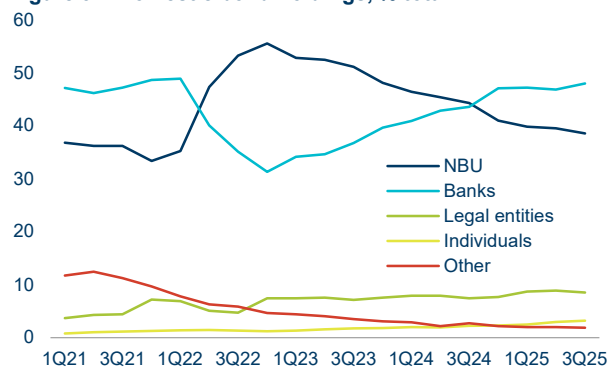
Figure 36: Assets of financial corporations, UAH billion



Source: NBU, KSE Institute

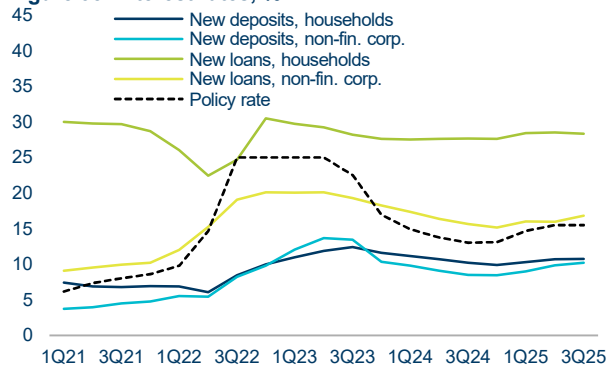
Holdings of government bonds continue to increase, especially for banks and individuals. Total outstanding bonds reached UAH1.7 trillion in Q3 2025—a 14% increase y-o-y in nominal terms. Banks continued to expand their holdings, accounting for 48% of the total stock in (see Figure 37), and have remained the largest holder of domestic sovereign debt since Q3 2024, following the NBU's decision in October of last year to permit benchmark government bonds to cover up to 60% of mandatory. Banks and other legal entities together expanded their holdings by 25% y-o-y in Q3 2025, while individuals increased theirs by 66%. At the same time, the NBU's share has gradually declined since 2022, when the central bank had to support the budget in the immediate aftermath of the full-scale invasion. The fact that individuals are increasing their holdings of government bonds while their bank deposits are also rising indicates that the NBU's attempt to reorient individual funds towards savings is working.

Figure 37: Domestic bond holdings, % total



Source: NBU, KSE Institute

Figure 38: Interest rates, %



Source: NBU

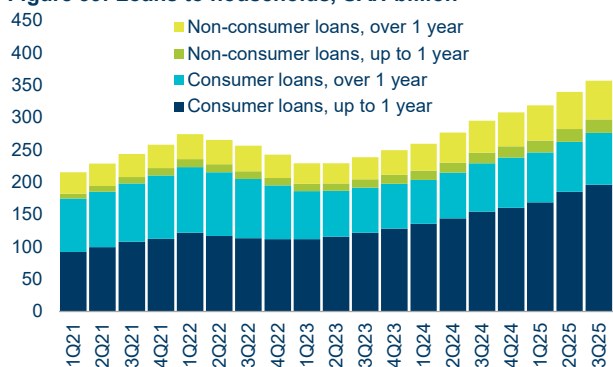
Interest rates remained elevated in Q3 2025, underscoring overall tight monetary policy. Household loan rates stayed at ~28%, substantially higher than the ~17% charged to non-financial corporations, reflecting heightened credit risk and the transmission of the higher policy rate (of 15.5%) into borrowing costs (see Figure 38). Consistent with 2024 dynamics, the spread between corporate loans and the policy rate is expected to remain around 2-3% going forward, implying that rates for non-financial corporates will

approach ~18% towards the end of the year and stay elevated for the majority of 2026. Deposit rates have been relatively stable—at 10.7% for new household deposits and 10.2% for those of non-financial corporations—and their dynamics are closely aligned with the NBU's policy rate decisions (see Figure 38).

Despite elevated rates, household loans have recovered significantly in real terms since mid-2023, reaching +38% of the pre-war level. In Q3 2025, the stock of household loans stood at UAH357 billion—a 21.1% y-o-y nominal increase that exceeded inflation, with consumer loans accounting for a dominant share (77.3%), of which most have a maturity of up to one year (see Figure 39). Real estate and mortgage lending have shown a modest rebound due to targeted government programs, which have provided ~18,000 Ukrainians with loans at subsidized rates below market levels, but remains subdued. These programs will likely continue as they are a key part of the government's strategy—outlined in the [Government Action Plan](#)—to address housing demands of internally-displaced persons (IDPs) and other vulnerable groups.

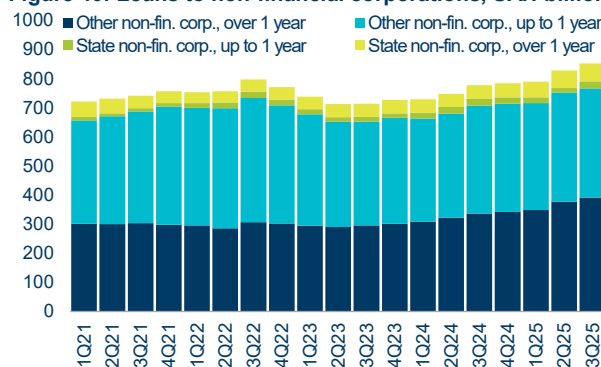
Overall credit to non-financial corporations remains below pre-war levels in real terms, but a gradual recovery is underway supported by assets from growing deposits. Elevated borrowing costs—16.8% in Q3 2025—continue to constrain businesses' borrowing for investments. Nevertheless, the modest rebound, especially in long-term loans, indicates that enterprises are slowly restoring financial capacity, which signals improving business sentiment and gradual preparations for the economy's recovery (see Figure 40).

