INSTITUTE FOR ECONOMIC RESEARCH AND POLICY CONSULTING

Monthly Economic Monitoring of Ukraine

No. 216, January 2023

Resume

- Due to Russia's full-scale war against Ukraine, real GDP fell by 30% in 2022, and consumer price inflation reached 26.6% yoy in December.
- In December, agriculture grew for the first time in 2022 due to the delayed harvesting of maize.
- Russia's shelling of energy infrastructure has led to a shortage of electricity, estimated to be 25% of the demand.
- The demand for fuel increased as businesses and citizens used generators for electricity production, resulting in a 20-30% increase in fuel imports.
- In December, grain exports by rail and seaports accelerated.
- Ukraine's commodity trade decreased by 30% yoy, comparable to the 2014-2015 crisis and even slightly better than during the global crisis of 2008-2009.
- In December 2022, Ukraine received record amounts of international assistance, which financed the traditional increase in budget expenditures at the end of the year.
- The USA and the EU adopted decisions that will ensure a large share of external financing planned in the amount of USD 38 bn for 2023.
- International aid not only funded the budget but also helped the NBU maintain the exchange rate.

IER resumes publication of Monthly Economic Monitoring of Ukraine with the financial support of the European Union within the framework of the project "Ukraine's economy during the war and support for Ukrainians affected by the war".

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GDP and the real sector: Agriculture grew in December

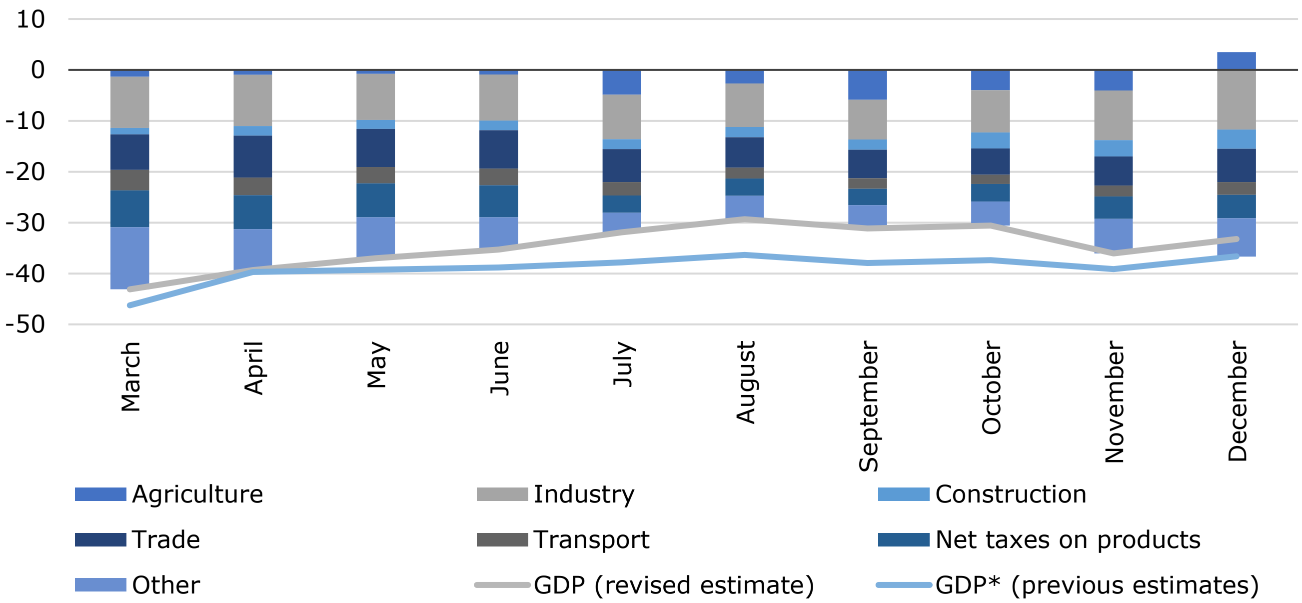
In December 2022, according to the IER estimates, agriculture grew due to the late harvesting of maize. According to the Ministry of Agrarian Policy, the farmers harvested up to 6 m tons of maize in December. This is several times more than in 2021 (when approximately 2.3 m tons were harvested). As a result, the real GDP drop is estimated to slow to 33% yoy in December after falling 36% yoy in November.

