



UKRAINE MACROECONOMIC HANDBOOK

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EXECUTIVE SUMMARY

KSE Institute's *Ukraine Macroeconomic Handbook* covers the macroeconomic trajectory for 2026–29, analyzing the remainder of the full-scale war as well as the post-war reconstruction and recovery period. **The forecast for key indicators across various sectors of Ukraine's economy** is shown in Table 1.

- **Intensified Russian attacks on Ukraine's critical infrastructure and productive capacity in recent months have substantially worsened the economic outlook and amplified major risks to macroeconomic stability.** Strikes on ports, logistics infrastructure, energy facilities, and industrial assets are disrupting production and exports, with particularly severe consequences for the agricultural and metallurgy sectors. As a result, the economy is now projected to contract by 0.3% in 2026 and 0.6% in 2027, compared to growth of 1.9% and 2.1%, respectively, in our Q3 2026 forecast. By the end of the forecast period in 2029, the economy is projected to be ~6% smaller than previously expected. The deterioration in economic activity also weighs on fiscal revenues and complicates Ukraine's ability to sustain the war financially.
- **Ukraine's financing needs have increased substantially, and significant additional external support will remain necessary even after the war ends.** The budget financing gap is now estimated at USD 99.5 billion over 2026–29, taking into account support from existing commitments and planned financing instruments—an increase of USD 32.1 billion compared to our Q3 forecast. This increase primarily reflects weaker economic activity and fiscal revenues resulting from intensified Russian attacks, as well as additional repair and reconstruction needs. At the same time, defense spending needs remain exceptionally high and will only decrease gradually after the war, while the capacity to finance the budget through domestic borrowing is assessed to have diminished. Crucially, these estimates assume that the war ends in H2 2027; a longer conflict would substantially increase financing needs and render the projected financial support insufficient.
- **The deteriorating economic outlook and widening trade gap are creating additional challenges for macroeconomic management, particularly for monetary and exchange-rate policy.** The National Bank of Ukraine (NBU) faces an increasingly difficult trade-off between containing inflation and supporting economic activity. Growing disruptions to production and logistics are adding to inflationary pressures even as economic activity weakens, warranting further monetary tightening and delaying easing to late 2027. At the same time, maintaining exchange-rate stability remains critical to anchoring inflation expectations and preserving confidence in the hryvnia. The NBU's ability to manage these competing pressures will depend heavily on the timely provision of external financial support, which is essential for sustaining international reserves and limiting pressure on the exchange rate.

The forecast presented in Table 1 and discussed in more detail below is based on the assumption that the fiscal financing gap resulting from the longer war will be covered by currently uncommitted foreign loans.

Economic Activity: Attacks on Productive Capacity Push the Economy into Contraction

Intensified Russian strikes on ports, energy, and industrial facilities are turning growth negative: real GDP is now **projected to decline by 0.3% in 2026 and 0.6% in 2027**, compared with +1.9% and +2.1%, respectively, in the Q3 forecast. The recovery is then expected to lift growth to **4.4% in 2028 and 5.0% in 2029**. In 2026, the blockade of the Greater Odesa ports and the shutdown of steelmaking collectively reduce real **exports** by 7.4%, while grain and metal products that cannot be shipped accumulate in **inventories** (+3.4 pp), partly offsetting the immediate loss in output. Household consumption is still resilient in 2026 (+6.2%) but loses momentum in 2027 (+1.7%) as real wage growth deteriorates as consumer and producer prices rise. **Government consumption** supports domestic demand while the war continues, largely financed by partners and with much of it absorbed by **war-related imports**, which subtract 9.2 pp from growth in 2026 and keep the import share of GDP above 60% through 2027. Once hostilities end, the main sources of growth become reconstruction, returning labor supply, and the normalization of defense and energy

imports; **investment** is projected to rise to ~25% of GDP in 2028 from a pre-war average of ~15%, while agriculture, energy, and construction will rebound at double-digit rates as logistics and damaged capacity are restored.

Table 1: Forecast for key indicators

	2021	2022	2023	2024	2025	2026f	2027f	2028f	2029f
Real GDP growth, %	3.4	-28.8	5.5	2.9	1.8	-0.3	-0.6	4.4	5.0
Nominal GDP, UAH bn	5,451	5,239	6,628	7,659	8,899	9,826	11,186	12,888	14,727
Nominal GDP, USD bn	200.6	160.5	181.2	190.2	213.4	220.3	233.7	254.2	289.1
Budget bal. x/grants, %GDP	-3.6	-26.7	-26.8	-24.0	-24.6	-33.5	-38.1	-20.9	-15.6
Budget fin. gap, USD bn	...	...	...	...	...	2.0	33.7	34.9	28.9
State debt x/ ERA, % GDP ¹	43.3	71.6	79.9	83.7	87.3	87.5	94.9	105.9	108.1
Headline inflation, % avg.	9.4	20.2	12.8	6.5	12.7	9.1	13.0	8.9	7.4
Exchange rate (USD), avg.	27.3	32.3	36.6	40.2	41.7	44.5	47.8	50.6	51.0
Policy rate, % avg.	7.5	18.6	22.4	13.7	15.3	15.5	16.8	13.2	11.2
Curr. acc. x/ grants, % GDP	-2.8	-6.9	-13.6	-15.7	-20.8	-32.2	-41.9	-29.4	-19.2
External fin. gap, USD bn	0.2	2.3	-11.4	-2.9	-11.4	-6.9	3.8	11.8	-1.0
Total reserves, USD bn	30.9	28.5	40.5	43.8	57.3	64.2	60.4	48.6	49.6
Unemployment rate, % avg.	9.9	20.6	18.2	13.1	11.0	10.0	10.3	11.5	8.9
Real wage growth, % avg.	11.5	-14.0	4.5	16.7	8.3	12.6	1.7	9.0	9.9

¹Based on assumption that financing gap will be closed with loans.

State Budget: Attacks on Economic Activity Create New Financing Gap

Russian attacks have weakened the economy, reduced tax revenues, and increased expenditure needs, contributing to a **budget financing gap of USD 99.5 billion over 2026–29**, USD 32.1 billion above the Q3 forecast. The financing gap materializes this year, amounting to **USD 2.0 billion in 2026**. The budget deficit is projected to surpass the previous forecast's estimate by USD 20.2 billion over 2026–29, cumulatively totaling (excluding grants) USD 261.2 billion. Over the duration of the forecast period, the destruction of productive capacity lowers **tax revenues** by USD 18.4 billion. **Defense and security spending** is projected to increase by USD 21.3 billion compared to the Q3 forecast, largely reflecting increased bilateral military assistance, bringing its value up to 55% of GDP in 2027. Meanwhile, local budgets will remain balanced or in surplus throughout the forecast period. Securing **additional external support**, preferably as grants or highly concessional financing, will be essential to preserve Ukraine's fiscal sustainability and to avoid a destabilizing fiscal adjustment.

State Debt: Loan-Financed Gap Lifts Debt above 100% of GDP Already in 2027

Ukraine's state debt, which stood at UAH 9.4 trillion (USD 210 billion) in August 2026, is projected to continue rising in nominal terms throughout the forecast period, with its **trajectory determined by the form of external support**. In the baseline, where concessional loans cover the USD 99.5 billion financing gap over 2026–29, the debt-to-GDP ratio (including contingent instruments) increases from 98.5% in 2025 to 106.7% in 2027 and 118.4% in 2029, marking a 17 pp of GDP increase over the Q3 forecast by the end of the period. The wider financing gap, a weaker hryvnia, and lower nominal GDP all push the ratio up. If partners instead cover the gap with grants or contingent instruments, the ratio continues its present decline, easing to ~85% in 2029 (~76% excluding ERA). The 30+ pp divergence by the end of the forecast horizon between these two assumptions underlines the central role that the form of external support plays.

Balance of Payments: Export Disruptions Widen the External Deficit

The **blockade of the Greater Odesa ports** is the leading driver of Ukraine's **substantially weakened external outlook**. Combined with the growing need to replace lost domestic production with imports and changes in the timing of foreign financing, we now expect **exports** to be USD 25.8 billion lower over 2026–29 than in the Q3 forecast.

Excluding grants, we project the **current account deficit** to increase by USD 26.0 billion over 2026–29 relative to the Q3 forecast, and for **international reserves** to end 2029 USD 19.4 billion lower. Official financing remains the primary source of **foreign capital inflows**, while private investment will only begin to recover after the war. As before, Ukraine's external outlook remains dependent on financial support from partners, as a delay or shortfall in financing would translate directly into lower reserves and/or force a reduction in imports, including those needed for defense.

Inflation: Worsening Inflation Set to Remain above 10% through 2027

The inflation outlook has **worsened considerably** since the Q3 forecast, now expected to **plateau above 13%** through Q3 2027 due to a series of pressures in fuel, core, food, and administered prices. The cost of producing, storing, and delivering goods has risen amid Russia's infrastructure strikes, and firms have little room to absorb these costs. Core inflation is projected 3 pp above the Q3 forecast at its peak (12.7% in Q1 2027) and is now expected to remain above 11% through Q3 2027. Food inflation is projected to rise to 14.0% by Q3 2027—more than 4 pp higher than in the Q3 forecast—as farmers reduce their sown areas and fertilizer use for the 2027 harvest in response to their 2026 losses. But despite five consecutive quarters of inflation above 10%, we **do not foresee an inflationary spiral** as real wage growth stalls.

Monetary Policy: Two More Hikes Expected to Keep Inflation in Check

Broad-based price pressure led the NBU to **front-load its tightening in Q3** when it raised the KPR to 15.5% in July and 16% in September, earlier than expected. While it softened its signaling in September, we forecast that it will **raise the KPR twice more in 2026**—by 0.5 pp in October and December to reach **17%**—and hold it there until inflation steadily turns down starting in Q3 2027. This **tighter-for-longer stance** helps to avoid sharp exchange rate depreciation and an inflation spiral at the cost of a delayed easing cycle and a smaller reserve buffer. Once inflation declines durably, the NBU is expected to cut rates rather quickly.

Exchange Rate: Maintaining Stability Depends on Timely External Financing

The exchange rate path—which fundamentally remains a policy path—is **weaker than in the Q3 forecast** and the draft 2027 budget (now at 48.9 USD/UAH in Q4 2027), reflecting intensified Russian strikes on logistics, industry, and critical infrastructure. The **hryvnia's recent nominal stability has increasingly rested on interventions**, with USD/UAH trading within its narrowest quarterly range in Q3 (averaging 44.7) after a crawl-like depreciation in H1 2026. Delays in foreign financing, including due to slippage in reforms that are linked to tranche disbursements, would make the exchange rate anchor costlier and raise the risk of an abrupt adjustment. Moving forward, **risks to the exchange rate path are tilted toward a weaker hryvnia**, primarily through the FX gap and its financing.

Labor Market: Real Wage Growth Stalls as Unemployment Begins to Rise

The **wage growth trajectory has slowed sharply** since the Q3 forecast, with Russian attacks constraining firms' margins and weakening economic activity. Real wages are forecast to rise 12.6% in 2026 but only 1.7% in 2027. **Labor demand** has already begun cooling, and the downward trend in unemployment will end in Q4 2026 and reverse in 2027, when it is projected to average 10.3% (+0.8 pp from the Q3 forecast). **Labor market weakness** is concentrated most in sectors targeted by Russian strikes—e.g., **metallurgy, mining, port logistics, and export-oriented agribusiness**—which are, in turn, concentrated in Dnipro, Zaporizhzhia, and Odesa oblasts. Post-war demobilization is projected to bring unemployment up to a peak of 13.4% in Q2 2028, but post-peak absorption is expected to be rapid, ending 2028 at ~9%.

Special Features: Adverse Scenario, Demography and Labor Productivity, and Reform-Linked Financing

The first special envisions an adverse scenario where the consequences of the H2 2026 **infrastructure shocks persist and escalate** through the end of 2027, including Greater Odesa and Danube port closures and halted steel and iron exports, **reducing real GDP growth by 1.6 pp in 2026 and 6.0 pp in 2027** relative to the baseline. The second special draws on KSE Institute's cohort-component population model to conclude that Ukraine will have fewer workers in 2030 than today, meaning that the growth path will **require labor productivity to rise 2.6 times**

faster than it did in 2011–21. The third special maps the four reform-linked financing models—the Ukraine Facility, EU macro-financial assistance, the IMF program, and the World Bank’s development policy operations—and finds that **USD 28 billion are tied to reform delivery by the end of 2027**. The main delays are concentrated in steps that require action from the Rada, and part of this funding can be lost permanently if there is slippage.

ASSUMPTIONS

Formulating assumptions is a major challenge given the extraordinary situation that Ukraine has been facing for more than four years. In particular, the war’s future trajectory remains highly uncertain, even though it is the key factor influencing virtually all macroeconomic indicators and policy decisions in Ukraine and abroad. Assumptions underlying the analysis and forecast for 2026–29 in the *Ukraine Macroeconomic Handbook* reflect expert judgments by the KSE Institute team and are summarized in Table 2 and the accompanying text.

For the purposes of the Q4 forecast, KSE Institute maintains the assumption that the full-scale war will end in H2 2027. The path from the current situation to serious negotiations, a ceasefire, and a lasting peace agreement is not linear. The war could end earlier if Russia’s economic and fiscal position deteriorated faster, Ukraine’s strikes on military logistics and energy infrastructure intensified further, or Ukraine’s partners stepped up their diplomatic and economic pressure on Russia. However, it is more likely that considerable time will pass before the Kremlin deems the cost of continuing the war unsustainable, and that a lasting ceasefire or peace agreement will require lengthy negotiations once Moscow demonstrates a genuine willingness to end the war. The intensification of Russian strikes on Ukrainian ports, logistics infrastructure, and industrial facilities leaves this timeline unchanged but considerably raises the economic costs during the remainder of the war and throughout the post-war recovery.

Table 2: Foreign financial support

USD billion	2021	2022	2023	2024	2025	2026	2027	2028	2029
Macrofinancial support	7.5	31.3	42.4	41.4	50.3	44.9	23.5	17.3	17.1
Ukraine Support Loan ¹	...	...	...	...	...	19.3	16.0	...	...
ERA	...	...	...	1.0	36.1	8.7	1.3	...	...
EU (MFA and Facility)	...	8.0	19.4	17.4	11.8	9.3	2.3	...	...
IMF programs	0.7	2.7	4.5	5.3	0.9	2.9	1.9	1.3	1.1
EU MFF 2028–34 ²	...	...	...	...	...	...	...	16.0	16.0
Other ³	6.8	20.6	18.5	17.7	1.5	4.7	2.0	0.0	0.0
Uncommitted support⁴	...	...	...	...	...	2.0	33.7	34.9	28.9
<i>Memo: USL defense comp.¹</i>	...	...	...	...	...	32.7	37.5	...	...

¹We assume that EUR 30 billion will be provided in the form of macro-financial assistance or through the Ukraine Facility, while the entire EUR 60 billion for defense-industrial capacity building will go through the state budget as well. ²EUR 100 billion are expected to be provided within the 2028–34 EU multiannual financial framework (MFF), which has not been adopted yet; the total is evenly distributed between years. ³Includes funds provided through the World Bank. ⁴Funding needed to fill the budget financing gap but not yet secured.

The Q4 forecast requires specific assumptions about the extent and duration of disruptions to Ukraine’s infrastructure and productive capacity caused by intensified Russian strikes. The baseline assumes that these attacks will continue until the end of the full-scale war, constraining production, exports, and investment through H1 2027. The forecast assumes that the ports of Greater Odesa, which handled 42.4 million tonnes of cargo in H1 2026 (56% of which agricultural), will remain commercially closed until Q3 2027 following the suspension of vessel calls on July 23, 2026. Alternative routes through the Danube ports, rail border crossings, and road transport can absorb only part of the displaced exports, with the remainder expected to be stored in Ukraine. Since agricultural output can still be produced and stored, the forecast treats the port closure primarily as a disruption to exports

rather than a corresponding loss of productive capacity. Steel production is expected to remain suspended at several key plants until Q2 2027, following a 57% y-o-y decline in output in August 2026. Together with an expected reduction of 12 million tonnes in iron ore exports, these disruptions are estimated to reduce annual export revenues in the mining and metals sector by about USD 3 billion. Domestically, suspended steel production will also constrain the expansion of defense manufacturing, as well as construction and machine building sectors.

Further large-scale Russian strikes on Ukraine's energy infrastructure are assumed during the coming winter, with the largest impact on economic activity concentrated in Q1 2027. Disruptions to electricity generation and distribution are expected to constrain industrial production and other economic activities. Russian attacks on business assets—including port terminals, warehouses, rail rolling stock, and facilities of Western-owned companies—have also become systematic. The resulting destruction of capital and heightened uncertainty are assumed to weigh on private investment until the end of the war.

Global energy prices are assumed to follow the U.S. Energy Information Administration's (EIA) September 2026 outlook, with Brent crude oil averaging USD ~90 per barrel in H2 2026, before declining to USD 74 in 2027 and USD 70–76 in 2028–29. This trajectory assumes that hostilities in the Middle East will not re-escalate to previous levels and that disruptions to global energy markets will subside gradually, although a substantial downside risk remains. Repairs to damaged refineries and LNG facilities, as well as the replenishment of strategic oil reserves in countries including China are expected to support prices in the near term. Once the Strait of Hormuz fully reopens, oil markets are expected to move into oversupply, containing inflationary pressures abroad and increasing economic and fiscal pressure on Russia. Inflation in Ukraine's trading partners is assumed to remain around 4% in H2 2026, before easing to 3.5% in 2027 and 3% from 2028.

Foreign assistance remains critically important for Ukraine's macroeconomic stability, budget, and balance of payments. The forecast assumes that Ukraine will receive USD 102.8 billion in already-committed or planned macrofinancial support over the forecast period (see Table 2). The most important sources are the EU's Ukraine Support Loan (USL), the current four-year IMF Extended Fund Facility (EFF) program, and funding from the EU's 2028–34 Multiannual Financial Framework (MFF). Of the USL, EUR 30 billion (USD ~35 billion) is provided as macrofinancial assistance and is partially channeled through the Ukraine Facility, while the entire EUR 60 billion (USD ~70 billion) for defense-industrial capacity building is allocated through the state budget. All USL funds, whose repayment is conditional on the receipt of reparations from Russia, are classified as grants and are therefore recorded as revenue instead of financing in the budget, and as part of the current account instead of the financial account in the balance of payments. Budget revenue ratios in this forecast therefore include USL inflows and are not directly comparable with sources that record the USL as borrowing.

The assumptions table also contains an “uncommitted support” item of USD 99.5 billion over 2026–29, which reflects the budget financing gap resulting from higher war-related costs and a deteriorating domestic economic environment. Additional repair and reconstruction needs following the Q3 2026 strikes on energy, logistics, and housing infrastructure have further widened this gap. We include this financing to ensure the internal consistency of the forecast, as the larger budget financing gap must be reflected across sectors. We assume that the gap will be covered by another USL-sized program. However, a further deterioration in economic conditions, an escalation of the war, and, in particular, a longer conflict could widen the financing gap further.

