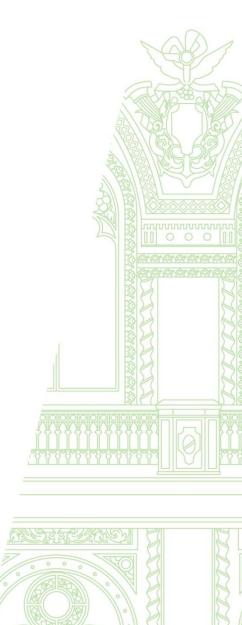


Monthly Macroeconomic and Monetary Review

April 2023

Monetary Policy and Economic Analysis Department



Summary

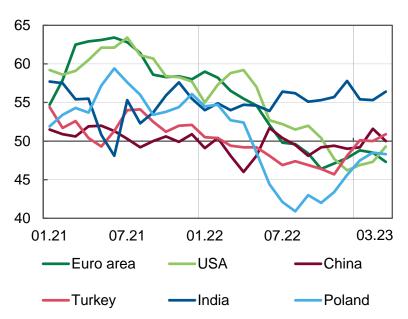
- Global economy is growing sluggishly. Inflation pressures are gradually weakening, albeit remain elevated. Weak global economy has continued pushing energy prices down, while supply was relatively stable. World prices for commodities, prevailing in Ukrainian exports, were rising in sync, although steel and iron ore prices lost momentum by the end of the month. Major central banks are approaching the peak in the interest rate hiking cycle, while most EM central banks take a wait-and-see position
- Consumer inflation continued to decelerate (to 24.9% yoy in February) due to sufficient supply of foods and fuels, subdued consumer demand, effects from de-occupied Kherson region, and the strengthening of the hryvnia cash exchange rate. This offset the effects of higher business costs, in particular those associated with the electricity shortage. NBU estimated that disinflation intensified in March, inter alia due to the base effects
- In March, **economic activity continued to revive further**, in particular thanks to more benign situation in the energy sector. Improved business and consumer sentiments supported activities in a number of industries, retail trade, and services sectors. Despite the uncertainty around the "grain corridor", the transportation of agricultural goods and iron ore to the western borders supported the transport sector
- The labor market also continued to recover in March, with the number of job openings growing faster than the number of resumes. However, employment remained low, holding back households' income growth, which was only partially offset by indexation of pensions. The number of migrants abroad increased further, as did their adaptation
- In March, the state budget deficit narrowed significantly as tax revenues improved, although expenditures continued to be substantial. The deficit was covered by international financing and domestic borrowings. The increase in the latter was largely due to the mechanism allowing the banks to use the benchmark debt securities to meet the reserve requirements
- In February, the merchandise trade deficit narrowed on the back of increased exports of grains and lower energy imports. Together with more grants received, this ensured the current account deficit narrowing. At the same time, as fewer loans were received net outflow of capital was formed under the financial account which led to a temporary decrease in reserves to USD 28.9 bn as of the end of February
- The attractiveness of hryvnia assets has been increasing in response to NBU's maintaining the key policy rate high and tightening of reserve requirements. More benign expectations helped improve the FX market situation and decrease the NBU's interventions



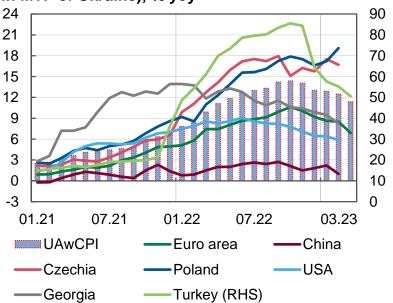
External Environment

Global economy is growing sluggishly. Inflation pressures are gradually weakening, albeit remain elevated

Manufacturing PMI of selected countries



CPI in selected countries and UAwCPI* (price index in MTP of Ukraine), % yoy



* March -preliminary estimates

Source: National statistical offices, NBU staff estimates.

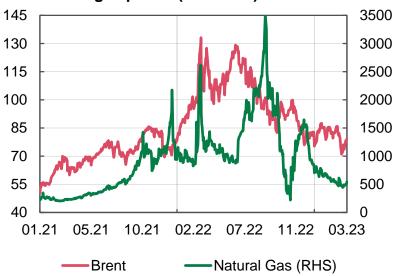
- Leading indicators signaled sluggish recovery of global economic activity in March. Unlike the revival in services sector, the activity in manufacturing remained subdued, although a decline slowed thanks to improved supply chains. The latter almost returned to the pre-pandemic normal, as evidenced by the Global Supply Chain Pressure Index
- Inflation pressures in Ukraine's main trade partners (MTP), as measured by UAwCPI, have eased after a jump in price growth seen in early 2023 in some countries amidst the expiration of a number of state support measures to compensate for high fuel and electricity prices. A further decline in energy prices was a significant factor behind the slowing inflation



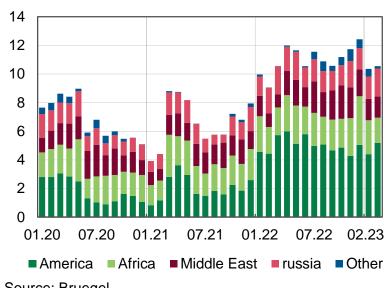
Source: S&P Global.

