



National Bank
of Ukraine

Monthly Macroeconomic and Monetary Review

December 2022

**Monetary Policy and Economic Analysis
Department**



Summary

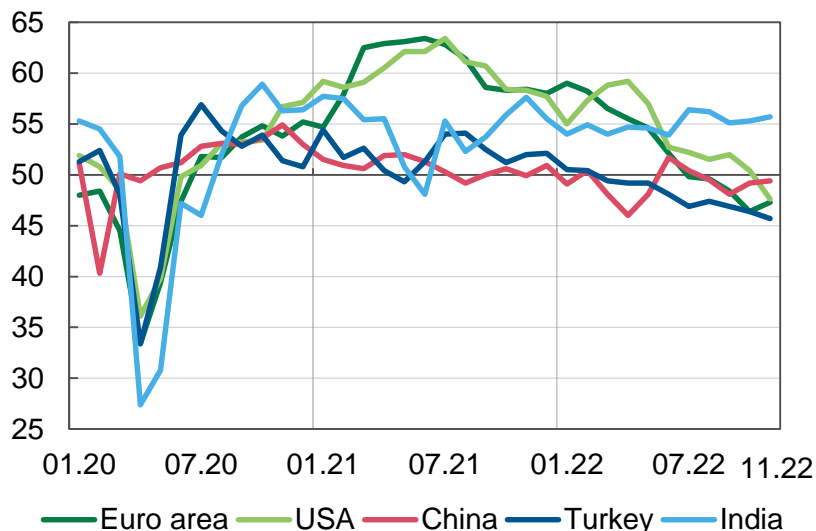
- **Global economic growth continued to slow down.** This have eased price pressures, primarily for crude oil and commodities that are essential for Ukrainian exports. As a result, major CBs are leaning towards slowing the pace of rate hikes, whereas EM CBs seek to gradually end their tightening cycles
- **Consumer inflation in Ukraine shows signs of stabilization** (26.5% yoy in November compared to 26.6% yoy in October). It was restrained by the expansion of food supply, weak consumer demand, including due to power outages, convergence of the cash hryvnia exchange rate to the official and stabilization of inflation expectations, unchanged utility tariffs. Instead, inflationary pressures were supported by the consequences of war and russia's terrorist attacks, in particular the shortage of electricity
- The shortage of electricity as a result of large-scale shelling of energy facilities leads to a **weakening of economic activity**, a reduction in production and an increase in business costs. At the same time, the business is trying to adapt to the restrictions: buys generators and shifts production to night shifts. The operation of the grain corridor, the completion of the harvest and the liberation of Kherson support economic activity
- Power outages also **worsened the state of the labor market**: both the demand for and supply of labor have weakened. Nominal wages have approached the level of last year, but real wages have significantly decreased, especially in the private sector. The risks that emigration will intensify have increased
- **The state budget deficit continued to widen** due to sizable expenditures and weak revenues. As in the previous periods, international aid and the purchase of war bonds by the NBU were the main sources of financing the deficit
- In October, **the CA recorded a deficit** as there were no grants received, and the negative balance for trade in goods expanded. However, **thanks to significant amounts of loans** received from foreign partners, there was a capital inflow registered under the financial account, and **reserves increased** to USD 25.2 bn as of the end of October. In November, reserves continued to grow thanks to international aid and reached USD 28 bn at the end of the month. This level exceeds the one Ukraine had at the beginning of the full-scale war
- **The attractiveness of hryvnia assets continues to increase** in response to maintaining the key policy rate unchanged since June. An improved capacity of the FX market to balance itself thanks to the seasonal factors, proceeds received due to the functioning of the 'grain corridor', and inflows of international aid, including the support provided to the energy sector, helped reduce NBU interventions in the FX market



External Environment

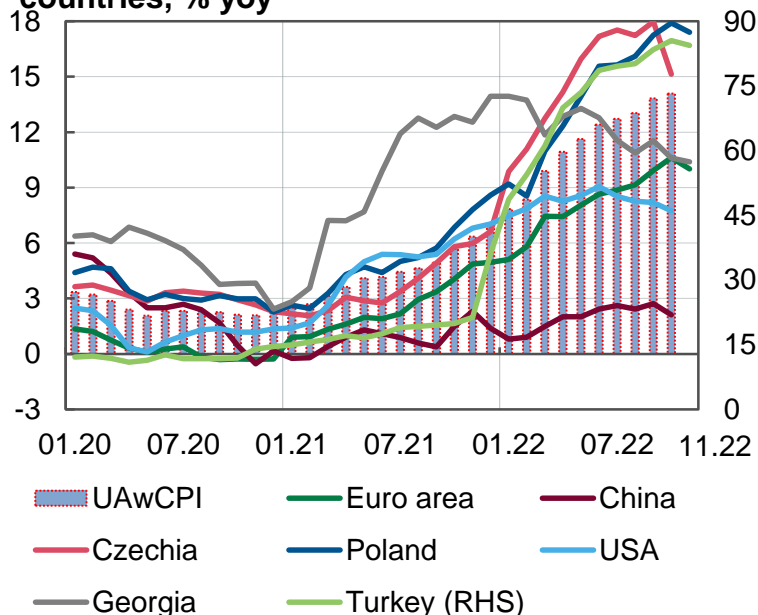
Global economic growth continued to slowdown and led to a weakening of price pressure

Manufacturing PMI of selected countries



Source: S&P Global.

CPI in selected countries and UAwCPI of MTP countries, % yoy

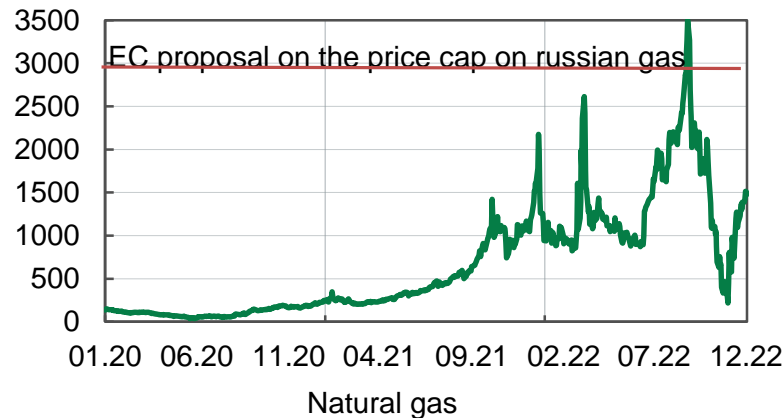
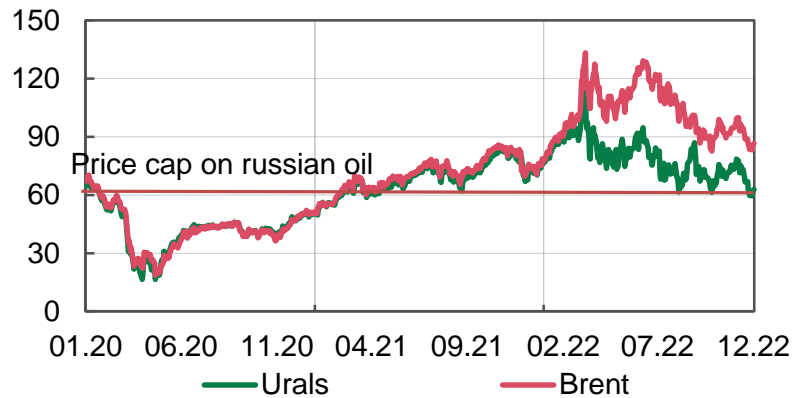


Source: National statistical offices, NBU staff estimates.

- The current decline in economic activity is the steepest since the global financial crisis (excluding pandemic quarantine periods). The slowdown of the Chinese economy due to the 'zero Covid' policy and Russia's invasion of Ukraine are significant reasons for this decline
- Business sentiment remained record negative, new orders declined, and demand continued to contract sharply. Reduced demand due to fewer new orders has played an important role in reducing pressure on supply chains. In some countries, order fulfillment time by suppliers have even improved for the first time since the beginning of the pandemic
- In general, among the 37 MTP-countries of Ukraine, which are monitored by the NBU, almost half saw inflation slowing

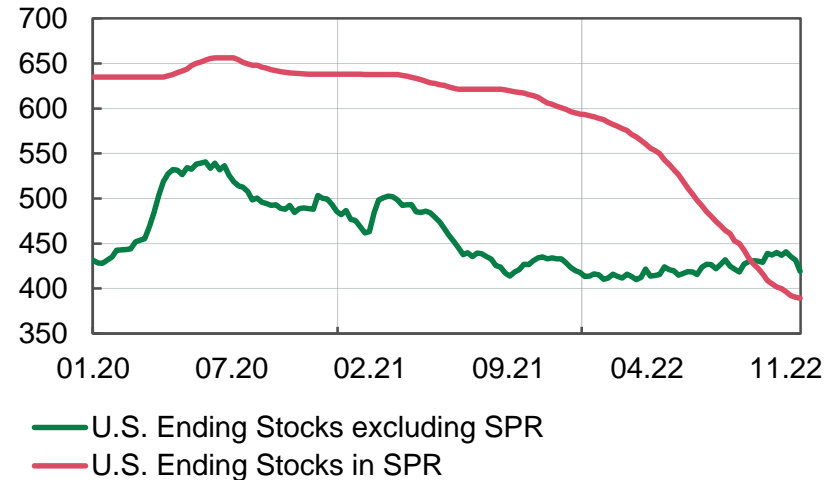
Global energy prices were under downward pressure from weak demand this fall, but gas rebounded

World Brent and Urals oil prices (USD/bbl) and Netherlands TTF natural gas prices (USD/kcm)



Source: Refinitiv, Bloomberg.

U.S. ending stocks of crude oil, million barrels

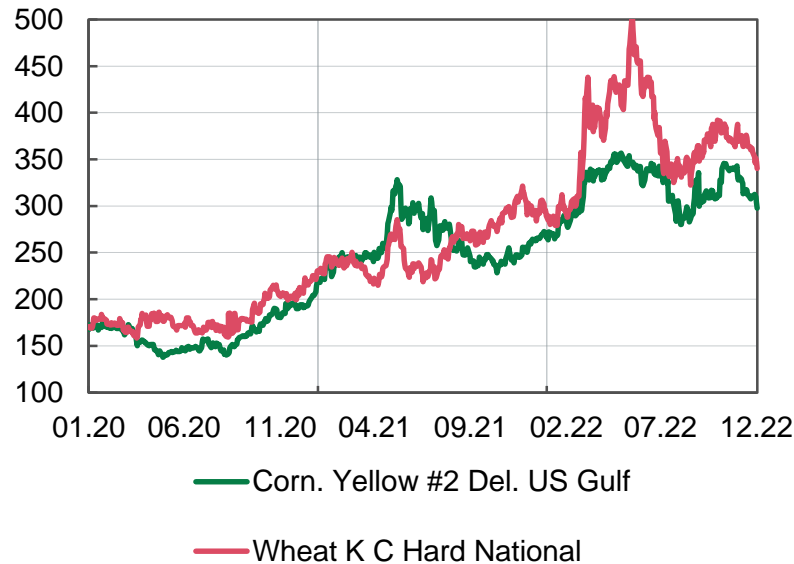


Source: U.S. Energy Information Administration, as of 25.11.2022

- Oil prices fell due to weak global demand. It was kept from a deeper fall by the rapid reduction of strategic reserves in the US, limited exports by OPEC+, and the beginning of the EU embargo on the purchase of russian oil by sea
- Implementation of G7+ Australia price cap on russian oil (at 60 USD/bbl) from 5 December may provoke supply restrictions by Russia in the European market (temporary cost rise of petroleum products, which will also be passed through to their price in Ukraine) and further sales of cheap Russian oil in the Asian market
- Natural gas prices resumed growth in November due to the cold weather in Europe. However, the growth of prices is restrained by practically full gas storages

Global prices for commodities that are essential for Ukrainian exports mainly decreased amid the reduction of deficit in the markets

Global grain prices, USD/MT



Source: Refinitiv.

