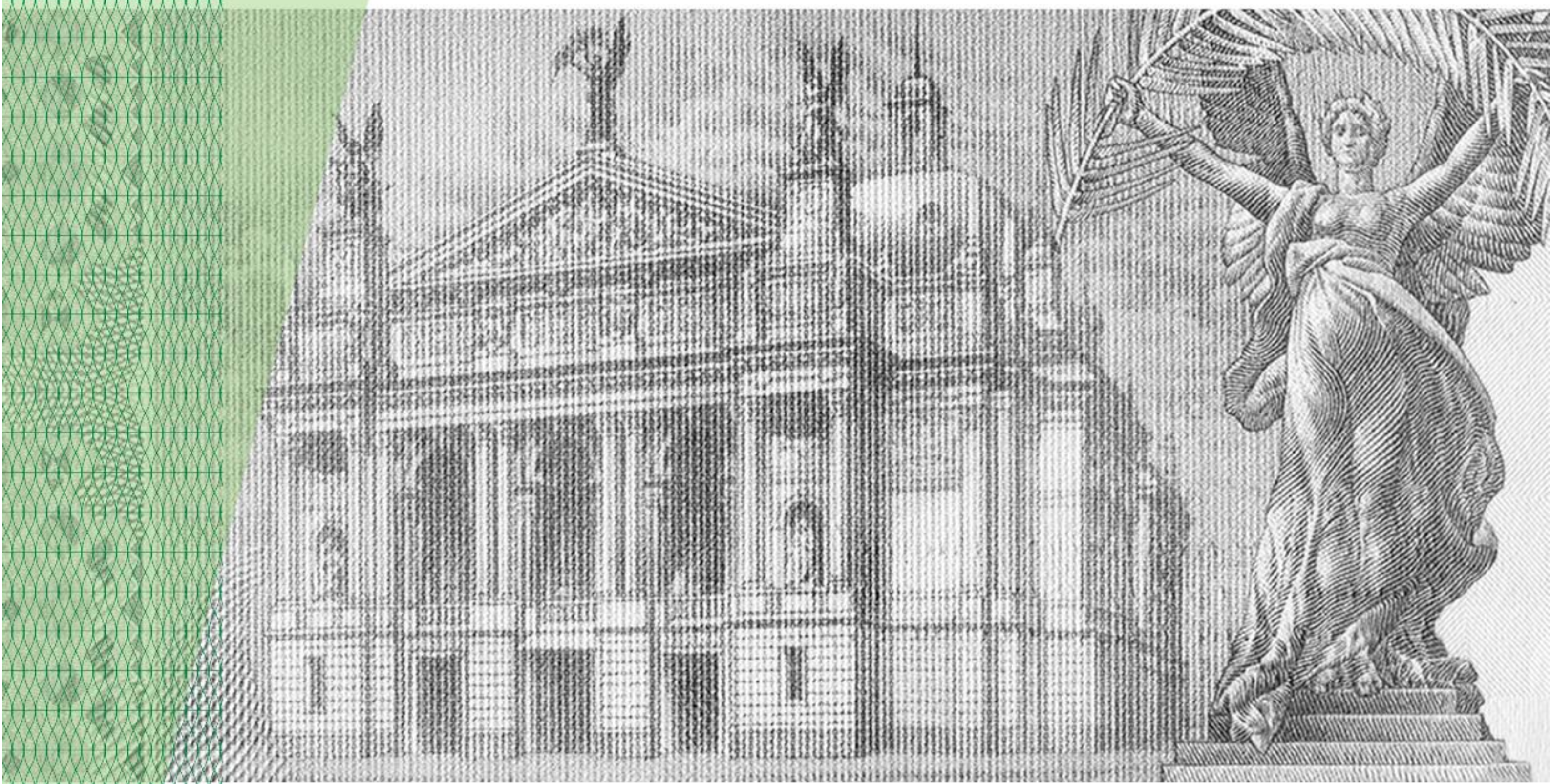
National Bank of Ukraine

Inflation Report

October 2020



The Inflation Report reflects the opinion of the National Bank of Ukraine (NBU) regarding the current and future economic state of Ukraine with a focus on inflationary developments that form the basis for monetary policy decision-making. The NBU publishes the Inflation Report quarterly in accordance with the forecast cycle.

The primary objective of monetary policy is to achieve and maintain price stability in the country. Price stability implies a moderate increase in prices rather than their unchanged level. Low and stable inflation helps preserve the real value of income and savings of Ukrainian households, and enables entrepreneurs to make long-term investments in the domestic economy, fostering job creation. The NBU also promotes financial stability and sustainable economic growth unless it compromises the price stability objective.

To ensure price stability, the NBU applies the inflation targeting regime. This framework has the following features:

- A publicly declared inflation target and commitment to achieve it. Monetary policy aims to bring inflation to the medium-term inflation target of 5%. The NBU seeks to ensure that actual inflation does not deviate from this target by more than one percentage point in either direction. The main instrument through which the NBU influences inflation is the key policy rate.
- Reliance on the inflation forecast. In Ukraine, it takes between 9 and 18 months for a change in the NBU's key policy rate to have a major effect on inflation. Therefore, the NBU pursues a forward-looking policy that takes into account not so much the current inflation rate as the most likely future inflation developments. If inflation is projected to be higher than its target, the NBU raises the key policy rate to bring inflation down to the 5% target. And vice versa, if inflation is projected to be below its target, the NBU cuts the key policy rate.
- Open communications with the public. The transparent and predictable monetary policy of the NBU, which is achieved among other things by publishing this Inflation Report, enhances public confidence. Public confidence, in turn, is an important prerequisite for the effective management of inflation expectations and ensuring price stability.

The NBU Board decides on the key policy rate eight times a year, in line with a schedule it publishes in advance. The decisions the NBU Board makes in January, April, July, and October are based on new macroeconomic forecasts. At the remaining four meetings (taking place in March, June, September, and December), the NBU Board makes its interest rate decisions based on new economic developments in Ukraine and beyond that have emerged since the latest forecast.

The NBU Board announces its interest rate decision at a press briefing held on the same day at 2 p.m., after the NBU Board's monetary policy meeting. A week later, the NBU publishes the Inflation Report with a detailed macroeconomic analysis and outlook underlying its interest rate decisions. The Summary of the Discussion on the Key Policy Rate at the Monetary Policy Committee is published on the 11th day after the decision is made. In contrast to press releases on monetary policy decisions, which reflect the consensus position of the NBU Board, the summary shows depersonalized opinions of all MPC members on the monetary policy decision to be made and their positions. That includes not only the opinions expressed by the majority, but also dissenting views.

The analysis in the Inflation Report is based on the macroeconomic data available at the date of its preparation. Thus, for some indicators, the time horizon of the analysis may vary. The cut-off date for most data in this report is 21 October 2020, in some cases – 29 October 2020.

The forecasts of inflation and other macroeconomic variables were prepared by the Monetary Policy and Economic Analysis Department and approved by the NBU Board at its monetary policy meeting on 22 October 2020.[1]

Previous issues of the Inflation Report, the presentation of the Inflation Report, the forecast of the main macroeconomic indicators, and time series and data for tables and charts in the Inflation Report are available on the NBU website at the following link: https://bank.gov.ua/monetary/report.

[1]NBU Board decision No. 659- D *On Approval of the Inflation Report* dated 22 October 2020.

Contents

Summary

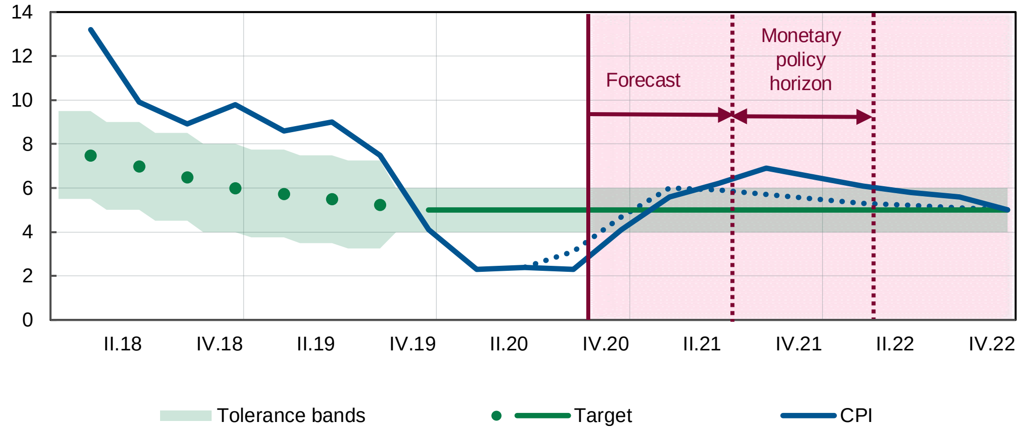
In Q3 2020, inflationary pressures remained subdued, with inflation remaining below the target range

In Q3 2020, consumer inflation was almost unchanged, remaining below the lower bound of the 5% ± 1 pp target range. At the same time, inflation slowed slightly in September (to 2.3% yoy) due to an increase in the supply of food. This has offset the opposite pressure on prices from other factors, such as the hryvnia depreciation, higher energy prices, and a recovery in economic activity and consumer demand. Core inflation also edged down (to 3.1% yoy) in September. Although current inflation figures were low and the hryvnia depreciation had a minor pass-through effect on prices, inflation expectations of businesses and households continued to deteriorate.

Inflation will be close to the lower bound of the 5% ± 1 pp target range at the end of 2020 and will then accelerate

Weaker inflation during Q3 led to a downward revision of the inflation forecast for 2020, to 4.1% yoy. The acceleration of inflation at the end of the year and its return to the 5% ± 1 target range will be primarily driven by continued economic recovery amid loose monetary and fiscal policies, as well as the rise in prices for energy, including that for natural gas.

Figure 1[2]. CPI (eop, % yoy) and inflation targets



Source: SSSU, NBU staff estimates.

Consumer inflation will increase in 2021, to 6.5%, fuelled by continued economic recovery, the pass-through effect from this year's hryvnia depreciation, and a large hike in the minimum wage that will strengthen domestic demand. However, inflation will breach the upper bound of the target range only temporarily. The NBU allows short-term deviations of inflation from the target to maintain monetary incentives for economic recovery. Core inflation will also speed up, to 5.4% yoy by year-end 2021.

The gradual tightening of monetary conditions as the economy emerges from the crisis will be aimed at returning inflation to the target. This will help bring inflation back to the 5% ± 1 pp target range at the beginning of 2022 and reduce core inflation to about 4% in 2022.

In Q3 2020, against a backdrop of easing quarantine restrictions, economic activity continued to recover, slightly faster than previously expected

The lifting of strict quarantine restrictions in late May and the imposition of adaptive quarantine led to a gradual resumption of economic activity and an improvement in the labor market. The NBU's and the government's stimulus measures supported business activity. Thus, fiscal policy eased in Q3, although not as significantly as expected: expenditure growth was mainly financed by previously accumulated funds. Social programs, healthcare, and road infrastructure remained the main priorities of budget expenditures.

The recovery in consumer demand amid the resumption of household income growth occurred slightly faster than previously expected, as evidenced in particular by the high growth rate of

[2] Unless specified otherwise, the dashed line in the figures indicates the previous forecast.

retail trade. This provided grounds for improving the real GDP estimate in Q3. Investment demand was buoyed by an improved external environment, better financial performance by businesses, and higher budget expenditures on road infrastructure. However, economic recovery remains uneven, in part due to the increase in the number of infection cases at the end of the quarter. Agriculture also made a negative contribution, primarily due to lower crop yields this year.

The Ukrainian economy will decrease by about 6.0% in 2020, but will return to growth of about 4% in the years ahead

The GDP forecast for 2020 remained unchanged, with a projected decline of about 6%. The main reason behind the annual contraction in the economy lies in the difficulties faced by businesses in Q2, when the strictest quarantine restrictions were in place. At the same time, business activity picked up markedly as restrictions were eased. A recovery in consumer and investment demand in H2 will be offset by the lower crop harvest and smaller fiscal impulse. In 2021–2022, the Ukrainian economy will grow by about 4%. Against the backdrop of a sharp increase in the minimum wage in 2021, private consumption will continue to be the main driver of economic growth. Fiscal stimuli, the loose monetary policy, and a rebound in foreign demand will support economic growth, unless tight quarantine restrictions are reimposed in Ukraine and globally.

Fiscal policy will be accomodative until the end of 2020 in order to counteract the negative impact of the crisis. After the economy returns to steady growth, it will need less fiscal stimuli from the state. At the same time, the need to improve the debt position will grow in relevance. This will gradually reduce the general government deficit, from 6.5% of GDP in 2020 to 4% of GDP in 2021, and to 3% of GDP in 2022.

With the budget deficit widening, nominal GDP falling, and the hryvnia weakening from the levels seen at the end of last year, public and publicly guaranteed debt will grow to 63% of GDP in 2020. Further on, this indicator will decline by 2–3 pp a year, driven by economic growth, prudent fiscal policy, and moderate exchange rate volatility.

The current account is expected to run a surplus in 2020, but will go back into deficit in the coming years

In Q3, the current account kept running a surplus due to a smaller merchandise trade deficit compared to last year coupled with a high surplus in services trade. However, the current account surplus narrowed from the preceding quarters as imports recovered, while the increase in exports was restrained by lower crop yields. Against the backdrop of significant repayments on external liabilities, financial account outflows persisted. This led to a decrease in gross international reserves from late Q2, but they continued to grow from the beginning of the year, to USD 26.5 billion or 4.5 months of future imports.

After synchronous contractions in Q2 2020, the economies of Ukraine's MTPs started recovering, while China's economy has already returned to pre-crisis levels. However, the global economy is not expected to make a full recovery before 2022. Terms of trade improved significantly, in particular due to higher prices for iron ore, sunflower oil, and grains. These increases were only partially offset by higher energy prices. Favorable terms of trade and stable global demand for food products amid a significant decline in imports will ensure that the current account ends 2020 in surplus. Over the forecast horizon, terms of trade will worsen somewhat. The recovery in global demand will push up prices in the global commodity markets, but production is also projected to increase, which will restrain price growth. Energy prices will also rise. The recovery of domestic economic activity, some worsening of terms of trade, and lower revenues from natural gas transit will cause the current account to go back into deficit in 2021–2022.

As before, the key assumption underlying the macroeconomic forecast is that Ukraine's cooperation with the IMF continues

Adherence to the terms of the new stand-by program with the IMF, including with regard to a consistent fiscal and monetary policy, will help ensure the macroeconomic stability necessary for a confident and swift economic recovery. IMF support is important in terms of financing budget expenditures to combat the fallout from the pandemic, preserving access to the global capital markets, and maintaining international investors' interest in Ukrainian assets.

Financing from the IMF and other official international partners will help Ukraine to maintain its international reserves at the level of USD 29–30 billion in 2020–2022.

The main risk to the implementation of the forecast outlined above is a significant deterioration of the coronavirus situation and a return to strict quarantine measures

A prolonged coronavirus pandemic, a rapid increase in morbidity, and a return to strict quarantine measures in both Ukraine and the world could lead to a more severe and prolonged cooling of the global and Ukrainian economies. Accordingly, there will be a need to strengthen fiscal and monetary incentives to support the economy and the population. The main external risks are currently also connected to how successfully the pandemic is curbed at the global level.

Other risks also remain significant. They include:

- the negative impact of certain court rulings on macrofinancial stability
- an escalation of the military conflict in eastern Ukraine or on the country's borders and
- higher volatility of global food prices, driven by global climate change and the risk of stronger protectionist measures.

Given the above balance of risks and expectations that inflation will overshoot its target range in 2021, the NBU Board decided to keep the key policy rate unchanged, at 6%

In Q3 2020, the NBU pursued a loose monetary policy. Although the NBU Board twice decided to keep the key policy rate unchanged at 6%, it was held below the neutral level. The loose monetary policy aims to support economic recovery amid moderate inflation and uncertainty over the spread of the coronavirus in Ukraine and globally. In its decision of 22 October 2020, the NBU Board also kept the key policy rate unchanged.

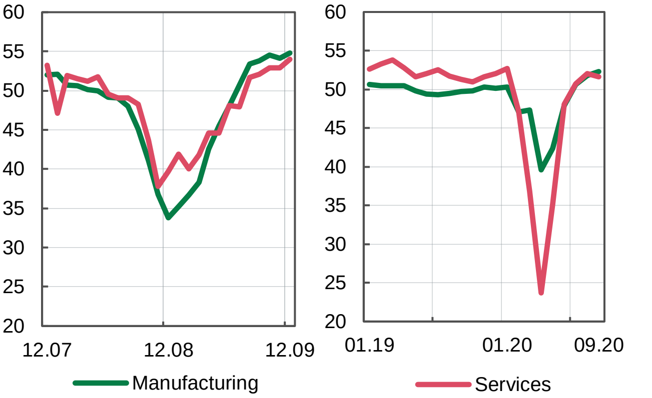
The updated key policy rate forecast assumes that it will remain below the neutral level until the end of 2020 and for most of 2021. This will provide the stimulating monetary conditions required to alleviate the fallout from the crisis and revive business activity. The transmission of the key policy rate will be amplified by maintaining banks' access to previously introduced liquidity management tools, and by stimulating lending to the real economy.

Given heightened uncertainty, the NBU's future monetary policy will mainly depend on how the pandemic unfolds and on which budgetary parameters are adopted. Even if the pickup in domestic demand and business activity fails to persist due to an increase in the number of COVID-19 cases, the NBU will still be able to support the economy by cutting its key policy rate further. Conversely, the NBU will also be prepared to raise the key policy rate in 2021 if inflationary pressures intensify. The NBU will continue to keep a balance between stimulating the economy and maintaining moderate inflation. The major factor to be taken into consideration in the decision-making process will be the established parameters of fiscal support for the economy. This support is expected to be significant next year.

Part 1. External Environment

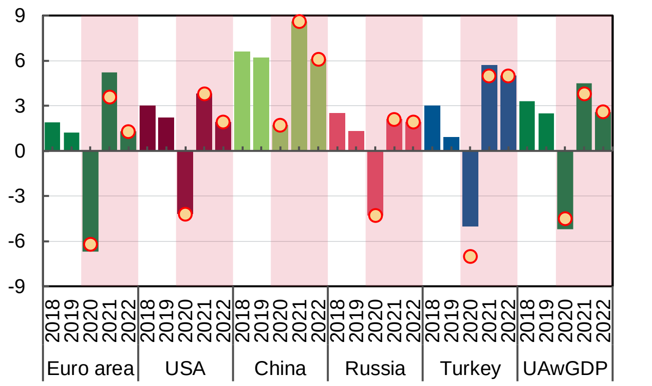
- After plunging simultaneously in Q2 2020, the economies of Ukraine's main trading partners (MTPs) are now recovering. The global recovery is being supported by the Chinese economy, which has already returned to its pre-crisis levels and is continuing to grow. However, the global economy is not expected to fully recover until 2022.
- Global commodity prices will be higher than previously expected because of limited supply. However, terms of trade will deteriorate moderately over the forecast horizon owing to a correction in iron ore and sunflower oil prices and against the backdrop of a moderate increase in global energy prices.
- Financial conditions will remain loose for emerging markets (EMs) thanks to low interest rates and significant quantitative easing (QE). The risk of capital flight from EMs has persisted due to the worsening of the epidemic.

Chart 1.1. Global PMI in various crisis periods



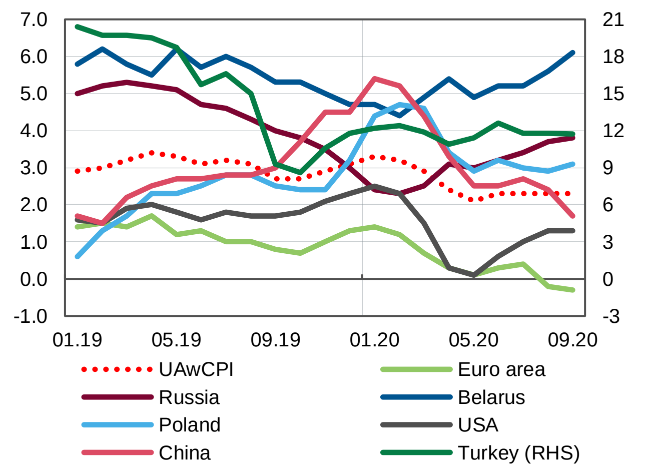
Source: IHS Markit.

Chart 1.2. Real GDP of selected countries and Weighted Average of annual GDP growth of Ukraine's MTP countries (UAwGDP), % yoy



- previous forecast of NBU.
Source: National statistical offices, NBU estimates.

Chart 1.3. CPI of selected Ukraine's MTP countries and Weighted Average of Ukraine's MTP countries' CPI (UAwCPI), % yoy



Source: National statistical agencies, NBU estimates.

The global economy will slowly recover

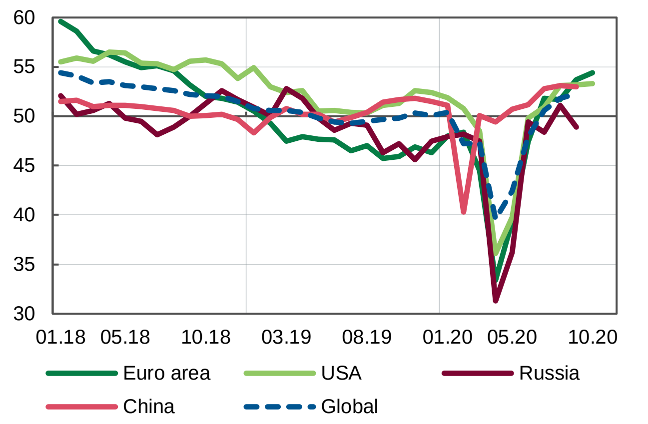
After plunging simultaneously in Q2 2020 – except in China, which saw an economic downturn in Q1 (read more in Box 1 *Impact of COVID-19 on Economic Activity in Ukraine's Main Trading Partners* on page 10) – the economies of the globe are recovering gradually thanks to the easing of quarantine restrictions and large-scale state support. The Global Composite Output Index trended upward in Q3. That said, industrial production, which was hit less than the services sector unlike in previous crises, is recovering faster. This is driven by the investment goods sector, which in September showed its fastest growth in almost ten years on the back of sizeable fiscal stimuli. In contrast, the volume of global merchandise trade remained low in Q3, among other things, as a result of protectionist measures taken by some countries. The World Trade Organization (WTO) expects global merchandise trade to decline by 9.2% yoy in 2020 and then grow by 7.2% in 2021.

Global consumer demand remains sluggish, primarily because of weakness in the labor market (especially in the euro area and in Japan). Low demand was an important factor restraining inflationary pressures in Ukraine's MTPs despite the higher global prices of goods, particularly energy prices. The further lifting of quarantine restrictions, coupled with monetary and fiscal stimuli, will contribute to global economic growth in the coming years. However, uncertainty over the epidemic is affecting the sentiment of consumers and businesses. Because of this, and because of the internal imbalances present in some countries, the global economy will reach the level of 2019 only in 2022.

In Q2 the US economy experienced its largest fall since the Great Depression, but it had already started to recover by May thanks to strong monetary and fiscal stimuli. Although the recovery was limited by new outbreaks of infection, which forced the authorities to tighten the quarantine in some areas, the services sector and trade returned to growth, and unemployment declined to 7.9% in September. An increase in domestic demand caused inflation to accelerate to 1.4% yoy in September. State support is expected to have the most pronounced positive effect in 2021.

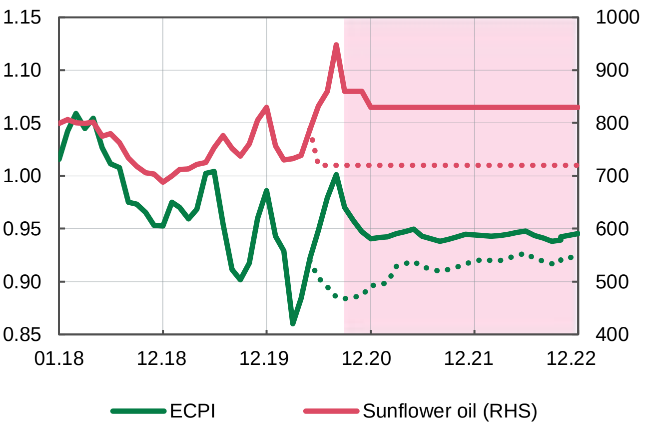
Economic activity in the euro area is also gradually recovering, but consumer demand remains weak because of difficulties in the labor market (unemployment has been on

Chart 1.4. Global Manufacturing PMI and Manufacturing PMI of selected countries



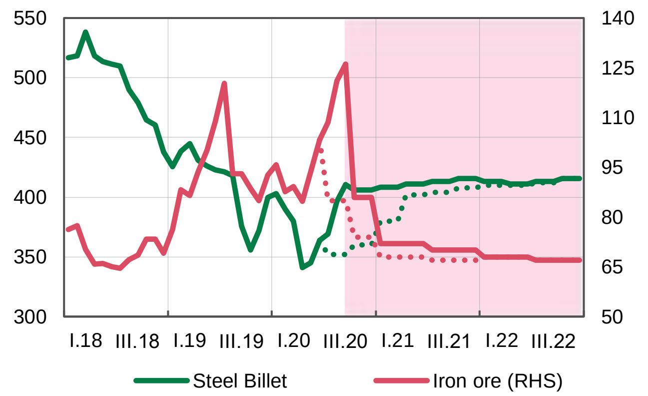
Source: IHS Markit.

Chart 1.5[1]. External Commodity Price Index (ECPI), Dec 2004 = 1 and sunflower oil prices (USD/MT)



Source: World bank, NBU estimates.

Chart 1.6. World price of ferrous metals and iron ore*, USD/MT, quarterly average



* Steel Billet Exp FOB Ukraine and China import Iron Ore Fines 62% FE spot (CFR Tianjin port).
Source: Refinitiv Datastream, NBU estimates.

[1] Dotted line in charts refers to previous forecast unless otherwise stated.

the rise for five months running[3]). Uncertainty stemming from the worsening of the epidemic in some EU countries will continue to limit growth in demand. Another negative effect will come from the unevenness of the recovery: the economy of Germany will recover faster than those of France, Italy, and Spain. Loose fiscal and monetary policies will bolster growth in the euro area over the forecast horizon.

With favorable financial and fiscal conditions, the GDP of the EMs that are Ukraine's MTPs will grow gradually as quarantine restrictions are lifted. India saw an unexpectedly deep economic slump in Q2 (the deepest among Ukraine's MTPs), caused by its strict lockdown. This resulted in a downward revision of the weighted average UAwGDP this year. China's macroeconomic indicators show that the country's economy has mostly recovered to pre-pandemic levels. The recovery in the Chinese economy was primarily driven by rapid growth in investment and increasing exports. These factors will continue to fuel the country's economic growth in the years to come, which is evidenced by a major improvement in business sentiment.

