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**Research Report**

## Ukraine's economy two years on from the full-scale invasion

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# BOFIT Policy Brief 2024 No. 3

Sinikka Parviainen

Ukraine's economy two years on  
from the full-scale invasion



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The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.

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Sinikka Parviainen

## Ukraine's economy two years on from the full-scale invasion

### Abstract

This brief assesses the state of the Ukrainian economy two years since Russia's full-scale invasion. After a devastating 2022, Ukraine's economy in 2023 proved surprisingly resilient, thanks in part to its foreign partners. Decelerating inflation and a managed exchange rate provided macroeconomic stability, while re-secured shipping routes in the Black Sea improved Ukraine's export performance. Despite these achievements, the problems of 2022 began to re-emerge in 2024 in Ukraine's fight for survival. Besides the drying up of foreign funding and armaments supplies and the widening mismatch in labor force allocation, Ukraine requires more long-term, non-repayable assistance, greater support for returning Ukrainians, and reduced state pressure on private businesses.

Keywords: Ukraine, economy, recovery, reconstruction, war, Russia

# 1. Introduction

2024 marks a decade of unprovoked aggression Ukraine is facing from its neighbor. Over that time, Ukraine's economy has diminished by a quarter, significant territory under its control has been lost (at the time of this writing, around 18 % of Ukrainian territory is under Russian occupation), as well as internal displacement and emigration of millions of its citizens. Effectively, a decade of aggression that culminated in the full-scale invasion on February 24, 2022 has stripped the country and its people of the economic gains made over the previous fifteen years.

The Ukrainian economy showed surprising resilience in 2023 by outperforming most forecasts, and now two years since invasion, positive signals have emerged. The foundation for this benign trajectory was laid with the push-back of Russian invaders in April of 2022, the rallying of Ukraine's foreign partners to provide support, and the indisputable professionalism of Ukraine's economic leadership.

Ukraine officially became an EU candidate country on June 22, 2022. This was not the result of the turn in Russia's brutal war, but rather a process of integration that started with the signing of the EU Association Agreement in 2014 and the included Deep and Comprehensive Free Trade Area (DCFTA). The EU became Ukraine's largest trading partner in 2020. An assessment by the EU Commission (2023) found that granting accession candidacy accelerated actions on many important reforms.

Ukraine's economy faces large challenges in 2024, most of which are beyond its control. Major risks in the near-term stem again from the speed and adequacy of the assistance Ukraine receives to keep its second front line, its economy, intact.

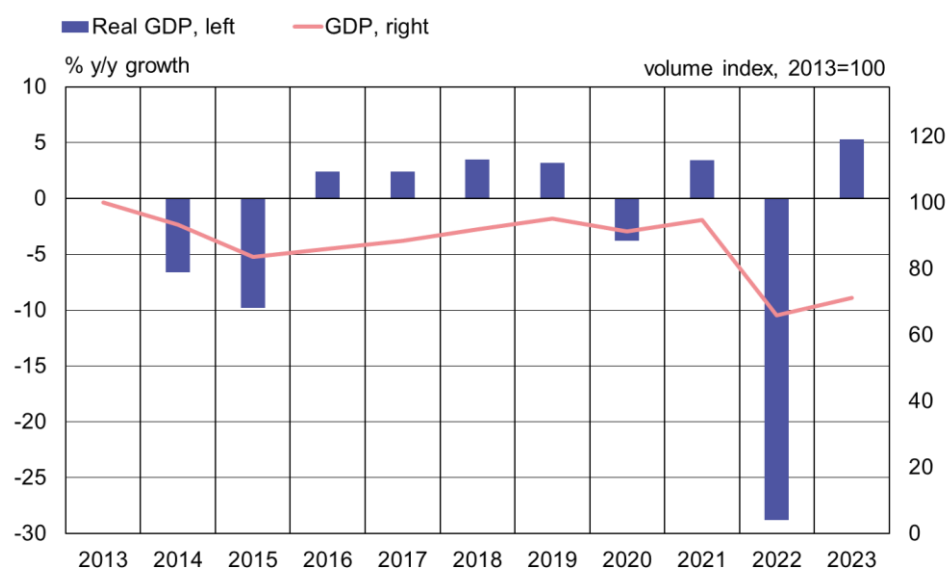
Ukraine imposed martial law on February 24, 2022 and has since extended its scope eight times. The martial law order prohibits publication of a host of socio-economic statistics available before the full-scale invasion and publishing is often delayed. For example, unemployment data is no longer available and fewer details are published on regional distribution of key indicators. Moreover, it has become much more difficult or even impossible to compile certain statistics when large part of the country is controlled by Russian invaders and the warzone is large and shifting. Although understandable for Ukraine's predicament, such restrictions unequivocally reduce our ability to assess Ukraine's economic performance.

This brief is structured as follows. Sections 2 and 3 depict the outcomes for Ukraine's economic development two years into Russia's full-scale attack, with a focus on the outcomes of 2023. Section 4 presents an outlook for Ukraine in terms of foreign assistance, reconstruction, and the road to the EU. The final section concludes.

## 2. Macroeconomic and financial situation

### 2.1 Higher-than-expected economic growth for 2023

Despite challenging conditions, the Ukrainian economy made remarkable progress in 2023. In the latter half of the year, both Ukrainian officials and international institutions hiked their estimates for yearly GDP growth from around 2–3 % to 5 % or higher. Ukraine's real GDP in 2023 expanded by 5.3 % after plunging by 28.8 % in 2022.

**Figure 1.** Ukraine's Gross Domestic Product, real growth (y/y) and volume index (%).

Source: Ukrstat.

In addition to significant catch-up effects from 2022, higher growth in 2023 was supported by decelerating inflation achieved through high levels of foreign macro-financial support, revival of war-related industries, and an excellent harvest season. In the final quarter of the year, economic growth was boosted by Ukraine's successful gamble on unilateral re-establishment of its Black Sea trade corridor.

The sectors that contributed most to economic growth in 2023 were agriculture and manufacturing, the latter benefiting from a huge expansion of Ukraine's military industries. Agricultural yields climbed to new highs in per hectare terms. Loss and mining of agricultural land and negative price development constrained this otherwise positive configuration.

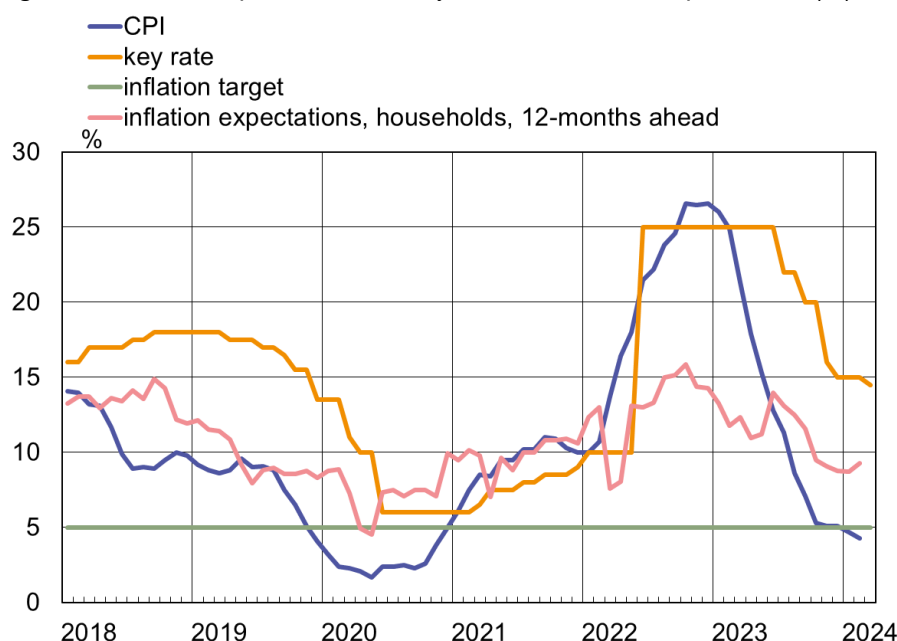
Retail and wholesale (13 % of 2023 GDP), agriculture (9 %), and manufacturing (8 %), remained Ukraine's largest sectors as a proportion of GDP, but all these shares decreased from 2021. Notably, manufacturing's share was earlier on par with agriculture. The most notable change in Ukraine's sectoral distribution of GDP has been the increase of the share of public administration and compulsory social security, which was up from 7 % of GDP in 2021 to 22 % of GDP in 2023. Consequently, general government expenditures as a share of GDP increased to 41 % in 2023 (19 % in 2021), while the share of household consumption decreased by 12 percentage points to 63 % of GDP. Gross capital formation in 2023 nearly matched its same share of GDP as in 2021, while fixed capital investment increased by 3 percentage points to 17 % of GDP in 2023.

## 2.2 Inflation down to target levels

Military spending unavoidably increased following the invasion. Ukraine's immediate need to print money before significant foreign assistance came through created a combined expense and supply shock that drove 12-month inflation above 20 %. To curb inflation, the National Bank (NBU) hiked its key rate from 10 % from the start of the year to nearly 27 % in December 2022. As foreign assistance in the form of loans and grants started to flow into Ukraine in 2023, state expenses other than military and acute humanitarian needs were covered without fueling inflation.

Inflation reached the NBU's 5 % p.a. target in November 2023, and declined further in January-February 2024 to 4.3 %. In addition to the significant tightening of the key rate policy, market conditions and appropriate policies quickly brought down inflation. Specific factors included the record per-hectare harvest, falling energy prices, a moratorium on rate hikes for communal services, and state-managed exchange rate stability.

**Figure 2.** Consumer price inflation, key rate and inflation expectations (%).



Sources: Ukrstat, NBU.

Following two consecutive months of below-target inflation, the NBU lowered its key rate to 14.5 % in March 2024. The NBU is currently bracing against inflationary risks, including the ongoing uncertainty over foreign assistance, problems with external trade at Western borders, and the waning of last year's bumper harvest effects. The NBU expects inflation to climb to 8.6 % by the end of 2024, returning to its target level only in 2026. The forecast is subject to high uncertainty.

