National Bank of Ukraine

Monthly Macroeconomic and Monetary Review

May 2022

Monetary Policy and Economic Analysis Department

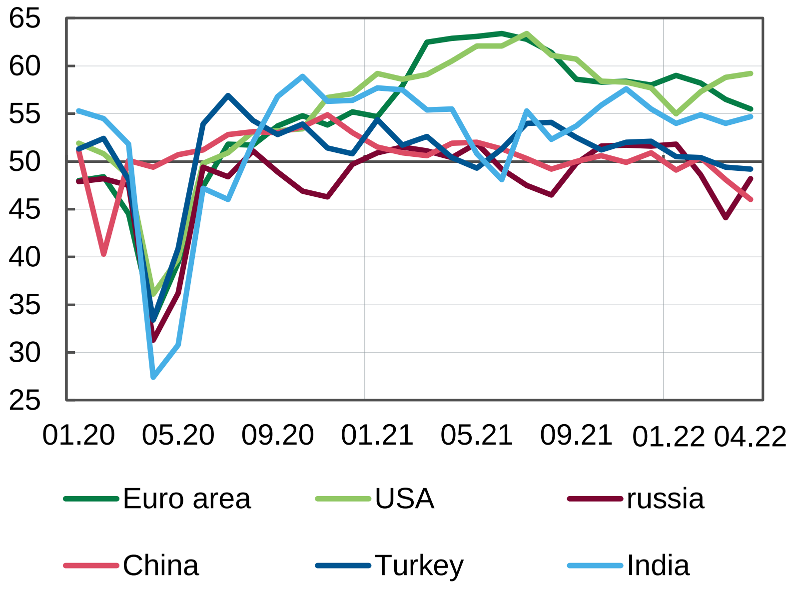
Summary

- **After the shock of the first war weeks, economic activity intensified moderately** in relatively calm regions. **Ukrainian enterprises resume work**, but a lot of them work significantly below the pre-war capacity utilization level
- **After the initial sharp fall in labor market activity in March, currently it is gradually recovering.** Growth in the number of job-seekers outpaces growth of vacancies. This disbalance of labor supply over demand puts pressure on lowering wages
- Growth in the number of **displaced persons** both abroad and within the country has slowed down, and some migrants are returning to the liberated regions
- **Price pressure is high and uneven across regions.** The main factor is disruption of supply chains. The highest price hikes are in the temporarily occupied regions and in cities with active hostilities. On the other hand, **logistical restrictions on exports** and excess supply of agricultural products are becoming **a significant disinflationary factor**
- **External trade flows narrowed significantly** under the impact of a full-scale war and the introduction of import restrictions. However, remittances, lower reinvested earnings along with a ban on dividend payments helped generate a significant current account surplus
- International financial assistance partially offset significant outflows in the real sector and helped to support reserves
- Decline in economic activity and stimulus provided to the economy **resulted in a significant budget deficit**. It was financed by the placement of war domestic bonds and international financing
- During the war for, to ensure the goals fo price and financial stability **the NBU had no other option but to peg the official exchange rate to US dollar and imposed a set of administrative restrictions**. Monetary policy is also supporting the fiscal stimulus via the purchase of domestic government bonds
- **The imposition of anti-crisis measures** helped cushion the initial war shock to the economy owing to smooth functioning of the banking and payment systems

External Environment

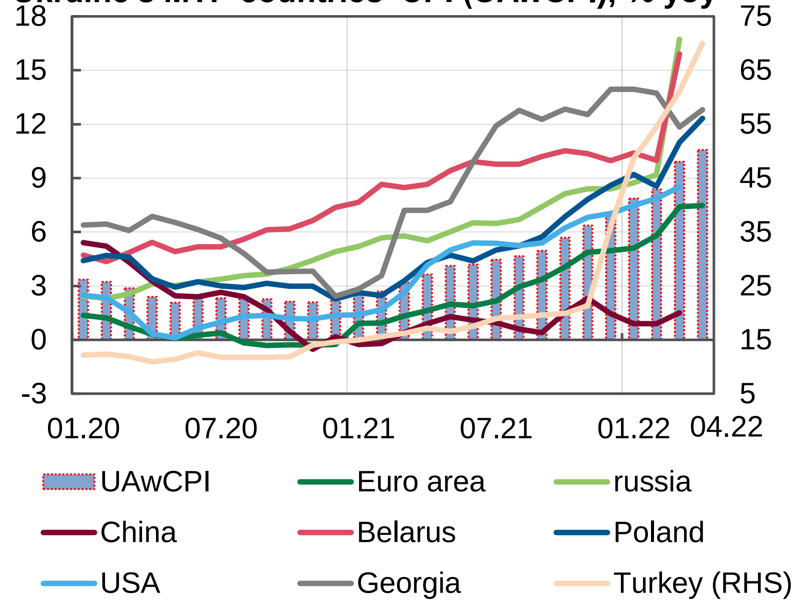
Global economy is at mounting risk of stagflation

Manufacturing PMI of selected countries



Source: S&P Global.

CPI of selected countries and Weighted Average of Ukraine's MTP countries' CPI (UAwCPI), % yoy

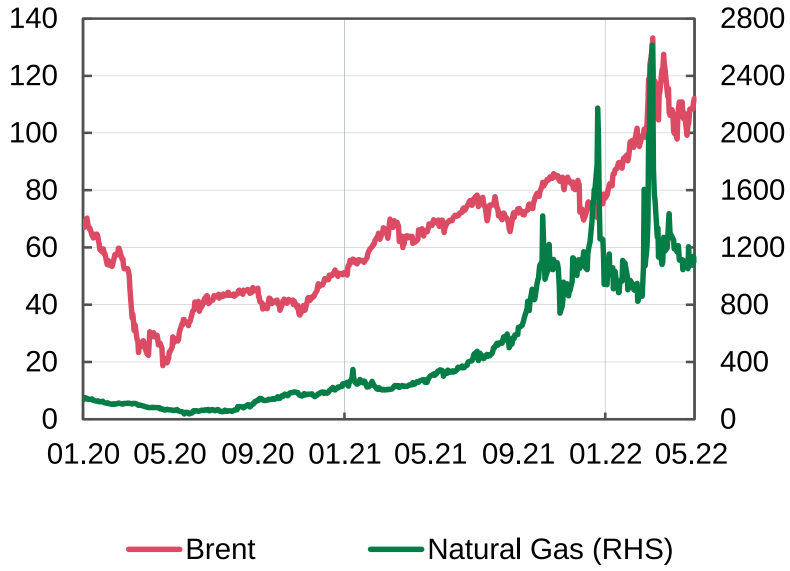


Source: National statistical offices, NBU staff estimates

- New orders are growing slowly due to the low level of business confidence. Supply-side pressures persist against the backdrop of the tightened COVID-19 restrictions in China, the war in Ukraine, and supply chain disruptions
- Global inflation keeps accelerating further mainly due to the rising fuel prices, which in turn have an upward pressure on electricity prices, as well as problems with restrained supply of some food items

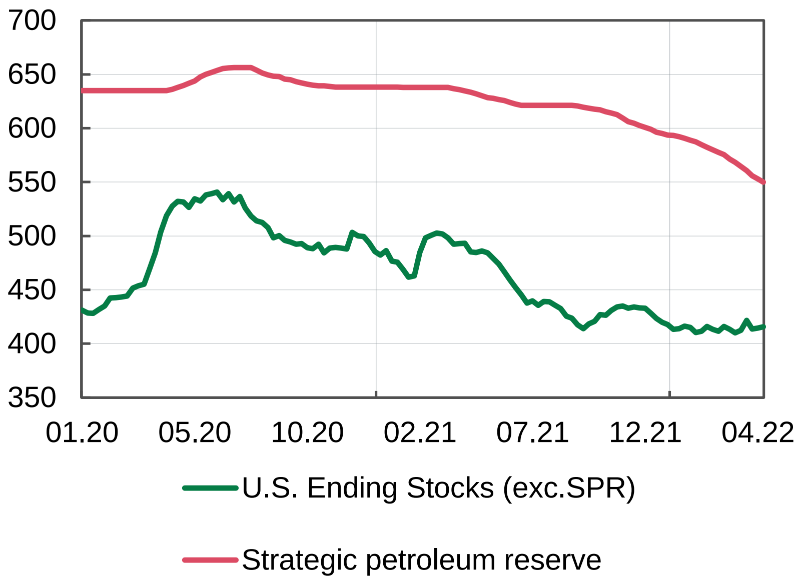
Global energy prices remain high despite some correction from March

Crude oil (USD/bbl) and natural gas (TTF, USD/kcm) world prices



Source: Refinitiv.

Ending stocks of crude oil by U.S., mln bbl



Source: U.S. Energy Information Administration.

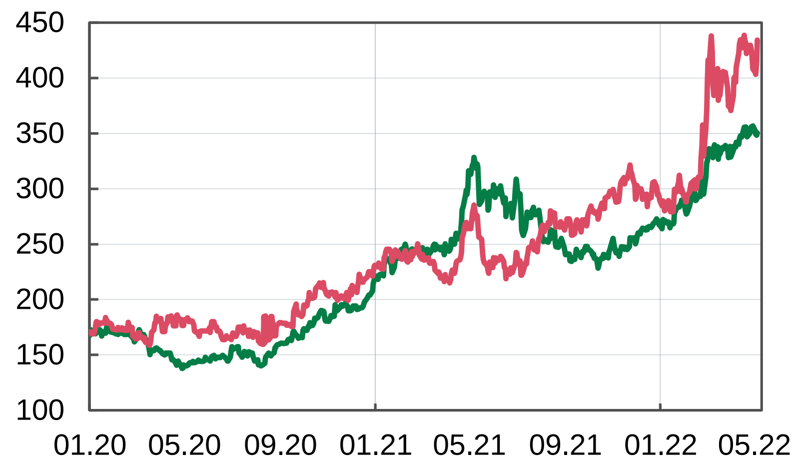
- World oil prices oscillated around 105 USD/bbl. Prices were supported by the discussion of the EU embargo on russian oil, U.S. stocks decline, and supply disruptions from Libya due to political protests. At the same time, price growth was restrained by the expectations of slowing global economic growth and, consequently, oil demand, as well as the sale of the U.S. oil reserves
- European natural gas prices were also fluctuating in a relatively narrow range. The uncertainty around russian gas supply to Europe was the key factor of an upward price pressure. However, a weaker industrial demand, increase in the LNG supply, softer weather, and a sustained supply from Norway largely leveled this pressure

Global prices for key export commodities remain at high levels due to supply shocks

Steel and iron ore world prices, USD/MT

Source: Refinitiv.