The recovery in economic activity will push up global commodity prices, but supply will rise as well. Despite higher-than-expected prices, terms of trade will slightly worsen over the forecast horizon

A pickup in economic activity (primarily in China) against the backdrop of a number of supply factors has led to an increase in global commodity prices. As a result, the External Commodity Price Index (ECPI) was much higher than expected in Q3, and it will remain so over the forecast horizon. Terms of trade will worsen somewhat for Ukraine over the forecast horizon due to corrections of some prices amid moderate growth in energy prices.

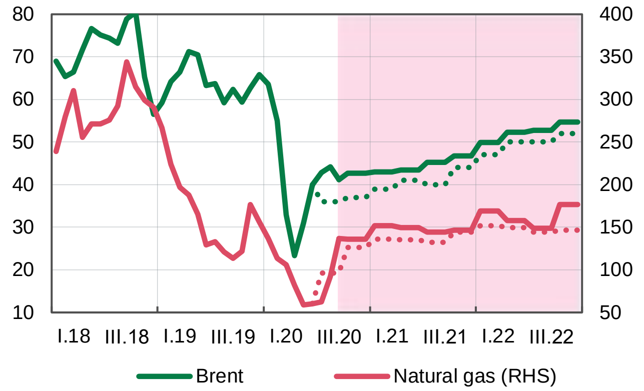
Global steel prices have been rising on the back of a pickup in demand, particularly from the construction sector, and the support of state investments. This trend was largely driven by demand from China, which turned from net exporter into net importer of steel in July–August, despite its record-high production volumes. Demand from Europe, Turkey, and Brazil also increased. In turn, strong demand for steel, especially in China, supported high prices for iron ore. The state infrastructure projects implemented by many countries are expected to continue to drive demand for steel, while a recovery in the global economy will help increase production. In such conditions, global steel prices will remain close to current levels, while iron ore prices will gradually decline on higher supply from Brazil and Australia.

Global prices for sunflower oil reached a six-year maximum in Q3 2020 and will remain high despite correcting somewhat. The expected lower yields of sunflower caused by drought in Ukraine, Russia, and Romania will impact prices not only in the current marketing year (MY), but also in the next one due to carry-over stocks being smaller. Moreover, demand will remain strong from India, China, and the EU.

Global wheat and corn prices fluctuated within a narrow range in Q3, with some short-lived exceptions. Grain prices are projected to fluctuate around current levels while trending

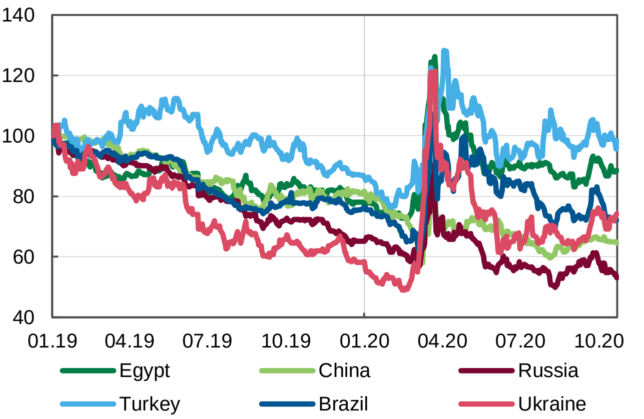
[3] As of August 2020

Chart 1.7. **World crude oil prices (USD/bbl) and German Hub natural gas prices (USD/kcm)**



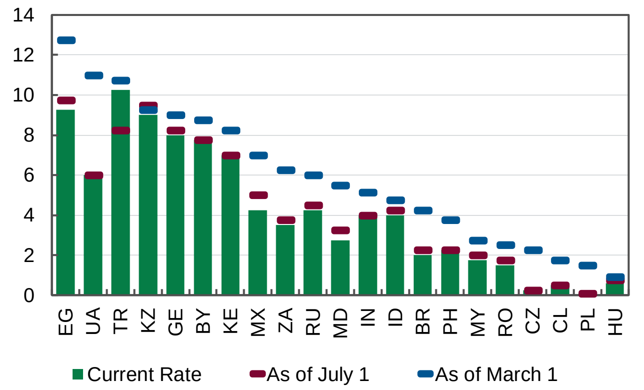
Source: Refinitiv Datastream, NBU estimates.

Chart 1.8. **J.P.Morgan EMBI+, 01 Jan 2019 = 100**



Source : Bloomberg, as of 21.10.2020.

Chart 1.9. **Key Policy Rates in Selected EM Countries*, %**



*As of 29.10.2020
Source: official web-pages of central banks.

slightly upward: the good harvests expected in Latin America in the 2020/2021 MY will offset further increases in demand.

Energy prices, in particular those for crude oil and natural gas, increased gradually on the back of the implementation of the OPEC+ agreement and economic recovery. However, the growth in energy prices was limited by large inventories and uncertainty over the sustainability of the global economic recovery. Over the forecast horizon, a pickup in economic activity will support growth in energy prices, which will, however, remain moderate because of the increase in shale production.

Global financial conditions will remain loose for EMs, although the risk of capital flight is rising due to the worsening epidemic

Thanks to large-scale QE and additional lending programs, primarily implemented by the Fed and the ECB, conditions will be loose for EMs on the global financial markets, with interest rates close to zero. That said, interest rates are expected to remain at current levels for at least the forecast period. As a result, yields on sovereign debt securities of the developed countries will remain low. Amid a shortage of high-yielding financial assets in the global financial markets, this may spur investors' appetite for EM assets. A vivid example was the large drop in yields, by 0.5 pp on average, on EM sovereign debt securities seen in July–August as the MSCI EM index grew sharply (by more than 12%) on the back of a recovery in economic activity in these countries. As a result, most EM currencies gained ground against the US dollar.

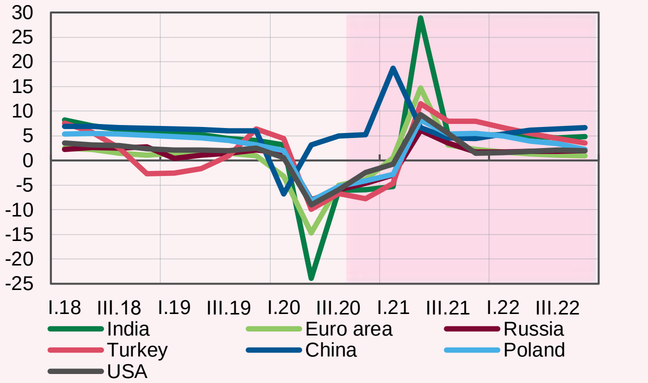
The worsening of the epidemic increased uncertainty over the sustainability of global economic recovery and raised the risk of capital flight from EMs. According to the Institute of International Finance (IIF), large capital outflows from EMs were recorded in the final weeks of September and were comparable to the capital flight of the taper tantrum in 2013 or the yuan depreciation in 2015. As a result, the majority of EM currencies weakened against the US dollar during this period. Therefore, as the room for further monetary policy easing in the EMs is being exhausted, their access to the market will depend on their ability to support macrofinancial stability measures and carry out structural reforms.

Box 1. Impact of COVID-19 on Economic Activity in Ukraine's Main Trading Partners

The unprecedented quarantine measures taken across the globe in response to the outbreak of COVID-19 in late Q1 and early Q2 led to a sizeable decrease in demand and a decline in global trade. As a result, in Q2 the economies of Ukraine's MTPs faced the deepest downturn since the Second World War. Starting in May, as quarantine restrictions were gradually lifted, these economies started to recover – sometimes even faster than expected. Despite the forecasts of continued recovery, Ukraine's MTPs as a whole will not return to pre-crisis levels in 2021. Furthermore, the new wave of infections seen in some countries since late June has increased the risks of a more protracted recovery from the crisis.

The COVID-19 pandemic struck when the global economy was weakened by global trade wars, especially between the United States and China. In 2019, the growth in global GDP slowed to 2.8%, the lowest level in the last ten years. In these conditions, the introduction of unprecedented measures to limit the spread of COVID-19 infection resulted in a steep fall in the economies of Ukraine's MTPs, which bottomed out in Q2 (except in China), mostly in April.

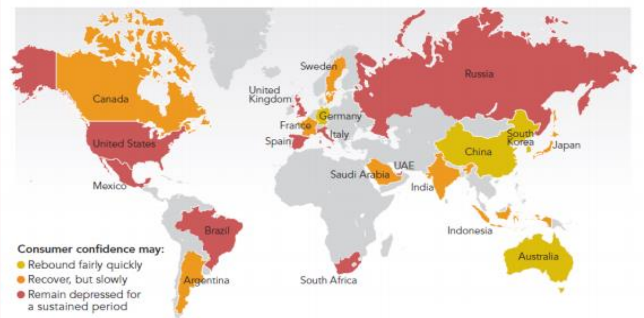
Chart 1. Real GDP of selected countries, % yoy



Source: National statistical agencies, NBU staff estimates.

Consumer demand was the most affected by the lockdown because consumer confidence deteriorated due to the risk of infection. Later, labor market conditions worsened as some producers closed or suspended their operations, and growth in real wages slowed. Unlike previous crises, which mainly hit production companies, the services sector was stricken the most this time – namely the restaurant business, sports and culture, and railroad transportation.

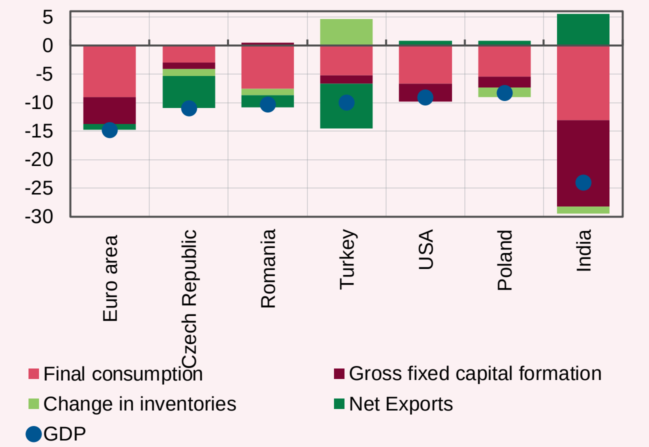
Chart 2. Impact of COVID-19 on consumer confidence around the world, Q2 2020



Source: The Conference Board, July 2020.

Investment also dropped markedly in Ukraine's MTPs, and this was accompanied by a rapid decline in the construction sector: in particular, in April alone the sector plunged by 31% yoy in the euro area and by 85% yoy in India.

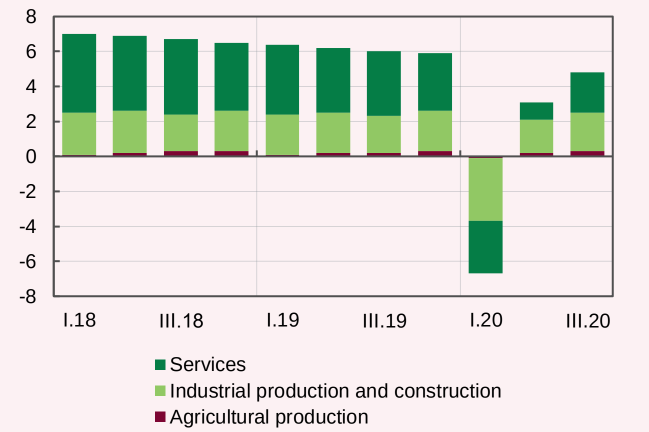
Chart 3. Contributions to annual GDP growth by final use in Q2 2020, pp



Source: Eurostat, National statistical agencies, NBU estimates.

A decline in global trade, particularly the trade in services, was an additional factor that adversely affected the economies of Ukraine's MTPs. The trade in services declined as a result of closing borders, which primarily had a major impact on tourism and thus on the economic activity of countries specializing in it, particularly the Czech Republic, Turkey, and Greece.

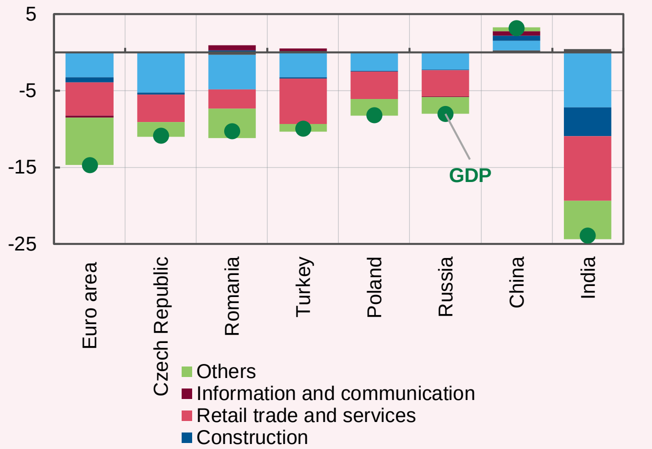
Chart 4. China: contributions to annual GDP growth by sector, pp



Source: National Bureau of Statistics of China, NBU estimates.

On the other hand, the economy of China, which unlike other countries received the hardest blow in Q1, recovered rather steadily thanks to large-scale state support provided by the country's government and central bank. The People's Bank of China injected additional funds worth around 1.2% of GDP into the Chinese economy in Q1 alone, thanks to lowering interest rates across the entire range of transactions with banks, a major easing of reserve requirements, and targeted allocation of funds to companies that contribute to mitigating the effects of the COVID-19 pandemic. In turn, the government implemented a large-scale package of measures to support households and businesses, ranging from compensation for medical treatment and partial compensation for utility payments, to subsidizing companies and permitting the issue of municipal bonds in order to encourage infrastructure projects. These measures, implemented in Q2, supported the economy of China, which returned to its pre-lockdown level at the end of the quarter. Taking into account China's large share in global trade, this also supported other countries, which could have experienced an even deeper downturn.

Chart 5. Contributions to annual GDP growth by sector in Q2 2020, pp



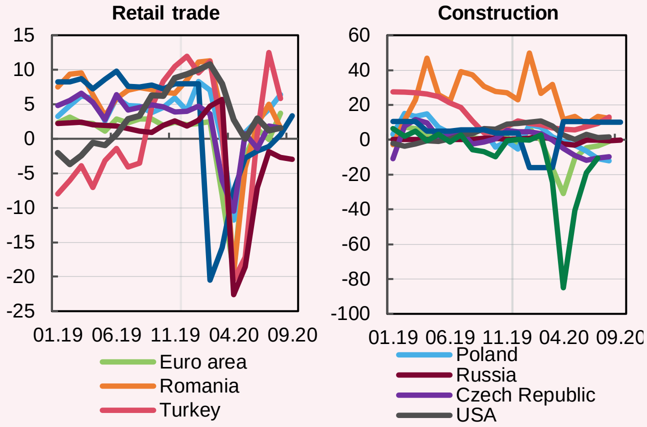
Source: Eurostat, National statistical agencies, NBU estimates.

In terms of sectors, industrial production, trade, and the services sector made the largest negative contribution to the decline in GDP of Ukraine's MTPs in Q2. The services sector suffered the most from the quarantine restrictions, whereas the drop in industrial production was more a reflection of decreasing demand, both domestic and foreign. In most countries, a positive contribution to the GDP dynamics came from the information and communication sectors thanks to the spread of remote work and online education.

With quarantine restrictions being gradually lifted starting in May, the economies of Ukraine's MTPs picked up on the back of sizeable fiscal support (amounting to 10%–15% on average, except in Italy (42%), Germany (38%), and the UK (22%)) and eased monetary conditions.

Consumer demand was the first to react positively to the easing of quarantine restrictions thanks to an improvement in consumer confidence and labor market conditions. In September, the Global Consumer Confidence Index rose for the third consecutive month, although remaining below its pre-lockdown level, and growth in retail trading accelerated in Ukraine's MTPs.

Chart 6. Retail trade and construction, % yoy

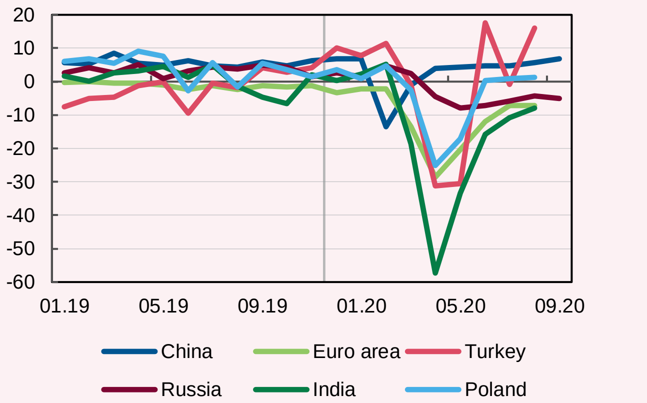


* USA retail trade – s/a.
China construction – quarterly data

Source: National statistical agencies, Eurostat, St. Louis FRB.

Significant state support bolstered a gradual recovery in the industrial production and construction. The growth in foreign trade volumes amid the easing of quarantine was an additional factor. This was evidenced by the dynamics of the leading indicators of new export orders (especially in Chinese industrial production): their growth rates in August were the highest since January 2011.

Chart 7. Industrial production, % yoy



* Euro area – c/a.

Source: National statistical agencies, Eurostat, St. Louis FRB.

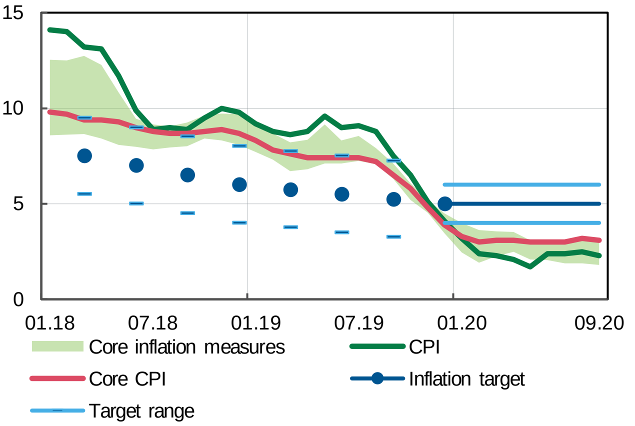
Economic growth in Ukraine's MTPs is expected to recover in 2021 against the low comparison base of 2020 and thanks to an improvement in the epidemic situation. The recovery will also be driven by a gradual increase in foreign demand, the implementation of postponed investment projects, continued positive effects from this year's fiscal stimuli, improved labor market conditions, and a pickup in consumer demand. However, the growth to be seen in 2021 will not fully offset the unprecedented decline recorded this year (UAwGDP will grow by 4.4% yoy in 2021 compared to a decline of 5.2% in 2020). Furthermore, the new wave of infections seen in some countries since late June, especially in the United States, has increased the risks of a more protracted recovery.

Part 2. Economy of Ukraine: Current Trends

2.1. Inflation Developments

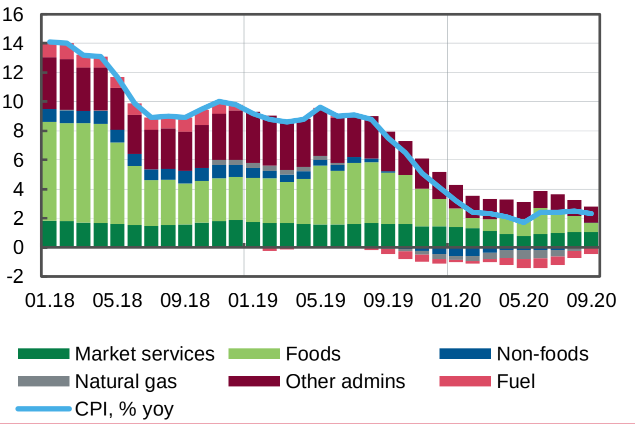
- In Q3, consumer inflation was below the 5% ± 1 pp target range and lower than forecast in the July 2020 Inflation Report.
- Inflation was restrained by weak growth in food prices, caused in particular by temporary supply factors on the back of lower-quality harvests of some vegetables, unusually warm weather at the end of the quarter, a larger supply of imported goods, and smaller demand for relatively more expensive products.
- Core inflation remained practically unchanged: the impact of faster recovery in consumer demand and hryvnia depreciation was offset by weaker pressure from food prices, an increased supply of nonfood goods and the specifics of the way they were sold, as well as changes in consumer behavior.

Figure 2.1.1. Underlying inflation trends*, % yoy



* Read more in the January 2017 Inflation Report (pages 20–21).
Source: NBU staff estimates.

Figure 2.1.2. Contributions to the annual change in the CPI, pp



Source: SSSU, NBU staff estimates.

Consumer inflation remained low and below the 5% ± 1 pp target range, primarily because of food prices

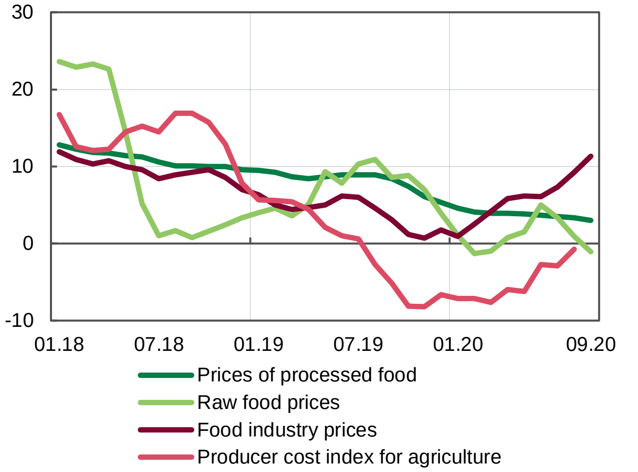
Consumer price growth was practically unchanged in Q3 2020, at 2.3% yoy in September, remaining below the lower bound of the target range. It was also lower than forecast in the July 2020 Inflation Report.

Inflation was restrained mainly by slower growth in food prices, among other things driven by larger supply of certain products, including imported ones (dairy, bananas, citrus fruits, and some cereals). Moreover, price growth was dampened by a temporary easing of the price pressure on food products, particularly animal farming products, and also reflected lower production costs. The aggregate production costs index of agricultural products has been lower than last year's levels for a long time, owing to decreased fuel prices, cheaper feed, and relatively moderate wage growth in the sector. Changes in the structure of demand also limited growth in food prices. In particular, the consumption of more expensive products, including animal protein, closely correlates with income levels (e.g., see Dixon, 2001, Melgar-Quinonez, 2008, and Cox, 2020). According to survey findings[4], Ukrainians less often consumed fish and seafood, meat and meat products, dairy, and eggs after the start of the quarantine. The above factors slowed the price growth of the majority of dairy and fish products, while prices for meat and meat products fell deeper.

Vegetable prices remained significantly below last year's levels. Prices for potatoes fell deeper, primarily thanks to a better harvest compared to last year. On the other hand, the harvest of other vegetables, particularly root crops, was somewhat smaller than last year (by 4.9% yoy as of 1 October 2020). However, the quality of the harvest worsened, which gave rise to mismatches between supply and demand: suppliers rushed to sell the harvest, while buyers were not ready to buy large batches of vegetables for storage. The unusually warm weather at the end of the quarter was an important temporary factor behind the slow growth in food prices, which also influenced supply of fruits and vegetables. As a result, prices for apples, watermelons, tomatoes, and cucumbers grew more slowly.

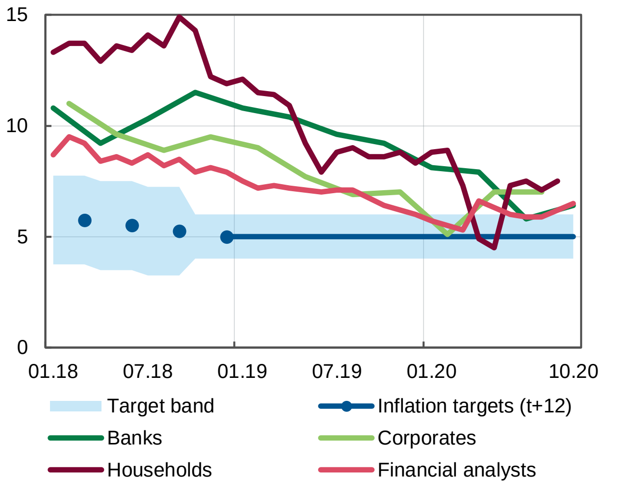
[4]According to the All-Ukrainian Rolling Research Rubicon (June 2020), 32% of respondents started to consume fish and seafood less often (while only 3% chose these products more often), 17% of respondents consumed meat and meat products less often (5% more often), and 13% consumed dairy products and eggs less often (6% more often).

Figure 2.1.3. Raw and processed food prices in food industry and agricultural production, % yoy



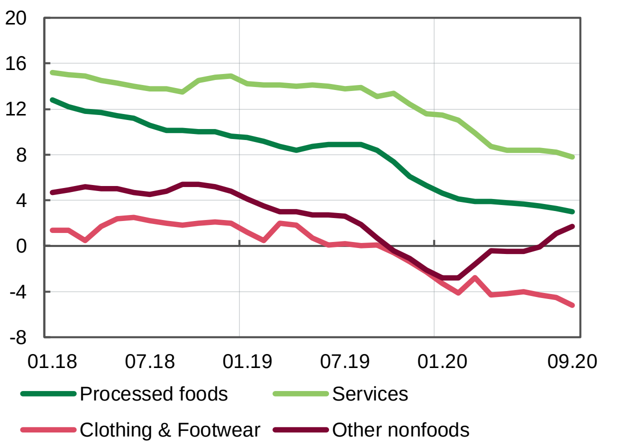
Source: SSSU, NBU staff estimates.

Figure 2.1.4. 12-month-ahead inflation expectations, %



Source: NBU, GfK Ukraine, Info Sapiens.

Figure 2.1.5. Main components of core CPI, % yoy



Source: SSSU, NBU staff estimates.

Core inflation remained practically unchanged because of the offsetting effect of various factors

Core inflation came in at 3.1% yoy in September, which was almost in line with the forecast published in the July 2020 Inflation Report. In annual terms, it was practically unchanged compared with the previous quarter, despite a faster recovery in consumption and the weaker hryvnia. These factors were offset by weaker pressure from food prices, an increased supply of nonfood goods after quarantine restrictions were eased, the specifics of the way they were sold, and changes in consumer behavior.

