



BANK OF FINLAND **BULLETIN**

BANK OF FINLAND ARTICLES ON THE ECONOMY

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Four years of full-scale war: How Ukraine is building economic strength

Today – International economy



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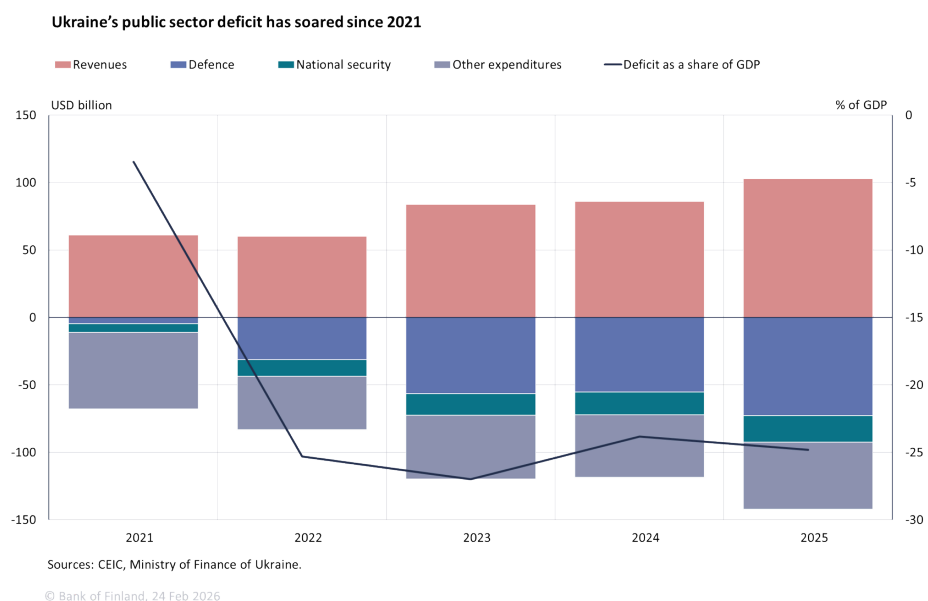
It has been over a decade since Russia launched military actions against Ukraine and this week marks the fourth anniversary since the full-scale invasion, yet Ukraine's economy continues to grow, evolve and even innovate. The preliminary estimate from Ukraine's state statistics service (Ukrstat) shows the country's GDP grew by around 2 % last year even with heating and electricity outages affecting most of the country 8–14 hours a day. International support, adequately proportioned and timely responses by Ukraine's officials, along with the preservation of a functional market economy, have been central to Ukraine's remarkable tale of survival.

How have the last four years changed Ukraine's economy?

Russian forces today occupy a fifth of Ukraine's land area. About 15 % of Ukraine's population (mostly women and children) fled the country prior to the invasion. More than three million people who stayed remain internally displaced. Industries serving the civilian and defence sectors suffer from serious manpower shortages, particularly the lack of highly educated workers. In light of these massive strains, it is hardly surprising that Ukraine's economy at the end of 2025 was about 20 % smaller than in 2021.

The war of aggression's largest economic impacts for Ukraine has been on government finances. The public sector showed again a significant deficit of 25 % of GDP in 2025 (excl. foreign support). Before the full-scale war deficit were in single digits. The combined spending on domestic security and defence (including military equipment support from abroad) accounted for more than a third of Ukraine's GDP, which is probably a current world record (Figure 1). Although the ratio of the country's own revenue to spending increased from 47 % to nearly 60 %, public finances are heavily dependent on foreign financing. The bulk of Ukraine's budget support from foreign sources comes in the form of conditional loans. Last year, foreign direct funding amounted to \$52 billion, of which less than \$700 million was in the form of grants. Ukraine also raised \$14 billion on the sale of domestic bonds last year.

Chart 1.