Global steel and iron ore prices, USD/MT

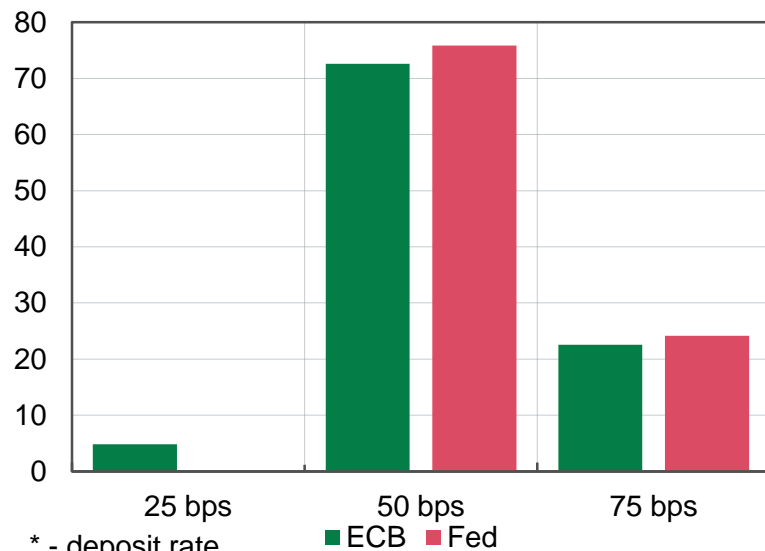


Source: Refinitiv.

- Global grain prices, particularly for wheat and corn, fell due to the extension of the grain corridor for 120 days, the end of the harvest in the US and active Brazilian exports
- Global steel and iron ore prices declined due to weak demand in most regions of the world, significant stockpiles against previously lower prices and increased supply. Slight optimism against the background of China's announcement of measures to support the real estate market, including through bonds for private companies, slightly corrected ore prices upwards

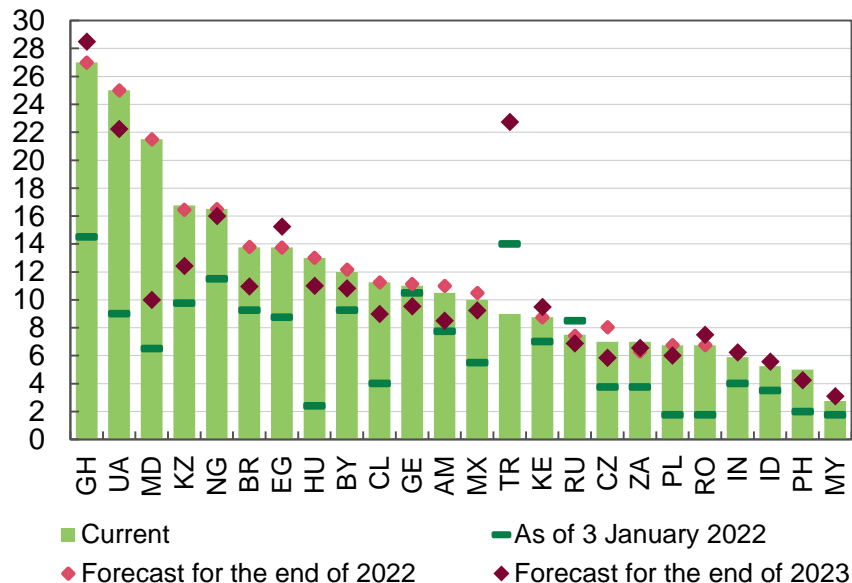
Major CBs are leaning towards slowing the pace of rate hikes, whereas EM CBs seek to gradually end their tightening cycles

The expected level of the ECB* and Fed policy rate hikes at December 2022 Meeting, % of respondents/probability



Source: Reuters poll, conducted Nov 15-21, 62 analysts responded; CME FedWatch Tool, as of 05.12.2022.

Key policy rates in selected EM countries, %



Source: official web pages of central banks, Focus Economics, Trading Economics, as of 05.12.22.

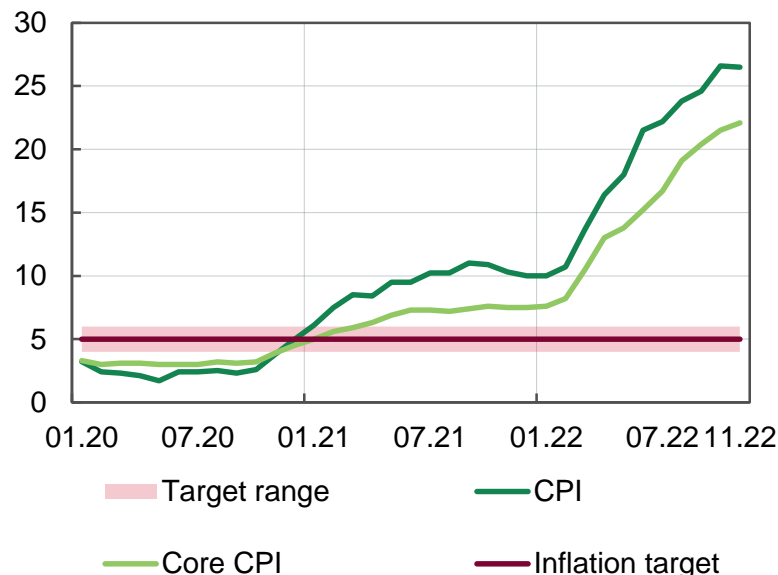
- The ECB and Fed hiked rates by 75 bps in sync at their latest meetings and will continue monetary policy tightening to tame inflation pressures. At the same time, the possibility of slowing the pace of rate hikes is being considered
- Experts and financial market participants expect a 50-bp hike at the next meeting and terminal rates to be reached in Q1 2023
- Meanwhile, more and more EM CBs (in particular, Banks of the Philippines, Indonesia, Colombia, and Chile) joined the countries whose tightening cycles are likely coming to an end
- In contrast, the CB of Turkey completed its monetary policy easing after cutting the rate by 300 bps at the last two meetings. The CB of China loosened its monetary policy with reserve requirement ratio cut, just after another round of measures to support the real estate sector



Ukraine: Inflation

In Ukraine, inflation shows signs of stabilization, while its further acceleration was expected

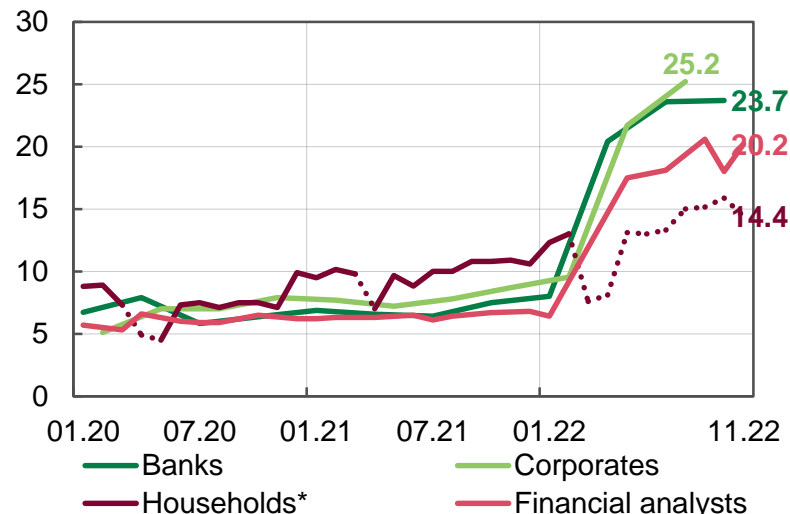
Inflation and inflation target, % yoy



Source: SSSU, NBU staff estimates.

- Inflation in November (26.5% yoy) remained almost at the level of October, reflecting the effects of expanded food supply, including probably under the influence of temporary factors due to electricity shortages, de-occupation of the territories, weak consumer demand, convergence of the cash hryvnia exchange rate to the official one and stabilization of inflation expectations
- The latter, however, improved for some groups of respondents in November, which can be explained by the stabilization of the cash hryvnia exchange rate and, probably, by revision of expectations towards a longer period of unchanged tariffs for housing and utility services
- At the same time, inflation remained high due to the consequences of russia's full-scale war against Ukraine, including disruption of supply chains, destruction of production facilities, reduction in the supply of goods and services, the increase in business costs, electricity shortage

Inflation expectations for the next 12 months,%

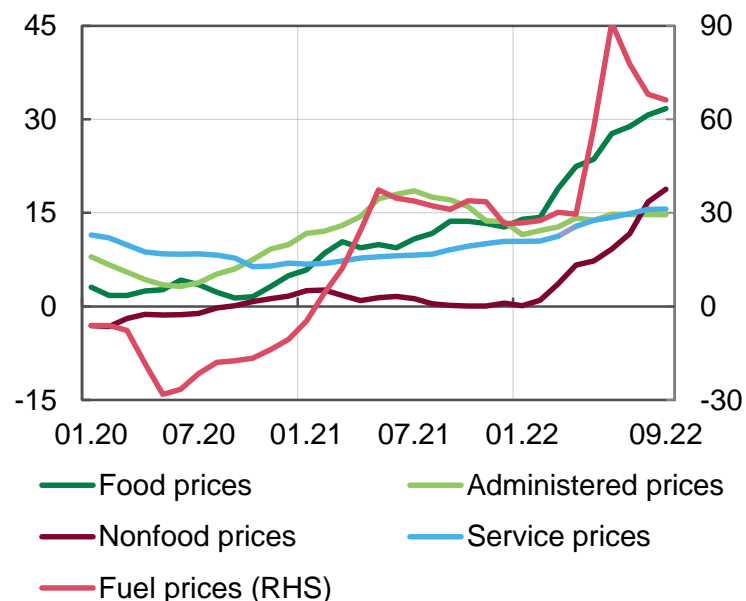


* The dotted line indicates a change in the method of survey for a telephone interview.

Source: NBU, GfK Ukraine, Info Sapiens.

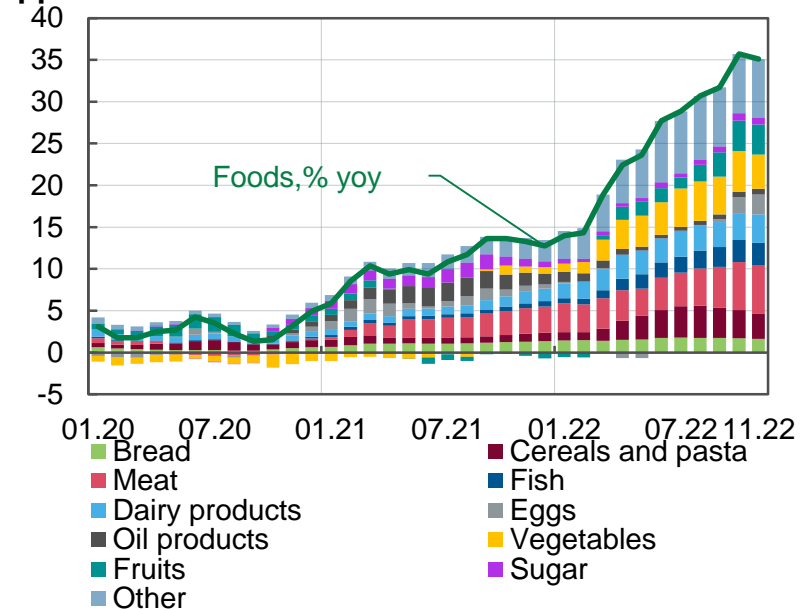
Expansion of food supply and weaker demand currently outweigh the effects of high production costs

Selected CPI components, % yoy



Source: SSSU, NBU staff estimates.