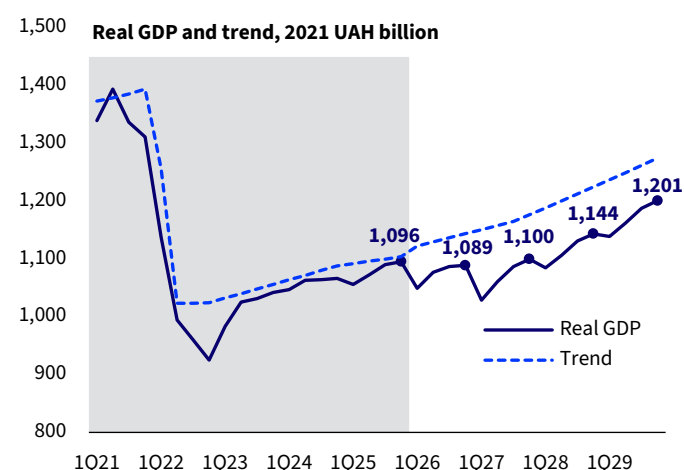
Risks to the forecast are considerable, as the war continues to shape virtually all dimensions of Ukraine's economic, financial, and political outlook. The risk environment has deteriorated significantly since the Q3 2026 edition, reflecting intensified Russian strikes and widespread damage to critical infrastructure and productive capacity. Attacks on infrastructure, persistent labor shortages resulting from adverse demographic developments (see [Special 2](#)), subdued private investment, and weak export performance are constraining economic activity and delaying the recovery. [Special 1](#) provides an assessment of the economic impact of disruptions to infrastructure and the metals sector. External vulnerabilities remain elevated, including uncertainty over the timely provision of

international support and a financing gap of USD 35.7 billion over 2026–27. At the same time, domestic challenges such as governance weaknesses, human capital losses, and limited institutional capacity weigh on the medium-term outlook. The implementation of the USL has reduced fiscal and external financing pressures, although substantial risks remain given Ukraine's dependence on external support and uncertainty about the war's duration. KSE Institute undertakes a comprehensive quarterly assessment of key risks facing Ukraine in the **Ukraine Risk Matrix**.

ECONOMIC ACTIVITY

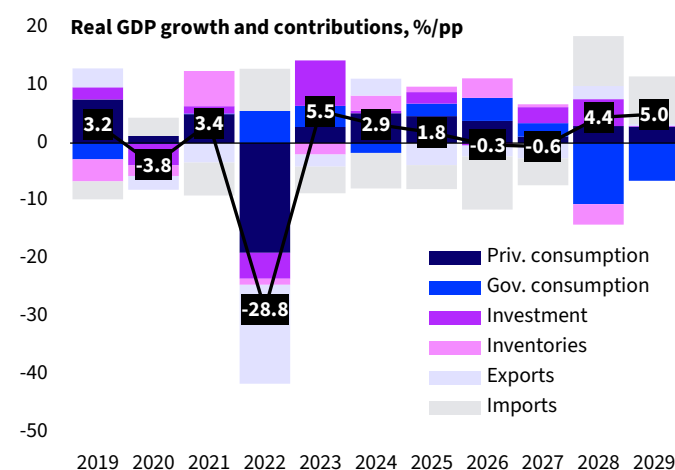
Russia's escalating attacks on ports, energy infrastructure, and industrial facilities are expected to weigh on economic growth in the near term. Real GDP is now projected to decline by 0.3% and 0.6% in 2026 and 2027, respectively, compared to the Q3 forecast's predictions of 1.9% and 2.1% growth. After hostilities end in H2 2027, growth is expected to accelerate to 4.4% in 2028 and 5.0% in 2029 (previously 4.5% and 5.6%) but the output gap will remain negative throughout the forecast horizon (see Figure 1). In 2026, disruptions to Black Sea and Danube exports and industrial production are weighing on growth, though the immediate GDP impact is partly offset by the grain and metal products accumulating in inventories while exports are blocked. Simultaneously, domestic output is not increasing to match domestic demand, much of which is being absorbed by partner-financed defense procurement and energy imports. In 2027, household consumption is projected to lose momentum as real wage growth slows, and disrupted logistics and damaged industrial capacity will continue constraining exports. Therefore, government consumption and publicly funded investment will become the main sources of growth, especially as elevated security risks and high borrowing costs suppress private investment. Assuming hostilities end in H2 2027, reconstruction, recovering household demand, and the gradual revival of exports will support a stronger expansion; the normalization of defense-related and energy imports will improve net exports' contribution to GDP growth.

Figure 1: Economic activity contracts in 2026–27, for the first time since 2022, under intensified strikes.



Source: SSSU, KSE Institute

Figure 2: Net exports and consumption pull growth down in 2026–27; import normalization lifts it after.



Source: SSSU, KSE Institute

Household consumption remains a key driver of growth in 2026 but is set to lose momentum in 2027 as real wage gains narrow. Following a 7.2% increase in 2025, household consumption continued to expand strongly, growing by 11.0% y-o-y in Q1 and 6.9% in Q2 2026, while retail turnover remained 8.8% higher y-o-y in January–August. Full-year consumption growth is projected to come in at 6.2% in 2026, supported by real wage growth of 12.6% amid persistent labor shortages. However, a significant share of additional household demand is likely to be met by imports, limiting its contribution to domestic production. In 2027, consumption growth is expected to slow to 1.7%. Nominal wages are projected to rise by around 15%, but rising inflation will cut real wage growth to 1.7% (down from 4.7% in the previous forecast). Meanwhile, repeated attacks on production facilities have

inflicted substantial losses on businesses, forcing some major employers to cut staff. Combined with higher energy and transport costs, these losses are likely to constrain household income growth and further weigh on consumption in 2027. Consumption is projected to recover by 3.9% in 2028 and 4.3% in 2029 as reconstruction supports labor demand and real wages rise by 8–9% annually. Persistent shortages of skilled workers could sustain wage pressures, while the return of migrants and veterans could expand the workforce and support household incomes. The consumption share of GDP is expected to remain close to 70% in the post-war period.

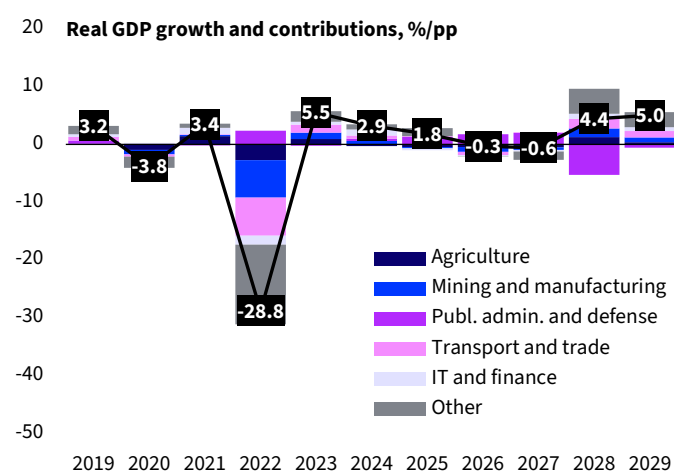
Government consumption remains the main support of domestic demand while the war continues and declines after it ends, although it stays above its pre-war share of GDP. It fell by 1.6% y-o-y in Q1 2026 and 1.5% in Q2, restrained by a lack of financing. From August, attacks on enterprises cut budget revenues, and by September the government was forced to limit spending on several items, mostly capital investments. New inflows are expected to ease these constraints in Q4 2026 and Q1 2027. Real government consumption is projected to grow by 10.3% in 2026 (about 22% in nominal terms), with its share of GDP rising to 43% (+4 pp from 2025). In 2027, ongoing wartime needs continue to make government consumption one of the main drivers of GDP growth. Nominal spending rises by around 20% (5.3% in real terms), lifting its share of GDP to 45.6%. Partners are expected to finance most of the increase, mainly through the EUR 45 billion Ukraine Support Loan tranche for 2027. Security and defense account for more than 70% of planned budget expenditure, and much of the military equipment is bought abroad, so part of this spending leaks into imports instead of domestic output. Once hostilities end, demobilization and lower military spending cut real government consumption by 23% in 2028 and 19.4% in 2029, reducing its share of GDP to 33.6% and 26%, respectively. It nonetheless stays well above the pre-war level of about 20%, as Ukraine will need to maintain a larger, combat-ready army while supporting veterans and displaced people.

Investment is expected to recover gradually, initially driven by public spending and external financing, before accelerating as post-war reconstruction attracts capital. Gross fixed capital formation grew by 7.3% y-o-y in Q2 2026, supported by repairs to roads, energy, and logistics infrastructure. However, public investment weakened in the second half of the year as cash shortages forced the government to prioritize defense spending. Engineering structures construction fell by 12.2% y-o-y in August, and public capital spending was suspended in September. Private investment also remained weak amid intensified attacks on production and logistics facilities, persistent war risks, and limited access to insurance, with FDI totaling only USD 1.2 billion in January–July. Investment is projected to subtract 0.5 pp from GDP growth in 2026, with its share of GDP at 19%. In 2027, it is expected to contribute 2.8 pp to GDP growth as external financing supports the resumption of public capital spending, particularly on energy repairs, fortifications, and defense-industrial capacity. Private investment is likely to remain subdued, however, amid security risks and high borrowing costs. Once hostilities end, large-scale reconstruction is expected to accelerate investment, contributing 4.7 pp to GDP growth in 2028 and raising its share of GDP to around 25%, considerably higher than its pre-war average of 15%. The pace of private capital recovery will depend on the availability of war-risk insurance and other investor-protection mechanisms, which will be more effective after the war than during it due to a significantly lower (yet still elevated over pre-war levels) risk environment.

Net exports remain a major drag on GDP growth as export disruptions and war-related imports widen the external imbalance, before import normalization supports growth after hostilities end. The suspension of vessel calls at Greater Odesa ports in late July sharply disrupted goods exports. In August, exports fell by 18.7% y-o-y in value and 39% in volume, with grain exports down 63% and ferrous metal exports down 66%. Black Sea shipping capacity cannot be fully replaced by alternative routes via the Danube, rail, and road, even while strikes have constrained metallurgical output. Some unshipped grain and metal products are expected to accumulate in inventories instead of being exported, which partly offsets the immediate impact on GDP. For 2026, real exports are projected to decline by 7.4%, subtracting 1.9 pp from GDP growth, while changes in inventories contribute 3.4 pp. Meanwhile, imports continue to rise, driven by defense procurement and energy purchases that compensate for damaged domestic capacity on an even larger scale than in previous years. In January–August, goods imports increased by 29% y-o-y, led by electrical machinery (+76%) and aircraft, including drones (+86%). Much of this

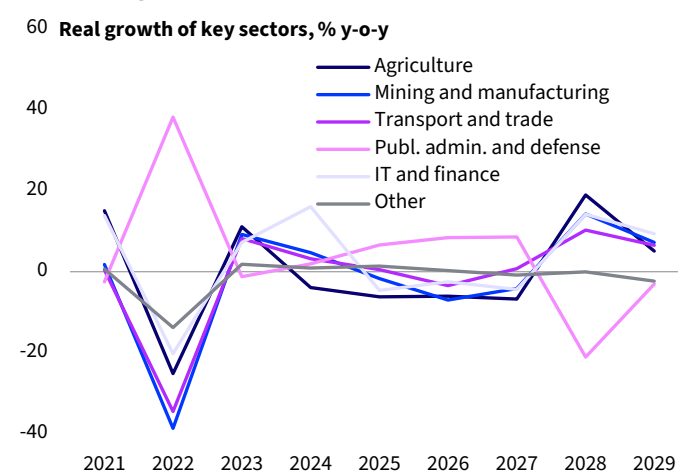
demand is financed by external partners, so higher public spending translates partly into imports and only partly into domestic output. Real imports are projected to grow by 17.8% in 2026 and 7.6% in 2027, subtracting 9.2 pp and 4.7 pp from GDP growth, respectively, and raising their share of GDP to 66.3% in nominal terms. Real exports are expected to fall by a further 11.4% in 2027, subtracting 2.7 pp from growth, as port disruptions persist, alternative logistics remain costly, and damaged metallurgical capacity takes time to restore. After hostilities end, the external balance is expected to improve as port access resumes and war-related imports decline. Exporters can begin shipping accumulated stocks and rebuilding market share, which lifts real exports by 10.9% in 2028 (+2.3 pp of GDP growth) and 1.6% in 2029 (+0.4 pp), while the drawdown of inventories subtracts 3.6 pp in 2028. At the same time, real imports are projected to contract by 13.1% and 14.9% in 2028–29, respectively, as exceptional defense and energy procurement needs ease, adding 8.7 pp and 8.2 pp to GDP growth. This import decline becomes the main source of GDP growth in 2028–29 (see Figure 2), while the import share of GDP falls to 44.7% by 2029.

Figure 3: Agriculture, metallurgy, and energy bear the brunt of 2026–27 losses, but lead the rebound.



Source: SSSU, KSE Institute

Figure 4: Metallurgy, mining, and energy post double-digit declines in 2026–27 due to attacks.



Source: SSSU, KSE Institute

A strong harvest is providing only a limited boost to the agricultural sector because sales and margins are constrained by export disruptions. Agricultural output was up 5.9% y-o-y in January–August but remained ~3% below its 2024 level. The suspension of vessel calls at the Greater Odesa ports in late July intensified export constraints—alternative routes cannot fully replace maritime capacity—leading grain export value to decline by 63% y-o-y in August. Agricultural value added is projected to decline by 6.0% in 2026 as the sector is pressured in both directions: farm-gate prices are depressed by the port blockade, while producers’ margins are compressed by fuel, logistics, and fertilizer costs. In volume terms, the strong harvest will keep sectoral output above its 2025 level, although real value added is projected to decline as producers face mounting cost pressures and disruptions to export logistics. The decline in real capacity (by 6.8%) will come in 2027, as weak margins constrain spending on inputs and sown area. Once hostilities end and maritime trade is restored, agricultural value added will strongly rebound by 19.0% in 2028, contributing 1.3 pp to GDP growth (see Figure 3), as export flows are renewed—including the release of accumulated stocks—and frontline land is returned to cultivation. Growth is then expected to moderate to 5.1% in 2029.

Industrial production has contracted as Russian strikes have expanded from logistics and energy infrastructure to include the direct destruction of production capacity. Production fell 6.1% y-o-y in August, with metallurgy down 48.6% y-o-y after strikes halted work Ukraine’s largest steel plants. Electricity, gas, and steam supply contracted by 12.7% y-o-y in January–August on the back of accumulated damage to generation and grid assets. Energy sector value added is projected to decline by 11.3% and 7.2% in 2026 and 2027, respectively, as repairs cannot keep pace with new strikes. The sector will benefit from a large post-war rebound—expanding by 27.0% in 2028 as damaged capacity is restored with donor support—which will serve as an enabler for the wider recovery (see Figure 4).

The mining and quarrying sector is under significant pressure, as the shutdown of steelmaking and export constraints spreads to ore mining. Mining output fell 8.8% y-o-y in August, reducing January–August growth down to 1.3%. Natural gas production, which has been boosted by efforts to fill storage before the heating season, has sustained the sector so far this year. Iron ore is the weakest segment: with most domestic steel capacity offline, producers depend more on exports, yet seaports remain blocked, leading ore exports to fall by 27% y-o-y in volume in January–August. Mining value added is projected to decline by 9.7% in 2026 and a further 8.3% in 2027, with CBAM adding pressure on carbon-intensive exports. After the war, reopened logistics, reconstruction demand, and investment in critical raw materials lift the sector by 23.1% in 2028 and 9.1% in 2029.

Manufacturing remains constrained as large losses in metallurgy outweigh growth in defense-related production. Total output fell by 3.9% y-o-y in August, with metallurgy collapsing by 48.6% after Russian attacks forced the shutdown of plants accounting for around 90% of Ukraine’s steel output. Meanwhile, fabricated metal products grew by 28.7% and computers, electronic, and optical products by 17.6%. Manufacturing value added is projected to decline by 6.0% and 2.7% in 2026 and 2027, respectively, as disrupted steel production and high energy and input costs weigh on output; defense orders financed through the Ukraine Support Loan will partially offset losses. Continued Russian attacks and damaged facilities will constrain recovery. After hostilities end, manufacturing is projected to grow by 11.2% and 6.5% in 2028 and 2029, respectively, supported by restored energy supply, resumed maritime exports, and reconstruction demand for steel, construction materials, and machinery. Some defense-industrial capacity may also shift toward civilian production and exports.

Construction follows the availability of external financing, shrinking during the war and expanding rapidly once reconstruction starts. Construction output fell 9.9% y-o-y in January–August, with civil engineering down 13.7%, as budget-funded infrastructure works were the first to be cut when external disbursements were delayed. Construction value added is projected to decline by 9.7% in 2026, as suspension of public capital spending in September weighs on activity through the end of the year, while private developers rely increasingly on their own funds and housing demand remains weak. In 2027, the sector contracts by a further 9.9%. Ukraine Support Loan funds will go mainly to defense, energy repairs, and fortification works, leaving little for broader infrastructure, while continued strikes and high construction costs hold back private projects. After the war, construction is set to grow by 39.3% in 2028, driven by large-scale rebuilding of housing destroyed or damaged during the war, as well as roads, bridges, energy, and other infrastructure financed by partners and reconstruction funds. Growth will then level off at 1.5% in 2029 from the much higher base, although the sector stays at elevated levels as the reconstruction program continues.

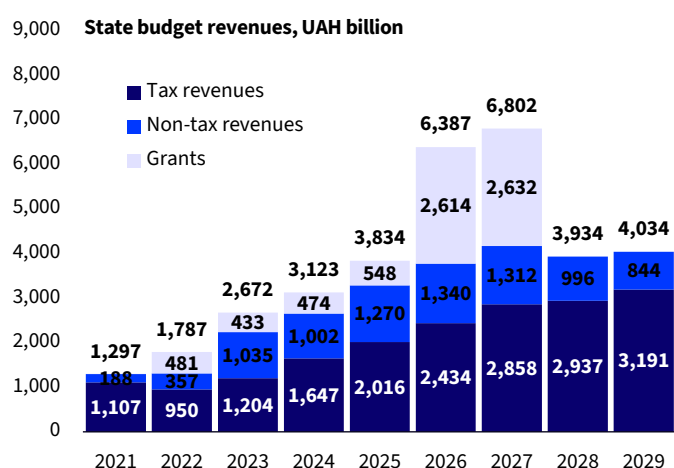
Transport is adjusting to the loss of seaport capacity, but alternative routes cannot fully offset the disruption to export logistics. In August, freight volumes and turnover fell by 6.5% and 11.2% y-o-y, respectively. Rail transport contracted sharply, with volumes down 28.5% and turnover down 27.7%, reflecting Russian attacks on locomotives and railway infrastructure, as well as weaker export cargo flows. Road freight volumes rose by 23.6%, partly compensating for the decline, but alternative routes remain costlier and less efficient. Transport value added is projected to decline by 6.8% in 2026 and 2.0% in 2027, as continued seaport disruptions and damage to railway infrastructure constrain freight activity despite gradual adaptation through road and Danube routes. Following the end of hostilities, the sector is expected to grow by 13.3% in 2028 and contribute 0.5 pp to GDP growth, as maritime links recover and accumulated grain and metal stocks are shipped. Growth is projected to moderate to 5.1% in 2029, with transport remaining a key enabler of the broader economic recovery.

STATE BUDGET AND FINANCING

The budget financing gap over 2026–29 rises to USD 99.5 billion, up from USD 67.4 billion in the Q3 2026 forecast, as Russian attacks weaken the economy, reduce tax revenues, and increase expenditure needs.

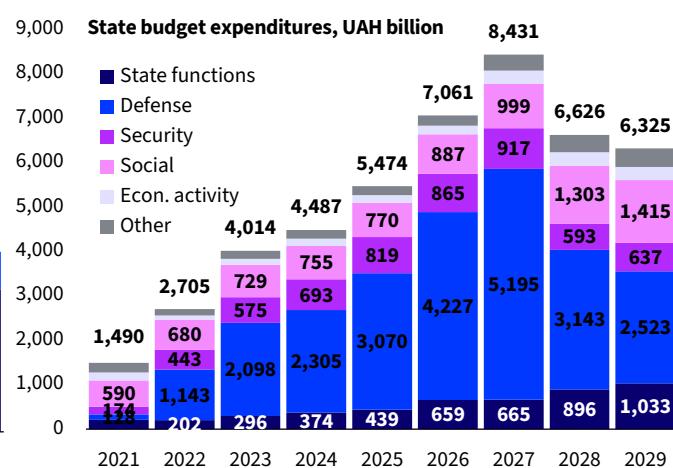
This includes a financing gap of USD 2.0 billion in 2026 (see Table 3). The destruction of productive capacity and export logistics infrastructure lowers tax revenues by USD 18.4 billion over the forecast period. Defense spending also rises—by USD 21.3 billion—but this reflects additional bilateral military assistance, which increases non-tax revenues by an even larger amount while also allowing domestic budget resources to be redirected toward other expenditures. The defense portion of the USL, previously recorded as non-tax revenues, is now classified as grants, changing the composition of budget revenues without affecting their total. Other expenditures rise by USD 7.8 billion over 2026–29 to support businesses and repair assets damaged by strikes on production and logistics. Together, these developments widen the projected deficit by USD 20.2 billion. The remaining USD 11.8 billion of the increased budget shortfall largely reflects reduced domestic financing capacity, as the weaker economy and high borrowing costs limit the scope for domestic bond issuance.