Figure 39: Loans to households, UAH billion



Source: NBU, KSE Institute

Figure 40: Loans to non-financial corporations, UAH billion

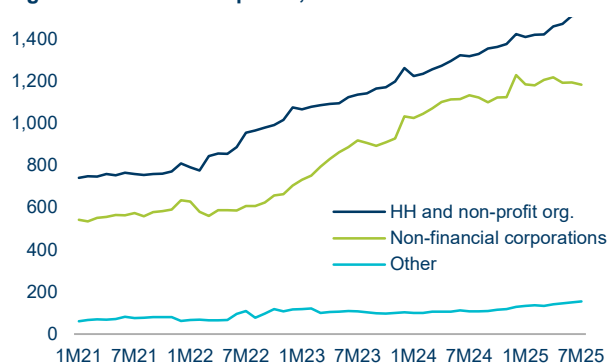


Source: NBU, KSE Institute

The relatively stronger growth of household deposits compared to those of businesses signals a rebalancing towards a healthier economic structure. In July 2025, enterprises' deposits accounted for 41.5% of the total—a moderate decline vs. 43.5% in January—with broadly stable deposits in nominal terms (see Figure 41). Together with the aforementioned credit dynamics, this shows a gradual moving away from enterprises' extra-cautious approach in recent years and will be further strengthened by the expected easing of monetary policy by the NBU as well as the economy's recovery after the full-scale war.

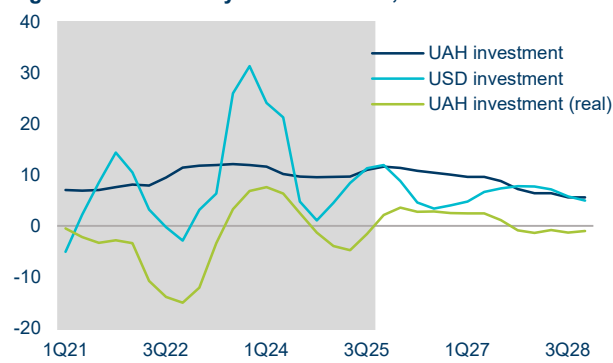
The profitability of Hryvnia-denominated deposits reached 10.5% in Q3 2025 but remained negative in real terms (-2.8%), underscoring the role of elevated rates in preserving the attractiveness of investments in UAH amid inflationary pressures. Deposits in USD offered returns of 10.8% in Q3—on par with those in UAH—reflecting exchange rate expectations. The profitability of investments in UAH is expected to decline steadily in nominal terms (to ~6% by 2028), while real returns are projected to increase to 4% in Q4 2026 as inflation subsides, before turning negative in 2027 (see Figure 42). This may encourage the dollarization of savings but aligns with the broader objective of supporting Ukraine's post-war recovery.

Figure 41: Resident deposits, UAH billion



Source: NBU, KSE Institute

Figure 42: Profitability of investments, %

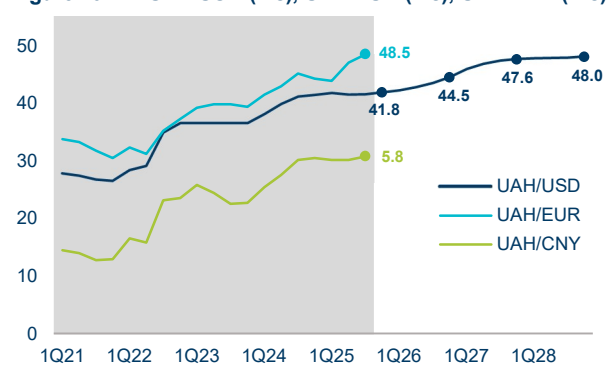


Source: NBU, KSE Institute

Exchange Rate

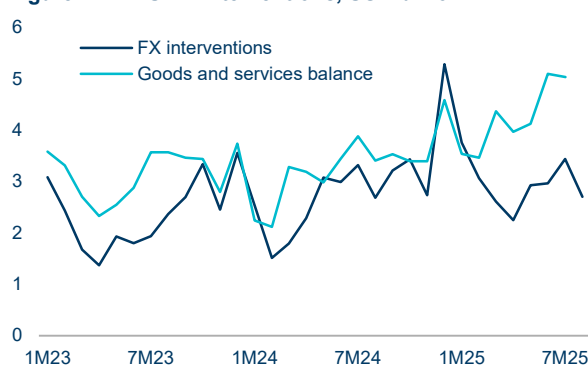
The Hryvnia will remain broadly stable vs. the Dollar—around 41.5 UAH/USD—until the end of the year, with expected devaluation in 2026 to ~45 UAH/USD amid foreign support concerns (see Figure 43). This stability has been sustained by substantial NBU interventions of \$2-4 billion per month in the foreign exchange market this year (see Figure 44), supported by inflows of international assistance that are expected to total \$42.5 billion in 2025. These inflows are key to (partially) offsetting persistent depreciation pressure as a result of an increasingly negative trade balance, which reached \$17.6 billion in H1 2025 (vs. \$14.2 billion in H1 2024). Going forward, however, a drop in committed support from partners may require easing of the interventions policy and lead to Hryvnia depreciation above the current forecast.

Figure 43: FX UAH/USD (lhs), UAH/EUR (lhs), UAH/CNY (rhs)



Source: NBU, KSE Institute

Figure 44: NBU FX interventions, USD billion



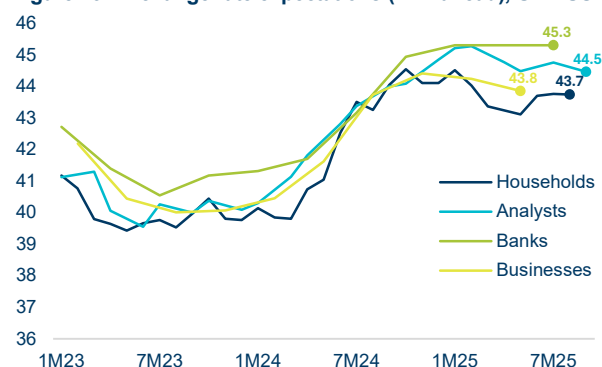
Source: NBU, KSE Institute

The Hryvnia continues to depreciate against the euro, reaching 48.5 UAH/EUR, while just moderately weakening against the Yuan, reaching 5.8 UAH/CNY in Q3 2025. The UAH/EUR dynamic largely reflects the global weakening of the Dollar due to numerous geopolitical factors, including the trade war. A stronger Euro also benefits Ukrainian exporters by improving their competitiveness in Euro-denominated markets. On the contrary, the dynamic of the Yuan directly affects the persistent trade deficit with China as Ukraine remains heavily dependent on imports of drones and related components as well as consumer goods. A strong Yuan, underpinned by a managed exchange rate regime and relatively lower inflation in China, makes imports more affordable, thus decreasing the competitiveness of domestic goods and reinforcing the deficit.

