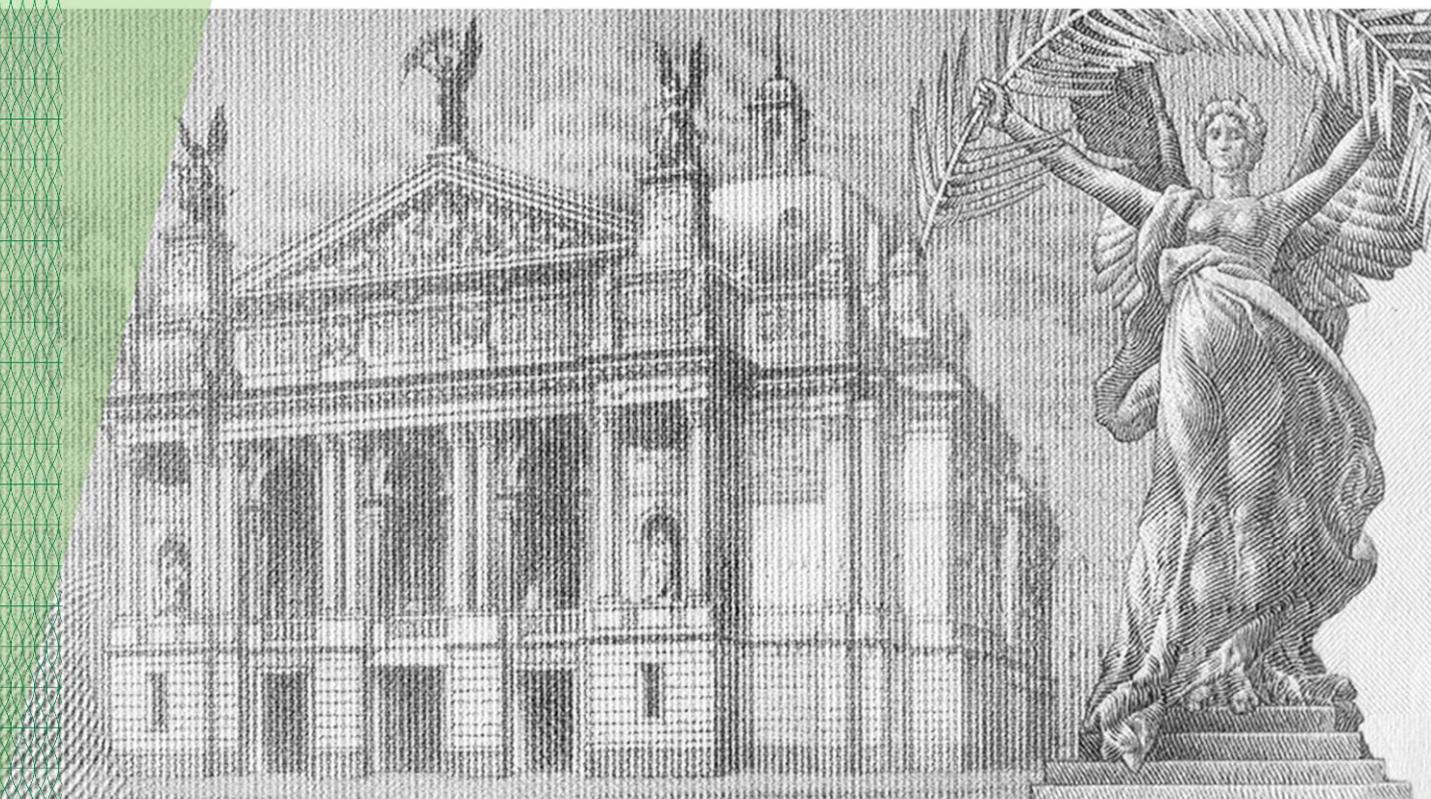




National Bank
of Ukraine

Inflation Report

April 2021



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 April 2021.

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 15 April 2021¹.

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. 145-D *On Approval of the Inflation Report* dated 15 April 2021.

Contents

Summary	4
Part 1. External Environment	6
Box 1. Global Inflation Hits Turbulence	9
Part 2. Economy of Ukraine: Current Trends	11
2.1. Inflationary Developments	11
Box 2. How Other Central Banks Meet Their Inflation Targets	14
2.2. Demand and Output	16
2.3. Labor Market and Household Income	19
2.4. Fiscal Sector	21
2.5. Balance of Payments	23
Box 3. Trade in Medical Goods in 2020	26
Box 4. Gas Transit Agreement 2019: Amat Victoria Curam	27
2.6. Monetary Conditions and Financial Markets	29
Box 5. Money Supply: Does Size Matter?	32
Part 3. Economy of Ukraine: Forecast	34
3.1. Inflation Developments	34
Box 6. Estimating the Accuracy of the NBU's Macroeconomic Forecasts	36
3.2. Demand and Output	39
3.3. Balance of Payments	42
Box 7. Potential SDR allocation by the IMF and Its Consequences for Ukraine	44
3.4. Monetary Conditions and Financial Markets	45
3.5. Risks to the Forecast	46
Terms and Abbreviations	48

Summary

As expected, inflation deviated from the 5% ± 1 pp target range in Q1 2021, but the deviation was greater than had been forecast, mainly due to temporary factors

In March, consumer inflation accelerated to 8.5% yoy, while core inflation reached 5.9%. Inflation exceeded the NBU forecast published in the January 2021 Inflation Report.

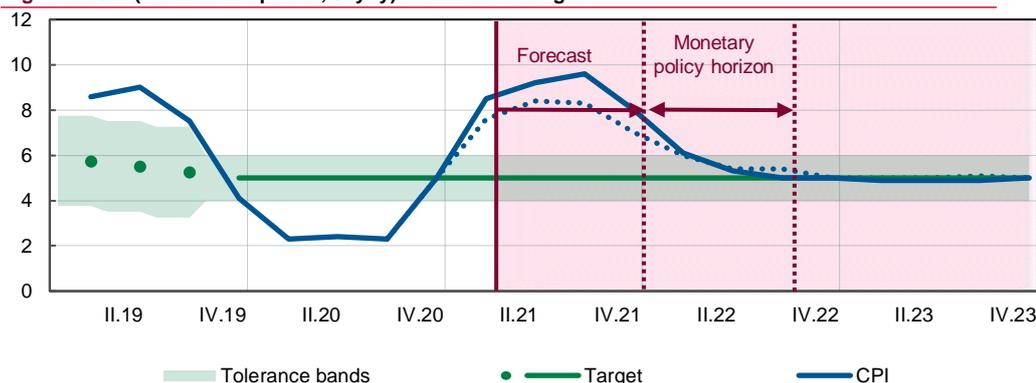
On the one hand, this sharp acceleration of inflation was largely driven by temporary factors, such as rising global prices for food and energy. A revival in the global economy and the effects of weaker harvests continued to drive prices higher. A low comparison base also played an important role.

But on the other hand, underlying inflationary pressures increased due to sustained growth in consumer demand, which was fueled among other things by higher incomes. Retail trade turnover persistently exceeded pre-crisis levels. In February, it was 5.6% higher than last year. Inflation expectations remained high on the back of rapid growth in the prices of staples.

Considering the fast pace of the recovery of the global economy and heightened inflationary pressures, the NBU revised its 2021 inflation forecast to 8%, up from 7%, anticipating that inflation will return to the 5% target in H1 2022 and thereafter settle at this level

Inflation will peak in Q3 2021. However, it will reverse gradually as new harvest supplies come to the market, as the effect of a low comparison base wanes for some products, and as the NBU raises its key policy rate. Inflation will start to decelerate in autumn, return to its target range in H1 2022, and subsequently remain there.

Figure 1². CPI (as of end of period, % yoy) and inflation targets



Source: SSSU, NBU estimates.

The Ukrainian economy is recovering, although more slowly than expected, including due to the tightening of quarantine restrictions. Factoring in losses caused by the pandemic, the NBU revised downward its real GDP growth forecast for 2021, from 4.2% to 3.8%

The economy almost reached its pre-crisis level in Q4 2020, but the recovery slowed somewhat at the start of 2021. First, the introduction of new quarantine restrictions dampened business activity. Second, last year's smaller harvests affected the performance of agriculture, the food industry, and freight turnover. Third, increased competition in some global markets and greater trade restrictions imposed by Russia affected the industrial sector's performance, in spite of high prices on the global commodity markets. More unfavorable weather conditions in January–February weakened construction and transport. At the same time, despite the lockdowns in adaptive quarantine red zones, the real economy is expected to grow in March on the back of the low comparison base and the actual improvement in businesses' performance. Taking these factors into account, the economy is projected to decline in annual terms in Q1.

The Ukrainian economy will return to steady growth starting in Q2. Consumer demand will remain the main growth driver. Investment demand will also rise gradually as the global economy revives and more progress is made in overcoming the pandemic. However, the NBU downgraded its real GDP growth forecast for 2021 to 3.8%, down from 4.2%, mainly due to

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

losses caused by the tightening of quarantine restrictions. In 2022–2023, the Ukrainian economy will grow by 4% a year.