Contributions to the annual change in foods prices, pp

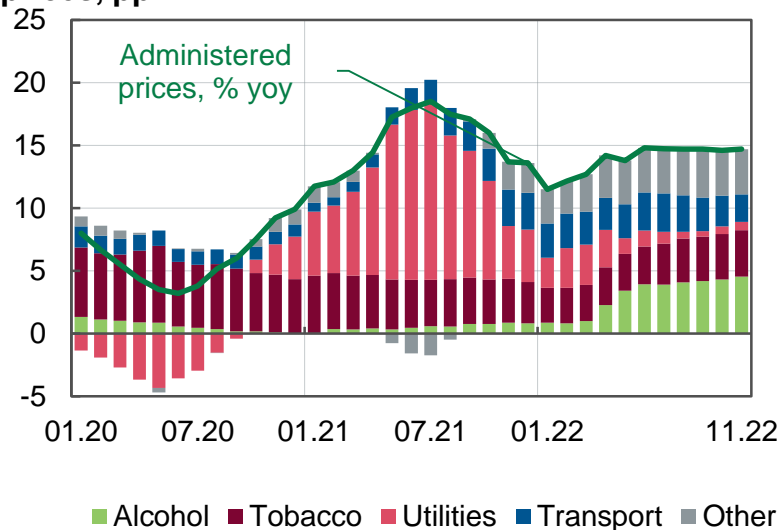


Source: SSSU, NBU staff estimates.

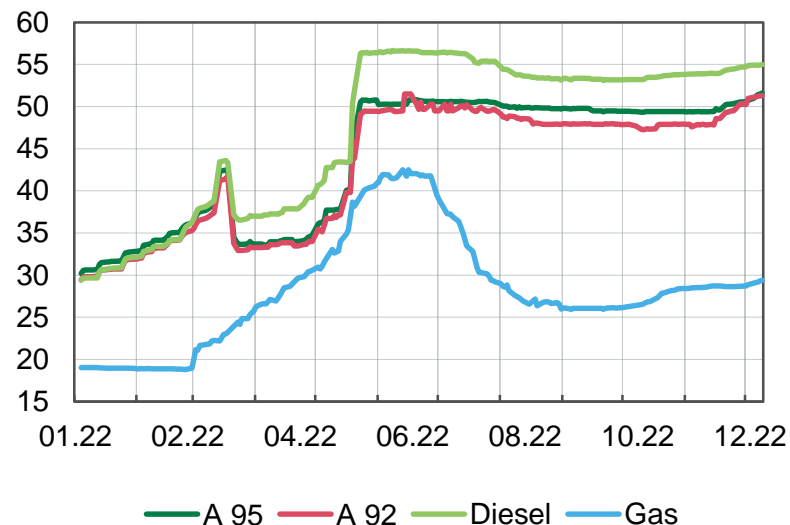
- The growth of prices for raw foods slowed down under the influence of the extended supply of borsch vegetables, fruits and cereals
- Weak consumer demand, including due to power outages, stabilization of the hryvnia cash exchange rate and inflation expectations, as well as further de-occupation of territories, in particular Kherson region, also had an additional effect.
- This outweighed the impact of higher production costs, in particular due to shelling of the energy infrastructure

Fuel prices were first to react to electricity shortage

Contributions to the annual change in administered prices, pp



Fuel prices, UAH / L



Source: SSSU, NBU staff estimates.

Source: minfin.com.ua, NBU calculations.

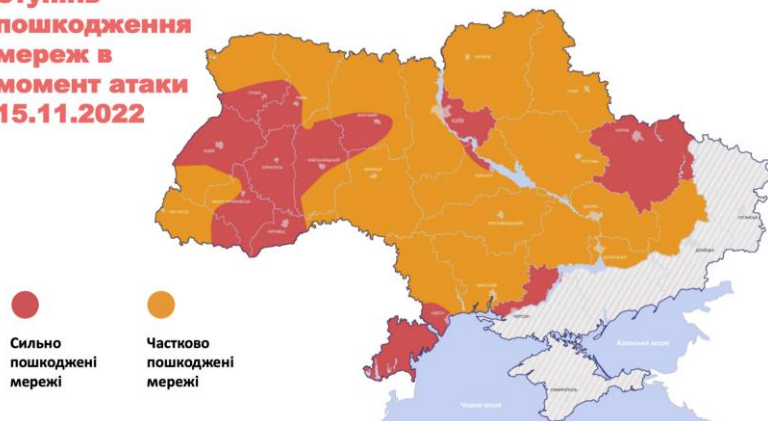
- Fuel prices increased in late November amid higher selling costs and growing demand. However, the year-on-year deceleration continued (to 59.4% yoy in November) on the back of relevant trends in global oil markets
- Administered inflation is supported by accelerated growth of prices for alcoholic beverages (due to increased production costs for energy, raw materials and packaging)
- Instead, administrative inflation was restrained by a moratorium on raising tariffs for natural gas and heat for the households, as well as increased competition from illegal products, which limits the growth of prices for tobacco products



Ukraine: Economic activity

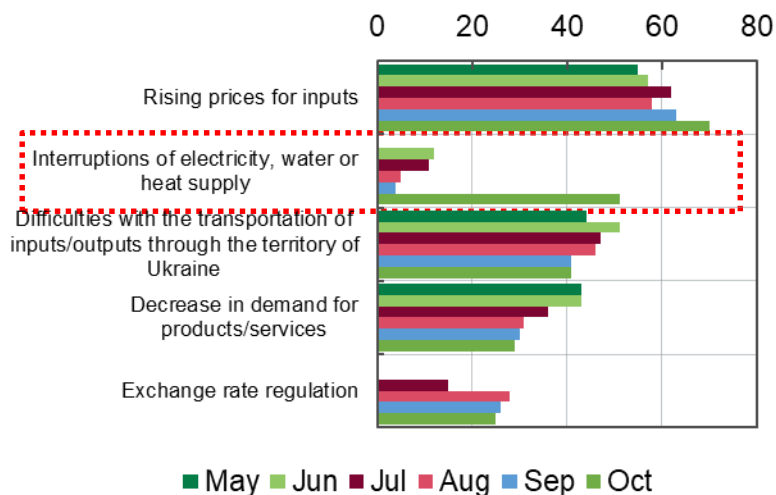
Electricity shortage due to russia's massive attacks on energy sector interrupted the recovery of economic activity, which had been going on since the spring,...

Ступінь пошкодження мереж в момент атаки 15.11.2022



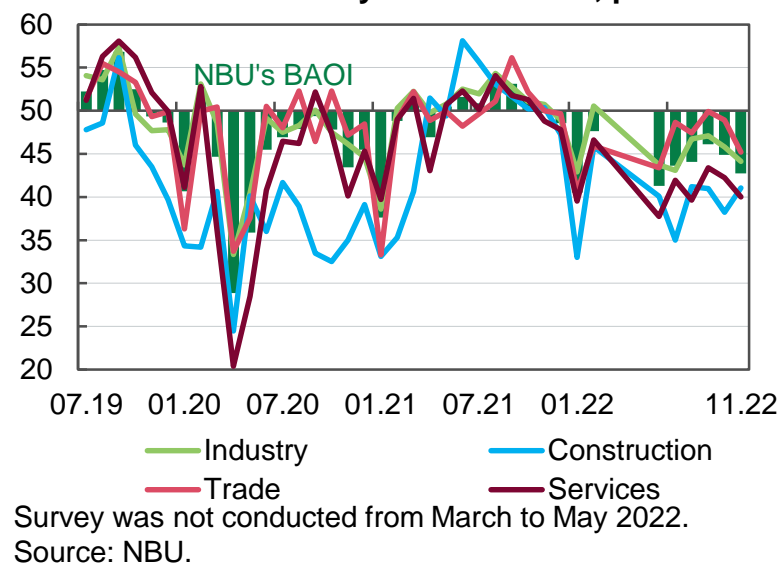
Source: Ukrenergo.

Top-5 the most important business problems, % of answers



Source: IER.

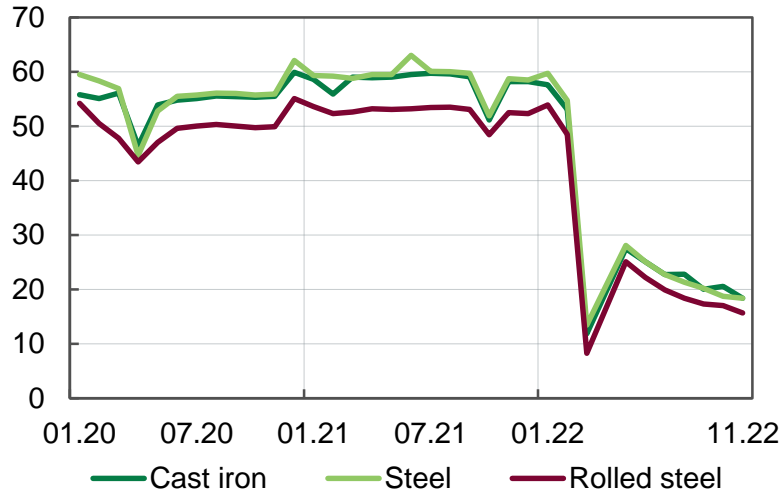
NBU's business activity outlook index, p



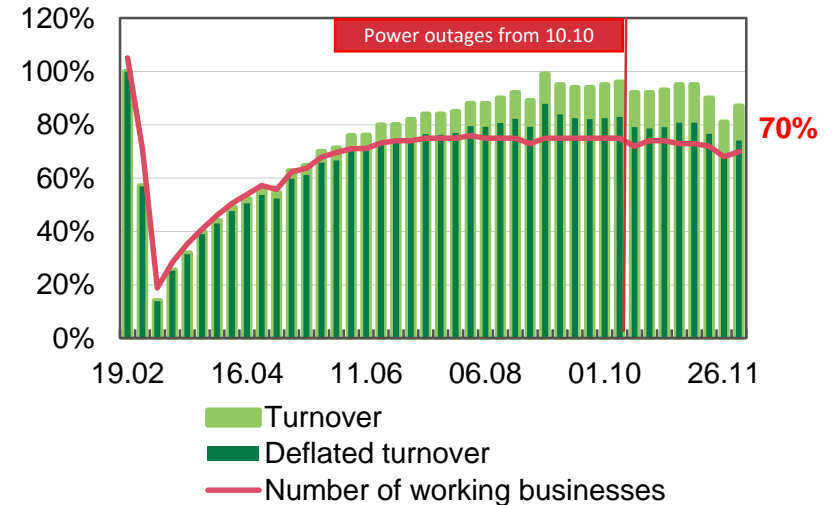
- In November, [large-scale shelling of energy facilities](#) caused a significant shortage of electricity. The situation was complicated by the increase in consumption due to the cold weather
- Power outages have become the second most important problem for businesses after price increases (51% of respondents indicated, IER). Due to a shortage of electricity, 18% of respondents stopped working and bear significant losses, 28% note a drop in turnover (Advanter)
- While some businesses are adjusting to the restrictions, there are growing signs that the recovery in economic activity has stalled

...as evidenced by a number of high-frequency indicators

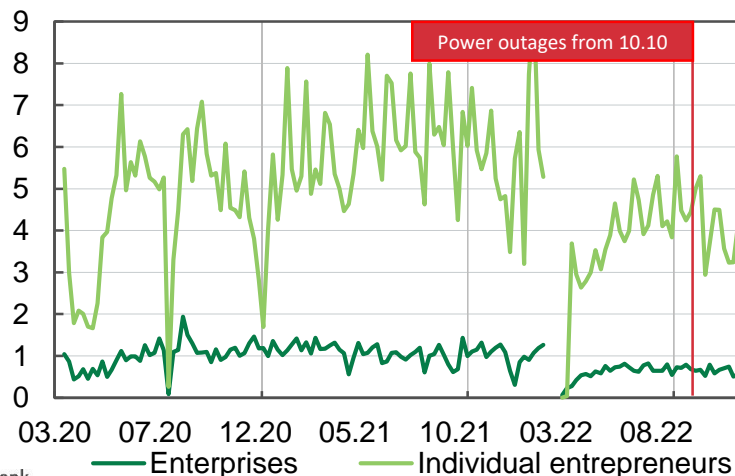
Average daily production of steel, cast iron and rolled steel, thousand tons