The pace of decline also decelerated in the food and textile industries as enterprises adapted to power outages. The companies purchased generators, fuel, and batteries and changed their work schedules.

At the same time, the situation worsened in all sectors of the extractive industry, and metallurgy fell by 70%. According to our assessment, the drop in transport has accelerated, mainly because of the slower crossing of the Polish border by road due to more thorough inspections by Polish phytosanitary control and the missiles and drone strikes on Ukraine's energy infrastructure by russia. Trade indicators deteriorated primarily due to a higher statistical base.

The situation in the energy sector remained challenging due to the shelling of russia. However, the interruptions in electricity supply were more local and affected primarily Odesa oblast and the city of Kyiv.

Figure 1: Contributions to real GDP, p.p., 2022



*Note: * GDP (old estimate) - an estimate of GDP made by IER experts before revision according to the flash GDP estimates by the Ukrstat for the 2-3 quarters of 2022 and sectoral data for January-June.*
Source: IER assessment made under the support of the USAID Competitive Economy Program in Ukraine

According to the IER estimate, real GDP in 2022 decreased by about 30%. The situation has deteriorated in all sectors of the economy. At the same time, public consumption grew because of the higher spending on defense items. Real private final consumption decreased by about 29% due to the migration of people to safer areas of Ukraine and abroad, higher unemployment, and slower nominal income growth against the background of high inflation. Real gross fixed capital accumulation halved due to budget constraints in both private and public sectors and due to ultra-high uncertainty and loss of territories.

The fall in domestic demand hurt imports, which fell sharply in real terms. However, imports were supported by higher defense purchases abroad and by acquiring generators, fuel, and goods in the fourth quarter needed during electricity shortages. Real exports of goods decreased due to the loss of territories, expensive and complex logistics, the destruction of enterprises, and lack of available financing.

Energy: A continued shortage of electricity

In the Ukrainian energy system, as of the beginning of January, there is a significant shortage of electricity (about 25%); half of the power system is damaged or destroyed, and Ukrenergo applies emergency shutdowns. Eight NPP power units operate in the system because on January 3, 2023, Energoatom put one of the nuclear power units into scheduled overhaul. According to estimates, the total electricity shortage in Ukraine for the second decade of December amounted to 3-4 thous. MW. According to DTEK, electricity production in January-November 2022 decreased by 28% yoy, and consumption fell by 30% yoy.

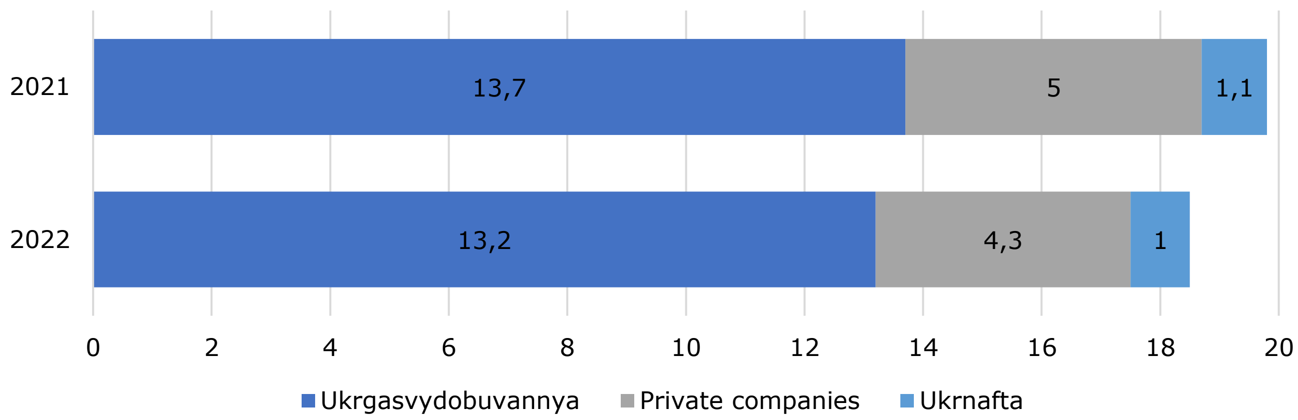
The construction of the third stage of the Dniester HAPP at 972 MW by Ukrhydroenergo can mitigate future electricity shortages. The first two stages of the station have a capacity of 1296 MW in generator mode.