In 2021, the current account will record a minor deficit, which will widen noticeably in 2022 – 2023 on the back of rising domestic demand and less favorable terms of trade

The current account is expected to return to a slight deficit of 0.8% of GDP in 2021, propelled by higher domestic demand and the gradual revival of travel. In 2022–2023, the current account deficit will widen noticeably, mainly due to less favorable terms of trade for exporters of agricultural and metallurgical products, and an expected drop in earnings from gas transit. The deficit will also be driven by continued growth in consumer and investment imports, fueled by the complete recovery of the global and Ukrainian economies from the coronavirus crisis.

The underlying assumption of the NBU Board is that Ukraine will continue to cooperate with the IMF

The NBU expects that Ukraine will make further progress in its talks with the IMF. Cooperation with the IMF and other international partners will enhance the government's ability to support the economy during the crisis, while also helping Ukraine pass through the period of peak debt repayments in the coming autumn. This cooperation will help maintain Ukraine's international reserves at the reasonably high level of USD 29 to 30 billion in 2021–2023.

The key risk to the macroeconomic forecast is the imposition of stricter quarantine measures in Ukraine and globally, and the slow pace of the vaccination campaign domestically

New waves of the pandemic and new coronavirus strains forced countries to once again tighten quarantine restrictions in Q1 2021. Despite the partial adaptation of businesses to the new conditions, this is slowing the recovery of business activity. The slow pace of the vaccination campaign in Ukraine, coupled with higher inflationary pressures arising from the rebounding global economy, poses an additional risk of future economic losses.

There are other significant risks. They include:

- an escalation of the military conflict in eastern Ukraine or on the country's borders
- volatility in the global capital markets
- a dramatic deterioration in the terms of trade.

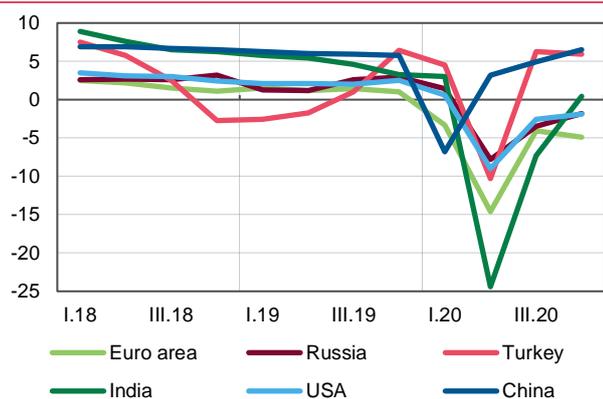
The NBU has raised its key policy rate to 7.5%. This step is aimed at gradually slowing down inflation in H2 2021 and returning it to its 5% target by H1 2022

Given the above balance of risks and the increase in underlying inflationary pressures seen in recent months, the NBU raised its key policy rate twice – by 0.5 pp in March and 1 pp in April – to 7.5%. The NBU's current forecast envisages that the key policy rate will remain unchanged until the end of 2021. These measures should be sufficient to gradually slow inflation by the end of 2021, and return it to its 5% target in H1 2022. However, if underlying inflationary pressures rise more significantly than currently expected, and if inflation expectations worsen, the NBU stands ready to raise its key policy rate further.

Part 1. External Environment

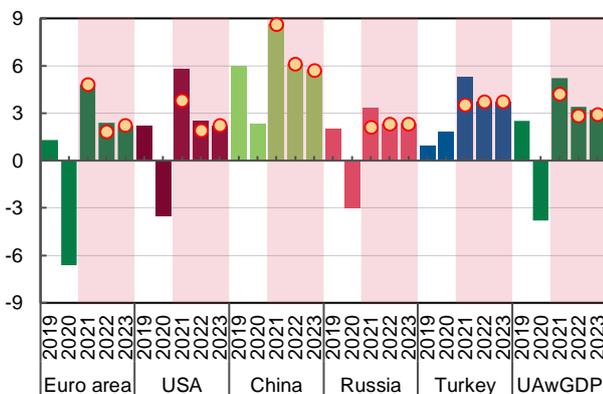
- The global economy will recover more quickly than expected, propped up by large-scale fiscal and monetary stimulus programs. This, in turn, will result in rapidly rising inflation.
- Global prices for Ukraine's main exports will remain high, driven by rebounding demand. However, these prices will gradually correct as supply expands further. Terms of trade for Ukraine will remain better compared to previous expectations on the back of relatively stable energy prices.
- The rising yields of advanced economies' government securities will curb investors' interest in emerging markets' assets on the financial markets. Under such conditions, central banks in emerging markets will gradually normalize their monetary policies, while monetary policies in advanced economies will remain loose.

Figure 1.1. Real GDP growth in selected countries, % yoy



Source: National statistical agencies.

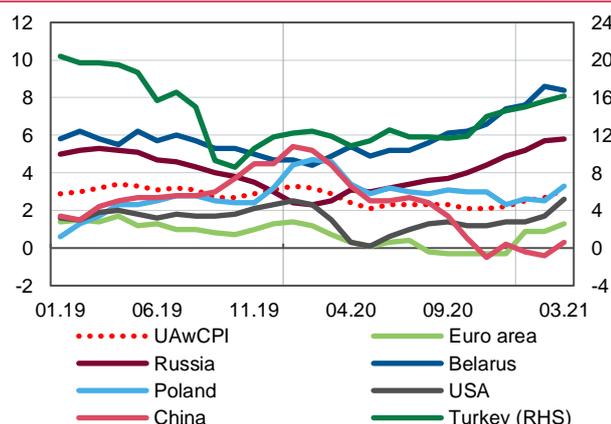
Figure 1.2. Real GDP of selected countries and Weighted Average of annual GDP growth of Ukraine's MTP countries (UAwGDP), % yoy



● - Previous forecast of NBU.

Source: National statistical offices, NBU staff estimates.

Figure 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 staff estimates.

Inflation Report | April 2021

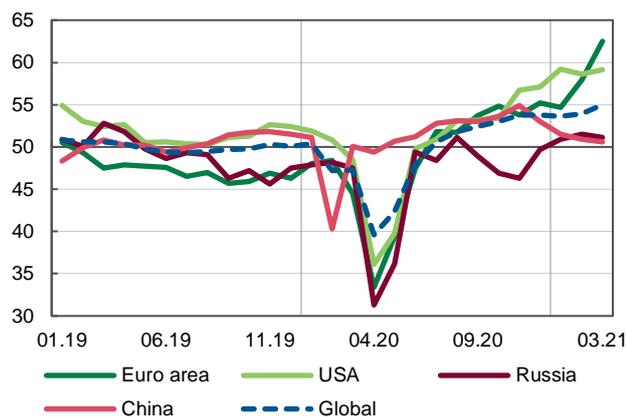
The global economy will recover amid stimulus measures and pick-up in global trade

The sustained recovery of the global economy is apparent from estimates for Q4 2020 GDP and the leading indicators recorded in early 2021. The global trade in goods and [services](#) picked up noticeably. More specifically, there was a rebound in the provision of financial services, container transportation and granting construction permits amid large-scale government support. In contrast, passenger transportation remained sluggish because of quarantine restrictions. Leading indicators point to a further increase in [trade](#) thanks to stabilized [business confidence](#) in the industrial sector and a decrease in [uncertainty](#) about global economic policy. That said, although it has improved, the [consumer confidence index](#) remains far below its base value of 100 points. The worsening epidemiologic situation and lockdowns imposed in some countries, coupled with the gradually declining yet still high global [unemployment](#) rate, are restraining the recovery of consumer demand.

In the face of still relatively weak consumer demand, the rebounding global economy, amid loose monetary conditions, has increased inflationary pressures from Ukraine's MTPs, as expressed by UAwCPI. The global economy is expected to grow, buoyed by monetary and fiscal stimulus, while inflation is forecast to accelerate. In view of last year's low comparison base, inflationary pressures are expected to peak in Q2 and Q3 2021, after which inflation is projected to drop to a new long-term level.

The U.S. economy continued to expand rapidly, propped up mainly by private investment. According to [some projections](#), growth in the current year could be the highest since 1984. The labor market strengthened: income grew, while the unemployment rate declined, although it still remained far above its pre-crisis level. Monetary and financial stimulus has been, and will remain, an important factor behind the economic recovery. An increase in financial stimulus by USD 1.9 billion improved projections for U.S. GDP growth in 2021 – 2022. Inflation will accelerate, exceeding 2% in late 2021 and remaining at that level through 2022 at least.

Although rebounding markedly in Q3 2020, economic activity in the euro area remained sluggish. The ECB estimates that in Q4 2020 output was almost [5% below](#) its pre-pandemic levels. The recovery continued to be driven mainly by the industrial sector. Conversely, consumption remained subdued on the back of the impact on income and

Figure 1.4. Manufacturing PMI: global and selected countries

Source: IHS Markit.

Figure 1.5'. External Commodity Price Index (ECPI), Dec 2004 = 1

Source: World bank, NBU staff estimates.

Figure 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 staff estimates.

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

employment from the lockdowns extended/imposed in some countries. Despite substantial fiscal support for households and businesses, the unemployment rate in the euro area remains high. In the face of the ECB's loose monetary policy, and after accelerating in Q1 because of [temporary](#) factors, inflation will be below its target over the next two years. At the same time, relaxed quarantine restrictions, vaccinations, and government stimulus will support economic growth in the euro area.