Wheat and maize world prices, USD/MT



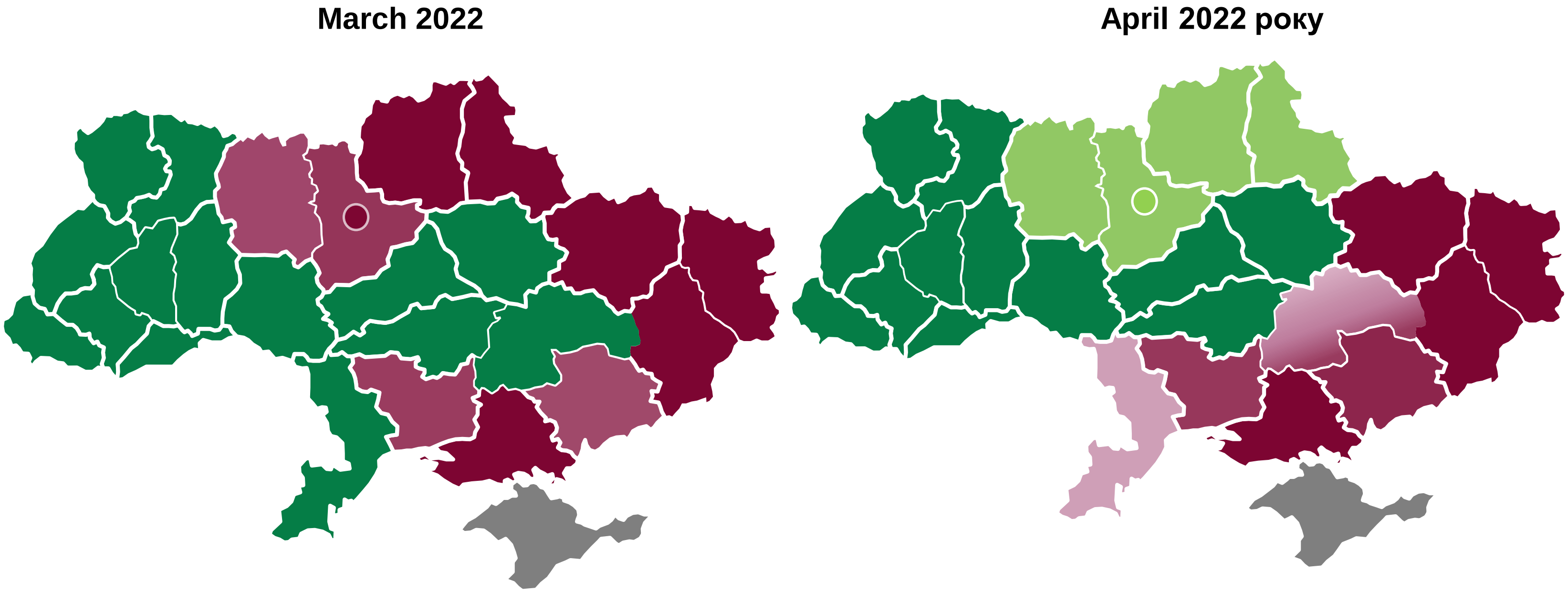
Source: Refinitiv.

- In April, steel prices declined on the back of low demand in the Middle East during Ramadan, scrap prices decrease in Turkey, and a contraction in demand for russian steel as toxic. At the same time, prices were supported by the limited supply as a result of disruptions to Ukraine's metallurgical sector, and the quarantine restrictions in some countries, coupled with the high cost of production
- Iron ore prices were oscillating around USD 150 per ton. Decline in steel production and significant stocks in Chinese ports were offset by the lower ore supply from Brazil and Ukraine, as well as inability to build up production, particularly in Australia, due to the lack of labor force amid the pandemic
- Wheat and maize prices were rising further because of: limited supply from Ukraine and adverse expectations amid issues with sowing; the heat in India, Brazil and Pakistan; unfavorable weather conditions in the U.S.; high fertilizers prices. It is only anticipation of coming new wheat and barley harvests in the northern hemisphere that was restraining the price growth

Ukraine: Economic activity

After the shock of the first war weeks, economic activity intensified moderately in relatively calm and liberated regions

Territories with active hostilities



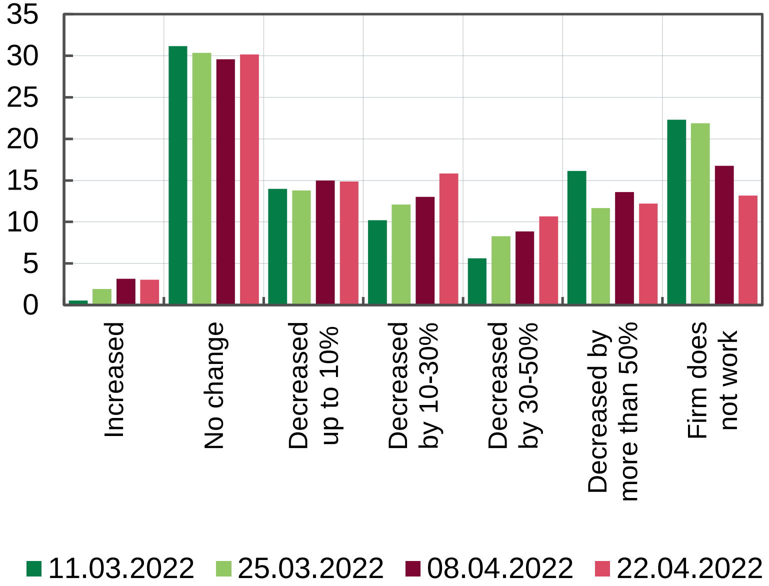
Source: NBU.

- In March, hostilities engulfed 10 oblasts and the city of Kyiv, which together accounted for more than 55% of GDP in the past
- In April, their number decreased to 6*, which previously formed about 20% of GDP
- The decline in economic activity was also observed in relatively calm regions due to disruptions in supply and production chains, uncertainty and increased risks, outflow of labor force and additional costs
- However, even in such conditions, the business is gradually adapting

* The Cabinet of Ministers also takes into account Dnipropetrovsk and Odesa oblasts, but currently hostilities in those regions are concentrated closer to the borders with other oblasts with active hostilities

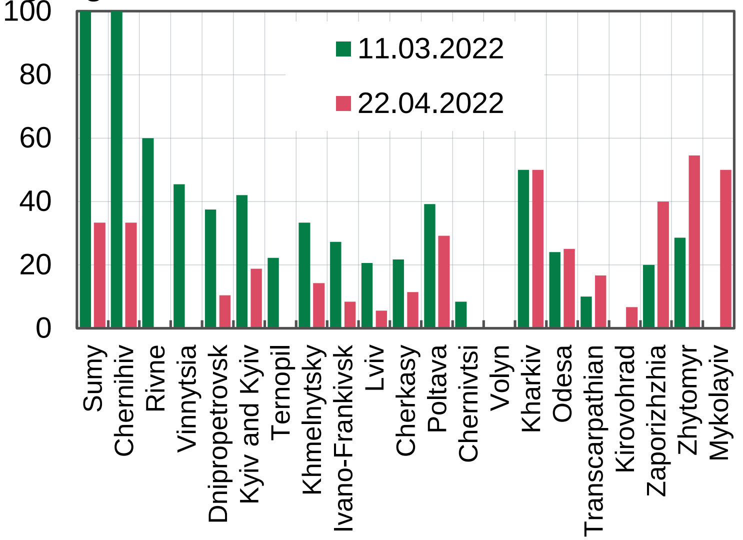
The gradual revival of business activity is evidenced by flash business surveys, conducted by the NBU, …

Capacity utilization level compared to pre-war, % of answers



Source: flash NBU's surveys.

The share of enterprises that ceased operations, by regions *,% of answers



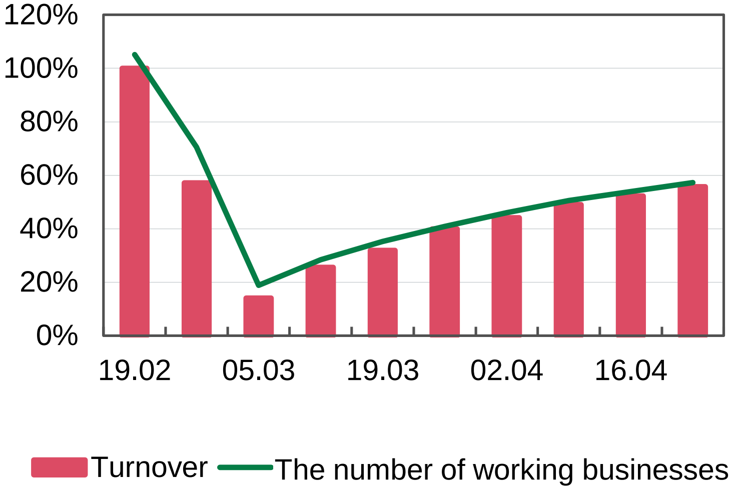
* Without Donetsk, Luhansk and Kherson regions. "0" means that all surveyed companies in the region are working.
Source: flash NBU's surveys.