The National Energy and Utilities Regulatory Commission (NERC) approved a three-stage increase in the Ukrenergo industry tariff for electricity transmission during 2023 – in January, April, and July. From January 1, 2023, the tariff will increase by 10% from UAH 345.64 to UAH 380.28 per MWh, in April and July by an additional 13.1% and 12.7%, respectively. The Ukrenergo industry tariff for dispatching will also grow in stages, by 9.9%, 18.4%, and 18.1%, respectively.

The massive use of generators has increased the demand for gasoline and diesel. Market players have raised the gasoline supply in Ukraine by 36% mom, diesel fuel by 25%, and LPG by 23%. The Government canceled the duties on the import of generators and other similar equipment by May 1, as well as guaranteed the importers of electricity from EU countries an uninterrupted power supply until April 30. Small electricity imports in Ukraine began on January 1 (coordinated commercial flows of 0.7 GW at night and 0.6 GW during the day).

As a result of hostilities, temporary occupation of part of the territory of Ukraine, and destruction, gas production decreased from 19.8 bcm in 2021 to 18.5 bcm in 2022. At the same time, the extraction by private companies fell by 15%. This is the lowest production value in the last 20 years. Consumption also decreased (by 30% yoy to about 19 bcm). However, according to Naftogaz, there is a shortage of 2 bcm of gas for passing winter, although there are still 11.7 bcm in storage facilities. Therefore, Naftogaz has already negotiated an additional purchase of 450 m cubic meters of gas from the Norwegian Equinor and other sellers. The passage of winter should be eased by the existing 1.2 m tons of coal in warehouses to ensure the operation of thermal power plants.

Figure 2: Natural gas production in Ukraine, billion cubic meters



Source: ExPro Consulting https://expro.com.ua/novini/ukrana-v-2022r-skorotila-vidobutok-gazu-na-6-do-185-mlrd-kub-m

The Cabinet of Ministers approved gas PSO (imposition of special obligations) for electricity producers. Naftogaz will supply gas to electricity producers at a price lower than the market price, depending on the terms of supply: UAH 11,000 and UAH 16,500 per 1000 cubic meters. This will allow heat producers to use gas to generate electricity without incurring losses.

Transport: Russian attacks on energy infrastructure hamper exports

The total volume of exports fell by 4% from 9.1 m tons in November to 8.8 m tons in December. The fall occurred in rail and road transportation by 14% and 30% mom, respectively. At the same time, exports by sea increased by 10% mom in December.

The total transportation volume of imported goods increased by 18% mom from 2 m tons to 2.36 m tons. In December, imports by all modes of transportation increased: river transport three times, road by 7%, sea by 21%, and rail by 4%.