Economic recovery in trading partner EMs has been, and will remain, reasonably stable, buoyed by the rebound in global trade and large-scale government support programs. This will lead to faster inflation (read more in Box 1 "Global Inflation hits Turbulence"), which will force central banks to tighten their monetary policies.

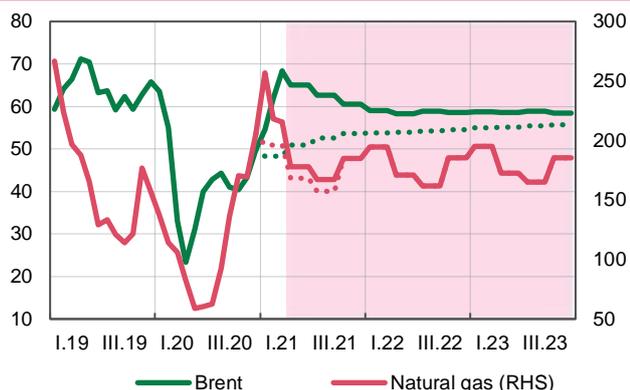
Global commodity prices will rise, while terms of trade will improve on previous projections

China's build-up of energy, steel and iron ore stocks, along with grain and oilseed stocks, which was seen at the start of the current year, led to a spike in global commodity prices. This, together with the rebound in the global economy and some supply constraints, kept prices at a high level. The External Commodity Price Index (ECPI) hit an almost eight-year high in early 2021, significantly exceeding expectations. The prices of Ukraine's main exports will remain high over the forecast horizon, driven by rebounding demand. However, these prices will gradually correct down, as supply expands further. Terms of trade for Ukraine will remain better compared to previous expectations on the back of relatively stable energy prices.

After rising rapidly in late 2020, global steel prices hovered within a relatively narrow range, staying at a high level, propelled by the recovering economies of some countries (mainly China, Turkey, Germany and the United States) amid supply constraints and high raw material prices. The continued implementation of government investment projects is expected to support demand for steel. However, expanding global supply will gradually correct prices downward. Price corrections will be restrained by China's transitioning to a carbon-neutral economy in the near future by reducing its low-tech facilities (the metals industry currently accounts for 15% of all carbon dioxide emissions in the country), and the implementation of the carbon border adjustment mechanism (CBAM) by the EU. This, in turn, will buoy demand for high-quality ore. However, prices will gradually drop, dragged down by stepped-up ore production by Australia and Brazil (Brazil's Vale, the world's largest iron-ore company, has commissioned new facilities), and China's acceleration of its African iron ore project.

Global grain prices have also remained elevated since the start of 2021 amid robust demand and the introduction of export duties by some countries. Downward pressures on prices will result from upward revisions of current forecasts for the global wheat and corn harvests in the 2020/2021 marketing year by the United States Department of Agriculture (USDA) and the International Growth Center (IGC), and from the winter crop conditions in the United States and the Black Sea region. Conversely, a significant

Figure 1.7. World crude oil prices (USD/bbl) and German Hub natural gas prices (USD/kcm), quarterly average



Source: Refinitiv Datastream, NBU staff estimates.

increase in consumption, due to, among other things, a rebound in the animal production sector, will reduce stocks, thus curbing price slumps.

Oil and natural gas prices rose, fueled by colder weather conditions in the Northern Hemisphere, Saudi Arabia's decision to voluntarily reduce its quota under the OPEC+ agreement, and expectations of growing demand on the back of more widespread vaccination. Despite rebounding economic activity, prices will remain reasonably stable over the forecast horizon on expectations of an increase in shale production.

Accelerating inflation will prompt central banks in emerging markets to gradually tighten their monetary policies, despite advanced economies maintaining loose policies

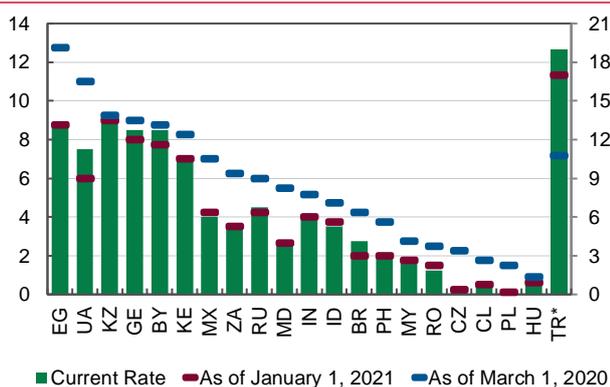
Figure 1.8. Global equity benchmarks, 01 Jan 2019=100, and 10-year US Treasury bond yield, %



Source: Refinitiv Datastream, Investing, as of April 21, 2021.

The global financial markets continued to witness robust investor interest in risky assets, particularly those of emerging markets. This interest was supported by positive expectations for global economic growth amid loose monetary conditions. However, this trend was bucked even in the latter half of February because of surging yields on U.S. treasury bonds. This, in turn, was a response to the Fed keeping its loose monetary policy intact in the face of the expected acceleration in inflation caused by additional fiscal stimulus. The ECB also said it remained committed to an accommodative monetary policy, in spite of upward revisions in its inflation forecast (from 1.0% to 1.5%) resulting from temporary factors. The medium term forecast has remained unchanged – inflation in the euro area will be below its target on the back of a negative GDP gap and the absence of wage pressures on prices.

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



**As of April 21, 2021.

*Turkey – RHS

Source: official web-pages of central banks.

Rising yields in leading countries markedly worsened global financial market conditions for emerging markets. As a result, according to estimates by the Institute of International Finance (IIF), capital outflows from emerging markets had by 15 March become commensurate to the outflows seen after the Fed announced it would gradually wind down its quantitative easing program in 2013 (“the Taper Tantrum”). Risk premiums widened for emerging markets, while currencies in most emerging markets depreciated relative to the U.S. dollar. Under such conditions, central banks in emerging markets are moving gradually towards monetary policy normalization, with a view to curbing inflationary pressures and maintaining investor interest in their assets. Turkey, the Russian Federation, Georgia and Brazil raised their interest rates even in Q1 2021. Brazil also announced that it was scaling down the stimulus programs it launched in response to the pandemic.

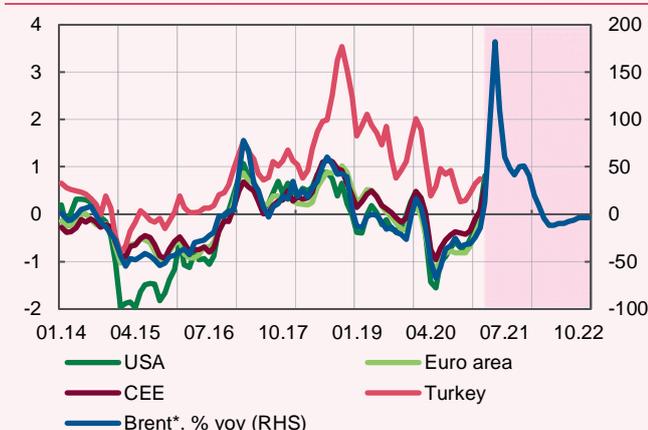
At the same time, emerging market bonds are expected to remain attractive to investors, particularly in the long term, due to the still historically low yields of U.S. treasury bonds

Box 1. Global Inflation Hits Turbulence

Inflation will gradually accelerate from its 2020 low level, both in advanced economies and emerging markets, driven by rising energy prices and supply-side factors. However, the impact of the pandemic on the labor market and consumer demand will be more protracted than was expected earlier. Once the effect of temporary factors fades, these fundamental factors will contain inflationary pressures in the coming years. Therefore, leading central banks will continue to conduct loose monetary policies. In contrast, it will be more difficult for EM central banks to ignore the surging inflation in 2021, given a shorter history of inflation targeting and less anchored inflation expectations in these countries.

Stronger prospects for global economic recovery, amid unprecedented fiscal and monetary stimulus, have led to an increase in inflation expectations. According to the [IMF's April forecast](#) in advanced economies alone inflation will hit some of the highest levels seen in the last ten years. In the short-term, however, inflation movements will be largely determined by several temporary factors, while underlying pressures will remain weak.

Figure 1. Change in Brent oil price, yoy, and contributions of energy to annual change in the CPI of selected countries, pp

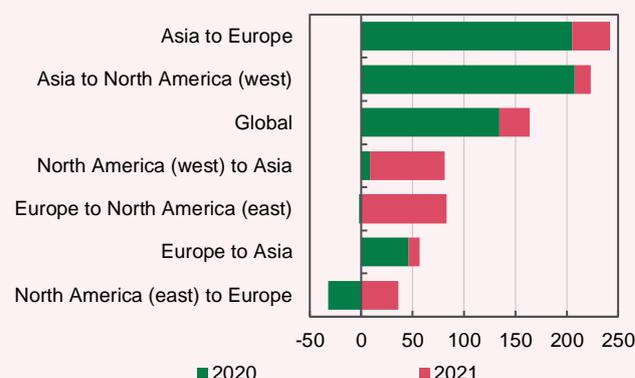


* 1-month lag.
 Calculated using dynamic weights.
 Source: Eurostat, OECD, IMF, NBU staff forecast and estimates.