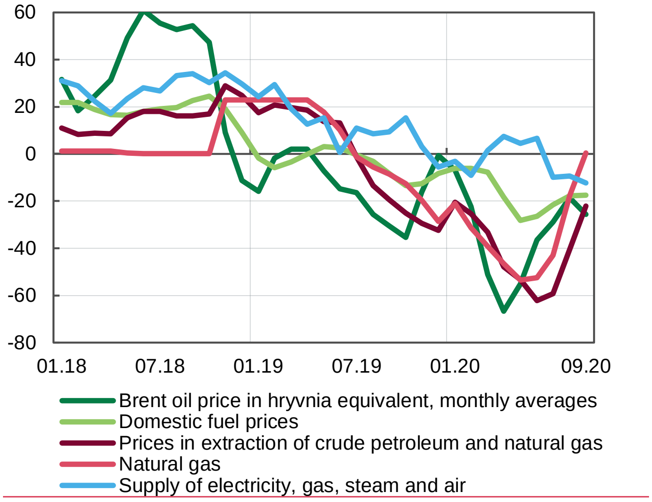
Pressures from pro-inflationary factors increased during the quarter. A rapid recovery in consumer demand, the depreciation of the hryvnia, and the worsening epidemic situation in some regions led to resumed growth in prices of nonfood products (excluding the prices for clothing and footwear). In particular, prices of motor vehicles increased, prices of medicines and medical equipment grew faster, while prices of home appliances and electronic devices declined more slowly.

These factors supported high growth rates of services prices, which decreased only slightly at the end of the quarter. Other important factors behind this price trend were higher expenses on disinfection and restrictions in effect on the number of visitors to services providers. Furthermore, tuition fees for higher education services grew at an accelerated pace, which may be related to the introduction of indicative prices in some disciplines. Prices for telecommunication services grew rapidly on higher demand.

The stronger inflationary pressure was also reflected by inflation expectations, which remained high and started to deteriorate at the end of the quarter, and by the findings of the business outlook survey. In particular, respondents noted an increased influence on prices from the hryvnia exchange rate, energy prices, and labor costs. As a result, the number of companies which expected prices for their products to increase grew in Q3 2020 (to 55.0%, up from 43.9% in Q2).

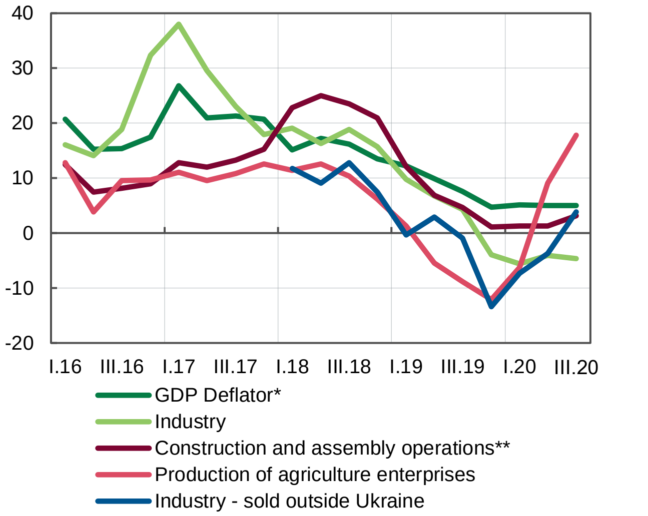
However, core inflation was restrained by weak growth in food prices, caused by a larger supply of imported products among other things. In addition, the transition from a strict lockdown to adaptive quarantine measures led to a resumption of sales of goods and services that were subject to restrictions, which curbed price growth. The specifics of the sales of some nonfood products and changes in consumer behavior also played a role. This could explain the deeper dive in prices for clothing and footwear and other non-staple goods, despite the large share of imports in their supply structure. In particular, businesses have inventories of previous collections and procure goods in advance, as a result of which the pass-through effects from the weakening hryvnia last longer, and businesses offer discounts on previous collections. At the same time, demand for such goods is weak, as many Ukrainians still have the option to study and work remotely.

Figure 2.1.6. Prices for energy resources, % yoy



Source: NBU staff estimates, SSSU, Refinitiv Datastream.

Figure 2.1.7. Other inflation measures, quarterly averages, % yoy



* Data for Q3 2020 represent the NBU staff estimates.

** Data for Q3 2020 cover two months.

Source: SSSU.

Effects on Ukraine's domestic prices from previous decreases in global energy prices are fading.

The resumption of growth in global energy prices and the expiry of the public service obligations[5] pushed natural gas prices for households to last year's levels in late September. Higher global prices for crude oil combined with the weaker hryvnia and strong demand for fuel due to the active use of cars during the coronavirus pandemic[6] have slowed the decline in fuel prices (read more in the Box 2 *Pass-through from Global Crude Oil Prices to Consumer Prices in Ukraine* on page 15).

The recovery in energy prices slowed the price declines in the production of crude oil and natural gas. Together with higher global prices for fertilizers and strong foreign demand, this led to faster growth in the prices of chemicals. Prices of coke and petroleum products also decreased more slowly. However, despite an overall increase in energy prices, prices for the supply of electricity, natural gas, steam, and air conditioning declined, owing to lower tariffs for renewable energy producers.

The NBU expects the GDP deflator to remain unchanged in Q3 2020. The slow growth in consumer prices and the continued decline in producer prices (on average over the quarter) were offset by an increase in inflationary pressures in other economic sectors. In particular, the growth of prices in construction accelerated as investment demand picked up and production costs rose. Selling prices of agricultural products grew at a faster pace, particularly on the back of high global prices for grains.

[5] In August, the public service obligations on selling natural gas to households expired and the transition to market pricing was completed. In particular, instead of using the government-imposed formula that was based on changes in European prices for natural gas, suppliers received the right to set prices for households at their own discretion. In turn, the procedure for choosing a supplier was simplified for consumers.

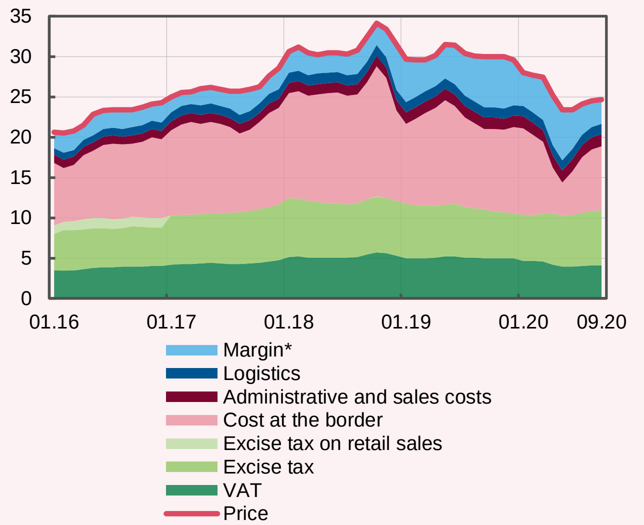
[6] According to the All-Ukrainian Rolling Research Rubicon (September 2020), 16% of households still prefer not to use the public transport because of the risk of infection with COVID-19. At the same time, Apple mobility data show that in Q3 Ukrainians used cars 50%–70% more than in January 2020, while in March–April it was 20%–40% less.

Box 2. Pass-through from Global Crude Oil Prices to Consumer Prices in Ukraine

Crude oil prices quickly react to global market conditions, impacting domestic fuel prices. However, the cumulative effect from a 1% change in oil price is only 0.4-0.5 pp of the fuel price, and it materializes only after several months. Moreover, the reaction of domestic prices to the direction of oil price changes – price increases or decreases – is asymmetrical. Retail fuel prices are faster to respond to an increase in crude oil prices than to a decrease, although these effects become equal over time.

Retail prices of fuel greatly depend on changes in crude oil prices. However, the cost of petroleum products makes up only 30%–40% of the price of fuel.[7] The rest of the price is determined by production costs (equipment, materials, and human resources), expenses on distribution, marketing, retail trade, and trade mark-ups, which depend on the market participants' business model, form of business entity, local competition, and so on.

Figure 1. Composition of the retail price for gasoline A-95+, UAH / L



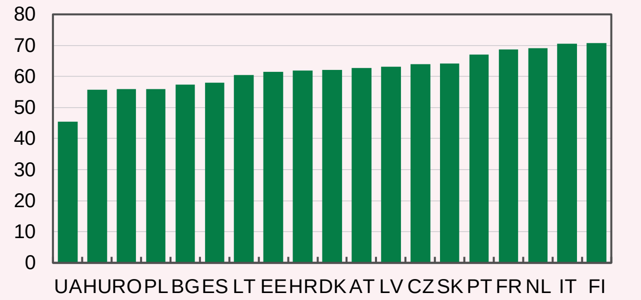
* Many gas station networks offer discounts to their regular customers, so the real margin may be lower. However, the CPI takes into account the full price of fuel, as such discounts are considered discriminatory.

Source: minfin.com.ua, Refinitiv Datastream, NBU staff estimates.

Taxes also account for a large share of fuel prices. In Ukraine, these are the value-added tax and the excise tax.[8] Cumulatively, the share of taxes is around 40%, while it is much higher in many other countries.

In order to determine the pass-through effect from global oil prices on consumer prices of fuel, fuel prices were stripped of nonmarket factors, meaning that the tax component was excluded from fuel price. The assessment used prices for Brent oil and domestic prices for A-95 gasoline for the period from January 2014 to July 2020. The results of the calculations[9] point to an asymmetrical pass-through effect from increases and decreases in global oil prices.

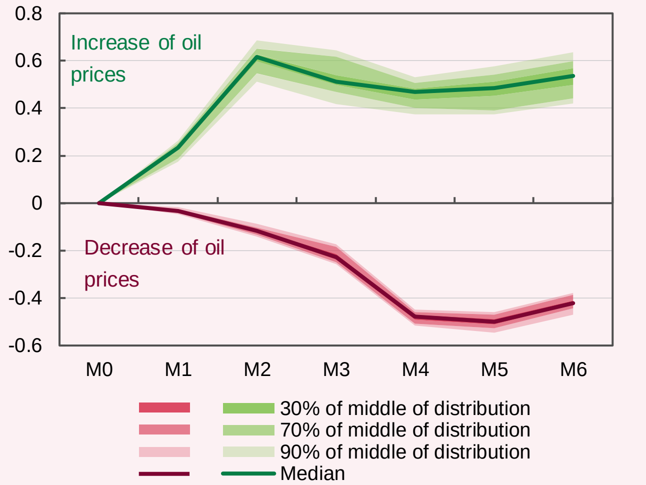
Figure 2. Share of taxes in the A-95+ petrol price in selected countries, %



* From September, 21 till September, 27.

Source: minfin.com.ua, NBU staff estimates, European Commission.

Figure 3. Change in the A-95 gasoline price due to a 1% change in world prices for Brent oil*, pp



* The median and distribution range is calculated based on standardized cumulative A-95 gasoline price responses in response to a 1% increase and decrease in oil prices for each equation used.

Source: NBU staff estimates based on SSSU, IMF, InfoSapiens.

The pass-through effect from an increase in oil prices is already seen in the month following the increase, and peaks (at 0.6 pp) in the second month. A slight price correction follows over the next few months (up to 0.5 pp). Such rapid pass-through can be explained by pessimistic expectations about the further path of oil prices and sellers' desires to keep their profits high. In contrast, the effect from a decrease in oil

[7] In different periods, the share of petroleum products cost in fuel price can vary from 20% to 50%.

[8] Excise tax rates also differ by fuel type: EUR 52/1000 l for liquefied gas, EUR 139.5/1000 l for diesel fuel, and EUR 213.5/1000 l for gasoline. The excise tax is paid in hryvnias at the exchange rate effective when a customs declaration is filed in the case of imports, or for fuel produced in Ukraine, as of the first day of the quarter in which the goods are sold. An excise tax on retail fuel sales was also levied until the end of 2016, but the excise taxes were merged starting in 2017.

[9] The analysis strategy had two stages. The first stage used around forty thousand alternative versions of the inflation equation with a variety of explanatory variables (different demand factors, indicators of inflation expectations, duration of the inflation inertia, the exchange rate, and global fuel prices). At the second stage, researchers selected around one thousand versions that had the best parameters and that corresponded to economic patterns. For example, they took only those models with the best forecasting properties. On the other hand, they left out models with coefficients that contradicted the economic logic.

prices materializes much more slowly. Consumer prices remain almost unaffected in the first month after the rise in oil prices. A minor effect emerges starting from the second month (0.12 pp) and reaches its maximum as late as in the fourth or fifth month (0.5 pp). As a result, the pass-through effects from increases and decreases in oil prices become statistically equal starting from the fourth month after the price change. This can be attributed to sellers' expectations, inventory build-ups, market conditions, and other factors.

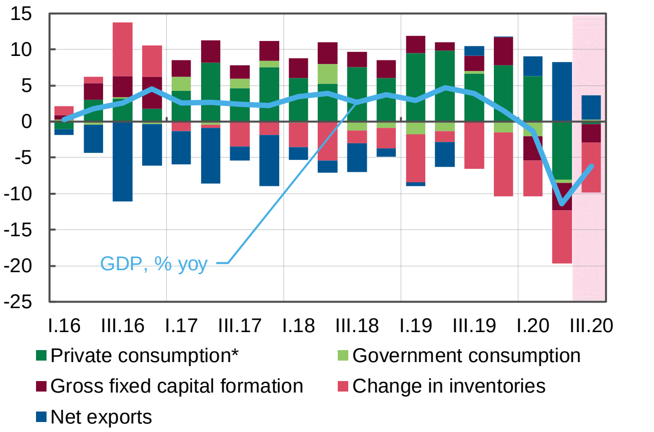
The pass-through effect is strong in the short run, but it does not reach 1 pp even after a year. This is driven not only by the limited period covered by the assessment, but also by fuel prices including other costs that do not depend on changes in oil prices (wages, asset depreciation, marketing, etc.). Similar results were received for other types of fuel (A-92 gasoline and diesel fuel). Only prices for liquefied gas react somewhat less to changes in global oil prices, which can be explained by the specifics of the production and transporting of this type of fuel, and by the stable growth in its consumption in Ukraine in recent years.

Apart from covering the direct effect of oil price changes on fuel prices, the assessment also examined second-round effects, particularly the impact on prices of transportation services. However, these results turned out to be statistically insignificant. This, among other things, is explained by the high level of regulation of the sector, as private transport operators' tariffs are mainly approved by local authorities.

2.2. Demand and Output

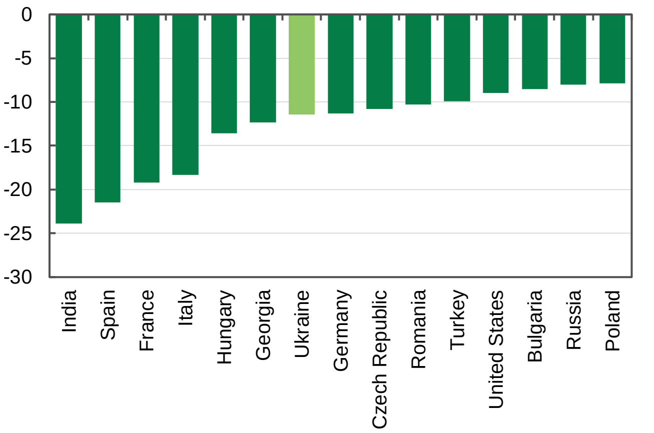
- In Q2, the decline in GDP was in line with the NBU's expectations and was driven by the rapid decrease in domestic demand, which was, however, partially offset by the robust foreign demand for food products.
- Economic activity has been recovering since May as the quarantine has been eased, with the pace of recovery being somewhat faster than expected, fueled mainly by the rapid rebound in consumer demand.
- Higher household income, an improved external environment, and increased budget spending on road infrastructure supported the majority of economic sectors. However, agriculture continued to make a large negative contribution due to a smaller harvest.

Figure 2.2.1. Contributions to annual GDP growth by final use, pp



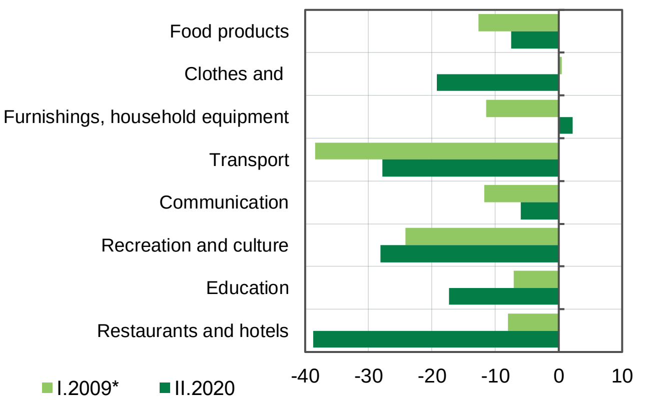
* *Including non-profit institutions serving households.
Source: SSSU, NBU staff estimates.

Figure 2.2.2. Real GDP in Q2 2020, % yoy



Source: SSSU, statistic agencies of responsible countries.

Figure 2.2.3. HH final consumption expenditures by purposes in different crisis times, % yoy



* Q1 2009 was chosen for comparison purposes due to the deepest economic decline in that period in the 2008-2009 crisis.
Source: SSSU.

The quarantine restrictions caused a steep fall in GDP in Q2, although the fall was comparable with GDP declines in other countries

In Q2, real GDP declined markedly (by 11.4% yoy), as a result of both quarantine restrictions imposed on the supply of goods and services, and lower domestic demand.

The strict lockdown in March–May, with operations being banned in the majority of economic sectors, led to a decrease in household income and corporate earnings, as well as a deterioration in consumer and business sentiment. Amid uncertainty over the further development of the COVID-19 pandemic, this caused a decrease in household consumption, a halt in some investment projects, and a deep recession in all economic sectors. Investment growth was also limited in Q2 by the unclear legal framework for renewable energy facilities.

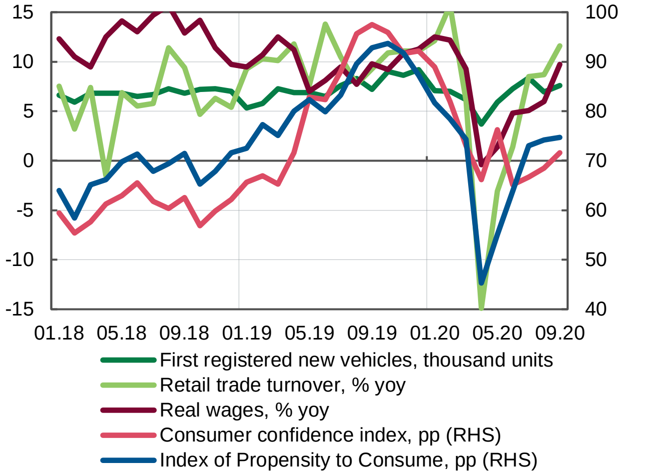
Agriculture made an additional negative contribution because of the late start of the harvesting campaign and lower yields of early grain crops as a result of drought. The pace of decline of the Ukrainian economy was, however, comparable with that of other countries – both developed countries and emerging markets.

The current crisis is unusual, which has primarily been reflected in consumption purposes and a faster recovery in private consumption

A decrease in spending on non-staple goods and services, expensive goods, and so on is typical for crisis periods. This crisis was no exception: household consumption declined by 10.4% yoy in Q2. However, there were also some differences. First, consumption was limited physically following a ban on some business activities (nonfood stores, marketplaces, services, and transportation). As a result, the fall in consumption of the services provided by restaurants, hotels, and recreational and cultural establishments was deeper.

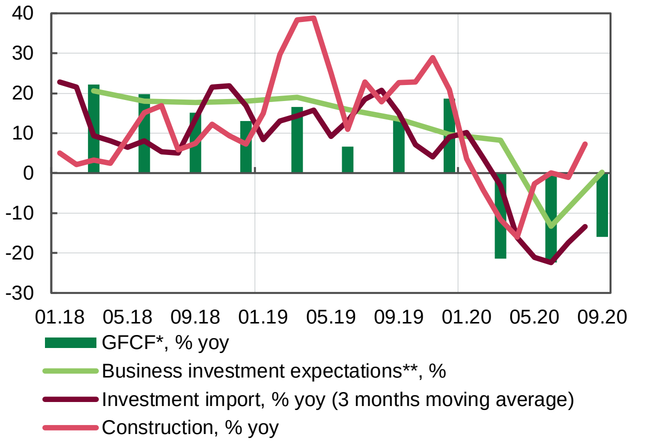
Despite the spread of remote forms of studying, the ban on visiting pre-school and other educational establishments caused a sharp decline in consumer spending on education. The transition to remote working and studying led to a larger decrease in consumption of clothing and footwear. Notwithstanding the major restrictions on transportation, households' use of transport did not fall as much as in previous crises. This can be explained by the more active use of private transport, among other things as an anti-epidemic

Figure 2.2.4. Leading indicators of private consumption



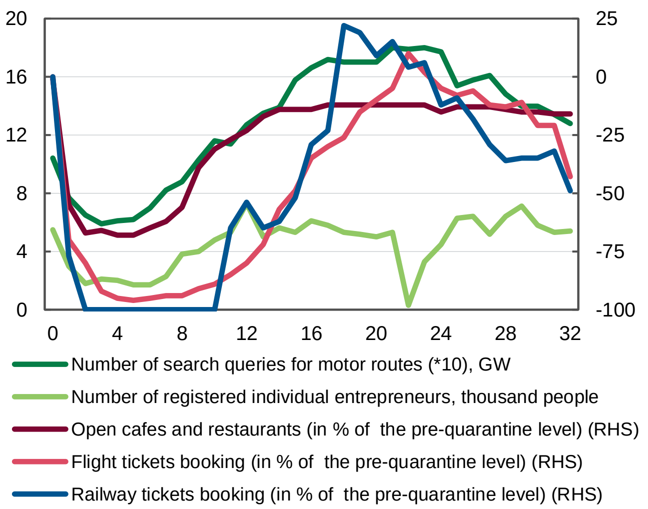
Source: SSSU, GfK Ukraine, Info Sapiens, Ukravtoprom.

Figure 2.2.5. Leading indicators of investment activity



* Q3 2020 – NBU staff estimates.
** Business investment expectations is the average of the balance of answers regarding investment in machinery and construction expectations. Balance of answers is the difference between percentages of "increase" and "decrease" answers.
Source: SSSU, NBU.

Figure 2.2.6. High-frequency indicators of economic activity*



* 0 is used to denote the week from 09 to 15 March 2020.
Source: opendatabot.ua, Apple Inc., NBU staff estimates.

measure. On the other hand, the consumption of communication services declined more slowly, while consumption of public utility services and home goods increased, as many Ukrainians shifted to remote work and study.

Another peculiarity of the current crisis is the rapid recovery of consumption. This is largely because this crisis has not been accompanied by a devastating currency depreciation and inflation, as was the case during previous crises. Household income and a pickup in consumption were additionally bolstered by the government expanding its social support programs.

At the same time, leading indicators pointed to a faster-than-expected recovery in private consumption. The average growth rates of retail turnover were 9.6% yoy in Q3 (versus a decline of 5.5% yoy in Q2). Such rapid growth is driven by the lifting of bans on operations of shops and marketplaces and by a resumption in household income growth, pent-up demand (among other things, evidenced by an increase in the number of registrations of new cars and a sharp improvement in the index of propensity to consume), and a reorientation from foreign to domestic tourism

Investment activity also picked up thanks to an improvement in the financial standing of companies and an increase in budget spending on road infrastructure

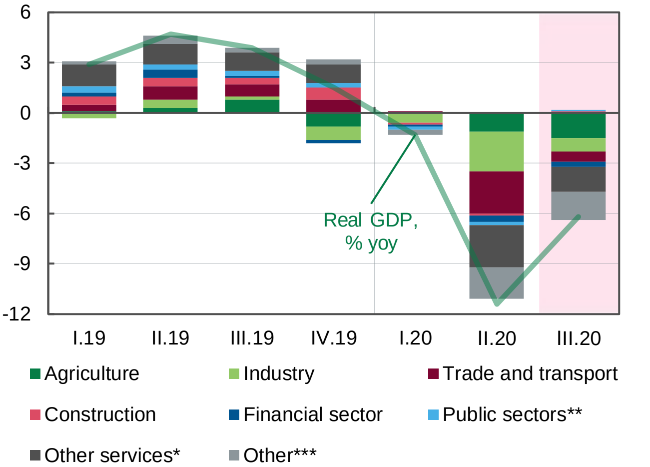
The pickup in economic activity and an improvement in the external environment were reflected in the financial performance of companies.[10] Investment activity was also supported by the growth in budget spending on road infrastructure. More optimistic business expectations and larger imports of industrial equipment and commercial vehicles also pointed to a gradual recovery of investment demand. However, investment demand continued to contribute negatively owing to uncertainty over the development of the pandemic and the regulatory framework of the renewable energy sector.

Economic recovery slowed somewhat at the end of the quarter, mainly due to an increase in the number of COVID-19 cases. Agriculture also made a negative contribution

The lifting of tight quarantine restrictions in late May and the introduction of the adaptive quarantine regime led to a recovery in economic activity. In particular, the number of operating cafes and restaurants and their sales increased gradually, the use of cars and public transport grew, air transportation resumed, and the monthly Business Activity Outlook Index (BAOI)[11] improved (read more in the Box 3 *Business Activity Outlook Index, the Leading Indicator of Economic Activity* on page 20). A more benign external environment, along with road construction, positively impacted the performance of the mining industry, wholesale trade, and transportation. Transportation was also supported

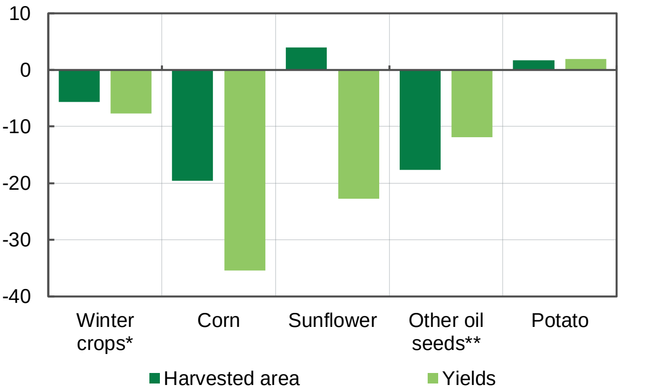
[10] Profit before tax of large and medium enterprises increased to UAH 29.2 billion in H1 2020 (versus UAH (-4.9) billion in Q1 2020).
[11] The BAOI reached its minimum in April (29.2%) and started to recover gradually in May (to 49.4% in September), although it is still below 50%, which is the neutral level for this index (values below 50% point to a deterioration, and values above 50% mean an improvement).