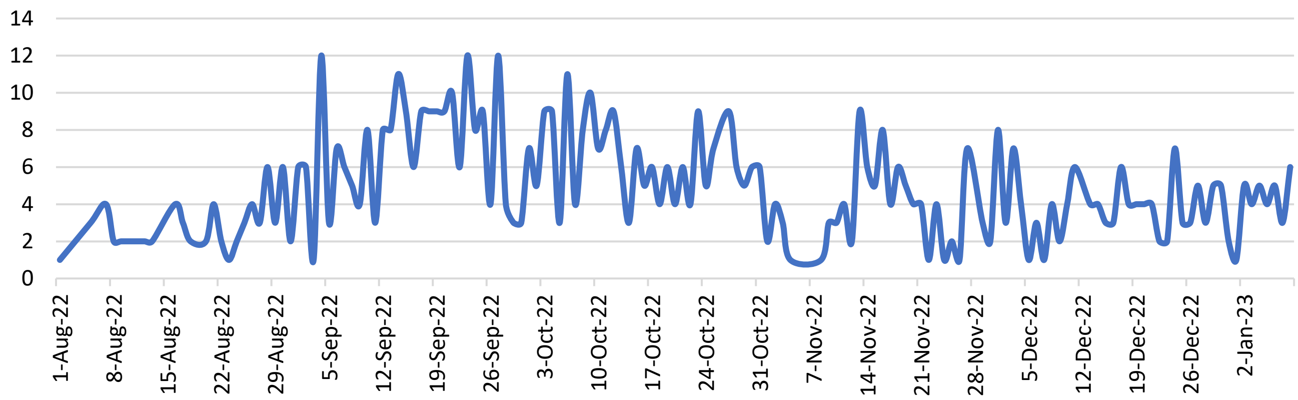
In December, the Viking Alliance container terminal started operation in the port of Reni, which currently is the only operating sea container terminal in Ukraine. Until December, containers were delivered to Romania ports and then by rail to Ukraine. This terminal processed about 1.5 thousand containers in the first month of operation.

In early December, the Odesa ports stopped operation due to the attack of drones and the power cut. In general, in 2022, the port of Odesa has reduced cargo turnover almost threefold — to 7.7 m tons, the Chornomorsk port — by 2.2 times, to 11.7 m tons, the port Pivdennyi — by 3.5 times, to 15.2 m tons, since from the end of February until reaching an agreement on the Grain Initiative in July, the ports did not work. At the same time, exports through seaports are allowed only for grain, whereas previously, it was the main export route for metallurgy.

In December, the number of inspections of vessels following the "grain corridor" did not increase significantly, and queues remained. At the end of December, 96 boats were in line for inspection.

In early January 2023, P&I announced that it was abolishing coverage of the risks of war against Ukraine after reinsurers left the region due to the threat of significant losses. This makes it difficult for charterers to find insurance, raises the cost of freight, and means that some ships will sail uninsured. At the same time, grain exports are unlikely to stop.

Figure 3: The number of inspections of vessels passing through the "grain corridor"

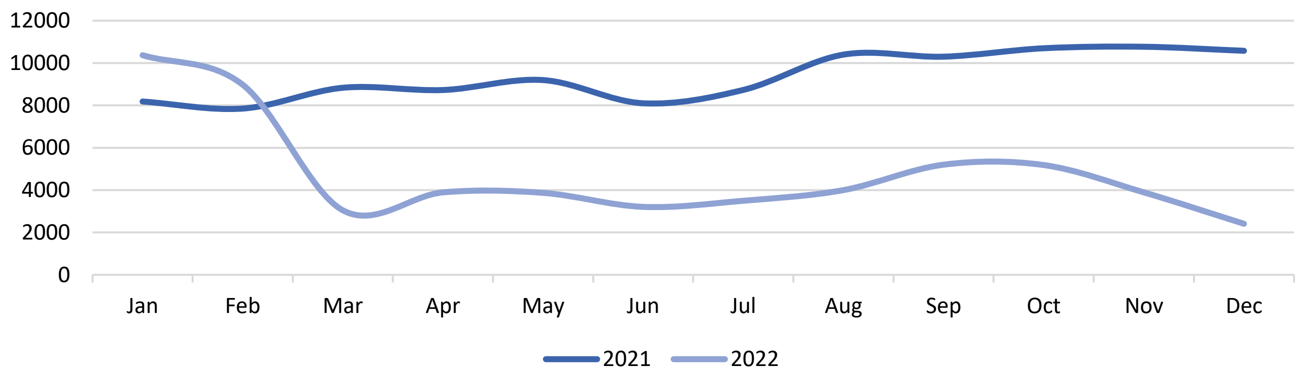


Source: Black Sea Grain Initiative Vessel Movements https://data.humdata.org/dataset/black-sea-grain-initiative-vessel-movements

Attacks on energy infrastructure affected the operation of the railway. The worst situation has developed in the Odesa region. There, near the port of Izmail, several thousand railway cars accumulated. In addition, there are big queues at the stations Batevo, Chop, and Dyakove.