Higher energy prices will be a key factor behind the acceleration of inflation in 2021. Since the start of the current year alone, global oil prices have surged by over 30%. As a result, over the next three months, they will make a positive contribution of up to 2 pp on average to inflation in some of Ukraine's MTPs. After that, energy prices are expected to stabilize, as supply expands.

Food inflation will remain moderate overall, even in the face of substantial current pressures from high grain and oilseed prices. This will be mainly attributed to the comparison base effect – last year's growth in food prices was fueled by panic buying on the back of the pandemic and the introduction of export restrictions by some countries (read more in Box 1 of the [July 2020 Inflation Report](#)). Pressures on the prices of these items will reduce when new harvests become available, which is already happening on the wheat market (read more in Chapter 1).

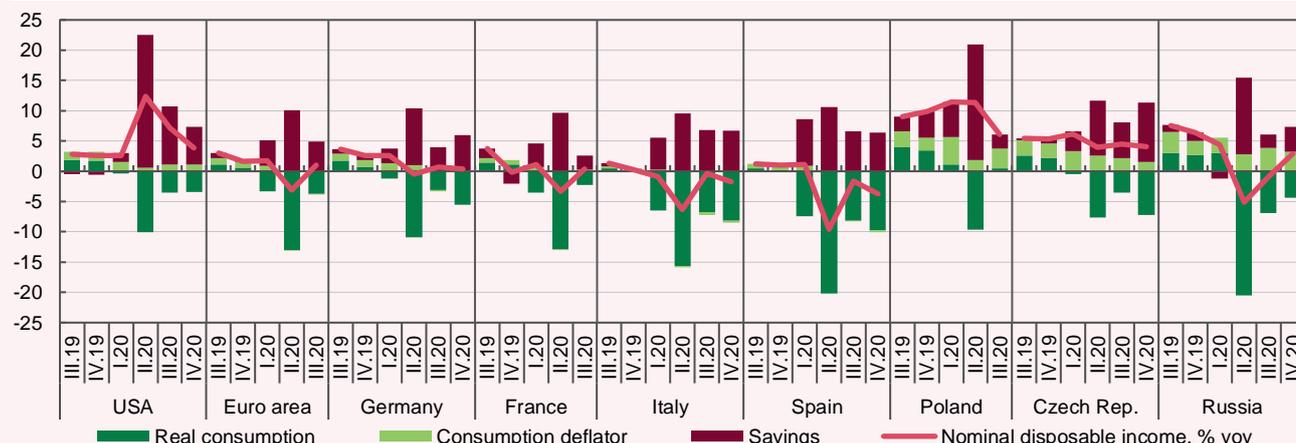
Figure 2. Index of shipping costs, since the beginning of the year, % (as of 21.04.2021)



Source: Freightos, NBU staff estimates.

Core inflation will speed up on the low comparison base. It will also be partly driven by higher freight costs and the limited supply of some intermediate consumption goods (such as [semiconductors](#)). According to the [business outlook survey](#), February saw the fastest increase in input costs and selling prices globally in the last ten years, with prices rising both in the manufacturing and services sectors (apart from the euro area and Japan). At the same time, the cost of shipping from

Figure 3. Breakdown of nominal disposable income by selected categories, pp

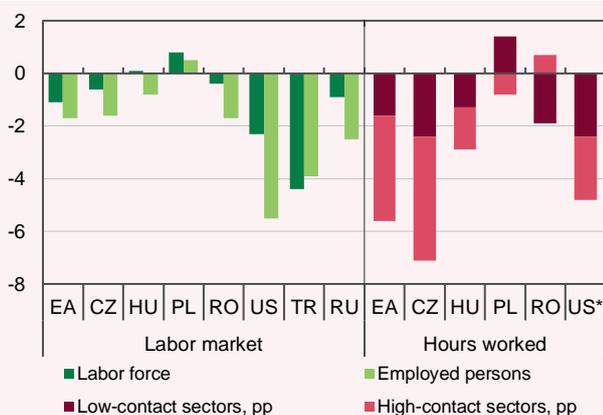


Source: ECB, US BEA, Rosstat, NBU staff estimates.

Asia to North America and Europe more than doubled compared to early 2020. This was the result of a shortage of containers and basic equipment in Chinese ports amid supply chain disruptions and limited production capacity due to quarantine restrictions.

Consumer spending fell dramatically in 2020 on the back of pandemic-induced uncertainty. Although fiscal measures supported nominal income, households built up considerable savings (excess household savings are estimated at [USD 1.6 trillion](#) in the United States alone). Relaxed quarantine restrictions and progress with vaccinations could result in a temporary surge in consumption, especially in the services sector. But in general, drawdown of household savings will progress slowly – especially in countries that saw a drop in nominal income in 2020 – because of weak labor markets and varied vaccination campaign paces across countries (as a result of which the risk of disease outbreaks and stricter quarantine restrictions will persist).

Figure 4. Changes in labor force, employed persons, and hours worked in 2020Q4, % yoy

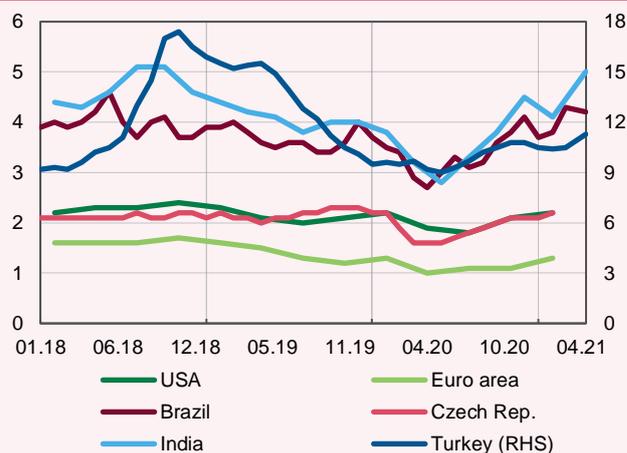


* US - private non-farm sector.
 High-contact sectors include retail and wholesale trade, transportation, arts and entertainment, sports and accommodation and food services.
 Source: national statistical offices, NBU staff estimates.

In 2022 – 2023, inflation will be driven by fundamental factors, such as labor market conditions and inflation expectations. Although the hours worked in the "high-contact" sectors of the economy will increase as soon as the quarantine restrictions are lifted, the labor market will remain weaker compared to its pre-crisis level. In EU countries, [wage support schemes](#) helped maintain employment in 2020. However, as workers exit such programs amid a relatively weak economy, unemployment could rise. This will restrain wage growth and, consequently, inflationary pressures.

Conversely, with the economy set to recover strongly, the U.S. labor market will strengthen. [A consensus forecast by the presidents of the FRBs](#) shows that the U.S. unemployment rate will return to its neutral level, and the negative GDP gap will close in 2022. Amid the Fed's shift to targeting average inflation, this has returned inflation expectations to their pre-crisis level, while also pushing these expectations above the 2% target.

Figure 5. 12-month ahead inflation expectations of financial analysts and professional forecasters, %



Source: official web-pages of central banks, Philadelphia Fed.

The year 2020 witnessed rapid growth in monetary aggregates across many countries, which could be seen as a risk of a spike in inflation. This was the result of rising [demand for liquid assets](#) and savings, amid uncertainty over the spread of COVID-19 and the duration of quarantine. Government relief measures (such as payments to households, the provision of loan guarantees and quantitative easing programs) also played an important role. However, whether or not this risk materializes depends on how quickly households and companies spend their savings and cash reserves, respectively.

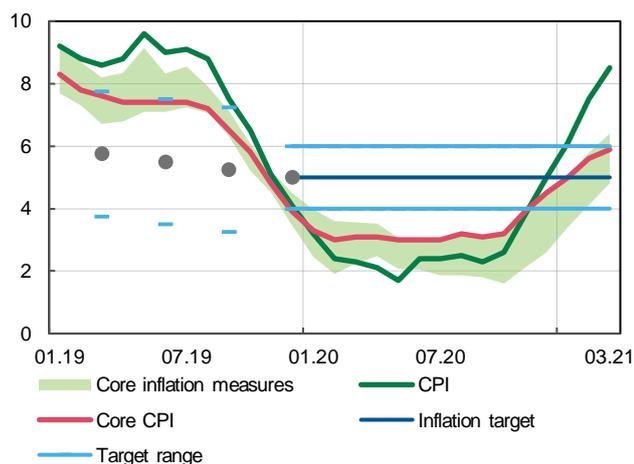
Given the temporary nature of the acceleration in inflation, the major central banks will continue to conduct loose monetary policies, but will either reduce the pace of asset purchases in 2022 (the ECB and the Bank of Japan), or will stop them altogether (the Fed and the Bank of England). However, it will be more difficult for central banks in emerging markets to ignore the surging inflation in 2021, because of a shorter record of inflation targeting and less anchored inflation expectations in these countries. As a consequence, a gradual normalization of monetary policy is expected in EM countries.