Weak global economy amid relatively stable supply of fossil fuels continued pushing energy prices down

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



EU LNG imports by region of origin, bcm



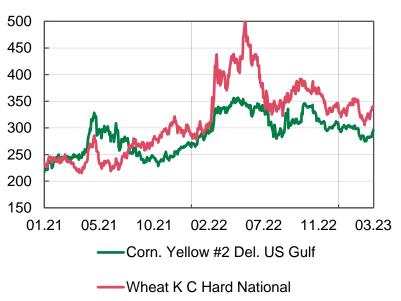
Source: Refinitiv. Source: Bruegel.

- Global oil prices were predominantly decreasing in March amidst the fears of an excessive supply forming as a result of:
 - banking system issues in the U.S. and Europe against the backdrop of high interest rates of major CBs
 - resumed growth in U.S. stocks of crude oil up to the highest level in the last almost two years, and expected slow replenishment of the Strategic Petroleum Reserve
 - continued supply of russian oil in significant amounts despite the promised rapid decline
- However, prices corrected upwards due to the unexpected oil production cuts by OPEC+ announced in early April
- Natural gas prices were declining amid warm weather, substantial gas supply in the U.S., and active imports of LNG at the beginning of 2023 and significant gas stocks in Europe as of 29 March, gas storage levels stood at roughly 56% (the highest rate in more than a decade)



World prices for major Ukrainian export commodities were rising. But steel and iron ore prices saw correction at the end of March

Global steel and iron ore prices, USD/MT



Global grain prices, USD/MT



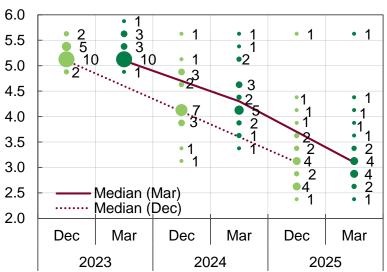
Source: Refinitiv. Source: Refinitiv, Delphica.

- In March, global wheat and corn prices resumed growth despite the continuation of the "grain corridor" operation. The significant factors for that were: international grain traders Cargill and Viterra halting operations in russia (which may lead to lower supply of russian grains to world markets); elevated demand from Tunisia, Iraq and China; very low yields in Argentina due to drought (harvesting has already started)
- Global steel and iron ore prices were increasing due to a moderate revival of demand in all regional markets. However, due to banking sector instability in some countries and the start of Ramadan, prices have lost momentum and corrected downwards



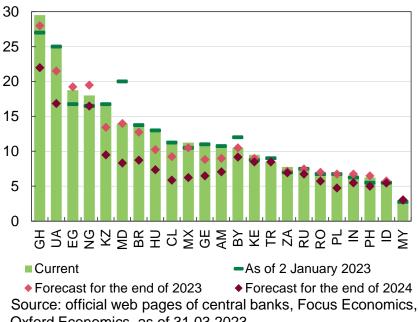
Major CBs are approaching the peak in the interest rate hiking cycle. Most EM central banks take a wait-and-see position

The number of FOMC members that expect the respective policy rate*



* - at year-end Source: Federal Reserve System.

Key policy rates in selected EM countries, %



Oxford Economics, as of 31.03.2023.

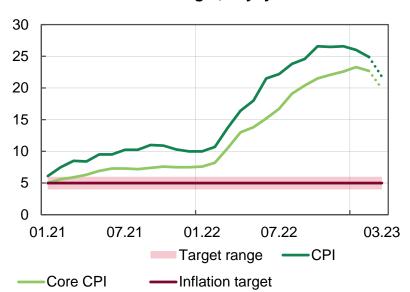
- **The Fed** hiked the federal funds target range by 25 bps to further contain inflation, despite banking sector turbulences. The median interest rate projection for 2023 year-end was maintained at 5.1%, which implies one more hike by 25 bps. Markets price in a 25 bp hike in May (about a 53% probability) and a cut in rates from July
- **The ECB** increased its rates by 50 bps as promised, albeit noted it was impossible to determine the future path of rates at this point due to elevated uncertainty. Under the conditions of high inflation, despite it slowing, markets expect at least one additional rate hike by 50 bps
- Most central banks of EMs took a wait-and-see position in order to weigh the consequences of active rate hikes in previous years for domestic economies and to analyze global risks 7





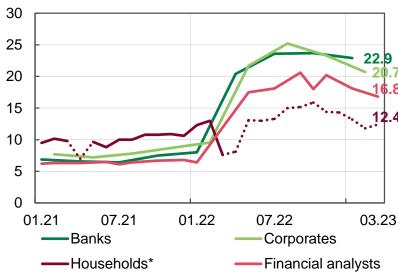
Consumer inflation continued to decelerate faster than expected

Inflation and inflation target, % yoy



^{*} Data for March reflects nowcast. Source: SSSU, NBU staff estimates.

Inflation expectations for the next 12 months,%



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

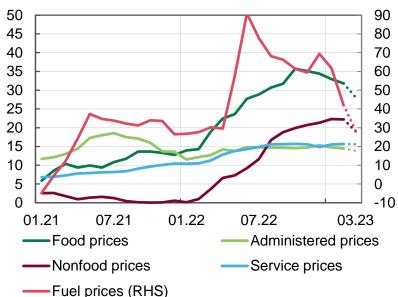
Source: NBU, GfK Ukraine, Info Sapiens.