Foreign support uncertainty will also weigh on exchange rate expectations. One-year ahead expectations stabilized since the beginning of the year, converging in the range of 43.7-45.3 UAH/USD (see Figure 45). Should international assistance shrink in 2026, exchange rate expectations will shift upwards.

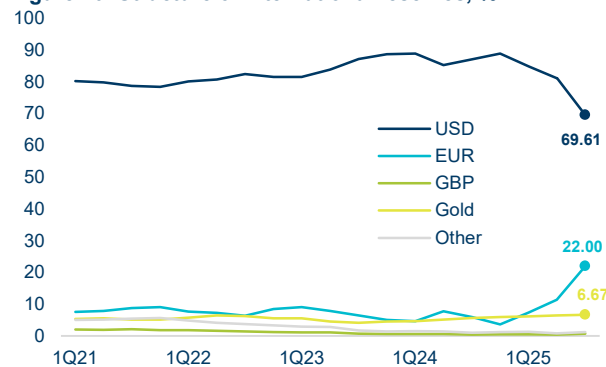
The structure of Ukraine's international reserves shifted markedly in Q3 2025, with the share of Euro-denominated reserves rising from 13.9% in June to 27.3% in September due to policy and market factors. The need for changes to the NBU's reserve composition was discussed in July's *Ukraine Macroeconomic Handbook*. The central bank indeed diversified its reserve holdings, rebalancing towards the Euro in line with growing Euro-denominated trade and financial integration with the EU (see Figure 46). While the observed shift largely reflects a policy decision, 2025's depreciation of the Dollar against the Euro also played a role as it increased the relative value of Euro-denominated assets in USD terms. The rebalancing will reduce Hryvnia volatility vs. the Euro and help smooth import price fluctuations.

Figure 45: Exchange rate expectations (12M ahead), UAH/USD



Source: NBU, KSE Institute

Figure 46: Structure of international reserves, %



Source: NBU, KSE Institute

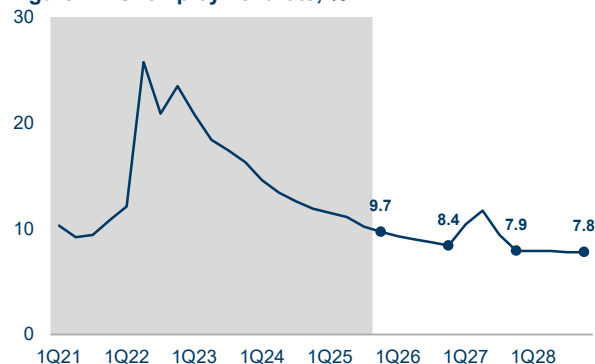
Labor Market

21

Ukraine's labor market remains relatively stable, but structural problems persist. The unemployment rate has steadily declined in 2025—reaching 10.2% in Q3—and will fall further until Q1 2027, when the return of a large number of veterans to the labor market after the (assumed) end of the war will lead to a temporary spike (see Figure 47). Current and projected labor market dynamics during the remainder of the war do not reflect growing demand but rather a war-related shrinking of the labor force. According to the IER, firms are willing to expand their workforce but have serious difficulties filling vacancies.

Labor shortages remain the most frequently cited obstacle to business operations. The IER business survey shows that labor shortages have been a growing concern since Q3 2022 but really intensified since mid-2024 (see Figure 48). In August 2025, 62% of businesses reported labor shortages—a 5% increase from the previous month after a temporary mid-year reprieve. Recruitment challenges exist for both qualified and unqualified workers, but are more pronounced for the former. There are significant risks for a further worsening of the situation as Ukraine faces another difficult winter of extensive Russian attacks on its energy infrastructure (see Special 2), and 18- to 22-year-old males now have the option to cross the border.

Figure 47: Unemployment rate, %



Source: NBU, KSE Institute

Figure 48: Recruitment challenges

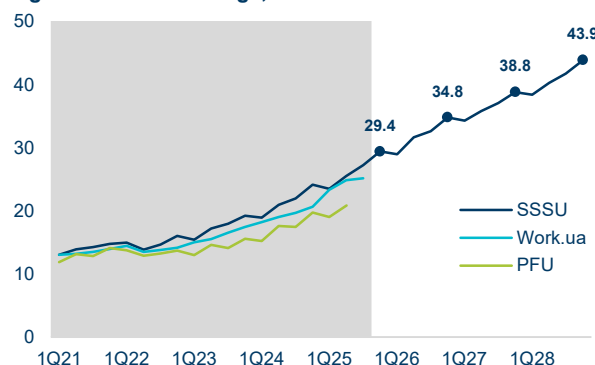


Source: PFU, SSSU, work.ua, KSE Institute

Distortions in the labor market are a key driver of persistently high wage growth, with no signs of normalization on the horizon. Nominal wages continued their upward trajectory this year with average wages rising from UAH24,150 in Q4 2024 to (projected) ~UAH30,000 by the end of the year, which would yield 12% y-o-y real wage growth (see Figure 49). Post-war wage growth will be marginally slower in our view despite the robust economic recovery and additional investments due to labor market saturation.

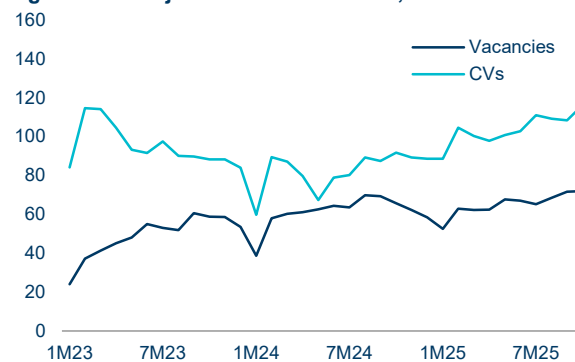
A falling vacancy-to-CV ratio indicates mismatches between job seekers and available positions. At a time of growing hiring challenges and rising wages, submitted CVs surged from ~89,000 in January of this year to ~116,000 in October, while vacancies remained broadly stable at ~70,000 (see Figure 50). These seemingly inconsistent developments point to serious mismatches between applicants and open positions, especially with regard to qualified labor. As a result, firms attempt to retain existing staff with higher wages instead of expanding their workforce. The stable number of vacancies also supports the aforementioned argument that labor market tightness is not the result of rising demand but of constrained supply.