## 2.3 Hefty reserves help in hryvnia's shift to a managed flexible rate

Ukraine's currency, the hryvnia, was devalued in July 2022 by 25 % against the USD and fixed at a rate of 36.6.<sup>1</sup> The central bank justified the move as a way to offset some of the intense pressure caused by full-scale war and the strengthening of the dollar. Looking ahead, the NBU introduced restrictions on foreign currency transactions and moving capital abroad.

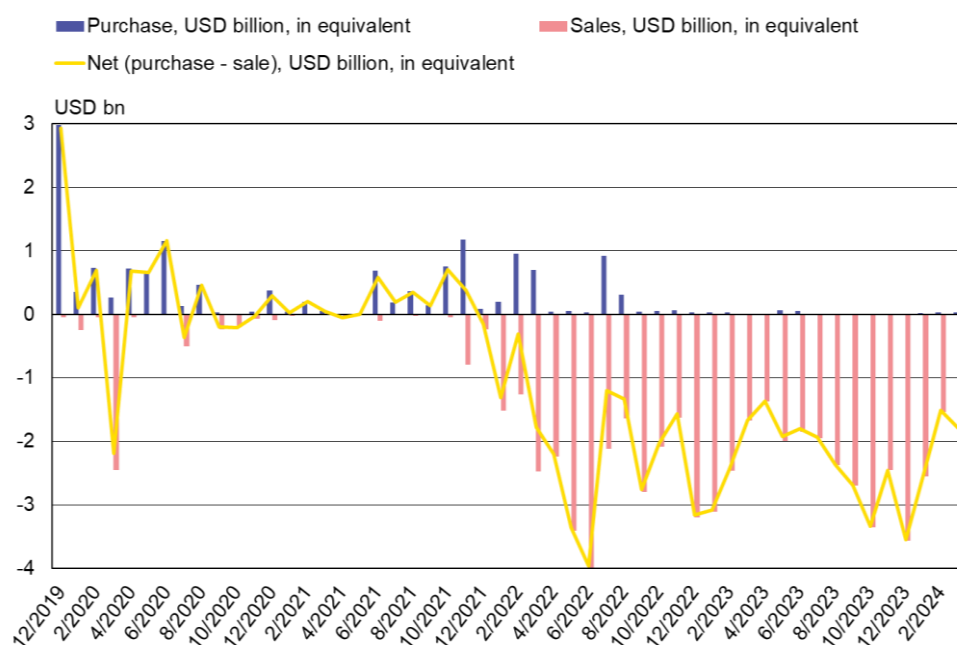
<sup>1</sup> [NBU Fixes Official UAH/USD Exchange Rate at a New Level and Takes Additional Measures to Balance the FX Market and Support Resilience of Economy during the War \(bank.gov.ua\)](https://bank.gov.ua/en/press-releases/2022/07/2022072001)



**Figure 3.** Hryvnia exchange rate against EUR and USD.

Source: NBU.

The temporary restrictions and price stability gave the NBU space to loosen its stance on foreign exchange transactions gradually during 2023. Following IMF advice, the NBU adopted a managed flexible rate. The central bank initially intervened actively in the currency market to protect the hryvnia's value. After increased pressure from Ukraine's seasonal spending spree by the state and the holiday season in December,<sup>2</sup> devaluation pressures on the hryvnia moderated in January 2024.

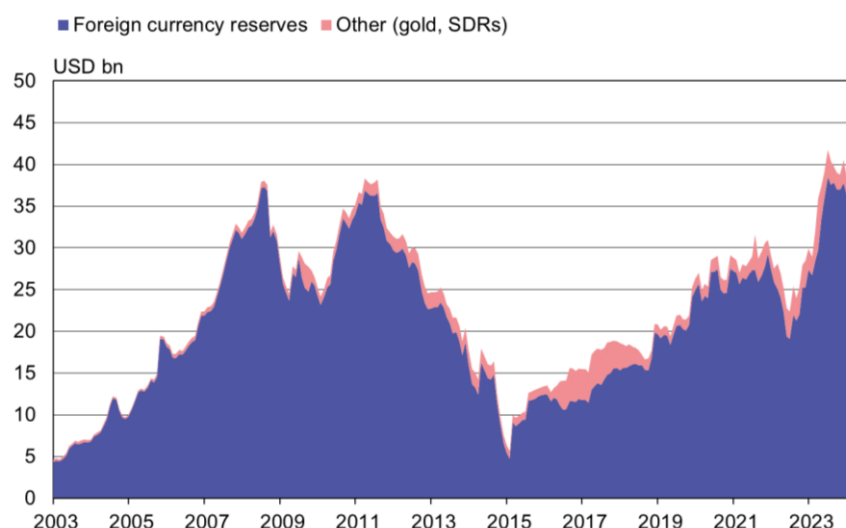
**Figure 4.** National Bank currency interventions.

Source: NBU.

<sup>2</sup> Ukraine's parliament, the Verkhovna Rada, passed legislation in July 2023 that changed Christmas Day from the Russian Orthodox tradition of January 7 to December 25.

Defending of the hryvnia's value under extremely challenging conditions was possible thanks to a significant increase in Ukraine's international reserves in 2023 through support from Ukraine's foreign partners. A total of USD 42.7 billion was credited to the government's FX accounts (NBU, 2024a). Interventions in the currency market, Ukraine's payments of debt in foreign currencies, and dwindling flows of foreign financing, had decreased the value of the reserves to USD 37 billion by February. With the resumption in foreign financial assistance in March 2024, Ukraine's reserves peaked to USD 43.8 billion, their highest value in more than 30 years.

**Figure 5.** Ukraine's international reserves.



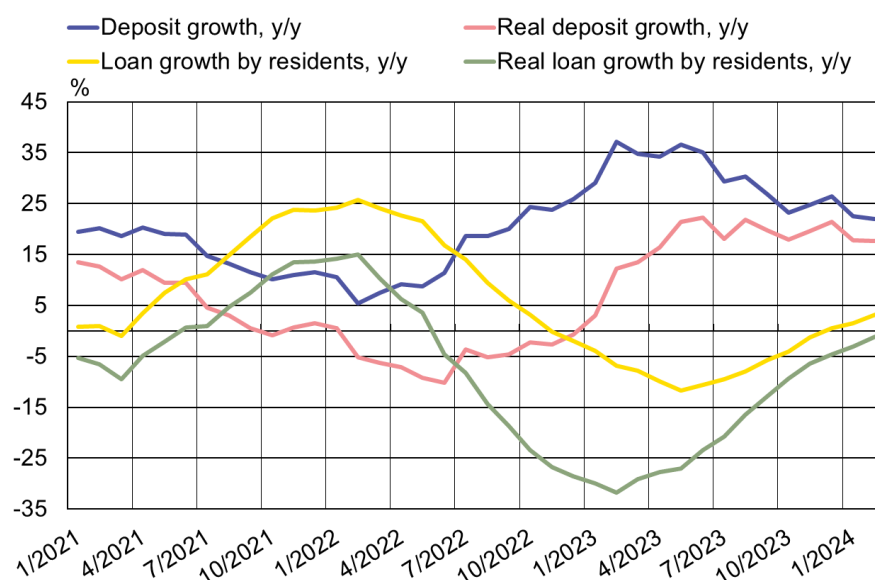
Source: NBU. Source: NBU.

## 2.4. Banking sector stable even with some banks needing recapitalization

Ukraine has undergone significant reforms in its banking sector, especially since the signing of its EU Association Agreement in 2017. Thanks partly to the reforms and actions by the NBU, the Ukrainian banking sector was relatively well-equipped to confront the hardships of 2022 (CES, 2023a). Notably, the number of banks in Ukraine halved between 2015 and 2022 to around 60 banks. Another sign of the resilience of the banking sector and its credibility in the eyes of the public has been the absence of bank runs. Deposit growth remained positive in nominal terms throughout 2022 and 2023.

Banking reforms increased state control of the sector to 50 %. This share was increased further after Russia's invasion (56 % state ownership of assets during the first nine months of 2023). Ukraine has a relatively low level of financial integration; its asset-to-GDP ratio is just 40 %, which is lower than in Poland, Hungary, or Russia, and comparable to Romania or Moldova.

Banks have also benefited from the current situation especially through high interest rates and restrictions on the movement of capital. Consequently, Ukraine's banking sector doubled its profits in 2023 compared to levels before the full-scale invasion in 2021. At the outset of invasion, the capital-to-assets ratio deteriorated. It rebounded to the 2021 level of 21 % by March 2023, lifted by improved profitability. The state even introduced a temporary windfall tax of 50 % on bank profits for 2023 and 25 % for 2024.

**Figure 6.** Loan and deposit growth (y/y).

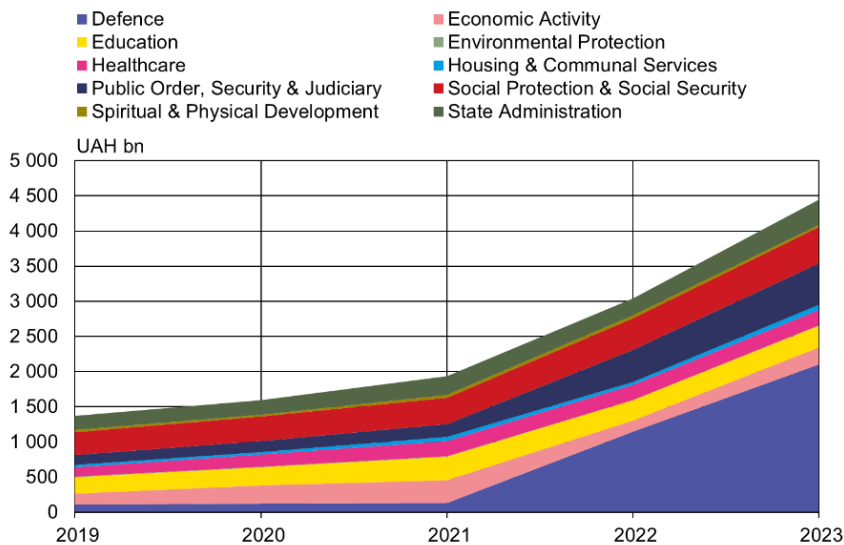
Source: NBU.