In December, the volume of rail transport was 10.1 million tons, both domestically and internationally, which is 0.4 million tons less than in November. In 2022, Ukrzaliznytsia transported 150.6 million tons of cargo, 52% less than the previous year. At the same time, the international passenger railway traffic in 2022 increased nine times.

Figure 4: Volume of exports transported by rail, thousand tons



Source: Ukrzaliznytsia

In December, at the international checkpoint Yagodyn-Dorohusk, the Government launched an experimental project, "eCherga," to introduce an electronic queue for trucks to cross the border, designed to reduce the time of border crossing. However, attacks on the power system and computer failures disrupted the system for a week. "eCherga" continued its work on December 25. As a result of this and increased scrutiny by Polish phytosanitary inspectors, long lines of trucks were seen at the border, sometimes stretching as far as 40 km.

International trade: The war led to a rapid reduction in trade in goods

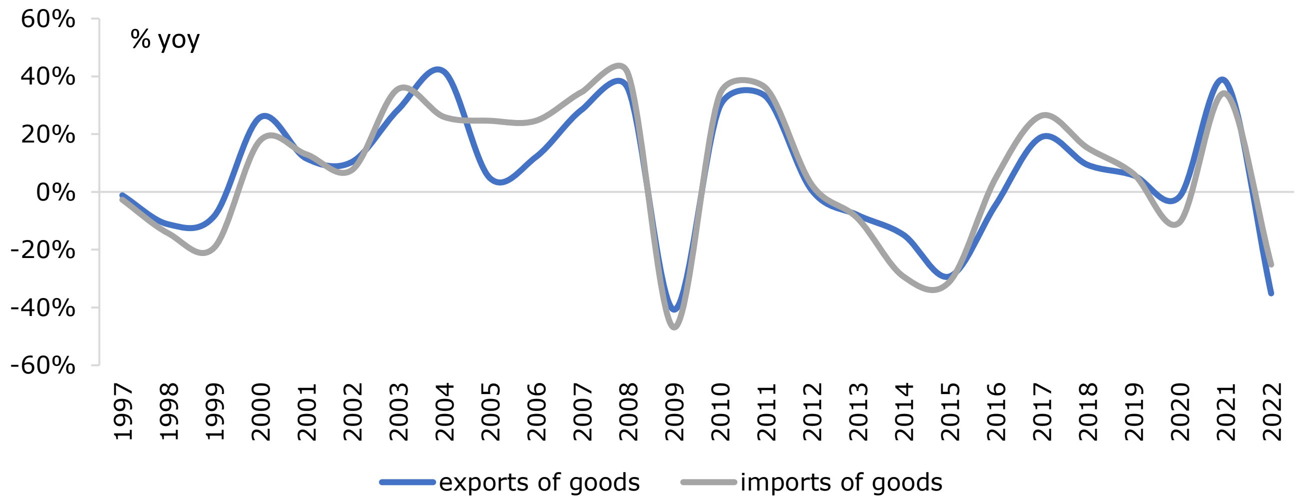
In 2022, trade of goods decreased by 30% to USD 98.7 bn. This rate of decline is comparable to the crisis of 2014-2015 but is somewhat less than the drop in Ukraine's foreign trade during the global crisis of 2008-2009.

Figure 5: Trade of goods of Ukraine

Sources: State Statistics Service, Ministry of Economy of Ukraine, Ministry of Recovery of Ukraine

Exports of goods fell to USD 44.2 bn, 35% less than in 2021. This is the second-largest drop in exports in the history of observations: in 2009, the reduction was 41%. Similar to the crisis of 2008-2009, the most considerable reduction occurred in the exports of metals. If in 2009, the export of ferrous metals decreased by 55% yoy, in 2022, according to preliminary estimates, the fall was about 70%. Accordingly, the share of ferrous metals in total commodity exports fell by half compared to its share of 20% in total exports in 2021.