- The number of enterprises that have completely ceased operations has almost halved since the start of war (from 32% down to 17%). However, 60% of enterprises work below the pre-war capacity utilization level, almost 23% - work more than twice lower
- At the end of April, most enterprises worked in agriculture and transport, and the processing industry resumed operations. The most difficult situation is in the construction and mining industries, trade remains much lower than the pre-war level
- First of all, capacity utilization level has improved in liberated regions, but in the regions with active hostilities/occupied regions the situation remains difficult

* The poll is conducted every two weeks, starting from 07.03.22. The last round was held on April 18-22, 22, 524 companies from all regions of Ukraine took part, except Donetsk, Luhansk regions and the Autonomous Republic of Crimea

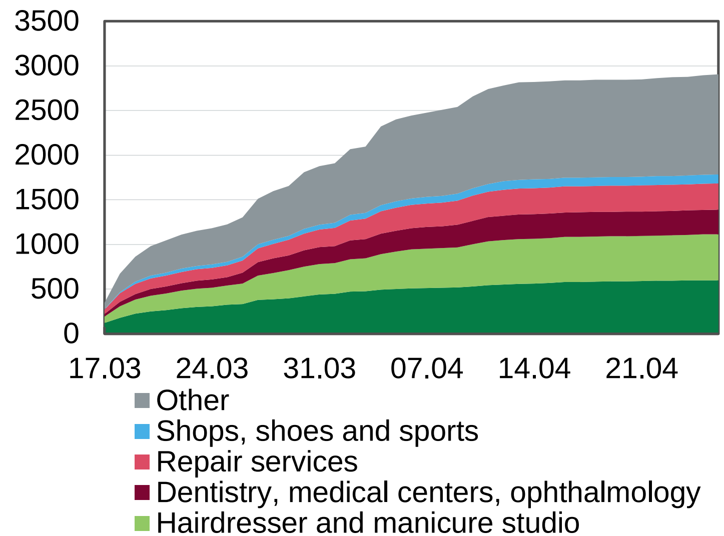
… as well as a number of high-frequency indicators. They show that the recovery slowed down somewhat in late April

Restaurant business performance indicators,%



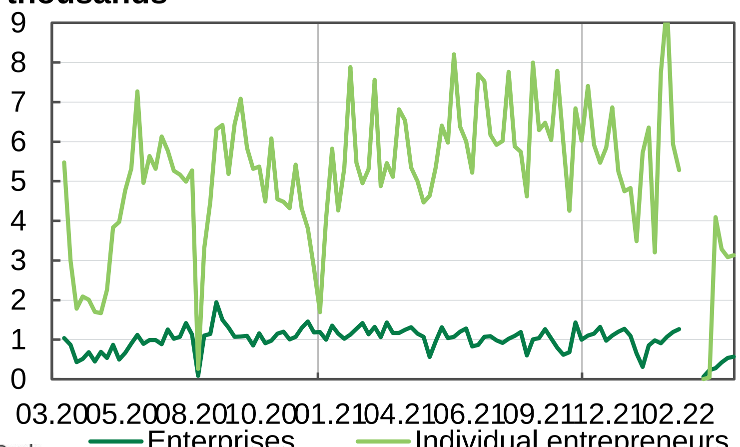
Source: Data from more than 9,000 Poster customers.

Number of working establishments in Kyiv



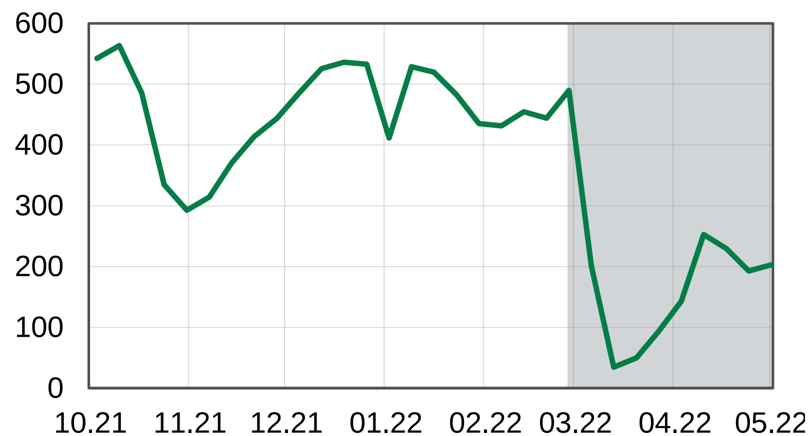
Source: Kyiv City State Administration (map of working institutions).

New registrations of enterprises and sole proprietors, thousands



Source: Opendatabot (data not available for the period of suspension of registrations).

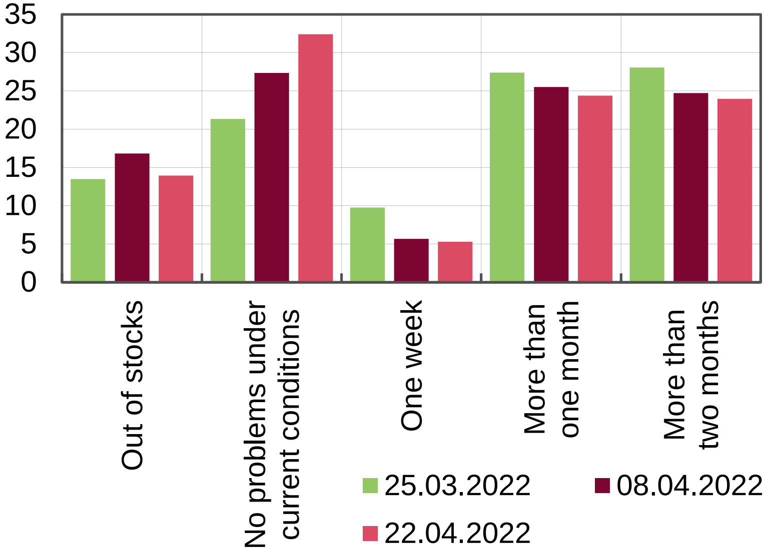
Number of railway tickets sold per week, thousands



Source: UZ.

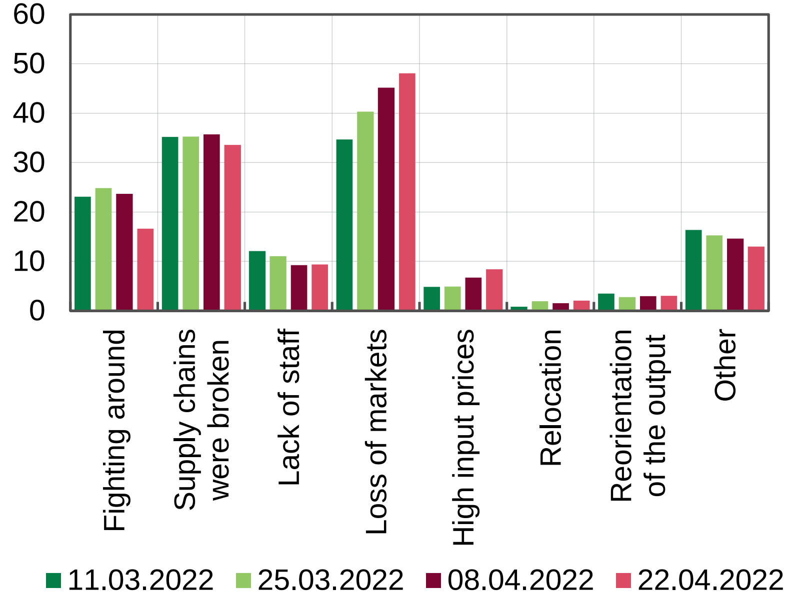
The margin of safety of firms is gradually increasing. Logistics and the loss of markets are the biggest problems for business

Period for which there is enough margin of safety for work (raw materials, staff, components, finance, energy resources),% of answers



Source: flash NBU's surveys.

Reasons for changes in capacity utilization level,% of answers

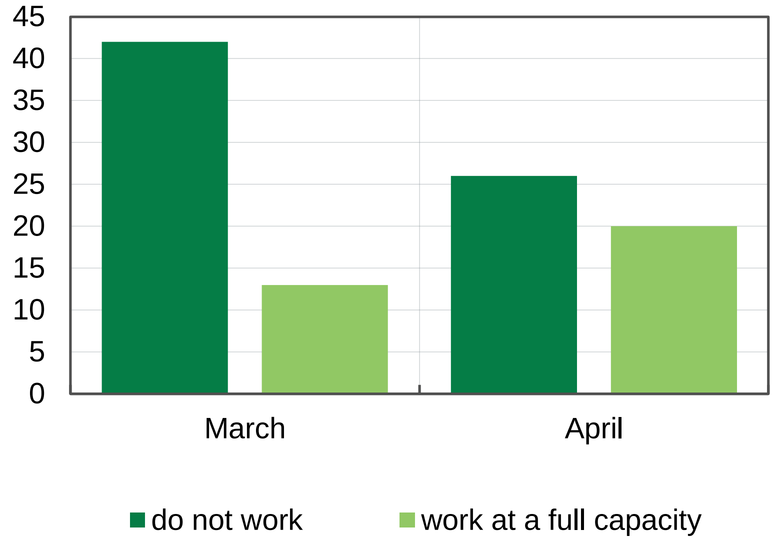


Source: flash NBU's surveys.

- Improving margin of safety estimates correlates with a weakening impact of hostiles
- Almost a third of enterprises do not experience problems with lack of resources, 48% of respondents will have enough resources for more than a month
- In addition to disrupted logistics and the loss of markets, according to the firms' comments, work is restricted by blocked ports, deteriorating payment discipline, occupied or destroyed capacities, and closed registers

SMEs are also recovering but at a slower pace than the large business and they decrease expenditures on labor

SMEs' operation status dynamics



Source: survey by EBA.

Changes in business activities during the war

Source: survey by AmCham.