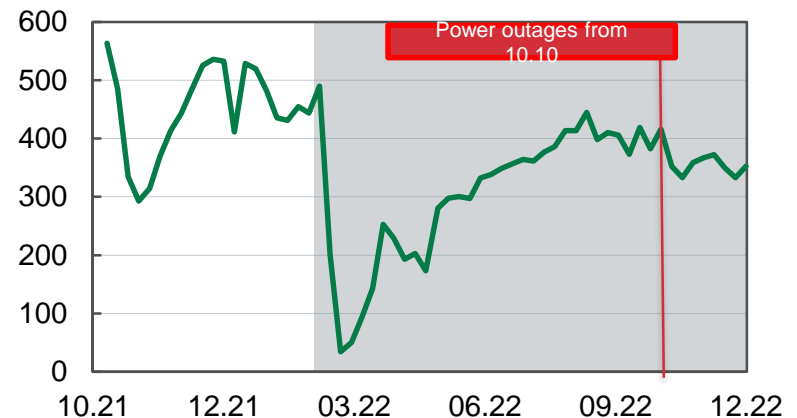
Performance indicators of the restaurant business, %



New business registrations, thousands



Number of UZ tickets sold per week, thousands



The industry suffers the most, which is partially compensated by budget orders for engineering

The shortage of electricity limits the work of both the manufacturing and service sectors

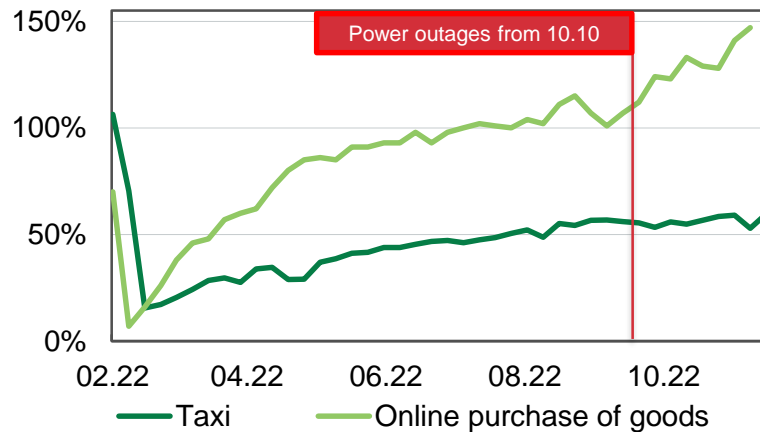
- To reduce the load on the power system in November, a number of metallurgical and mining enterprises [reduced production facilities](#) or shifted production to [night hours](#)
- Power outages slowed down the recovery of a [number of areas of the food industry](#) ([dairy](#) and [meat](#) processing)
- After facility reduction due to power supply interruptions, operating [chemical plants](#) are reluctant to restore them
- [Low demand for housing](#), increased production costs, and power outages restrain construction work and the production of [building materials](#)

At the same time, the energy crisis supports mining activity, while military needs support engineering

- In November, [new gas wells](#) were started; control over the [drilling rigs of the de-occupied territories](#) returned; individual mines [increased capacity](#)
- A number of manufacturers of special equipment and trucks in November continued to meet the needs of [utility workers](#), [repairmen](#), [firefighters](#), etc.
- The need to compensate for the destroyed public transport supported the production of [buses](#) and [trolleybuses](#), the restructuring of logistics boosted the production of [trucks](#) and [grain transportation platforms](#), the restoration of infrastructure supported the demand for domestic construction equipment and [gasoline trucks](#)
- As the industry adapts to the needs of wartime, the production of [military goods](#), [equipment](#) and [drones](#) by both state-owned enterprises of military industry and private enterprises is gaining momentum

Consumer demand remains subdued, although hyped demand for energy-related products supported e-commerce

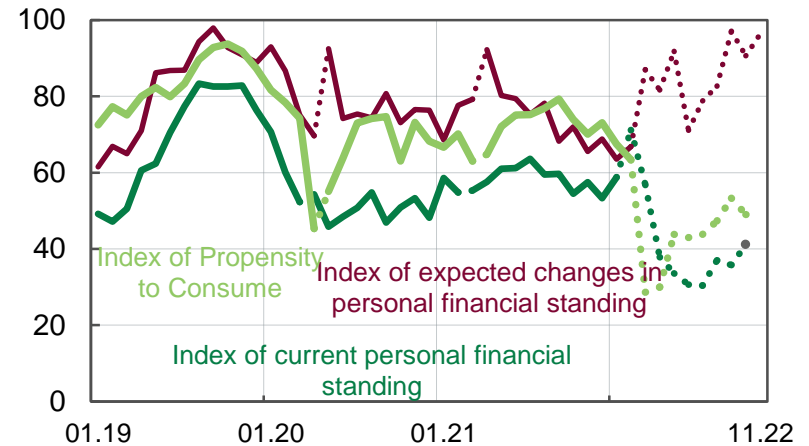
Indicators of taxi operation and online purchase of goods, % of pre-war level



Source: Opendatabot (Bond taxi service and Khoroshop service).

- Despite [hyped demand](#) for autonomous energy products and [Black Friday](#) discounts (which especially supported the online retail segment), activity in the trade and service sectors is restrained by power outages and weak consumer demand due to a reduction in real household incomes
- After the shelling on 16 and 23 November, the [turnover of cafes and restaurants](#) decreased by an average of 8%; the [capital's housing rental market](#) has shrunk by 27% since the start of the shelling

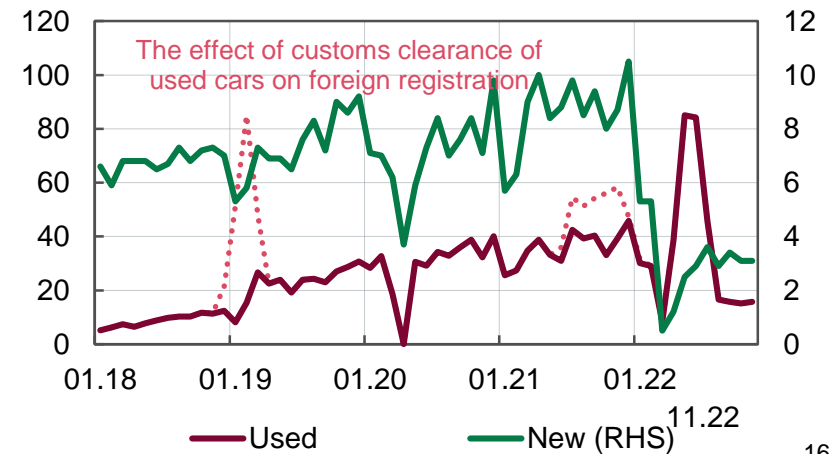
Components of the consumer sentiment index, p.



Dotted line denotes change of interview method from face-to-face to telephone interviews.

Source: Infosapiens.

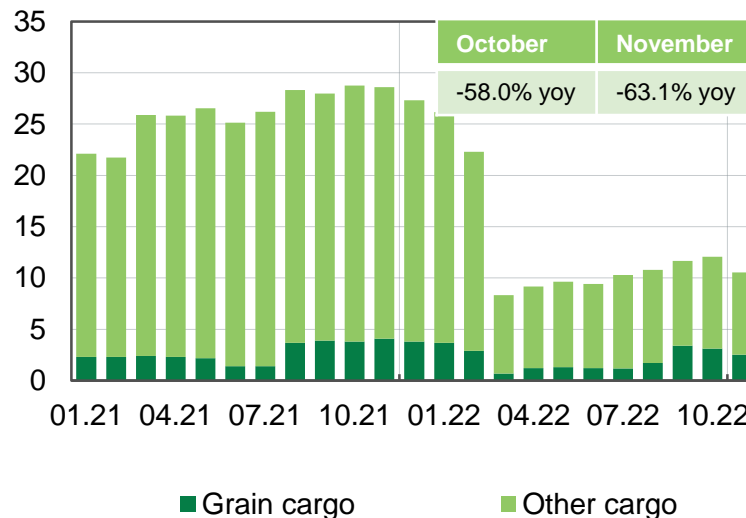
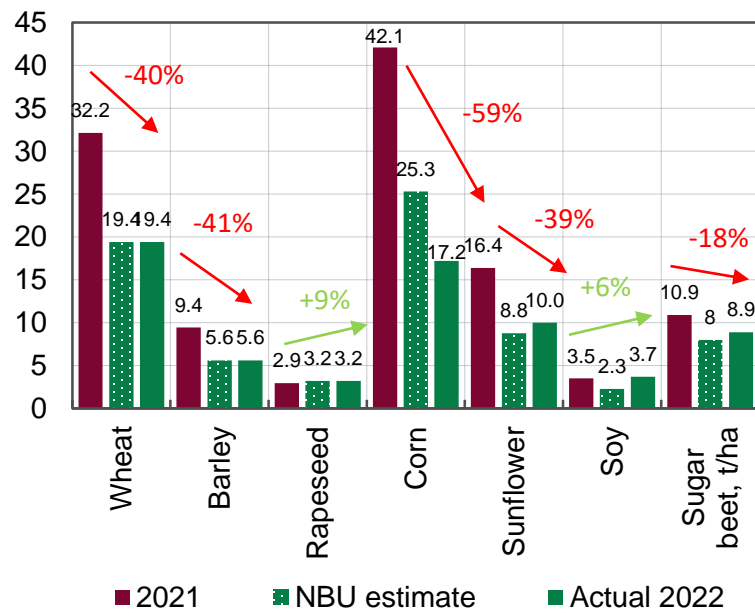
The first registration of passenger cars, thousand units



Source: Ukravtoprom.

Economic activity is supported by agriculture and the liberation of Kherson

Harvest volumes as of 9 December 2022, million tons Freight transportation by railway, million tons



* October 2022 IR.

Source: MinAgro, SSSU, NBU staff estimates.

Source : SSSU, Rail.insider, UZ.

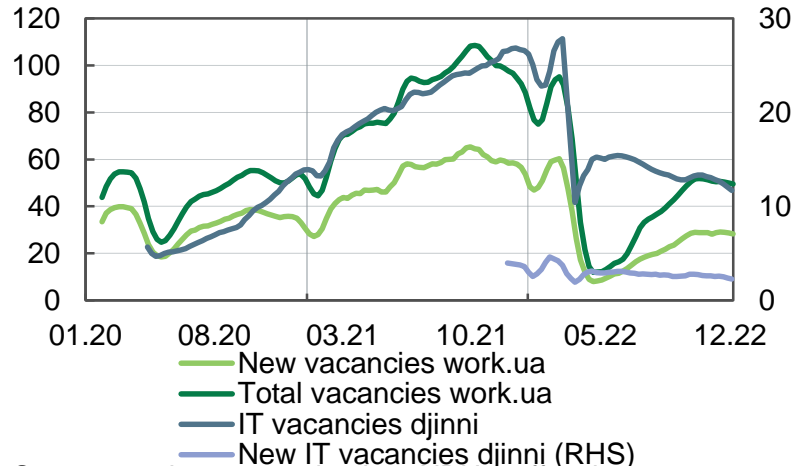
- Harvesting of most late crops is almost completed, although due to high humidity, some farmers are [postponing corn harvesting](#). The [sugar-making season](#) continues, significant external demand stimulates the [production of oil](#) for export (thanks to the operation of the grain corridor)
- Agriculture (except for animal husbandry) to a lesser extent experiences power shortages (except for animal husbandry), but their production costs are also increasing
- The [de-occupation of Kherson oblast](#) and the continued return of businesses to the de-occupied territories of Kharkiv, Donetsk and Luhansk oblasts supported [passenger transportation](#), [trade](#), and [postal services](#)



Ukraine: Labor market

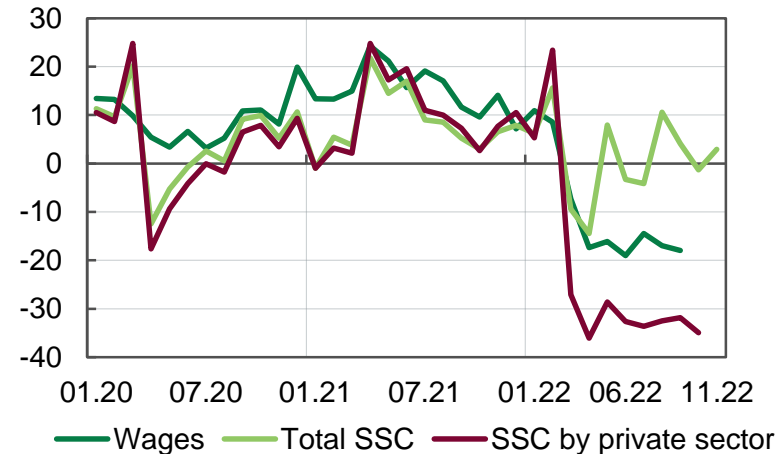
Power shortages weakened labor demand...