Figure 5: Revenues are revised up but shift in composition, with tax collection hit by downturn.



Source: Ministry of Finance, KSE Institute

Figure 6: Defense spending increases due to bilateral assistance, and total spending outstrips revenues.



Source: Ministry of Finance, KSE Institute

Tax revenues are projected to be USD 18.4 billion lower over 2026–29 than in the Q3 forecast, reflecting the destruction of productive capacity and export logistics caused by intensified Russian attacks. Strikes on ports, logistics, energy, and production infrastructure disrupt output and trade, increase business costs, and reduce taxable profits (see [Economic Activity](#)). The shortfall persists into 2028–29 because damaged capacity is restored only gradually. Tax revenues are projected at UAH 2.4 trillion in 2026 (UAH 141 billion below the Q3 forecast), UAH 2.9 trillion in 2027 (UAH 168 billion below), UAH 2.9 trillion in 2028 (UAH 161 billion below), and UAH 3.2 trillion in 2029 (UAH 179 billion below). Even with these disruptions, their share of GDP is projected to increase from 22.7% in 2025 to 25.5% in 2027, supported by inflation, wage growth, and the continuously renewed higher taxation of banks. In 2028, however, nominal tax revenue growth slows to just 2.8%, below inflation, and the ratio falls to 21.7% of GDP by 2029.

Import VAT, corporate income tax, and personal income tax are particularly affected by changes in economic activity and wartime fiscal policies. Domestic VAT and excise revenues reflect nominal consumption (see [Economic Activity](#)) and the scheduled increases in tobacco and fuel excise rates toward EU levels (as well as attacks on tobacco and alcohol facilities). Import VAT peaks at UAH 768 billion in 2027 and declines to UAH 664 billion in 2029 in line with nominal imports (see [Balance of Payments](#)). PIT and military levy receipts remain near UAH 756 billion in 2027–28 before rising to UAH 888 billion in 2029, supported by wage growth and the assumed taxation of income earned through digital platforms. The baseline includes the higher taxation of banks in 2026–27, the scheduled excise

increases, and the digital-platform measure, but excludes improvements in customs administration and the removal of VAT exemptions for low-value postal shipments, which would generate additional revenues if implemented.

The reclassification of the USL's defense portion from non-tax revenues to grants shifts USD ~70 billion between revenue categories, while bilateral military assistance is expected to be higher than previously projected. The August 2026 budget execution data show that both the defense and macrofinancial portions of the USL are recorded as grants. This reclassification reduces non-tax revenues by UAH 3.1 trillion and increases grants by the same amount, leaving total revenues unchanged. Higher bilateral military assistance is expected to offset the reduction in non-tax revenues, with additional support of USD 35.5 billion over 2026–27 relative to the Q3 forecast. Non-tax revenues are therefore projected at UAH 1.3 trillion in both 2026 and 2027, before declining to UAH 1.0 trillion and UAH 0.8 trillion in 2028 and 2029, respectively. At the same time, grants reach UAH 2.6 trillion in both 2026 and 2027 before dropping to zero in 2028–29 as committed grant-based support mechanisms expire. Together with the aforementioned reduction in tax revenues due to the disruptions to economic activity, this means that total state budget revenues are projected to reach UAH 6.4 trillion in 2026, UAH 6.8 trillion in 2027, followed by UAH 3.9–4.0 trillion in 2028–29, when domestic revenue collection will carry most of the burden (see Figure 5).

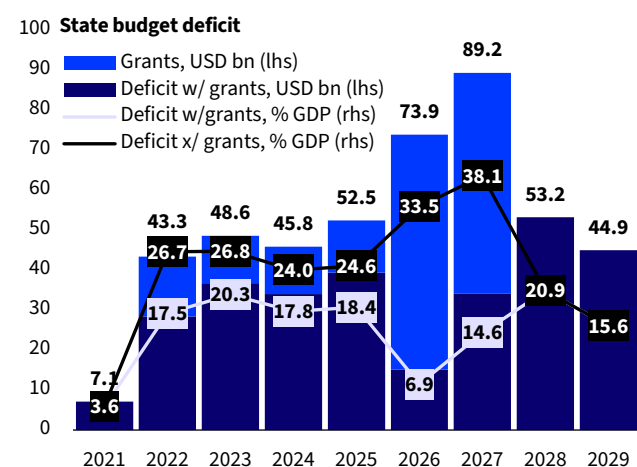
Defense and security spending is projected to increase by USD 21.3 billion over 2026–29 relative to the Q3 forecast, reflecting additional bilateral military assistance, while spending excluding this support declines marginally. Spending reaches UAH 5.1 trillion in 2026 and UAH 6.1 trillion in 2027, an increase of 31% and 20% y-o-y, respectively, bringing defense and security expenditures to 55% of GDP in 2027, compared with 44% in 2025. The additional spending absorbs about four-fifths of the higher bilateral military support, while the remainder allows domestic budget resources to be redirected toward business support, repairs, and administrative costs. Despite the additional assistance, the budget remains short of resources for the current military effort: by the end of August 2026, the uncovered financing need within the state budget's general fund for military personnel remuneration and related payments was estimated at UAH 400–450 billion (USD 9.0–10.1 billion). After the assumed end of the full-scale war in 2027, defense and security spending falls to UAH 3.7 trillion in 2028, but remains at 29% of GDP, before falling further to UAH 3.2 trillion (22% of GDP) in 2029, reflecting large-scale demobilization, lower procurement, and a decline in international military assistance. Timing and scale of this adjustment depend on security conditions and the resources required to maintain military readiness, while some wartime commitments—including veterans' support and the replenishment of equipment—will remain elevated for several years.

Social spending remains broadly unchanged relative to the Q3 forecast, while other expenditures increase by USD 7.8 billion over 2026–29 to support businesses and repair damaged assets. Social spending is projected to stay at UAH 0.9 trillion in 2026 and rise to UAH 1.4 trillion by 2029 as support for veterans and internally displaced persons remains a priority. Other expenditures reach UAH 1.1 trillion in 2026 and UAH 1.3 trillion in 2027, about UAH 110 billion per year above the Q3 forecast throughout the forecast period. The government is already facing constraints within this expenditure category: in September 2026, the Ministry of Finance postponed part of the planned capital expenditure and introduced temporary restrictions on budget appropriations to keep commitments in line with available resources. Such measures protect defense, debt service, wages, pensions, and social assistance, but repeated deferrals of public investment raise the longer-term cost of the war. Altogether, total state budget expenditures are projected to reach UAH 7.1 trillion in 2026, UAH 8.4 trillion in 2027, followed by UAH 6.6 trillion and UAH 6.3 trillion in 2028 and 2029, respectively, as spending declines following the end of the war (see Figure 6).

The budget deficit is projected to increase by USD 20.2 billion over 2026–29 relative to the Q3 forecast, with the deterioration spread relatively evenly across the four years. The state budget deficit, including grants, is projected at UAH 0.7 trillion (USD 15.1 billion, 6.9% of GDP) in 2026, UAH 1.6 trillion (USD 34.1 billion, 14.6% of GDP) in 2027, UAH 2.7 trillion (USD 53.2 billion, 20.9% of GDP) in 2028, and UAH 2.3 trillion (USD 44.9 billion, 15.6% of GDP) in 2029. Excluding grants, the deficit is projected at UAH 3.3 trillion (USD 73.9 billion, 33.5% of GDP) in 2026 and UAH 4.3 trillion (USD 89.2 billion, 38.1% of GDP) in 2027. In 2028 and 2029, it is identical to the numbers

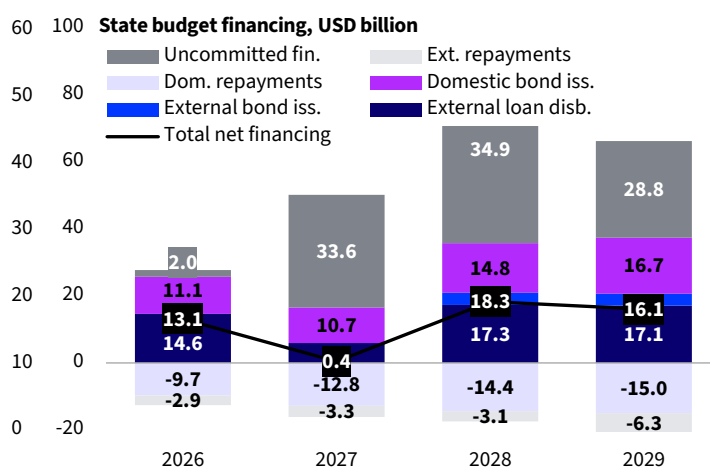
above as no grants are expected to be received (see Figure 7). These figures are not directly comparable to our Q3 forecast because the defense portion of the USL was previously recorded as non-tax revenues rather than grants.

Figure 7: The deficit has deteriorated but is kept in check in 2026–27 by the Ukraine Support Loan.



Source: Ministry of Finance, KSE Institute

Figure 8: Additional foreign support is critical for budget, as financing gap has grown to \$100 billion.



Source: Ministry of Finance, KSE Institute

Domestic financing capacity has weakened, reducing the scope for government bond issuance over 2026–29 and contributing to an overall USD 11.8 billion reduction in projected financing relative to the Q3 forecast.

The Ministry of Finance's wariness of current borrowing costs and the deterioration in economic activity, which reduces the resources available to domestic investors, constrain the funding through domestic bond issuance. As a result, domestic borrowing is expected to contribute less to budget financing than previously projected. Smaller adjustments to other financing sources also contribute to the downward revision, increasing the amount of external support needed to cover the projected deficit. At the same time, financial support from partners is broadly in line with the Q3 forecast, with revisions largely contained to disbursement timelines.

Closing the widening financing gap will require substantial additional external support beyond existing commitments, with USD 99.5 billion needed over 2026–29.

The revised forecast shows a **financing gap of USD 2.0 billion already in 2026**, compared with an overfunding of USD 4.0 billion in the Q3 forecast. In 2027, the gap reaches USD 33.7 billion, up from USD 23.5 billion previously and close to the USD 32.6 billion of external financing needed in the draft 2027 State Budget (see Figure 8). Over 2028–29, it totals USD 64.0 billion, compared with USD 48.0 billion in the previous forecast. These estimates assume that the full-scale war ends in H2 2027. A longer conflict would substantially increase financing needs and render projected support insufficient. Closing the gap will depend on securing new financing instruments and ensuring timely disbursements under existing commitments, including those conditional on legislation under the Ukraine Facility (see [Special 3](#)).

The fiscal outlook is subject to significant downside risks from a longer war and potential shortfalls or delays in external financing.

A longer war would raise defense spending and reduce tax revenues relative to the baseline, while further strikes on infrastructure would increase the need for business support and repairs (see [Special 1](#)). The forecast also assumes that bilateral military assistance continues at its current pace. If this support declines after the USL, as anticipated in the previous forecast, defense spending would have to be reduced or the financing gap would widen. Delays in external disbursements, including those conditional on legislation under the Ukraine Facility and the IMF program, would create immediate financing pressures given limited domestic borrowing capacity. The electricity price freeze for households adds further pressure, with costs borne by the energy sector and, indirectly, the state. Timely adoption of the legislation required under existing financing commitments is therefore essential to securing the disbursements assumed in the baseline (see [Special 3](#)).

Table 3: State budget forecast

	2021	2022	2023	2024	2025	2026f	2027f	2028f	2029f
<i>State budget, UAH bn</i>									
Total revenues	1,297	1,787	2,672	3,123	3,834	6,387	6,802	3,934	4,034
in % of GDP	23.8	34.1	40.3	40.8	43.1	65.0	60.8	30.5	27.4
Tax revenues	1,107	950	1,204	1,647	2,016	2,434	2,858	2,937	3,191
Non-tax revenues	188	357	1,035	1,002	1,270	1,340	1,312	996	844
Grants	1	481	433	474	548	2,614	2,632	0.0	0.0
<i>Memo: USL</i>	...	...	...	...	...	2,126	2,555	...	...
Total expenditures	1,490	2,705	4,014	4,487	5,474	7,061	8,431	6,626	6,325
in % of GDP	27.3	51.6	60.6	58.6	61.5	71.9	75.4	51.4	42.9
Defense & security	302	1,586	2,672	2,997	3,889	5,092	6,113	3,736	3,160
Overall balance	-193	-918	-1,342	-1,364	-1,639	-674	-1,629	-2,693	-2,291
in % of GDP	-3.5	-17.5	-20.3	-17.8	-18.4	-6.9	-14.6	-20.9	-15.6
Balance x/ grants	-195	-1,399	-1,776	-1,838	-2,187	-3,288	-4,261	-2,693	-2,291
<i>Financing, UAH bn</i>									
Domestic financing						61	-102	22	85
Debt issuance						493	510	750	850
Repayments						431	612	728	765
External financing						523	124	903	735
Debt issuance						0	0	182	183
Loan disbursements						651	282	876	872
Repayments						128	158	155	320
<i>Financing, USD bn</i>									
Needs						15.1	34.1	53.2	44.9
Sources						13.1	0.4	18.3	16.1
Gap						2.0	33.7	34.9	28.9

STATE DEBT

Ukraine's prolonged war has driven substantial borrowing to finance defense and other critical budgetary needs, resulting in a sharp increase in public debt. However, the pace of state and state-guaranteed debt accumulation slowed markedly in 2026, as limited external disbursements and a large share of grant support kept the overall debt stock broadly stable. As of August 2026, state debt reached UAH 9.4 trillion (USD 210 billion) and will continue rising in nominal terms over the forecast period. The trajectory of state debt will depend not only on the scale of financing needs but also on the terms of their coverage, as financing the remaining gap through loans rather than grants would result in a significantly higher debt burden over the forecast period. The fact that USL financing—the most important instrument of financial support in 2026-2027—currently carries no effective debt-service burden has a significant positive impact on the public debt trajectory.

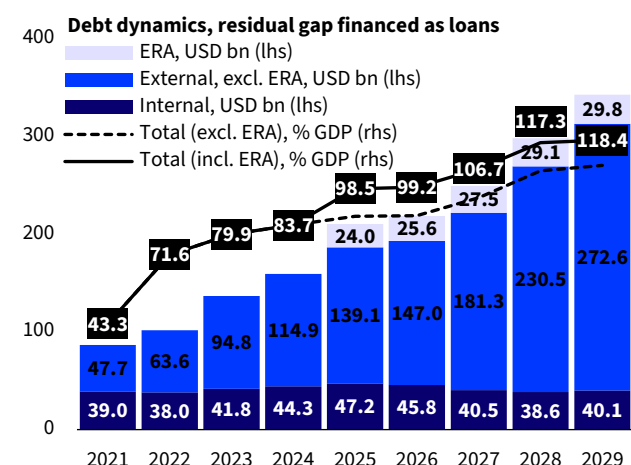
Our baseline treats the uncommitted financing as loans, bringing the debt-to-GDP ratio including contingent instruments above 106% by 2027. The trajectory is about 17 pp of GDP higher by 2029 than in the Q3 2026 forecast (118.4% vs 101.4%), as the financing gap rose to USD 99.5 billion from 67.4 billion on higher war-related spending and lower revenues (see [State Budget and Financing](#)), while the weaker hryvnia raises the value of the FX-denominated stock and lower nominal GDP shrinks the denominator. The residual financing gap is sizable, at USD 2 billion in 2026, USD 33.7 billion in 2027, USD 34.9 billion in 2028, and USD 28.9 billion in 2029.

With the financing gap fully covered through borrowing, the state debt-to-GDP ratio would increase from 98.5% in 2025 to 99.2% in 2026, then rise more quickly to 106.7% in 2027 and to 118.4% in 2029 (see Figure 9).

If international partners cover the remaining financing gap through grants or contingent instruments, the debt-to-GDP ratio will continue its downward trajectory throughout the forecast period. Under this alternative scenario, the ratio excluding ERA falls to 76.4% by 2029, extending the decline already underway. Including ERA, the ratio peaked at 98.5% in 2025, then gradually eases to 84.9% by 2029 (see Figure 10). By the end of the forecast period, the gap between the two scenarios exceeds 30 percentage points of GDP, highlighting financing as the most decisive factor by which international partners can influence Ukraine's medium-term debt trajectory.

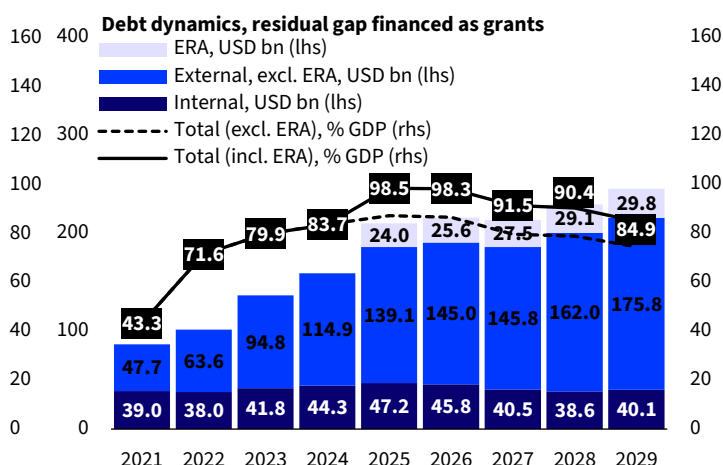
High state debt poses a long-term risk to fiscal sustainability. Debt service pressures remain limited over the forecast period, thanks to concessional financing terms and deferred repayment obligations. However, these arrangements do not eliminate the underlying liabilities. As war-era borrowing accumulates, debt repayments and refinancing needs will increasingly constrain fiscal space in the post-war period, making debt management critical to long-term fiscal stability. The USL carries no debt service in the baseline because repayment is due only from Russian reparations, so it does not burden the budget whether reparations are paid or not; the open question is its statistical and legal classification, which is why the ratio is shown both including and excluding contingent instruments.

Figure 9: Loan financing of the gap lifts the debt ratio, making debt situation unsustainable.



Source: Ministry of Finance, KSE Institute

Figure 10: Grant financing decreases the ratio to 84.9% of GDP by 2029, approaching IMF benchmark.



Source: Ministry of Finance, KSE Institute

LOCAL AND CONSOLIDATED BUDGETS

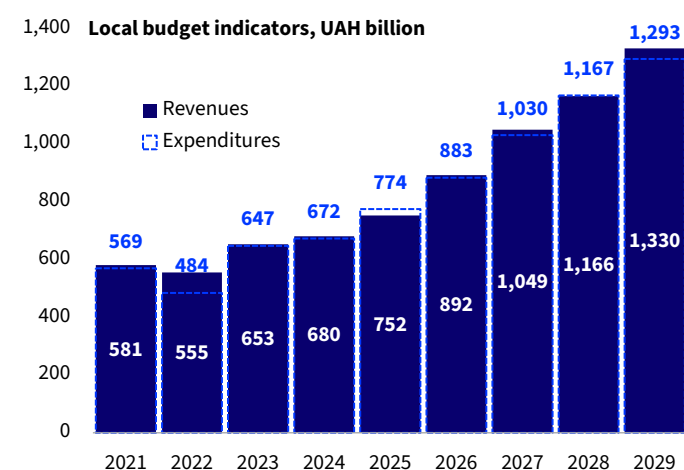
Local budgets will remain balanced or in surplus throughout the forecast period—revenues and expenditures were each revised up by UAH 20–30 billion compared to the Q3 forecast—meaning that the deterioration in public finances since July is almost entirely occurring at the state-level. Local expenditures are projected to reach UAH 1,030 billion in 2027 and UAH 1,293 billion in 2029, compared to UAH 9,066 billion and UAH 7,168, respectively, in the consolidated budget (see Figure 11 and Figure 12). Education remains the largest source of growth, driven by higher remuneration for teachers and cultural institution employees, which is meant to address persistently low salaries in a sector that has been passed over for more urgent priorities in municipalities' expenditures. Aggregate spending on culture is unlikely to match the rise of salaries, however, as municipalities are expected to rationalize inefficient networks of institutions and contain costs, leaving culture as a small share of total local expenditures.