- The second wave of EBA survey of SMEs showed a drop of the share of non-working enterprises from 42% to 26%. 17% of SMEs have already resumed their operations, another 23% are preparing to; the share of businesses that are fully operational increased from 13% to 20% (including to 41% for large businesses, according to AmCham)
- Financial stability has improved, but wage payments have not changed much: only 25% of companies paid in full (88% among large companies, according to AmCham), 27% cut wages, 15% sent employees on unpaid leave and 9% laid off staff

Industrial enterprises restart their operations, refocus on the war needs, but work at lower capacity

Metallurgy and mining industry

- Some metallurgical capacities have been lost or conserved
- In April, a number of companies restarted their operations, but operate at only 40-50% of capacity due to deteriorated logistics and sales
- Some resources and workers have been redirected to the needs of the defense sector. Alternative supply routes are being developed - in particular through the ports of Romania and the Baltic States
- The level of load in the mining industry is one of the worst among all industries

Energy

- Ukraine's energy system is working steadily despite the destruction of infrastructure. Production and consumption of electricity fell by about 30% since the beginning of the war

Engineering

- The sector has suffered significant losses: many enterprises in the south and east have been destroyed (Azov Shipyard) or shut down (NKMZ), some are in the process of relocation
- Engineering is being restored primarily in the western regions and thanks to the orders of European automakers, the agricultural sector, railways, energy, and metallurgy

Food Industry

- In the western regions the enterprises have already reached full capacity, in the liberated regions (Kyiv, Sumy, Chernihiv) they actively resume production
- Public procurement partially offsets the decline in consumer demand due to falling incomes and migration, as well as difficulties with exports; the surplus of raw materials in the domestic market additionally supports food processing

Light industry, pharmaceutical industry

- The deoccupation of the north, the relocation of facilities to the west, as well as the growing needs of the defense sector (clothing, body armor, etc.) have contributed to the revival of light industry
- Some pharmaceutical companies launch new products and negotiate foreign investment even during the war

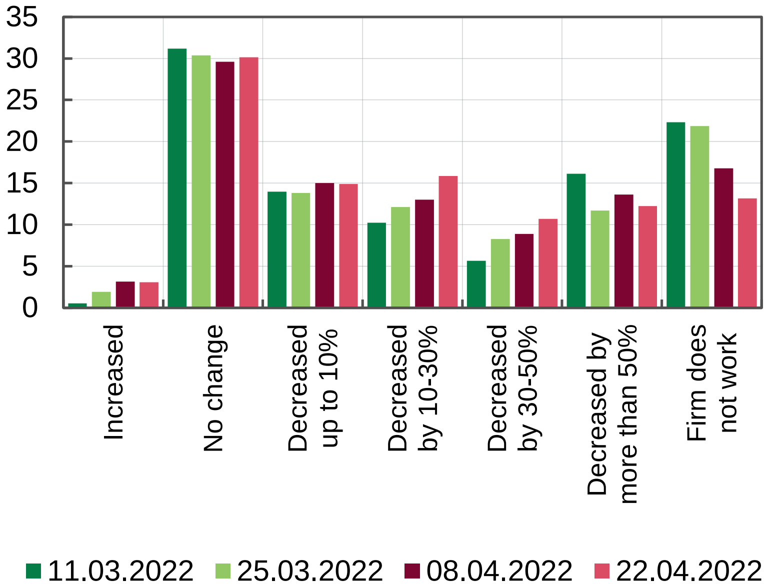
The port infrastructure is almost paralyzed. Yet, rail and road connections are being restored, and new supply routes are being established

- The seaports of Berdyansk, Mariupol, Skadovsk, and Kherson are closed until control over the territories is restored. The work of the ports of Mykolayiv and Odesa is blocked by the occupiers. Only the ports of the Danube are working, work is underway to increase their capacity
- Restoration of rail and road connections with the liberated regions continues; in relatively quiet regions, passenger traffic is growing, new routes are being introduced
- Work is underway to reorient exports from Ukraine through rail and road routes
  - the first ship with Ukrainian corn set sail from Constanta, Romania
  - the port of Galati (Romania) is preparing to receive Ukrainian exports
  - daily exports of grains by rail through the Czech Republic and Slovakia to Germany was established
  - Bulgaria and Lithuania are preparing ports in Varna and Klaipeda
- At the same time, UZ is facing difficulties due to damages and congestion. Queues of cargo in the western direction are growing
- Given the increased role of UZ (exports and imports, warehousing logistics, relocation of enterprises), railway infrastructure is likely to be one of the main targets of further Russian missile strikes to slow down supplies to the Armed Forces and slow down Ukrainian exports

Ukraine: Labor market

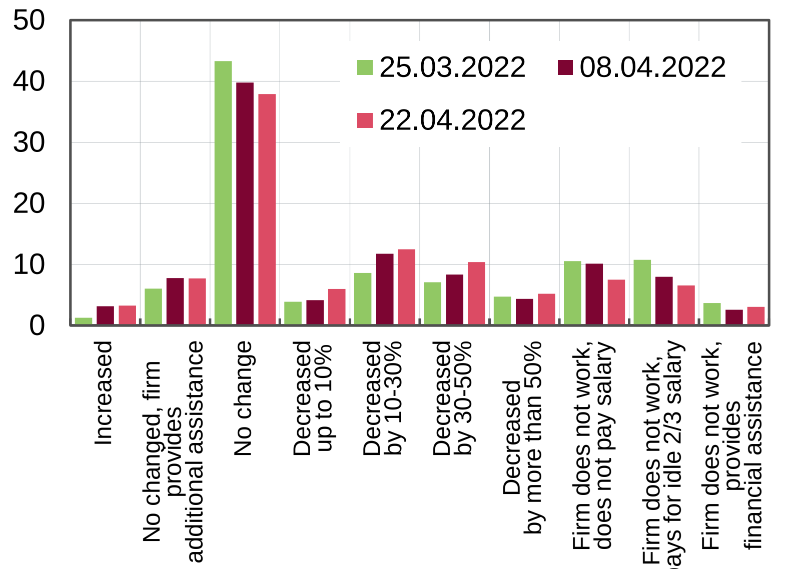
Despite the revival of activity, the demand for labor remains subdued, which leads to a reduction in employment and wages

Staff changes compared to pre-war, % of answers



Source: flash NBU's surveys.

Salaries changes compared to pre-war, % of answers

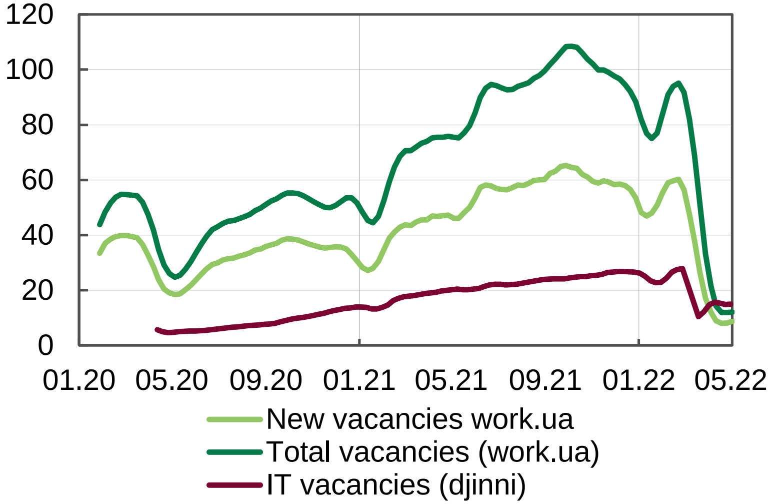


Source: flash NBU's surveys.

- Although the number of non-working enterprises is declining, at the end of April a significant proportion of enterprises (54%) were forced to retain fewer staff and 34% to pay lower wages than before the war. The share of enterprises that have not changed salaries (38%) is also declining
- In April, the services, agriculture and processing sectors raised wages more often than others. At the same time, trade and construction sectors reduced wages more often. Among those who do not work and bring the staff to idle time with 2/3 of the salary were primarily industrial and transport enterprises. Construction companies were more likely to provide material assistance, however, they are the ones who dominate among those who have completely stopped working and paying to workers

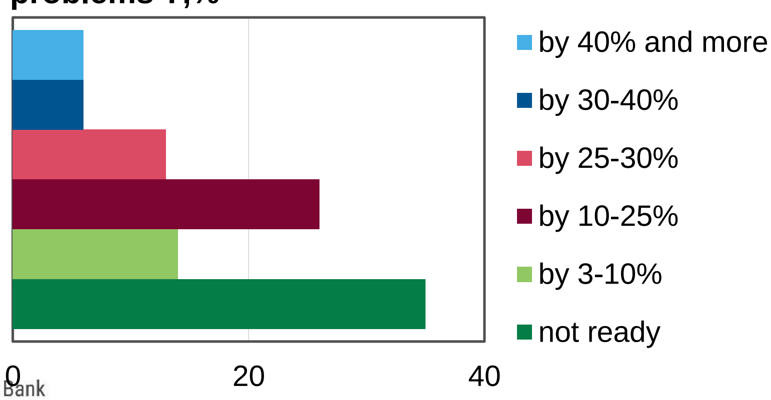
The number of job seekers is growing rapidly and far exceeds the number of vacancies

Demand for labor force: amount of vacancies, thousands (4-weeks moving average)



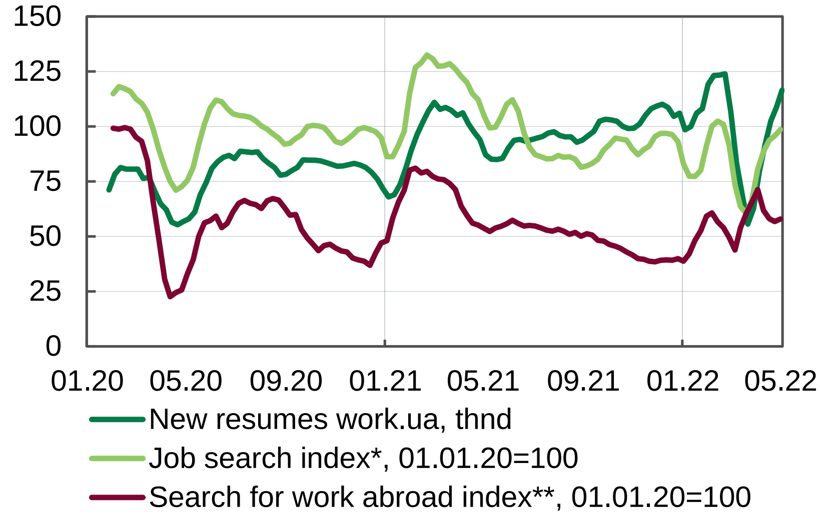
Source: work.ua, opendatabot, NBU staff estimates.

To what extent are you ready to decrease your salary expectations if you experience employment problems ?,%



Source: grc.ua.