The Russian invasion has not left the banking sector unscathed. Bank loan portfolios have declined by about 30 %, although the rate of contraction decelerated in 2023. The contraction could have been significantly worse without state-subsidized loan programs to companies.<sup>3</sup> The ratio of non-performing loans (NPLs) to all loans has increased since the invasion to 38 % in 3Q23 (27 % in 1Q22) and has declined slightly by February 2024 to 37 %. Regulation of NPLs has been loosened since the invasion, so risks could be higher. According to a January 2024 NBU bank resilience report (NBU, 2024b), three of the largest 20 banks at that time needed capitalization totaling USD 262 million. Soon thereafter, two more banks reached their additional capitalization requirements and 15 were cleared.

## 2.5. State finances shaped by war and maintained by foreign financing

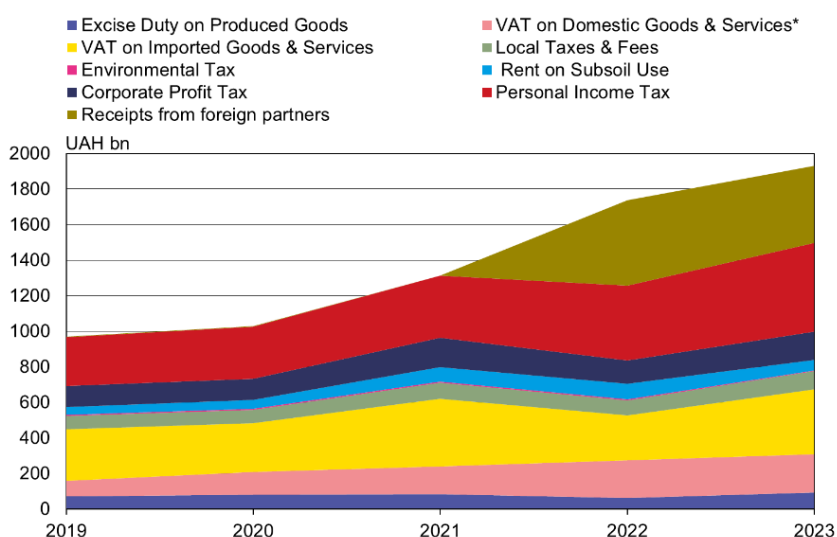
Ukrainian state finances in 2023 are increasingly bound to the requirements at the front. War expenses comprise 47 % of public expenses in the consolidated state budget (included regional budgets). Defense expenses increased by over 80 % y/y to UAH 2 trillion (USD 57 billion or 32 % of 2023 GDP) compared to the previous year. In addition, all the other main categories of the consolidated budget expanded as the war has forced the state to provide services previously available at affordable prices from the private sector. For example, state expenses for housing and communal services soared by 71 % (y/y). In total, Ukraine's consolidated budget expenses increased by 46 % (y/y) to UAH 4.4 trillion (68 % of GDP).

<sup>3</sup> The government introduced its “5-7-9 %” program for subsidized corporate loans during the Covid-19 pandemic and has since kept the program in place. See e.g. [Affordable Loans at 5-7-9% program to envisage an opportunity to provide partial credit guarantees from March 1 | Cabinet of Ministers of Ukraine \(kmu.gov.ua\)](https://kmu.gov.ua/en/affordable-loans-at-5-7-9-program-to-envisage-an-opportunity-to-provide-partial-credit-guarantees-from-march-1)

**Figure 7. Consolidated budget expenses.**

Source: Ministry of Finance of Ukraine.

Consolidated state revenues (excluding foreign grants) increased by 56 % in 2023 to UAH 3.1 trillion (47 % of GDP) due to favorable economic conditions and amendments to the tax code. Value-added taxes on imports and personal incomes taxes were the largest tax revenue streams to the budget – 14 % and 19 % of total consolidated state revenue (excluding grants). Including grants, revenue growth was more moderate as Ukraine received more direct grants from its foreign partners in 2022 than in 2023 (USD 14 billion versus USD 11.6 billion). Most non-repayable grants were provided by the US (USD 11 billion). Finland ranked as the sixth largest grant donor to Ukraine with USD 36 million (Ministry of Finance, 2024a).<sup>4</sup>

**Figure 8. Tax revenues and receipts from international partners in the consolidated budget.**

\*Budget reimbursement included.

Source: Ministry of Finance of Ukraine.

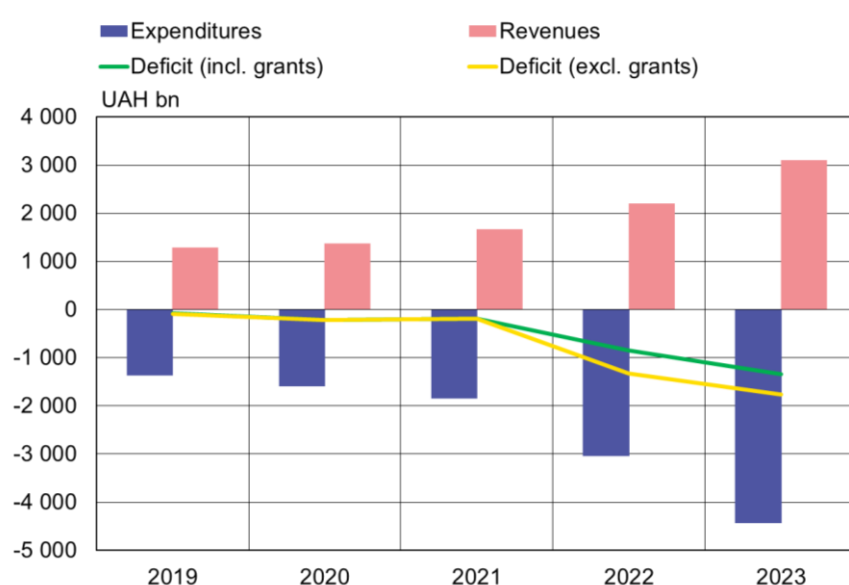
<sup>4</sup> Besides the US, direct grants were issued by Japan (USD 231 million), Norway (190 million), Germany (105 million) and Spain (50 million).

A third of all the revenues in 2023 stemmed from non-tax revenues, which rose 2.8-fold compared to 2022. Over 80 % of these revenues were collected from state-owned companies and other budgetary institutions.

The budget deficit increased by nearly 60 % to USD 36.6 billion during 2023, equaling 21 % of 2023 GDP. Ukraine's budget deficit was largely covered by foreign concessional loans (USD 31 billion). For 2024, the Ministry of Finance expects the budget deficit to increase to USD 37 billion. The monthly need for external financing would be about USD 3 billion (Ministry of Finance, 2024b).

The EU was the largest provider of budget gap financing in 2023 (USD 19.5 billion), followed by the IMF (USD 4.5 billion), Japan (USD 3.4 billion), Canada (USD 1.8 billion), the UK (USD 1 billion), the World Bank (USD 660 million), and Spain (USD 50 million). The rest of the 2023 deficit was funded by issuance of domestic bonds with a net inflow of USD 5.4 billion.

**Figure 9. Consolidated budget balance.**



Source: Ministry of Finance of Ukraine.

Although Ukraine's state debt soared over the two post-invasion years, it has not yet reached alarming levels. However, the current acceleration in indebtedness is worrying, especially if the bulk of future foreign assistance comes in the form of repayable loans. In 2023, Ukraine's government debt amount to 85 % of GDP, up from just over 50 % in 2021. Ukraine's debt moratorium from the G7 and Paris Club countries extends currently to 2027.<sup>5</sup> Ukraine debt-servicing costs in 2023 amounted to USD 3.2 billion for foreign creditors and USD 15.6 billion for domestic debt. Government debt servicing constituted 11 % of 2023 GDP.

<sup>5</sup> Ukraine's debts were deferred in July 2022 and December 2023. [Ukraine signed amendments to the Memorandum of Understanding on Official Debt Payments Suspension with International Partners in the G7 and Paris Club | Cabinet of Ministers of Ukraine \(kmu.gov.ua\)](https://kmu.gov.ua/en/ukraine-signed-amendments-to-the-memorandum-of-understanding-on-official-debt-payments-suspension-with-international-partners-in-the-g7-and-paris-club).

### 3. Ukraine's external position

#### 3.1. Widening current account deficit

Despite a sizable increase in its trade deficit, Ukraine's current account in 2022 showed a surplus due to international grants. Ukraine's current account balance deteriorated in 2023 due to a more negative trade balance and the decreased inflow of foreign grants and remittances. Stronger credit flows from abroad have compensated for the negative flows.

**Table 1.** Balance-of-payment highlights (USD billion).

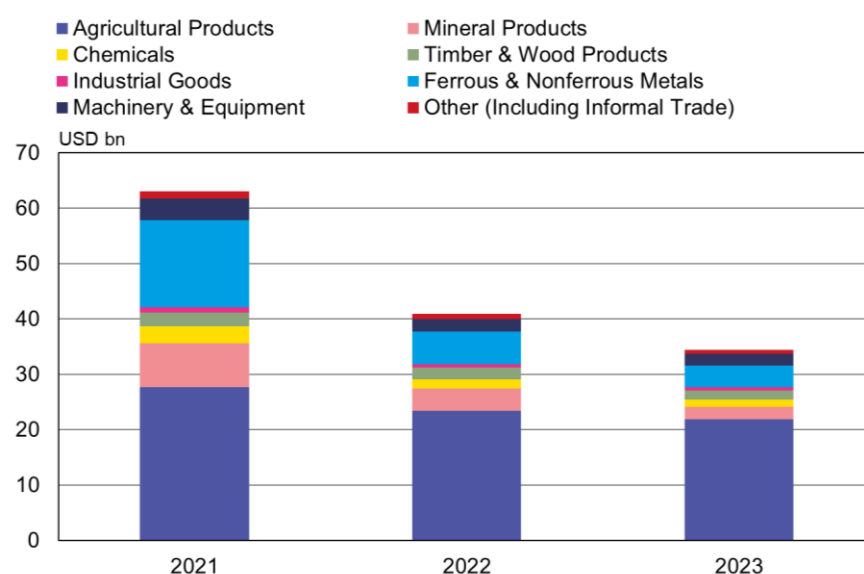
	2019	2020	2021	2022	2023
<b>Current account</b>	-4.1	5.3	-3.9	8.0	-9.2
<b>Exports</b>	63.6	60.7	81.5	57.5	51.1
<b>Imports</b>	76.1	63.1	84.2	83.3	88.5
<b>Remittances</b>	11.9	12.0	14.0	12.5	11.4
<b>Financial account*</b>	-10.1	3.3	-4.4	11.1	-18.5
<b>Reserves and related items</b>	6.0	2.0	0.5	-2.9	9.5

\*) Includes "net errors and omissions" term. Positive value indicates net financial outflow, negative value net inflow.  
Source: National Bank of Ukraine.