Part 2. Economy of Ukraine: Current Trends

2.1. Inflationary Developments

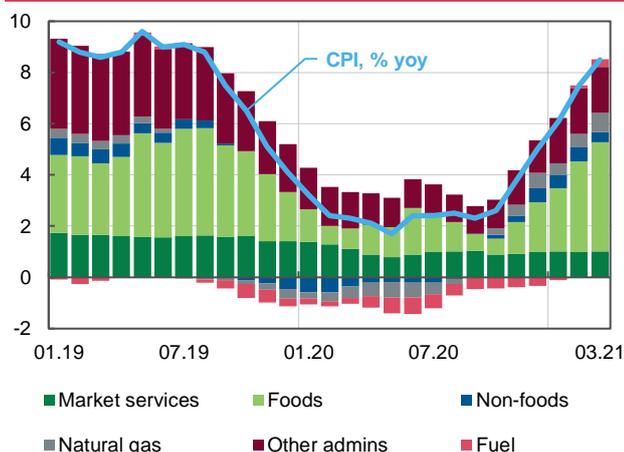
- In Q1 2021, consumer inflation was above its 5% ± 1 pp target range as expected, but it had sped up faster than had been forecast.
- The accelerating inflation was mainly driven by higher prices for certain foods and energy, as well as robust consumer demand, which increased underlying inflationary pressures.
- Inflation expectations worsened in response to a spike in the prices of staple goods.

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 sped up, overshooting the upper bound of the 5% ± 1 pp target range

Consumer inflation accelerated in Q1 2021 (to 8.5% yoy, up from 5.0% yoy in December 2020), exceeding the upper bound of the 5% ± 1 pp target range as expected (read more in Box 2 “How other central banks meet their inflation targets” on page 14). At the same time, actual CPI growth in Ukraine exceeded the forecast published in the [January 2021 Inflation Report](#).

Inflation was mainly driven by a rise in food prices, which resulted from the difficulties experienced in the domestic animal farming sector and a surge in global food prices on the back of lower harvests and strong demand. In particular, in March 2021 the FAO Food Price Index hit a high not seen since 2014.

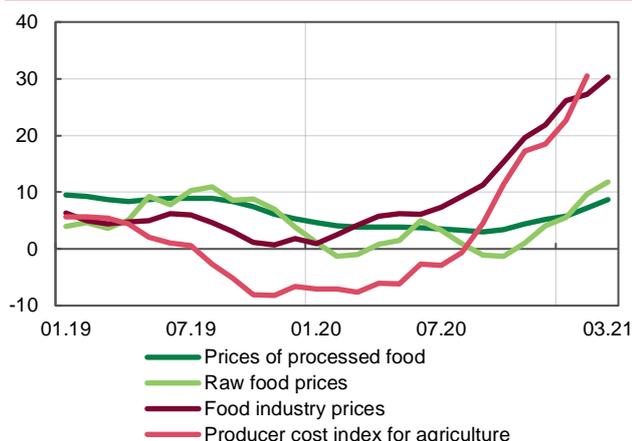
Despite being lower in 2020 compared to recent years, Ukraine’s grain and sunflower harvest was at the level of the average seen over the last seven years. The output of these crops significantly exceeds domestic consumption. Therefore the supply of these foods is sufficient to meet domestic needs. At the same time, these crops are among those of Ukraine’s commodities most traded with the rest of the world – grain, vegetable oil and oilseeds accounted for about 38% of exports of goods in 2020. Ukraine is a small economy, and as such is a price-taker. Since Ukraine is an open economy, high external prices push domestic prices up. Any attempts to administer domestic prices could lead to shortages of goods on the domestic market (if prices are regulated), or to reputational losses through failure to comply with international trade commitments (if export restrictions are imposed).³ That said, high global prices have a reverse positive effect on domestic prices through the exchange rate channel: a rise in export earnings supports the hryvnia exchange rate, thus restraining growth in import prices.

There was also an increase in pressures on consumer inflation from production costs. This was evidenced by the faster growth in the aggregate production cost index of agricultural products, driven largely by higher feed and energy prices. The faster index growth, together with a decline in output, led to a spike in prices for animal products (eggs, meat and milk).

Higher raw food prices, coupled with high global prices, pushed up prices for food industry products and,

³ In particular, such commitments arise from being a WTO member. For instance, on 22 April 2020, Ukraine joined the WTO statement “[Responding to the COVID-19 Pandemic with Open and Predictable Trade in Agricultural and Food Products](#),” pledging not to impose agriculture exports restrictions and refrain from implementing unjustified trade barriers during the coronavirus crisis.

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



Source: SSSU, NBU staff estimates.

consequently, those for processed foods. Prices for sunflower oil and foods made from it (margarine, spreads and mayonnaise), sugar, flour, pasta, bread and dairy products grew rapidly.

The findings of the [Q4 2020 business outlook survey](#) also show that energy and raw material prices remain the most important price driver. Conversely, recent years saw a reduction in the impact of exchange rate movements on households' inflation expectations. Until the end of 2018, the correlation between these indicators exceeded 70%. However, it has dropped to zero over the last two years.

Fruit prices, in particular apple prices, rose at a faster pace, while banana prices returned to growth, buoyed by higher import prices resulting from the poor harvest in the main producer countries. The decline in prices for borshch vegetables slowed, as the stocks of these vegetables dwindled. The overall price growth was somewhat restrained by a larger supply of some foods (dairy products due to imports, and cucumbers and tomatoes thanks to imported products and domestic greenhouse products).

The prices of alcoholic beverages rose, driven mainly by higher prices for sparkling wines.

Rising consumption was another factor behind stronger underlying inflationary pressures

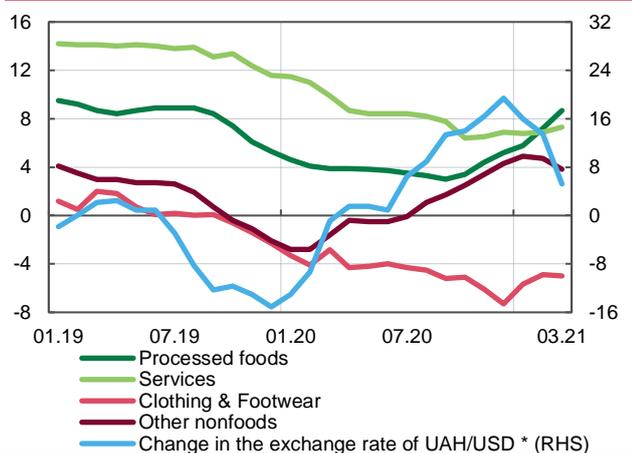
Core inflation accelerated to 5.9% yoy (compared to 4.5% yoy in December 2020), slightly overshooting the forecast published in the [January 2021 Inflation Report](#).

Alongside price increases for processed foods, services prices also grew more rapidly (to 7.3% yoy). Their rapid growth was fueled by higher production costs, including wage costs and costs related to compliance with quarantine restrictions, and consumer demand, which remained robust even during the January lockdown and the red zone quarantine in March. In particular, retail trade expanded, as businesses adapted to operating under quarantine, and real wages grew further. Higher price growth continued to be seen for restaurant services, tourist, financial and medical services, housing rent, and driving schools.

In contrast, the growth in prices for nonfood products decelerated, to 1.8% yoy. The slower growth can be attributed to the waning effects of the hryvnia depreciation seen last year, and the impact of the panic buying at the onset of the pandemic in March 2020. As a result, the prices of pharmaceuticals and cars rose more slowly, while the decline in the prices of personal care products, cleaning agents and toys became more pronounced. Clothing and footwear prices remained lower than last year. This can be explained by changes in retailers' business models, including greater reliance on online sales.

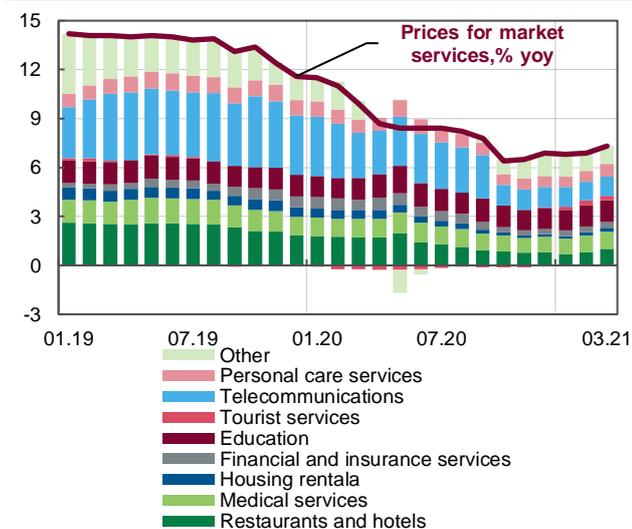
Persisting inflationary pressures were also evidenced by the elevated inflation expectations of most respondents. Despite a marginal improvement resulting from exchange rate expectations, the percentage of households that expected prices to rise by more than 10% over the next 12 months remained substantial. This was mainly the result of the rapid

Figure 2.1.4. Components of core CPI, % yoy



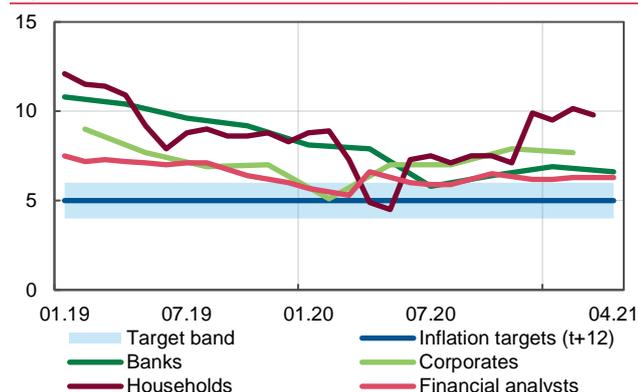
Source: SSSU, NBU staff estimates.