Transport infrastructure will remain a spending priority, as municipalities face growing pressure to maintain local connectivity and support economic activity during and after the war. Spending on economic activity is projected to increase, including via the partial restoration of the State Road Fund in the draft 2027 state

budget. The poor condition of many roads—combined with their importance for military logistics, the movement of goods, and access to essential services—would make further postponement increasingly costly. Moreover, the extent to which municipalities can actually address these needs will depend not just the availability of funding, but also the prioritization of projects and the predictability of revenues, including transfers.

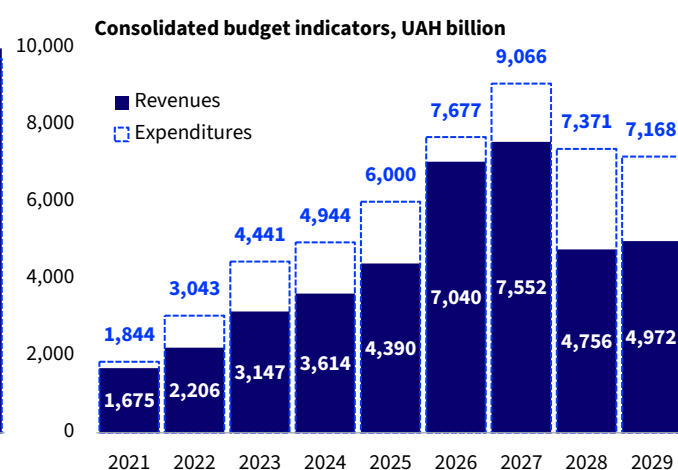
Local budget revenues are expected to remain relatively robust, supported by wage growth and changes in tax collection. Local revenues are projected to reach UAH 1,049 billion in 2027 and UAH 1,330 billion in 2029, coming in above expenditures throughout the forecast period. Personal income tax receipts will benefit from a larger wage base, including from higher salaries for teachers and cultural-sector employees, as well as from wage growth in the private sector. Property tax receipts are also set to improve thanks to intensified efforts from authorities to strengthen tax collection. Stronger growth in single tax revenues will be supported by the postponement of decisions regarding mandatory VAT registration for individual entrepreneurs. However, the trajectory of revenues will ultimately depend on labor market developments, the resilience of local businesses, and the effectiveness of tax administration; differences in local economic activity will continue to shape municipalities' capacity to finance their expenditures.

Figure 11: Local budgets remain in balance or surplus throughout the forecast period.



Source: Ministry of Finance, KSE Institute

Figure 12: The consolidated budget is largely driven by state budget dynamics.

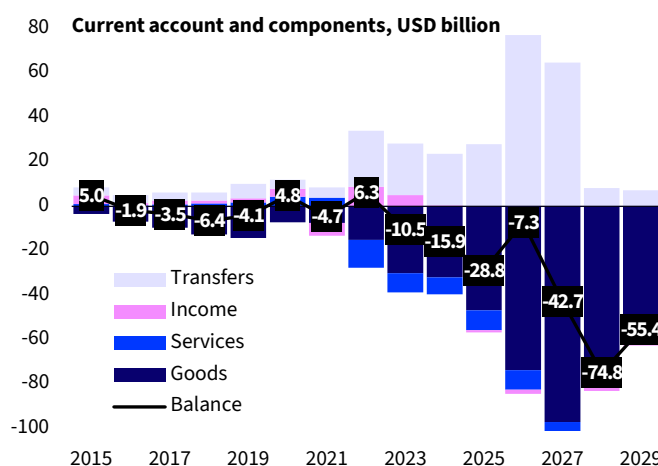


Source: Ministry of Finance, KSE Institute

BALANCE OF PAYMENTS

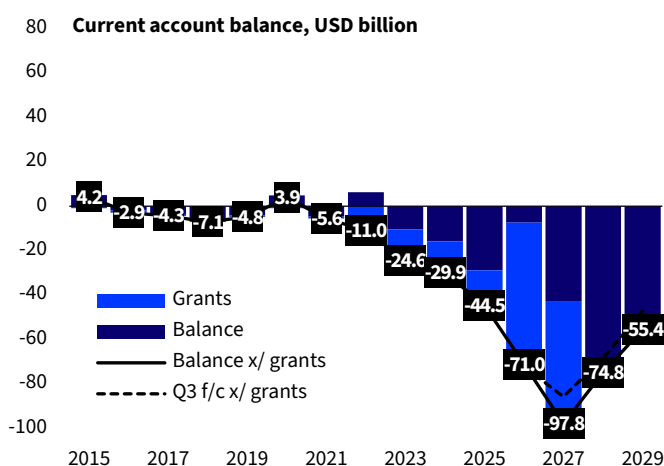
The blockade of the Greater Odesa ports, the growing need to replace lost domestic production with imports, and changes in the timing of foreign financing substantially weaken Ukraine's external outlook relative to the Q3 forecast. The suspension of vessel calls at Greater Odesa since late July, combined with continued strikes on energy and logistics infrastructure, will weigh heavily on goods exports, which we now expect to be USD 25.8 billion lower over 2026–29 than in the Q3 forecast. The NBU's retrospective revision of balance of payments data (based on updated customs data on postal and express shipments) lowered goods imports for 2025 by USD 4.8 billion and narrowed the current account deficit by USD 4.6 billion. As a result, our forecast, which is essentially unchanged in the cumulative 2026–29 level, implies considerably faster growth from the revised base, as Ukraine needs to replace lost domestic production (most notably of metals) with imports and continue buying fuel and equipment to restore the energy system. Part of the foreign financing and the corresponding imports are shifting into 2027–28, while we now include USD 99.5 billion in uncommitted financing over 2026–29 (compared with USD 67.4 billion over 2027–29 in the Q3 forecast; see [Assumptions](#)).

Figure 13: USL grants contain the current account deficit in 2026; underlying pressures peak in 2027.



Source: NBU, KSE Institute

Figure 14: Current account deficit excluding grants to approach USD 100 billion in 2027.

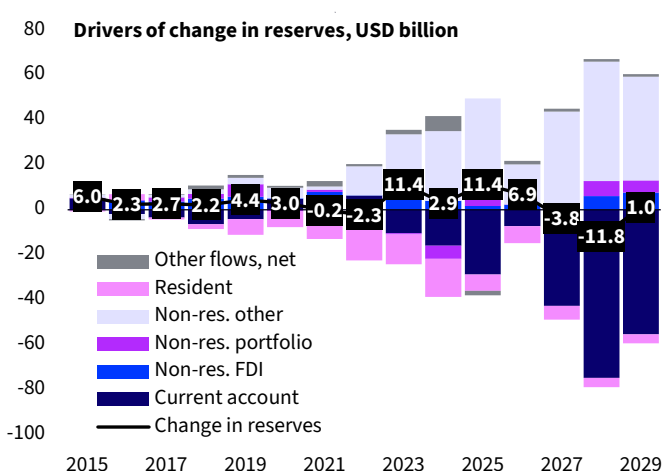


Source: NBU, KSE Institute

The current account deficit excluding grants is projected to increase by USD 26.0 billion over 2026–29 relative to the Q3 forecast, while international reserves at the end of 2029 are expected to be USD 19.4 billion lower.

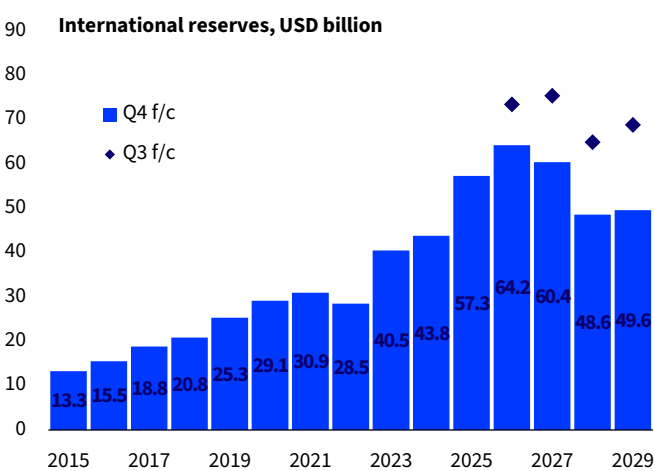
USL grants of USD 52.0 billion keep the headline current account deficit contained at USD 7.3 billion in 2026, but it widens to USD 42.7 billion in 2027, USD 74.8 billion in 2028, and USD 55.4 billion in 2029, with the two final years of the forecast period driven by absence of grant disbursements (see Figure 13). Excluding grants, the deficit increases from USD 44.5 billion (20.8% of GDP) in 2025 to USD 71.0 billion (32.2% of GDP) in 2026 and USD 97.8 billion (41.9% of GDP) in 2027, before narrowing to the aforementioned levels in 2028–29, which represent 29.4% and 19.2% of GDP, respectively (see Figure 14). For 2026, the underlying deficit is broadly in line with the Q3 forecast, as the revised import base and higher private transfers offset weaker exports; the deterioration is concentrated in 2027–29 (USD 26.4 billion cumulatively). As higher foreign inflows, primarily uncommitted financing, cover only part of this gap, we project reserves to increase to USD 64.2 billion at the end of 2026 but to decline thereafter, reaching USD 49.6 billion at the end of 2029—equivalent to 4.4 months of imports of goods and services (see Figure 15, Figure 16, and Table 4). While this remains above the conventional three-month benchmark, Ukraine would enter the recovery period with markedly thinner buffers. Any delay or shortfall in the provision of uncommitted financing would translate directly into lower reserves or force a reduction in imports, including those needed for defense.

Figure 15: Further deterioration of the trade balance puts additional pressure on reserves.



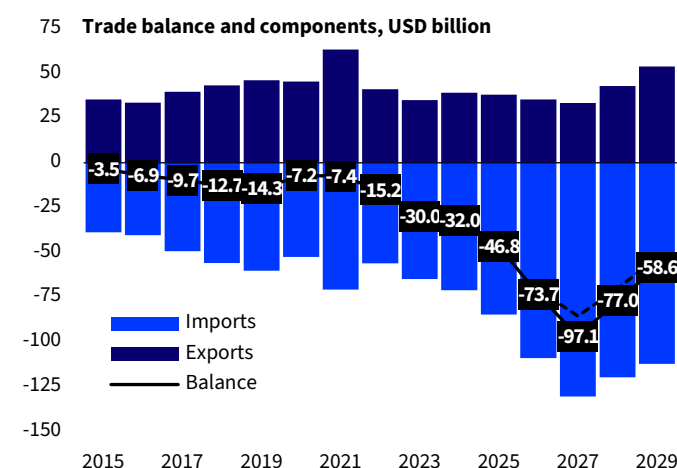
Source: NBU, KSE Institute

Figure 16: International reserves expected to decline to USD ~50 billion (~4.4 months of imports) by 2029



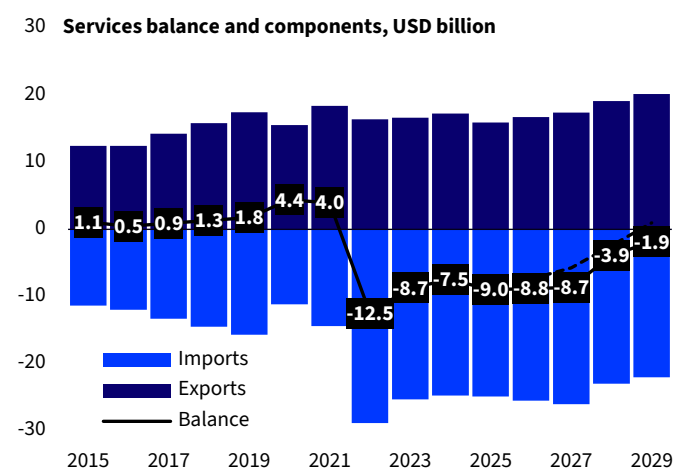
Source: NBU, KSE Institute

Figure 17: Trade deficit to widen sharply as exports weaken and imports surge in 2026–27.



Source: NBU, KSE Institute

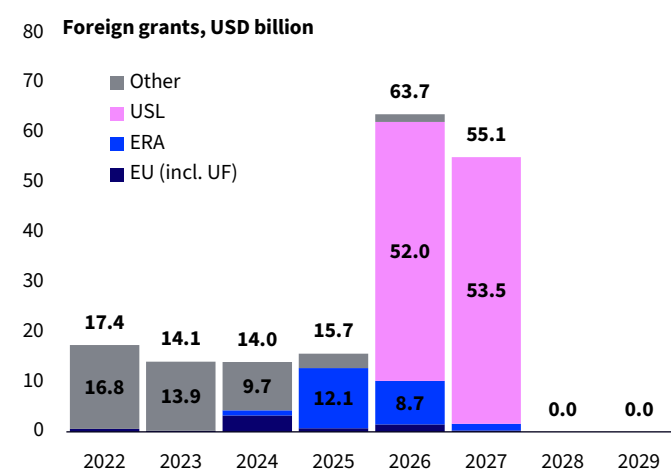
Figure 18: Services deficit to narrow only after the end of the war; no surplus by 2029.



Source: NBU, KSE Institute

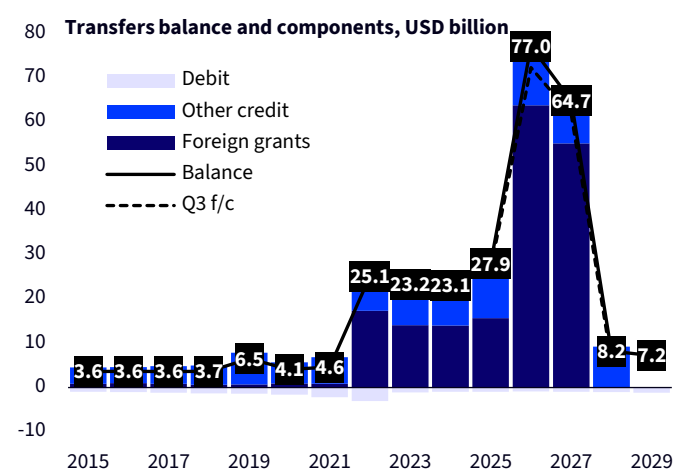
Goods exports are projected to be USD 25.8 billion lower over 2026–29 than in the Q3 forecast, reflecting the blockade of the Greater Odesa ports and continued Russian strikes, while import needs remain elevated despite a downward statistical revision to historical imports. Exports are projected to fall from USD 35.4 billion in 2026 to USD 33.4 billion in 2027, before recovering to USD 42.9 billion in 2028 and USD 53.9 billion in 2029. Over the forecast period of 2026–29, we therefore now project a cumulative decline in exports of more than USD 25.0 billion due to the intensification of Russian attacks on Ukrainian infrastructure and productive capacity, including in the areas of agricultural and metallurgy exports (see Figure 17). We expect that a comprehensive reopening of all trade corridors and the release of built-up inventories after the end of the war will allow for a bounce-back in exports starting in H2 2027, but that 2029 levels will still be under the previously-projected number (USD 56.6 billion). Imports are projected to increase from USD 109.1 billion in 2026 to USD 130.5 billion in 2027, before declining to USD 119.8 billion in 2028 and USD 112.4 billion in 2029. Foreign financing contributes to import demand both directly, through the procurement of weapons abroad, and indirectly, as Ukraine’s domestic production of drones, missiles, and other weapons relies heavily on imported components. Given the lead times of procurement contracts and deliveries, part of the spending shifts into subsequent years; imports will therefore remain elevated even after the end of the war.

Figure 19: Foreign grants dominated by USL disbursements in 2026–27.



Source: NBU, KSE Institute

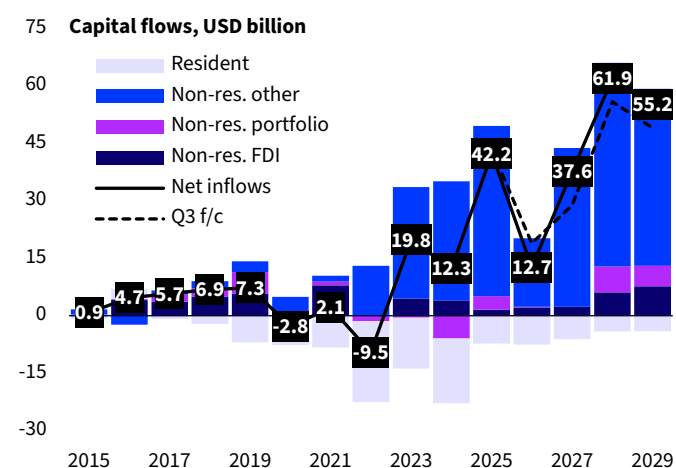
Figure 20: Transfers balance shaped by USL grants and higher private transfers.



Source: NBU, KSE Institute

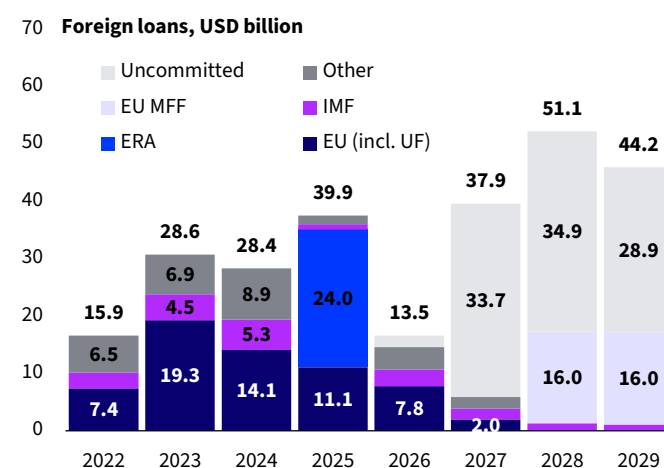
The services deficit is projected to increase by USD 8.6 billion over 2026–29 relative to the Q3 forecast, while higher private transfers partially offset the deterioration in the current account. We expect the services deficit to remain close to USD 9.0 billion in 2026–27 before narrowing to USD 3.9 billion in 2028 and USD 1.9 billion in 2029 (see Figure 18). Transport receipts will grow only modestly given weaker goods exports, while transport payments rise with goods imports. Travel spending abroad will decline gradually during the war and more decisively after it, as Ukrainians return home. Likewise, earnings of short-term workers abroad, which have declined this year, will recover after the war as travel restrictions are lifted and labor migration resumes, although higher dividend and interest payments will keep the income deficit at USD 1.7–2.2 billion per year. The transfers balance remains dominated by USL grants (USD 52.0 billion in 2026 and USD 53.5 billion in 2027; see Figure 19 and Figure 20).

Figure 21: Non-resident inflows to increase in 2027–29 on the back of uncommitted financing.



Source: NBU, KSE Institute

Figure 22: Foreign loans set to rise in 2027–29 if EU MFF and additional support are secured.



Source: NBU, KSE Institute

Official financing remains the main source of foreign capital inflows, with USD 99.5 billion in uncommitted support included in the forecast over 2026–29, while private investment is expected to recover only gradually after the war. Non-resident inflows will fall to USD 20.2 billion in 2026, as USL funds are recorded as grants rather than loans (see the discussion of this shift in the [Q3 edition](#)), before rising to USD 43.7 billion in 2027 and USD 66.0 billion in 2028 (see Figure 21). The most important driver of non-resident capital flow dynamics are public loans, which will increase from USD 13.2 billion in 2026 to USD 35.5 billion in 2027, when uncommitted financing is needed to close the budget gap. After the war, we assume EU support under the new MFF of USD 16.0 billion per year alongside further uncommitted financing (see Figure 22). These funds are not yet secured and are treated as foreign loans, although they could ultimately be provided as grants. FDI will remain weak during the war (USD 2.2–2.3 billion per year), as strikes on business assets weigh on investor sentiment, before recovering to USD 7.7 billion by 2029. We assume a return to the Eurobond market and to domestic bond purchases by non-residents from 2028, while resident outflows will moderate from USD 7.5 billion in 2026 to around USD 4.0 billion per year in 2028–29.