#### 3.2. Exports contract for second year despite bumper harvest and re-established sea routes

The value of Ukraine's exports failed to recover in 2023 due to destroyed production capacity, logistics problems, labor shortages and adverse price conjuncture for Ukraine's export products. The value of merchandise exports in 2023 (USD 36 billion) were half of 2021 exports and 18 % below 2022 levels despite marginally higher export volumes. Merchandise imports, on the other hand, increased by 8 %.

**Figure 10.** Merchandise exports by product.

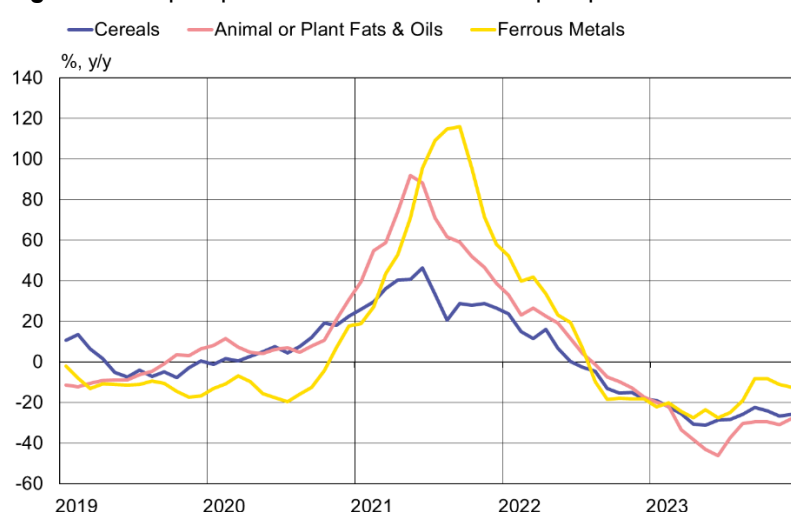


Sources: Macrobond, Customs Service of Ukraine.

Metals (especially steel) and food exports have traditionally been the largest export sectors in Ukraine. With the metals industry suffering the largest hit, food exports accounted for a larger share of diminishing export revenues in 2023, comprising 62 % of all merchandise exports (41 % in 2021). Thanks to a bumper harvest in Ukraine and all other major grain exporting countries, global food prices fell in 2023. Export prices of Ukraine's other main export products decreased as well. Revenues of exporters of agricultural products decreased in 2023 despite the overall increase in export volumes.

According to the Institute of Agrarian Economics (IAE, 2024), the main destinations for Ukraine's agricultural produce in 2023 were Romania, China, and Türkiye. Poland, traditionally the top buyer of Ukrainian food products, imposed restrictions on Ukrainian food imports in the spring of 2022 to calm an outcry from local farmers. Poland's share of Ukraine's food exports fell by a third in 2023.

**Figure 11.** Export prices of Ukraine's main export products.



Sources: Macrobond, Ukrstat.

China rose in 2023 to become Ukraine's largest trading partner due to blockades at the Polish border. Even with the blockade, Ukraine still exported most of its produce to Poland (USD 4.7 billion), Romania (USD 3.7 billion) and China (USD 2.4 billion). Ukraine's main origin of imports was China (USD 10.4 billion), displacing Poland, the previous main import source, to second place (USD 6.6 billion). The third largest source of imports was Germany (USD 4.9 billion).

Logistical problems have been a significant obstacle to Ukraine's exports in post-invasion years. Prior to 2022, 60 % of Ukraine's trade was handled via its Black Sea ports. Luckily, in 2022 Ukraine was able to keep the Odesa region in its control as a full occupation of Russian forces in the Black Sea would have even more devastating for Ukraine's export capacity.

In July 2023, Russia walked away from the Black Sea Grain Deal, claiming its demands had not been met. Within a month, Ukraine had unilaterally re-established the Black Sea trade route from its three Odesa ports. By December, trade volumes matched Grain Deal levels, with 661 ships making successful passages despite ongoing risks from saboteurs, mines, and shallow waters. Also, smaller ports in the Danube have been used for trade.

Due to fighting in the south and bombing of ports along the Black Sea coast, Ukraine's borders with the EU became important routes for trade, aid, and movement of people in the spring of 2022. At the end of 2023, however, truckers and farmers from neighboring EU countries sought to restrict movement across the border to protest permit and duty-free regimes granted to Ukrainian truckers



and produce coming into the EU. The largest impact so far has been from the blocking of the Polish border in November 2023. The anti-Ukraine protests have continued into 2024.<sup>6</sup>

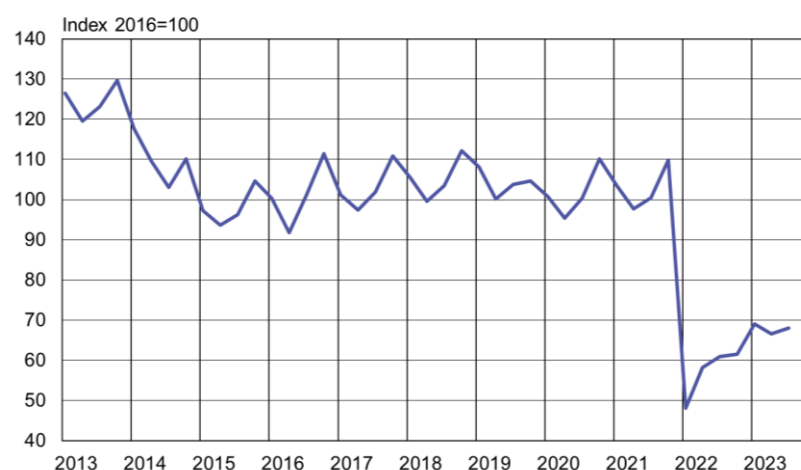
Interestingly, Ukraine's IT services and its exports have been the only sector not falling in 2022 since the start of full-scale war. Remarkably, the IT sector's exports continued to grow in 2022 (5.8 % y/y) even as the economy as a whole declined by nearly 30 %. The relatively good condition of the industry is due to its mobile nature compared to more traditional production. IT services have become the largest export sector in the country. In 2023, when the rest economy showed weak signs of recovery, the IT sector faced increased constraints and decreased by 8.5 % y/y. The sector's predicament reflects a lack of skilled professionals. The sector must compete for competent workers with the armed forces and business travel industry, which makes maintaining global market operations difficult (IT Association of Ukraine, 2024).

## 4. Industrial and sectoral development

### 4.1 Industrial production volumes set back decades

Industrial output (including military) suffered a heavy blow after the Russian invasion in 2022 (down by nearly 40 % y/y). The biggest problems were the loss of workers and facilities in occupied territories, logistical complications, and power shortages due to Russian bombardment. Production levels stabilized at new low level during the first nine months of 2023. Part of this shift reflects the tripling of military production capacity during 2023.<sup>7</sup>

**Figure 12.** Industrial output.



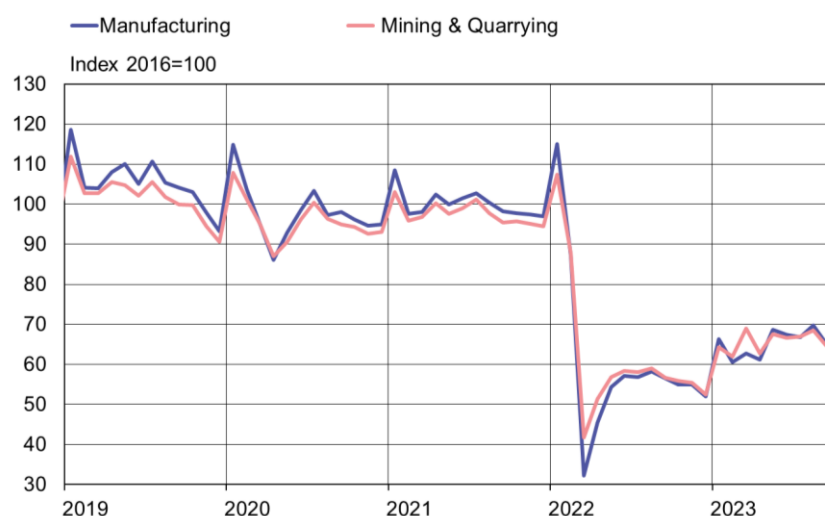
Sources: Macrobond, Ukrstat.

During the first nine months of 2023, industrial output growth amounted to 2.4 % y/y with varying development across industries. After contracting over 40 % y/y in 2022, manufacturing sectors showed strong growth of 8 % in January-September 2023 with the expansion of military-related production. Mining & quarrying also showed modest growth of 4.1 % in the first nine months of 2023 (down by 37.3 % in 2022).

<sup>6</sup> After a short pause, Polish farmers reinitiated their protest in February 2024 on the border against imports of Ukrainian food to the EU. See e.g. [Polish farmers anger Ukraine with border blockade, grain spillage | Reuters](#).

<sup>7</sup> [Zelensky: Ukraine triples weapons production in 2023 \(kyvindependent.com\)](#).

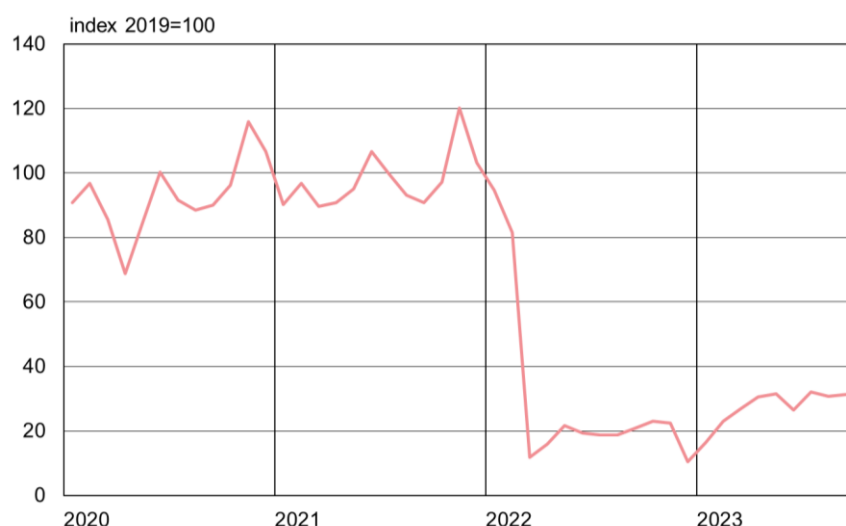


**Figure 13.** Industrial production growth (y/y).

Sources: Macrobond, Ukrstat, BOFIT.