Figure 2.2.7. Contributions to annual GDP growth from GVAs of individual sectors, pp



* Other services include temporary accommodation and catering; information and telecommunications; real estate transactions; professional, scientific and technical activities; activities in the field of administrative and support services; arts, sports, entertainment and recreation; other types of services.
** Budget sectors include public administration and defense; education; health care and social assistance.
*** Other includes product taxes; subsidies on products.
Source: SSSU, NBU staff estimates.

Figure 2.2.8. Harvested area and yields of some agriculture crops as of 01 October, 2020, % yoy



* Wheat and barley.
** Soy bean and rape seeds.
Source: SSSU, NBU staff estimates.

by high nonresident demand for customs warehousing and short-haul services for the storage of natural gas in Ukraine's underground gas storage facilities[12]. All of the above allowed for an improvement in the estimate of the decline in real GDP to 6.2% yoy in Q3 compared to the previous forecast of -7.4% yoy published in the July 2020 Inflation Report.

However, the incidence of COVID-19 started to grow rapidly in Q3, resulting in the tightening of the adaptive quarantine in some regions. Consequently, the recovery of the restaurant business was practically halted, the number of bookings of air and train tickets dropped, and people travelled less. After several months of improvement, the passenger turnover declined deeper in September. A recession persisted in the financial sector, primarily as earnings continued to drop amid lower interest rates. However, the performance of sectors that are mainly financed from the budget (education, public administration, etc.) improved somewhat on the back of the fiscal policy easing and increased financing of health care and social services.

Agriculture continued to make a large negative contribution. Although farmers have caught up with harvesting early grain crops, the harvest of wheat and barley turned out to be lower than last year. The harvest of late and industrial crops (in particular, corn and sunflower) was also delayed, and their yields were significantly lower than last year because of unfavorable weather. The harvest and quality of vegetables also was somewhat lower. The performance of animal production continued to decline.

However, the contribution of net exports remained positive thanks to a pickup in foreign demand, against the backdrop of a moderate recovery in imports (read more in the Section 2.5 *Balance of Payments* on page 26).

[12] Customs warehousing is a customs procedure that allows a customer to store natural gas in Ukraine's underground gas storage facilities for up to 1,095 days without paying taxes and customs duties. Short-haul is a service that allows discounts to be made on transportation between specific entry and exit interconnection points (so-called "capacity with restrictions"), including for the purposes of subsequent storing natural gas in Ukraine's underground gas storage facilities.

Box 3. The Business Activity Outlook Index, a Leading Indicator of Economic Activity

In July 2019, the NBU launched a monthly survey of businesses in order to obtain up-to-date information on the economic situation. The survey findings are used to calculate the Business Activity Outlook Index (BAOI).The index uses the methodology based on that of purchasing managers' indices (PMI),[13] which will make the BAOI more understandable for foreign investors and partners and, over time, will allow it to be comparable with the indices of other countries. Although the accumulation of a longer set of data and additional research are needed for a more grounded use of the BAOI, analysis of the available data shows that the assessments made by businesses generally reflect the state of the economy and individual sectors. Given that the survey results are published at the start of the month following the reporting month, they can serve as leading economic indicators. The value of such fresh information increases significantly in periods when the economic situation changes abruptly. In early 2020, with the spread of the COVID-19 pandemic and the introduction of quarantine restrictions, the BAOI became an additional source of real-time information that was taken into account when taking decisions to accelerate monetary policy easing, while later on it was used to assess the pace of economic recovery.

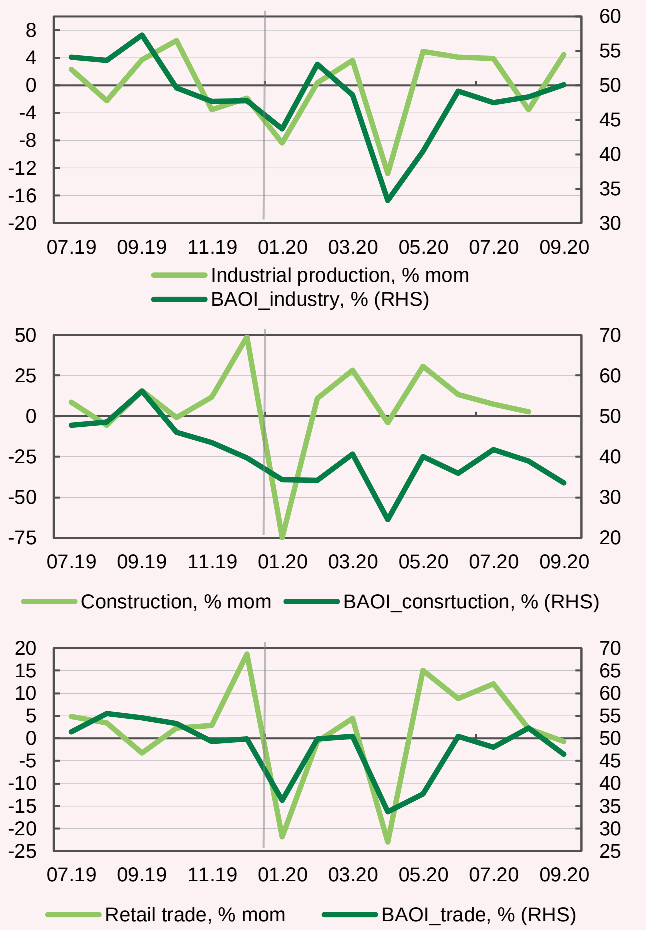
Businesses' assessments of their current situation collected by the survey allow to quickly capture economic developments, verifying current short-term forecasts and assumptions, and thus significantly improving the quality of short-term forecasts and analytical assessments for decision-making – including monetary policy decisions.

To this end, in July 2019 the NBU introduced monthly surveys,[14] the findings of which are used to calculate the BAOI, which is similar to the PMIs of other countries. Since the results of the surveys are published at the start of the month following the reporting month, the BAOI allows to capture trends in the overall economy and in individual sectors much more quickly, ahead of the publication of SSSU data.

Although the data series as yet covers only a short period of time, changes in diffusion indices picked up general trends in industrial production, construction, and retail trade, for which high-frequency official statistics are available. This allows these data to be used with high confidence when assessing the current state of the economy.

When the situation changes abruptly, in particular during crises, the importance of real-time indicators increases significantly. In 2020, after the implementation of strict quarantine restrictions, economic conditions changed very quickly, but the SSSU data did not reflect the changes immediately owing to the specifics of the way this statistical information was collected and processed. Therefore, the movements of the BAOI (a rapid decline at the start of the quarantine and a gradual recovery after the restrictions were eased) provided an additional source of information that was taken into account when deciding on the accelerated easing of monetary policy in H1 2020. At the same time, the comparability of the trends in the BAOI and other countries' PMIs was another important factor.

Figure 1. BAOI in industry, construction, trade and industrial production, construction, retail trade

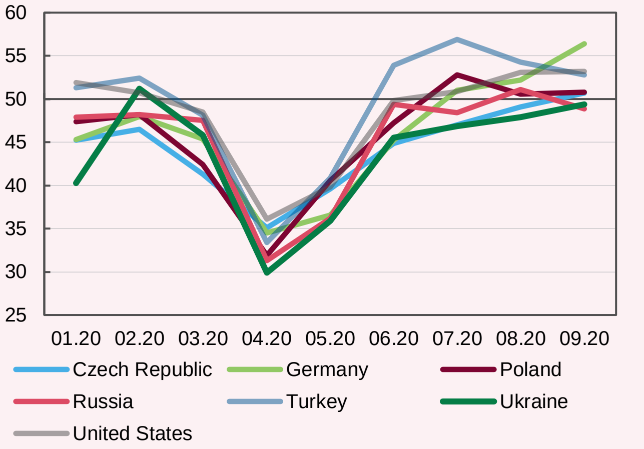


Source: NBU, SSSU.

[13] Survey construction is based on publicly available information about the PMI methodology.

[14] The survey, which is conducted through a web interface, covers 160–180 private enterprises engaged in industrial production, construction, retail trade and services (excluding financial and insurance services). The survey questions concern the change of the situation in the current month in terms of production volumes, sales, new orders, employment, and producer prices. Additionally, starting in September 2020, businesses can participate in the survey through a mobile application. Based on the survey's results, monthly business activity outlook indices are calculated for each sector in the form of the average of the diffusion indices for each question. A diffusion index is calculated as the sum of the percentage of positive replies (indicates an increase) and half of the percentage of neutral replies (indicates no change). The value of the index ranges from 0 to 100: a value of 50 means no change compared to the previous month; values above 50 mean an improvement or growth compared to the previous month; and values below 50 mean a deterioration or reduction compared to the previous month. The composite BAOI is calculated as the sum of the sectoral diffusion indices multiplied by a coefficient that corresponds to the gross value added (GVA) of the sector in the GDP of the previous year. The index measures the country's economic development over a month.

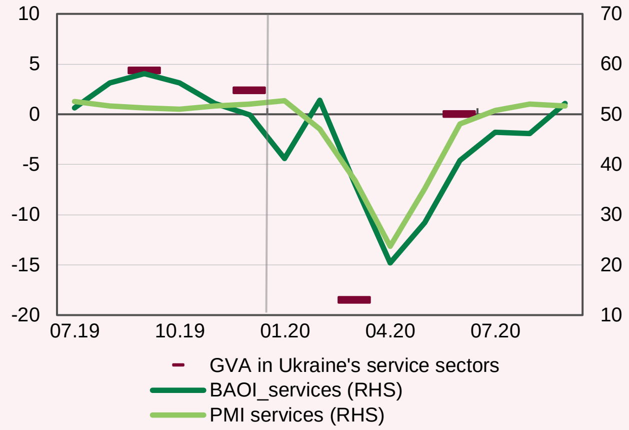
Figure 2. PMI of selected countries and BAOI for Ukraine in 2020, %



Source: NBU, IHS Markit.

With a limited number of high-frequency indicators for the Ukrainian services sector, the BAOI has become an important source of real-time information on the condition and the recovery of the services sector, as this sector was hit the most by the introduction of quarantine restrictions. Additional surveys conducted by the NBU during the strictest phase of the lockdown (read more in the Weekly Economic Review and Box 3 *Impact of Quarantine Restrictions on Business in Ukraine: Findings of Business Outlook Survey* in the July 2020 Inflation Report) were also a source of real-time information about labor market conditions, sales, and businesses' inventories of goods.

Figure 3. BAOI, GVA in Ukraine's service sectors and PMI for services



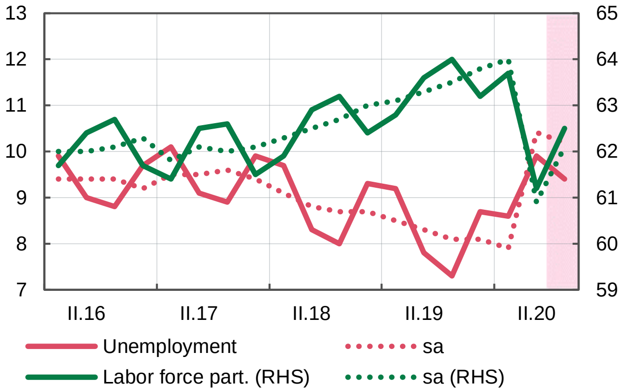
* Services sector includes temporary accommodation and catering; information and telecommunications; real estate transactions; professional, scientific and technical activities; activities in the field of administrative and support services; arts, sports, entertainment and recreation.
** At constant 2016 prices.
Source: SSSU, NBU, IHS Markit, NBU staff estimates.

Indices similar to the BAOI are widely used across the globe for the purposes of research and forecasting (in particular, see Koenig, IHS Markit, Dan Zhanga et al, and the IMF). Ukraine also plans to carry out research based on the BAOI as its data accumulates, which will expand its toolkit for short-term forecasting and analytical support for decision-making.

2.3. Labor Market and Household Income

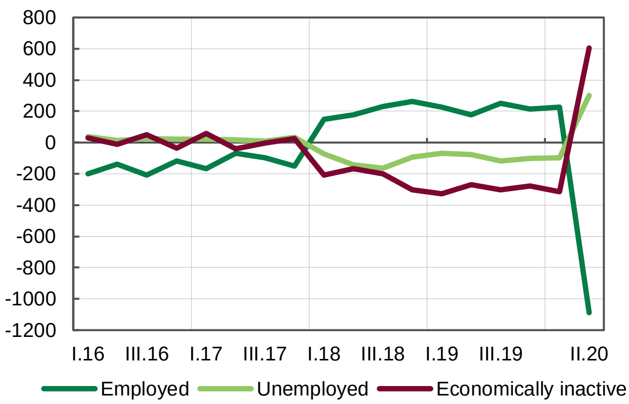
- Unemployment surged in Q2 against a backdrop of quarantine restrictions and a slump in the economy. However, the unemployment rate was lower than expected: a significant number of laid off individuals opted out of searching for a new job for a number of reasons (transport and infrastructure restrictions, childcare, etc.).
- As expected, wages, migrant remittances, and income from sole proprietorship declined, but the government supported households by providing social assistance.
- Economic recovery and the easing of quarantine restrictions revitalized labor supply and demand, leading to lower unemployment in Q3. The growth in income – wages in particular – also resumed, including through wage supplements for healthcare workers involved in treating COVID-19 patients, and a hike in the minimum wage.

Figure 2.3.1. ILO unemployment* and labor force participation rate, %**



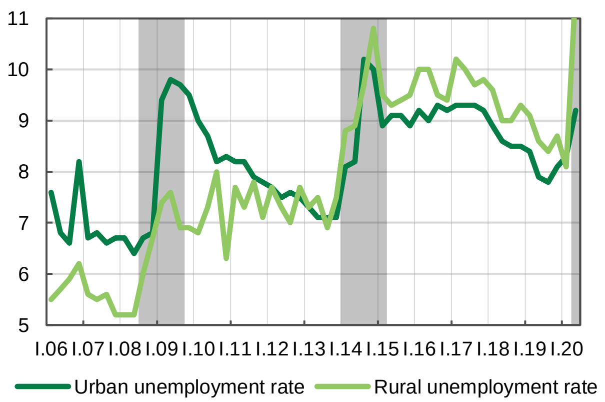
* As a % of population aged 15–70 in the labor force.
** As a % of total population aged 15–70.
Source: SSSU, NBU staff estimates.

Figure 2.3.2. Unemployed, employed, economically inactive, thousand persons, y-o-y



Source: SSSU, NBU staff estimates.

Figure 2.3.3. Unemployment levels by place of residence, % sa



Source: SSSU, NBU staff estimates.

In Q2 2020, the unemployment rate spiked, but was lower than anticipated as workers changed status from being laid off to being economically inactive. Their return to the labor force will mean that unemployment will edge down in Q3

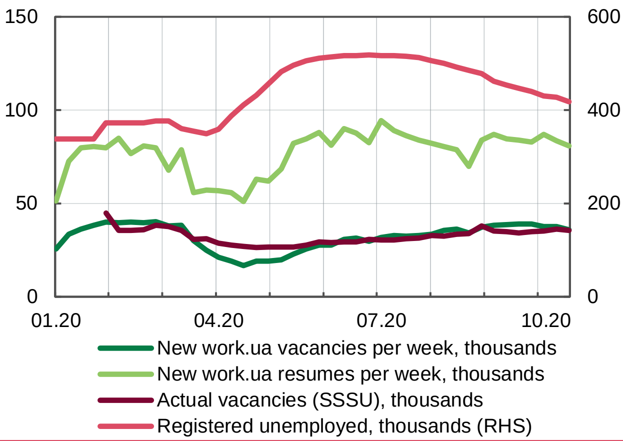
The introduction of quarantine restrictions in March, which significantly impaired the operation of most industries, bringing some of them to a near-halt, led to a large drop in employment, in line with expectations. In Q2 2020, the seasonally adjusted employment rate was the lowest since records began in 2000, including for women. For the first time ever, less than half of women found themselves employed. Employment has been declining among all age groups, regardless of gender or place of residence. In relative terms, however, young people aged 15 to 24 and rural residents have been hit the hardest.

Unlike in the previous crisis episodes of 2008–2009 and 2014–2015, when unemployment rose gradually and peaked three to four quarters after the crisis began, unemployment under the coronavirus crisis has skyrocketed. The available high-frequency indicators show a relatively rapid recovery of the labor market, which gives reason to expect that employment rose in Q3. Yet in seasonally adjusted terms, the drop in unemployment will be insignificant. This is due to expectations that individuals who lost their jobs in previous periods, but who were, for various reasons, economically inactive (unwilling to look for work), will return to the labor force. This is precisely why the unemployment rate in Q2 was lower than expected.

The reasons for leaving the workforce could have been restrictions on transport, a lack of access to the Internet, or a lack of appropriate equipment. Amplified by fears of contracting COVID-19, these problems may have made it impossible for them to find a new job, either in person or remotely. The closure of schools and kindergartens and the need to look after children might also have been impediments to job seeking. This follows from the fact that the percentage of economically inactive women exceeded the percentage of economically inactive men.

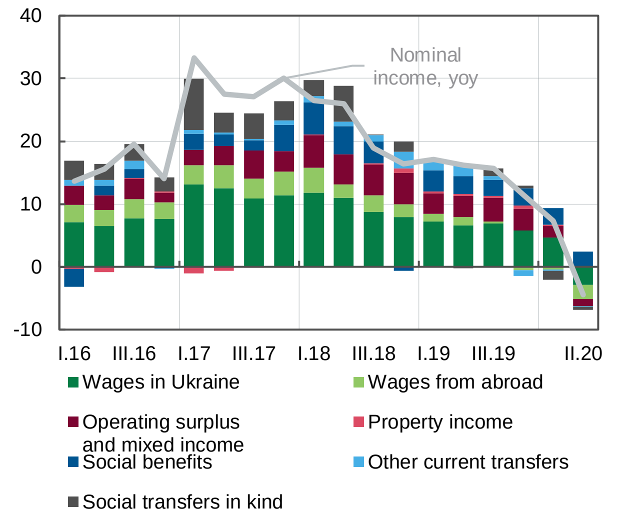
Unemployment among the rural population was also much higher. Transport restrictions significantly affected commuters who live in villages. However, rural residents were more likely to return to job seeking after the resumption of transport services, probably because of their low financial

Figure 2.3.4. High frequency indicators of labor market conditions, thousands



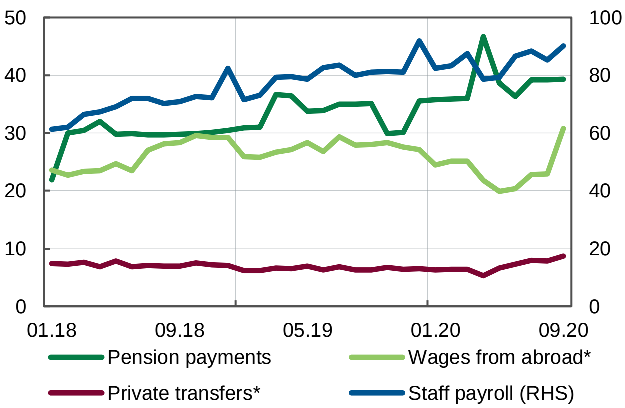
Source: work.ua, SESU.

Figure 2.3.5. Contributions to annual change in nominal household income, pp



Source: SSSU, NBU staff estimates.

Figure 2.3.6. Selected categories of household income, UAH billion



* Wages from abroad and private transfers were derived from BOP data and were translated into hryvnia using an average official exchange rate to USD in the respective month.

margins of safety, and so these individuals were counted as unemployed rather than economically inactive.

Having temporarily declined in Q2, household incomes are expected to return to growth in Q3

In Q2, both real disposable incomes and the nominal incomes of households declined. This decrease involved all income components, except social benefits. The latter increased due to the indexation of pensions, unemployment benefits, and other benefits. The largest contributor to the fall in incomes was the reduction in wages paid in Ukraine. According to SSSU data, average monthly nominal wages of full-time employees in Q2 continued to grow, meaning that the overall decrease in wages indicates that the crisis had a significant impact on the incomes of self-employed individuals[15]. With the borders closed, the incomes and remittances of migrant workers also declined. The greater focus of sole proprietors on the services sector led to a decline in profits and mixed income (which includes the income of self-employed persons).

Against the backdrop of recovering economic activity in almost all sectors, the growth in nominal wages of full-time employees has actually been accelerating since May. These wages continued to decline only in the restaurant and hotel business, which has been among the activities most affected by the coronavirus crisis. Wage growth in Q3 was driven by an increase in the minimum wage, the abolition of salary caps in the public sector, wage supplements for healthcare workers, and the second stage of healthcare reform. Analysts forecast that migrant workers' income will also return to growth as neighboring economies recover and ease border controls. The government continued to provide social benefits, in particular by raising pensions amid a higher subsistence wage and by paying childcare support, self-employed benefits, etc.

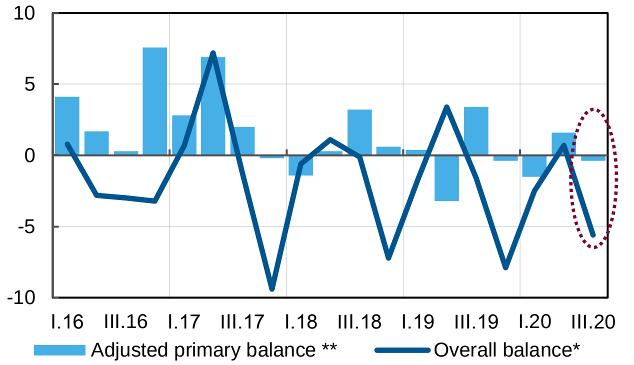
Despite the crisis, household savings increased in Q2, in particular in the form of financial assets, which is in line with the NBU's data on deposit growth. The increase in savings was probably driven by physical constraints on purchasing power due to transport restrictions and the closure of stores and service businesses. In addition, household expenditures may have been affected by changes in consumer behavior: the spread of remote employment led to a decline in purchases of certain goods and services (including clothing and footwear). Specifically, during the acute phase of the pandemic, most of the world's largest companies allowed their employees to work remotely. SMEs also are transitioning to remote employment.

[15] The state statistical survey that informs the calculation of the average salary of full-time employees covers legal entities and their standalone units that employ at least 10 individuals.

2.4. Fiscal Sector

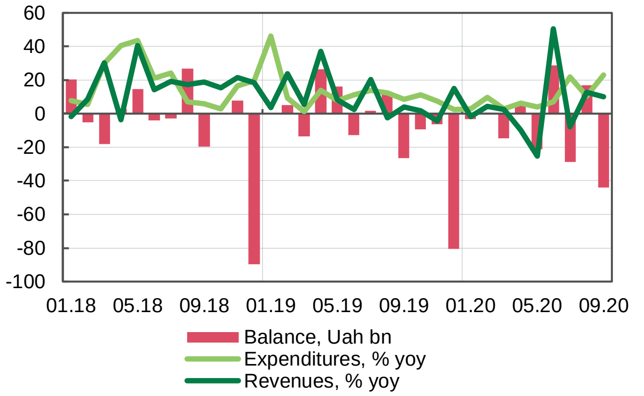
- Fiscal policy eased in Q3, but to a lesser extent than expected. This easing reflected an increase in expenditures, which were primarily financed out of previously accumulated funds.
- As before, budget expenditures primarily went toward social programs, healthcare, and road infrastructure, thus supporting demand. Although spending increased as the quarter drew to an end, the approach to spending increases continued to be selective amid scarce funding.
- Despite there being net debt repayments, public and publicly guaranteed debt increased from late June, in part due to an exchange rate revaluation.

Figure 2.4.1. General government fiscal balance, % of GDP* and % of potential GDP**



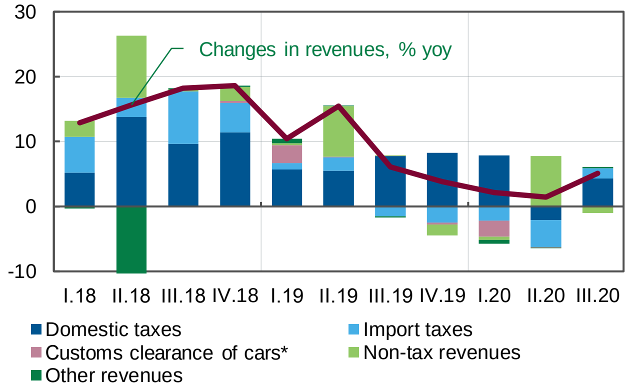
* Overall balance (% of GDP) is the consolidated budget balance and outstanding loans to the Pension Fund from the STA. **Cyclically adjusted primary fiscal balance (CAPB) of the general government (% of potential GDP). CAPB is the difference between seasonally adjusted revenues, in the structure of which tax revenues are adjusted for cyclical changes in GDP, and seasonally adjusted primary expenditures.
Source: STSU, NBU staff estimates.

Figure 2.4.2. The main indicators of consolidated budget



Source: STSU, NBU staff estimates.

Figure 2.4.3. Contributions to annual changes in revenues of the consolidated budget, pp



Source: STSU, NBU staff estimates.

Fiscal policy eased, but to a lesser extent than expected

In Q3, the consolidated budget ran a deficit (UAH 55.6 billion), while the cyclically adjusted primary balance returned to a moderate negative value (indicating a loose policy). The loosening of fiscal policy resulted in expenditures rising mainly in the same areas that had priority status in the previous quarter. Specifically, by allocating resources to social initiatives, healthcare, and road infrastructure, the government's primary aim was to support domestic demand and employment.

However, a massive increase in other expenditures that was expected did not materialize, as uncertainty over funding prevailed. The expansion in spending was mainly financed from funds accumulated in government accounts over previous periods.

Tax revenues improved amid economic recovery, higher wages, and better tax administration

The revival of economic activity and consumer demand, along with the improved financial standing of households, helped put tax revenues back on the growth track.

In particular, quicker nominal wage growth and the hike in the minimum wage (instituted in September 2020) led to higher revenues from both the direct income tax and indirect taxes. In addition, domestic VAT revenues were affected by improvements in how this tax is administered. Proceeds from excise taxes increased as fuel consumption rose and the hryvnia weakened. On top of that, the effect of the tax breaks made at the beginning of the quarantine waned, improving the local budget revenues situation. Proceeds from royalties improved somewhat, thanks to higher global energy prices.