Figure 49: Nominal wage, UAH thousands



Source: SSSU, work.ua, PFU, KSE Institute

Figure 50: New job vacancies and CVs, thousands



Source: Work.ua, KSE Institute

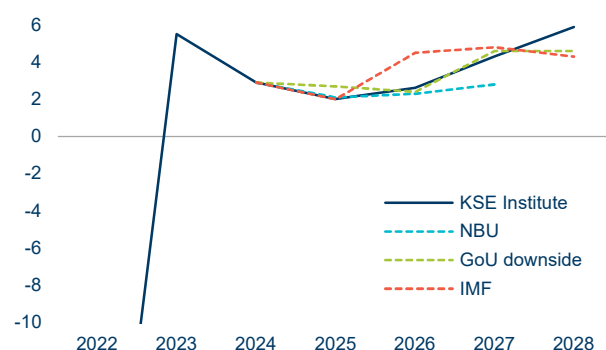
Forecast Comparison

The comparison includes key institutions that provide regular forecasts for Ukraine—the National Bank of Ukraine¹ (NBU), Government of Ukraine² (GoU), and International Monetary Fund³ (IMF)—and includes real GDP growth, inflation, wage growth, current account, exchange rate, reserves, budget deficit, and debt.

22

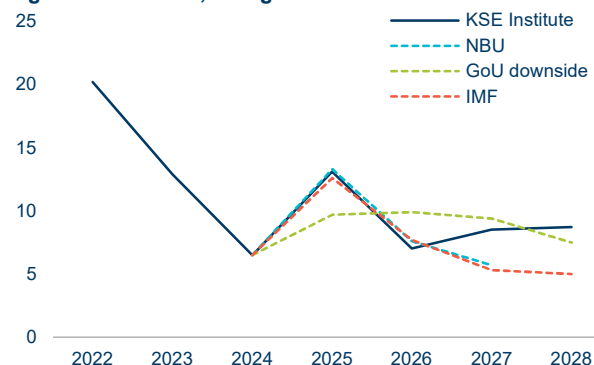
Real GDP growth is expected to be 2-3% per year during the war, with assumptions made about the timeline of war termination driving divergence between forecasts. KSE Institute projects a gradual recovery to growth in the 4.3-5.9% range in 2027-28 (see Figure 51). The 2027 projection aligns with the IMF and GoU downside scenarios, though the IMF's assumed mid-2026 war termination yields an earlier recovery. By contrast, the NBU's forecasts are more pessimistic, owing to more conservative assumptions about wartime structural constraints. Meanwhile, KSE Institute's 5.9% growth in 2028 comes in above other institutions.

Figure 51: Real GDP growth, %



Source: NBU, Ministry of Economy, IMF, KSE Institute

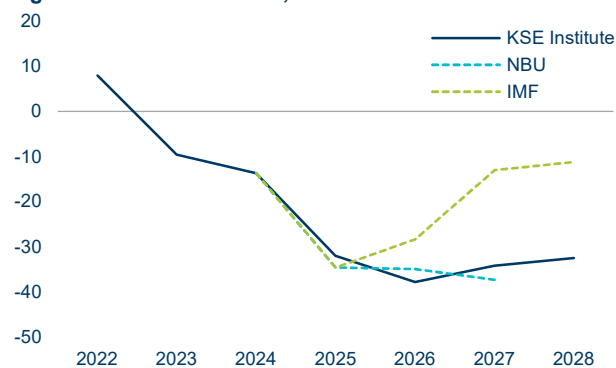
Figure 52: Inflation, % avg



Source: NBU, Ministry of Economy, IMF, KSE Institute

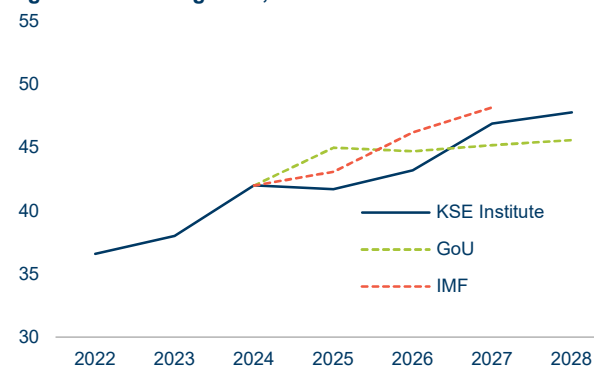
Inflation will moderate to the single digits by the end of 2025—with KSE Institute broadly aligned with other forecasts over 2025-26—yet inflation will pick up thereafter due to positive output gaps throughout the recovery. Both the NBU and IMF broadly agree with regard to this year's forecast of 13.1% (with 13.3% and 12.6%) but see a quicker and more pronounced drop by 2027 (see Figure 52). The GoU's downside scenario, which assumes the war will continue into next year, assumes inflation will remain elevated for longer.

Figure 53: Current account, USD billion



Source: NBU, IMF, KSE Institute

Figure 54: Exchange rate, UAH/USD



Source: Ministry of Economy, IMF (estimate), KSE Institute

All institutions agree that wage growth will remain strong driven by labor shortages, with forecasts for 2026 in the 13-21% range. Divergences thereafter depend on assumptions regarding the level of inflation as well as the normalization of labor market supply and demand dynamics. Both the IMF and NBU expect a faster return of displaced workers, leading to a more rapid easing of labor force shortages, and, in turn, weaker upward pressure on wages. KSE Institute assumes more persistent labor supply constraints as well as stronger recovery-driven demand, implying higher and more persistent wage growth.

¹ The NBU forecast is prepared on a quarterly basis, with the last edition published on July 31st, 2025, making it the most up-to-date among the institutional forecasts. Its war assumption is undisclosed.