Figure 2.1.5. Contributions to the annual change in prices for market services, pp



Source: SSSU, NBU staff estimates.

Figure 2.1.6. 12-month-ahead inflation expectations, %

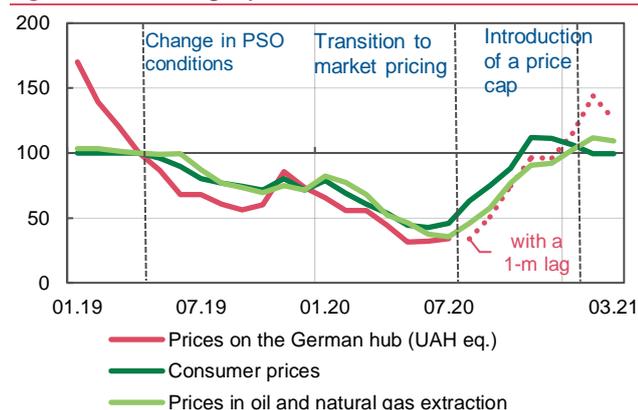


Distribution of HH expectations for the next 12 months, %



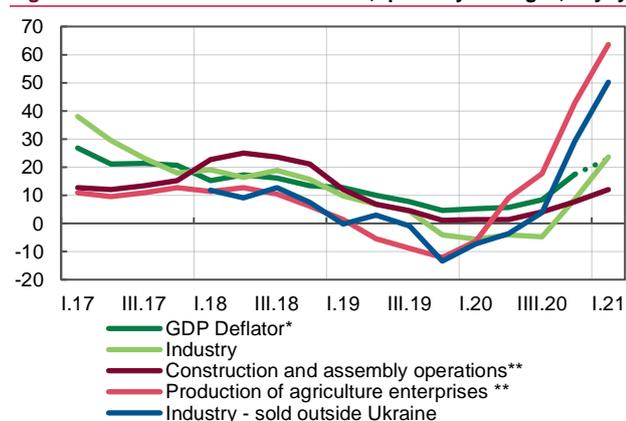
Source: NBU, GfK Ukraine, Info Sapiens.

Figure 2.1.7. Natural gas prices, 04.2019 = 100



Source: SSSU, Refinitiv Datastream, NBU staff estimates.

Figure 2.1.8. Other inflation measures, quarterly averages, % yoy



* Data for Q1 2021 represent the NBU staff estimates.

** Data for Q1 2021 cover two months.

Source: SSSU.

growth in the prices of staple foods and services.⁴

Despite administrative restrictions, the impact of rising global energy prices on inflation in Ukraine has increased

In early 2021, the Ukrainian government set the the cap on natural gas prices for households amid surging natural gas prices on the European markets. In spite of a decrease in prices by suppliers⁵ compared to the previous quarter, in annual terms natural gas prices rose, to 63.6% yoy, on the back of last year's low comparison base. The increases in natural gas prices seen in previous periods pushed up hot water and heating prices. Electricity prices rose, as expected, after preferential rates for households were cancelled.

Fuel prices returned to growth in Q1 (by 12.2% yoy), propelled by higher global oil prices and sustained strong demand from households. Higher fuel prices contributed to an increase in the cost of transport services.

Higher energy prices drove up prices in the production of oil and natural gas, and those in the production of coke and petroleum products. Coupled with higher global prices for fertilizers and healthy foreign demand, this led to faster growth in the prices of chemicals.

Growth in the GDP deflator will accelerate markedly in Q1 2021, driven by pro-inflationary factors in most sectors of the economy

Upward inflation trends in the global commodity markets impacted not only the prices of consumer goods. Selling prices in agriculture and the food industry also grew at a faster pace, in particular due to high global prices for grains and edible oils. Prices in metallurgy and the production of metal ores also grew at a faster rate. Price growth accelerated in the construction sector, fueled by an increase in raw material prices, such as bitumen prices.

In contrast, the growth in the deflator was restrained by a slower rise in prices for telecommunication services provided to businesses, and unchanged prices for railway cargo transportation.

⁴ Read more about the relationship between past inflation and inflation expectations in Ukraine in the article [The Effectiveness of the Monetary Transmission Mechanism in Ukraine since the Transition to Inflation Targeting](#), by Oleksandr Zholud, Volodymyr Lepushynskiy and Serhiy Nikolaychuk, [Visnyk of the National Bank of Ukraine, issue # 247, pages 19-37](#).

⁵ Ministerial Decree #25, dated 18 January 2021, capped the natural gas price for households at UAH 6.99 per cubic meter starting from 1 February 2021 for the duration of quarantine, but no later than 31 March 2021. In spite of that, even in January many gas suppliers had cut their prices.

Box 2. How Other Central Banks Meet Their Inflation Targets⁶

This year will mark five years since the introduction of inflation targeting (IT) in Ukraine. Despite great uncertainty resulting from the 2014 – 2015 crisis, the NBU was able to curb high and volatile inflation and stabilize it in the single-digit range. Over that time, inflation has often deviated from the target and target range set by the NBU. However, the experience of other countries shows that such deviations have also been registered in other countries, especially those that have relatively recently switched to inflation targeting. Moreover, the inflation targeting regime is flexible: central banks can allow inflation to deviate even from its target range over short-term periods, if the risk of excessive volatility in economic activity exceeds the risk of destabilized inflation expectations. The continued implementation of a consistent policy will decrease the magnitude and duration of future deviations of inflation from its target range.

Since first being adopted by New Zealand in 1990, inflation targeting policies have become popular among advanced economies and emerging markets. According to the IMF's⁷ classification, there are currently 41 inflation-targeting countries (11 advanced economies⁸ and 30 emerging market economies,⁹ including Ukraine). On average, these countries have engaged in inflation targeting for 17 years (24 years for advanced economies and 14 years for EMs).

The main idea behind inflation targeting is that central banks pledge to take action to achieve a declared inflation target and/or a target range. Countries' IT parameters differ in the target level, the width of the target range, and the speed at which disinflation policies are initially implemented, which can influence a central bank's ability to meet its commitments. The effectiveness of inflation targeting is determined¹⁰ by analyzing the average magnitude, frequency and duration of actual inflation deviations from a central bank's target, taking into account inflation targeting specifics in some countries.

Figure 1. Inflation and its volatility, % yoy



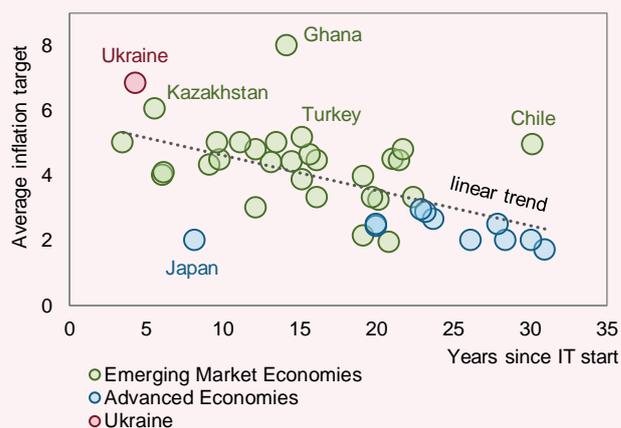
* σ - standard deviation. With a normal distribution, 68% and 95% of the values are within one (areas colored in dark shades) and two (areas painted in light shades), respectively, standard deviations from the mean value.

Source: SSSU, NBU staff estimates.

Ukraine is a young inflation targeter compared to other countries, while its average inflation target since its introduction has been one of the highest in the world. With

high and volatile inflation (Figure 1) persisting for a long time, the NBU started targeting inflation by gradually decreasing its inflation target from 12% in late 2016 to 5% in the medium term. Since the introduction of inflation targeting in Ukraine, the average inflation target has been almost 7%, with average inflation being 9%. Although average inflation has remained unchanged since inflation targeting was adopted, inflation volatility has almost halved. The standard deviation of inflation from its target has dropped from 7.3 pp to 4.2 pp, proving the effectiveness of inflation targeting in delivering price stability.

Figure 2. Relationship between the average inflation target and the age of IT framework across countries



Source: NBU staff estimates based on data from the SSSU, the IMF and the web pages of the world's central banks as of February 2021.

Ghana is the only country (Figure 2) that has a higher target of 8%, while Turkey and Kazakhstan had average targets above 5%. The average targets of most other emerging markets are 3% to 5%, while those of advanced economies are about 2%. Emerging markets have higher inflation targets for several main reasons. First, countries with lower labor productivity compared to advanced economies also have a lower relative price level – goods and services are cheaper in poorer countries compared to better-off ones. Central banks set higher inflation targets in anticipation of a rise in relative productivity in the future and, consequently, the convergence of prices with those in advanced economies. Second, less

⁶ This box is based on a study conducted by Oleksandr Faryna, Sergiy Nikolaychuk and Viktor Koziuk, which will be published later.