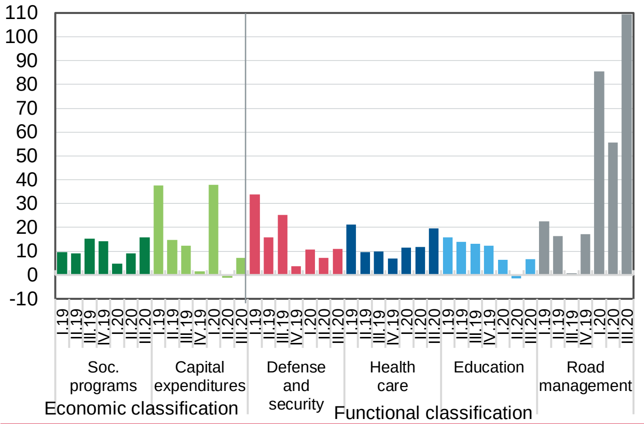
After a long contraction, taxes on imported goods increased in Q3 due to a revival of consumer and investment imports and the weaker nominal effective exchange rate of the hryvnia.

At the same time, given the still complicated financial standing of businesses (the improvement in their financial performance in H1 was primarily driven by a decrease in losses), income tax revenues were still declining rapidly.

As before, budget expenditures primarily went toward social programs, healthcare, and road infrastructure, thus supporting demand.

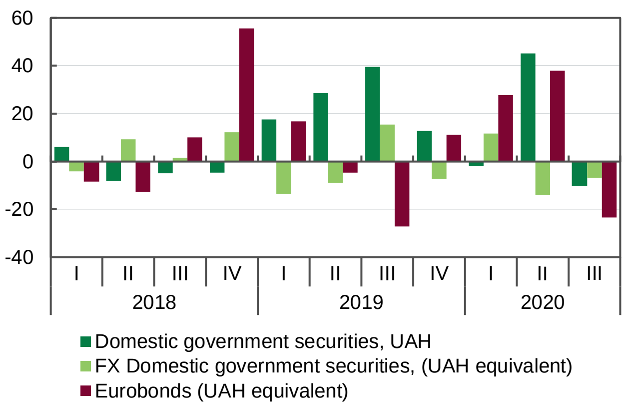
As expected, budget expenditures increased significantly, which was made possible not only by the improvement in revenues, but also by the significant resources accumulated in previous periods. At the same time, the increase in

Figure 2.4.4. Growth in consolidated budget expenditures by selected areas, % yoy



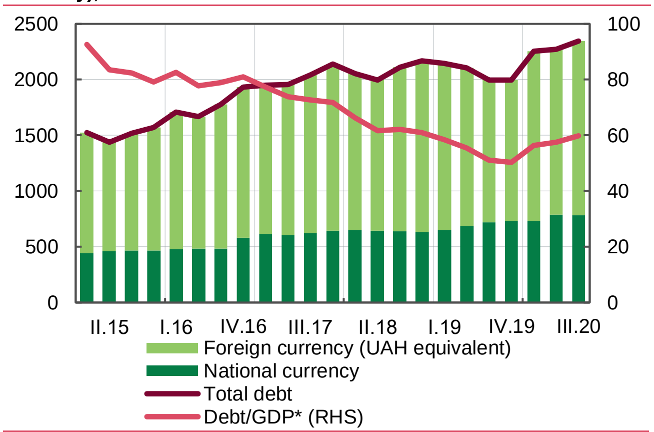
Defense and security includes defense and public order, security and the judiciary.
Source: STSU, NBU staff estimates.

Figure 2.4.5. State budget net borrowings, UAH billion



* Q3 2020 borrowings do not include government bonds issued to increase banks' authorized capital and Ukraine's GDP-linked Securities.
Source: STSU, NBU staff estimates.

Figure 2.4.6. Public and publicly guaranteed debt (by repayment currency), UAH bn and % of GDP**



* In the absence of detailed information on debt repayment by currency as of 30 September 2015 and 30 September 2016, the currency structure was approximated based on data for 31 October 2015 and 31 August 2016, respectively.
** GDP for 2020 - NBU estimates.
Source: MFU, SSSU, NBU staff estimates.

expenditures was generally constrained by the difficult funding situation.

Expenditures were primarily directed toward social security: the Unemployment Fund and the Social Security Insurance Fund received support, while categories I and II of sole proprietors operating under the simplified taxation system received additional childcare support payments. In addition, the minimum wage was raised, employees' wages continued to increase, while certain categories of workers involved in the eradication of COVID-19 received wage supplements. Government support helped improve the financial standing of households and bolstered private consumption during the crisis. Priority expenditures continued to include road infrastructure and collective services such as defense and security, as well as healthcare. These expenditures buoyed economic activity, primarily in construction, the production of other nonmetallic mineral products, etc.

At the same time, debt servicing expenditures increased, including through a proactive debt policy (specifically, part of the dollar-denominated Eurobonds maturing in 2021 and 2022 were exchanged). Other humanitarian and social expenditures, including education and emergency response expenditures, were funded on a case-by-case basis, although their execution also improved at the end of the quarter.

Although significant debt repayments were made, public and publicly guaranteed debt increased, in part due to an exchange rate revaluation

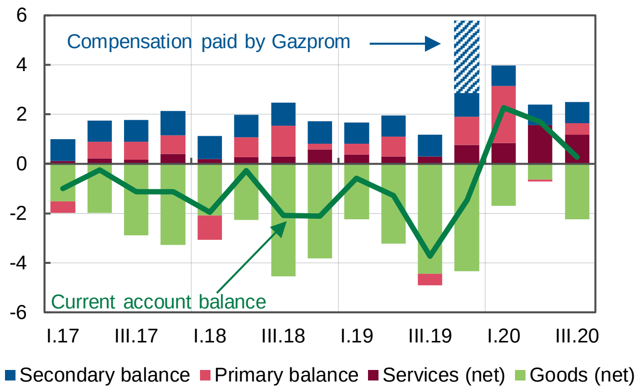
The widened deficit was financed out of previously accumulated funds. The amount of borrowing, in particular external debt, was lower than expected, while this year's repayments on external obligations peaked in Q3. In addition, demand for government securities in the domestic market weakened slightly. The rollover of FX- and hryvnia-denominated domestic government debt securities was about 80% and 60%, respectively.

Although debt repayments exceeded borrowings raised to finance the budget deficit, the amount of public and publicly guaranteed debt as of the end of September increased from the end of June, both in absolute terms and relative to GDP. The exchange rate revaluation due to the weakening of the hryvnia compared to the end of June was an important factor. The issuing of domestic government debt securities to recapitalize a state-owned bank was an additional factor.

2.5. Balance of Payments

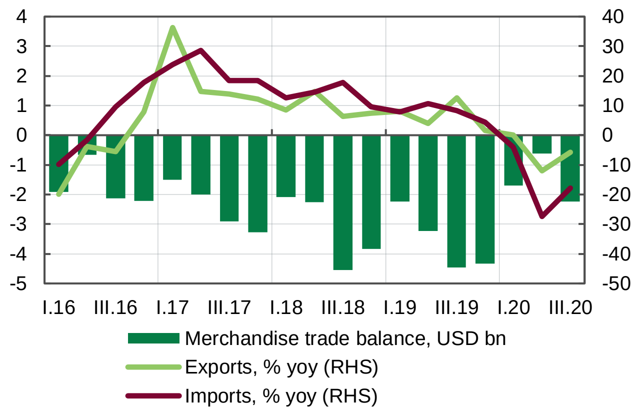
- The current account surplus persisted in Q3, due to a narrower merchandise trade deficit than last year and a large surplus in services trade. That said, the surplus shrank compared to previous quarters on the back of recovering imports and slower growth in exports caused by a poorer crop harvest.
- Financial account outflows persisted against the backdrop of significant repayments on external liabilities. This pushed gross international reserves down from late Q2, but they were still higher compared to the beginning of the year.
- Although Ukraine successfully came through the period of peak foreign currency debt repayments in 2020 thanks to assistance from international financial institutions, the amount of debt to be paid off in the years ahead remains significant.

Figure 2.5.1. Current account balance*, USD bn



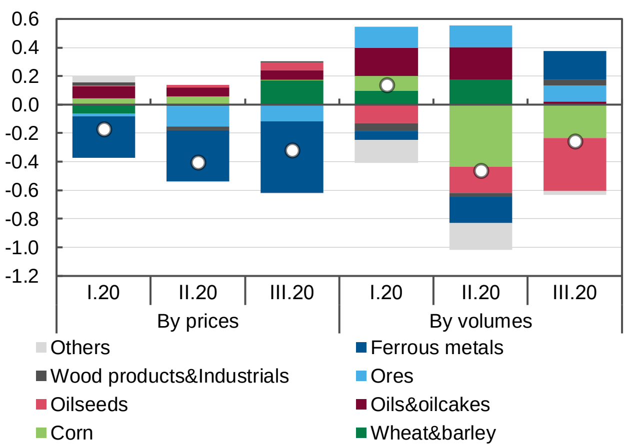
* Q4 2019 data excludes compensation paid by Gazprom.
Source: NBU.

Figure 2.5.2. Merchandise trade



Source: NBU staff estimates.

Figure 2.5.3. Annual change in volumes and prices of selected export goods*, USD bn



* 78% of goods exports.
Source: SCSU, NBU staff estimates.

Exports revived amid widening global demand, but their recovery was hampered by the lower harvest and reduced stocks of agricultural crops

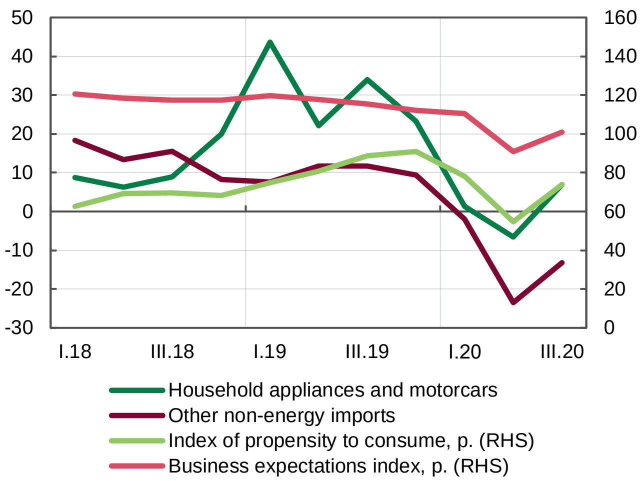
The decline in exports of goods slowed, to 5.7% yoy, in Q3 2020, as expected, on the back of the gradual recovery in the global economy. This mainly resulted from domestic demand in China rebounding more quickly compared to other countries (read more in Box 4 *The Factors Behind the Resilience of Ukrainian Goods Exports During the Coronavirus Crisis* on page 29). More specifically, weak demand from European countries was counterbalanced by expanding demand from China, which in Q3 boosted the volumes of exports of ferrous metals, iron ores, and barley. In addition, a pronounced fall in natural gas prices bolstered the competitiveness and consequently increased the production and exports of Ukrainian chemical products, such as fertilizers and ammonia. The gradual revival of demand from the EU buoyed the growth in industrial exports and exports of wood products. Machinery exports were unchanged on last year – exports of some electrical equipment and a one-off shipment of aviation equipment offset a drop in orders for railway wagons and spare parts for them.

At the same time, the recovery of goods exports was restrained by this year's lower harvest and reduced stocks of some agricultural crops due to strong exports of these crops in previous periods. More specifically, grain exports continued to decline in the wake of lower corn exports, despite volumes of wheat and barley exports – even with the poorer harvest of these crops – remaining at last year's level thanks to robust external demand. This year's lower harvest of rape and soy pushed down exports of oilseeds, while the depletion of sunflower seed stocks decelerated the growth in sunflower oil exports.

The decline in imports also slowed on the back of recovering domestic demand, but the rate of decline remained significant

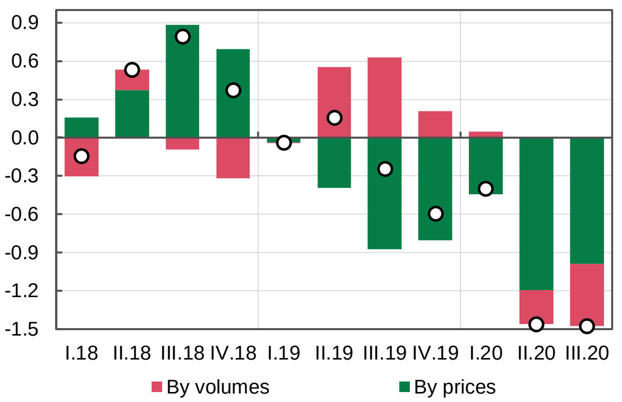
The fall in imports of goods slowed, to 17.9% yoy, in Q3 2020, as expected, thanks to a gradual widening in consumer and investment domestic demand. In particular, imports of cars, trucks and spare parts for them, and some industrial equipment returned to growth. However, lower imports of power-generating machinery continued to hamper the recovery in growth of machinery imports. More specifically,

Figure 2.5.4. Non-energy imports and selected indicators of domestic demand



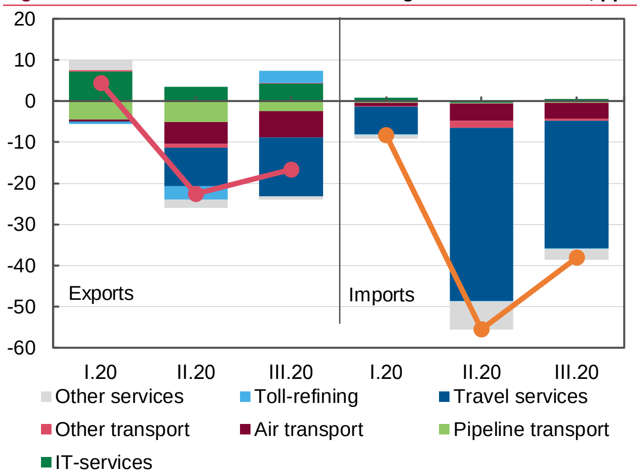
Source: Info Sapiens, NBU staff estimates.

Figure 2.5.5. Absolute annual change in energy imports, USD bn



Source: SCSU, NBU staff estimates.

Figure 2.5.6. Contributions to annual change in services trade, pp



Source: NBU staff estimates.

decreased investment in alternative energy deepened the downturn in imports of this type of equipment. In addition, a revision of the energy balance of electricity production reduced imports of fuel for Ukrainian nuclear power plants.

A gradual improvement in consumer sentiment and an increase in consumption sped up the growth in imports of food and certain household appliances, while also decelerating the decline in other consumer import groups. The slow revival in imports of some consumer goods, such as clothes and footwear, could indicate a change in consumer behavior brought about by a change in working conditions, in particular the widespread introduction of remote working.

Energy imports continued to plunge – the rise in global prices from previous quarters was offset by the drop in import volumes. More specifically, the volume of natural gas imports shrank against the backdrop of record-high inventories in underground storages. Coal imports also declined.

A substantial surplus in services trade persisted, despite there being some revival in foreign tourism

The easing of quarantine restrictions globally and the gradual opening of borders, especially the lifting of restrictions on the foreign tourism destinations that are popular among Ukrainians (Turkey, Egypt, Tunisia and so on), slowed the decline in imports of services in Q3. Nevertheless, imports of services remained significantly smaller than last year (by 38.1%), due to, among other things, persisting restrictions on entering other countries, such as EU countries.

The gradual expansion of external demand decelerated the decline in exports of services, to 16.7% yoy. Exports of toll-refining services returned to growth, and exports of IT services rose at a steady pace amid an increase in the number of orders from the EU. That said, the improvement in the performance of services exports was only moderate, due to the almost complete absence of foreign tourists in Ukraine and the ongoing drop in exports of air and pipeline transportation services.

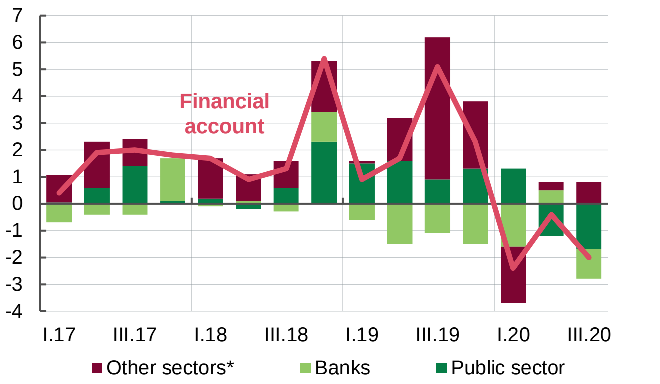
The primary income account recorded a surplus in Q3, due to decreased payments of reinvested earnings from both the previous quarter and last year. The deviation from the forecast was, among other things, attributed to the revision of reinvested earnings data in Q2 and the corresponding adjustment of Q3 data.

Financial account outflows persisted against the backdrop of significant repayments on external liabilities

In Q3, the government sector made large repayments on its external liabilities, a portion of which was covered by new borrowing. In addition, the non-resident outflows from hryvnia domestic government debt securities continued. That said, the outflows remained moderate and even decreased compared to the previous quarter, despite investors' appetite for risky assets weakening globally.

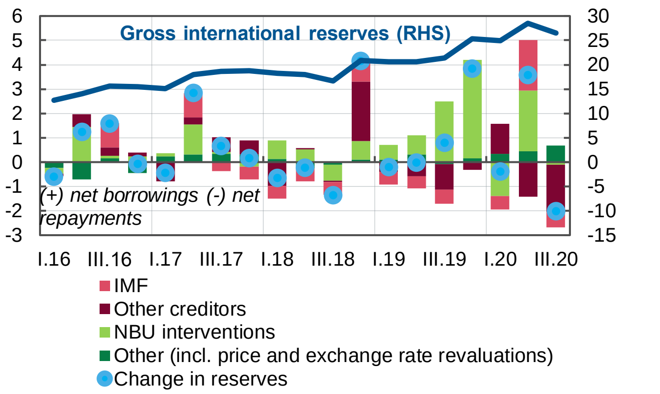
At the same time, capital outflows from the private sector

Figure 2.5.7. Financial account: net external liabilities, USD bn



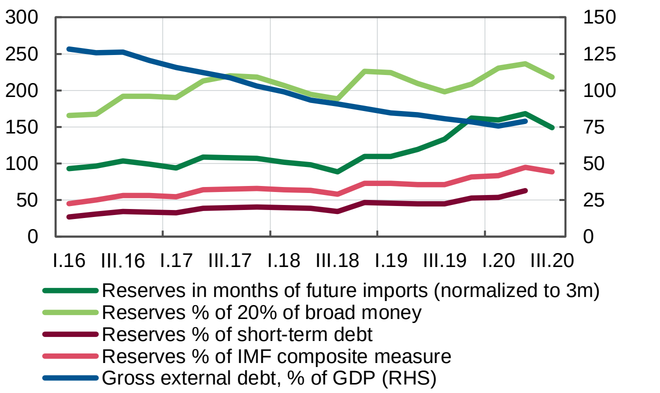
* Including net errors and omissions.
Source: NBU.

Figure 2.5.8. Change in reserves, USD bn



Source: NBU staff estimates.

Figure 2.5.9. External sustainability indicators



Source: NBU staff estimates.

were not significant – capital outflows from the banking sector generated by the government's net repayments of foreign currency domestic government debt securities were somewhat offset by capital inflows to the real sector. The latter were generated by the arrival of FDI, long-term loans and trade loans. As a result, the financial account recorded capital outflow of USD 2 billion which was only partly covered by the current account surplus. This, together with repayments of IMF loans, had by late September decreased international reserves to USD 26.5 billion.

Although Ukraine has successfully come through the period of peak external debt repayments thanks to assistance from international financial institutions, the amount of debt to be paid off in the years ahead remains significant

By the end of Q3 2020, Ukraine had successfully come through the peak of repayments on the government sector's liabilities. More specifically, in January – September 2020, the government spent over USD 5.5 billion on repaying its external debt, including interest, of which USD 3.1 billion was paid in Q3. Assistance from international financial institutions worth about USD 3 billion in official financing that arrived in January – September helped Ukraine successfully come through the period of peak debt repayments. In addition, support from international financial institutions and greater macrofinancial stability compared to previous crises made it possible for the government to successfully tap the Eurobond markets twice. By late June, this had pushed international reserves to an eight-year-high. Although reserves shrank somewhat after the large scheduled repayments that took place in Q3, Ukraine's external position remained healthy: reserves were larger than those at the start of the year, while the IMF's composite measure (ARA metrics) hit almost 90%.

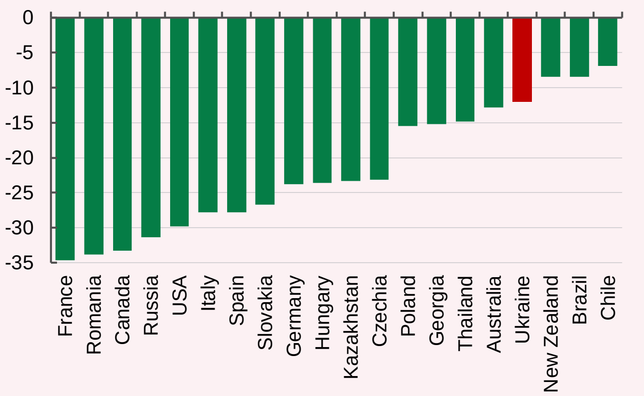
Despite the peak repayments made in previous quarters, the country's debt burden remains high. More specifically, in 2021, the government will have to pay over USD 5 billion on its external liabilities, which, together with the large projected budget deficit, will require extensive financing, including external funds. Continued cooperation with international partners will reduce the cost of new borrowing, and provide stable access to the global financial markets, even when investors are risk-averse, thus mitigating potential risks to macrofinancial stability.

Box 4 The Factors Behind the Resilience of Ukrainian Goods Exports During the Coronavirus Crisis

In contrast to previous crises, when exports were one of the main drivers of economic downturns, Ukrainian exports were somewhat resilient to the crisis in 2020. This emerged as a result of a number of external and internal factors. First, the share of food gradually increased in the composition of exports. Food is more resilient to economic crisis due to the relatively low income elasticity of demand. A strengthening in trade relations with China in 2019 amid its trade tensions with the United States was an equally important factor. As a result, in 2019, for the first time in history, China became Ukraine's second largest trading partner after the EU, and it has retained this status in 2020. Despite there being an improvement in the resilience of Ukrainian exports, their competitiveness needs to be boosted, in particular through increasing the share of high-tech products.

A specific feature of the current crisis is some resilience of goods exports. Despite there being a dramatic fall in the global economy, exports of Ukrainian goods contracted by only 12% yoy in Q2, while in the 2008–2009 crisis exports plummeted by 40-50% yoy, even though the drop in the global economy was significantly smaller.[16] In addition, this year Ukrainian exports shrank less pronouncedly not only compared to Ukrainian imports, but also compared to other countries' exports. This was due to a number of factors.

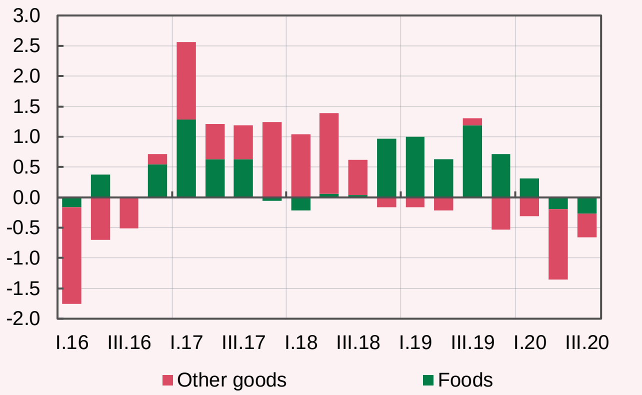
Figure 1. **Merchandise exports in Q2 2020, % yoy**



Source: Eurostat, ITC, SCSU, NBU staff estimates.

A large share of food in the composition of exports. The rise in agricultural productivity seen in recent years, on the back of difficulties[17] in other export sectors, has contributed to the increase in the share of food in the composition of Ukrainian exports. This share has doubled over the last decade, hitting 47% in the first nine months of 2020 (21% in 2010). An important specific feature of the agricultural sector is the greater resilience of agricultural production (FAO (2010)) and exports of agricultural products (WTO (2020)) to economic crises. This feature mainly reflects the low income elasticity of demand for food: when incomes are falling, demand for food decreases more moderately compared to other products (Femenia (2019), Xie (2018)). As a result, the large share of food in the composition of Ukrainian exports acts as a buffer during economic crises, which was also the case in 2020. That is why the impact of the coronavirus crisis on the exports of Ukraine and other major agricultural exporters (such as Brazil, Chile, Thailand and New Zealand) was more moderate compared to that on countries that have a significant share of value-added goods in their exports. In addition, exports of goods were buoyed by situational factors, such as the restrictions imposed by EAEU countries on some food exports.

Figure 2. **Absolute annual change in merchandise exports, USD bn**



Source: NBU staff estimates.

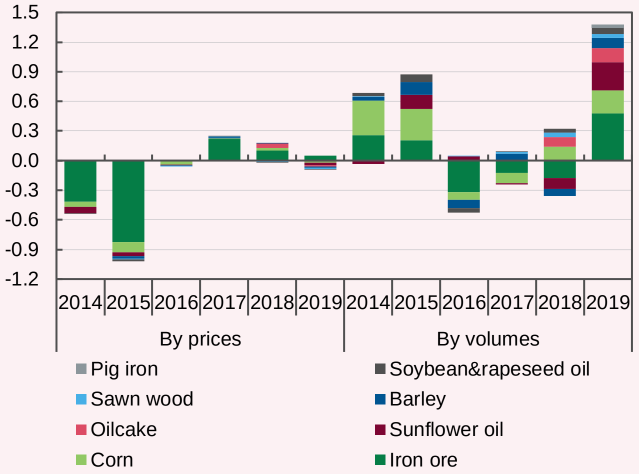
Using the window of opportunity arising from trade disagreements between the United States and China. The trade war between the United States and China, which began in 2018, narrowed the trade turnover between the two countries – in 2019 it decreased by 15.3%, or more than USD 100 billion. While the import tariffs imposed by the United States mostly restricted Chinese metallurgical imports and imports of a wide array of industrial goods, China significantly cut back on its imports of U.S. agricultural products, such as soybeans and corn. This drove up Chinese demand for other types of vegetable oils and organic feeds (such as oil cakes and feed grains). With a record harvest of grain and oilseeds, Ukrainian farmers took advantage of this in 2019 and increased food exports to China.[18] Overall, the value of food exports to China grew by 1.7 times, hitting an all-time high of about USD 2 billion.

[16] According to IMF estimates (WEO, October 2020), the global economy will contract by 4.4% in 2020. In 2009, the global economy declined by only 0.1% in the wake of the global financial crisis.

[17] Russia's armed aggression, which began in 2014, has led to the loss of some production facilities in eastern Ukraine. Moreover, large-scale trade wars on the part of Russia have practically stopped the production of machinery, which, due to technical noncompliance with European standards, was not in demand in developed countries. The global economic crisis has only exacerbated these trends.