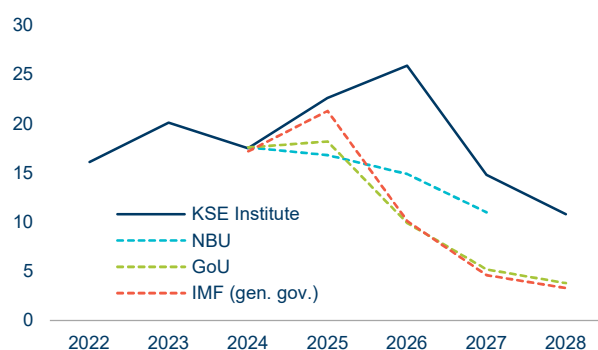
² The government forecast is partially outdated as it was prepared for the Budget Declaration and published on June 27th, 2025. Consequently, only the downside scenario of the government forecast is retained in this comparison, as its baseline scenario has already proven to be unrealizable.

³ The IMF forecast used in this comparison is taken from the 8th Review of the Extended Fund Facility published on June 30th, 2025, which is rather outdated as it reflected a more favorable short-term dynamic. We compare our forecast with the downside scenario, which is the IMF's only scenario that projects the war's continuation into 2026 (with a mid-2026 termination). The delay on the next review marks the transition toward a new IMF program, which will include revised assumptions on the duration of hostilities, financing composition, and structural reforms. For available indicators, the WEO published on October 14th was used.

KSE Institute's forecast for the current account is in line with the NBU's but differs considerably from the IMF's (see Figure 53). We believe that an increasingly-structural trade deficit will keep the current account deficit elevated for the foreseeable future, and project it to widen from \$13.7 billion in 2024 to \$32 billion this year and \$37.8 billion in 2026 before gradually narrowing in 2027-28. The IMF sees faster adjustment over 2026-28 for several reasons, including more supportive export dynamics, a quicker normalization of imports (i.e., a shift in the structure of imports from defense and other war-related needs to more civilian and investment goods), as well as large positive dynamics on both the credit and debit side of the services trade.

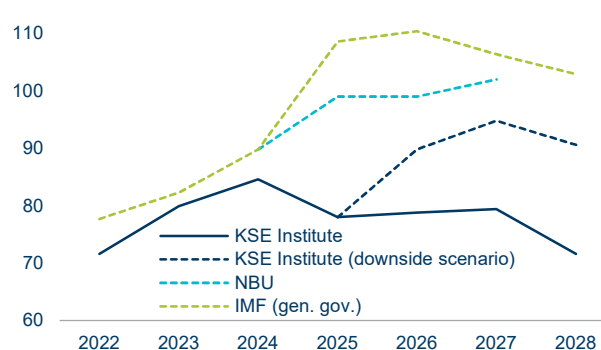
The exchange rate will rise markedly in all forecasts but with varying speed across institutions' forecasts (see Figure 54). KSE Institute sees the Hryvnia moving from ~42 UAH/USD in 2024 to 47.8 UAH/USD by 2028, with particularly significant depreciation in H2 2026. The IMF's forecast is more pessimistic, with the exchange rate approaching 48.2 UAH/USD in 2027, while the GoU expects⁴ a more stable path of ~45-46 UAH/USD over 2026-28 following depreciation in 2025 and stabilization thereafter. This view may stem from the need to produce a budget declaration that reveals fiscal financing challenges. We believe that institutions differ in their assumptions with regard to the exchange rate regime—specifically, the level of NBU interventions in the FX market—as well as the timing and size of capital inflows.

Figure 55: Budget deficit, % GDP



Source: Ministry of Economy, IMF, KSE Institute

Figure 56: Debt, % of GDP



Source: IMF, NBU, KSE Institute

Reserves are projected to fall in 2026 as a result of challenging external dynamics and insufficient foreign financial support. KSE Institute is most pessimistic for the entire forecast period of 2025-28, projecting reserves to drop from \$43.8 billion in 2024 to \$14.9 billion in 2028. The NBU and IMF forecast much stronger reserve positions: the former's projections are in the range of \$43-53 billion, and the latter projects them to steadily fall to \$55.6 billion in 2027 and then jump back to \$58.3 billion in 2028, with accumulation afterwards. This is the result of differences in capital account projections (expecting yet non-committed financing to cover for deficits) in the case of the NBU, and of the aforementioned assumptions regarding trade and current account dynamics in the case of the IMF, making the KSE Institute forecast the most realistic under current circumstances and raising significant concerns over reserves sufficiency.

There is broad agreement that the budget deficit will remain elevated during the war, but timing and magnitude differ between institutions (see Figure 55). KSE Institute projects deficits of 22.6% of GDP in 2025 and 25.9% in 2026 as the full-scale war continues—and only a gradual improvement thereafter as defense and security needs remain seriously elevated. The GoU's baseline scenario assumes a lower deficit in 2025 (of 18.2%) and a sharp narrowing afterwards, the IMF projects a similar post-2025 drop, while the NBU projections fall between the KSE Institute and the more optimistic scenarios. Differences are driven by (i) assumed defense and security needs and reconstruction costs, (ii) the classification and timing of external grants (i.e., revenues) and loans (i.e., financing), and (iii) the assumed speed and credibility of fiscal consolidation once hostilities end.

All forecasters expect seriously elevated debt as a share of GDP for the foreseeable future. KSE Institute projects state debt to rise to around 79% of GDP in 2027 before gradually falling to 71.6% by 2028 in downside scenario (see Figure 56). The IMF's figures and the NBU's projections (both for general government budget) differ in level but not direction: debt peaks are driven by large wartime deficits, the financing mix, and the assumed pace of post-war consolidation. The consensus view across institutions is that debt sustainability will require robust growth, meaningful fiscal consolidation after the war, and—importantly—debt restructuring and/or favorable financing terms for legacy obligations. The design and timing of future external support will crucially affect whether high debt ratios remain manageable.

⁴ The GoU's forecast was published a year ago in its 2025 Budget.

Special 1: Reparations Loans

At the time of writing, the new financing scheme developed by Ukraine's partners—known as the “reparations loan”—has not been finalized. However, such a decision could come in the coming days and enough information has emerged to allow for a discussion of the mechanism's details and potential impact.