⁷ According to the IMF's [Annual Report on Exchange Arrangements and Exchange Restrictions \(AREER\) for 2019](#).

⁸ Australia, Canada, the Czech Republic, Iceland, Israel, Japan, Korea, New Zealand, Norway, Sweden, and the United Kingdom.

⁹ Albania, Armenia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Georgia, Ghana, Guatemala, Hungary, India, Indonesia, Jamaica, Kazakhstan, Mexico, Moldova, Paraguay, Peru, the Philippines, Poland, Romania, the Russian Federation, Serbia, South Africa, Thailand, Turkey, Uganda, Ukraine, and Uruguay.

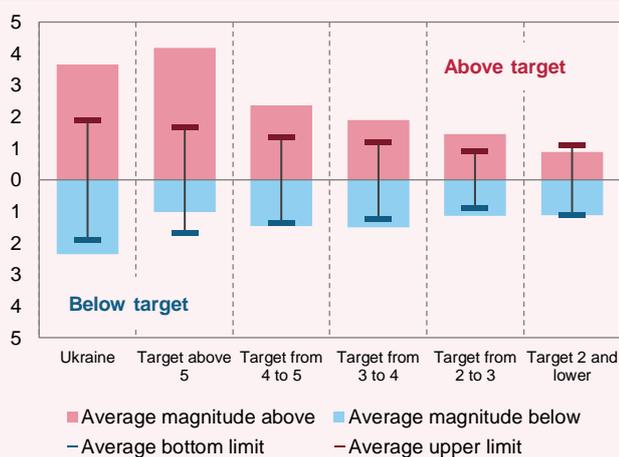
¹⁰ For example, [Roger & Stone \(2005\) "On Target?: The International Experience with Achieving Inflation Targets"](#).

developed economies are prone to have more turbulent macroeconomic environments and be more vulnerable to shocks. Higher inflation targets leave more room for maneuver for a central bank's monetary policy, which is limited by the interest rate's effective lower bound. Third, macroeconomic turbulence often leads to record-high and volatile inflation. The need to bring inflation down and stabilize inflation expectations compels central banks in emerging markets to set higher inflation targets at the initial stage of targeting inflation, and to decrease them gradually over time.

Since Ukraine adopted inflation targeting, inflation has deviated from its target and its target range in both upward and downward directions. The average magnitude of deviations is similar to that of other countries that have high average targets and that adopted inflation targeting relatively recently (Figure 3). Upward inflation deviations were on average greater compared to downward deviations. Upward deviations also overshoot the upper bound of the target range more often, mainly due to the initial disinflation period.

In countries that have a longer history of inflation targeting and have lower average inflation targets, the magnitude of upward and downward deviations decreases, and on average stays within the target range. Since the adoption of inflation targeting, upward deviations have been more pronounced in terms of average magnitude in Ghana, Turkey, the Russian Federation, Uganda and Serbia than those in Ukraine. The average inflation targets were lower in most of these countries compared to Ukraine.

Figure 3. Average magnitude of deviations from the target center* across groups of countries with different levels of inflation target



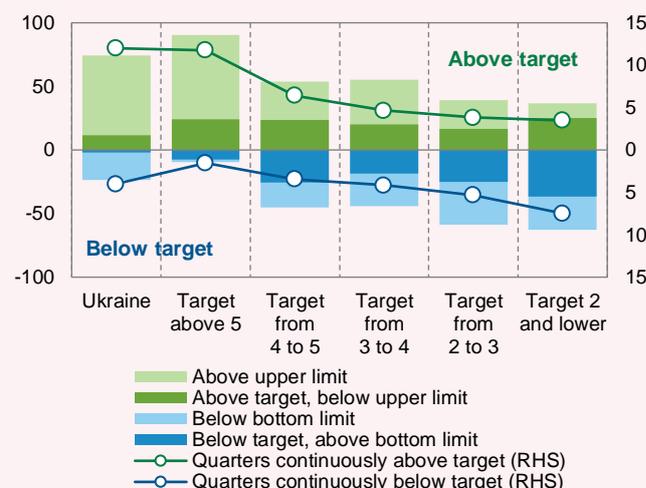
* Based on the monthly data on inflation and assuming that inflation target is stable over a year, except of Ukraine and Czech Republic who publicly announced a gradual change of a target over a year.

Source: NBU staff estimates based on data from the SSSU, the IMF and the web pages of the world's central banks as of February 2021.

Since Ukraine switched to inflation targeting, inflation has been in its target range for eight months, or 16% of the total period of inflation targeting in Ukraine. Starting in late 2016, inflation in Ukraine was above its target for 36 consecutive months, while starting in December 2019, inflation was below

its target for 12 months. Other countries with high average targets have a similar track record (Figure 4). In particular, they are close to those reported by Turkey, Uruguay, Georgia and Ghana. Countries that have average inflation targets from 3% to 5% and that have continuously engaged in inflation targeting for longer periods on average saw inflation stay in its target range in 40% to 50% of cases, and registered average continuous deviations of two to seven quarters. In advanced economies, inflation stayed in its target range in 40% to 60% of cases.

Figure 4. Average frequency (pp, left scale) and average duration (quarters, right scale) of inflation deviations from the target and target range across groups of countries with different levels of inflation target



Source: NBU staff estimates based on data from the SSSU, the IMF and the web pages of the world's central banks as of February 2021.

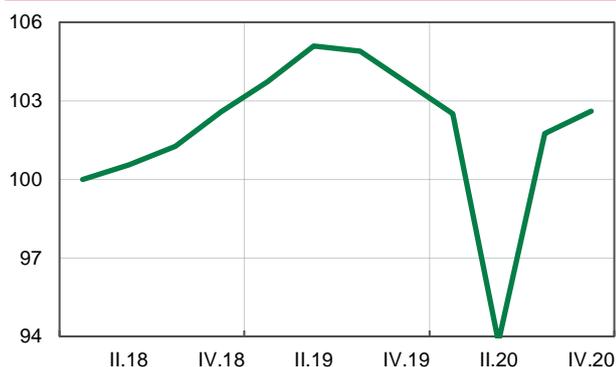
Lower average inflation target is associated with a lower frequency and duration of deviations above the upper bound of the target range, but a higher frequency and duration of deviations below the lower bound of the target range. Pro-inflationary shocks prevail in less developed economies that have been targeting inflation for shorter periods. Conversely, advanced economies with low inflation targets have been suffering from low inflation for a long time, with their monetary policies constrained by the effective lower bound on interest rates.

Deviations of inflation from its target and target range in Ukraine are on average commensurate with the results of central banks in other countries that switched to inflation targeting relatively recently, have high average inflation targets, and have experienced disinflation. The experience of countries that have inflation targets of up to 5% shows that the continued and consistent application of inflation targeting policies can reduce the magnitude, frequency and duration of future inflation deviations from the target range.

2.2. Demand and Output

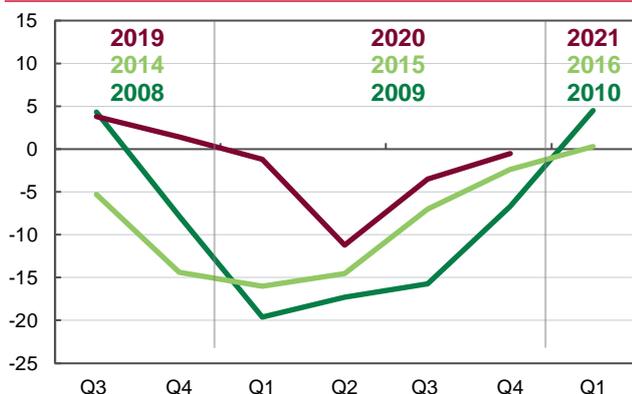
- In 2020, real GDP dropped by 4.0%. The decrease was less pronounced than expected at the onset of the crisis, thanks to the faster-than-expected economic recovery in H2.
- The economy gained momentum, driven mainly by private consumption, coupled with government consumption in late 2020. Consumer demand grew at a faster pace than anticipated, as a result of which the economy had almost reached its pre-crisis level by Q4. Investment remained depressed throughout the year.
- In early 2021, economic activity weakened on the back of both new quarantine restrictions and unfavorable weather conditions, as well as more systemic factors (difficult situation in the animal production industry and stronger competition on some external markets).

Figure 2.2.1. Real GDP sa, I.18 = 100



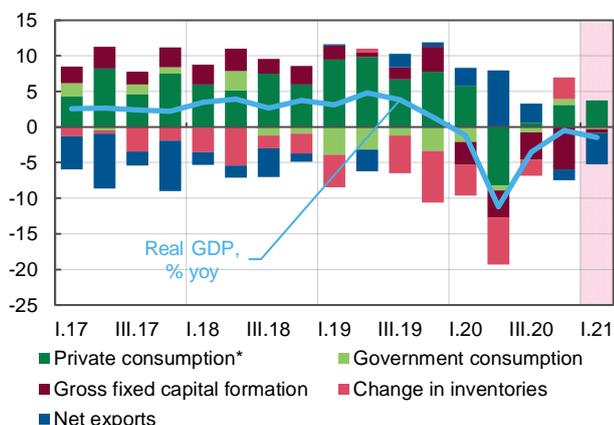
Source: SSSU, NBU staff estimates.