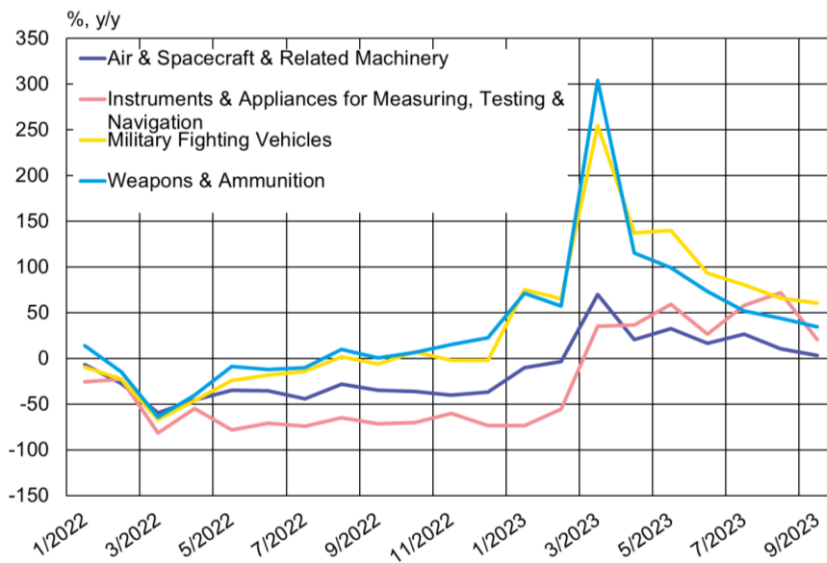
#### 4.1.1 Devastated steel sector resuscitated by military demand and opening of export routes

Before Russia's invasion, steel and related industries were very important to the Ukrainian economy. The steel industry was one of the sectors hardest hit by the war (e.g. crude steel production fell by 70 % y/y in 2022) as sector was export-oriented and most of its export routes via Ukraine's ports were inaccessible. In 2021, 80 % of Ukraine's steel products were exported. Ukraine also lost two of its largest steel mills in the battle for Mariupol (the Azovstal and Illich mills).

**Figure 14.** Steel, basic iron and ferro-alloys production.

Sources: Macrobond, Ukrstat, BOFIT.

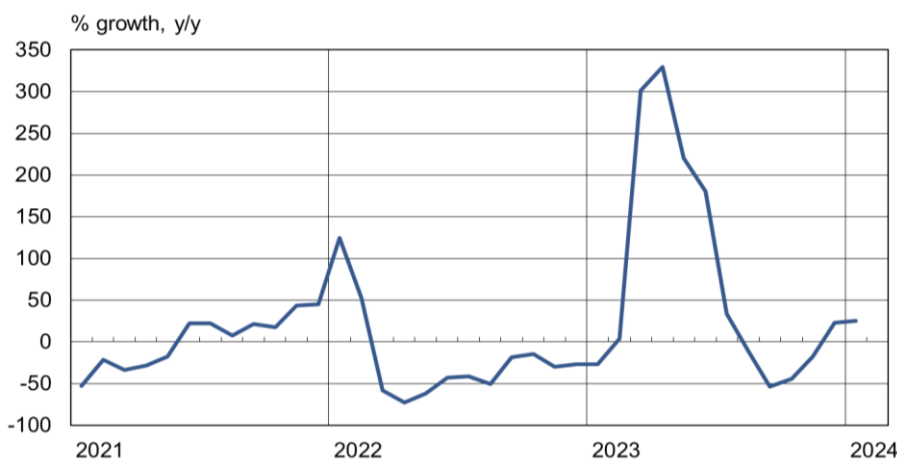
In 2023, steel production plateaued on increased military demand and the re-opening of export routes through the Black Sea Corridor established in August 2023. Even so, production levels remain at just a third of pre-invasion levels.

**Figure 15.** Production growth in selected military-related industries.

Sources: Macrobond, Ukrstat.

## 4.2 All-important agricultural sector takes on even larger role

Ukraine's agricultural sector plays a sizable role in the global economy. Ukraine is one of the largest producers of grains and the third-largest provider of food to the EU area. Pre-invasion, the agricultural sector accounted for 10 % of GDP and employed 14 % of the labor force. Ukraine exports around 70 % of its agricultural produce. Fighting in the "black earth" southern regions in 2022 caused Ukraine's agricultural harvest to decrease by 37 % and a loss of 24 % of cultivated areas compared to 2021 (Institute for Agrarian Economics, 2024).

**Figure 16.** Export volume of cereals.

Sources: CEIC, Ministry for Agrarian Policy and Food of Ukraine.

Favorable weather conditions and the retreat of Russian troops to the east of the country resulted in a record per-hectare harvest in 2023, outpacing the previous record from 2021. However, the 20 % decrease in cultivated land caused by war meant that the overall 2023 harvest (in tons) increased by

just 10 % y/y from 2022. Exports of agricultural produce increased with the opening of export routes through the Black Sea, and despite land transport facing occasional blockades from farmers and truckers from eastern EU countries bordering Ukraine.

Even with a relatively good year in 2023, the losses to Ukraine's agriculture were jointly estimated at around USD 80 billion (RDNA3, 2024) by international organizations (UN, World Bank), the European Commission, and the Ukrainian government.

Ukraine's agricultural sector has increased its significance for the country's economy as most other sectors have been unable to maintain pre-war production levels and the share of agriculture in Ukraine's 2023 GDP remains only slightly lower at 9 %. The Minister for Agrarian Policy and Food expects the sown area to remain roughly the same in 2024 as in 2023, but farmers will be forced to plant lower quality wheat due to lack of funds.<sup>8</sup>

Costly logistics have incentivized farmers to invest in processing, which is more profitable.<sup>9</sup> In the current volumes, the scale is still marginal but could continue to develop if logistical problems persist. Demining of the farmland has become a serious issue since Russian forces dug in along the eastern front in 2022. Their retreat left about half a million hectares of land in need of demining. As of end-2023, only 40 % of the mine-clearing work had been completed.

### 4.3 Energy infrastructure functional, but in need of reform

In October 2022, Russia launched intentionally directed attacks on Ukrainian energy infrastructure (destruction of energy facilities were previously collateral damage). The energy supply sector at the time represented 7–8 % of GDP, with gas transit fees from Russia representing about 0.3 % of GDP. Ukraine's electricity demand fell by about 40 % after Russia's invasion and remained at that level until October 2022.<sup>10</sup> The biggest decline in power generation occurred for nuclear plants, but coal-fired generation also decreased. In March 2024, Russia started bombing energy infrastructure again, which resulted in the shut-down of the Dnipro hydroelectric plant and damage to gas infrastructure. The largest private energy company DTEK reports to working at only 20-30% of its normal output<sup>11</sup>.

At the end of 2023, the post-invasion damage to Ukraine's energy infrastructure was estimated at USD 12.1 billion (includes damage to district heating) (RDNA3, 2024). Total recovery and reconstruction needs at the time were put at USD 47.1 billion.

Despite large-scale destruction of its energy sector, Ukraine managed to export electricity to EU countries in 2022 and 2023 as Ukraine is integrated into the EU electricity network through the European Network of Transmission System Operators for Electricity (ENTSO-E). Electricity exports were halted in October of 2022 with the Russian attacks, resumed in March 2023 to reach record levels but were soon halted due to Russian shelling. Imports of energy via the ENTSO-E have partly replaced the lost capacity but there are problems with energy transmission (CES, 2024a).

Perhaps surprisingly, Russian pipeline gas still flows to the EU via Ukraine, although the volumes have dropped since the invasion. The current transit contracts expire by the end of 2024 and the future of pipeline gas transit is uncertain.<sup>12</sup>

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<sup>8</sup> See [Exclusive: Ukraine plans same 2024 sowing area as 2023, has concerns on wheat quality -minister | Міністерство аграрної політики та продовольства України \(minagro.gov.ua\)](#)

<sup>9</sup> See [An Industry That Feeds the World: What Has 2023 Become for Ukrainian Agriculture? - UkraineWorld.](#)

<sup>10</sup> The International Energy Agency provides data on Ukraine's energy demand and generation up to October 23, 2022. [Ukraine Real-Time Electricity Data Explorer – Data Tools - IEA](#)

<sup>11</sup> See [ABC News: Inside Ukraine's wrecked power plants amid unprecedented Russian attacks DTEK in Ukraine: energy, light and heat for society.](#)

<sup>12</sup> Read more at [The Final Countdown: Will Russia and Ukraine Renew Gas Transit Deal? - Carnegie Endowment for International Peace](#)

## 4.4 State-owned enterprises taking an even larger role and private business struggling under excessive state pressure

Ukraine's business sector has traditionally accommodated state-owned enterprises (SOEs) that control crucial natural resource sectors such as energy and engage in a range of corrupt practices (Sabadus, 2023). At the start of 2023, Ukraine had 3,256 SOEs, a decline of just 3.6 % during 2022. This figure does not, however, include the approximately 14,000 companies owned by local authorities for which no verified statistics exist.<sup>13</sup>

The signing of the Association Agreement, DCFTA, and recommendations of international organizations on the issue of privatization, ranked high on the agenda of Ukraine's structural reforms before the invasion. SOEs were to be reformed through the improvement of corporate governance practices and the simultaneous relaunching of a privatization program (OECD, 2021). Ukraine also introduced land market and banking sector reforms in 2020.