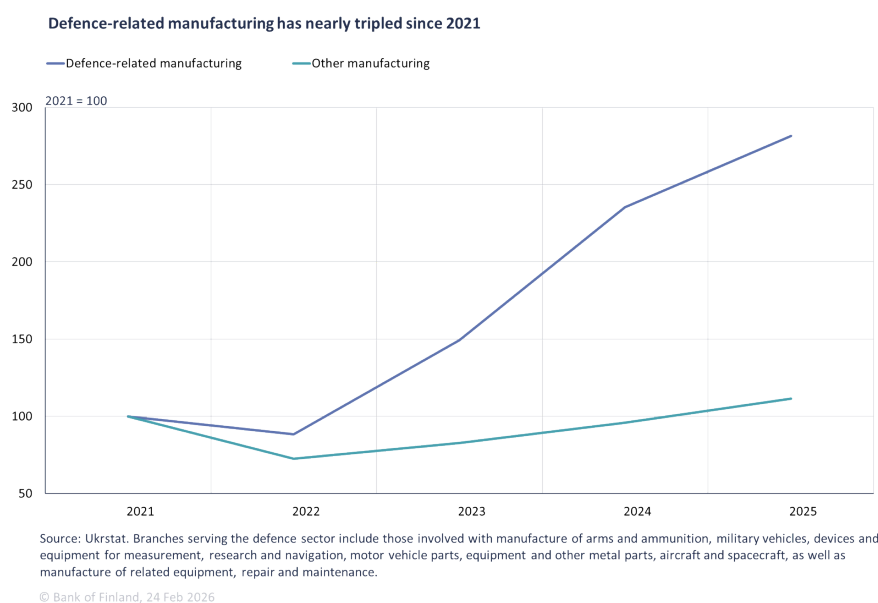


Full-scale war has altered the structure of the economy. Inevitably, a protracted defensive war increases the state's role in the economy. The 2025 value added of public and defence administration, measured as a share of GDP in 2021 prices, was about double that of 2021 (12 %). Among Ukraine's most important economic branches, mining & quarrying activity has suffered most during the war of aggression as most of the country's mining operations are located in the illegally occupied territories. Agriculture's contribution to Ukrainian output, however, has remained largely unchanged, but its significance to exports has risen from 40 % to 60 %.

Flourishing defence sector and the drone revolution

The war gave Ukraine's manufacturing sector, which traditionally supported resource extraction industries, and the steel industry in particular, a significant new role in producing for the defence sector (Figure 2). Drone manufacturing, in particular, has become Ukraine's hottest new industry. Drone output, which was measured in thousands of units at the start of 2022, climbed to around 2.2 million in 2024 and could surpass 4 million units this year. Ukraine's current production capacity exceeds the country's own needs, even in the midst of a defensive war. Ukraine has granted its first wartime export licences and is presently building export centres to show off the solutions offered by Ukrainian defence firms to potential buyers. The ten centres being built this year will mainly be located in Northern Europe.

Chart 2.



One of the most surprising aspects Ukraine’s drone revolution is that the drone market is built on an ecosystem of recently established, small and agile firms that operate efficiently withing a web of networks. This is very different to the traditional military industries that we are used to that is often dominated by a few state-owned giants. As of end-2025, about 500 drone manufacturers operated in Ukraine. Under a broader definition that includes component and software developers, over a thousand tech firms served the drone industry. Considering that Ukraine only had a handful of arms manufacturers prior to the war, this achievement is nothing short from impressive. Moreover, rapid innovation cycles explain a large part of the success of Ukraine’s drone industry. Daily feedback from the front is used to identify what works and what doesn’t. Drone designs can be updated daily or weekly, not monthly or yearly as in most weapons systems currently supplied to Ukraine.

Wartime rationing has a role, but preservation of the free market provides needed flexibility

In the first days of the war, Ukraine imposed severe restrictions on currency and capital movements in order to protect its foreign currency reserves and prevent capital flight. As the acute crisis stabilized, the National Bank of Ukraine started the gradual liberalisation of exchange rate regulation already in October 2023. At the start of 2024, the National Bank of Ukraine facilitated money transfers related to imports, services and interest payments in order to smooth business operations and international trade.

In 2025, accommodative monetary policy was extended to provide “stimulative liberalisation,” whereby previously banned forex operations were allowed to the extent that new foreign capital flows could reach firms. The list of permitted forex operations was also expanded to include such things as preexisting import debts, financing of foreign subsidiaries and limits on making dividend payments to investors abroad.

Most remarkably, large part of Ukraine's economy today operates under market conditions, and consumer prices are unregulated. The state's role is to grant subsidies in an emergency but not to crowd out private business. For example, subsidies are granted to purchase back-up generators, solar panels or other equipment to secure electricity supply damaged by Russia's targeted attacks on Ukraine's energy infrastructure. Importantly, it is left to households and businesses to determine the appropriate solutions for their specific circumstances. The Ukrainian economy's surprising resilience is largely the outcome of a nimble private sector that adapted to wartime conditions. Companies have shifted their production sites, opened new logistics routes and switched as needed to remote work and decentralised operations.

Most important to Ukraine's economic resilience are the pitfalls it has managed to avoid. Ukraine has avoided a financial sector crisis and rejected extensive regulation of consumer prices. The easing of restrictions, which played an important role in the initial crisis after the invasion, helped stabilise the economy by allowing businesses to operate efficiently, thereby increasing certainty surrounding investment and reducing bottlenecks in payments. Deregulation also improved the confidence of both foreign investors and citizens in Ukraine's ability to maintain a controlled, predictable financial system in the midst of war.

Lessons from Ukraine's experience

The Ukrainian response to Russian aggression demonstrates that agility by local businesses, diversified energy solutions and high-velocity innovation cycles (especially in drone and electronics development) can keep wheels of an economy turning even with repeated power outages, logistics disturbances and chronic labour shortages. Ukraine's successes, especially with respect to rapid product development and novel financing arrangements, also have large implications for Europe's defence industries as a whole.

Ukraine has not allowed itself to become an isolated fortress economy. International financing and stable technological partnerships have also been decisive in its survival. Ukraine has nourished its free market in all industries where it was safe to do so (consumer products, digital services, certain types of manufacturing) and helped assure resources are directed to where they are of greatest benefit.

Tags

[Ukraine, war, economy](#)