Table 4: External sector forecast

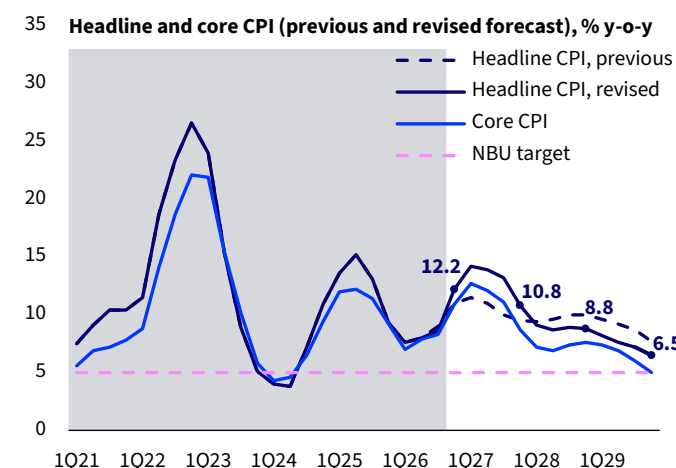
USD bn	2021	2022	2023	2024	2025	2026f	2027f	2028f	2029f
Current account balance	-4.7	6.3	-10.5	-15.9	-28.8	-7.3	-42.7	-74.8	-55.4
Excluding grants	-5.6	-11.0	-24.6	-29.9	-44.5	-71.0	-97.8	-74.8	-55.4
in % of GDP	-2.8	-6.9	-13.6	-15.7	-20.8	-32.2	-41.9	-29.4	-19.2
Goods balance	-7.4	-15.2	-30.0	-32.0	-46.8	-73.7	-97.1	-77.0	-58.6
Exports	63.4	41.1	35.1	39.2	38.0	35.4	33.4	42.9	53.9
Imports	70.8	56.2	65.0	71.2	84.8	109.1	130.5	119.8	112.4
Services balance	4.0	-12.5	-8.7	-7.5	-9.0	-8.8	-8.7	-3.9	-1.9
Income balance	-5.8	8.8	5.1	0.5	-1.0	-1.9	-1.7	-2.2	-2.2
Transfers balance	4.6	25.1	23.2	23.1	27.9	77.0	64.7	8.2	7.2
Foreign grants ¹	0.9	17.4	14.1	14.0	15.7	63.7	55.1	0.0	0.0
Non-res. capital flows	10.4	11.6	33.1	29.1	49.5	20.2	43.7	66.0	59.2
Direct investment	8.0	0.1	4.5	4.0	1.6	2.2	2.3	6.1	7.7
Portfolio investment	1.0	-1.4	-0.5	-5.9 ²	3.5 ²	0.2	0.0	6.7	5.3
Public Eurobonds	0.8	-0.3	-0.1	-5.3 ²	3.5 ²	0.0	0.0	3.6	0.1
Domestic gov. debt	0.2	-1.1	-0.4	-0.6	-0.1	0.0	0.0	2.0	2.9
Other investment	1.5	12.9	29.1	31.1	44.4	17.8	41.4	53.1	46.2
Public loans	0.9	15.3	28.0	27.6	37.7	13.2	35.5	48.1	41.2
Res. cap. flows (- = outfl.)	-8.3	-21.2	-13.3	-16.9	-7.3	-7.5	-6.1	-4.1	-4.0
Change in reserves	-0.2	-2.3	11.4	2.9	11.4	6.9	-3.8	-11.8	1.0
Total reserves	30.9	28.5	40.5	43.8	57.3	64.2	60.4	48.6	49.6
in months of imports	4.4	4.0	5.4	5.5	6.3	5.7	4.6	4.1	4.4

¹ Numbers for total grants provided to the general government from the NBU's balance of payments data; small discrepancies to KSE Institute's own accounting of grants under support programs for 2021–25. ² Reflects Eurobond restructuring.

INFLATION

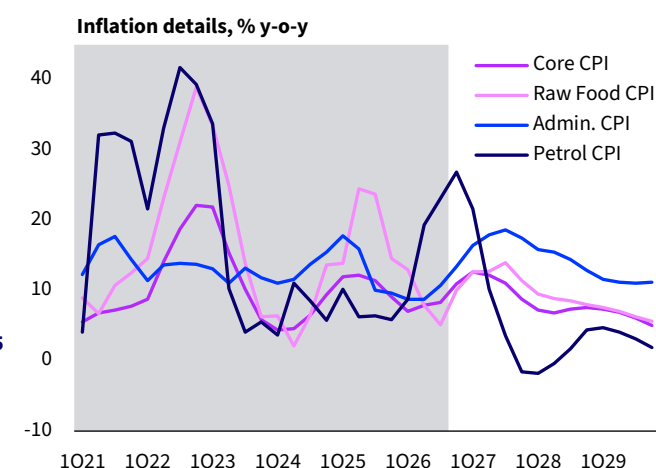
The inflation outlook has worsened considerably since the Q3 forecast, as fuel prices and the destruction of physical capital and logistics chains has compressed firms' profit margins and forced them to raise prices even as demand weakens, bringing headline inflation to 10% y-o-y in September. The cost of producing, storing, and delivering goods has risen on the back of Russia's ramped up strikes on infrastructure—including ports, railways, warehouses, and the energy sector—and the suspension of vessel calls at Greater Odesa ports since July 23. Because firms now have little room to absorb these costs, they will pass them on to consumers. While inflation came in below expectations in Q3 2026—8.6% y-o-y, below the 9.0% projected in the previous forecast—the relief came from temporary factors, including a favorable harvest and a grain surplus on the domestic market as a result of the port blockade. The more persistent components, core and fuel inflation, were already above the forecast (see **Error! Reference source not found.**); core prices rose by 2.0% in a single month in September, while producer price growth of 37.3% in August points to further pass-through. Thus, inflation is forecasted to peak at a higher level than in the Q3 edition and then remain above 10% throughout 2027. Nonetheless, inflation is forecast to largely converge back to the pre-revision path by the end of 2029.

Figure 23: Inflation peaks higher than previously forecast in 2027, then falls below the earlier path



Source: NBU, KSE Institute

Figure 24: Price pressures peak in sequence, keeping headline inflation elevated



Source: NBU, KSE Institute

Inflation is now projected to plateau above 13% through Q3 2027 due to a series of pressures in fuel, core, food, and administered prices. In the short-term, the broad-based momentum seen in September is expected to carry through October (~2% m-o-m) before monthly growth slows to ~1.2% to end 2026 (see Figure 24). While some of the annual growth rate can be attributed to a low base effect, large monthly increases reveal considerable underlying momentum; it is unlikely to fall back in early 2027, as the pressures peak in sequence. Fuel prices are projected to rise further, as oil prices and rising supply costs are passed through in Q4 2026, followed by core inflation, when another winter of strikes on energy infrastructure exacerbate pressures in Q1 2027. In Q3 2027, food and administered prices peak, partially owing to summer 2026's low prices dropping out of the annual comparison; we expect food and administered price inflation to continue rising and keep the headline rate near its peak for three quarters. Cost pressures are unlikely to be offset by weaker economic activity, since the contraction in GDP reflects lost capacity more than weaker demand, leaving the output gap no wider than previously forecasted.

Core inflation is forecast to accelerate to 12.7% in Q1 2027, as higher transport, storage, security,¹ and backup power costs feed into consumer prices. This places core inflation nearly 3 pp above the Q3 forecast at its peak and is now expected to remain above 11% through Q3 2027. Elevated fuel prices, which widely raise costs beyond transport itself, and persistent labor shortages (nominal wage growth remains above 16% into early 2027) reinforce the broad inflationary pressures. The expected cooling in consumer demand will likely reduce pro-inflationary pressure but it will not offset the ongoing supply-side shocks.

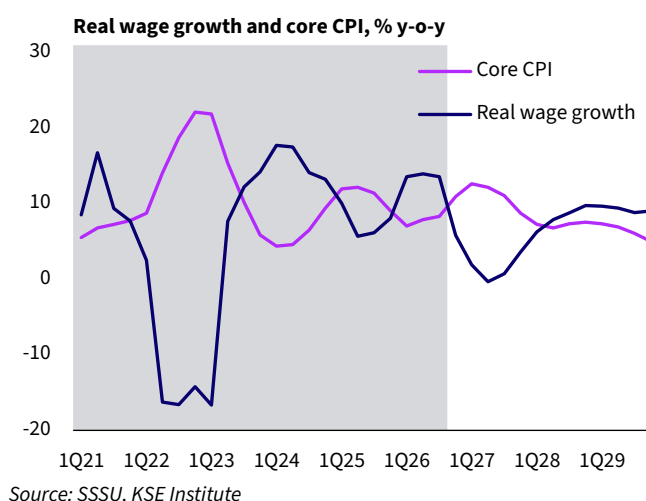
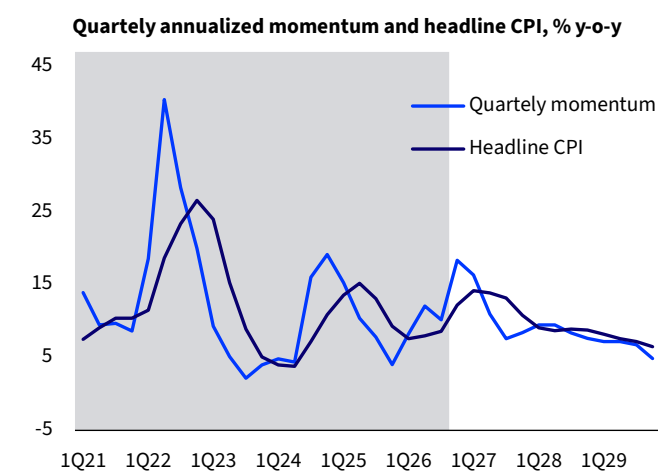
Food inflation is projected to increase in 2027 due to pressure on agricultural-producers that cannot export their goods and the resulting smaller harvest, as well as the low base from summer 2026 dropping out of the annual comparison. Food inflation averaged just 5.1% in Q3 (compared to ~24% a in Q3 2025), as a favorable harvest combined with the disruption of Black Sea port exports combined to leave an estimated 9 million tonnes of agricultural goods on the domestic market in H2 2026. The blockade's cross-cutting pressures on inflation—temporarily but minorly restraining food prices while raising costs elsewhere—have moderated overall levels thus far, but this relief is fading now that food inflation has rebounded and is projected to pass 10% in Q4 on base effects and higher costs for storage and logistics. Moreover, even if the blockade were to end soon, its effects will carry over into 2027's supply because farmers' losses in 2026 (due to unsold stocks and depressed domestic prices) are expected to reduce sown areas and fertilizer use for the 2027 harvest. This, in effect, transforms the temporary base effect into a supply shock that will persist, bringing food inflation up to 14.0% in Q3 2027, which is more than ~4 pp higher than in the Q3 forecast.

¹ Including the risk of physical destruction of assets, war risk insurance, the need to diversify operations, etc.

Administered price inflation is expected to peak in Q3 2027 as the tariff increase previously assumed for October 2026 is moved to 2027, while fuel inflation peaks at the end of 2026. The Q3 forecast assumed a stronger realization of the effects of water supply and waste management cost increases, leading to an overestimation of the Q3 rate (10.8%, projected at 15.0%). The revised baseline forecast assumes that the electricity price freeze for households will remain in place in 2026 but includes a tariff hike in 2027 due to mounting budget pressure; this would add ~1 pp to headline inflation. Additional price increases are expected in alcohol and tobacco prices (Russia has struck alcohol warehouses and tobacco factories), as well as water-supply tariffs. This leaves administered price inflation above 17% for most of 2027, making it the fastest-growing component, before it converges back to the Q3 forecast's trajectory starting in 2028. Fuel inflation, which assumes Brent at around USD 90 per barrel in H2 2026 (previously assumed USD 80–85) and costlier supply routes through the Danube and Baltic regions, is expected to decline in 2027 from its high base and partial normalization of global markets.

Inflation is projected to decline to ~9% in early 2028 and stay close to that level throughout the year, with the late 2026 price spikes dropping out of the annual comparison as global oil prices fall and war-related costs recede gradually. The Q4 2027 decrease is largely a base effect due to prices rising by 4.3% in Q4 2026, which is about twice the quarterly pace projected for late 2027. Once these increases are excluded from the comparison, the annual rate will fall, even absent a further slowdown in quarterly price growth; lower oil prices also contribute, with Brent projected to decline to USD 68 per barrel by Q4 2027. But the more persistent source of disinflation is relief from war-related costs, given that the baseline forecast assumes the full-scale war ends in H2 2027 and therefore halts Russian strikes on energy infrastructure, business assets, and export logistics. Because supply chains and damaged capacity will take time to restore, the relief will be gradual, and it will take until mid-2028 for core inflation to ease to about 7%. Moreover, uneven disinflation will keep headline inflation above the NBU's 5% target throughout the entirety of the forecast horizon. The trend will show up in annual price growth after quarterly rates, which will peak in Q4 2026 but be cut roughly in half by Q3 2027 even while annual inflation remains above 13% (see Figure 25).

Figure 25: New price pressure fades from early 2027, Figure 26: Real wage growth stalls as inflation peaks, limiting the risk of a wage-price spiral.



Despite five consecutive quarters of inflation above 10%, the baseline forecast does not anticipate an inflationary spiral. Elevated inflation expectations among businesses and households could become the primary channel through which cost shocks translate into persistent inflation, given their influence on price- and wage-setting. Expectations for the next 12 months remain elevated and vary considerably across groups. Businesses expect inflation to exceed 11%, while households report the highest, albeit highly volatile, expectations (14.1% in August). Financial analysts and banks have the lowest expectations (8–9%), with those of banks declining over the past year. Nevertheless, the baseline assumes that the NBU's monetary policy and slowing wage growth will keep inflation expectations in check. Nominal wage growth, while still high, is expected to slow through mid-2027

despite persistent structural labor shortages, as firms' ability to offer higher salaries is limited by damaged assets, power outages, and rising costs. Combined with accelerating inflation, this will reduce real wage growth from 12.6% in 2026 to just 1.7% in 2027 (see Figure 26). As economic activity loses momentum and purchasing power grows more slowly, wage pressures are unlikely to generate a second round of price increases, while weaker growth in consumer demand will limit firms' ability to pass higher costs on to customers. Imported inflation will also be moderated by the hryvnia's real appreciation in 2027, as annual nominal depreciation of 7–8%, moderated by NBU interventions, remains below domestic inflation. This is despite the hryvnia being weaker from Q2 2027 onward than projected in the previous forecast. These projections, however, depend on timely external financing, which is essential to preserving the NBU's room for monetary policy maneuver.

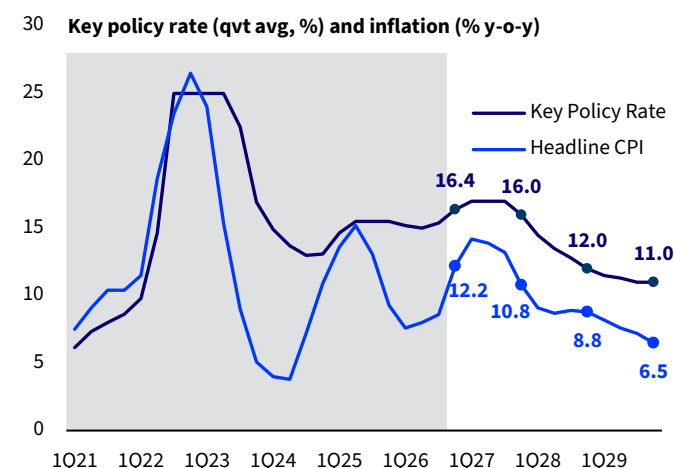
Inflation risks are skewed to the upside through 2027, particularly if the war continues beyond the assumed end date of H2 2027, global oil prices remain elevated, and/or external financing is delayed. The baseline forecast assumes that the primary sources of inflationary pressure will gradually dissipate, which makes the projected disinflation sensitive to their persistence (see [Special 1](#)). A longer war would postpone the reduction in logistics and energy costs and thus the deceleration in core inflation, as Ukraine would suffer another winter of strikes on energy infrastructure. Brent remaining near USD 90 per barrel would also prevent fuel inflation from turning negative in late 2027. Timely external financing will also be critical for sufficient FX interventions that the baseline forecast assumes in 2027; the entire forecast remains conditional on external financing arriving on schedule. As for expectations, prolonged double-digit inflation risks embedding themselves into household expectations, which respond to observed price increases. Risks are more balanced beyond 2027: an earlier end to the war would lower logistics costs and core inflation more rapidly; return migration and better skills matching could ease labor shortages; recovering agricultural exports could raise domestic food prices, albeit only marginally and without overwhelming the positive effects (see the *Ukraine Risk Matrix*).

MONETARY POLICY

KSE Institute expects the NBU to raise the key policy rate (KPR) twice more, by 0.5 pp in October and in December to reach 17%, and to hold it there until inflation steadily turns down in Q3 2027. Easing will then be swift: to 15% by end-2027, 12% by end-2028, and 11% in H2 2029 (see Figure 27). The KPR forecast revision is driven by a higher and more persistent inflation path, the risk of de-anchored expectations, and heightened FX market pressure. The NBU will nevertheless act flexibly: as inflation peaks and the risk premium stays high, it will let the real rate fall, and shift part of the burden onto heavy FX interventions, such that real monetary conditions soften around the turn of the year before tightening markedly in 2027. This tighter-for-longer stance avoids a sharp depreciation and an inflation spiral at the cost of a delayed easing cycle and a smaller reserve buffer.

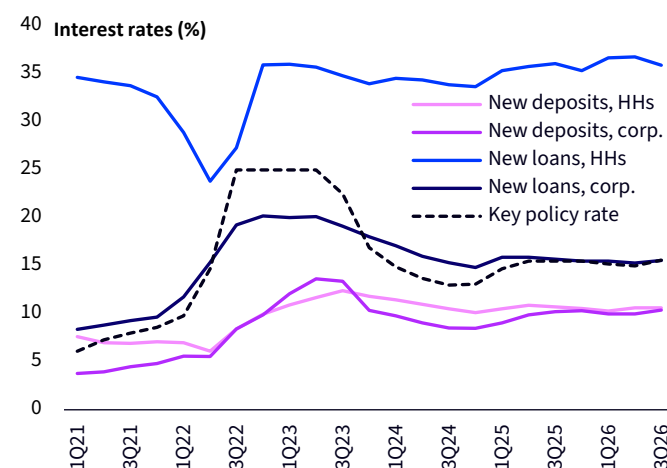
The NBU front-loaded tightening in Q3 but softened its signal in September. Citing persistent fundamental price pressure, second-round effects of supply shocks, and stronger medium-term pro-inflationary risks, it raised the KPR to 15.5% in July and 16% in September, which was earlier than we and many market participants had expected. Yet the September forward guidance was two-sided, opening the door to easing if a worsening security situation noticeably cools consumer demand and the labor market. The Monetary Policy Committee (MPC) mirrored the split, with three of ten members favoring a hold in September (two of eleven in July), and only two expecting another hike (see the *Ukraine Monthly Economic Update*, September 2026). Cooling consumer demand strengthens the doves' case but the combined effect of a jump in inflation (to 10.0% y-o-y in September, above the NBU's July path), the risk of further deterioration in already-elevated inflation expectations (households expect 14.1% over the next 12 months), and heightened FX-market pressure are likely to tip the balance toward further tightening.

Figure 27: Inflation and FX risks justify two more hikes and a long hold.



Source: NBU, SSSU, KSE Institute

Figure 28: Transmission to market rates is gradually gaining momentum.