Labor force supply (4-weeks moving average)

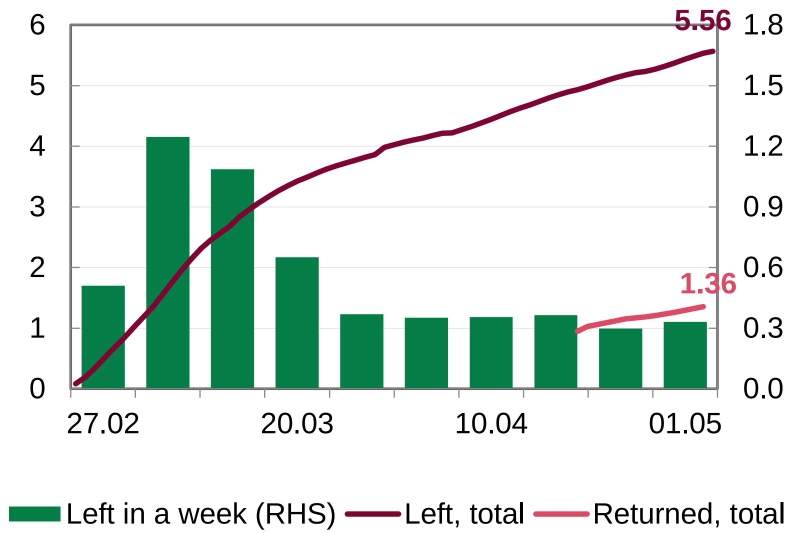


*Includes job search queries in Ukrainian and Russian.
**Includes job search requests in Poland, the Czech Republic, Russia and Germany in Ukrainian and Russian from Ukraine.
Source: work.ua, Google Trends, NBU staff estimates.

- After a significant decline in March – early April, the decline in the number of vacancies stopped
- However, the number of résumés has resumed earlier and is growing rapidly
- According to a poll by grc.ua, more than half of job seekers are ready to decrease their salary expectations. A quarter of the companies surveyed have not paid their salaries since February

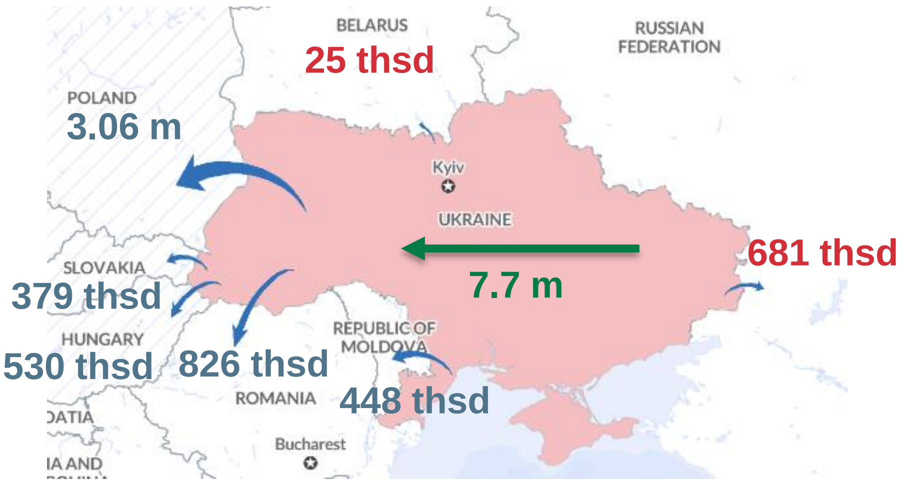
The flow of refugees has stabilized, and even the reverse process has begun

Refugee influx from Ukraine, millions



Source: UNHCR.

Refugee influx from Ukraine in neighboring countries (as of 1 May 2022)



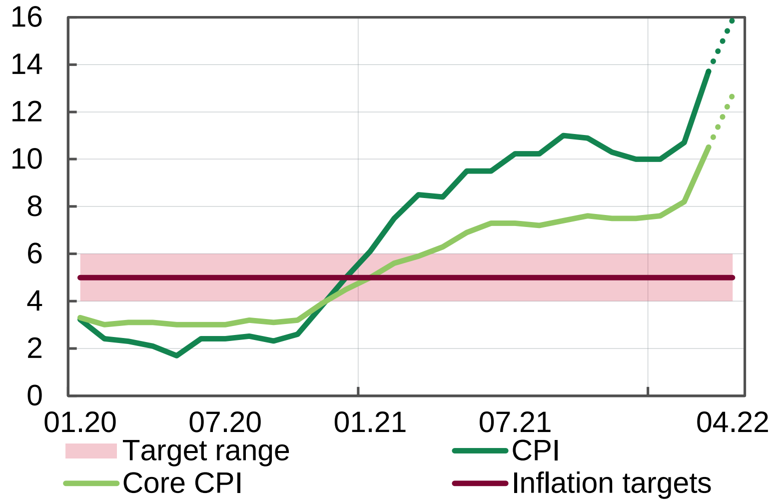
Source: UNHCR.

- According to the UN, 1.5 m people left Ukraine in April 2022, which is more than twice less than in March. As of 1 May 2022, the total number of refugees from Ukraine exceeded 5.5 m, of which more than 3 m went to Poland
- At the same time, reverse processes have begun – the number of citizens returning to Ukraine is increasing. This can be explained, among other things, by the desire of Ukrainians to be at home for the Easter holidays, the stabilization of the security situation in some regions, and the depletion of resources to stay abroad
- The number of registered internally displaced persons has reached 3.4 m, of whom more than 2 m are displaced after the martial law introduction. And 1.9 m of them were forced to move for the first time

Ukraine: Inflation

Price pressures remain elevated due to supply chain disruptions, uneven demand and rising costs

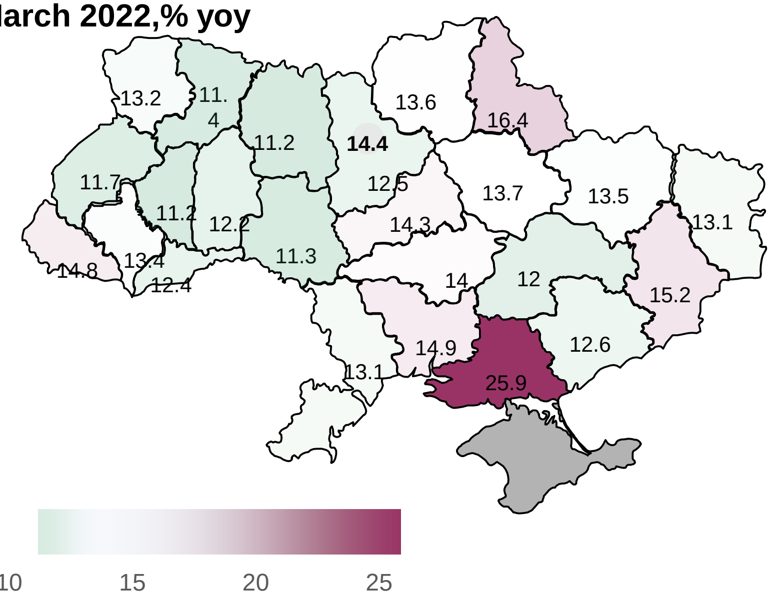
Inflation* and inflation targets, % yoy



* Data for April is NBU nowcast based on web scraping. In the face of deepening disparities between regions due to hostilities and disruptions of logistics, estimates of inflation on the basis of web scraping may deviate from actual inflation more significantly than usual.

Source: SSSU, NBU staff estimates.

Consumer inflation in different regions of Ukraine in March 2022,% yoy

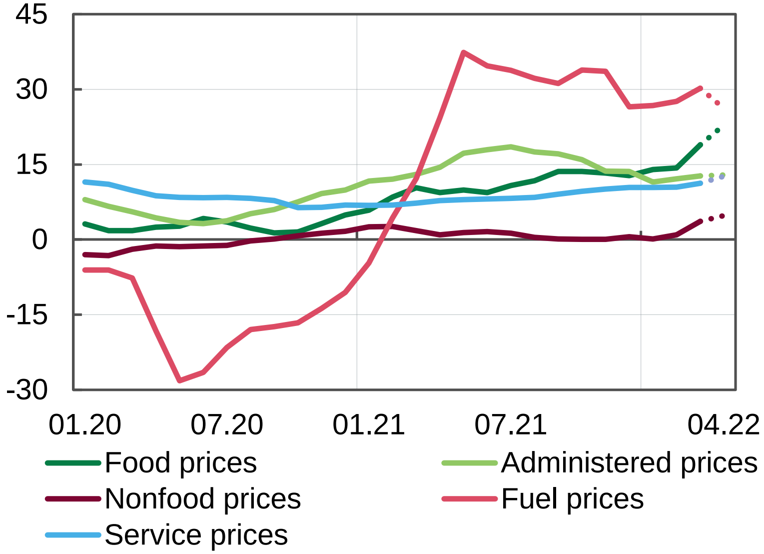


Source: SSSU, NBU calculations.

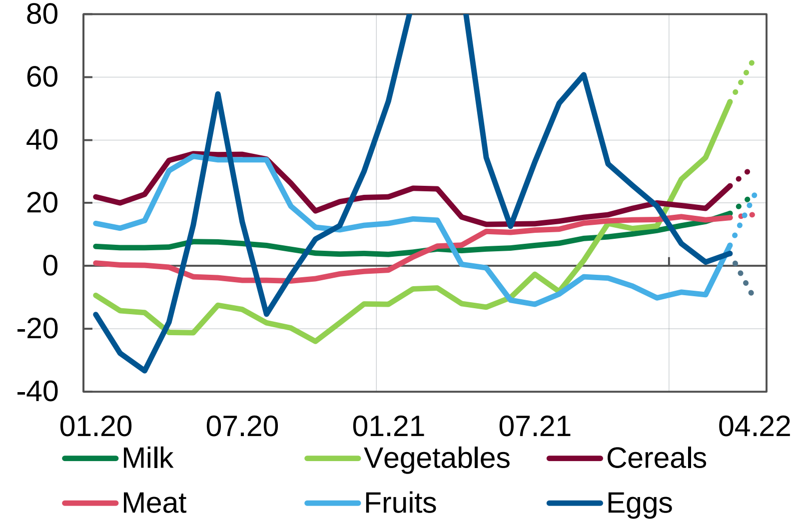
- Annual consumer inflation accelerated to 13.7% yoy in March, and, according to NBU estimates, to almost 16% yoy in April
- The rise in inflation was driven by supply chain disruptions, uneven demand, higher business costs, and the physical destruction of company assets due to russia's full-scale assault on Ukraine
- In addition, the acceleration of inflation is due to the significant rise in prices in the areas partially occupied by russia, as the russian invaders blocked the delivery of goods into those territories