[18] Exports of sunflower, rape and soybean oils surged by 1.8, 1.5 and 1.9 times respectively. The value of exports of sunflower cakes doubled, thanks, among other things, to the cancellation of import tariffs on these exports. Corn exports rose by 1.4 times, while barley exports spiked by 2.5 times.

Figure 3. Absolute annual change in exports of selected* goods to China by prices and volumes, USD bn



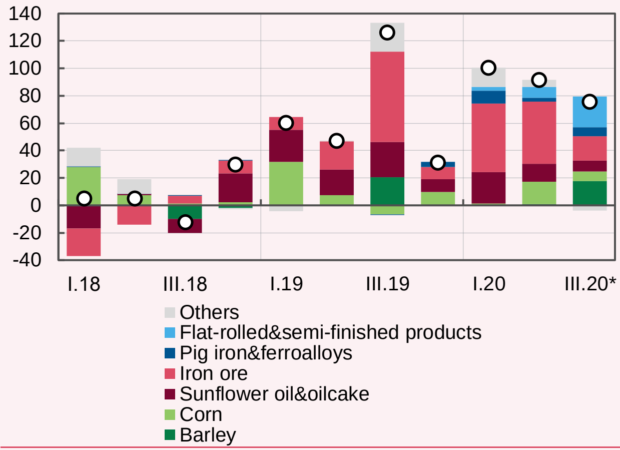
* 90% of goods exports to China in 2019.

Source: NBU staff estimates.

Another factor behind the growth in exports to China in 2019 was an accident at Brazilian mining company Vale SA, which resulted in a drop in Brazilian iron ore exports, and a sharp rise in global iron ore prices. Ukrainian exporters were able to markedly increase the iron ore exports – by 1.8 times yoy. As a result, in 2019, for the first time in history, China became the second largest importer of Ukrainian goods after the EU.

The rapid lifting of quarantine measures by China and the Chinese economy back on track to grow. Strict quarantine restrictions had the strongest impact on the Chinese economy in the winter of 2019–2020. However, the Chinese economy started to rebound in March, returning to its pre-crisis level in Q2 after passing a pandemic peak in February thanks to the government providing considerable support. With demand from other markets that usually import Ukrainian goods (such as the EU and other Asian countries) narrowing markedly, exports to China doubled in H1. The doubling resulted, among other things, from a further increase in iron ore exports (by 2.7 times yoy) caused by unfavorable weather in Brazil and Australia in early 2020, and a reduction in production by the Brazilian mining company Vale SA due to quarantine restrictions. Exports of sunflower oil and sunflower cakes also grew (by 1.4 and 2.9 times yoy respectively), driven by robust demand from animal breeding, and a decrease in China's soybean processing. In addition, China continued to import grain from Ukraine. Corn exports increased by 31.7% yoy in H1, with the increase persisting into Q2 and Q3, despite there being low stocks and narrowing demand for this crop from other large importers.

Figure 4. Contributions to annual change in exports to China, pp



* Estimated data for September.

Source: NBU staff estimates.

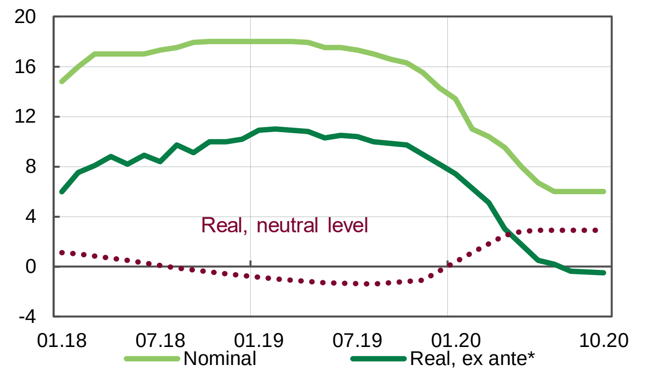
The implementation of large-scale infrastructure projects in China in 2020 as part of the government's economic stimulus programs contributed to the rebound in the construction sector, and expanded demand for steel. Meanwhile, demand from the European metallurgy remained subdued. Consequently, Ukrainian exporters shifted to exporting a portion of their ferrous metals to China. These were mainly semi-finished and flat-rolled products, which were exported to China for the first time since 2011 and 2012 respectively. In addition, interrupted iron ore deliveries and high iron ore prices contributed to an increase in pig iron exports, which were practically nonexistent in previous years. As a result, it was the growth in exports to China that helped the volumes of ferrous metal exports return to growth in Q3. Moreover, Q3 saw a pronounced increase in barley exports to China after China imposed anti-dumping duties on Australian barley.

In view of the above, the resilience of Ukrainian exports to crises owes to a significant share of food in the composition of Ukrainian exports, demand for which is inelastic, the rapid response of Ukrainian exporters to windows of opportunity, as well as the recovery of the Chinese economy after the pandemic, in contrast to the rest of the world. At the same time, in the long run, the realization of Ukraine's export potential still requires increasing the competitiveness of Ukrainian exports by increasing the share of high-tech goods in its composition.

2.6. Monetary Conditions and Financial Markets

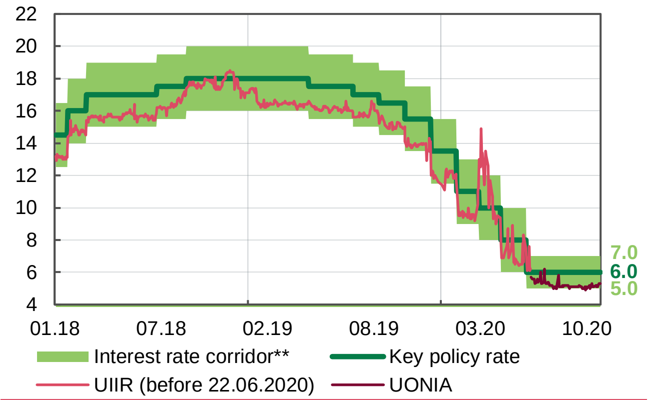
- In Q3 and in early Q4 2020, the NBU pursued a loose monetary policy by maintaining the key policy rate below its neutral level. This accommodative monetary policy aims to support economic recovery amid moderate inflation and uncertainty over the spread of the coronavirus in Ukraine and globally.
- Interest rates on hryvnia loans and deposits fell further, as expected, reflecting previous key policy rate cuts.
- Depreciation pressures intensified on the FX market, driven by a change in conditions due to rising demand for foreign currency from some importer groups, and a worsening of expectations and investors' perception of risks globally.

Figure 2.6.1. Key policy rates, average, %



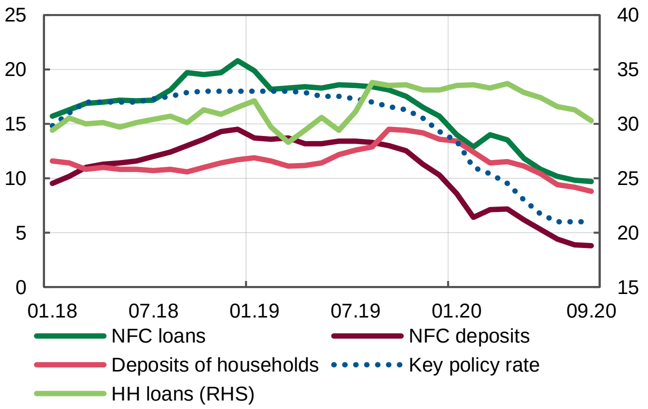
* Deflated by 12-month ahead inflation expectations of financial analysts (median).
Source: NBU staff estimates.

Figure 2.6.2. NBU policy rates and UIIR/UONIA*, %



* As of 28.10.2020.
** Upper bound – interest rate on overnight loans, lower bound – overnight CDs.
Source: NBU.

Figure 2.6.3. Weighted average interest rates on new hryvnia loans and deposits, %



Source: NBU.

Even with the key policy rate unchanged, the NBU's monetary policy remained accommodative in Q3 2020

In Q3 2020, including at its October meeting, the NBU Board twice decided to keep the key policy rate unchanged at 6%. Despite that, monetary policy remained accommodative. The decision not to cut the key policy rate any further was guided by increasing risks of inflation on the back of rapidly rebounding consumer demand, global energy prices returning to growth, and uncertainty over when social standards will be raised, and by what amount.

On the other hand, there remained potential for further decreases in interest rates on main bank products arising from earlier key policy rate cuts. This was evident, among other things, from the relatively large gap between the key policy rate and bank rates, such as interest rates on short-term deposits. The real key policy rate has been below its neutral level since May and has continued to decrease, falling into negative territory in recent months. This indicated a further easing in monetary policy conditions, which will support economic recovery amid moderate inflation and great uncertainty over the spread of the coronavirus in Ukraine and globally.

Hryvnia interest rates continued to fall, responding to earlier key policy rate cuts

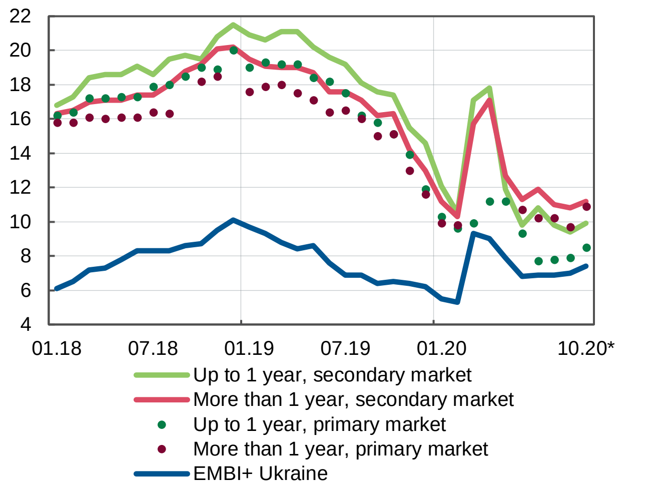
Interbank market rates correlated with key policy rate movements, hovering around the lower bound of the NBU rate corridor for most of Q3 2020. The UONIA[19] was pushed close to the lower bound of the band by a considerable liquidity surplus, which was significantly larger than last year's surplus, despite its average daily volumes declining in Q3 2020. (A liquidity surplus is defined as the sum of the funds held on the banks' correspondent accounts and invested in the NBU's certificates of deposit). That said, the narrowing of the banking system's liquidity, resulting from the uneven distribution of liquidity among banks, pushed up demand from some banks for refinancing loans, including long-term ones.

The main reason for the liquidity narrowing was an increase in cash holdings, which is a usual reaction of households to economic or political shocks (read more in Box 5 *Household Savings During the Coronavirus Crisis* on page 34).

In Q3 2020, the banks continued to reduce interest rates for their customers. Interest rates on some bank products have already fallen to single-digit levels. More specifically, the weighted average interest rate on hryvnia loans to

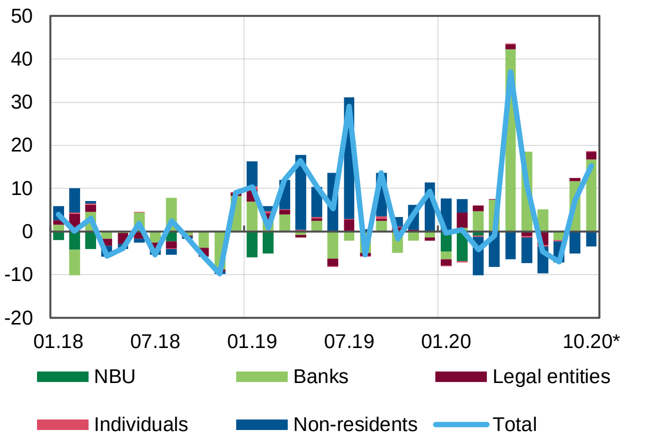
[19] The Ukrainian Over-Night Index Average, which has been defined as an indicator of interbank interest rates for the purposes of interest rate policy.

Figure 2.6.4. Yields on hryvnia domestic government debt securities by maturity and yields on Ukraine`s Eurobonds (EMBI+), %



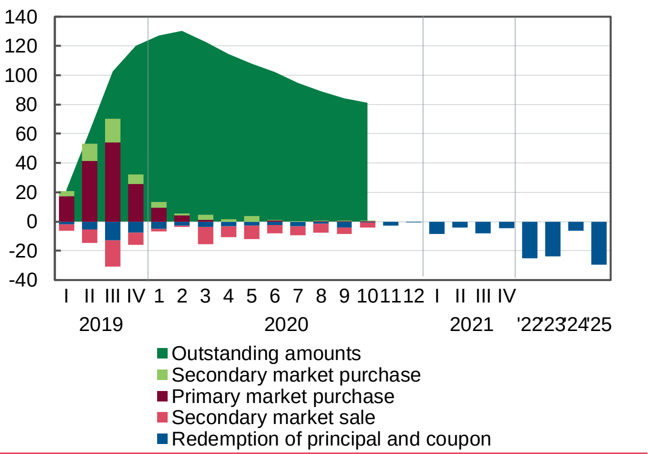
* As of 28.10.2020, EMBI+ Ukraine as of 22.10.2020.
Source: Bloomberg, NBU.

Figure 2.6.5. Change of outstanding hryvnia domestic government debt securities in circulation by holders, UAH bn



* As of 28.10.2020.
Source: NBU.

Figure 2.6.6. Transactions with domestic government debt securities by non-residents and their scheduled redemptions*, UAH bn



* As of 22.10.2020.
Source: NBU.

nonfinancial corporations fell below 10% in August, while that on deposits remains below the key policy rate. The weighted average interest rate on hryvnia household deposits also dropped below 10%. The average quarterly interest rate on hryvnia household loans decreased for the first time in the last year and a half.

Apart from the transmission of earlier key policy rate cuts and the further fall in the real key policy rate, the tools for managing liquidity and minimizing exchange rate and interest rate risks introduced during the strictest phases of the quarantine also contributed to the overall downward trend in hryvnia interest rates. All this, coupled with low inflation, makes it possible for the banks to cut their hryvnia loan and deposit rates further.

The yields of hryvnia domestic government debt securities dropped, while the pace of nonresident outflows decelerated

Following the rebound of the financial market in May – June and a noticeable increase in demand for hryvnia domestic government debt securities, investors' interest in this instrument waned in Q3 2020. Although the outflow of nonresidents persisted into Q3 2020, its monthly volumes decreased gradually – to the equivalent of USD 173 million in September, almost two times less than in March.

The worsening epidemiological situation in some countries adversely affected the financial markets, including the domestic one. By late Q3, earlier decreases in the cost of government borrowing had been practically offset by the global risk-off trend and a rise in sovereign risk premiums for Ukraine, which most nonresidents use to guide their investment decisions. As in the previous quarter, the banks purchased the bulk of hryvnia domestic government debt securities.

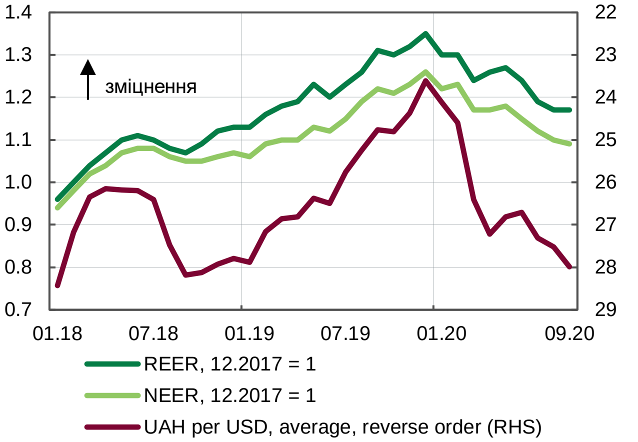
Rising demand for foreign currency put depreciation pressures on the hryvnia

Depreciation pressures prevailed on the FX market in Q3 2020 – the official UAH/USD exchange rate had by the end of Q3 2020 weakened by 6% compared to the end of Q2 2020. Since the start of the current year, the hryvnia has weakened by about 20%.

The main reason for the hryvnia's depreciation in Q3 2020 was a worsening in FX market conditions, caused by stronger demand for foreign currency amid deteriorating expectations. Over that period, importers of household appliances, car traders, nonresidents selling domestic government debt securities and direct foreign investors repatriating their dividends were the largest net FX buyers. Forward FX purchases also increased.

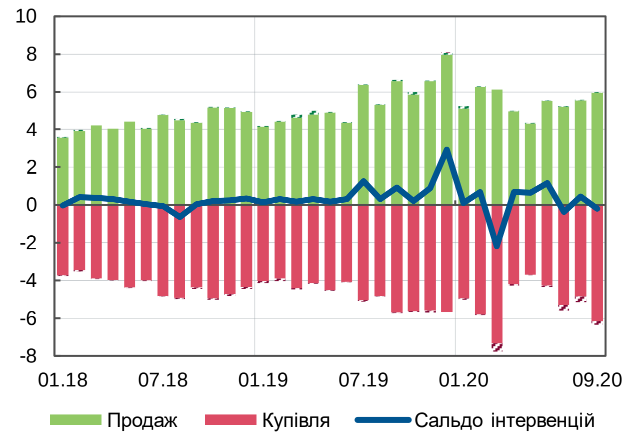
The weakening of the UAH/USD exchange rate in Q3 2020, as opposed to the strengthening of the currencies of most of Ukraine's trading partners, weakened both the NEER and REER of the hryvnia.

Figure 2.6.7. Official exchange rate, hryvnia REER and NEER indices



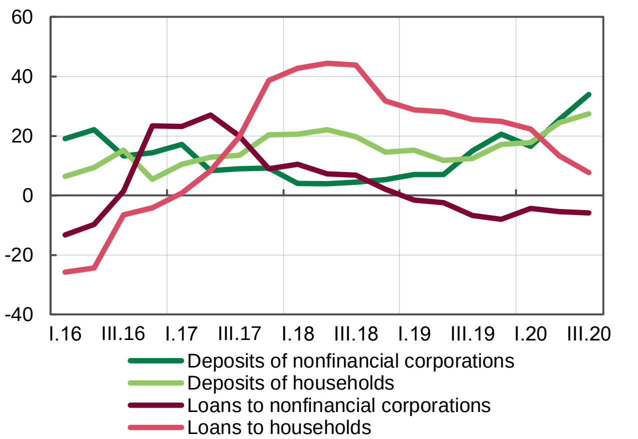
Source: IFS, NBU staff estimates.

Figure 2.6.8. Non-cash transactions of banks` clients with FX* and NBU`s interventions, USD bn



* Shaded columns correspond to "forward" deals.
Source: NBU.

Figure 2.6.9. Hryvnia deposits and loans, % yoy



Source: NBU.

In Q3 2020, the NBU intervened in the FX market both to purchase and sell foreign currency. While the NBU sold slightly more foreign currency than it bought over Q3, since the start of the current year the NBU has purchased about USD 1 billion net.

Despite falling interest rates, deposit inflows into the banking system persisted. Meanwhile, demand for bank loans remained subdued

Hryvnia deposits in the banking system continued to grow in Q3 2020, with the annual growth accelerating markedly in August, to 30.3% yoy.

Rapidly increasing inflows to bank accounts were mainly driven by deposits from nonfinancial corporations, such as companies in:

- transportation, due to the recommencement of passenger carriage
- the wholesale and retail trade, thanks to the recommenced operations of the businesses to which quarantine restrictions applied
- the agricultural sector, on the back of sales of new harvest crops
- the health care sector, amid robust demand for healthcare services.

Household deposits also grew noticeably, buoyed by a rebound in household income growth. In addition, uncertainty over the further course of quarantine restrictions has reduced households' demand for loans, slowing the growth in hryvnia loans.

Bank lending to nonfinancial corporations remained sluggish, due to the still depressed economic activity in some sectors and systemic factors that hamper lending growth (these include a weak judicial system, the poor protection of creditors' rights, and a large percentage of bad loans).

That said, the banks reported a positive outlook for lending and funding, expecting growth in their loan portfolios and corporate and household deposits over the next 12 months.

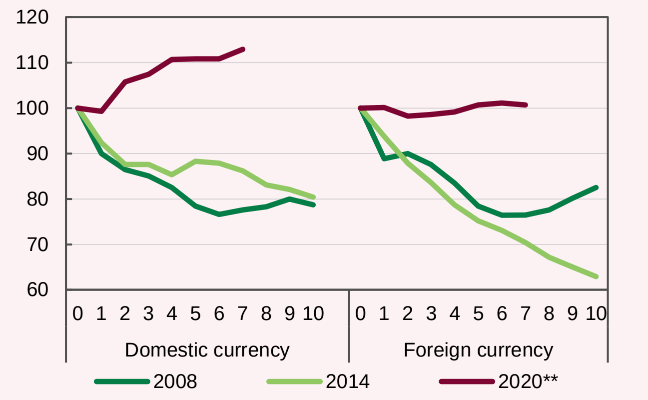
Box 5. Household Savings During the Coronavirus Crisis

The current crisis caused by the spread of COVID-19 is accompanied by unprecedented uncertainty. Changes in households' consumer behavior, including as regards financial assets, is one of the channels through which the crisis is influencing the economy. More specifically, demand for liquid assets rises dramatically during a crisis. This is also happening during the coronavirus crisis. However, in contrast to previous crises, there is no deposit outflow during the current crisis. On the contrary, household deposits are continuing to grow at a fast pace.

In a time of uncertainty, demand for the most liquid assets, such as cash, rises significantly. This was the case in previous crises, and it has also been the case this year. Moreover, a flight to liquidity is happening not only in Ukraine, but in many other countries.

In contrast to the 2008 – 2009 and 2014 crises, this behavior is not accompanied by outflows of either hryvnia or FX deposits.

Figure 1. Behavior of household deposits by types of currencies during different crises, index, pre-crises month = 100*

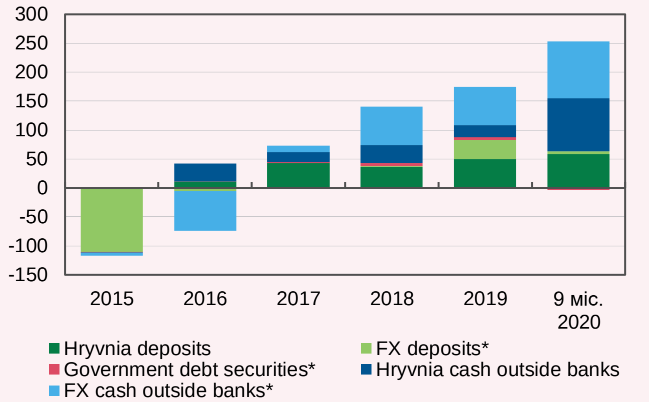


* September 2008, January 2014, February 2020 respectively.
** As of September 2020.
Джерело: НБУ.

Households' financial assets (which include deposits, investments in domestic government debt securities, and cash outside the banking system) have grown since the start of the current year, propelled by steadily rising wages – which returned to growth in Q3, an increase in budgetary social spending, and large private remittances continuing to come from abroad, amid the decrease in consumer spending that occurred while strict quarantine restrictions were in place.

The fall in household consumption in Q2 resulted both from precautionary reasons on the back of uncertainty over future income levels and how the pandemic might evolve, and a forced reduction in spending because of quarantine restrictions. More specifically, consumer sentiment, including the propensity to consume, which weakened significantly in April (read more in the Section 2.2 *Demand and Output* on page 17), started to revive when quarantine restrictions were eased and employment recovered in H2.

Figure 2. Change in household deposits, holdings of domestic government debt securities and cash outside banks#, bn UAH

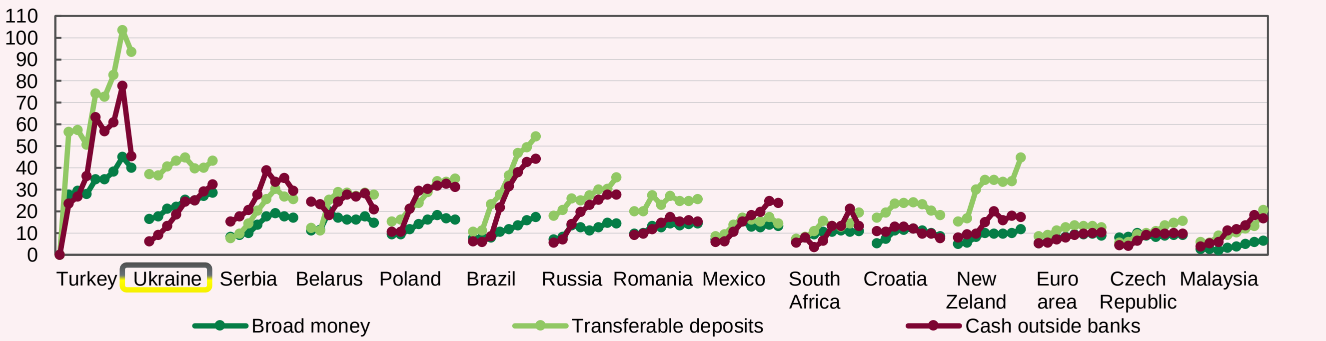


[#] The contribution of change in cash outside banks is considered to be the upper bound as a breakdown by sectors is not available.
* In hryvnia equivalent, excluding change due to exchange rate revaluation.
Source: NBU staff estimates.

Household financial savings increased against the backdrop of persistently high growth in the money supply as a whole. In contrast to previous crises, when the current account deficit and capital outflows from the country restricted money supply growth, in the current year the current account surplus itself was responsible for the increase in the money supply.

The accumulation of household savings, despite lower interest rates, lays the foundations for the recovery of consumer demand, provided that the epidemiological situation improves. At the same time, the surfeit of low-return liquid assets is generating dollarization risks.

Figure 3. Growth rate of monetary aggregates across countries during January – August 2020, % yoy



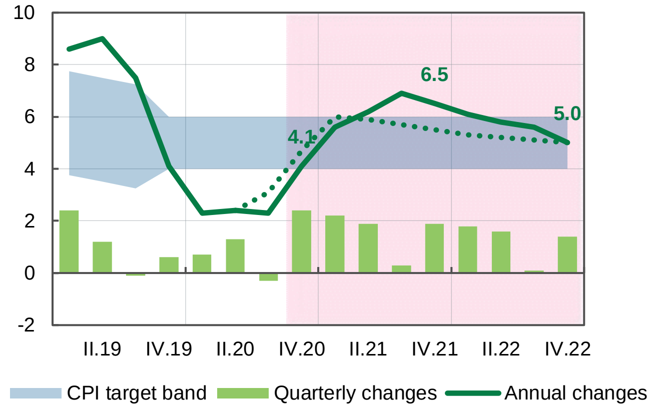
Source: IFS, NBU staff estimates.