Figure 6: The pace of change in trade in goods of Ukraine



Sources: State Statistics Service, Ministry of Economy of Ukraine, Ministry of Recovery of Ukraine

At the same time, the share of agricultural and food products increased to more than 50% of commodity exports. This is explained both by the higher geographical diversification of production and, therefore, by the lower impact of hostilities and by international efforts to restore the supply of Ukrainian grain to ensure global food security. In particular, in 2022, maize exports, the leader in terms of supply costs, amounted to USD 5.9 bn, which is even 1% higher than in 2021. In general, exports of agro-industrial products were about 15% lower than a year ago.

Imports of goods fell by a quarter compared to 2021 and, according to preliminary estimates, amounted to USD 54.5 bn. Mineral fuel was an essential import commodity, and its value in USD terms remained close to the last year's level. The second most crucial import category is vehicles. Imports rose sharply in December, primarily due to the imports of equipment to create autonomous systems for generating and accumulating electricity as well as higher purchases of fuel to support their operation.

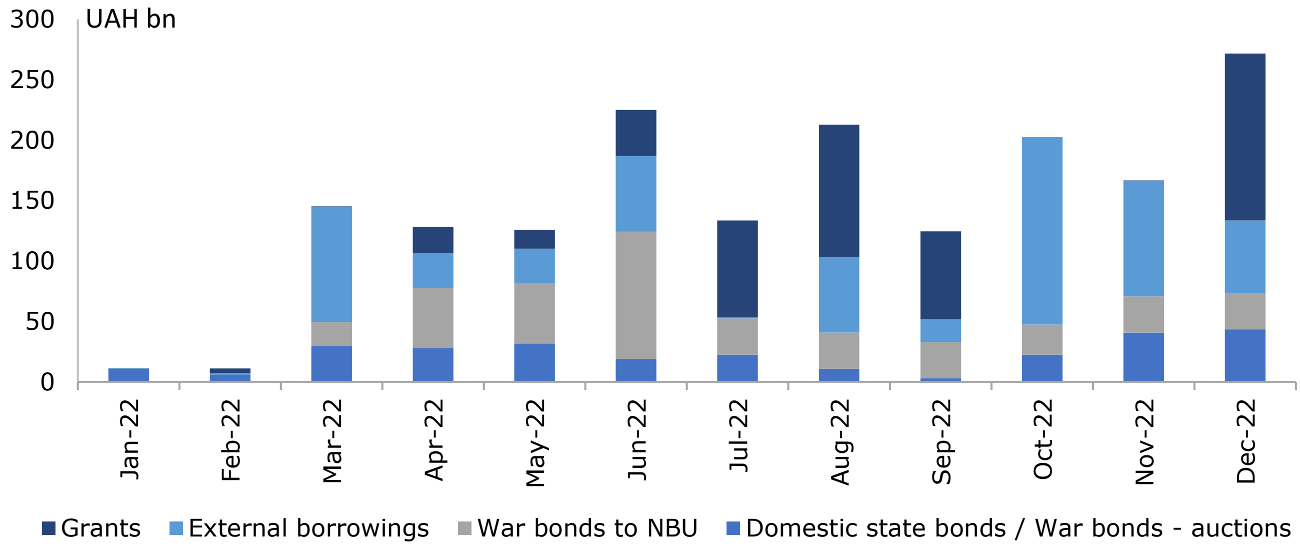
State Budget: Record Financial International Aid in December

The year 2022. In December 2022, Ukraine received a record amount of international financial aid. In the form of grants, primarily from the United States, UAH 136 bn was received, and from concessional loans – UAH 60 bn. Loans were mainly from the EU, Canada, and the World Bank. Such assistance in December helped the Government increase expenditures against relatively stable tax revenues. Thus, according to available information, December expenditures were 30.4% higher than in November and 75% higher than in October. On the one hand, this increase in expenditures indicates higher government liquidity. On the other hand, it continues the tradition from the pre-war years, when all possible expenses are financed in December. As a result, there are questions about cost-effectiveness and the capacity of spending units to manage effectively their budgets.

The state budget deficit in 2022 is estimated at about 19% of GDP, which is unprecedented. At the same time, the deficit was significantly less than planned since out of USD 31.2 bn of international funding received after February 24, grants comprise 44.4% (and they are accounted for as a component of budget revenues). Gross financing from military bonds during this period amounted to UAH 650.8 bn, of which the National Bank of Ukraine directly purchased UAH 400 bn.