The rise in food prices made the largest contribution to accelerating inflation

CPI components*,%



Prices for some foods*, % yoy

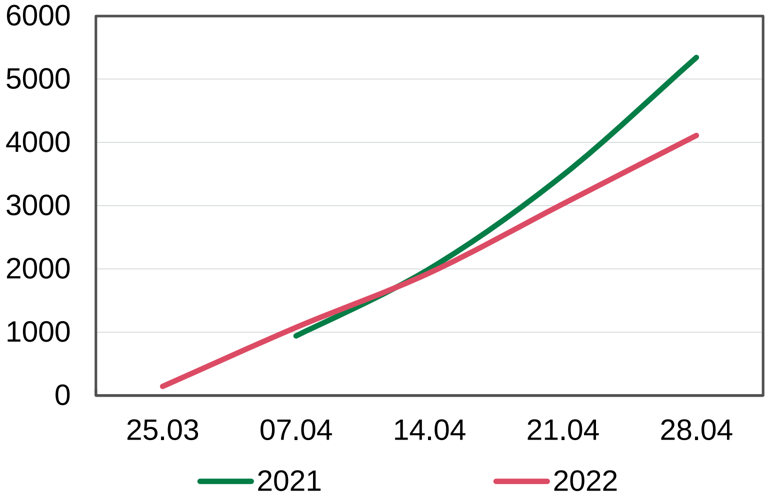


* Data for April is NBU nowcast based on web scraping. In the face of deepening disparities between regions due to hostilities and logistical disruptions, estimating inflation on the basis of web scraping may be more erroneous than usual.
Source: SSSU, NBU staff estimates.

- Thus, processed food, milk, certain vegetables and fruits became more expensive faster. On the other hand, due to seasonal expansion of supply, reduced exports and weaker demand, egg prices fell
- Rising prices for non-food products were restrained due to the fixed hryvnia exchange rate and the reorientation of citizens' demand for priority goods. At the same time, the latter led to a sharp rise in prices for medicines and certain personal care products
- Reduction in fuel taxes helped slow down the growth of fuel prices, but was offset by higher oil and logistics prices, destruction of refineries and oil depots
- Retaining utility tariffs, the abolition of import taxes, and the unchanging exchange rate of the hryvnia to the US dollar also restrained inflation

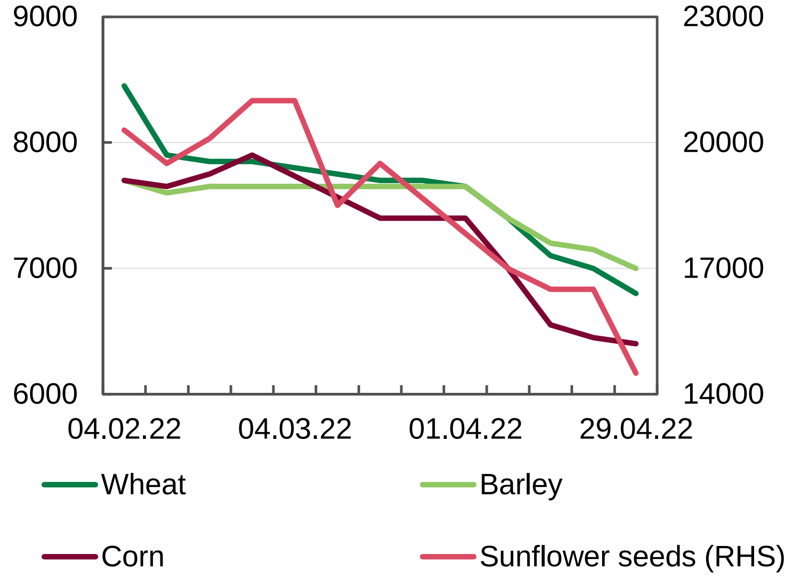
Excess stocks due to limited export capacities pressure prices downwards

Field work of spring crops (area of crops), thousand hectares



Source: Ministry of Agriculture, latifundist.com.

Demand prices for basic agricultural forage cultures, EXW, exports, UAH per t

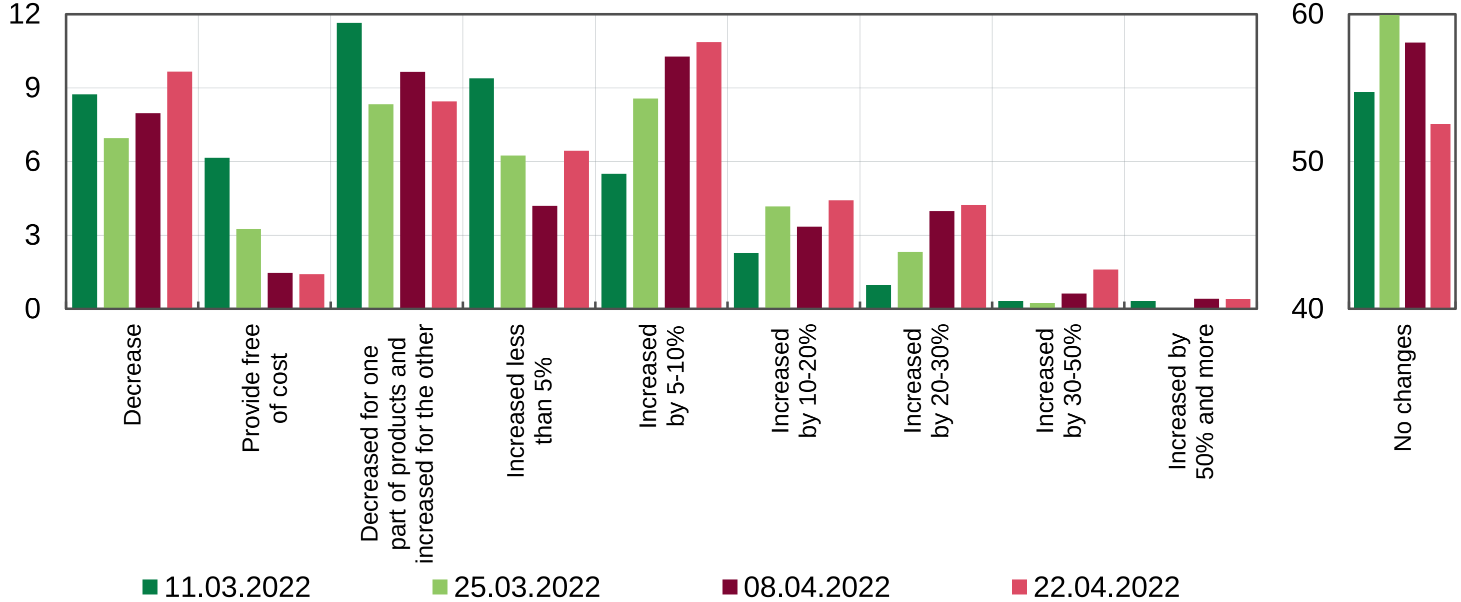


Source: APK-inform.

- 4.4 million hectares have been sown (more than 30% of the plan of the Ministry of Agriculture, which provides for 20-30% less area than last year, due to occupation and mining). Farmers are reorienting to less expensive and more popular crops (soybeans, sunflowers, buckwheat, instead of corn)
- However, due to limited export capacities, excessive stocks and higher logistics costs worsen the profitability of agricultural companies. As a result, domestic prices fall
- In addition, farmers suffer significant losses, primarily in the south and east due to the steal of grain, destruction of elevators, and seizure of equipment by the occupiers

At the same time, more and more companies are raising output prices

Changes in output prices,% of answers



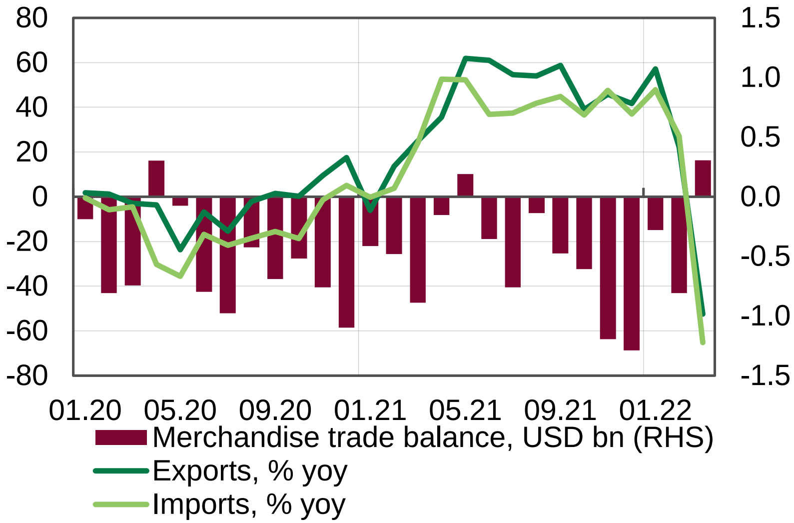
Source: flash NBU's surveys.

- The share of those who did not change prices has decreased, although such enterprises still make up the vast majority (53%)
- The share of those who provide products free of cost has stabilized. Instead, the share of enterprises that reduced prices (up to 10%) increased slightly
- Instead, the share of those who increased prices continued to grow (from 23% in the last round of the survey to 28%), most often increasing them by 5-10%
- Manufacturing and trade increased more often, while agriculture, energy and services increased

Ukraine: Balance of Payments

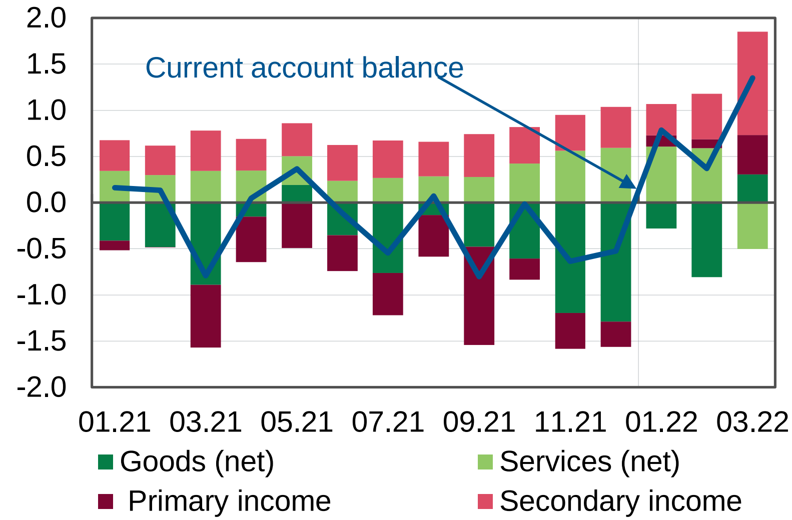
External trade flows narrowed significantly due to the impact of a full-scale war and the introduction of import restrictions

Merchandise trade



Source: NBU.