Why is a new financing mechanism urgently needed? After the IMF's recent visit to Kyiv to discuss the outline of a new multi-year funding agreement between Ukraine and the Fund, it was reported that the IMF had identified a fiscal financing gap of \$65 billion over 2026-29 (i.e., the period covered by a new program), with most of the additional needs materializing in 2026-27. While our forecast shows a different distribution of needs within the forecast period—likely due to diverging assumptions regarding the disbursements of existing foreign support commitments—, we broadly agree on the magnitude of the fiscal gap, which we assess to be ~\$54 billion over 2026-28, with another ~\$10 billion likely to arise in 2029. In the absence of additional foreign support, Ukraine will not be able to meet urgent needs for defense and security—during the full-scale war and thereafter—and lacks funds to invest in the recovery and fund social programs. In addition, a new IMF program is also not possible as long as the financing gap is not addressed.

How would the reparations loan work in practice? What is currently known about the mechanism indicates that Ukraine's European partners would—for the first time—rely on the principal of immobilized Russian sovereign assets. So far, the G7 has only used proceeds to back up the ERA loans. While there is still no full (public) accounting of the immobilized assets, pre-war reporting by the Russian central bank (CBR) points to a total of more than \$350 billion. Additional reporting by Euroclear—a central securities depository (CSD) in Belgium—indicates that it holds €194 billion in (public and private) Russian assets, of which €175 billion are assumed to belong to the CBR and to have largely matured into cash by now.

The European Union—or a large majority of its members—would compel Euroclear to transfer these funds to a special purpose vehicle (SPV) in return for non-interest bearing European bonds. Importantly, Russia's rights vis-à-vis Euroclear remain untouched by this operation. Of the total €175 billion, a certain amount would be withheld to finance the ERA loans, resulting in ~€140 billion being available for a reparations loan to Ukraine. This loan would also be non-interest bearing—thus, not increasing debt service costs—and its repayment would be conditional on the payment of reparations by Russia. Moving the funds to an SPV has the added advantage that all funds not immediately disbursed to Ukraine—a significant share—can be invested at higher rates. Currently, the assets essentially consist of bank deposits generating returns.

Does the reparations loan address Ukraine's needs? Details regarding the usage of the loan are still unclear, with some reporting indicating that the money will largely be dedicated to weapons purchases, but the mechanism will likely address the \$65 billion financing gap over 2026-29. If we assume that a new IMF program would amount to ~\$8 billion, the remainder would be around €50 billion. As needs for weapons in the coming years are most likely higher than this amount, the reparations loan—even with narrow usage restrictions—would allow for redistribution of money within the budget to meet other important priorities, including defense and security needs aside from weapons and critical social support.

There is a separate important issue, however. As this mechanism, for the first time, utilizes the principal of the immobilized Russian assets, this money can only be spent once. And if it is spent entirely on weapons—which are, of course, absolutely critical—it cannot be used for Ukraine's reconstruction and recovery. As the CBR assets represent the largest source of funding for such purposes reasonably within reach—reparations from Russia are extremely unlikely—it would be preferable if a certain portion of the reparations loan was directed towards a recovery fund and/or compensation for war damages and losses.

What are the risks for Ukraine and/or its partners? The risks for Ukraine are very limited in our view as the reparations loan would be non-interest bearing and the conditionality regarding its repayment would likely allow it to be disregarded in the IMF's debt sustainability analysis. European partners, however, could face a serious risk. The mechanism works well under the assumption that the Russian assets remain immobilized, which is currently dependent on the prolongation of all sanctions every six months and could, conceivably, become a problem in the future. In such a case, countries would effectively owe Russia €175 billion as the money in Euroclear is being replaced with their bonds. This creates a very strong incentive to address issues surrounding the prolongation of sanctions. More broadly, the reparations loan evades the question of asset seizure for the time being—but it will have to be reconsidered at some point in the future.

Special 2: Energy Challenges

In recent weeks, Russia has caused serious damage to Ukraine's energy infrastructure once again—with serious implications for import needs, budget expenditures, and economic activity. Challenges

during the winter of 2025-26 are expected to be considerable—in fact, the situation will be more difficult than last year. We estimate that 50% of Ukraine's natural gas production has been taken out of service. Likewise, 27% of electricity demand cannot be met due to damage to generation facilities and the distribution network.

Imports: In our assessment, Ukraine will need to import an additional 4.1 bcm in gas during the heating season (i.e., until April), amounting to \$1.9 billion. Importantly, this scenario assumes no further damages. Should Russian attacks remove additional gas production leading to only 20% of the original total capacity, import needs would rise to 6.9 bcm worth \$3.2 billion. The cost of imports is not the only concern for the energy supply, however, as interconnectors do not allow for more than 2.35 GW (10.3 TWh during the heating season). That would permit 4.5 TWh in additional imports (\$1.4 billion) but would still lead to serious power outages for households and businesses during the winter, even without additional damages. This also has negative implications for the widening trade deficit, increasing depreciation pressure on the Hryvnia.

Repairs: Rebuilding energy infrastructure carries its own costs—\$2.4 billion in the base scenario and \$4.3 billion in the downside scenario that covers both electricity gridline and gas production system.

Economic activity: While assessing the macroeconomic effects of the energy deficit is complicated by limited information and strongly influenced by key assumptions, the estimated effect may be on par with the one during the winter of 2022-23. Despite the strong GDP growth in 2023 of 5.5%, the negative effect still materialized. The NBU, in its [January 2023 Inflation Report](#), projected effects of -1.9pp and -0.6pp for 2023 and 2024, respectively. The readiness of the system and businesses (with generators and fitted systems) was assumed for 2024 but only partially for 2023, leaving the true estimate for 2025-26 closer to the 2024 estimate of -0.6pp. The energy deficit is already mostly accounted for in the KSE Institute's current forecast (see Economic Activity) and explains most of the difference between the current and July edition—of -0.6pp for 2025 and -0.5pp for 2026—amid the improvement of the economic activity in recent months. Regarding prices, the inflationary effect of increased electricity costs from generators is mostly offset by the base effect created by electricity price increases in 2023-24. Moreover, the enlargement of the trade deficit may have an effect—from negligible in the case of full coverage by international partners to very significant otherwise—if the currency demand for imports is not balanced, increasing the demand for Dollars.