According to preliminary data from the State Treasury, in 2022, the state budget revenues due to the general fund reached UAH 1,491.1 bn, which is 37.5% more than last year's figure. The significant boost in PIT revenues is attributed to the increased amounts of tax paid on the remuneration of military servants. At the same time, inflation supported domestic VAT revenues, while VAT refunds halved both due to lack of government liquidity and falling exports. Revenues from import VAT dropped due to the tax exemptions in the first months of the full-scale war and a significant reduction in imports of goods in hryvnia terms.

Figure 7: Funding and grants received in the state budget, UAH billion



*Note: * grants are part of the budget revenues, which are accounted for under the code 42000000 "From the European Union, foreign governments, international organizations, donor institutions."*
Source: Ministry of Finance, openbudget.gov.ua

External funding helped the Government finance social spending on time. At the same time, domestic revenues (tax revenues and inflows from military bonds) are a source of financing for the state's defense and security.

The year 2023. In December, the predictability of international assistance for 2023 increased. The EU has approved the decision to provide Ukraine with the aid of EUR 18 bn, which will be allocated in regular payments. Shortly, a memorandum between Ukraine and the EU is expected to be signed, which will determine the conditions for providing assistance. Also, the US Consolidated Budget Act, adopted in December, and the US administration's plans provide for the allocation of USD 9.9 bn budget assistance to Ukraine or USD 1.1 bn on average per month during January-September 2023. The World Bank programs will provide USD 900 m. Therefore, the sources of part of the external funding planned in the State Budget for 2023 at USD 38 bn are already evident.

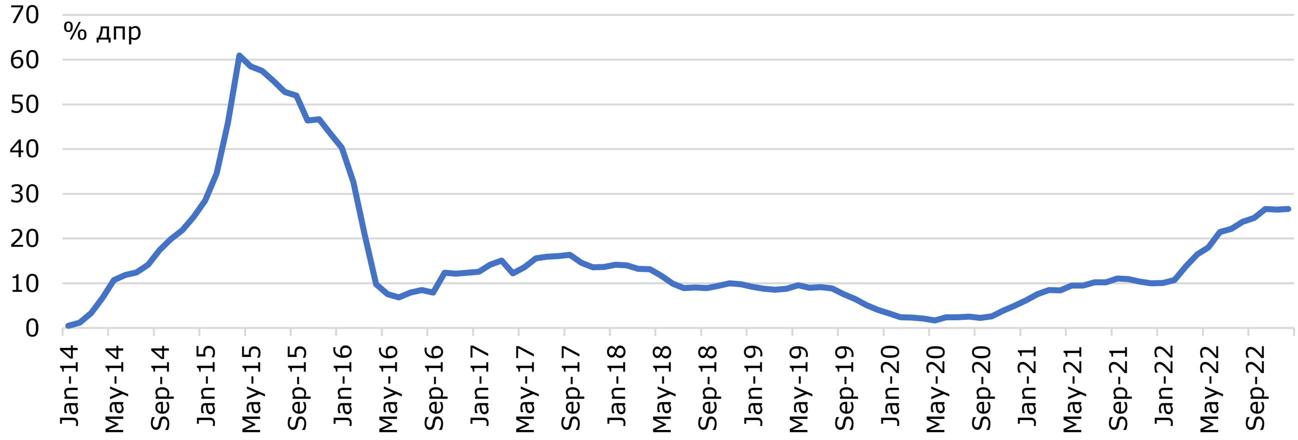
In December, the IMF also approved Program Monitoring with Board Involvement. If successful, it can be replaced by an extensive funding program in March 2023.

At the same time, there is a possibility that in 2023, Ukraine will exceed the plan of domestic borrowings. The Law on the State Budget envisages domestic borrowings only at UAH 90 bn, while only on January 10, UAH 23.5 bn was attracted from the issue of government bonds. This was facilitated by the fact that from January 11, 2023, banks will be able to cover up to 50% of the total mandatory reserves at the expense of benchmark-government bonds with international identification number (ISIN) UA4000227045.