Current account, USD bn

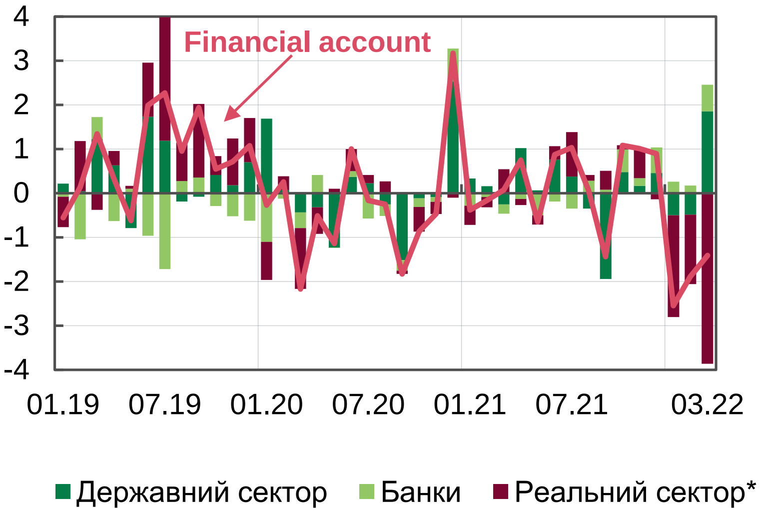


Source: NBU.

- Exports plunged due to the destruction of production facilities, russia's blockade of the Black Sea ports, and limited transport capacity of the railways and Danube ports
- Lower domestic demand due to a full-scale war and the introduction of import restrictions have led to a significant decrease in imports of goods
- The surplus in trade in services has turned into a deficit amid the population's large-scale migration abroad and a temporary decline in exports of IT services due to uncertainty and relocation of companies
- However, stable remittances, significant international financial and humanitarian assistance, lower reinvested earnings and a ban on dividend payments helped generate a significant current account surplus

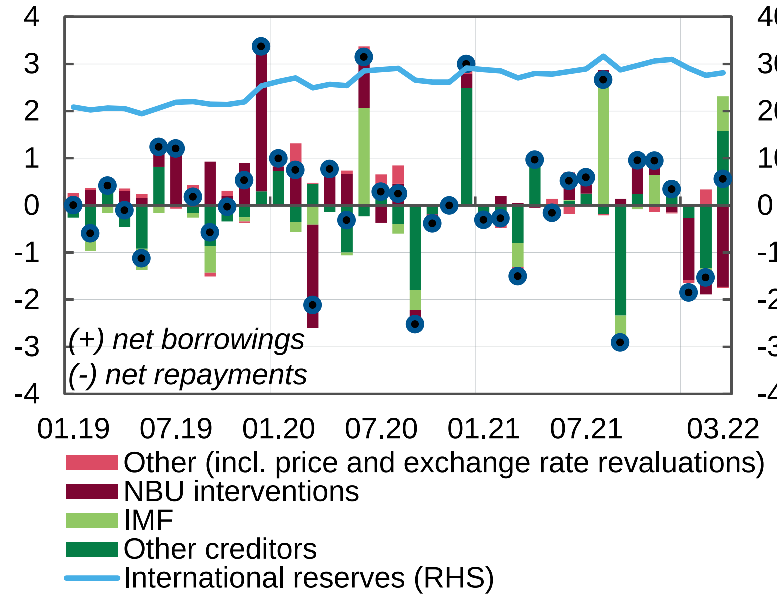
International financial assistance partially offset significant outflows in the real sector and helped to support reserves

Financial account: net external liabilities, USD bn



* Including E&O.
Source: NBU.

Change in reserves, USD bn



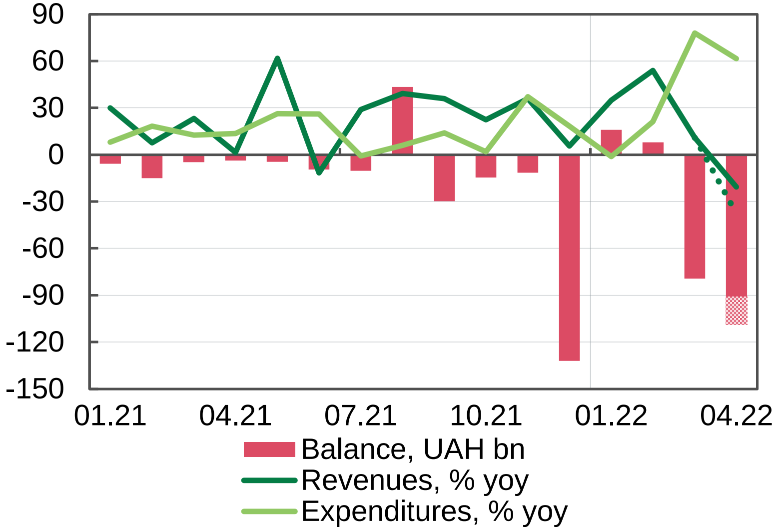
Source: NBU.

- Official financing received (excluding the IMF) in March amounted to USD 1.9 bn. This to some extent offset real sector capital outflows. The latter resulted from the increase in cash outside banks and the growth of non-residents' liabilities for trade operations, which may be due to, among other reasons, disrupted supply chains in Ukraine.
- This, together with the funds from the IMF under the Rapid Financing Instrument (USD 1.4 bn), helped maintain gross international reserves at a rather high level – USD 28.1 bn as of the end of March

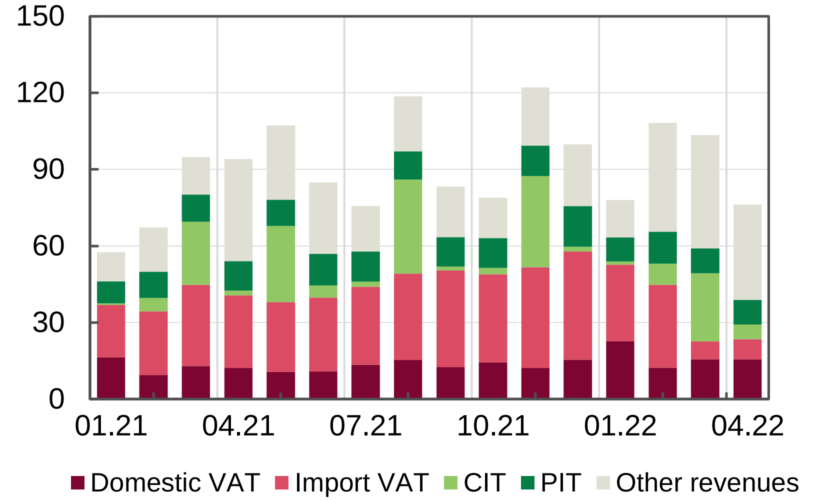
Ukraine: Fiscal sector

A fall in economic activity and stimulus provided to the economy resulted in a significant budget deficit

Main State budget indicators*



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

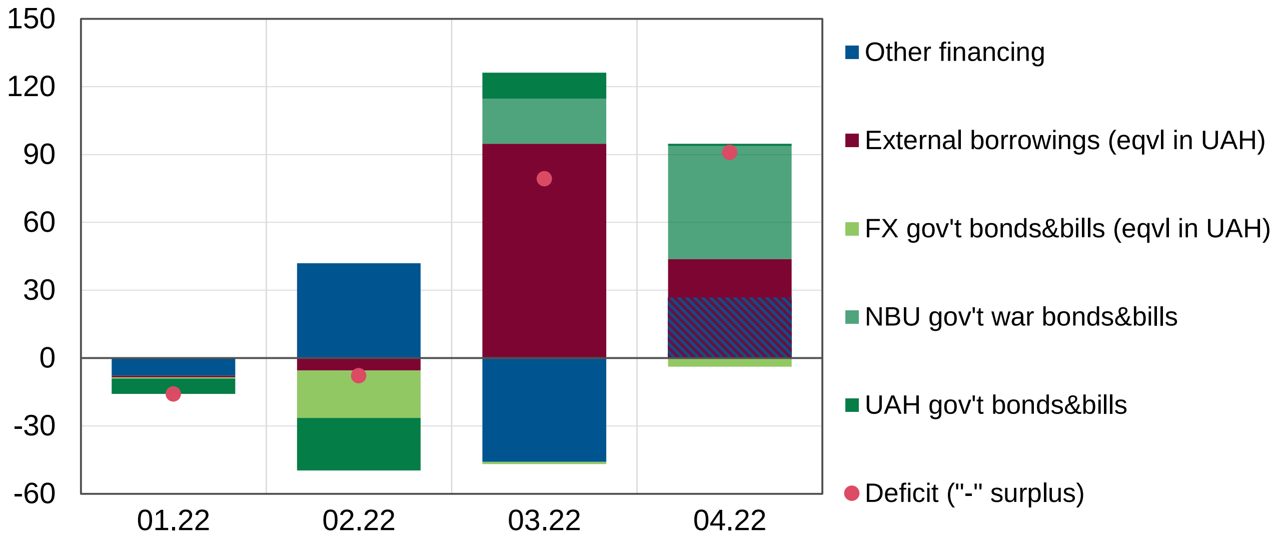


* April - operative data from the MFU website. Dotted line and patterned filling show relevant indicators excluding grants.
Source: Treasury, MFU, NBU staff estimates.