Financing the energy sector could take several forms with varying effects and corresponding risks:

1. **More international support:** This is the most viable solution in terms of the effects on the balance of payments and economic activity. Ukraine already received €1.25 billion for its energy system during 2022-25 through the Ukraine Energy Support Fund, which could be expanded upon. It may prove to be too slow, however, as further negotiations with partners would be required.
2. **Reorient budget money from lower priority programs:** Given that most military expenses are in secured parts of the budget that have not been touched, such an approach will impact social programs. However, insufficient supply of electricity and natural gas over the winter may be an even more socially-unacceptable outcome than cuts to certain programs.
3. **Special “Energy Government Bonds”:** The Ministry of Finance may issue bonds with short maturities (i.e., of 12-24 months) specifically dedicated to the funding of grid repairs and gas imports. Interest rates comparable to other domestic debt—or possibly linking to inflation—may improve their appeal and decrease budget pressure amid pro-inflationary fears. The NBU could also make them eligible as benchmark bonds to increase attention from banks.
4. **Funding through the banking system:** To increase absorption of domestic debt issuance, the NBU could further increase the benchmark-bond ratio in reserves, redirect banking liquidity from 3-month CDs, and/or temporarily increase the bank profit tax. These steps could each generate \$0.5-1 billion. However, this approach would further damage the credibility of the GoU from the perspective of banks, increase incentives to obfuscate profits, and undermine efforts to privatize state-owned banks.

Special 3: Local Budgets

The continuation of the full-scale war through 2026 will continue to weigh heavily on local government finances, delaying the recovery of development spending and maintaining pressure on current budgets. The medium-term forecast assumes that active hostilities will end before 2027, allowing municipalities to reallocate resources toward reconstruction, public services, and social protection.

Local budget revenues: Local revenues are projected to increase steadily over 2026-28, driven by stronger tax receipts and a gradual recovery in intergovernmental transfers. Total local revenues are expected to rise from UAH879 billion in 2026 to UAH1.05 trillion in 2027 and UAH1.21 trillion in 2028, with own-source revenues accounting for more than two-thirds of the total. The personal income tax will remain the cornerstone of local finances, expanding from UAH345 billion in 2026 to UAH487 billion in 2028. This reflects two key assumptions: the restoration of the personal income tax share credited to the state budget starting in 2026, and the redirection of taxes from military remuneration under standard budget rules from 2027.

Excise revenues will rise steadily over the forecast period as Ukraine continues the gradual alignment of tobacco and fuel excise rates with EU levels starting in 2026. Property tax and corporate income tax receipts will also strengthen moderately, supported by improved compliance and economic normalization after the end of the war. The single tax will experience a temporary slowdown in 2027, reflecting lower buoyancy and adjustments in the simplified taxation regime, before accelerating in 2028 as the Revenue Strategy introduces a differentiated list of economic activity classifications (KVEDs) with higher tax rates for businesses that have limited operating expenses. This measure, which brings such rates closer to the personal income tax level, is designed to curb tax avoidance through fictitious self-employment and encourage the formalization of labor relations. Intergovernmental transfers will continue to grow in nominal terms, underpinning local service delivery during the transition phase. Overall, the revenue outlook assumes a stable transfer policy, no major tax reforms before 2028, and gradual recovery of the local tax base as reconstruction efforts gain pace.

Local budget expenditures: Local spending will remain constrained in 2026, totaling around UAH847 billion, reflecting the need to maintain critical services despite limited revenues under wartime conditions. A rebound is expected in 2027-28, with expenditures projected to reach UAH1.01 trillion and UAH1.13 trillion, respectively. Spending priorities will shift notably over the period. Education will claim an increasing share of local budgets due to higher teacher salaries financed via the education subsidy, rising from UAH388 billion in 2026 to UAH531 billion in 2028. Expenditures on housing and communal services will also expand as municipalities intensify post-war repair and maintenance of housing stock and utilities.

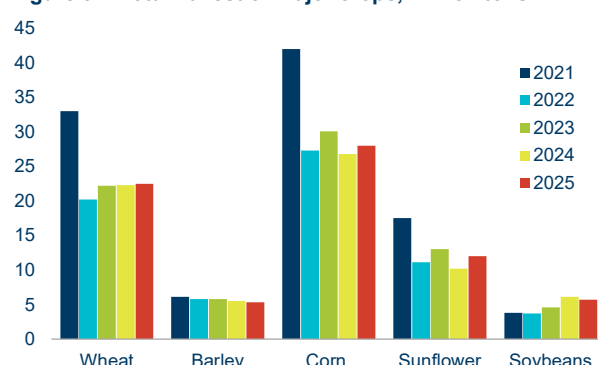
Conversely, spending on territorial defense and wartime subsidies will decline sharply after 2026, reflecting the expected end of hostilities; residual allocations will remain for security and resilience measures, however. Healthcare spending will gradually decrease as inpatient services are increasingly financed through the national health purchaser, whereas cultural and leisure activities—suspended or underfunded during wartime—will regain prominence in 2027-28 as community facilities reopen. Social protection needs will continue to grow, driven by increased demand for veteran and disability support programs.

The overall structure of local spending will, thus, evolve from emergency stabilization in 2026 toward recovery and reconstruction by 2028. Municipalities are expected to reorient fiscal resources toward rebuilding infrastructure, restoring public utilities, and expanding social and educational services, while maintaining fiscal discipline and alignment with national recovery priorities.