In 2022, the conditions created by the invasion increased the dominant position of SOEs in the economy, allowing them to remain the largest single owner of enterprises followed by oligarch Rinat Akhmetov. In 2022, according to official finance statistics of companies (Ukrstat financial statistics, 2023), SOEs made UAH 924 billion in profit, an increase of 17 % or 25 % of the total profits of the 200 largest companies. SOEs increased their profits mainly through higher energy prices and inflation. At the same time, profits of the largest 200 companies decreased by 9 %.<sup>14</sup>

The transition to a war economy has made SOEs significant sources of additional financing for the state budget. Many SOEs enjoyed "windfall" profits from high energy prices caused by the war. State-owned banks benefited from restrictions on capital movements. At the beginning of 2024, when foreign partners were slow in transferring funds to Ukraine, SOEs reportedly paid many of their mandatory payments in advance (behavior that could not be mandated for private companies on such short notice).

Private businesses have begun to complain loudly about excessive state pressure. The issue is not new, but has been exacerbated by martial law.<sup>15</sup> Most complaints deal with excessive investigations and inspections, or use of unnecessary force (CES, 2024b). Relevant state officials at ministerial level have promised to address the problem, but business communities say that they have seen little evidence of changed behavior on the part of law enforcement. A moratorium on business inspections was introduced and creation of a single body in charge was created following the highly publicized case involving investment banker Ihor Mazepa,<sup>16</sup> who pressured security officials and judges, and was later detained.

## 4.5 Western regions benefit from relocation of economic activity

The full-scale invasion has affected the Ukrainian regions disproportionately with most of the fighting after Spring of 2022 located in the East and South. Unsurprisingly, regions close to the frontline (Kherson, Zaporizhzhya, Donetsk and Kharkiv) have suffered the largest proportional decline in the number of active companies between November 1, 2021 and November 1, 2023 according to data from the Ukrainian Statistics Office. Kyiv city is an exception, but can be seen as an indicator for the

<sup>13</sup> [The Ukrainian government continues to dominate as the largest owner of enterprises. - UBN](#)

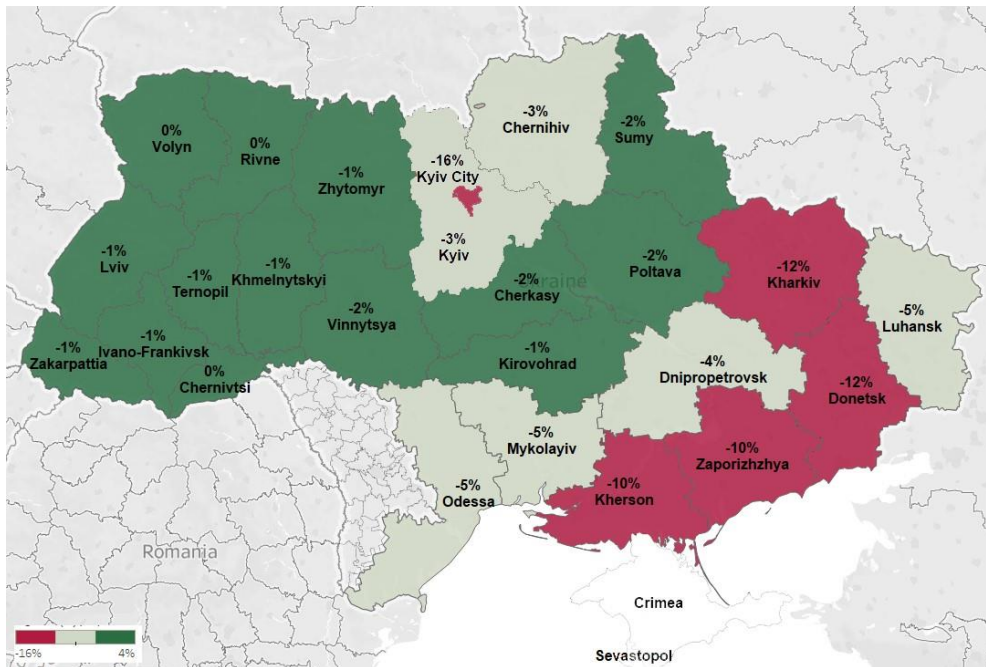
<sup>14</sup> See [200 найбільших компаній України 2022 року \(censor.net\)](#)

<sup>15</sup> For more on the martial law regime, see Ukraine's Human Rights Ombudsman [Уповноважений Верховної Ради України з прав людини - Воєнний стан \(ombudsman.gov.ua\)](#)

<sup>16</sup> See e.g. [Case against investment banker points to increasing pressure by state on business in Ukraine \(kyivindependent.com\)](#)

overall decline in the economy as the country's economic center. Compared to the pre-invasion situation, the number of active companies was down by 8 % at the end of 2023.

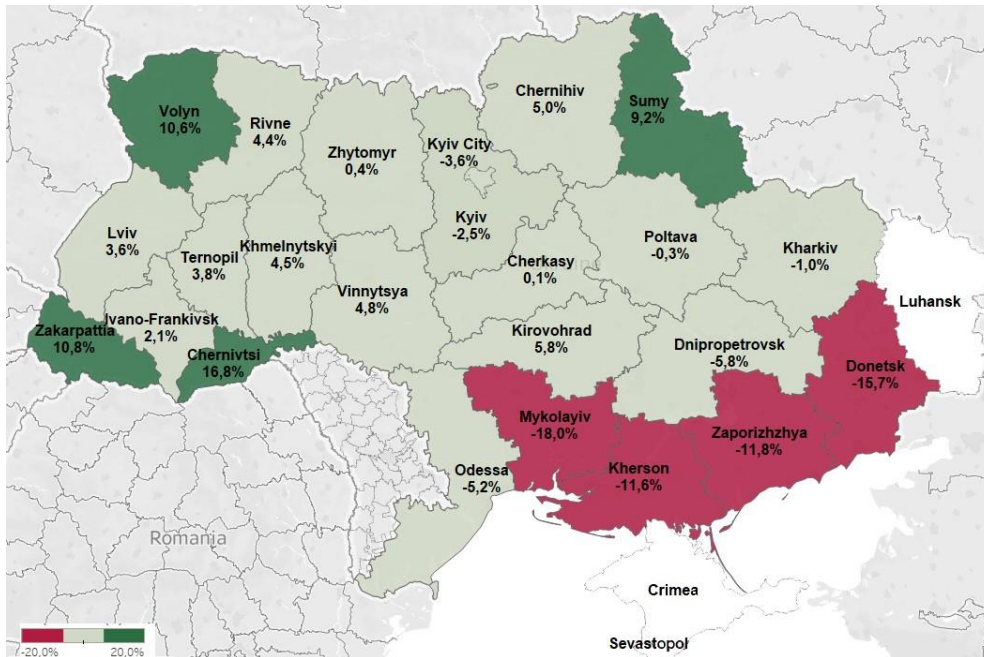
**Map 1.** Proportion (%) of the loss in active companies\* (Nov. 1, 2023 vs Nov. 1, 2021).



\*) Data for Crimea is not available due to Russian occupation. The regions of Kherson, Zaporizhzhya, Donetsk and Kharkiv partly occupied by Russia.  
Source: Ukrstat.

Share of the profit-making companies deteriorated by 18 percentage points to 60 % in the first nine months of 2022 compared to January-September 2021, but improved to 76 % during the same period in 2023. Most affected regions as expected are in the south or east. However, 11 regions (out of 25) showed an increase in the share of profit-making companies in 2023 compared to 2021. Most of these regions are in the west or central areas of the country. These results likely reflect growth in the relative importance of these regions as economic activity and workers migrated to safer regions. Despite an increase in potential workforce in the western parts of the country, a 2024 IOM survey found that most internally displaced people (IDPs) resided in neighboring areas: largest number of IDPs both originate and have relocated in the Kharkiv and Dnipropetrovsk regions (IOM, 2024). An interesting exception is the Sumy region bordering Russia, which has experienced heavy bombardment and fighting.



**Map 2.** Change in share of profit-making companies,\* (Jan.-Sept. 2023 vs Jan.-Sept. 2021).

\*) Data for Crimea unavailable due to Russian occupation. Kherson, Zaporizhzhya, Donetsk and Kharkiv regions partly occupied by Russia.

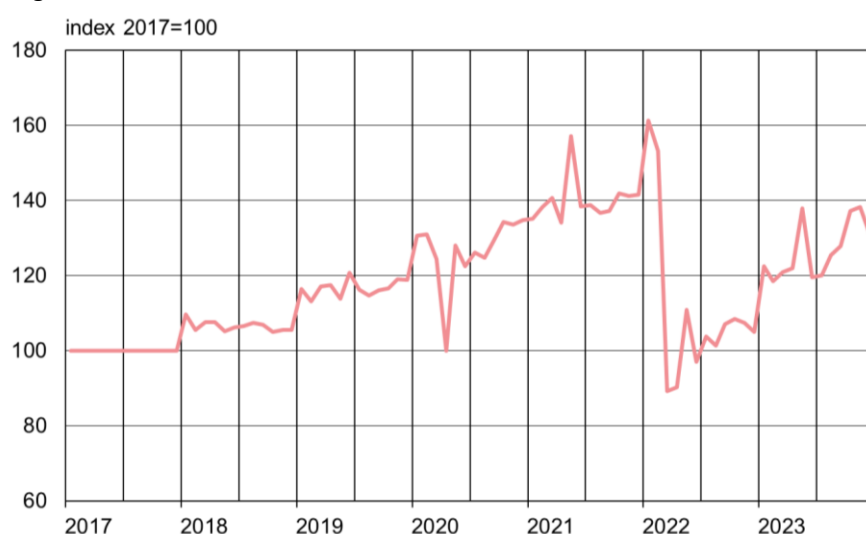
Source: Ukrstat.

## 5. Consumer sectors and the labor market

### 5.1 Retail trade on the mend as incomes recover

According to NBU estimates (2024c), improvement in the general economic situation and the shortage of workers in 2023 has led to rising personal incomes. Nominal incomes are estimated to have increased by 17.1 % y/y and real incomes by 3.5 %. The situation is a significant improvement from 2022, when real incomes contracted by 11.4 % y/y. Positive changes contributed to recovery in demand for retail and other consumer-driven sectors, but remain well below pre-invasion levels.