Part 3. Economy of Ukraine: Forecast

3.1. Inflation Developments

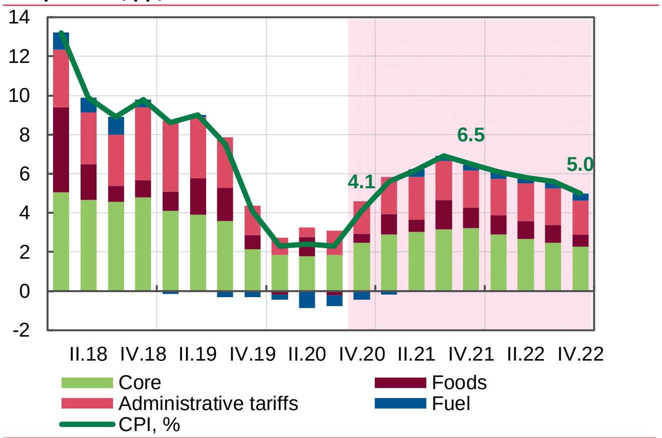
- Inflation will return to its target range in late 2020 or early 2021 thanks to a recovery in economic activity and an increase in aggregate demand.
- The weakening of the hryvnia in 2020 and economic recovery, particularly wage growth, will make inflation exceed the upper bound of its target range in 2021.
- A monetary policy response in 2021 will help bring inflation back into the target range of 5% ± 1 pp in early 2022.

Figure 3.1.1. CPI, %



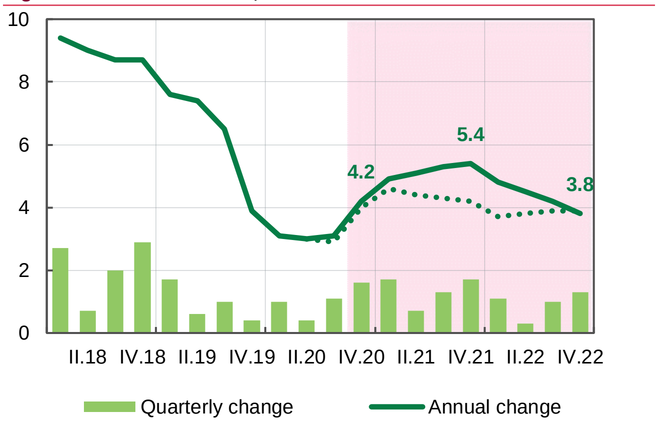
Source: SSSU, NBU staff estimates.

Figure 3.1.2. Contributions to annual CPI growth by main components, pp, %



Source: SSSU, NBU staff estimates.

Figure 3.1.3. Core inflation, %



Source: SSSU, NBU staff estimates.

Inflation at the end of 2020 will be close to the lower bound of the target range, against the background of monetary and fiscal stimuli

In Q4 2020, inflation will accelerate after having been for a long time below the target range as a result of the depressed state of the economy during the global crisis. The return to the target range will take place amid a recovery of economic activity and consumer demand, as well as a gradual rise in energy prices, in particular the price of natural gas.

An important factor behind the higher inflation in 2021 will be a significant increase in the minimum wage (by 30% on average over the year). This pro-inflationary factor will be realized through both the channel of demand (growth in real household incomes) and the channel of supply (an increase in production costs). It will impact the services sector the most, as wages account for a major share of costs in this sector. At the same time, food inflation will accelerate as the temporary supply factors restraining it fade away. Accordingly, this will be one of the factors that will drive inflation above the upper boundary of the target range in H1 2021. As the economy emerges from the crisis, the NBU will gradually tighten its monetary policy in order to bring inflation back to its target. According to the forecast, the central bank will allow inflation to slightly deviate from the 5% ± 1 pp target range in 2021 (6.5%) in order to maintain monetary stimuli for economic recovery. Monetary policy will therefore be aimed at bringing inflation back to the target range as soon as the beginning of 2022.

Core inflation will accelerate to 5.4% by the end of 2021, primarily due to the effects of the weakening of the hryvnia in Q3 2020 and the increase in the minimum wage

Underlying pressures will gradually rise starting in Q4 2020, fueled by economic recovery. The planned series of increases in the minimum wage (up to UAH 6,000 in January 2021 and UAH 6,500 in July 2021) will spur core inflation next year. Inflationary pressures will be realized both through growth in consumer demand on the back of higher real household income, and through an increase in production costs of goods and services. The main increase in prices is expected in the services sector, in which higher wage costs and a heavier fiscal burden will be compensated for by raising prices.

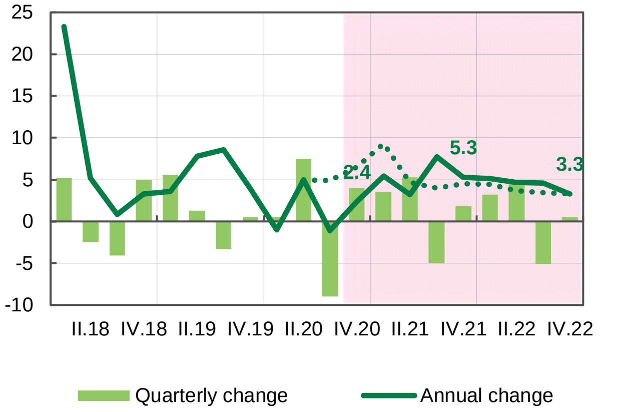
The recovery of the Ukrainian and global economies, will, in turn, support further growth in real household income, while also increasing underlying inflationary pressures in 2021. The weakening of the hryvnia exchange rate, which was already apparent this year, due to the lag effect will be reflected in rising prices for imported components of the core CPI mainly in early 2021 (a significant time lag is typical in clothing and footwear prices in particular). Later on, however, core inflation will be curbed by low inflation in Ukraine's MTPs, as well as by low exchange rate volatility. The tighter monetary policy pursued by the NBU after the economy emerges from crisis will help gradually reduce underlying inflationary pressures to around 4% in 2022.

Food inflation in 2021 will accelerate to above 5% on rising production costs and household income

Raw food price inflation will remain low (less than 3%) until the end of 2020 thanks to favorable supply factors. Next year, it will accelerate (to more than 5%) on the back of rising household incomes and production costs, associated with the higher minimum wage against this year's low comparison base. Amid the recovery in economic activity, this will push up demand for food.

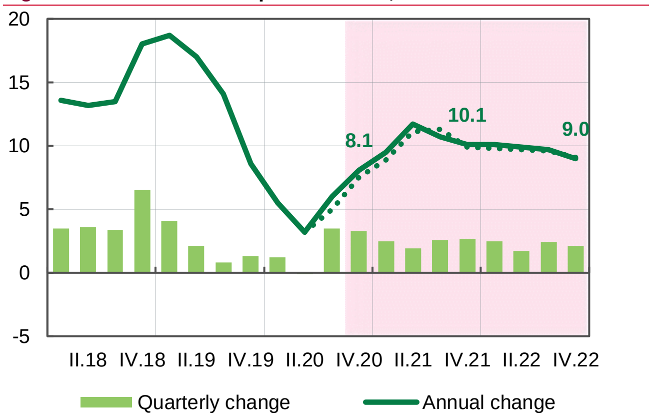
Further on, food inflation will gradually slow to less than 4% thanks to the ample food supply resulting from the continued growth in agricultural production. At the same time, prices will continue to grow at a moderate pace, supported by increases in nominal and real household incomes.

Figure 3.1.4. Raw food inflation, %



Source: SSSU, NBU staff estimates.

Figure 3.1.5. Administered price inflation, %



Source: SSSU, NBU staff estimates.

Administered price inflation will continue to accelerate, hitting 9% to 10% in 2021–2022

An increase in the excise tax on tobacco products will remain the main driver of administered price inflation throughout the entire forecast period, pushing up the prices of these products by 14%–15% every year. After a long pause, excise taxes on alcohol products are expected to resume growing, making an additional contribution to the rise in administered prices. The large increase in the minimum wage in 2021 will cause a wage revision in the utilities sector, driving up the prices of some utility services and spurring administered inflation.

Although the prices of natural gas and central heating supplied to households were decreased markedly in H1 2020 on the back of low prices on European trading platforms and large storage inventories, domestic prices will exceed last year's levels by the end of the year. This will reflect an increase in the price of imported natural gas due to a gradual recovery of global demand. As the natural gas market develops and competition increases, domestic gas prices are projected to fluctuate in line with its import parity price.

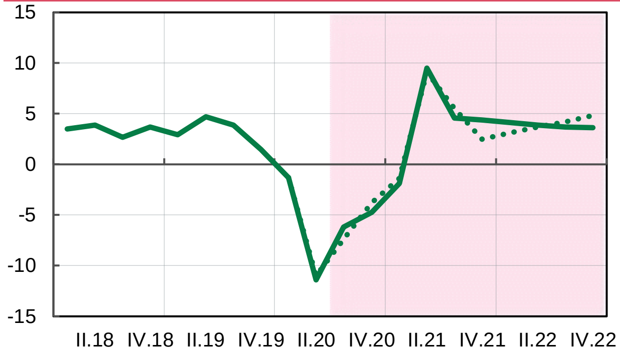
A significant disinflationary factor for many consumer goods and services in 2020 is the decline in fuel prices (by 13%–14%) due to cheaper oil. However, the expected recovery of the global economy, together with more robust demand for petroleum products, will push up fuel prices in Ukraine in 2021–2022.

Compared to the previous Inflation Report, the inflation forecast for the current year has been revised downward, from 4.7% to 4.1%, primarily on the back of an unexpected growth in the supply of some types of food, which also caused a downward revision of food inflation forecast to 2.4%. The revision of the inflation forecast for the next year from 5.5% to 6.5% is explained by the larger-than-expected increase in the minimum wage, and is reflected primarily in an upward revision of the core inflation forecast.

3.2. Demand and Output

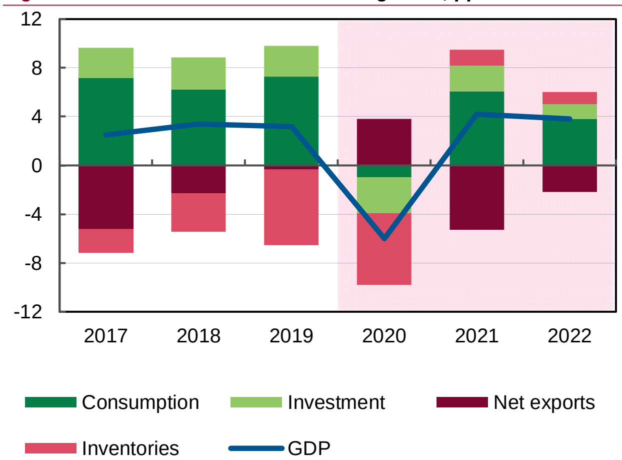
- This year, the forecast for real GDP remains unchanged (-6%): the faster-than-expected recovery in demand and investment will be offset by a poorer harvest and lower fiscal impulse.
- In the coming years, growth will resume at 4% per annum in the absence of strict quarantine restrictions both in Ukraine and globally.
- A significant hike in the minimum wage at the beginning of 2021 will stimulate private consumption, but will limit corporate and public investment resources.

Figure 3.2.1. Real GDP, % yoy



Source: SSSU, NBU staff estimates.

Figure 3.2.2. Contributions to real GDP growth, pp



Source: NBU staff estimates.

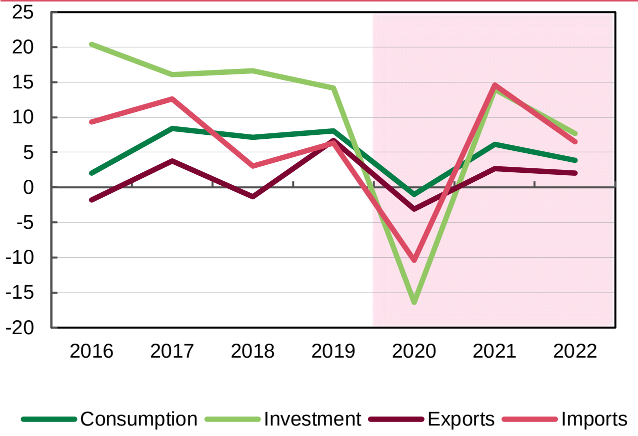
Although the adaptive quarantine remains in effect, economic activity will continue to gradually recover from the downturn, which bottomed out in Q2 2020. This macroeconomic forecast assumes that quarantine restrictions will be maintained in H1 2021, but that these restrictions may vary depending on the situation with COVID-19 in different regions. For the most part, economic activity will not be banned, but enhanced measures to combat the disease will be in force.

As a result of the global crisis and quarantine restrictions against the pandemic, Ukraine's GDP in 2020 will shrink by 6%, but will return to growth in the years ahead, rising by about 4% annually

Most economic agents have already largely adapted to quarantine restrictions aimed at overcoming the consequences of the pandemic. Accordingly, economic activity has partially recovered since Q3 2020 amid loose fiscal and monetary policies, as has consumer sentiment. Production sectors, including industry and agriculture, will be the least affected by quarantine restrictions. However, worsening weather conditions will lead to lower grain yields, which will restrain the growth of value added in the agricultural sector. Other export-oriented industries, such as metals and mining, will fully recover next year after global demand rebounds. The services and transport sectors (including aviation), hardest hit by quarantine restrictions, will not be able to return to pre-crisis levels in the coming quarters due to the continuation of adaptive quarantine. Given the high level of uncertainty in the near future, households and businesses will still be quite restrained in their consumer and investment decisions. As a consequence, the pace of economic recovery will be held back by the still subdued consumer and investment demand.

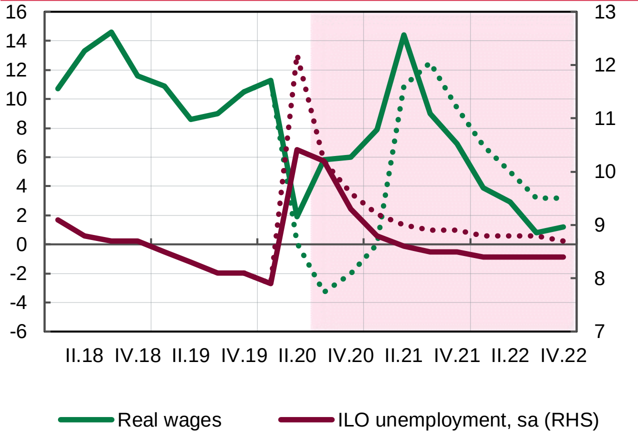
In the medium term, the Ukrainian economy will grow, driven by recovering external demand, increasing real household incomes, improving consumer sentiment, and growing lending activity. At the same time, with changes taking place in individual consumer preferences and business processes under the quarantine, new challenges to the labor market will arise, as will new lines of business, which will subsequently contribute to employment growth.

Figure 3.2.3. GDP components by end use, % yoy



Source: NBU staff estimates.

Figure 3.2.4. Real wages, % yoy, and ILO unemployment sa, %



Source: SSSU, NBU staff estimates.

GDP growth in 2021–2022 will primarily be driven by private consumption

Of all of the GDP components affected by the 2020 crisis, consumption will shrink the least (by about 1%). Although quarantine restrictions adversely affected the labor market, causing a spike in unemployment in Q2, wages continued to grow even during the crisis – albeit at a slower pace.

In 2021, nominal wages will increase (by 16%) as a result of economic recovery and a higher minimum wage, in line with the government's intentions. Accordingly, private consumption (+7%) will be the main driver of GDP growth next year. At the same time, the unemployment rate will gradually return to a neutral level. This decrease will be slowed by businesses as they respond to the hike in the minimum wage. In 2022, wage growth will decelerate, but GDP growth will be outpaced by an increase in private consumption, which will be driven by economic recovery and more upbeat consumer sentiment.

Amid deteriorating financial results and the growing uncertainty that typically occur during crisis episodes, businesses naturally suspend investment activities and spend on more urgent needs. As a result, investment activity in 2020 will decline (by 16%). It will be partially supported by state investments in road infrastructure, for which the government has allocated additional funds this year to supplement the resources of the Road Fund.

Investment is expected to grow in 2021 (by 14%), driven by the gradual emergence of the global economy from the crisis, the resumption of lending, rising corporate income, and a lower prevalence of COVID-19. At the same time, a significant increase in labor costs will be an impediment to more active investments by businesses. In addition, it will make the Ukrainian economy less competitive and will be one of the factors in slowing its growth to 3.8% in 2022.

In 2020, net exports will make a significant positive contribution to GDP, due to a larger reduction in the volume of imports compared to exports. Imports are expected to decrease by 10% in the current year. The significant decline in demand for imported goods during the crisis is due to suppressed investment activity and deteriorating consumer sentiment. The reduction in the energy component is driven by the lower need for natural gas imports due to high carry-over inventories left in natural gas storages from the previous heating season. Imports of services will decline because of the impact of quarantine restrictions on international tourism.

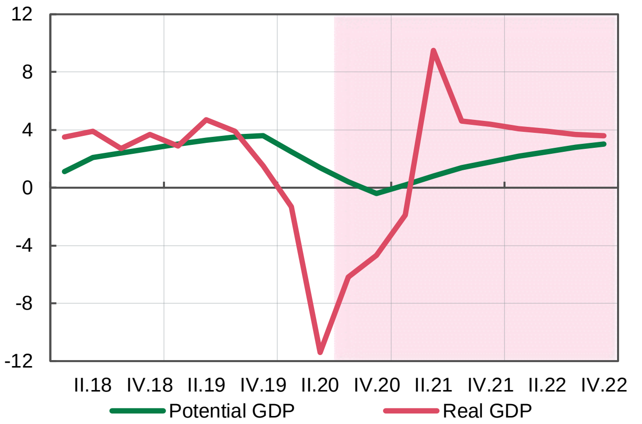
In the current year, exports will drop by 3% in real terms. This fall will mainly be attributed to a lower harvest caused by poorer weather conditions and the resulting decline in grain exports. Exports of other goods and services will also shrink in the wake of falling global demand.

In 2021, the contribution of net exports to GDP will go back into negative territory. Both exports and imports are expected to return to growth, propelled by the recovering domestic and global economy. The need for investment imports will increase, while consumer imports and foreign travel will be spurred by accelerating growth in real incomes and improving consumer sentiment.

The increase in export supplies will be facilitated by the resumption of global demand for raw materials, including metallurgical products and fertilizers, as well as an increase in agricultural production.

The revision of the forecast for real GDP growth in 2021 to 4.2% (from 4.0% in the previous Inflation Report) is due to faster growth in household incomes as a result of the increase in the minimum wage. At the same time, during the post-crisis recovery, this will limit the financial capacity of businesses to increase investment more actively. The potential for growth in 2022 will thus be restrained, which is why the GDP growth forecast for that year has been revised downwards, from 4.0% to 3.8%.

Figure 3.2.5. Actual and potential GDP, % yoy



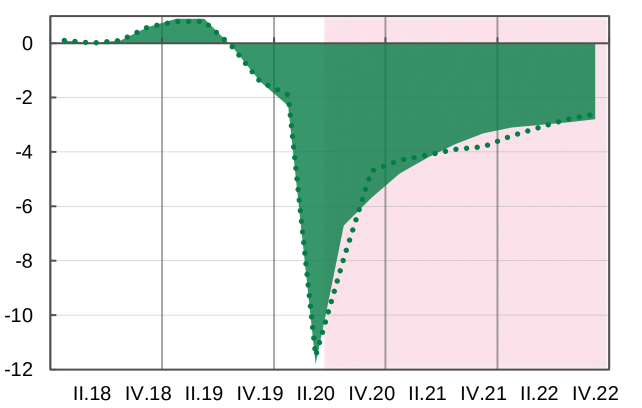
Source: SSSU, NBU staff estimates.

The recovery in domestic and external demand will narrow the negative GDP gap further

Potential GDP temporarily stopped growing in 2020 amid falling capital contributions, including fixed asset investments, and declining productivity. The introduction of strict quarantine restrictions has depressed investment activity and resulted in some production facilities being decommissioned due to their underutilization, amid weaker domestic demand.

In 2021–2022, the growth in potential GDP will resume as capacity utilization increases. With businesses optimizing their production processes by introducing flexible work schedules, and with the economy converging to the level of more developed countries, labor productivity will also increase.

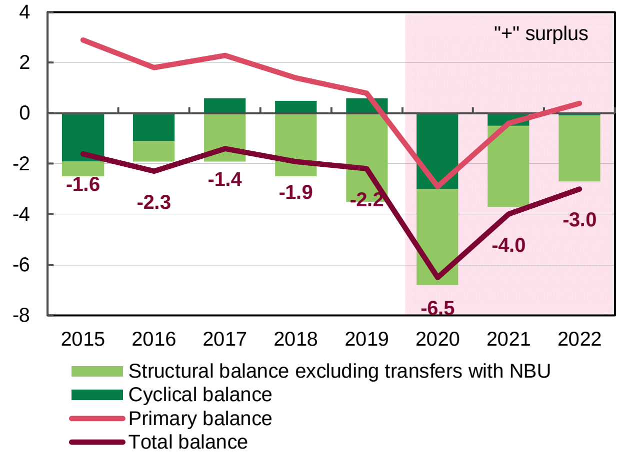
Figure 3.2.6. Output gap, % of potential GDP



Source: NBU staff estimates.

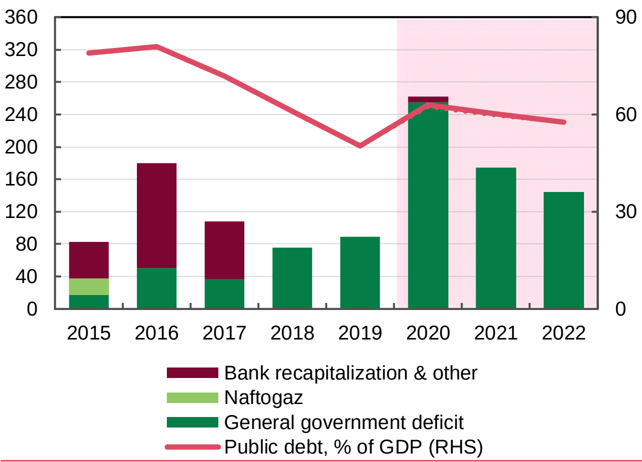
In Q2 2020, the negative GDP gap widened to 12% after strict quarantine restrictions were imposed, causing real GDP to plunge (see Section 2.2 *Demand and Output*, on page 17). Starting in H2 2020, this gap will gradually narrow as external and domestic demand recovers amid growing economic activity and rising incomes.

Figure 3.2.7. Consolidated budget, % of GDP



Source: STSU, NBU staff estimates.

Figure 3.2.8. Broad public sector deficit, UAH bn, and public debt, % of GDP



Source: IMF, STSU, MFU, NBU staff estimates.

Fiscal policy will be accommodative until the end of 2020. From 2021, fiscal stimuli will be phased out as the economy recovers from the crisis

In order to create fiscal incentives for the economy during the crisis, the consolidated budget deficit will be expanded to 6.5% of GDP this year. With low proceeds from privatization, the deficit will be financed through official borrowing and borrowing on the markets. Continued cooperation with the IMF will play a key role here – apart from ensuring that Ukraine receives official financing from the IMF, this cooperation will ease Ukraine's access to the international capital markets at reasonable interest rates.

Budget revenues this year will be close to last year's levels, but will be reduced in real terms. Some budget revenues will decline because of the crisis. Among tax revenues, the largest decrease will be seen in income tax revenues due to a significant deterioration in companies' financial results. However, the lack of budget revenues will be partially offset by transfers of dividends from some state-owned companies in 2019.

At the same time, the government will have to increase its social spending to support households during the economic crisis, as well as spending to combat the spread of COVID-19. Capital expenditures, on road construction in particular, will also be increased in order to support the economy and employment. Such a loose fiscal policy is possible only if the government continues to be able to finance one of the largest budget deficits in Ukraine's history.

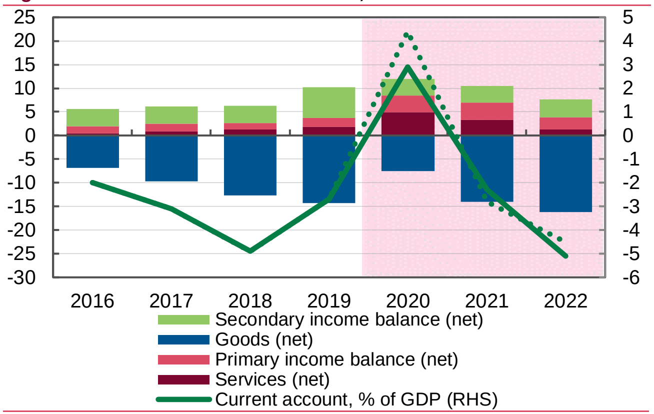
Over the forecast horizon, the deficit of the general government budget will gradually decline to 4% of GDP in 2021, and to 3% of GDP in 2022. This is because, on the one hand, the deficit is limited by the availability of financing, while, on the other hand, during the resumption of sustainable economic growth the need for significant fiscal incentives from the state will diminish, but the urgency of improving the debt position will increase.

With the budget deficit widening significantly, nominal GDP falling, and the hryvnia weakening from the levels seen at the end of last year, public and publicly guaranteed debt will grow to 63% of GDP in 2020. Looking ahead, this figure will decrease by 2 to 3 pp each year, due to economic growth, a prudent fiscal policy, and moderate exchange rate volatility.

3.3. Balance of Payments

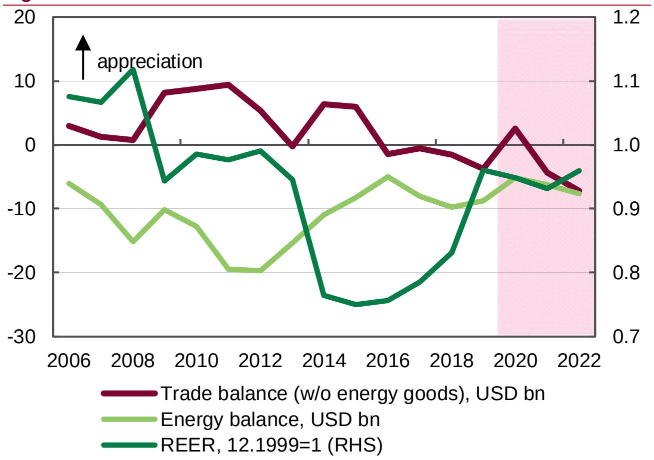
- Favorable terms of trade and stable demand for Ukrainian exports amid a significant decline in imports will ensure that the current account ends 2020 in surplus.
- In 2021–2022, the current account will return to deficit as economic activity picks up.
- Continued cooperation with the IMF, together with the gradual resumption of debt inflows in 2021–2022, will enable the NBU to maintain international reserves at USD 29 billion.