Special 4: Agriculture

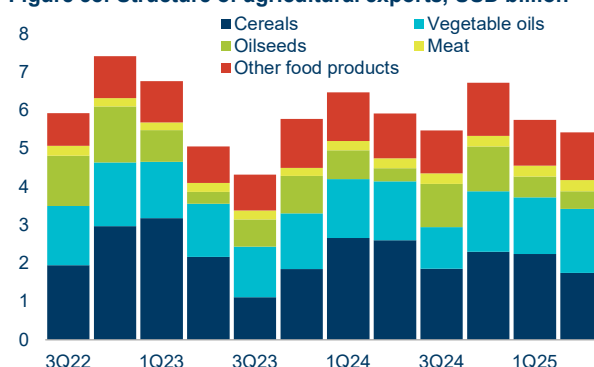
In 2025, the general trend for agricultural production continues, overcoming the consequences of destruction, mining contamination, and occupation. Favorable 2023 trends, in which grain and oilseed yields per hectare were high and corn yields nearly reached 2018's record values, were interrupted in 2024 by discouraging weather conditions (namely drought) that led to the significant drop in domestic production and exports. While 2025 has its own weather-related issues, particularly damages to the fruit trees in the early months, the sector has performed better than in 2024. On the one hand, the recovery rate of grain and oilseed production is low; the volatility of corn, sunflower and soybean yields is also higher, as the spring crop cycle goes through a period of extremely high temperatures in the summer (see Figure 57).⁵ On the other hand, many farmers plan to increase the share of winter crops—including winter wheat, barley, and rapeseed—to hedge against climate risks, as their production is more linear. Such fluctuations in grain and oilseeds yields are the main factor in the instability of total agricultural exports (see Figure 58). Beyond short-term fluctuations, however, the structure of exports has been relatively stable since the full-scale invasion.

Figure 57: Total harvest of major crops, million tons



Source: Ministry of Economy, Environment and Agriculture of Ukraine

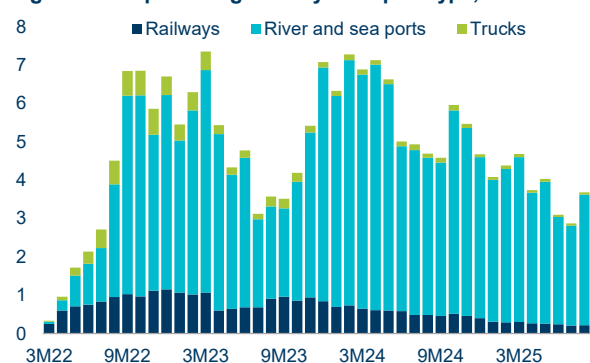
Figure 58: Structure of agricultural exports, USD billion



Source: ITC Trade Map, KSE Institute

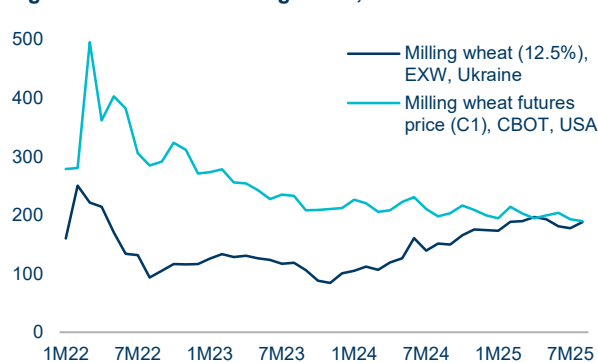
The full resumption of seaport operations on the one hand, coupled with the lack of a grain surplus due to moderate harvests on the other, has led to an almost complete shift in the export of grain, oilseeds, and vegetable oils to low-cost sea routes (see Figure 59). Consequently, the role of rail transport, as well as Danube River ports, has significantly decreased; these modes of transport now mainly handle the transportation of locally grown high-margin oilseeds, such as rapeseed and soybeans.

Figure 59: Exports of grains by transport type, million tons



Source: Ukrainian Grain Association

Figure 60: Prices for milling wheat, USD/ton



Source: APK-Inform, CME, KSE Institute

Global food prices, which continued their downward trend since mid-2022, remained an important factor influencing the monetary volume of Ukrainian exports. As a result, Ukrainian grain continued to actively increase in price relative to the world market in 2025, losing its own competitiveness (see Figure 60). In addition to the grain surplus in the world, the decline in sea logistics and rail transportation costs, as well as low domestic yields—which had formed a price premium on the domestic market—helped reduce the gap between Ukrainian and world prices. Though the relative increase in prices is positive for Ukrainian grain and oilseed producers, it negatively affects the profitability of domestic grain processing and the livestock industry. Moreover, oversaturation in the grain trading market has reduced its margins over the past two years.

⁵ For the harvest of corn, sunflower and soybeans in 2025, the Ministry's estimates as of early August 2025 are used.

In 2024, Ukraine's state support policies shifted back toward the pre-2022 structure. The government reinstated capital investment programs (25% compensation for machinery purchases; 50% compensation for irrigation modernization), extended war-time programs (e.g., horticulture development), and reintroduced smallholder measures first launched in 2022 (payments per head of cattle, sheep, and goats). A notable policy shift was targeted crop producer support in war zones,⁶ modeled on the 2021 program compensating for harvest losses after the Odesa heatwave. Although not limited to smallholders, this mechanism mitigated war-related shocks, particularly acute in frontline areas where farmers face both direct attacks and heightened economic losses compared to central and western regions.

In 2025, the government plans to maintain core support pillars (see Table 7): direct grants for livestock farms, compensation for construction and modernization of animal facilities, and increased reimbursement for machinery purchases. Irrigation support is broadened, with both farmers and water-user organizations eligible for up to 50% cost compensation. New measures also target vegetable storage operators, who will gain access to preferential loans under the 5-7-9 program, aimed at stabilizing market conditions following the sharp vegetable price spike of 2024.

Table 7. Fiscal sector forecast

	2018	2019	2020	2021	2022	2023	2024	2025
Machinery	33.6	24.8	54.1	36.3	...	...	21.8	29.0
Farmers support	7.5	16.1	4.9	4.4	...	...	...	...
Livestock producers support	87.9	94.1	38.6	59.0	10.0	...	20.7	45.7
Irrigation and climate	4.6	...	...	...	...	...	1.0	4.8
Niche production support	3.8	...	...	...	...	...	...	...
Horticulture/perennial crops	14.5	15.4	10.8	18.8	1.8	11.3	11.9	4.0
Grants per ha	50.9	...	...	...	39.6	...	48.6	92.8
Partial credits fund	0.3	10.0	...	...	...	...	10.9	...
Total	203.1	160.4	108.4	118.5	51.4	11.3	114.9	176.3

**Data for 2025 based on budget programs; amount will be paid out in early 2026*

⁶ Active warfare areas (border with Russia, front-line areas): ~\$50/ha; Possible warfare areas (bordering active warfare areas): ~\$25/ha