- The slowdown reflected sufficient supply of foods and fuels, the further effects from de-occupation of the part of Kherson region, and better situation in the energy sector
- Underlying inflationary pressures also eased as inflation expectations improved amid favorable FX
 market conditions and still weak consumer demand. This offset the effects of high business costs, in
 particular those incurred earlier due to the electricity shortage
- According to the NBU's estimates, inflation continued to decelerate in March, which, in addition to the above factors, also reflected the base effects of the previous year



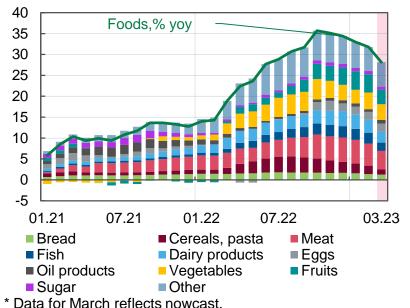
Inflation in Ukraine declined due to strengthening of cash ER, sufficient supply of food staples, de-occupation effects,...

Selected CPI components*,% yoy



* Data for March reflects nowcast. Source: SSSU, NBU staff estimates.

Contributions to the annual change in food prices*, pp



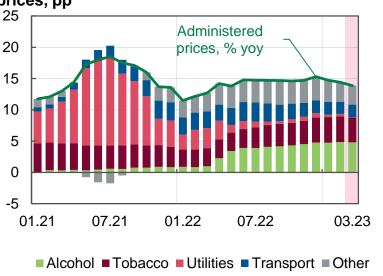
Source: SSSU, NBU staff estimates.

- Food prices decelerated reflecting, among other things, an easing of cost pressures due to an improved energy situation and sufficient supplies of raw materials and fuels. In particular, the growth in prices for cereals, flour, edible oil, and sugar, as well as their processed products, slowed thanks to last year's harvests of grain, oilseeds and sugar beet that were sufficient to meet domestic needs
- The effects of the de-occupation of part of the Kherson oblast also remained a contributor to inflation slowdown
- In contrast, some vegetable prices rose sharply in March, which, as expected, mainly reflected the waning of the temporary effects of the warm winter weather in the previous months. The growth rate of egg prices also remained high

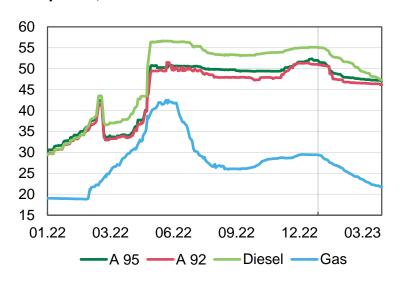


... significant fuel stocks, and fixed utility tariffs

Contributions to the annual change in administered prices, pp



Fuel prices, UAH / L



Source: minfin.com.ua, NBU staff calculations.

- Further on, the growth rate of fuel prices declined rapidly due to substantial stocks and a decline in global oil prices in annual terms
- The stabilization of fuel prices contributed to a decline in the growth rate of transportation prices and an easing pressure from their second-round effects
- The growth in administered prices continued to be restrained by the moratorium on increases in utility tariffs for households

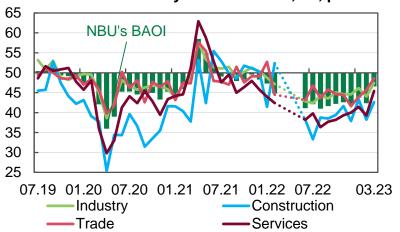


^{*} Data for March reflects nowcast. Source: SSSU, NBU staff estimates.



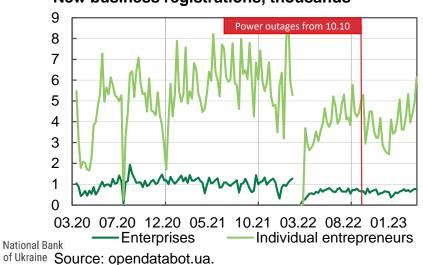
The improvement of the situation in the energy sector supported business activity, in particular in the services sectors,...

NBU's business activity outlook index, sa, p

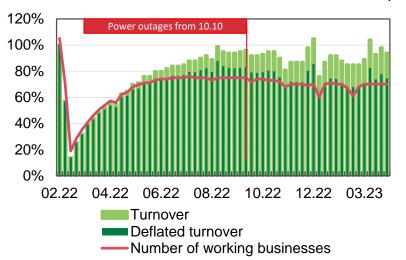


^{*}Survey was not conducted from March to May 2022. Source: NBU.

New business registrations, thousands

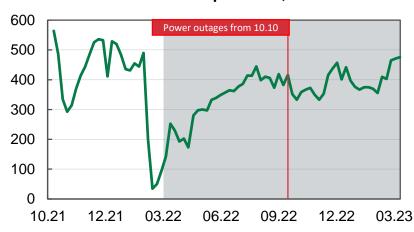


Performance indicators of the restaurant business, %



Source: SSSU, Poster, NBU staff estimates.