Labor demand, 4-weeks moving average



Source: work.ua, opendatabot, NBU staff estimates.

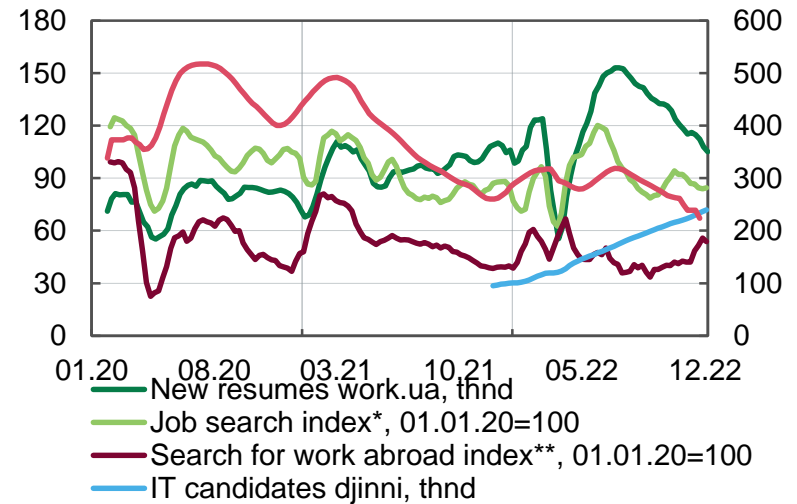
Transfers from the SSC* and the average wage from which contributions were paid, % yoy in real terms



For the private sector, the accrual to the consolidated budget is deducted from the total revenues of the SSC.

Source: SPFU, SSSU, NBU staff estimates.

Labor supply, 4-weeks moving average



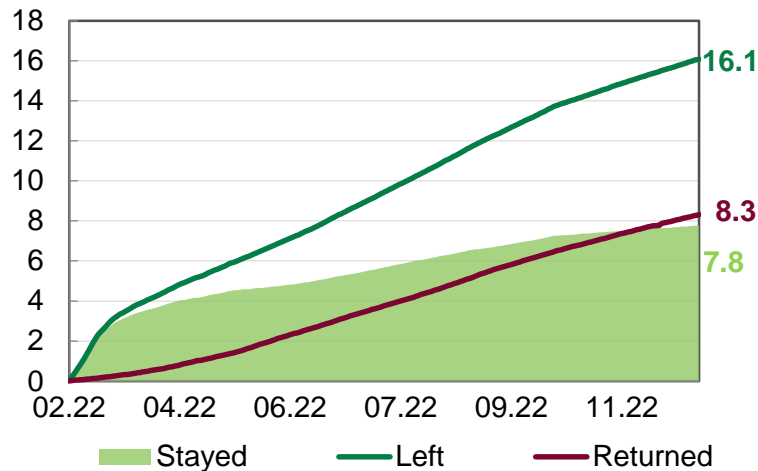
* Includes job search queries in Ukrainian and Russian. ** Includes search requests for jobs in Poland, the Czech Republic, Russia and Germany in Ukrainian and Russian from Ukraine.

Source: work.ua, Opendatabot, Google Trends, NBU staff estimates

- The decrease in the number of vacancies on job search sites has deepened. Resume growth has also weakened (except for IT and job searches abroad). The liberation of Kherson [boosted a number of vacancies in the region](#)
- Nominal wages have approached the level of last year, real wages have significantly decreased, especially in the private sector. Payments to public sector employees, including military personnel, are restraining the deterioration of household welfare

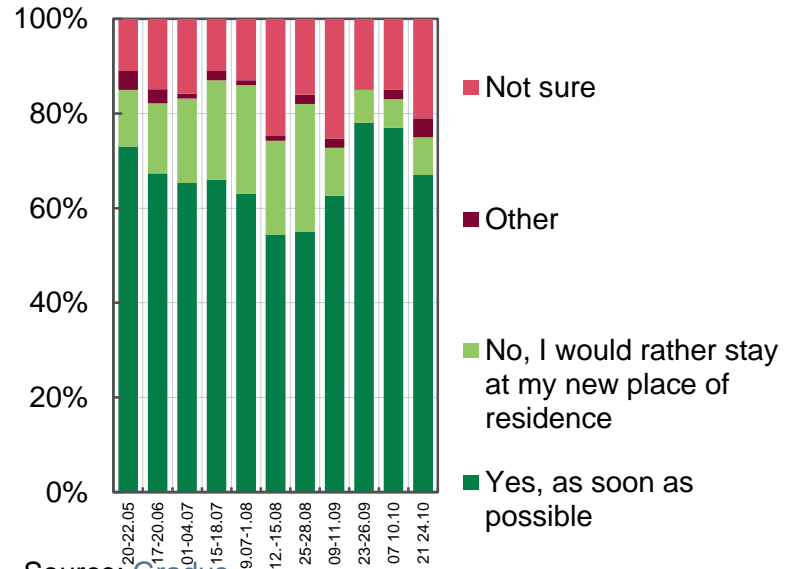
... and worsen working and living conditions, preventing the return of migrants

Number of citizens who crossed the border of Ukraine and weekly changes, millions of people



Source: [UNHCR](#).

Plans regarding return to Ukraine, % of responses



Source: [Gradus](#).

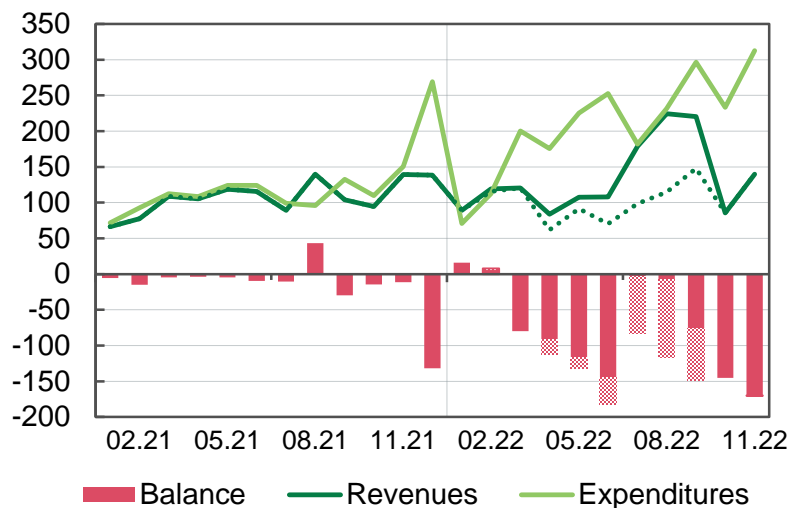
- According to [UNHCR data](#), as of 6 December 2022, 16.1 mn people left Ukraine, and 8.3 mn returned. Temporary protection status in the EU have been received by 4.8 mn persons. [According to the IOM](#), at the end of October the number of IDPs was [6.5](#) mn, of which 3.5 mn were registered as IDPs on 27 November
- Missile strikes on the infrastructure, which caused power outages, as well as the onset of cold weather negatively affected the desire of migrants to return as soon as possible. A share of those who plan to stay abroad has increased. [People who have already found a job abroad](#) are less likely to return
- Lack of funds, difficulties in finding housing and work remain the main problems of migrants both abroad and inside Ukraine. The lack of work has a particularly negative effect on IDPs - according to the [Gradus survey](#), 39% of IDPs cite it as a problem, compared to 26% of those who stayed and 28% of those who left the country



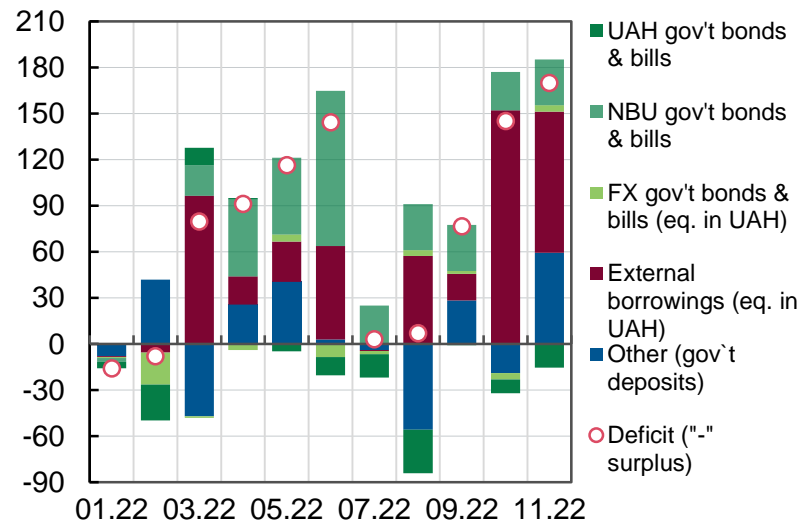
Ukraine: Fiscal sector

The state budget deficit widened to a record high and was covered mainly by international financing

Main State budget indicators*, UAH bn



State budget balance financing**, UAH bn

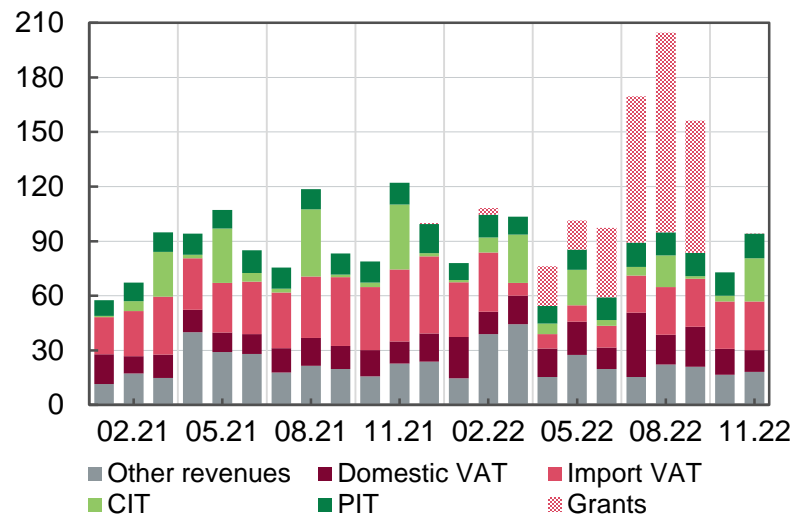


* Dotted and patterned fillings show relevant indicators excluding grants. ** Debt transactions are net borrowings. November – preliminary and high-frequency data from the MFU website. NBU calculations based on the MoF's website information. Source: Treasury, MoF, NBU staff estimates