Source: NBU, KSE Institute

Inflation is projected to peak above 14% in early 2027 and stay above 10% through the rest of 2027. Price pressure was already broad-based before the September jump: seasonally adjusted headline inflation ran at about 10% annualized rate in August,² and core prices rose 2.0% m-o-m in September. Core prices are being buoyed by the pass-through from logistics, energy, and labor costs, while fuel still remains expensive, food prices rebound after the summer relief, and regulated prices catch up. The port blockade contributes some disinflation by keeping grain on the domestic market but squeezed farm margins likely mean a smaller 2027 harvest. While cheaper fuel could help tame inflation, and the partial normalization of flows coming out of the Middle East is a positive sign, shipping through the Strait of Hormuz is unlikely to normalize before 2027, and even then, oil prices will be propped up as the world rebuilds its depleted oil inventories. Domestically, demand is slowed by strikes, air-raid alerts, power outages, and a cooling fiscal impulse; but because destroyed capacity and logistics disruptions are cutting supply, the cooling does not reverse the cost pressure. We therefore expect inflation at about 13% in December 2026 and about 11% on average in Q4 2027 (see the [Inflation section](#)), with risks tilted upward (see the **Ukraine Risk Matrix**). The KPR cannot remove a cost shock, but it can prevent it from spilling over into expectations, wages, and FX demand, so the NBU will need to signal convincingly that it will keep inflation under control—and then hold the rate at its peak until disinflation becomes sustainable, rather than easing as soon as inflation peaks.

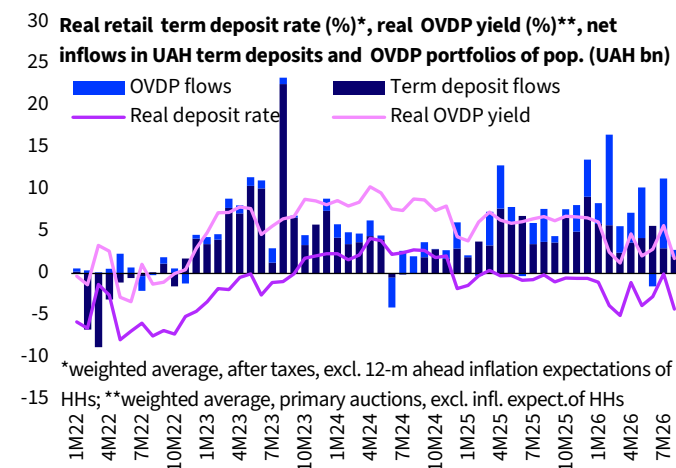
Household behavior shows that yields matter, so a higher KPR will help contain FX demand. Transmission stalled after the July hike (see Figure 28): liquidity was abundant, and adjustments to the operational framework increased banks' uncertainty about placing term funds in three-month NBU certificates of deposit (CD). But more cautious tender calibration and the NBU's repeated emphasis on keeping hryvnia assets attractive have since lifted rates on longer deposits. Meanwhile, rising household expectations pushed real after-tax deposit returns below zero: hryvnia deposits almost stalled, while FX deposits and purchases rose. Yet households kept buying tax-exempt OVDs, which still yield a positive real return (see Figure 29). Further hikes, passed through to deposit and OVD rates, will therefore restrain FX demand, provided the Ministry of Finance lets OVD yields follow the KPR.

The exchange rate remains one of the key factors restraining inflation, and the KPR is needed to keep it sustainable. Net FX interventions hit a record USD 5.5 billion in September, and we expect them to stay elevated in Q4, holding USD/UAH at about 45.8 on average (around 46.2 at end-2026 amid the usual December spike). Worse terms of trade, lower export earnings amid halted steelmaking and constrained port logistics, and a higher risk premium will then weaken the hryvnia gradually, to about 48.9 at end-2027 (see [Exchange Rate](#)). Interventions of this size rapidly

² KSE Institute estimates based on SSSU and NBU data. Monthly price indices are seasonally adjusted in log levels with X-13ARIMA-SEATS over January 2016–August 2026 (2022 neutralized with additive-outlier regressors) and annualized by compounding the one-month change: $(SA_t/SA_{t-1})^{12} - 1$. End-of-sample estimates are preliminary and revised with each new release.

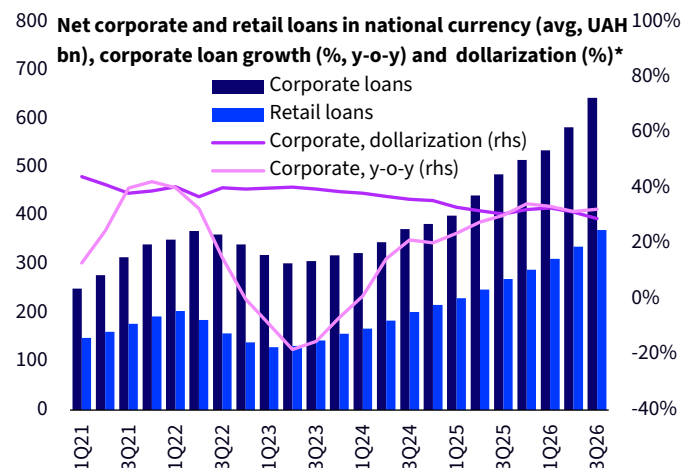
deplete buffers: reserves fell to USD 47.1 billion at end-September and will rebound to USD 60.4 billion in 2027 and USD 48-50 billion in 2028-2029 only if larger official support arrives on time (see [Balance of Payments](#)). With inflation well above that of trading partners, a contained nominal rate also means a real appreciation that tightens monetary conditions in 2027. With reserves about USD 15 billion below our Q3 forecast for end-2027, the higher KPR lets the NBU shift part of the burden from interventions to interest rates and thus preserve adequate reserve buffers.

Figure 29: Falling real returns also call for a higher policy rate.



Source: NBU, KSE Institute

Figure 30: Hryvnia lending keeps expanding despite the KPR hikes.



Source: NBU, KSE Institute

Lending continues to grow at a fast pace and is constrained by war risk rather than by the KPR, so a longer hold carries little cost for credit. Net hryvnia loans grew 35% y-o-y in August (corporate 33%, retail 38%), and the NBU expects no tangible restraining effect from the September hike (see Figure 30). The risk lies in asset quality rather than volumes: trade, agriculture, and manufacturing hold close to four-fifths of hryvnia corporate loans and are now some of Russia's prime strike targets, so the decline in the NPL ratio (11.5% in August) is likely to stall. The easing cycle in 2028 will matter less for credit than war-risk insurance and the post-war recovery.

Ample liquidity still mutes transmission, but heavy FX sales are gradually draining it, which could make further hikes more effective. The structural liquidity surplus remains large (about UAH 615 billion in Q3), but FX sales now drain more hryvnia than the Treasury injects. As the surplus shrinks, banks will compete harder for term funding, strengthening pass-through to deposit rates. Until then, the KPR works mainly through expectations and the appeal of hryvnia assets, which favors a firm and predictable stance, including a clearer rule for three-month CD tender volumes.

Once inflation declines durably and the war ends, we expect the NBU to cut rates rather quickly. We expect two 1 pp cuts in Q4 2027, as inflation returns to a sustained downward trajectory with the unwinding of the logistics premium after the war. In 2028, the risk premium will fall markedly, lowering the neutral rate, so a KPR of 12% at end-2028 with inflation near 9% will remain moderately tight. As the NBU eases FX restrictions after the war, reserves will absorb the resulting capital outflows and fall to about USD 49 billion (4.1 months of imports) at end-2028, which keeps these faster cuts from weakening the hryvnia further. In 2029, as inflation declines to about 6.5%, the KPR will settle at 11%.

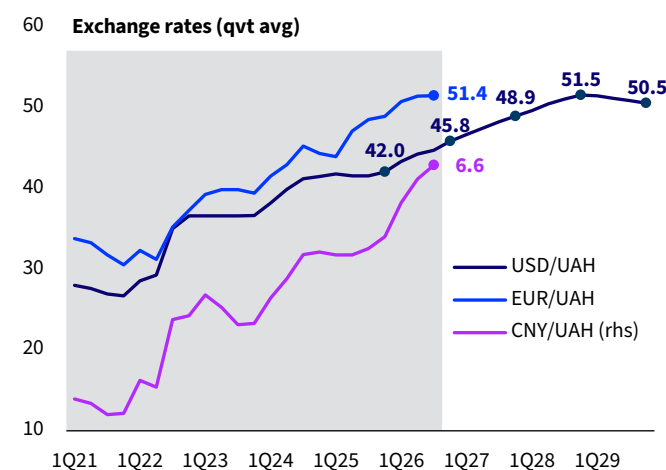
We now expect a tighter-for-longer path than in both our Q3 forecast and the NBU's July baseline. In Q3, we called for a single hike to calm the market in October 2026 amid CPI breaching the 10% attention threshold and cuts from March 2027 (*Ukraine Macroeconomic Handbook Q3 2026*). Now, we project a further hike at the October forecast round and another in December, leaving the KPR to average ~16.8% in 2027 (against 14.4% previously). Our easing also starts two quarters later than in the NBU's July forecast, which kept the KPR at 16% through Q1 2027. Risks to our call, however, cut both ways. The September guidance leaves room for the NBU to

look through the inflation spike and skip further hikes. But with inflation heading above 14%, such a pause would likely require a delayed (and therefore more aggressive) reaction down the road. Moreover, a delay in partner financing or further deterioration in expectations would push the KPR above 17%.

EXCHANGE RATE

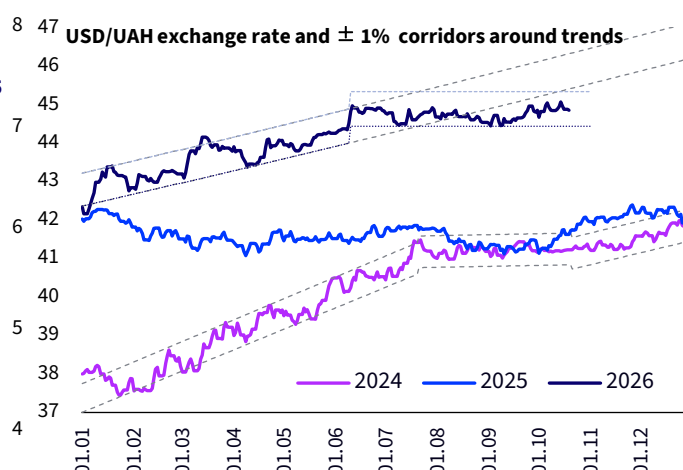
The exchange rate path remains a policy path, and its sustainability now rests squarely on the external financing schedule. Grounded in the NBU's flexible inflation targeting with managed exchange rate flexibility, our projections also reflect its markedly lower tolerance for depreciation since mid-June. With headline inflation back in double digits (10.0% y-o-y in September), exchange rate restraint limits pass-through to prices and shifts part of the tightening from the key policy rate to interventions, for as long as reserves allow. As in 2024, when a four-month plateau ended with the December fiscal surge, the hryvnia is likely to escape its horizontal band, averaging about 45.8 in Q4 and ending the year at about 46.2, close to the lower bound of the first-half crawl extrapolated to December (46.2–47.2). It will then weaken gradually, to about 48.9 in Q4 2027 (47.8 on average), as the FX gap widens (see Figure 31). This path is weaker than in the Q3 forecast (47.5 at end-2027) and the draft 2027 budget (48.3 on average), reflecting intensified Russian strikes on logistics, industry, and critical infrastructure. The strikes have also helped widen the trade gap, which influences the required level of intervention, depreciating the reserves path and leaving less room for the NBU to mitigate additional shocks in the future. The expected resident capital outflows and recovery-related imports would sustain a broadly steady depreciation path through 2028, reaching 51.5 in Q4 (50.6 on average), before a modest appreciation to about 50.5 in Q4 2029 as export logistics normalize, risk premia decline, and private inflows return. A contained nominal rate amid higher inflation implies real appreciation that keeps monetary conditions tight and dampens imported inflation, but erodes exporters' competitiveness and widens the very trade gap that drives the need for interventions.

Figure 31: The hryvnia is projected to weaken gradually through 2028 before firming in 2029.



Source: NBU, KSE Institute

Figure 32: Since mid-June, USD/UAH has shifted from a crawl to a near-horizontal band.



Source: NBU, KSE Institute

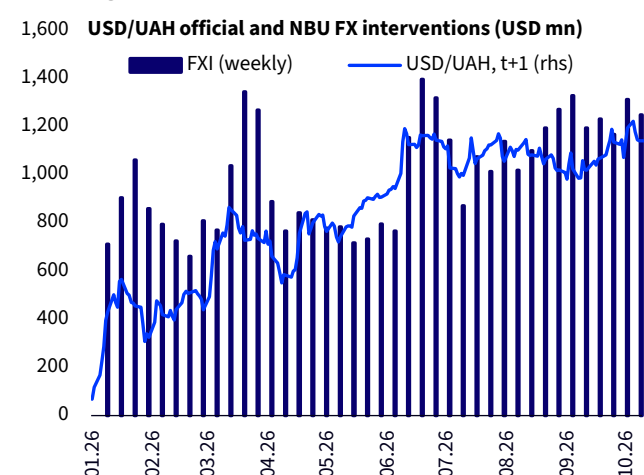
The hryvnia's greatest point of nominal stability this year came in Q3, but this stability increasingly rested on interventions rather than market forces. USD/UAH averaged 44.7 in Q3 (44.2 in Q2), traded within its narrowest quarterly range of the year (44.46–44.97), and ended September virtually where it stood at end-June (44.86). In effect, the crawl-like depreciation of the first half of the year (at a 9% annualized rate) has given way to a near-horizontal band since mid-June. USD/UAH has stayed below the lower bound of the earlier crawl corridor since mid-August, ending September 1.8% below trend (see Figure 32). In early October, pressure intensified further, with the rate

pressing ever closer to 45 and likely to cross it on a more sustained basis. EUR/UAH averaged 51.4, broadly unchanged from Q2, swinging between 52.25 in late August and about 50.1 in early October, tracking global euro moves.

Underlying pressure intensified throughout the quarter, and the fiscal impulse explains only part of it.

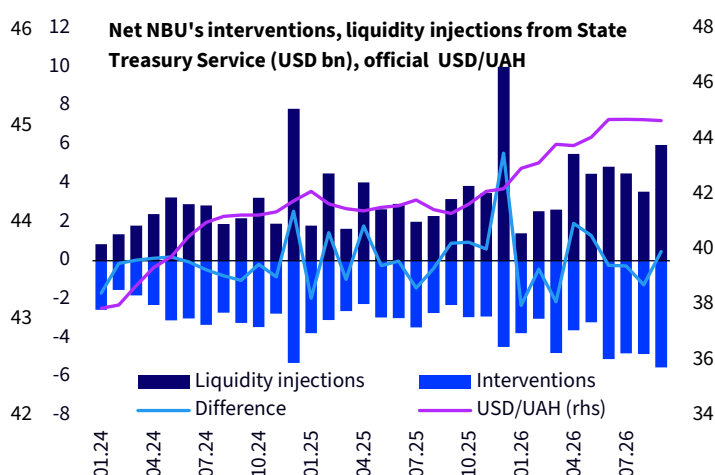
Treasury operations injected about USD 14.1 billion-equivalent of hryvnia liquidity in Q3, down from USD 14.9 billion in Q2, yet bank clients' net FX purchases rose by almost 30% to USD 11.0 billion, with a monthly record of USD 4.0 billion in September, as export receipts shrank amid port closures and the halt of most steelmaking. Households' net FX purchases nearly doubled to USD 29 million per day in Q3 (USD 16 million in Q2), accelerating to USD 42 million in September and above USD 50 million in early October. After FX restrictions' liberalization, the non-cash segment turned from a net seller into a net buyer. Households are also adding a precautionary layer: September's jump in net demand came mainly from lower cash FX sales, a drop that does not look purely seasonal. In early October, the cash selling rate stayed above 45 every day (45.19 on average), and the cash-official spread widened to 0.71%, the highest since March 2025, suggesting that the cash market is running a step ahead of the interbank. Market participants increasingly see through the nominal calm: one-year-ahead USD/UAH expectations rose to 47.3–47.4 for financial analysts and households and 46.5 for banks, a sign that the crawl is now embedded in expectations even as the NBU holds the line.

Figure 33: Since August, NBU sales and the exchange rate have moved mostly out of sync.



Source: NBU, KSE Institute

Figure 34: Record interventions in Q3 only partly explained by the NBU's role as an intermediary.



Source: NBU, KSE Institute

The NBU met rising market pressure with record interventions, shifting the policy mix (at least temporarily) from tolerating a crawl to buying stability.

Net FX sales reached USD 15.1 billion in Q3 (+27% q-o-q, +80% y-o-y), with September's USD 5.5 billion surpassing the December peaks of 2024–25, while the hryvnia weakened by only 0.7% over the month. In August, the NBU sold more as the hryvnia appreciated: daily volumes moved inversely to the exchange rate, so, as argued in the September edition of the **Ukraine Monthly Economic Update**, part of that strength looks bought (see Figure 33). In September, daily interventions showed little correlation with the USD/UAH level, which is a typical pattern for calm months but unnatural under pressure. Record volumes reflect the NBU's role as an intermediary for government-driven FX flows only in part: in Q3, cumulative net sales exceeded Treasury liquidity injections by about USD 1 billion, and since June they have run USD 1.0–1.4 billion per month above what their historical relationship implies (see Figure 34). This points to additional pressure, notably stemming from shrinking export receipts and the August FX liberalization for households. The NBU's share of interbank turnover averaged about 58% (51% in Q2), as the regulator met almost the entire growth in demand, while turnover between banks without it held near USD 0.8 billion per week (–6% q-o-q).

International reserves fell by USD 4.2 billion over the quarter to USD 47.1 billion (4.0 months of imports) as interventions outpaced partner inflows. In Q3, partner financing that reached reserves (USD ~12 billion) covered close to four fifths of the NBU's net FX sales. Our forecast assumes that substantially higher official

financing lifts reserves to USD 64.2 billion by end-2026 and keeps them near USD 60 billion in 2027, before the post-war drawdown (see [Balance of Payments](#) section). This is a demanding assumption: from USD 47.1 billion on October 1, it implies net inflows of some USD 17 billion in Q4 alone, even as with year-end seasonality on top of structural demand makes monthly sales above USD 5 billion are likely to become the norm in Q4, and the projected intervention bill proceeds to grow markedly in 2027. Any slippage in reform-linked tranches would make the exchange rate anchor costlier and raise the risk of an abrupt adjustment.

Risks to the exchange rate path are tilted toward a weaker hryvnia, and most of them run through the FX gap and its financing. As highlighted in the latest edition of the *Ukraine Risk Matrix*, the FX market is squeezed from both sides. A prolonged closure of the Greater Odesa ports, strikes on rail rolling stock and steel plants, and war-risk premiums now extended to Danube shipping would further cut export receipts, while a prolonged Middle East oil shock, winter strikes on energy infrastructure, and a firmer U.S. dollar globally would inflate the import bill (see [Balance of Payments](#) section). With inflation at the 10% attention threshold, deteriorating expectations would also erode the appeal of hryvnia instruments and add to FX demand, particularly from households. The decisive risk, however, is the financing schedule (see [Special 3](#)): a large share of the external support behind our reserve path depends on reform benchmarks and legislative steps that have repeatedly slipped. If inflows are delayed, the choice would be between a more controlled depreciation now and a sharper, less orderly one once reserves run down. Conversely, front-loaded partner inflows, further key policy rate hikes, an earlier end to the war, a faster decline in oil prices (cutting both the import bill and Russia's war revenues), and a swifter reopening of ports would ease pressure and allow a smoother path.