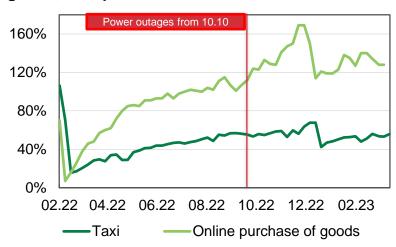
Number of UZ tickets sold per week, thousands



Source: UZ.

... retail trade ...

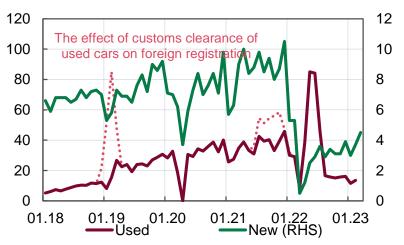
The number of taxi orders and online purchases of goods, % to pre-war level



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

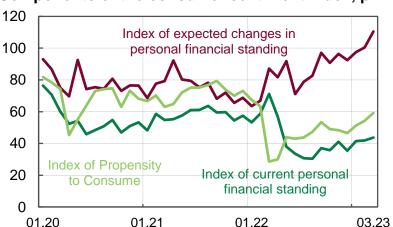
- In March, retail trade revived as the electricity deficit decreased and consumer sentiments improved
- As of the end of February, 95% of retail chains and shops resumed work; and the curfew reduction in March made it possible to extend working hours of shopping malls, cafes and restaurants
- In March, <u>passenger car sales</u> were 21% higher compared to February
- However, overall consumer demand remained National Bank subdued

The first registration of passenger cars, thousand units



Source: Ukravtoprom.

Components of the consumer sentiment index, p.



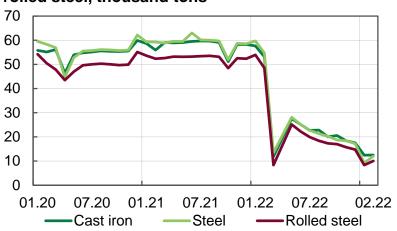
From March 2023, the survey method was changed from faceto-face to telephone interviews. 14

Source: Infosapiens.

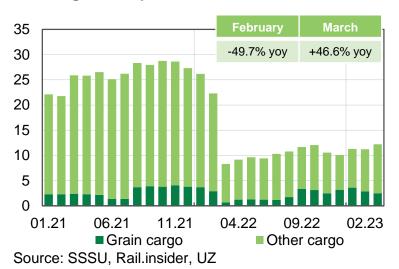


... industry and agriculture

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



Rail freight transportation, mln t



Source: Ukrmetalurgprom.

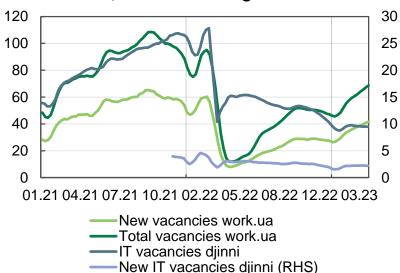
- Against the backdrop of a decrease in the electricity deficit and a reviving domestic demand:
 - a number of metallurgical enterprises <u>increased facility loading</u>, <u>exports of semi-finished products</u> and <u>iron ore</u>s. This and the launch of new <u>coal</u> and <u>gas production facilities</u> supported the mining sector
 - individual fertilizer manufacturers <u>loaded their production facilities</u> in February-March to 50%-80%, including due to the start of spring sowing campaign (<u>started in all regions</u>)
 - <u>flour production increased</u>. In the run-up to spring holidays <u>meat processing</u> has increased. In contrast, <u>dairy processing</u> and <u>the production of sunflower oil</u> slowed down seasonally
 - the situation in animal husbandry improved, causing a slower decrease in agricultural output
- Meanwhile, sowing is complicated by a <u>shortage of personnel</u>, <u>rising costs</u>, as well as the <u>need for quick</u> <u>tillage</u> after corn and sunflower (<u>as of 09.03.23</u>, 4% of the corn area has not been harvested)
- Uncertainty regarding the continuation of the "grain corridor" restrained the <u>rail transportation of grains</u> to seaports in March, which was compensated for by the increase in <u>rail</u>, <u>river</u> and <u>road</u> cargo <u>transportation</u> of agricultural products and iron ores to the western borders





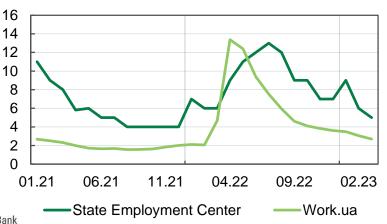
In March, the labor market activity continued to recover...

Labor demand, four-week average

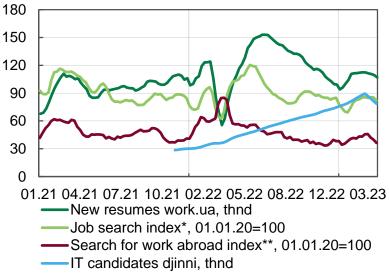


Source: work.ua, Opendatabot, NBU staff estimates.