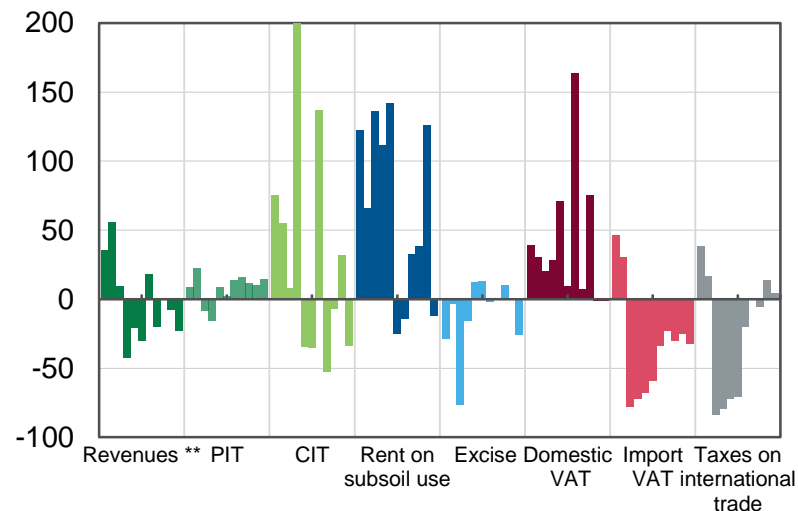
- In November, the state budget deficit widened due to the low revenues and substantial expenditures. For Jan - Nov, the negative balance exceeded UAH 810 bn (UAH 1,152 bn excluding grants)
- International financial support and the purchase of war bonds by the NBU were the main sources of deficit financing:
 - since July, the monthly volumes of war bonds purchase by the NBU have been kept within the announced limit – of UAH 30 bn (UAH 370 bn in Mar-Nov)
- Meanwhile, market demand for government domestic debt securities remained weak. Although in November, after a certain increase in interest rates, demand revived

The budget revenue performance remained dire

Revenues of the state budget's general fund*, UAH bn



Growth in revenues of the state budget's general fund in 2022, monthly*, % yoy

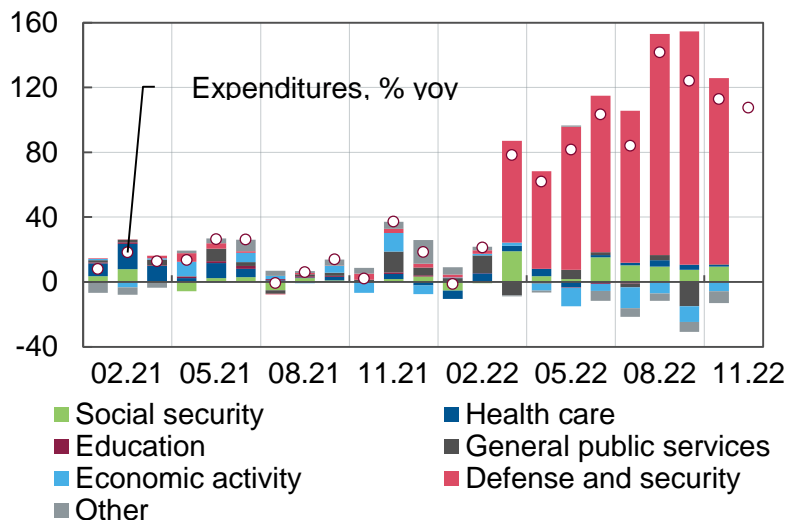


* November – preliminary and high-frequency data from the MFU website. NBU calculations based on the MoF's website information. ** Excluding grants. Source: Treasury, MoF, NBU staff estimates.

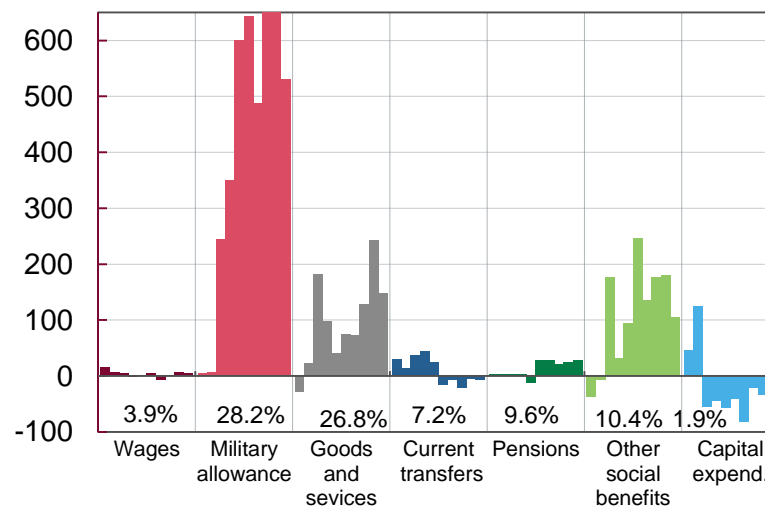
- In November, the general fund revenues continued to decrease in annual terms driven by the fall in tax revenues. Proceeds from CIT were predictably lower in annual terms, but better than in previous periods since business has adapted to a new environment. In addition, larger VAT refunds (UAH [13.6](#) bn – the highest amount since the beginning of the war) also affected tax revenues
- Considerable payments to military personnel (affecting the dynamics of PIT and other consumption taxes), the effects of inflation and exchange rate factors, and a certain increase in import volumes expectedly supported revenues

Expenditures kept growing at a significant pace, despite gradual slowdown

Contributions to annual changes in expenditures of the state budget*, pp



Growth in expenditures of the state budget in January – October 2022, % yoy



* November – preliminary data from the MFU website. NBU calculations based on the MoF's website information.
 Source: Treasury, MoF, NBU staff calculations.

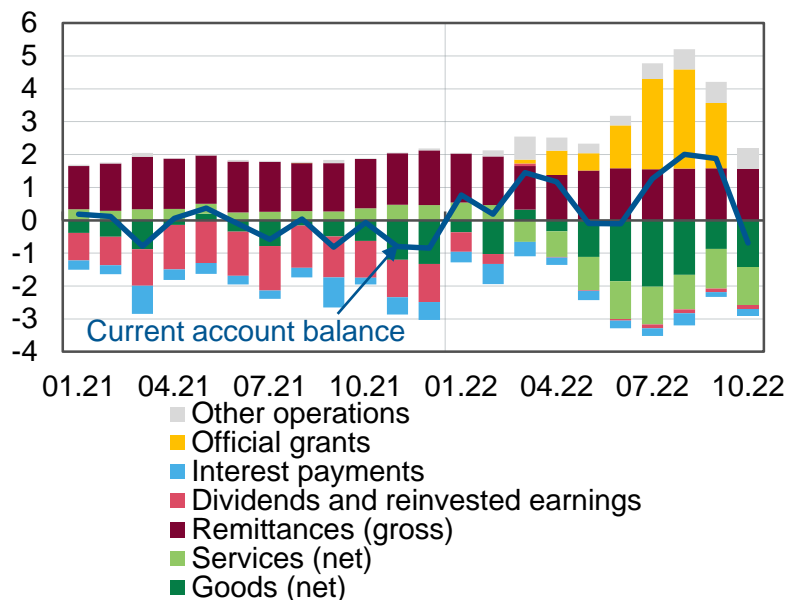
- State budget expenditures more than doubled last year's volumes, although their growth has been slowing down since September. The increase in expenditures was due to considerable expenses on the defense and security sector (primarily on military allowance), humanitarian programs, and the use of goods and services
 - Probably that social expenditures will be increased in November, in particular under the influence of the higher spending on housing and utility subsidies, which is related to the beginning of the heating season
- In October, capital expenditures were reduced and in annual terms remained significantly lower than last year's ones. However, a certain increase in capital expenditures is possible in November, in particular due to the need to restore energy infrastructure



Ukraine: Balance of Payments

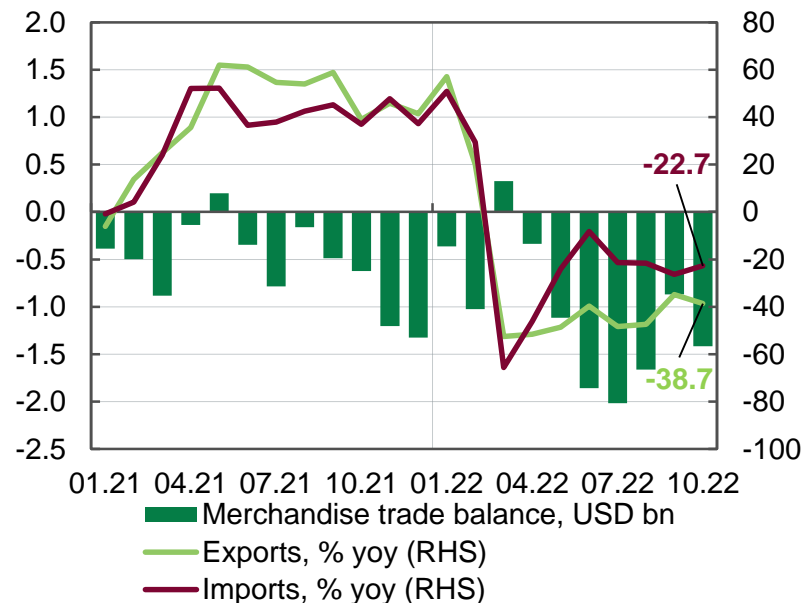
In October, the CA switched to a deficit as there were no grants received, and the merchandise trade deficit widened

Current account balance, USD bn



Source: NBU staff calculations.

Merchandise trade

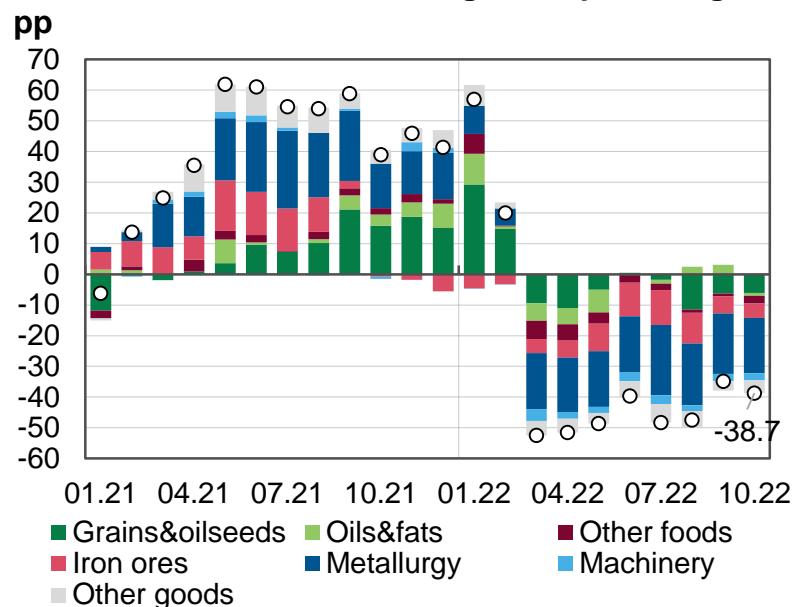


Source: NBU staff calculations.