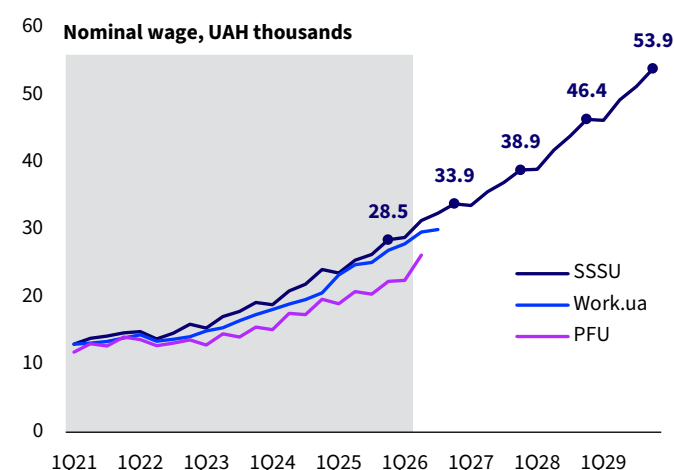
LABOR MARKET

Wage growth is projected to slow sharply in 2027 as Russian attacks further constrain firms' margins, while labor scarcity and realignment of supply and demand push it back up during the recovery. Average nominal wages are forecast to rise from USD 624 (UAH 26,009) in 2025 to USD 711 (UAH 31,668, + 12.6% in real terms) in 2026, followed by a moderate increase to USD 760 (UAH 36,313, +1.7% in real terms) in 2027 and up to USD 985 (UAH 50,187) in 2029, which is slightly above the Q3 forecast in nominal terms but not in real terms (see Figure 35). Job candidates' salary expectations have continued to rise, up to USD 758 by mid-September, or 5.1% above actual wages. The new draft exemption rule—which requires companies pay an average of three times the minimum wage (USD 581, or UAH 25,941 from September 1) to retain “critical enterprise” status and protect its staff from mobilization—adds further upward pressure on wages. In June, five of the nineteen main sectors paid less than that on average; thus, we expect faster wage growth at the bottom of the scale and some de-shadowing in Q4 2026, when nominal growth remains near 19% y-o-y.

The unemployment trajectory has shifted upward as weaker activity now adds to the post-war demobilization shock. Unemployment fell slightly from 10.8% in Q1 2026 to 10.5% in Q2 and is projected to continue its decline down to 9.3% by Q4 2026 as businesses compete for scarce workers and mobilization reduces the labor supply (see Figure 36). But labor demand has already begun cooling, and the downward trend in unemployment will end in Q4 2026, with unemployment rising in 2027 even before the war ends. Labor demand is reduced in metallurgy, mining, port logistics, and export-oriented agribusiness due to the shutdown of steel plants, the drop in iron ore exports, port closures, and winter strikes on energy infrastructure. These sectors are primarily concentrated in a few regions—Dnipro, Zaporizhzhia, and Odesa oblasts—which means that laid off workers cannot easily move to vacancies in other fields (e.g., defense production, construction) without a proper relocation policy. As a result, unemployment is projected to average 10.3% in 2027, compared with 9.5% in the Q3 forecast, and reach ~11% by Q4 2027. Post-war demobilization will push this up further, bringing

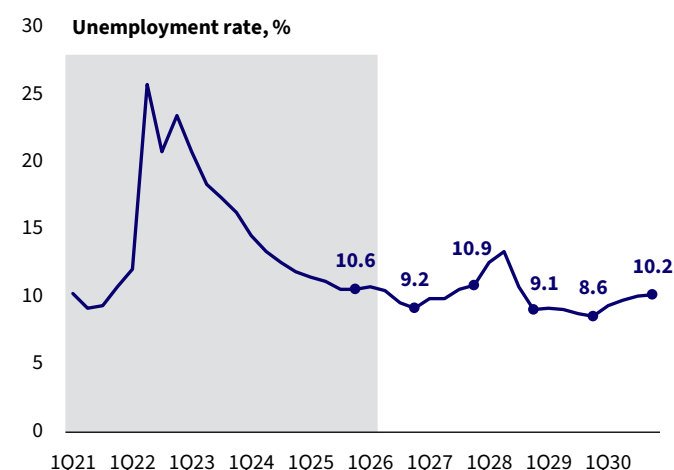
unemployment to a peak of 13.4% in Q2 2028 (11.5% for 2028 as a whole). As in the previous forecast, absorption after peak unemployment is rapid, as reconstruction, the reopening of ports, and the recovery of investment will help bring unemployment down to ~9% by end-2028 and 8.6% in end-2029. But despite unemployment peaking at a higher level in this edition of the forecast, the labor shortage has not disappeared: people who lose their jobs (e.g., metallurgy workers in a few industrial cities and demobilized soldiers needing reskilling and support for reintegration) often lack the skills or live in places with mismatched labor demand. Reskilling, qualification recognition, and regional matching will therefore be critical to keep the 2028 unemployment peak short.

Figure 35: Real wage growth to slow sharply in 2027 before accelerating during the post-war recovery.



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

Figure 36: Unemployment to rise in 2027 and peak following demobilization in 2028 before dropping.



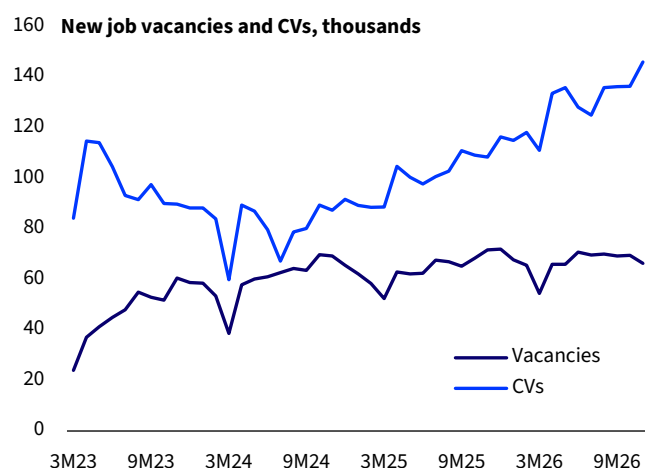
Source: SSSU, Info Sapiens, KSE Institute

Russian strikes have begun to cool labor demand but have not eased labor shortages, so the mismatch between job seekers and vacancies is deepening. According to the NBU, Work.ua vacancies in September were 9% lower than a year earlier (after -0.3% in August), while CVs grew by 28% y-o-y, and the ratio of active CVs to vacancies rose to 2.2 by mid-September (see Figure 37). The decline is most visible in retail (-28% y-o-y), hotels and restaurants (-25%), and services (-19%), and geographically concentrated in the most affected cities: trade vacancies fell by 30–32% in Kyiv, Dnipro, and Odesa, against 7–8% in Rivne and Chernivtsi. Large retailers show that hiring depends on whether a firm has the resources or willingness to restore its capacity. Rozetka, whose Brovary distribution center was destroyed on August 5 and will not be rebuilt, cut its open vacancies by more than half between July and October. In contrast, Epicentr, whose hypermarkets were also hit repeatedly, returned to its July vacancy level, and Nova Group increased its vacancies by about 30%. Yet firms still cannot find the workers they need. In August, 69% of industrial firms cited labor shortages as their main obstacle (down from a record-high 71% in June), and the share reporting that qualified workers had become harder to find rose to 58% (see Figure 38). Mobilization, limits on deferments, and emigration remain the main causes. Vacancies are concentrated in occupations with few applicants (e.g., cooks, loaders, cleaners, electricians, nurses, and drivers), while candidates' salary expectations continue to exceed the average wage actually paid. The strikes reallocate labor demand rather than eliminate it (which is why wages have not yet reacted), and we expect the cooling to slow wage growth only gradually, mainly in 2027.

Labor supply will only recover after the war ends, while return migration continues its decline from previous assumptions. The government's own stress test for the draft 2027 budget rates a further loss of 350,000–450,000 workers as highly likely. The Ministry of Defense's phased demobilization, starting at the end of 2026 with the longest-serving personnel, provides the first defined pathway for returning workers to the sectors under the most pressure, but its scale remains to be seen. In our baseline, the main inflow of demobilized workers comes after the war ends in H2 2027. Meanwhile, the EU has extended temporary protection for about 4.4 million Ukrainians to March 2028, and every additional year abroad strengthens refugees' attachment to host-country jobs, schools, and housing. The economic damage from the Q3 strikes, including job losses in industrial cities and weaker household incomes in

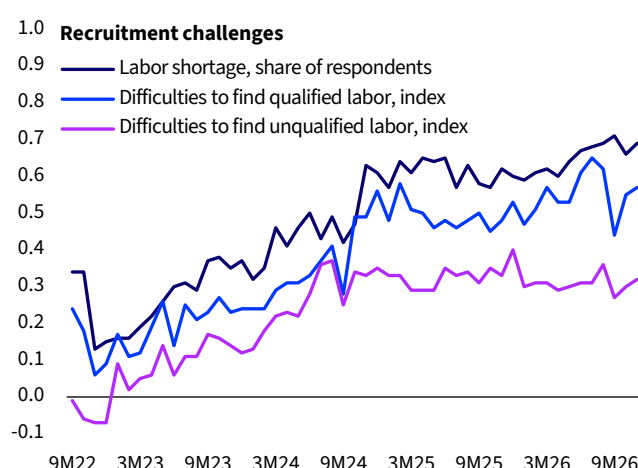
2027, may further delay decisions to return and, at the margin, encourage new departures. Our demography analysis shows that even in the most favorable scenario, Ukraine will have fewer workers in 2030 than today, as the post-war emigration of men—about 0.6 million people in 2028 alone—will outweigh returns, so the recovery will depend on productivity growing several times faster than before the war (see [Special 2](#)). Through 2027, we expect shortages to remain high across all skill levels, even as unemployment rises in parallel. Return migration and better skills matching are the main upside risks for the labor market beyond 2027, while a longer war is the main downside risk: it would extend both the job losses in the affected sectors and the drain on labor supply through mobilization.

Figure 37: Job vacancies decline while applications increase, pointing to a cooling labor market.



Source: Work.ua, KSE Institute

Figure 38: Labor shortages remain a major constraint for firms despite weakening demand.



Source: IER, KSE Institute

FORECAST COMPARISON

This quarter, a conventional comparison with official forecasts would add little analytical value, as all three sources traditionally used in this publication—Ukrainian authorities, International Monetary Fund, and World Bank—finalized their most recent forecasts before Russia’s escalation of strikes on the economy reshaped the outlook. Since late July: traffic through the Black Sea corridor has largely stopped; ballistic strikes idled Zaporizhstal, Kametstal, and ArcelorMittal Kryvyi Rih, effectively eliminating steel output in September; major businesses halted or decreased activity, with some warehouse closures and job cuts underway. The IMF’s October WEO, by contrast, carries over the July program projections unchanged, with a baseline in which the war ends this year;³ the NBU’s July forecast captured only the first weeks of the escalation; and the draft 2027 budget builds on a macroeconomic scenario prepared in June. Comparing our forecast would mostly measure differences in publication dates rather than in economic judgment. Therefore, the focus is shifted to forecasts produced after the escalation (by Dragon Capital, ICU, the World Bank, and the EBRD⁴) and to the revisions already signaled by the NBU and the Ministry of Economy, while using the draft budget for the fiscal side. We also limit the horizon to 2026–27, as differences beyond that mainly reflect assumed end-dates of the war (see Table 5).

³ The IMF forecast is taken from the staff report for the First Review under the EFF and the 2026 Article IV consultation (Country Report No. 26/188), completed by the Executive Board on July 20, 2026. Financing estimates are based on information as of May 22, 2026, and the baseline assumes that the war ends in 2026. The October 2026 WEO retained these projections. The preliminary financing gap estimate (USD 54 billion by 2029) was reported by Bloomberg on September 29, 2026, and has not been published by the IMF.

⁴ Dragon Capital, updated macroeconomic forecast (October 8, 2026); ICU, updated macroeconomic forecast (October 14, 2026); World Bank, Europe and Central Asia Economic Update (October 6, 2026), which assumes active hostilities through 2027; EBRD, Regional Economic Prospects (September 24, 2026).

Table 5: Forecast comparison

Institution	Published	Real GDP, %		CPI, % eop		Financing gap 2027, USD bn
		2026	2027	2026	2027	
KSE Institute	Oct 22, 2026	-0.3	-0.6	13.2	10.8	33.7
ICU	Oct 14, 2026	-0.6	-1.9	12.0	8.2	...
IMF (Oct WEO) ¹	Oct 13, 2026	1.0	3.5	8.9 ²	8.7 ²	30–35 (prelim., Sep)
Dragon Capital	Oct 8, 2026	-0.5	-1.0	10.0	8.0	30–35
World Bank	Oct 6, 2026	1.2	1.5	...	...	...
EBRD	Sep 24, 2026	1.5	2.5	...	...	...
Gov. of Ukraine ³	Sep 15, 2026	1.6 ⁴	1.3 ⁴	9.2	8.0	32.6
NBU	Jul 2026	1.8 ⁵	2.8–3.0 ⁵	10.0	6.9	...

¹ IMF World Economic Outlook, published on October 13, 2026. The projections for Ukraine are unchanged from the July staff report (First Review under the EFF), whose baseline assumes the war ends in 2026, so they do not reflect the escalation since. The 2027 financing gap is a preliminary staff estimate reported by Bloomberg on September 29, 2026. ² CPI figures are period averages as published in the WEO; the staff report's end-of-period projections are 10.5% (2026) and 8.0%. ³ The government forecast is taken from the draft Law on the State Budget for 2027 (No. 16000), approved by the Cabinet of Ministers on September 15, 2026, which uses the Ministry of Economy's scenario of prolonged hostilities prepared in June. ⁴ In late September, the Minister of Economy indicated that growth could be ~0.5% in 2026 (vs. the official 1.6%) and 0.8–1.0% in 2027. ⁵ The NBU forecast is taken from the July 2026 Inflation Report. On September 17, the NBU indicated that its 2026 growth estimate had moved to ~1.1–1.2%; the updated forecast will be published in the October Inflation Report.

For 2026, the spread of growth forecasts largely reflects their publication dates. Output was broadly flat in H1 (–0.6% y-o-y in Q1, +0.4% in Q2), followed by growth of 4% in July and 1.2% in August according to IER⁵ estimates, carried by an earlier and larger harvest (agricultural value added rose by 20% and 11% y-o-y, respectively), though manufacturing and mining were already contracting. For growth to reach 1.1–1.5% for the year and meet earlier NBU, World Bank, and EBRD expectations, H2 growth of roughly 2–3% y-o-y would be necessary; in other words, the harvest would have to outweigh the loss of steel, ore, and port-related activity through Q4. Like Dragon Capital, we conclude the opposite: the harvest effect is concentrated in Q3, while the metallurgy shutdown, disrupted export logistics, and renewed strikes on energy weigh fully on Q4. We downgrade growth by 2.2 pp compared to our Q3 edition; Dragon Capital puts the cost of halted steel and ore production at ~1.5% of GDP and that of the port blockade at up to 2.2%.

The divergence widens for 2027 and depends on whether the shock is seen as a temporary disruption or a persistent loss of export capacity. Because the 2026 harvest counts toward output regardless of whether it is exported or stored, the cost of the blockade is back-loaded: the EBRD expects grain and oilseed exports to fall by 50–60% in H2 2026, leaving farmers with unsold stocks and strained working capital ahead of the next sowing, and Dragon Capital estimates that resuming seaborne grain exports before the spring sowing would cut the blockade's cost by 1.5 pp of GDP. The EBRD ties its forecast to the restoration of the Black Sea route, while the government's rests on the June scenario, which the Ministry of Economy has signaled could be cut by 0.3–0.5 pp. We assume no early restoration of deep-sea exports and treat metallurgy losses as persistent until the end of the war. ArcelorMittal has begun a cold shutdown in Kryvyi Rih, stating that safe operation is impossible while the war continues, leading goods exports to fall further, to USD 33.4 billion. The IMF's figure, premised on the war ending in 2026, is not comparable.

The 2027 financing gap estimates have converged on USD 30–35 billion, whereas in mid-year assessments, 2027 appeared fully financed. The IMF's July staff report matched 2027 needs of USD 43.4 billion entirely with expected official inflows; preliminary staff estimates reported in late September put the unfunded need at USD 30–35 billion, in line with the Ministry of Finance (USD 32.6 billion of USD 52.6 billion in external needs), Dragon

⁵ Monthly GDP estimates are from the IER's [Monthly Economic Monitoring](#).

Capital, and our own estimate, which rose from USD 23.5 billion in the Q3 edition.⁶ Two factors have driven the shift. *First*, the IMF's baseline assumed an end to hostilities in 2026; wartime defense spending through most or all of 2027, now assumed by the government, the World Bank, and in this forecast, is the largest single driver. *Second*, the escalation of Russian strikes erodes tax revenues (by USD 4–5 billion according to Dragon Capital and by USD ~3.5 billion relative to our Q3 forecast). Moreover, conditionality risks becoming a binding constraint for financing, increasing the risk of the gap widening further and/or create liquidity shortages in a particular month. By end-September, Ukraine had received only USD 22 billion of the USD 50 billion in concessional financing available for 2026, delaying VAT refunds, while the IMF's second review is now to be combined with the third in December, contingent on credible financing assurances. Our projected gap is close to the Ministry of Finance's despite a 1.9 pp difference in real growth, as higher inflation leaves 2027 nominal GDP and tax revenues virtually identical to the draft budget's, although the latter relies on UAH 117 billion of not-yet-legislated measures. If inflows slip in early 2027, the effect of the adjustment will be borne by domestic borrowing and reserves.

SPECIAL 1: ADVERSE SCENARIO FOR 2026–27

The Q4 2026 baseline forecast already includes a substantial deterioration in the Ukrainian economy but, with risks heavily tilted towards the downside, an adverse-scenario assessment is necessary to provide a complete picture. The baseline foresees two consecutive years of real GDP decline—by 0.3% in 2026 and another 0.6% in 2027—and inflation remaining above 13% through Q3 2027. However, even this assumes a restart to steelmaking in Q2 2027 and the reopening of Greater Odesa ports in Q3 2027, on top of the timely delivery of external financing.

In the adverse scenario, we forecast the consequences of the H2 2026 infrastructure shocks persisting and escalating through the end of 2027. It is built on the same model and global assumptions as the baseline; the divergence between the two paths reflects the additional shocks summarized in Table 6, in addition to the modelled monetary and exchange rate responses. It draws on KSE Institute assessments of infrastructure risks, detailed sectoral analysis, and input-output estimates of losses across sectors of the Ukrainian economy. Lastly, it is limited to 2026–27 and does not model the subsequent years.

Table 6: Baseline and Adverse scenario, key projections

Indicator	2026			2027		
	Baseline	Adverse	Difference	Baseline	Adverse	Difference
Real GDP, % y-o-y	-0.3	-1.9	-1.6	-0.6	-6.6	-6.0
Potential GDP, % y-o-y	-0.6	-1.1	-0.5	2.3	-0.8	-3.1
Output gap, % of potential	-2.6	-4.1	-1.5	-3.5	-9	-5.5
Unemployment rate, %, average	10	10.2	0.2	10.3	13.9	3.6
CPI inflation, % y-o-y, average	9.1	9.2	0.1	13.0	17.0	4.0
Key Policy Rate, %, Q4 average	16.4	16.4	0.0	16.0	23.1	7.1
USD/UAH, average	44.5	44.7	0.4%	47.8	51.4	7.6%
USD/UAH, eop Q4 average	45.8	46.6	1.7%	48.9	54.3	11.1%

Source: KSE Institute

The sum total of the shocks in the adverse scenario reduces real GDP growth by 1.6 pp in 2026 and 6.0 pp in 2027 relative to the baseline, leading the economy to contract by 1.9% and 6.6%, respectively. *First*, export logistics fail and create ripple effects throughout the economy. Greater Odesa and Danube ports remain closed

⁶ Concepts differ. Our estimate and the Ministry of Finance's refer to unfunded state budget needs (in our case, with USL disbursements recorded as grants); Dragon Capital's refers to external budget financing beyond existing programs; the IMF's program financing gap covers fiscal and balance-of-payments needs to be met by official financing.

until end 2027, leading grain produced above storage capacity to be lost and the 2027 sown area to contract by 10–15%. Second, exports of steel and iron ore come to a complete stop, while transportation capacity is limited as Ukrzaliznytsia's freight fleet loses 37–40 locomotives a month and risks being exhausted by October 2027. *Third*, a deepening energy shock creates daily 12-hour power outages in January–February 2027, as there is a 75% decline in domestic gas production and a 4% shortfall in motor fuel supply during the heating seasons. *Finally*, international reserves are drained by the costs of these shocks over the course of 2027, with partners stepping up support only gradually, leaving the NBU to allow the hryvnia to adjust.