The number of candidates per job opening



Labor supply, four-week average

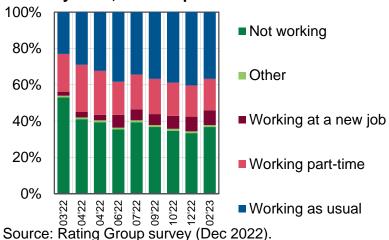


- * Includes job search queries in Ukrainian and Russian. ** Includes job search requests in Poland, the Czech Republic, Russia and Germany in Ukrainian and Russian from Ukraine. Source: work.ua, Opendatabot, Google Trends, NBU staff estimates.
- In March, the growth in the number of resumes stabilized, while the number of job offers mostly continued to grow
- As a result, the number of applicants per a job opening decreased significantly compared to 2022, but still remains significantly higher than before 24.02.2022

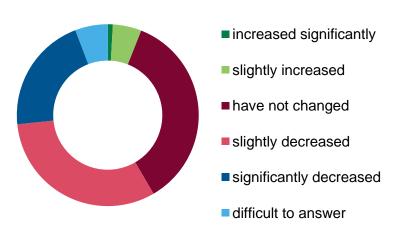
Source: work.ua, SESU, NBU staff estimates.

...but many Ukrainians who used to have jobs before the war are still unemployed, which adversely affects the financial situation of households

Current status of those who had a job before 24 February 2022, % of responses



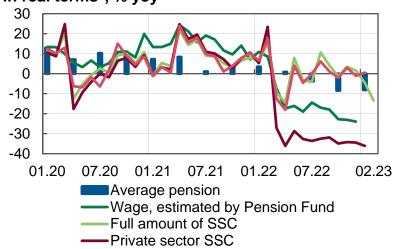
Your income after 24 February 2022, % of responses



temporary work, 3% from own business) In early 2023, household income remained restrained (in particular due to the revision of approaches to payments to the military), which was only partially

offset by indexation of pensions

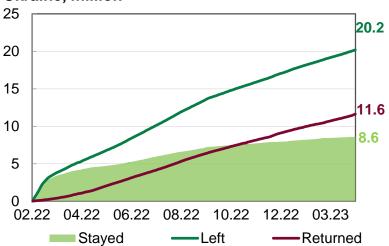
Indirect indicators for estimating household income in real terms*, % yoy



- * Deflated by CPI. Source: Pension Fund of Ukraine, SSSU, STSU, NBU calculations.
- According to the Rating survey, the share of those who had a job before 24 February 2022, have lost their jobs and have not yet found a new one remains almost unchanged (36%). It is more difficult to find a job for IDPs of whom 51% are unemployed
- According to the Razumkov Center survey, the majority (53%) of IDPs have seen their income decrease over the year, while only 6% have seen an increase. The most affected are the elderly, residents within the combat zone and IDPs. The main source of income is salary (40% from permanent work, 8% from temporary work, 3% from own business)

The number of migrants abroad continues to grow gradually, and their adaptation increases

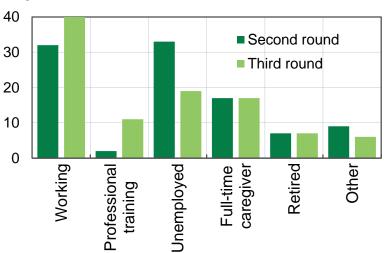
Number of citizens who crossed the border of Ukraine, million



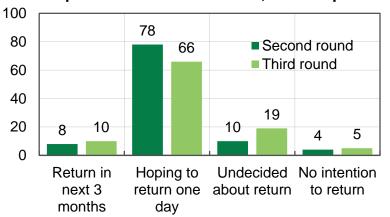
Source: <u>UNHCR</u>.

- According to the <u>UNHCR</u>, as of April 04, 2023, 5 million Ukrainians have temporary protection status in the EU
- Migrants abroad are adapting: according to a UN survey, the share of those working or learning a profession has increased, while the share of unemployed and those receiving social assistance has decreased
- The majority of Ukrainians (76%) plan to return, but the share of those who are undecided about returning is growing. Main reasons for not returning: security problems/occupation of territories (48%) and lack of work in Ukraine (31%)

Changes in refugees' economic activity, % of responses*



Do You plan to return to Ukraine?, % of responses*



*Among those who participated in both waves of the survey. The second wave - September 2022, the third wave - January 2023.

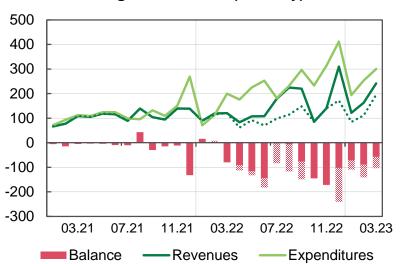
19 Source:UNHCR.



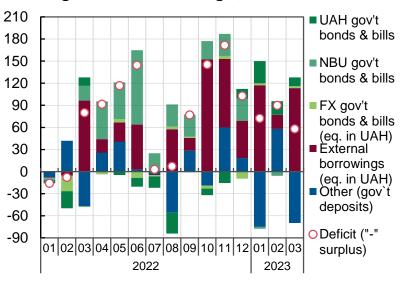


In March, the state budget deficit narrowed significantly as tax revenues improved

Main State budget indicators* (monthly), UAH bn



State budget balance financing**, UAH bn



^{*} Dotted and patterned fillings show relevant indicators excluding grants. Balance includes net lending. ** Debt transactions are net borrowings. Other financing represents active operations (in particular, includes the change in volumes of gov`t funds) and privatization.

March – preliminary data from the MoF website, NBU calculations.