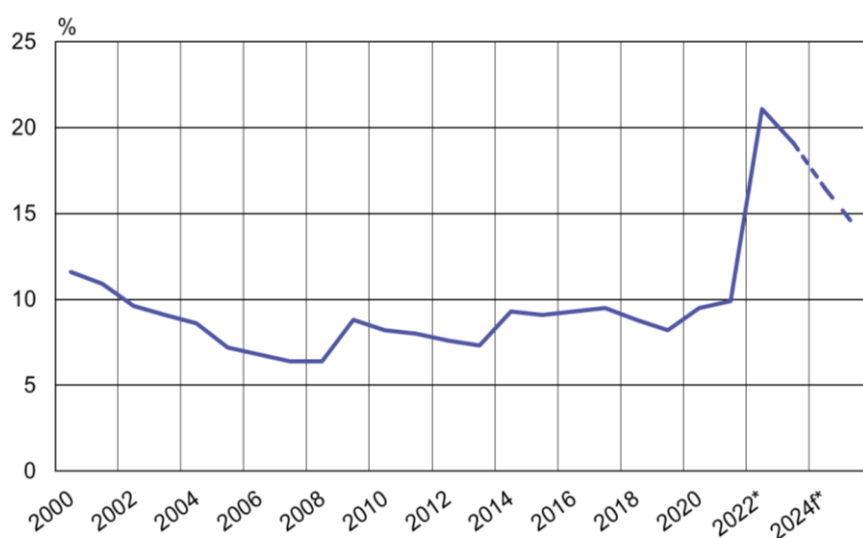
Consumer sectors had to accommodate for lower demand, loss of workers, and destroyed infrastructure. The retail sector, in particular, suffered from the loss of customers and falling income levels. Retail turnover decreased by 21.4 % y/y in 2022, but returned to growth of 7.3 % in the first half of 2023.

**Figure 17.** Retail trade turnover.

Sources: Macrobond, Ukrstat, BOFIT.

## 5.2 Simultaneous problems of high unemployment and shortage of workers

One the most serious consequences of Russia's aggression against Ukraine has been the millions of internal and international refugees as well as the resulting mismatches in the labor market. In 2022, destruction of workplaces and homes from Russian advancing and retreating forces resulted in a surge of poverty levels and unemployment. As the front lines stabilized in 2023 and the military industry increased its capacity, a significant shortage of skilled workers emerged in civilian sectors. At the initial stages of Russia's invasion, nearly 5 million jobs were lost, or about 30 % of pre-invasion employment (ILO, 2022). The loss shrank to 2.4 million jobs as of February 2023 (ILO, 2023).

**Figure 18.** Ukraine's unemployment rate.

\* = NBU estimate. f\* = NBU forecast.

Sources: Ukrstat, NBU.

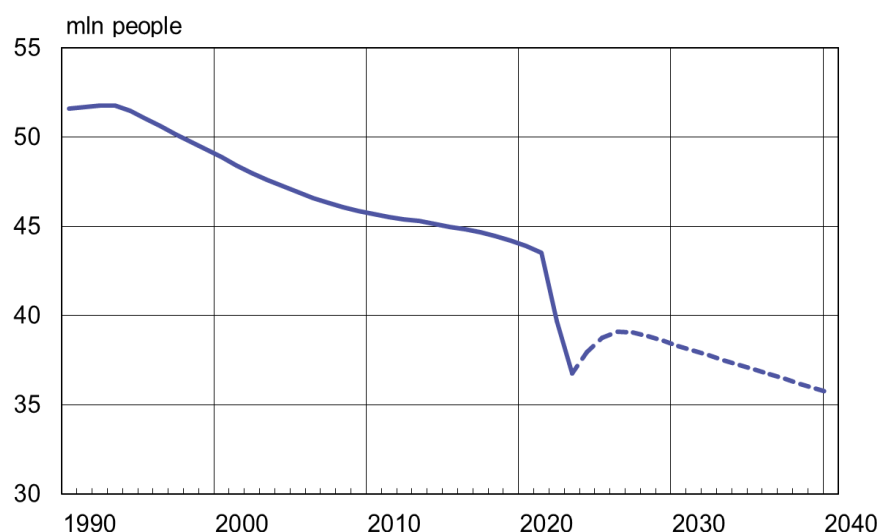
Ukraine ceased to publish official unemployment figures after the invasion. NBU estimates show unemployment surged from around 10 % in 2021 to over 20 % of the workforce in 2022. According to the same sources, unemployment declined to 19 % in 2023.<sup>17</sup> Data from major recruiting platforms in Ukraine (CES, 2023b) suggest that a recovery in the number of vacancies during 2023 coincides with a decline in applicants compared to 2022. According to a survey by the European Business Association in Ukraine, 53 % of European firms operating in Ukraine have seen up to 10 % of their workforce pressed into military service, with 30 % having lost more than 10% of their workforce to the military in the fourth quarter of the year (EBA, 2023). In addition, 66 % provide support for their mobilized workers. A new law passed on April 2, 2024 in the Verkhovna Rada lowers the draft age of men sent to the front.<sup>18</sup> This change could cause the situation in Ukraine's labor markets to deteriorate further.

### 5.3 Poor demographics made worse

Ukraine's most recent population census was conducted in 2001, so significant uncertainty exists as to the actual size of the population permanently residing in Ukraine-controlled territory. The onslaught of the fighting in Donbass in 2014 caused millions to flee to Russia and neighboring EU countries. Based on available estimates, Ukraine's population has decreased constantly. In any case, the fertility rate was already low before the invasion.

There are varying estimates as to how many people have left the country, how many have returned, and how many are internally displaced. Before February 24, 2022, official figures suggested that the active Ukrainian workforce was in the range of 18–20 million and the total population was about 40 million. The UN Population Division (2023) estimates the Ukrainian population was about 37 million at the end of 2022.

**Figure 19.** Population of Ukraine.



Note: Estimates/forecasts start after 2022.

Source: UN Population Division.

<sup>17</sup> The polling company Info Sapiens gives a slightly lower estimate of 17 % for 2023.

<sup>18</sup> See [Zelensky signs several laws on mobilization, making younger men eligible for draft \(kyivindependent.com\)](https://kyivindependent.com/zelensky-signs-several-laws-on-mobilization-making-younger-men-eligible-for-draft/).



The number of emigrants who have left since the invasion range from 6 to 9 million Ukrainians. These estimates are unreliable, however, as there is no official registration of leavers either in Ukraine or in receiving countries (registration requirements vary even within the EU). In the summer of 2023, surveys by the Center for Economic Strategy (CES, 2023b) found that 5.6–6.7 million Ukrainians likely resided outside the country, a slight increase from December 2022. The survey producers attributed the increase to attacks on energy infrastructure in the winter of 2023 and the destruction of the Kakhovka Dam.

In February 2024, 6.4 million Ukrainian refugees are recorded globally (UNHCR, 2024a). Most refugees are female, both adults and children. Ukraine's need for humanitarian assistance remains extensive. UNHCR (2024b) reported on the eve of the two-year anniversary of the invasion that nearly 15 million people needed humanitarian assistance in Ukraine, i.e. about 40 % of the population.

Internally displaced persons (IDPs), initially estimated to number between 6 and 8 million, fell to 3.7 million in September 2023 according to IOM (2024) tracking. The largest groups of IDPs were in the Dnipropetrovsk and Kharkiv regions, followed by Kyiv city. Approximately 3 million people crossed the border voluntarily or were deported to Russia and Belarus after the invasion (CES, 2023b). Of those, 1.3 million are estimated to have remained in Russia or Belarus.

## 6. Outlook increasingly uncertain

### 6.1 Decelerating growth and mounting reconstruction needs

The war carries significant risks and uncertainties for the economy. Beyond developments at the front, Ukraine's policymakers face uncertainty about foreign financing, accelerating inflation, and labor shortages.

In many respects, Ukraine in 2024 faces the same risks as in 2022 (lack of finances and armaments). The biggest difference is the absence of an initial shock from full-scale invasion. The NBU forecasts that GDP growth will decelerate to 3.6 % for 2024, while the IMF projects 3–4% and the World Bank 3.2 %.

Interestingly, the National Bank (NBU, 2024c) forecasts “a decline in security risks” in 2025–2026 that would, together with implement EU integration reforms, boost private investment, consumer sentiment, and the return of refugees. The IMF also expects growth to accelerate to 6.5 % in 2025, and forecasts that GDP per capita will recover to its 2021 level by 2027.

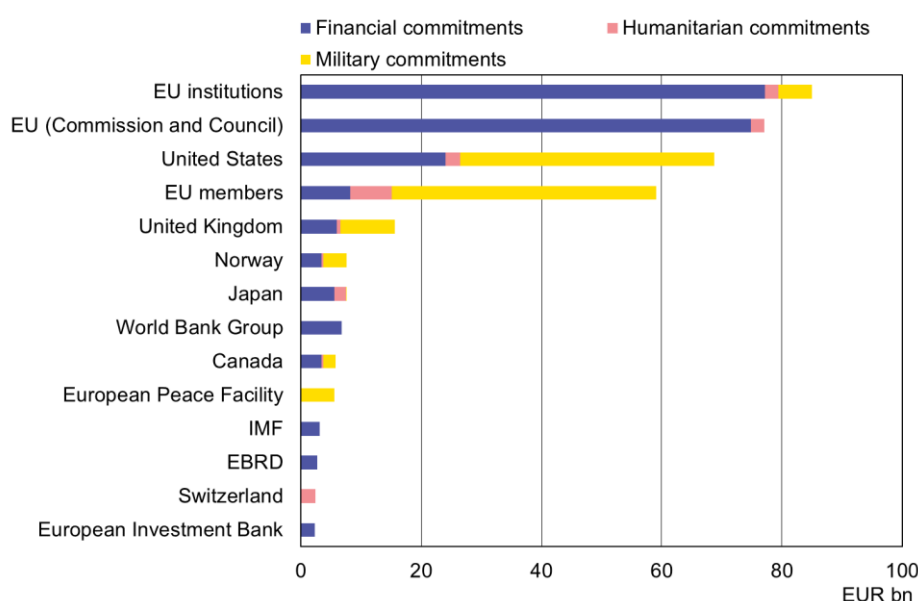
According to the third round of the Ukraine Rapid Damage and Needs Assessment (RDNA3, 2024), recovery and reconstruction needs are estimated at USD 486 billion (EUR 440 billion) as of the end of 2023, or approximately 2.8 times the estimated nominal GDP of Ukraine for 2023. The concededly ambitious plan outlined in the report envisages an 10-year reconstruction period.