- The main factor behind the significant deterioration in the dynamics of the current account balance in October was the lack of grants, which has ensured a significant surplus under the secondary income account in previous months
- In addition, the merchandise trade deficit widened (to USD 1.4 bn compared to USD 0.9 bn in September) both due to the deeper fall in exports (from 34.8% yoy in September to 38.7% yoy in October) and the slowdown in the import decline (from 26.4% yoy in September to 22.7% yoy in October)

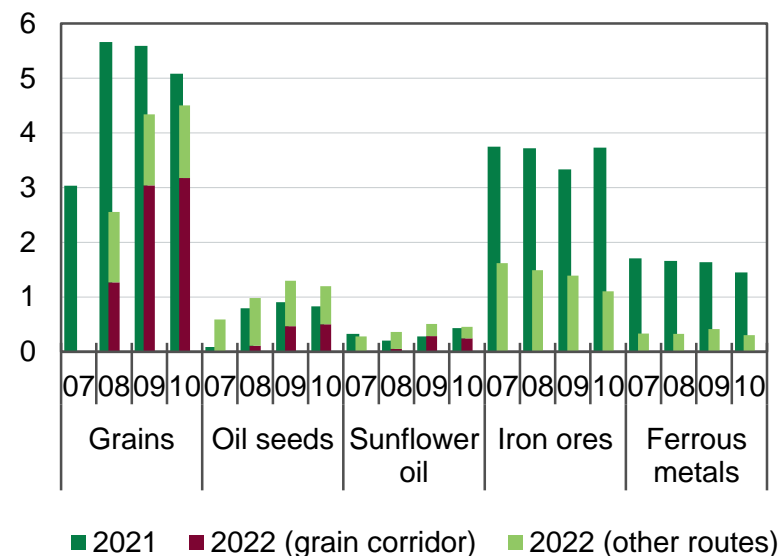
The deeper fall in exports of goods in October resulted from the base effect for sunflower oil and a lower sunflower harvest...

Contributions to annual change in exports of goods, pp



Source: NBU staff calculations.

Exports of goods, m tonnes

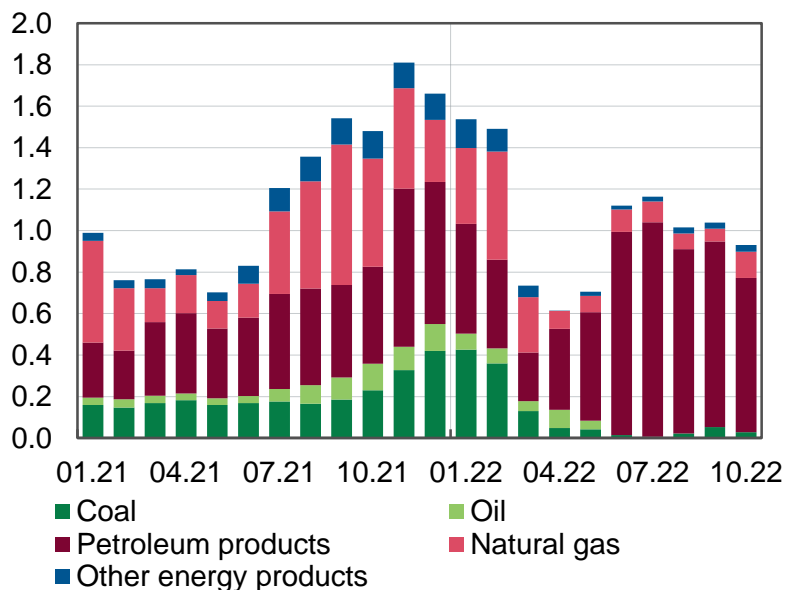


Source: SCSU, Black Sea Grain Initiative JCC.

- Following the improvement in logistics in July 2022, exports of sunflower oil significantly exceeded last year's supplies due to significant stocks accumulated as a result of unrealized exports in 1H 2022. Traditionally, following the completion of sunflower harvest, oil supplies have surged starting from October. This year, such seasonality is absent due to a decreased sunflower crop. Along with lower global prices, this led to a substantial deterioration in the dynamics of oil exports in annual terms.
- Additionally, exports of iron ores and ferrous metals continued to decline (and were 73% lower than in October of last year) as a result of a decrease in their production caused by continued difficulties with logistics, as well as a weakening of external demand
- In addition, exports recovery was hindered by russia's deliberately constraining inspections within the grain agreement

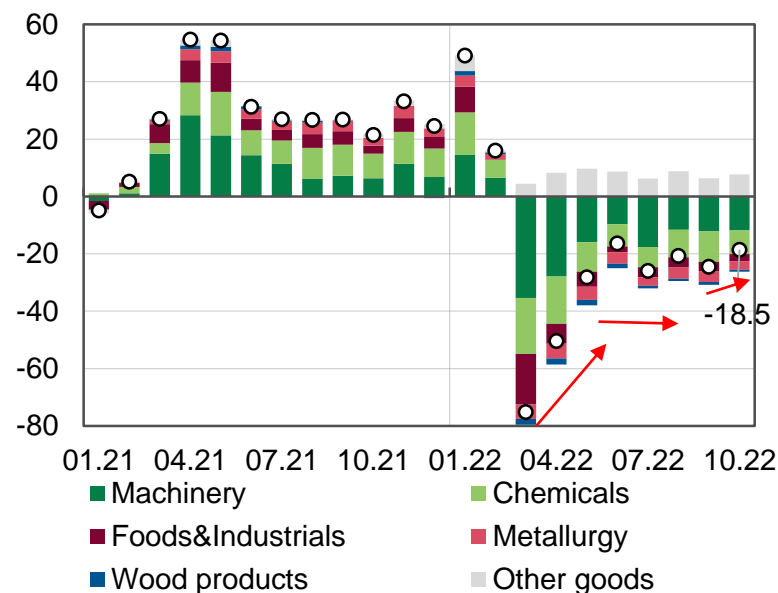
... while the fall in imports slowed down, supported by non-energy goods

Energy imports, USD bn



Source: NBU.

Contributions to annual change in non-energy imports, pp

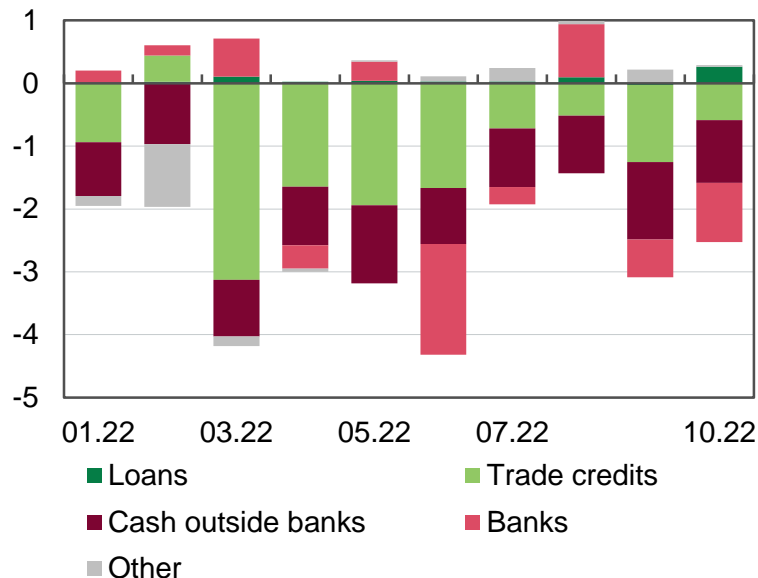


Source: NBU staff calculations.

- The fall in energy imports in October remained substantial (37.1% yoy) due to marginal imports of coal and lower imports of petroleum products as a result of certain market saturation. However, purchases of natural gas slightly increased compared to previous months as its prices decreased on the European market
- Larger imports of chemical products and equipment for the energy sector, as well as the higher volumes of international humanitarian aid, caused a slowdown in the fall of non-energy imports (to 18.5% yoy in October after 24.4% yoy in September)

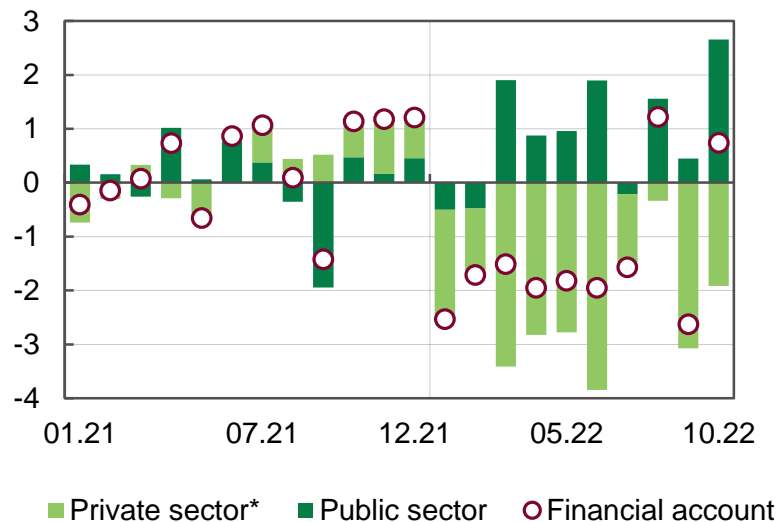
Sizable funds received by the public sector, along with inflows into the energy sector, helped generate capital inflows...

Private sector: net external liabilities, USD bn



Source: NBU.

Financial account: net external liabilities, USD bn



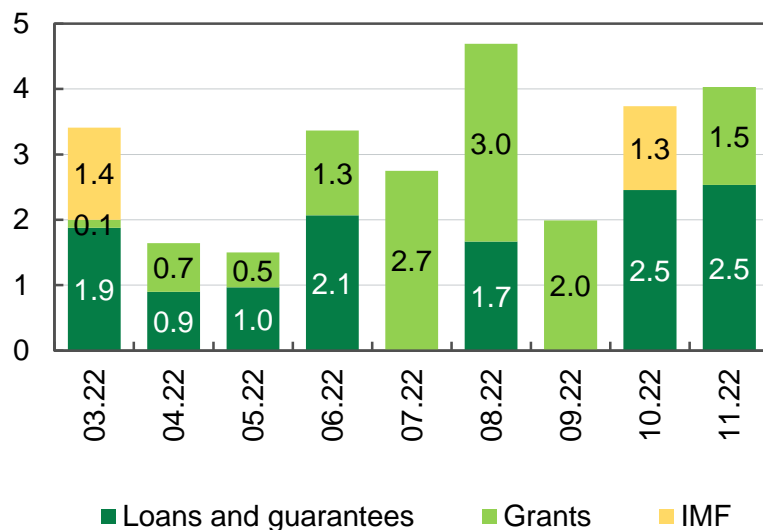
* Including net E&O.

Source: NBU.

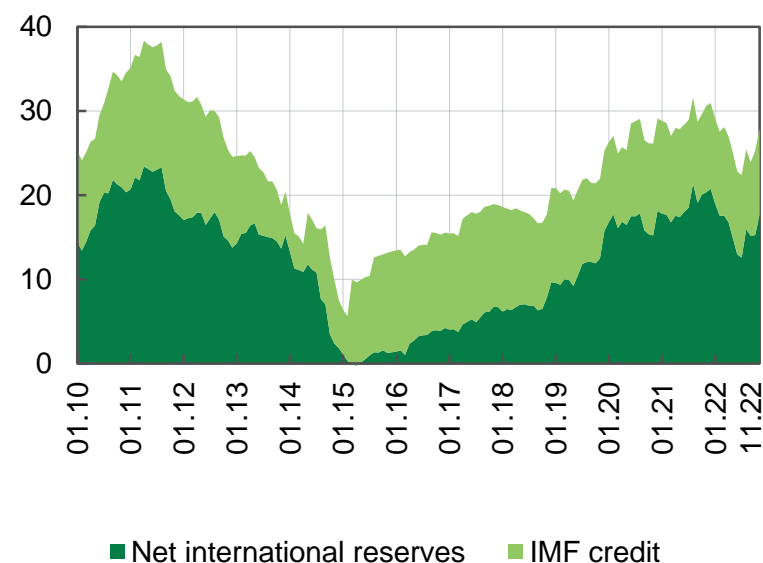
- The outflow of capital from the private sector has slowed down, among other things due to the Ukrenergo's disbursement of international aid aimed at the restoration of the energy system
- The public sector capital inflows grew markedly as the government received another tranche of macro-financial assistance from the EU (USD 2 bn), additional financing from the World Bank under the UK guarantees (USD 0.5 bn), and financial aid from the EIB (USD 0.5 bn).