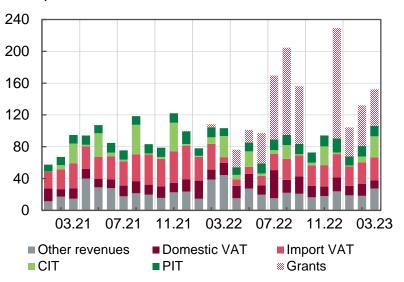
Source: Treasury, MoF, NBU staff estimates.

- In March, the state budget deficit, excluding grants, narrowed to UAH 104 bn, although cumulative deficit for Jan-Mar 2023 remained considerable – above UAH 354 bn excluding grants in revenues (UAH 220.3 bn including grants)
- In Q1 2023, budget needs were covered by:
 - international financing: USD 11 bn (USD 3.7 bn of grants and USD 7.3 bn of loans);
 - domestic borrowings (UAH <u>137.7</u> bn), which has intensified since the NBU took measures by allowing the coverage of required reserve with the benchmark domestic debt securities

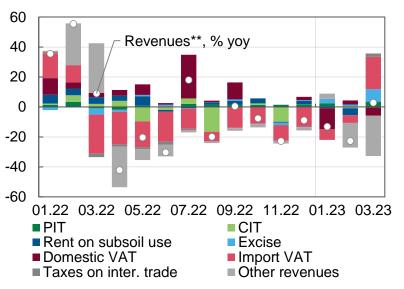


In March, economic factors, among other factors, were behind the better performance of tax proceeds

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



Contributions to annual changes in revenues** of the state budget's general fund, pp



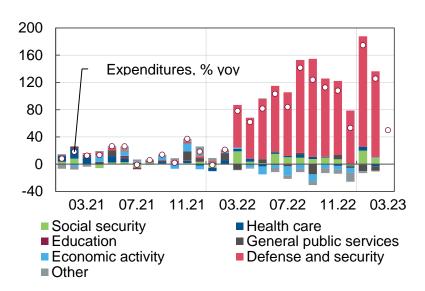
^{*} March – preliminary data from the MoF website, NBU calculations. ** Excluding grants. Source: Treasury, MoF, NBU staff estimates.

- In March, revenues (excluding grants) somewhat exceeded last year's ones primarily due to better tax proceeds. The growth of the latter in annual terms was mainly the result of the low base effect, inflation and exchange rate factors, the gradual revival of economic activity this year, as well as the tighter tax administration
- Tax revenues were also supported by considerable payments to military personnel (affecting the dynamics of PIT and other consumption taxes)
- Grants remained the crucial source of revenues, as in 2022. They pushed the general fund revenues up National Bank by more than 34% yoy in January-March 2023

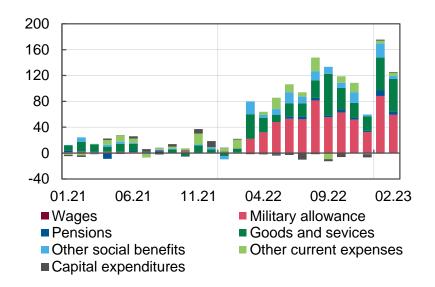


Expenditures continued to grow rapidly, despite the increasing comparison base

Contributions to annual changes in expenditures of the state budget*, pp (functional classification)



Contributions to annual changes in expenditures of the state budget, pp (economic classification)



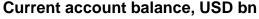
^{*} March – preliminary data from the MoF website, NBU calculations. Source: Treasury, MoF, NBU staff calculations.

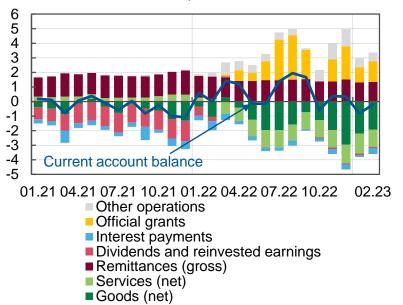
- Expenditure growth remained substantial, even accounting for a surge in military and social needs in March 2022. The defense and security (primarily on military allowances and armed forces support) and social programs remained priority directions for spending
- At the beginning of 2023, capital expenditures increased, in particular in view of the need to restore infrastructure. At the same time, improvements were seen in the road infrastructure sector financing

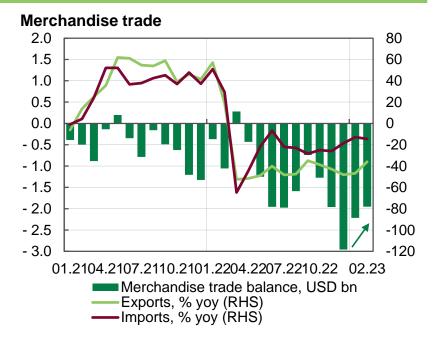




In February, the current account deficit narrowed on the back of lower energy imports and larger amount of grants received







Source: NBU staff calculations.