The contraction is deepest in Q1 2027 (-9.4% y-o-y), when ports remain closed and the winter energy shock peaks. Direct and supply-chain losses, which are estimated using input-output tables, make up about half of the 2027 decline. The fuel shortage, lower gas production, destruction of warehouses, closed seaports and export routes, and the steel shutdown are the primary drivers. By the end of 2027, about 3.5% of productive capacity is permanently lost and the output gap widens to an average of -9.0% in 2027 (from -3.5% in the baseline), as generation, rolling stock, warehouses, and steel capacity are destroyed. The unemployment rate also widens, reaching 16.0% in Q4 2027, and is most acute in Kryvyi Rih, Dnipro, Zaporizhzhia, and Kamianske, where 60,000 workers are at risk of layoffs. Retaining the skilled workforce locally would require targeted social support or tax relief for employers that keep their staff on payroll; this is particularly important because the economies of these cities depend on the closed plants. Alternatively, relocation and reskilling programs (e.g., in defense manufacturing) could keep these vulnerable segments of the workforce employed.

The adverse scenario reduces exports by an additional USD 17 billion over the baseline, which already downgraded the Q3 2026 forecast by USD 20 billion over 2026–27. The further losses in the adverse scenario come primarily in 2027. Agricultural exports drop by USD 9.5 billion, steel and mining by USD 4.5 billion, and food processing by USD 3 billion. Moreover, storage overflow and the smaller harvest during export route closures make almost all of these agricultural losses final, so little of this revenue will return once the routes reopen.

The deeper recession in the adverse scenario is more inflationary because productive capacity declines faster than demand. Inflation is projected to reach 18.2% y-o-y in Q3 2027 and finish the year at 18.0%, compared to just 10.8% in the baseline. In parallel, the hryvnia weakens to 54.3 USD/UAH at end-2027—compared to 48.9 in the baseline—as reserves decline and the risk premium rises. As for the NBU, the adverse scenario follows the model's policy rule and foresees KPR hikes up to 24% in Q3 2027 and 23.1% at year-end, compared to 16% in the baseline, in order to contain inflation expectations but at the cost of a deeper recession.

While the adverse scenario is specified for 2026–27 and does not model subsequent years, a critical situation in 2026–27 would certainly materially worsen the starting point for the medium-term forecast. The Ukrainian economy would enter 2028 with 8% lower real GDP than in the baseline scenario, a 3.5% permanent loss of productive capacity, and inflation and the KPR both 7 pp higher. Additionally, the adverse scenario implies external and fiscal financing that go beyond the baseline scenario's gap of USD 99.5 billion over 2026–29, though the specific needs would be subject to a complex policy response to different reserves and fiscal balances. Timely and wider partner support, the protection of export routes, and rapid repairs of energy and rail assets are the primary factors that would limit these losses.

SPECIAL 2: DEMOGRAPHY AND LABOR PRODUCTIVITY

Labor is among the most binding constraints on Ukraine's recovery: even in the most favorable scenario, the country will have fewer workers in 2030 than today. The KSE Institute upcoming policy paper *Ukraine's Labor Supply: A Demographic Projection and Its Productivity Test* rebuilds the population from administrative records,

projects it to 2041 with a demographic model, and derives the labor force to 2030. The model is a cohort-component projection on a single-year age grid that follows three groups separately: [the resident population of government-controlled Ukraine \(civilians and military personnel together\)](#), refugees abroad, and settled Ukrainians abroad, through births, deaths, mobilization and demobilization, emigration, and return. It runs three scenarios that differ in the end of the full-scale war (2027 in the optimistic and moderate scenarios, 2030 in the pessimistic one), in the share of refugees that returns (50%, 33%, and 15%), [the annual return rate of settled Ukrainians abroad \(2.5%, 1.5%, and 0.5%\)](#), and in the recovery of fertility and life expectancy. On January 1, 2026, about 29.4 million people lived in government-controlled Ukraine and 6.5 million Ukrainians lived abroad, 5.0 million of them refugees from the full-scale invasion and 1.5 million settled migrants. About 12.9 million civilians were in the labor force (range 12.5–13.4 million) and about 11.6 million were employed, roughly a quarter fewer than in 2021, partly because part of the 2021 territory is now occupied. The resident population keeps falling after 2030 in every scenario, to 26.7, 25.0, and 22.3 million by 2041, so the labor-force decline described below is a trend.

The main driver of the change in population is net migration after the war. Table 7 traces the civilian labor force in the central case of the moderate scenario, with a return of one-third of refugees and a realistic pace of veteran integration. Without returns it shrinks from 12.9 million at the start of 2026 to about 11.5 million by the end of 2030, a loss of about 1.5 million (12%). Emigration after the borders reopen removes about 0.8 million workers, the largest driver: in the moderate scenario about 0.6 million people leave in 2028, when men who could not leave under martial law are free to go and some families follow them, after which ordinary emigration settles at about 0.07 million a year. Ageing and deaths remove about 0.4 million each. Returnees (0.5 million) bring the civilian labor force back to 11.9 million at the end of 2030, still 1.0 million (8%) below its 2026 level. The decline is uneven over time: the labor force falls fastest while the war continues and in the first year after it ends, losing 1.0 million by January 2029, and stops falling in 2029–2030, when returnees arrive. Post-war emigration therefore costs more workers by 2030 than a medium return of refugees brings back (0.8 million against 0.5 million), and net migration turns positive only in 2029.

Table 7: Civilian labor force, central case (33% return, realistic veteran reintegration), million

	Jan 26	Jan 27	Jan 28	Jan 29	Jan 30	End 30
Civilian labor force without returns	12.9	12.6	12.2	11.7	11.6	11.5
+ Returnees (33% return)	0.0	0.0	0.0	0.1	0.3	0.5
= Civilian labor force	12.9	12.6	12.2	11.9	11.9	11.9

Source: KSE Institute

Returning refugees and veterans soften the decline but cannot reverse it. Fewer than half of returnees are workers: about 46 of every 100 people returning by 2030 are in the labor force, as many are children, older people, or mothers who need time to find work. If 15%, 33%, or 50% of refugees eventually come back, returns add 0.2, 0.5, or 0.7 million workers by the end of 2030, offsetting about a seventh, a third, or almost half of the decline. Veteran integration matters as much as a low wave of returns: depending on disability and on how quickly veterans adapt, the civilian labor force at the end of 2030 differs by about 0.2 million between the pessimistic and optimistic integration scenarios, as much as a 15% return of refugees adds. Across the return and veteran scenarios, the civilian labor force at the end of 2030 lies between 11.5 million and 12.2 million, below its 2026 level in every case; in the central case it falls by 1.0 million (8%) to 11.9 million.

Growth must therefore come from productivity, and the report shows how demanding this is. Output per civilian worker is at or somewhat above its pre-war level (about 6% above 2021) only because civilian employment has fallen further (to 74% of its 2021 level in 2026) than real GDP (to 78%), and partly because GDP now includes a much larger defense sector. That level was low to begin with: in 2021 a Ukrainian worker produced about USD 44,300 a year at purchasing-power parity, 54% of a Polish worker and 40% of a German one, and per hour worked the gap was larger still (48% of Poland and 26% of Germany), as Ukrainians work long hours. To deliver this edition's growth path (−0.6% in 2027, 4.4% in 2028, and 5.0% in 2029) with a shrinking civilian

workforce, GDP per civilian worker would have to rise by 5.1% a year in the central case (4.5–5.6% across the return and veteran scenarios), about 2.6 times the 1.9% a year achieved in 2011–2021, and be about 16% higher in 2029 than in 2026. The timing makes it harder: the requirement is small in 2027 (1.7%), when GDP itself falls, and concentrated in 2028–2029 (7.2% and 6.4%), when post-war emigration and demobilization reduce civilian employment by 2.6% and 1.3% exactly as the forecast expects growth to recover. Because GDP also includes defense output, valued mainly at soldiers' pay, which declines after the war, civilian output must grow faster than total GDP, so 5.1% is a lower bound. Either more people must work than projected, through more returns, less emigration, higher participation, and faster veteran integration, or productivity must rise at a pace Ukraine last saw in the boom years before 2008. GDP forecasts should therefore make their labor assumptions explicit.

The report proposes three policy directions: innovation, integration of the existing labor force, and expanding the base through return and retention policies. First, invest in innovation and dual-use goods, building on military innovations. The Brave1 defense-technology cluster has awarded more than 1,000 grants worth UAH 6.2 billion since April 2023, and the same model of fast grants, testing with end users, and support for start-ups should be extended after the war to technologies with civilian markets, such as drones for agriculture and logistics, communications, energy systems, and software. Second, prepare veteran integration programs before mass demobilization, which will bring a large number of veterans into civilian life within two to three years of the war's end: medical and psychological rehabilitation, retraining linked to reconstruction jobs, recognition of military skills, and incentives for employers who hire veterans. These should be built as general programs with a veteran track, open also to people with disabilities, internally displaced persons, older and long-term unemployed workers, and returning refugees; how quickly veterans return to work is worth about 0.2 million workers by 2030. Third, treat return and retention of the working-age population as a single policy field, because the first post-war year combines the largest wave of returns with the largest wave of departures (in the moderate scenario about 0.4 million people return and about 0.6 million leave in 2028); policies that make return attractive for families, such as housing, schooling, childcare, and recognition of qualifications, also keep men from joining families abroad. Beyond these directions, the situation calls for targeted measures, particularly for veterans and for the groups whose participation is lowest, which the report discusses in more detail.

SPECIAL 3: FINANCING INDICATORS REVIEW

Ukraine's 2027 budget cannot be financed without external support, and a significant part of that support is now conditional on reforms. The baseline scenario puts the 2027 financing gap at USD 33.7 billion, while the draft 2027 State Budget itself shows USD 32.6 billion of financing needs (without an explicit source). It is already clear that domestic financing capacity is not sufficient to cover needs: the Ministry of Finance is deferring capital spending and restricting appropriations in 2026. Foreign financial support tied to reform implementation comes through four channels, each with its own conditions for release: the Ukraine Facility, EU macro-financial assistance (MFA), the IMF program, and the World Bank's development policy operations. The Ukraine Facility pays quarterly against 173 reform steps; the MFA pays a tranche only when every condition for the respective tranche is met; the IMF program pays at each review; the World Bank's development policy operations pay out once prior actions are codified (see Figure 39). Among the unconditional support channels, the G7 ERA loans were fully disbursed by early 2026, and the EUR 28.3 billion defense leg of the Ukraine Support Loan (USL) is released against procurement contracts and does not carry reform conditions.

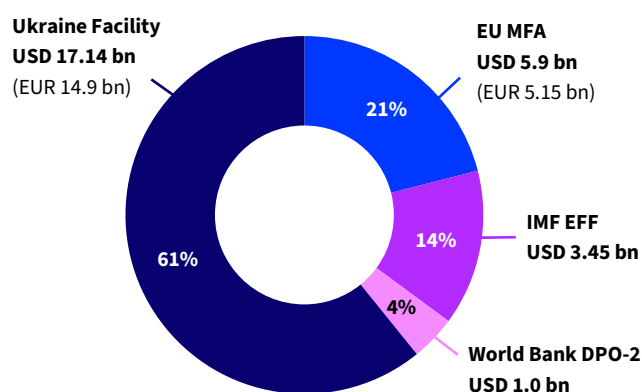
The Ukraine Facility's⁷ budget-support envelope is the largest: it has grown to EUR 40.9 billion, EUR 14.9 billion of which remains to be unlocked by reform steps. The original Ukraine Plan from May 2024 carried

⁷ The analysis excludes the bridge financing of EUR 6 billion received in 2024, unless otherwise specified.

EUR 32.3 billion across 15 installments and 146 steps. In July 2026, the Council merged the budget-support part of the 2026 USL tranche (EUR 8.35 billion) into the Plan. In the process, 27 steps were added, 34 were revised, and the installment formerly designated for Q4 2027 was moved into Q3 2027 so that the last payment can be made by the end of next year (see **Ukraine EU Accession Tracker**). Overall, Ukraine has already received EUR 26 billion over installments 1–8, and including the EUR 6 billion bridge financing of 2024, the total budget support received through the program amounts to EUR 32 billion. The most recent eighth payment (EUR 2.9 billion net) on October 2 was the first to include USL money (EUR 0.8 billion).

Figure 39: Ukraine Facility makes up a large fraction of conditional budget support in 2026–27

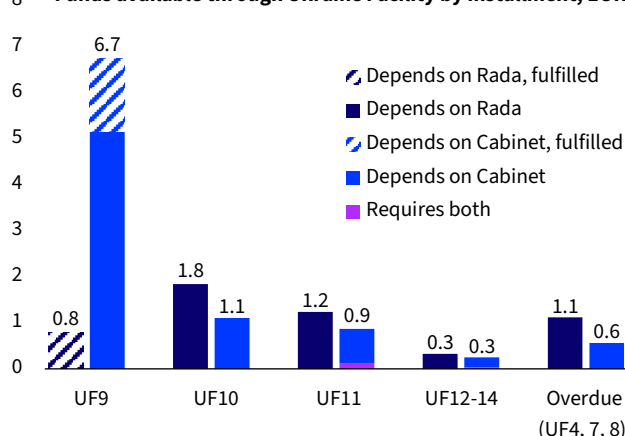
Budget support conditional on reforms available in 2026–27, USD bn



Source: European Commission, World Bank, IMF, KSE Institute

Figure 40: Outstanding UF funds depend mainly on the Cabinet, delayed steps—on the Rada

Funds available through Ukraine Facility by installment, EUR bn



Source: European Commission, KSE Institute

Of the Ukraine Facility's EUR 14.9 billion outstanding,⁸ EUR 7.5 billion can still arrive in 2026 taking into account the two-quarter lag between the respective installment timeline and the actual disbursement of funds. The USL top-up was placed in the ninth to eleventh installments, which rose from EUR 3.5 billion to EUR 12.6 billion combined, with the ninth alone (the Q2 2026 window) now worth EUR 7.5 billion. By contrast, only EUR 0.6 billion is left for the three 2027 windows. However, payments lag their windows by about two quarters: the Q1 2026 request was proposed in September and paid in October. The ninth request has not been submitted; if it is submitted in October and the Commission and Council move at the pace of the eighth, the payment would arrive at the very end of 2026 or in January 2027. The remainder would entirely arrive in 2027: EUR 5.1 billion for the tenth and eleventh installments (whose windows close on September 30 and December 31, respectively) and EUR 0.6 billion for the twelfth to fourteenth. A further EUR 1.7 billion is currently withheld from the fourth, seventh, and eighth installments and can be recovered only if the steps are completed within twelve months of the first negative assessment. In the best case, therefore, Ukraine would receive up to EUR 7.5 billion from the Facility in late 2026 and up to EUR 7.4 billion in 2027 (gross of the 7% pre-financing deduction); these calculations assume that UF9 reform progress receives a positive assessment and the tranche arrives in 2026, while UF10 funds are disbursed in 2027). Alternatively, if the timeline is accelerated, and the Q3 2026 UF10 indicators are also positively assessed, EUR 10.5 billion could become available in 2026, while EUR 4.4 billion—in 2027. However, more realistically, even the ninth payment slips and 2027 delivers close to the full EUR 14.9 billion.

While most outstanding funding depends on the Cabinet, the main delays are concentrated in steps requiring parliamentary action. Of the EUR 14.9 billion outstanding, EUR 2.4 billion is allocated to the five steps in the ninth installment that are already fulfilled and require no further action; the remaining EUR 12.5 billion is attached to steps that remain open. Of that, EUR 7.8 billion (41 steps) depends on government acts, appointments, investments, or reports, EUR 4.5 billion (27 steps) depends on a law entering into force, which also requires the

⁸ The figure excludes the Ukraine Facility installment 8, which has already been received.

President's signature, and EUR 0.15 billion (two steps) depends on both. The Cabinet's share is concentrated in the ninth installment and is mostly reported to be done; the Rada's share is concentrated in the tenth and eleventh installments and in the withheld steps, and most of it has not passed first reading (see Figure 40).

The MFA consists of EUR 8.35 billion across three tranches: the first (EUR 3.2 billion) was paid on June 25, and EUR 5.15 billion remains. Unlike the Facility, the MFA has no step values and no partial payments: a tranche is released only when every one of its conditions is confirmed but nothing expires. The second tranche of EUR 3.7 billion was due on August 31 against twelve conditions and has not been paid; the third, EUR 1.45 billion, comes due in mid-November. The executive branch has largely fulfilled its commitments for the second tranche: of its eight conditions, six are done (or were met late), while two State Tax Service compliance plans remain unconfirmed. Meanwhile, the four conditions that need the Rada or the President remain outstanding: one law is adopted but unsigned since June, two bills await second reading, and one parliamentary resolution has to be re-tabled after failing on September 1 (see *Ukraine EU Accession Tracker* for details). The October 13 first-reading votes do not change this, since first reading does not satisfy a condition that requires adoption.

The IMF's next disbursement of approximately USD 1.65 billion depends on two conditions: progress on reforms and credible assurances that Ukraine's financing gap will be covered. Reform implementation is assessed at each review, while the Fund can lend only if financing from other partners is firmly committed for the next 12 months, with good prospects beyond that period. Under the 48-month, USD 8.1 billion EFF approved in February 2026, Ukraine has received USD 2.2 billion. The second and third reviews are expected to be combined, with a mission scheduled for November and Board consideration targeted for December. On reforms, all benchmarks requiring parliamentary action are overdue: the parcels VAT exemption, ATAD Article 4 and transfer pricing, the VAT refund-audit threshold, bank-secrecy amendments, simplified-tax anti-avoidance rules, and a two-tier board for the securities regulator. Three passed their first reading on October 13, but none have been adopted. On financing, the Fund requires "sufficient and reliable" assurances that the projected gap will be covered. This means that Facility and MFA disbursements expected in late 2026 must materialize, while uncovered financing needs for 2027 must be backed by firm commitments. The two conditions are therefore interconnected: delays in MFA disbursements could also jeopardize the IMF review. The program envisages approximately USD 1.8 billion in IMF disbursements in 2027.

The World Bank's next budget-support operation is about USD 1 billion, which the Ministry of Finance expects by the end of 2026, and it pays out only once the agreed reforms enter into force. It is the second and final operation in the "Jobs in Ukraine and Private Sector Growth" series. The first amounted to USD 3.39 billion, was approved on June 22, 2026, against nine prior actions (eight of which were laws), and was received in July. The indicative triggers for the second depend mostly on the Cabinet, namely secondary legislation implementing the laws adopted for the first one (public-private partnerships, factoring, the agricultural paying agency, vocational education, and the electricity market). However, three items are legislative: a law facilitating SOE privatization, a law on covered bonds and mortgage securitization, and legislation aligning Ukraine with SEPA. The SEPA package is the same set of bills as Facility's step 4.9, and the SOE and state-bank items are also IMF benchmarks.

The 2027 financing outlook is vulnerable to reform delays, with some funding at risk of permanent loss. Roughly EUR 20 billion of EU budget support (and about USD 28 billion once the IMF and World Bank operations are included) is tied to delivery by the end of 2027, against a 2027 financing gap of USD 33.7 billion that assumes it arrives. Facility amounts will begin expiring in May 2027; a blocked MFA tranche carries into the 2027 memorandum; an incomplete IMF review removes the financing assurances the other lenders rely on. Because the baseline forecast counts all of this money, a shortfall comes on top of the uncommitted gap and hits in the quarter it occurs, manifesting in reserve drawdown, steeper depreciation, deferred capital spending, and renewed pressure on the NBU to finance the budget (see [Special 1](#)), since these commitments are already made and priced into the baseline.