- The profound decline in economic activity and introduction of tax changes to mitigate the economic shock resulted in a substantial reduction in tax revenues in March-April
- However, revenues were supported by the early transfer of dividends by SOEs (in March), advance tax payments (both in March and April), as well as disbursement of the grant funds from international partners
- Instead, expenditures rose substantially, primarily those directed to military needs, social programs, as well as business support and reconstruction of the regions

External borrowings covered the significant share of fiscal needs in March-April

State budget balance financing, UAH bn



* Debt transactions are net borrowings.
April – NBU calculations based on the MFU website information. The lion's share of other financing in April was the use of FX currency accumulated in March. Source: Treasury, MFU, NBU staff estimates.

- Sizeable state budget deficit was financed by debt, including international and monetary financing
- A new debt instrument – war bonds – was introduced in the domestic market. In March-April UAH 135 bn were issued, of which UAH 70 bn were bought by the NBU
- According to the Ministry of Finance, the budget needs stand at around USD 5 bn per month

Ukraine: Monetary sector

Monetary policy in peacetime and during the martial law

Maintaining price and financial stability

In peacetime	During the martial law
The key policy rate is the main monetary policy instrument	Postponing the key policy rate decision
Forward-looking monetary policy decisions	**Day-to-day business**
Monetary policy operational design is for **the effectiveness of key policy rate**	**Market-maker's of last resort** operational design: ensuring a proper level of liquidity and banks' flexibility in its management
Maintenance of the **floating exchange rate**	**Fixed exchange rate** – a nominal anchor for expectations and anti-inflationary tool
FX interventions in order to smooth out excessive exchange rate fluctuations	FX interventions as **the main monetary operation**
Focus on **winding down FX restrictions and currency liberalization**	**Restrictions on currency transactions and capital flows to maintain fixed exchange rate**
Prohibition on monetary financing of the state budget	**Monetary financing** of the state budget budget

Monetary policy during the martial law

- To maintain price and financial stability in Ukraine and to control inflation expectations, the NBU was forced to fix the exchange rate and impose a number of administrative restrictions, including those on FX transactions and capital movements

- Flexible adaptation of operational design of monetary policy and anti-crisis measures implementation (including blank refinancing) allowed to mitigate the initial war shock for banks, to protect their clients' interests as well as to maintain continuity of settlements

- The NBU provides direct financing of critical government spending to adequately repel large-scale military aggression of russia and to support sustainable financing of economy during war. The significant part of monetary budget financing is absorbed by foreign exchange interventions of the NBU

- Under current circumstances impact of the key policy rate on money market and the functioning of foreign exchange market is limited. Taking this into account, under conditions of large-scale military aggression the NBU postponed decision-making regarding the key policy rate level

- The NBU will renew the application of principles and instruments of monetary policy on the basis of IT in the shortest possible period given the economy and financial system return to their normal mode:

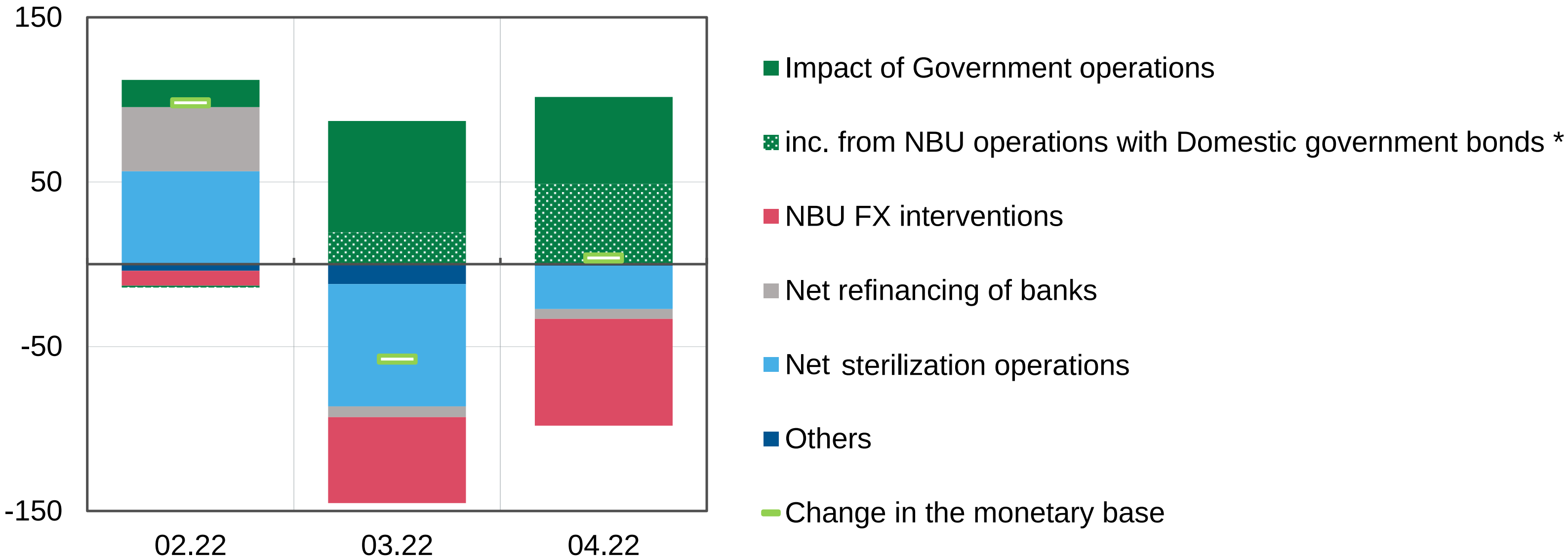
    - The NBU will continue to ease the FX and capital constraints and gradually go back to the floating exchange rate regime as the FX market regains its ability to self-balance;

    - When uncertainty wanes and the effectiveness of monetary transmission channels increases, the NBU will resume its forecast cycle and return to using the key policy rate as its main monetary instrument;

    - The NBU will strive to completely abandon the financing of the state budget deficit as soon as it can

NBU FX interventions, to a great extent, absorb monetary financing

The main factors of monetary base change, UAH billion



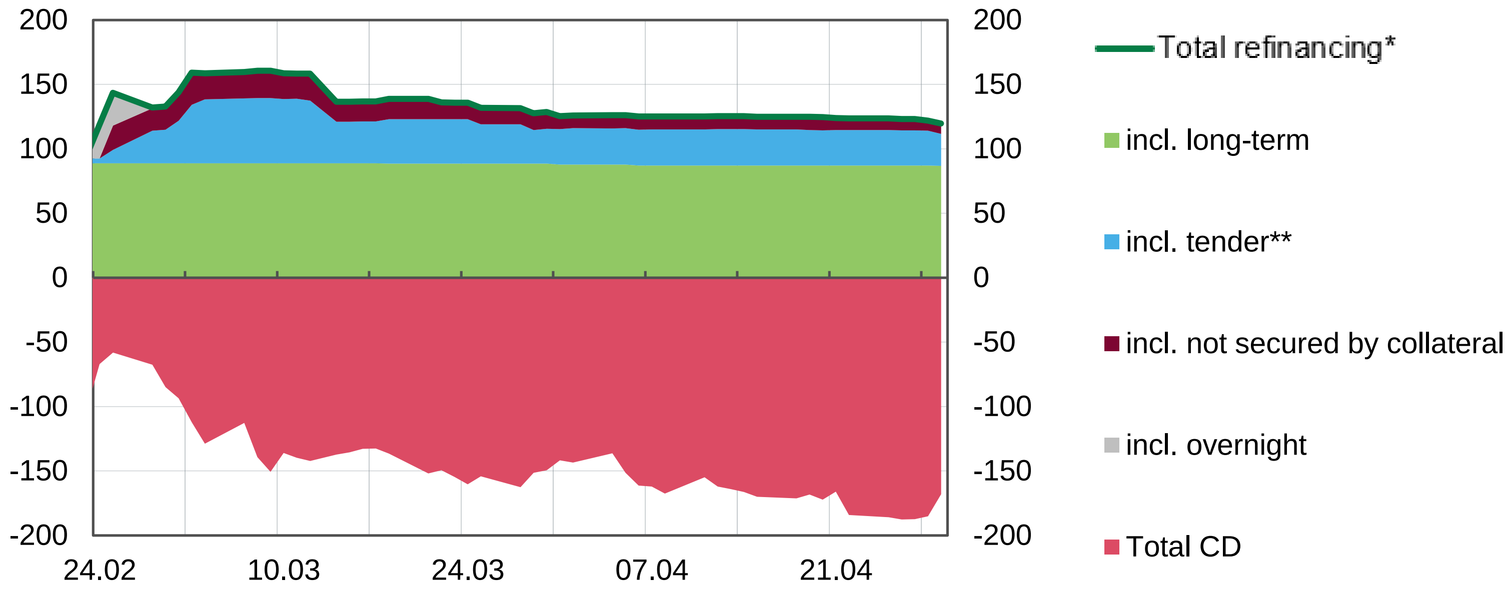
* NBU purchase of the war bonds (+) / redemption and income from Domestic government bonds (-) in the NBU portfolio.

Source: NBU.

- Government`s spending of funds received from the foreign currency conversion is the main channel for issuing hryvnia. In March-April, the NBU purchases of the war bonds, at a tally UAH 70 billion, became an additional channel. However, the NBU finances only critical government expenses (the volume of the last purchase in April was halved compared to the previous ones)
- In March-April, monetary financing was predominantly absorbed via FX interventions (sales) of the NBU and sterilization operations

The transition from the lender of last resort to the market maker of last resort

Balance on NBU operations since the beginning of martial law, UAH billion



* - without insolvent banks and in the process of liquidation;
** - inc. secured loans of extraordinary tenders up to 1 year, introduced on 25.02.2022.
Source: NBU..

- Flexible adaptation of operational design of monetary policy and implemented anti-crisis measures (including blank refinancing) allowed to mitigate the initial war shock for banks, to protect their clients' interests as well as to maintain continuity of settlements
- Since the beginning of the war growth of refinancing loans peaked at UAH 41.5 bn on 8−9 March and was decreasing thereafter. At the end of April, the outstanding amount of refinancing loans to banks was only UAH 0.5 bn higher than pre-war level