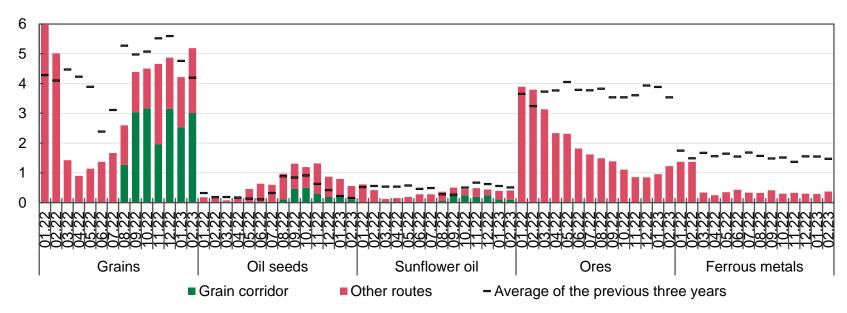
Source: NBU staff calculations.

- In February, the decline in exports of goods slowed down (to 35.9% yoy) as exports of grains increased, while the decrease in imports of goods deepened (to 14.5% yoy) due to lower energy imports. The merchandise trade deficit, however, remained substantial, although it has been narrowing for the second month in a row
- Higher amounts of grant financing compared to January (USD 1.4 bn and USD 1 bn, respectively) were an important factor contributing to the narrowing of the current account deficit (to USD 0.2 bn)



Exports of grains in February surpassed the pre-war level and were the primary reason of slower decline in total exports

Exports of key goods, m t



Source: SCSU, Black Sea Grain Initiative JCC.

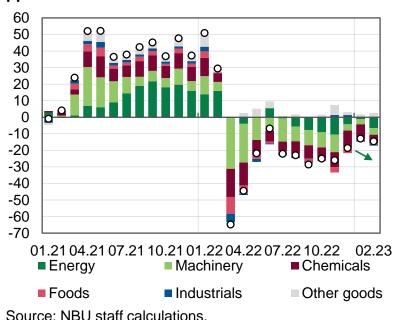
- In February, export volumes of grains reached their highest level since the beginning of the full-scale war. Shipments via the grain corridor have risen amid uncertainty about its continuation in the near future, and deliveries by other routes have increased amid improved their transport capacity resulting from both higher water levels and active dredging of the Danube in previous months
- Better situation with power supply and the gradual expansion of demand from European metallurgy contributed to higher export volumes of iron ore and metallurgical products compared to previous months



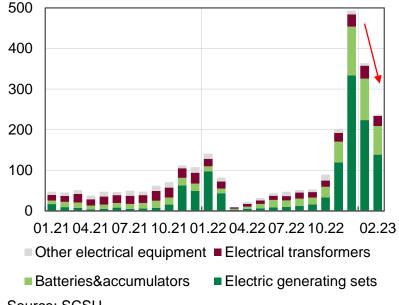
A lower comparison base due to the start of the full-scale war at the end of February last year was an additional factor causing a slowdown in the decline of merchandise exports

The decline in imports has deepened amid the improved situation in the energy sector

Contributions to annual change in imports of goods, pp



Imports of emergency power supply goods, USD m



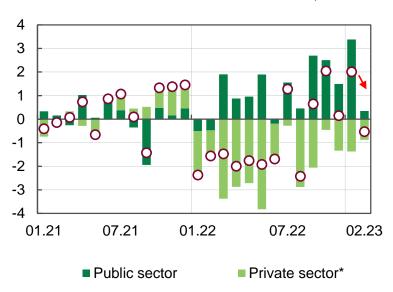
Source: SCSU.

- Swift power grid repairs and warmer weather helped reduce the electricity shortage and the imports of goods necessary to mitigate its consequences
- Thus, the import volumes of petroleum products continued to decrease on the back of significant stocks accumulated, and lower needs for electricity generation were among of the factors to bring the natural gas imports down. Imports of emergency power supply goods continued to decline due to the saturation of domestic demand during the previous months
- Meanwhile, as the crop structure shifted towards a larger share of soybeans and sunflower seeds, this pushed the import volumes of fertilizers, plant protection products, and agricultural machinery by farmers higher, which restrained the fall in imports

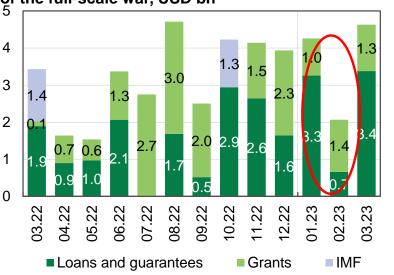


A temporary decline in international financing determined net capital outflows...

Financial account: net external liabilities, USD bn



International financial assistance from the beginning of the full-scale war, USD bn



* Including net errors and omissions. Source: NBU.

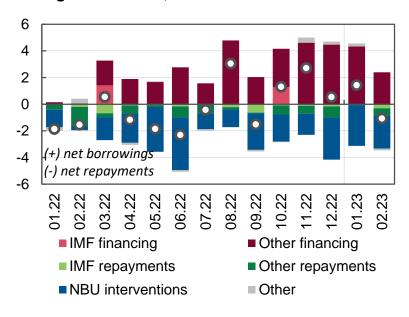
Source: open sources data, MoFU, NBU

- Financial assistance from international partners remained a determining factor of public sector capital inflows. Meanwhile, February saw a temporary decline in loan disbursements
- Despite capital outflows from the private sector being smaller than in the previous month due to growth in liabilities under trade credit, they helped generate net capital outflows under the financial account as a whole

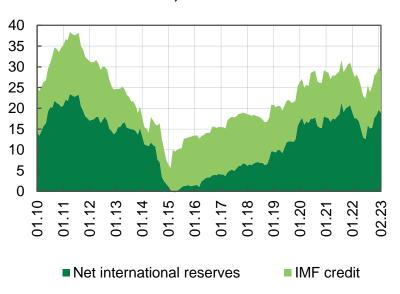


...and a decline in reserves. However, reserves resumed growth in March

Change in reserves, USD bn



International reserves, USD bn



Source: NBU. Source: NBU.