... which, together with the IMF tranche disbursement, pushed reserves up

International financial assistance, USD bn



International reserves, USD bn



Source: data from the open sources, MoFU, NBU.

Source: NBU.

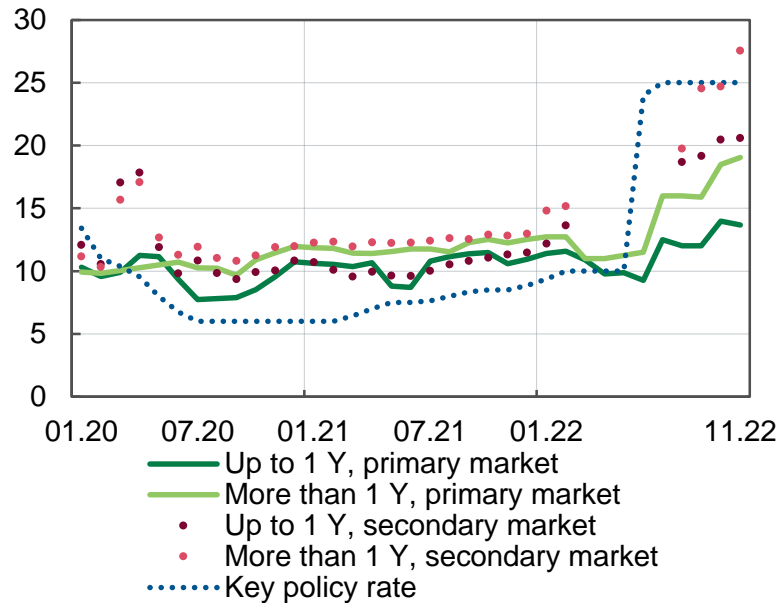
- In recent months, the amount of international financial assistance has increased significantly. Since the beginning of a full-scale invasion, official financing has exceeded USD 27 bn, as of the end of November
- As a result of larger funds received in the form of loans in October, including the IMF tranche and EU funds, reserves increased to USD 25.2 bn as of the end of October. In November, thanks to the receipt of macro-financial assistance from the EU and the grant from the United States, they continued to grow and at the end of the month amounted to USD 28 bn. This level exceeds the one Ukraine had at the beginning of the full-scale war



Ukraine: Monetary sector

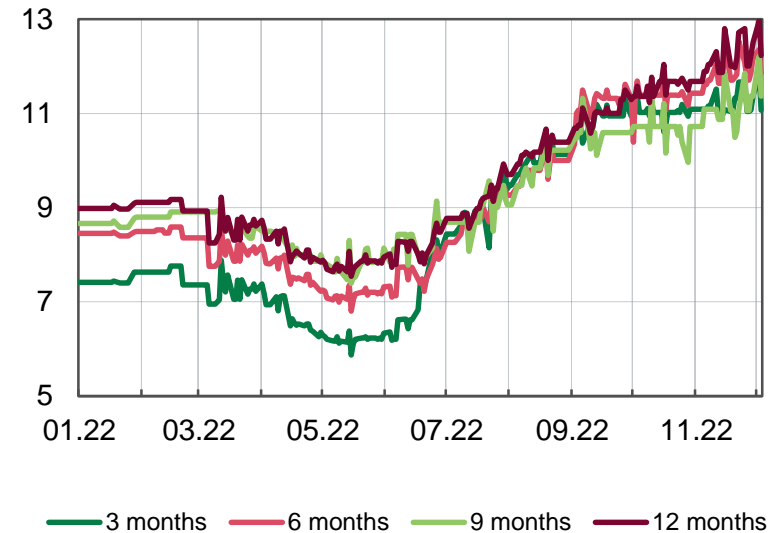
The attractiveness of hryvnia assets has been gradually increasing as the key policy rate are kept high since June

The yield on hryvnia government bonds, % per annum



Source: NBU staff estimates.

Ukrainian index of retail deposit rates*, %



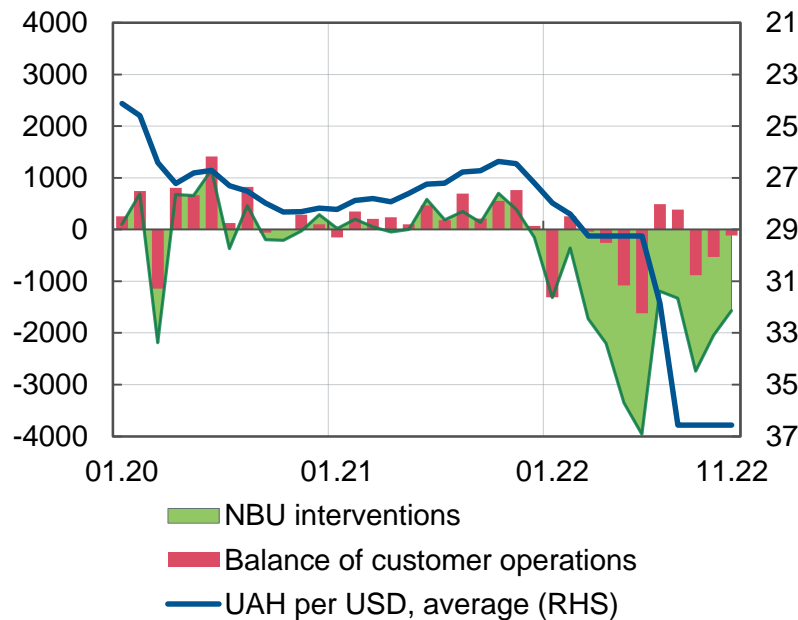
* As of 06.12.2022.

Source: Thomson Reuters.

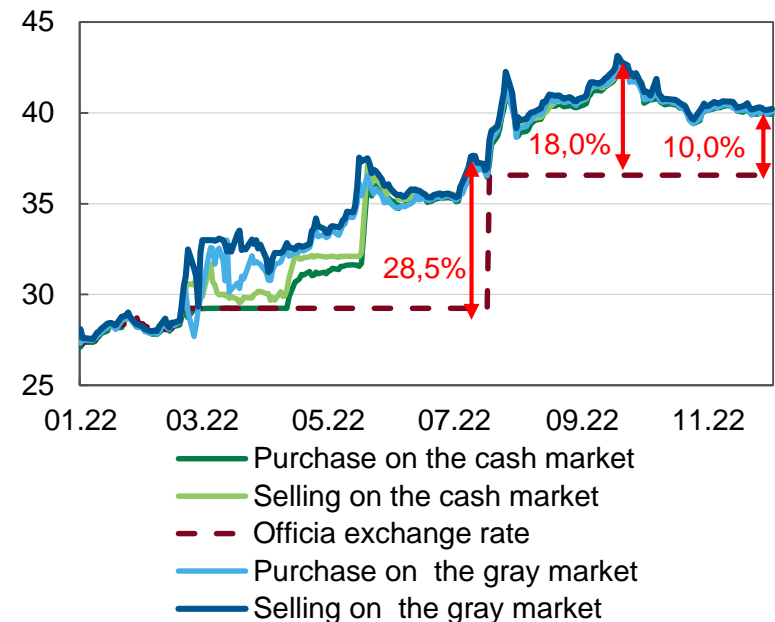
- Banks have been gradually raising interest rates on hryvnia deposits. However, this does not create strong incentives for investors to give preference to hryvnia assets over the FX instruments
- Market positively perceives a continued increase in yields on hryvnia domestic government debt securities

The NBU's interventions in the FX market decreased due to somewhat improved supply

Net sale and purchase of non-cash and cash foreign currency by bank customers, USD m



Exchange rates UAH/ USD*



* As of 05.12.2022.

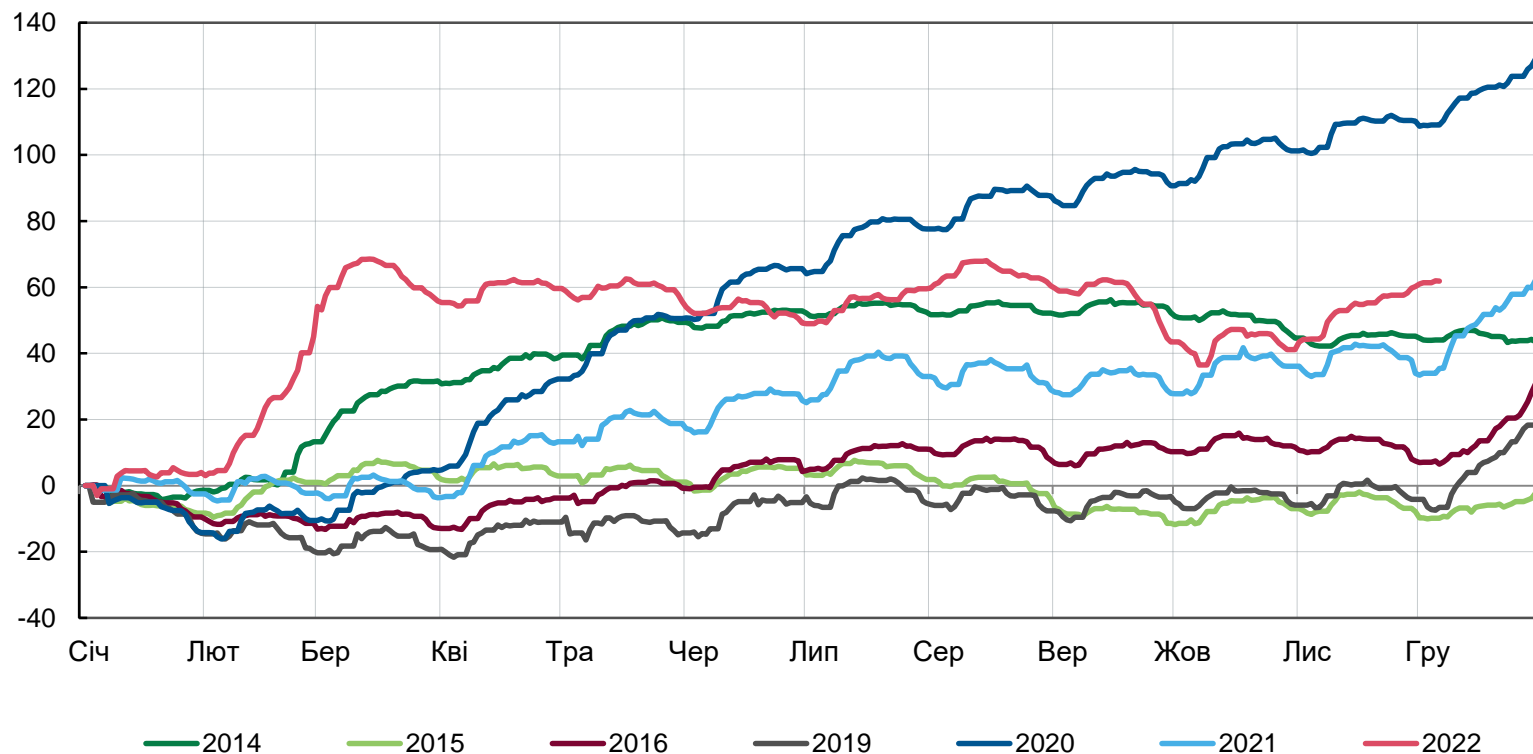
Source: NBU, open data sources.

Source: NBU

- In November, the seasonal factors (income tax payment due dates), as well as proceeds received thanks to the functioning of the "grain corridor" and inflows of international aid, including the support provided to the energy sector supported the FX supply
- Introduction of deposits that enable households to protect their hryvnia savings from the risk of exchange rate fluctuation contributed positively to maintaining the deviation of cash FX rate from non-cash FX rate at around 10%

Cash outside banks grows rapidly amid enduring power outages and risks of further attacks on the energy sector

Cash outside banks, YTD, UAH bn



* As of 05.12.2022.
Source: NBU.