Inflation: Stable in December despite electricity shortages

In December, annual inflation was 26.6%. The increase in consumer prices was only 0.7% mom, which is one of the lowest results since the introduction of martial Law. This reflected the influence of both temporary and seasonal factors as well as more fundamental ones. Temporary factors include the decline in egg prices due to increased supplies and a seasonal decline in the price of clothing and footwear. Besides, the stabilization of devaluation expectations, limited consumer demand, and utility tariffs fixed by the state restrained price increases. At the same time, the shortage of electricity did not lead to disruptions in the supply of consumer goods, and manufacturers and retailers have not passed on to consumers the additional costs associated with the use of generators and losses due to interruptions in the supply of electricity so far. This may be due to the reluctance to scare away already limited consumer demand in the pre-holiday season. However, these additional costs may affect prices in the coming months.

Figure 8: Inflation of consumer prices

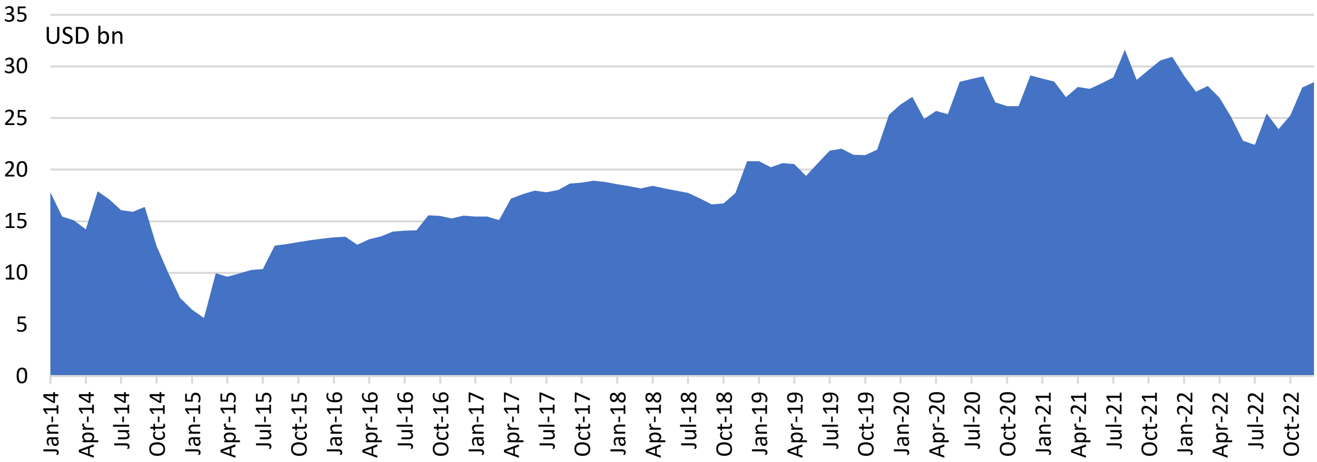


Source: State Statistics Service

Monetary policy: Foreign aid supported the exchange rate

Since January 11, the NBU has increased mandatory reserves requirements, as it announced on December 9 following a meeting of the monetary policy committee. NBU increased the reserve requirements on current accounts by five percentage points as planned. As a result, banks are obliged to keep more funds in correspondent accounts with the NBU. As of January 11, funds in bank accounts increased to UAH 140 bn compared to UAH 78 bn on average for December. However, the expected outcome of the measure the increase in the consumer deposit interest rates has not happened yet.

Figure 9: International reserves



Source: NBU

The NBU's international reserves at the end of 2022 amounted to USD 28.5 bn as of the beginning of December, compared to USD 30.9 bn at the beginning of the year. According to the NBU, the Government has attracted in pure terms (i.e., minus the costs of interest and repayment of public debt in foreign currency) USD 26.1 bn to international reserves through the placement of foreign currency government bonds and receiving grants and loans from international partners. At the same time, in 2022, the NBU spent almost USD 25 bn in pure terms to support a fixed exchange rate of the hryvnia. Also, the amount of reserves was influenced by Ukraine's payments under previous IMF programs and changes in the value of NBU investments.

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