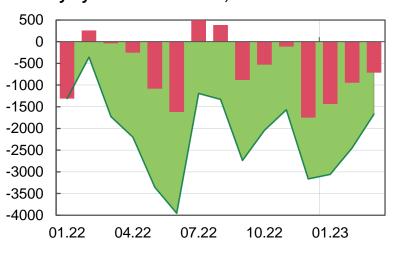
- Due to lower volumes of financing received from international partners in February, reserves decreased to USD 28.9 bn as of the end of February. However, considering the significant amounts of financing received in March and lower NBU's FX interventions, gross reserves resumed growth in March
- In Q1 2023, Ukraine received almost USD 11 bn of external financial assistance (in the form of grants and loans)





FX market situation has been improving, while the NBU's interventions have been decreasing

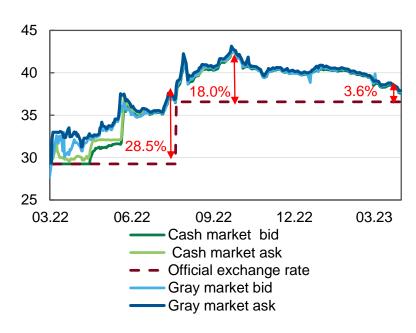
Net sale and purchase of non-cash and cash foreign currency by bank customers*, USD m



■ NBU interventions ■ Balance of customer operations

*Preliminary data. Source: NBU.

Exchange rates UAH/USD



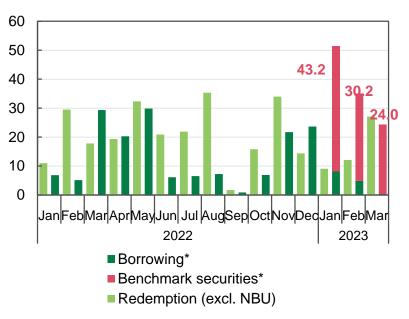
Source: NBU, open data sources.

- The NBU's interventions in the FX market significantly decreased. This mostly resulted from the improvement in expectations amid better situation in the energy sector and the absence of monetary financing of the budget deficit, as well as the trade deficit narrowing
- The gap between cash and non-cash FX rates narrowed further due to calibrating FX restrictions, implementation of new instruments to hedge hryvnia savings against changes in the exchange rate, and other NBU's steps to make hryvnia assets more attractive
 - The spread narrowing eliminates market distortions and increases currency inflows through official channels



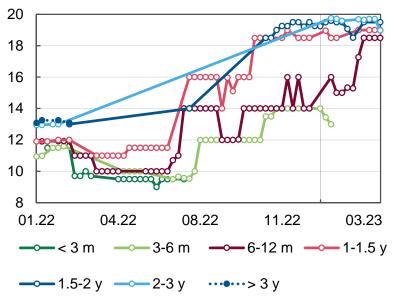
Benchmark domestic government debt securities kept prevailing in the primary market. And the yields increased moderately

Placement* and redemption of domestic government debt securities, UAH bn



^{*} Without taking into account hryvnia bonds issued in December for the recapitalization of "Ukrfinzhytlo". Source: NBU.

Yields on hryvnia government bonds in the primary market, %



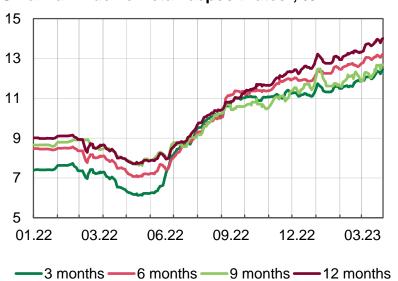
Source: NBU staff estimates.

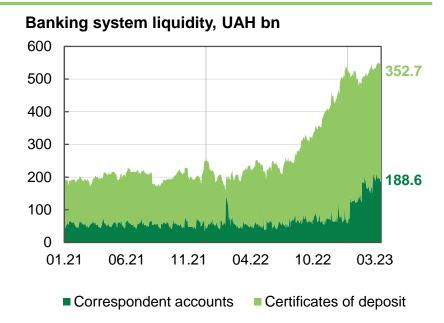
 Benchmark securities accounted for 84.1% of the total volume of bonds in January, 86.1% - in February, 98.6% - in March, and 87.9% - at the beginning of the year



High key policy rate and tightening of reserve requirements help strengthen monetary transmission







Source: Thomson Reuters.

Deposit interest rates have been gradually raising despite the significant surfeit of liquidity in the banking system thanks to measures taken by the NBU

Source: NBU.

 Tightening of reserve requirements, as well as <u>announced</u> improved approaches to their calculation and <u>changes in operational design of monetary policy</u> will further encourage the banks to compete more actively for term deposits



^{* 5-}day moving-average.