Reconstruction is already under way, but the needs for support are huge. The RDNA3 report outlines urgent needs of USD 15 billion for 2024 and a USD 9.5 billion gap in funding for these reconstruction efforts directed at civilian industries. For example, the industry and services sector's needs are nearly USD 3.6 billion, housing and utilities USD 3.1 billion, energy USD 2.7 billion, social infrastructure and services USD 2.4 billion, and transport USD 2.3 billion, in addition to USD 1.2 billion needed to address cross-sectoral priorities. The Ukrainian government has also produced a separate plan for its reconstruction and recovery needs that calls for over USD 750 billion in funding through 2032 (Ukraine Recovery Plan, 2024). In comparison to the RDNA3, this recovery plan involves projects beyond mere reconstruction of the war damages such as green transition and EU integration projects.

## 6.2 Foreign support comes increasingly in the form of loans

As of the beginning of 2024, Ukraine's foreign partners had committed USD 350 billion to helping Ukraine, an amount roughly double the size of the country's expected 2023 nominal GDP. According to data collected by the Kiel Institute for the World Economy (2024), 62 % of the pledged aid is financial, 32 % military, and 5.5 % direct humanitarian commitments. The aid is still mostly commitments; most of the funds have yet to be released for Ukraine's use. In addition, the transparency of donor commitments and disbursements vary,<sup>19</sup> especially in the case of military disbursements.

**Figure 20.** Total commitments to Ukraine by type (Jan. 24, 2022 – Jan. 15, 2024).

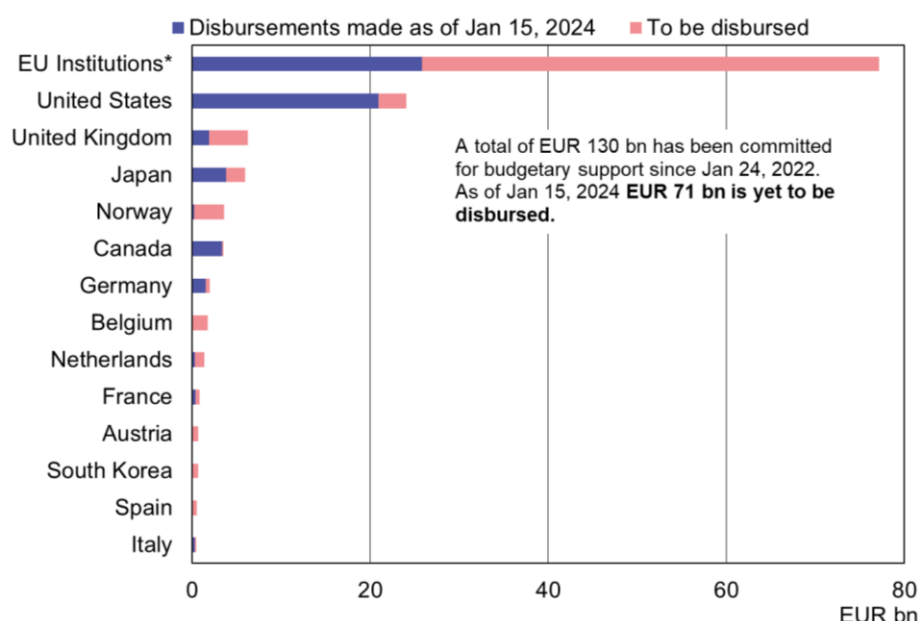


\* Does not include financial aid by international organizations, private donations, or aid for refugees.

Source: Kiel Institute for the World Economy

A total of EUR 130 billion budgetary support in loans, grants and guarantees have been pledged to Ukraine since the beginning of 2022. Much of the pledged assistance (55 %) as of January 15, 2024 was disbursed to Ukraine (see figure below) immediately or distributed over several years.

<sup>19</sup> The Kiel Institute ranks countries based on the transparency of their aid to Ukraine using a scale of 0 (least transparent) to 5 (most transparent). Switzerland ranks as most transparent, followed by EU institutions. Finland ranks 12<sup>th</sup> (score of 3.9/5) after Sweden. See [Ukraine Support Tracker Data | Kiel Institute \(ifw-kiel.de\)](https://www.kiel-institute.org/ukraine-support-tracker-data/)

**Figure 21.** Commitments and disbursements to Ukraine in budgetary aid (Jan. 15, 2022 – Jan. 15, 2024)

\* Includes macrofinancial assistance and European Investment Bank funds.

Sources: Kiel Institute for the World Economy, Ukraine Ministry of Finance.

Foreign assistance to cover Ukraine's budgetary needs halted abruptly in the beginning of 2024, but recently funding prospects have become more promising. On March 20, 2024, the EU paid the first tranche of EUR 4.5 billion from its EUR 50 billion Ukraine Facility. Prior to the EU disbursement, the largest source of financing of the state budget deficit in 2024 has been domestic bonds – total of USD 3.3 billion by April 3<sup>rd</sup>. By the same date other disbursements made from foreign partners were USD 1.5 billion loan from Canada, USD 2.1 billion (700 million in grants and 1.4 billion in loans) from Japan, a USD 295 million grant from Norway, and a USD 3 million grant from Spain. These funds have allowed Ukraine to cover its deficits in the beginning of the year. There is, however, still significant uncertainty on funding in the coming months as the US aid package for Ukraine is stalling.

Moreover, the IMF and the Ukrainian government have reached a Board level agreement on March 21, 2024 to extend USD 880 million to Ukraine (IMF, 2024). According to Third Review of the Extended Fund Facility (EFF)<sup>20</sup> assessment, Ukraine had passed all required structural benchmarks except one. The agreement concludes that Ukraine has missed the mark slightly on tax revenues due to the blockades on its Western borders.

Discussion on the release of Russian state funds frozen in G7 countries for Ukraine's benefit is on-going at the time of this writing. Most of the approximately EUR 260 billion is held in the EU (EUR 191 billion by Euroclear in Belgium). The US has already put forward a bill to use the funds (USD 5 billion) held under its jurisdiction to be transferred to Ukraine but is seeking common G7-level approval. In March 2024, EU members agreed in principle to use the profits from Russia's frozen assets in the EU, but there is no decision as to how these funds might be used (and especially whether military expenses should be excluded). The first 1 billion tranche could be released in July 2024. In 2023, the reinvested Russian funds held at Euroclear have generated EUR 4.4 billion in

<sup>20</sup> The EFF Arrangement is a four-year conditional loan program approved on March 2023. It totals roughly USD 15.6 billion (SDR 11.6 billion) and includes tranches of approximately USD 900 million to be distributed every four months subject to specified performance criteria.

profits. The proceeds are estimated to generate EUR 2.5–3 billion a year. Between 2023–2027, the funds are expected to sum up to EUR 16.9–19.4 billion, including the 25 % Belgian profit tax.

The government of Belgium has also proposed a diluted version of a direct confiscation, whereby the Russian assets would be used as collateral to raise debt for Ukraine. Criticism on the use of Russian funds have been raised mainly in Europe, and most recently by Euroclear's CEO, who claims that it would "pose financial stability risks to Europe."<sup>21</sup>

Ukraine's state debt has soared since the invasion started. In 2023, Ukraine's government debt reached 85 % of GDP, up by 35 %-points from 2021. The current speed of indebtedness is worrying, especially if most foreign assistance continues to be in the form of loans. The IMF has outlined a potential negative scenario for Ukraine where the war continues after 2025. In this scenario, Ukraine's debt levels at the end of 2024 would expand from 97 % (baseline) to 112 % of GDP, and from 99 % to 127% of GDP by the end of 2025.

## 7. Concluding remarks

Thanks to the help of its foreign partners, Ukraine's economy has proven itself to be more resilient than expected. The country's immediate and urgent needs nevertheless remain tremendous, and the economy needs support from its foreign partners. Most funding currently received from foreign partners is in the form of concessional loans. The persistence of the current trajectory could lead to high levels of indebtedness in the future. Large repayment claims on its debt could thwart Ukraine's reconstruction efforts and crowd out funding from more urgent needs. These problems will become more timely after 2027. To avoid such problems, foreign assistance should tilt more to grants than loans. Moreover, Ukraine needs clarity on foreign support for several years ahead if decisions are to be made now.

When the war eventually settles, Ukrainians should be incentivized (not forced) to return home. Ukraine's adverse pre-invasion demographics have deteriorated further, and surveys show that a large proportion of the emigrants are highly skilled. These high-level professionals are crucial for Ukraine's future. Additionally, a large proportion of the emigrants are children, perhaps the most valuable resource of all in the building of any country's future. Most emigrants are in Europe, and European partners can offer incentives for emigrants to return by providing employment opportunities such as remote work, support for families and joint educational programs. A degree obtained in a European institution could be put to use for Ukraine's benefit and serves as an indirect form of support for Ukraine.

In Ukraine, the public sector's share of the economy has historically been large and Russia's full-scale invasion has understandably increased it further. Over the medium-term, state dominance can be crippling for competition and reduce investment or entry of new firms, further weakening Ukraine's growth prospects. Companies in Ukraine are increasingly criticize the government for using the martial law to put unnecessary pressure on private enterprises. The EU integration process should continue to highlight this issue.

This policy brief outlined some of the challenges facing the Ukrainian economy and their implication for other European economies and Europe's security landscape. Despite war, Ukraine is making progress in reforming its economy and even speeding up implementation. No doubt this is

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<sup>21</sup> [Euroclear warns against G7 plan to backstop Ukraine debt with Russian assets \(ft.com\)](https://www.ft.com/content/2023/07/14/euroclear-warns-against-g7-plan-to-backstop-ukraine-debt-with-russian-assets).

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driven by the closer cooperation and requirements of Ukraine's foreign partners and the sense of urgency in Ukraine to rid itself from the harmful legacies of its Soviet past and former close ties with Russia. The breaking of these harmful structures and tendencies will take both time and a concerted international group effort.

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