Figure 3.3.1. Current account balance, USD bn



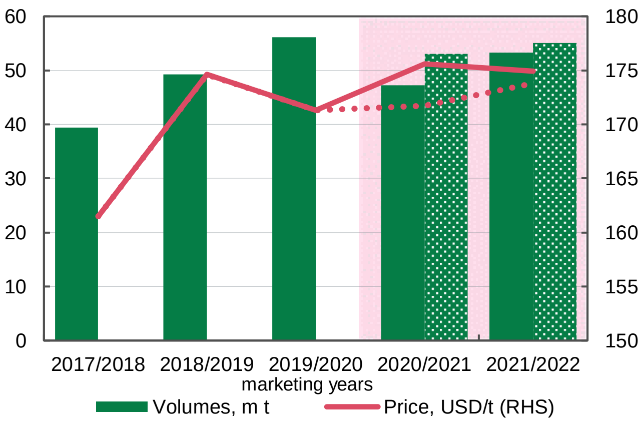
Source: NBU.

Figure 3.3.2. REER and trade balance



Source: NBU.

Figure 3.3.3. Exports of grains



Source: NBU.

A fall in domestic demand on the back of benign external market conditions resulted in a current account surplus in 2020. The recovery of economic activity and worsening terms of trade will cause the current account to go back to deficit in 2021–2022

In 2020, the current account is expected to post a surplus of 2.9% of GDP thanks to better terms of trade, robust demand for raw material exports, and a fall in imports caused by quarantine restrictions. Decreased payments of reinvested earnings in the wake of companies' poorer financial performance also contributed to the current account surplus.

In 2021–2022, the current account is expected to return to deficit, driven by a rebound in economic activity, a rise in consumer demand, pent-up investment demand, and the resumption of travel. Other factors contributing to a widening of the current account deficit will be worse terms of trade and a decrease in gas transit.

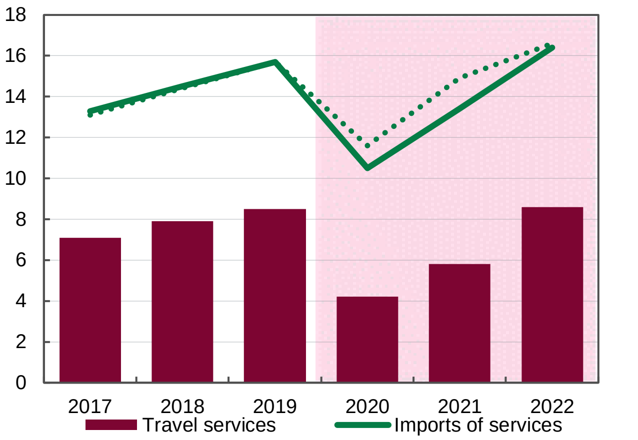
In 2020, sustained demand for raw materials and rising food prices ensured that Ukrainian exports were resilient in the face of the crisis. A slight drop in goods exports (by 4%) was attributed to a fall in metal prices and the lower grain harvest due to unfavorable weather conditions. In 2021–2022, export growth of 3–4% will be fueled mainly by rising demand for metallurgical and machinery exports.

Total imports contracted by 14% in 2020, dragged down largely by a one-third decline in energy imports. The decline resulted from a drop in gas imports due to large inventories in storages, and a ten-year record fall in energy prices. An 8% decrease in non-energy imports was caused by reduced domestic demand and companies' weaker investment activity amid rising uncertainty. In 2021–2022, imports of goods will grow by 7-15%, propped up by an increase in real household income and investment amid a revival of economic activity.

In 2020, a widening in the surplus in the trade in services, to USD 4.9 billion, will mainly be attributed to a decline in imports of travel services, by two times, in the wake of restrictions on travel. The surplus in the trade in services is expected to shrink in 2021–2022 due to a decrease in gas transit and the gradual revival of tourist activity, which will return to its pre-crisis level in 2022.

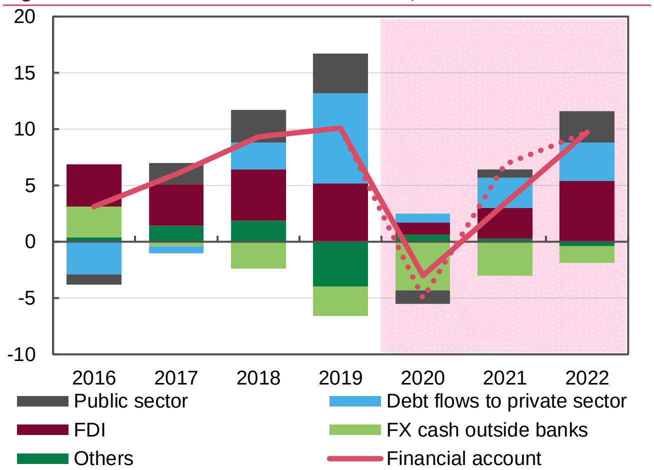
Despite the crisis, remittances from labor migrants proved to be reasonably resilient and remained at last year's level. This was due to persisting demand for labor in the sectors in which most Ukrainian workers abroad are employed. Remittances

Figure 3.3.4. Imports of services



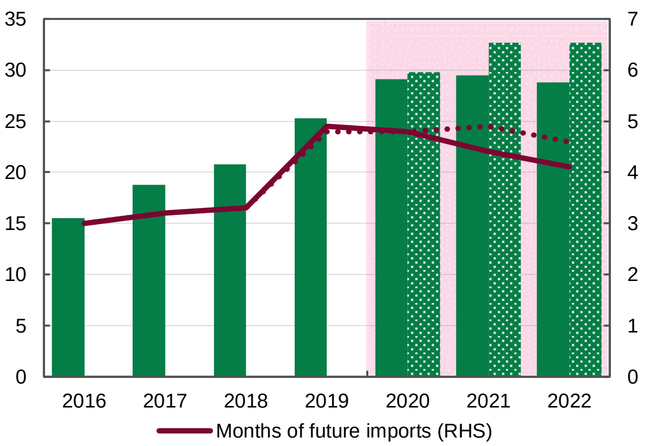
Source: NBU.

Figure 3.3.5. Financial account: net inflows, USD bn



Source: NBU.

Figure 3.3.6. International reserves



Source: NBU.

will rise in 2021–2022 thanks to rebounding economic activity in Ukraine's trading partners.

Continued cooperation with the IMF is the prerequisite for resumed debt inflows, which will finance the current account deficit in 2021–2022

Continued cooperation with the IMF and investors' returning interest in emerging markets, coupled with the persistence of loose financial conditions in advanced economies, will increase capital inflows to the private and government sectors, which will fully finance the widening in the current account deficit. Capital inflows to the private sector will spur investment activity and help maintain equilibrium on the FX market.

The government sector expects to receive official financing from the EU and the World Bank, as well as through new placements of Eurobonds by the government. Nonresidents' demand for hryvnia assets is expected to recover in H2 2021. Government sector inflows will finance the budget deficit in 2021–2022, enabling Ukraine to successfully traverse the period of large external debt repayments.

A surplus in the overall balance of payments, together with IMF financing, will enable Ukraine to increase its international reserves to USD 29 billion and maintain them at that level in 2020–2022.

Projections for the current and financial accounts were revised in 2020, mainly due to revisions to the Q2 reinvested earnings data.

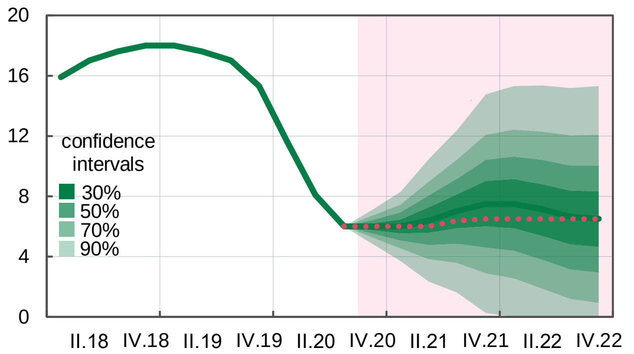
The current account forecast for 2021–2022 was little changed as a result of opposing factors, which cancelled each other out. The main factors behind the downward revision in the deficit were higher prices and volumes of ore exports amid the active implementation of infrastructure projects worldwide, and the more gradual revival of imports of travel services due to ongoing quarantine restrictions. Projections for the 2020–2021 grain and sunflower harvest have been revised downward.

Financial account projections have only been revised for 2021, with figures for debt and investment inflows reduced. The downward revisions resulted from investors' decreased risk appetite and the delay in the arrival of official financing and funds from market borrowing.

3.4. Monetary Conditions and Financial Markets

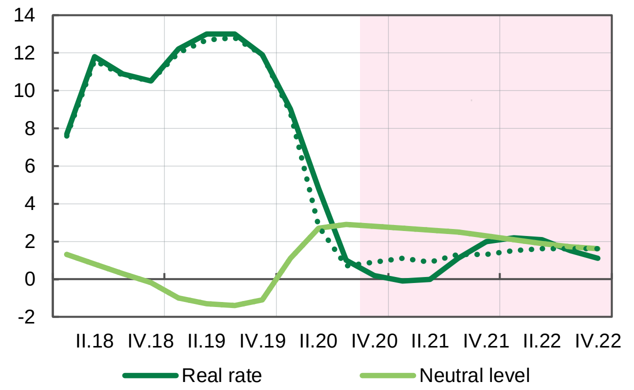
- Maintaining the key policy rate below its neutral level until the end of 2020 and for most of 2021 will create the expansionary monetary conditions that are required to revive economic growth.
- However, the NBU will have to raise its key policy rate in 2021 in order to curb inflationary pressures.
- The liquidity surplus will persist in the banking system, due to the government converting its FX borrowing into hryvnias to finance the budget deficit, and the NBU transferring its profit to the budget and purchasing foreign currency to replenish international reserves.

Figure 3.4.1. **Key policy rate, average*, %**



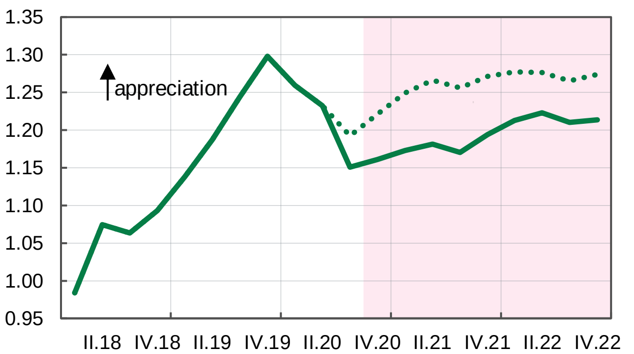
* Decreases in key policy rate are limited by the zero lower bound.
Source: NBU staff estimates.

Figure 3.4.2. **Real interest rate* and its neutral level, %**



* Deflated by inflation expectations that are based on the QPM.
Source: NBU staff estimates.

Figure 3.4.3. **Hryvnia REER index, IV.2017 = 1**



Source: NBU staff estimates.

Maintaining the key policy rate below its neutral level will help boost demand and ensure economic recovery

Continuing the loose monetary policy cycle until mid-2021 has the aim of mitigating the negative effects of the crisis and reviving business activity by keeping interest rates in the economy low. The transmission effect of the key policy rate will be enhanced by banks' access to previously introduced tools for liquidity management and for stimulating lending to the real economy.

In 2021, the NBU will raise its key policy rate in response to stronger inflationary pressures arising from higher wages, rebounded consumption, and the pass-through effects of the hryvnia's depreciation in earlier periods. The return of the real key policy rate to its neutral level by the end of 2021 will keep inflation within its target range in 2022.

The real neutral rate will gradually decrease, to 1.6% by late 2022.

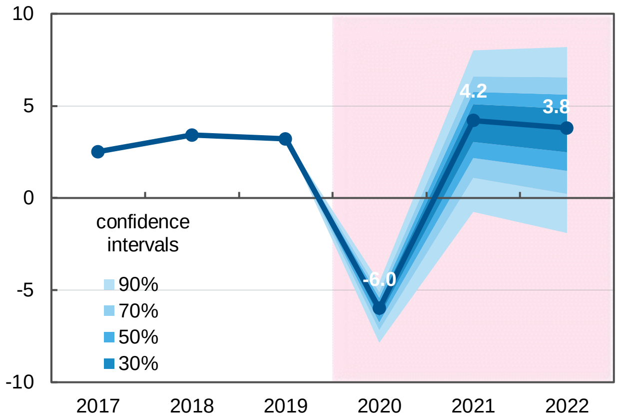
The weakening in the hryvnia's REER in Q3 2020 to the level seen in early 2019 will boost Ukrainian exports. Looking ahead, the hryvnia's REER will strengthen gradually due to domestic inflation being higher than that in Ukraine's main trading partners. The NBU will continue to smooth out excessive exchange rate fluctuations, while not counteracting market trends.

The banking system is expected to record a large liquidity surplus over the forecast horizon. In the current year, the surplus will mainly be driven by the government's conversion of its FX borrowing to finance the budget deficit. In addition, liquidity will be backed up by long-term refinancing tools. In 2021–2022, liquidity will be injected into the banking system mainly through the NBU's purchases of foreign currency to replenish international reserves.

3.5. Risks to the Forecast

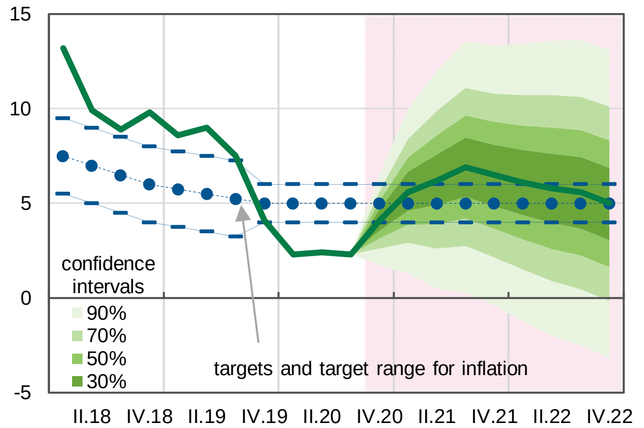
- The key assumption is that Ukraine will continue to cooperate with the IMF under the Fund's program.
- The main risk to the forecast is the introduction of stricter restrictions to contain the COVID-19 pandemic.

Figure 3.5.1. Real GDP forecast, % yoy



Source: NBU staff estimates.

Figure 3.5.2. CPI forecast and inflation targets, % yoy



Source: NBU staff estimates.

The forecast is given in a fan chart. This chart type is used to illustrate uncertainty with regard to predicted future values. For instance, the probability that the inflation rate will be in the range of the darkest shaded area in the chart (around the central line) is 30%. The same applies to other chart areas, implying the 90% probability that the inflation rate will be in the range of the lightest shaded area.

The key assumption of this forecast is that Ukraine continues to cooperate with the IMF, as set forth in the Memorandum of Economic and Financial Policies. Cooperation with the Fund is the basic precondition for fully financing the state budget deficit. Another important precondition is receiving financing from international partners, which in turn depends on IMF financing. Ukraine needs this support to revive its economy as quickly as possible. In contrast, any significant delays in, or suspension of, Ukraine's fulfillment of its commitments to the IMF could not only slow economic recovery, but also markedly worsen inflation and depreciation expectations, forcing the NBU to tighten its monetary policy.

A serious risk could arise from a longer-lasting coronavirus pandemic and, consequently, longer-lasting current quarantine measures, or stricter ones, being required to overcome the outbreak. If the epidemiological situation worsens, the recovery of the Ukrainian economy will be significantly delayed. This will also require stronger fiscal and monetary stimulus to mitigate the adverse impact of contracting aggregate demand on the economy, and to provide support to households.

The main external risks are currently also connected to how successfully the pandemic is curbed at the global level. A more severe global economic downturn or slower recovery in the economies of Ukraine's main trading partners will depress global demand, and prices for Ukrainian exports. Under this scenario, other governments and central banks are expected to take active anti-crisis measures, thus loosening monetary conditions on the global financial markets. The NBU's monetary policy will balance the need to reduce inflationary pressures arising from a weaker hryvnia against the need to support the economy.

The risk of drop in the harvest of grain, oilseeds, fruit and vegetable crops in Ukraine in the wake of unfavorable weather looms over the entire forecast horizon. This will drive up food price inflation and exacerbate the GDP fall due to decreased agricultural output. As a result, grain exports will shrink and FX earnings will decline, accompanied by depreciation pressures on the hryvnia exchange rate and, consequently, inflation. However, losses from lower exports could be partly offset by higher grain prices. The monetary policy response will balance the need to reduce inflationary pressures against the need to minimize the loss of economic growth.

There is a risk of food price inflation, which could be triggered by the higher volatility of global food prices caused by climate change. The considerable share of food in the CPI's composition makes inflation sensitive to such temporary food price shocks, which could lead to corresponding deviations of headline inflation from its target. The monetary policy

Degree of impact on the baseline scenario	Probability that a risk will materialize: Low <15%	Medium 15%–25%	High 25%–50%
Weak	Higher volatility of global food prices		
Moderate	Lower harvest of main agricultural crops		
Strong	An escalation of the military conflict	Delays in cooperation with the IMF Court rulings regarding the financial system A dramatic decline in the global economy	A longer-lasting coronavirus pandemic

response will be determined by the influence a supply shock has on inflation expectations.

There persists the risk of an escalation of the military conflict in eastern Ukraine, which could make the country significantly less attractive to investors and markedly worsen the expectations of all economic agents. Conversely, any progress achieved in resolving the issue with the temporarily occupied areas will noticeably improve Ukraine's investment climate, while also decreasing risk premiums on the country's securities.

Macroeconomic forecast (October 2020)

Indicators	2017	2018	2019	2020 I	2020 II	2020 III	2020 IV	2020 current forecast	2020 forecast 07.2020	2021 I	2021 II	2021 III	2021 IV	2021 current forecast	2021 forecast 07.2020	2022 I	2022 II	2022 III	2022 IV	2022 current forecast	2022 forecast 07.2020
REAL ECONOMY, % yoy, unless otherwise stated																					
Nominal GDP, UAH bn	**2984**	**3561**	**3975**	846	868	1095	1117	**3925**	3910	879	1013	1225	1242	**4360**	4300	969	1111	1340	1355	**4775**	4710
Real GDP	**2.5**	**3.4**	**3.2**	-1.3	-11.4	-6.2	-4.7	**-6.0**	-6.0	-1.9	9.5	4.6	4.4	**4.2**	4.0	4.1	3.9	3.7	3.6	**3.8**	4.0
GDP Deflator	22.1	15.4	8.1	5.1	5.0	5.0	5.1	5.1	4.7	6.0	6.6	7.2	6.6	6.6	5.7	5.9	5.6	5.3	5.2	5.5	5.3
Consumer prices (period average)	14.4	10.9	7.9	-	-	-	-	2.6	2.9	-	-	-	-	6.1	5.8	-	-	-	-	5.7	5.2
Consumer prices (end of period)	**13.7**	**9.8**	**4.1**	2.3	2.4	2.3	4.1	**4.1**	4.7	5.6	6.2	6.9	6.5	**6.5**	5.5	6.1	5.8	5.6	5.0	**5.0**	5.0
Core inflation (end of period)	9.5	8.7	3.9	3.1	3.0	3.1	4.2	4.2	4.0	4.9	5.1	5.3	5.4	5.4	4.2	4.8	4.5	4.2	3.8	3.8	3.9
Non-core inflation (end of period)	19.4	10.7	4.8	1.5	1.8	1.3	3.9	3.9	5.5	6.7	7.7	8.8	7.9	7.9	7.3	7.9	7.6	7.3	6.5	6.5	6.5
raw foods (end of period)	23.5	3.3	3.9	-1.0	5.0	-1.1	2.4	2.4	6.5	5.4	3.2	7.7	5.3	5.3	4.5	5.1	4.7	4.6	3.3	3.3	3.3
administrative prices (end of period)	16.1	18.0	8.6	5.5	3.2	6.0	8.1	8.1	7.5	9.5	11.7	10.7	10.1	10.1	9.9	10.1	9.9	9.7	9.0	9.0	9.1
Producer prices (end of period)	**16.5**	**14.2**	**-7.4**	-4.2	-4.6	-1.7	8.2	**8.2**	6.4	5.6	9.8	6.3	5.3	**5.3**	5.3	5.1	5.1	5.0	5.0	**5.0**	5.0
Nominal wages (period average)	37.1	24.8	18.5	14.3	4.0	8.3	9.4	8.9	4.1	13.5	21.1	16.4	13.9	16.1	14.4	10.4	9.0	6.4	6.4	8.0	9.9
Real wages (period average)	19.1	12.5	9.7	11.3	1.9	5.8	6.0	6.2	1.3	7.9	14.4	9.1	6.9	9.5	8.1	3.9	2.9	0.8	1.2	2.1	4.5
Unemployment (ILO)	9.5	8.8	8.2	-	-	-	-	9.4	10.0	-	-	-	-	8.6	9.0	-	-	-	-	8.4	8.8
FISCAL SECTOR																					
Consolidated budget balance, UAH bn	**-42.1**	**-67.8**	**-87.3**	-	-	-	-	**-254**	-292	-	-	-	-	**-174**	-174	-	-	-	-	**-145**	-143
% of GDP	-1.4	-1.9	-2.2	-	-	-	-	-6.5	-7.5	-	-	-	-	-4.0	-4.0	-	-	-	-	-3.0	-3.0
Public sector fiscal balance (IMF methodology), UAH bn	**-37.0**	**-75.4**	**-89.2**	-	-	-	-	**-255**	-294	-	-	-	-	**-175**	-174	-	-	-	-	**-145**	-143
% of GDP	-1.2	-2.1	-2.2	-	-	-	-	-6.5	-7.5	-	-	-	-	-4.0	-4.0	-	-	-	-	-3.0	-3.0
BALANCE OF PAYMENTS (NBU methodology)																					
Current account balance, USD bn	-3.5	-6.4	-4.1	2.3	1.7	0.3	0.1	4.3	6.5	-0.3	-1.3	-1.6	-0.2	-3.5	-4.5	-2.1	-2.6	-2.9	-1.0	-8.7	-7.9
Exports of goods and services, USD bn	53.9	59.2	63.6	15.3	13.2	14.9	16.4	59.8	60.1	14.9	14.2	15.7	17.4	62.3	62.9	15.7	14.7	16.4	18.3	65.1	65.8
Imports of goods and services, USD bn	62.7	70.6	76.1	16.1	12.3	15.9	18.0	62.4	63.3	16.3	17.6	19.2	19.9	73.0	75.0	18.8	19.2	20.6	21.4	80.0	80.6
Financial account, USD bn	-6.0	-9.3	-10.1	2.4	0.4	2.0	-1.8	3.0	5.0	-0.8	-1.5	-0.9	-0.2	-3.4	-6.9	-2.2	-3.1	-3.4	-1.1	-9.7	-9.7
BOP overall balance, USD bn	**2.6**	**2.9**	**6.0**	**-0.1**	**1.3**	**-1.7**	**1.8**	**1.3**	1.5	**0.4**	**0.2**	**-0.6**	**-0.1**	**-0.1**	2.4	**0.1**	**0.4**	**0.5**	**0.0**	**1.1**	1.8
Gross reserves, USD bn	**18.8**	**20.8**	**25.3**	**24.9**	**28.5**	**26.5**	**29.1**	**29.1**	29.8	**29.0**	**29.8**	**28.6**	**29.5**	**29.5**	32.7	**29.0**	**29.2**	**28.9**	**28.8**	**28.8**	32.7
Months of future imports	3.2	3.3	4.9	4.8	5.0	4.5	4.8	4.8	4.8	4.6	4.6	4.4	4.4	4.4	4.9	4.2	4.2	5.2	4.1	4.1	4.6
MONETARY ACCOUNTS (Cumulative since the beginning of the year)																					
Monetary base, %	4.6	**9.2**	**9.6**	0.9	11.6	18.9	27.6	**27.6**	20.7	-1.0	2.2	2.9	5.4	**5.4**	3.5	-0.3	1.9	2.9	5.2	**5.2**	3.5
Broad money, %	9.6	**5.7**	**12.6**	5.5	12.0	19.7	25.4	**25.4**	19.5	1.1	6.0	9.0	11.7	**11.7**	10.7	1.1	4.9	7.0	11.8	**11.8**	10.6
Velocity of broad money (end of year)	2.5	**2.8**	**2.8**	-	-	-	-	**2.2**	2.3	-	-	-	-	**2.2**	2.3	-	-	-	-	**2.1**	2.2

Terms and Abbreviations

BAOI	Business Activity Outlook Index
BoP	Balance of Payments
CD	Certificate of deposit
CEE	Central and Eastern Europe
CMU	Cabinet of Ministers of Ukraine
Core CPI	Core consumer price index
COVID-19, coronavirus	Coronavirus disease COVID-19
CPI	Consumer price index
EAEU	Eurasian Economic Union
ECB	European Central Bank
ECPI	External Commodity Price Index
EM	Emerging Markets
EMBI	Emerging Markets Bond Index
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
Fed	Federal Reserve System
FOMC	Federal Open Market Committee
FX	Foreign exchange
GDP	Gross domestic product
GVA	Gross value added
IFI	International financial institutions
IIF	Institute of International Finance
ILO	International Labour Organization
IMF	International Monetary Fund
IMF WEO	World Economic Outlook published by the IMF
IT	Information technologies
ITC	International Trade Centre
MFU	Ministry of Finance of Ukraine
MTP	Main trading partner
MY	Marketing year
NBU	National Bank of Ukraine
NEER	Nominal effective exchange rate
NJSC	National Joint-Stock Company
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PJSC	Public Joint-Stock Company
PMI	Purchasing Managers' Index
QE	Quantitative easing
QPM	Quarterly projections model
REER	Real effective exchange rate
Russia	Russian Federation
SCSU	State Customs Service of Ukraine
SCSU	State Customs Service of Ukraine
SESU	State Employment Service of Ukraine
SSSU	State Statistics Service of Ukraine
STA	Single Treasury Account
STSU	State Treasury Service of Ukraine
U.S.A	United States of America
UAwCPI	Weighted average of Ukraine's MTP countries' CPI
UAwGDP	Weighted average of economic growth in Ukraine's MTP countries
UIIR	Ukrainian Index of Interbank Rates
UNCTAD	United Nations Conference on Trade and Development
VAT	Value-added tax
WSA	World Steel Association
WTO	World Trade Organization

m	million
bn	billion
UAH	Ukrainian hryvnia
USD	US dollar
bp	basis point
bcm	billion cubic meters
pp	percentage point
bbl	barrel
yoy	in annual terms; year-on-year change
qoq	in quarterly terms; quarter-on-quarter change
mom	in monthly terms; month-on-month change
sa	seasonally adjusted
RHS	right-hand scale