Figure 2.2.2. Real GDP, % yoy, in different crisis periods



Source: SSSU.

Figure 2.2.3. Contributions to annual real GDP growth by final use, pp



* Including non-profit institutions serving households.

Source: SSSU, NBU staff estimates.

¹¹ The effects of the 2020 crisis were apparent even in Q1, as the lockdown was imposed in the latter half of March.

The Ukrainian economy has almost recovered to its pre-crisis level

In 2020, real GDP dropped by 4.0%, which was better than the projection of (-4.4%) published by the NBU in its [January 2021 Inflation Report](#). Actual indicators for Q4 2020 were better than expected (a drop of only 0.5% yoy), thanks to the significant improvement in the performance of some sectors (such as construction, industry and trade) recorded in December.

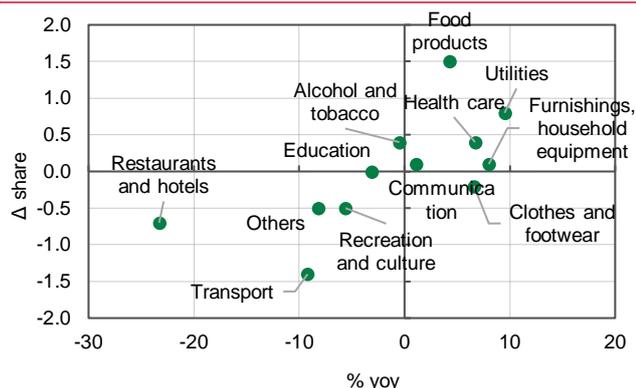
The Ukrainian economy proved to be more resilient than it was during other crises. The current crisis has not been accompanied by rapid depreciation and inflation. The 2020 fall in real GDP turned out to be commensurate with that in peer countries, and less pronounced than expected at the onset of the crisis. Following the slump seen in Q2 (by 11.2% yoy), the economy rebounded quickly in H2. In Q4, the economy had practically¹¹ returned to its pre-crisis level: seasonally adjusted real GDP was almost equal to that in Q1 2020.

The 2020 GDP drop was mainly the result of narrowing consumer demand and lower investment demand in response to the quarantine restrictions imposed in Ukraine and globally, along with uncertainty arising from the pandemic. Investment was mainly dragged down by worsening business expectations and unresolved issues related to payments for alternative energy. Investment declined in 2020, with the decline becoming even more pronounced in H2 (by 24.4% for 2020 as whole).

The economic recovery was mainly fueled by domestic consumer demand

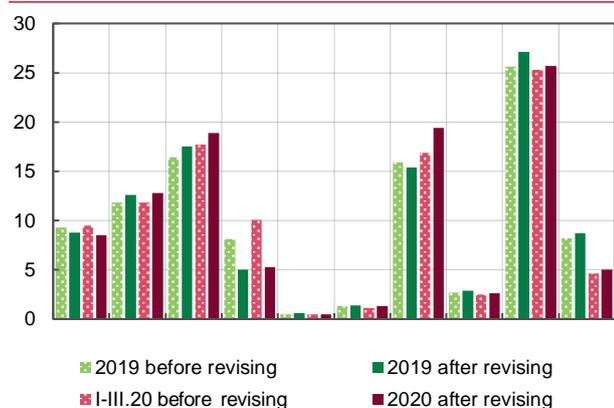
Household consumption made the largest contribution to the economic recovery – in 2020 as a whole it grew by 1.6% yoy, despite a significant fall in Q2. H2 saw an increase in consumption, bolstered by rebounding economic activity (including in the services sectors, which were hit the most by quarantine restrictions), the government's social support programs, and by improved consumer sentiment. A considerable contribution was also made by households shifting to domestic tourism, which, among other things, supported trade growth.

Figure 2.2.4. Household consumption by purpose, % yoy and change in its share in 2020 compared to 2019



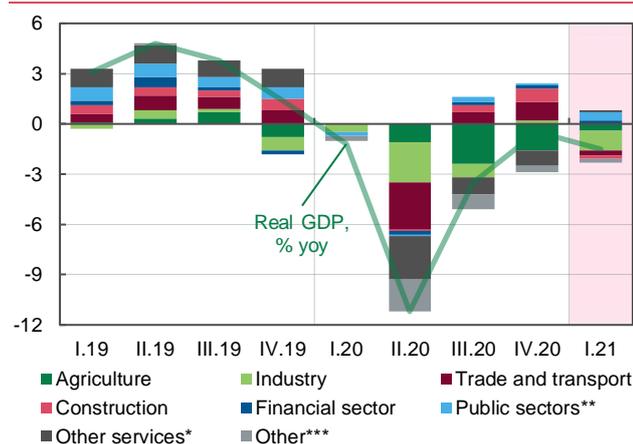
Source: SSSU, NBU staff estimates.

Figure 2.2.5. General government final consumption expenditure by purpose, % of total



Source: SSSU.

Figure 2.2.6. 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; *** Others include product taxes; subsidies on products.

Source: SSSU, NBU staff estimates.

That said, the pandemic did change consumer behavior in 2020 due to consumers reordering their spending priorities¹², the development of online shopping and delivery services, and an increase in remote working and education. Households started spending more on food and healthcare, while cutting down their expenses on eating out, and tourism and transportation services. Increased time at home boosted spending on household appliances, household goods and better living conditions (the latter is reflected in the consumption of utilities). Spending on clothing and footwear also grew in 2020, which can largely be explained by retailers changing their pricing policies.¹³

The government's support for the economy also restrained the fall in GDP. More specifically, budgetary spending on road infrastructure generated growth in the construction sector and related sectors (such as mining and quarrying in H2 and the production of other nonmetal goods). Increased budgetary spending on healthcare and defense, coupled with a rise in the minimum wage, helped bolster growth in budget-financed sectors and general government consumption in late 2020.

For reference: Government consumption indicators were significantly revised in 2019 and 2020 during the scheduled review of national accounts data. This was mainly the result of methodological changes due to transformations in the health sector, and revisions of data on construction projects.

The record-high 2019 harvest, which was exported in H1 2020, stable global demand for food products, and the rapid recovery of the Chinese economy supported exports. In spite of that, exports of goods and services dropped by 5.6% in 2020, dragged down by the poorer 2020 harvest and tighter competition on some markets. Imports fell more dramatically, by 9.6%, amid weak consumer demand in H1, restrictions on tourism abroad, and the decrease in investment seen throughout 2020. As a result, net exports made a positive contribution of 2.4 pp in 2020.

In early 2021, economic growth was restrained by both systemic and temporary factors

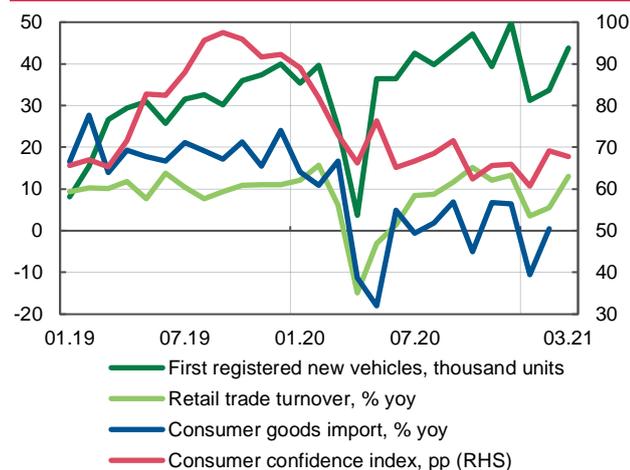
Economic activity suffered from the introduction of a national lockdown in January and red zone quarantine restrictions in some regions in March 2021. Nevertheless, the NBU estimates the impact of the March restrictions on annual real GDP to be moderate, at (-0.1) pp (the impact of the January lockdown, which was estimated at (-0.2) pp, was factored into the macroeconomic forecast published in the [January 2021 Inflation Report](#)). First, strict quarantine restrictions were not introduced in the entire country and lasted less than a month – from the latter half of March, ten to 12 oblasts and the city of Kyiv, which together account for 50% to 60% of GDP, were assigned to the red zones.¹⁴ Second, in contrast to last year's

¹² According to a [survey](#), 63% of Ukrainians said that the quarantine had impacted their consumption habits in 2020: Ukrainians cut down their expenses on restaurants, clothes and footwear, while stepping up spending on medicine. They also started to buy more online, and used more food and prepared food delivery services.

¹³ Retailers held off raising their prices while actively offering discounts, on the back of the developing online trade, fears of weaker demand amid rising morbidity, stronger competition due to big global retailers getting direct access to the Ukrainian online market, and a moderately volatile exchange rate. As a result, the deflator of spending on clothes and footwear dropped by 3.7% in 2020.

¹⁴ Calculated on the basis of the latest available data on 2019 regional GDP.

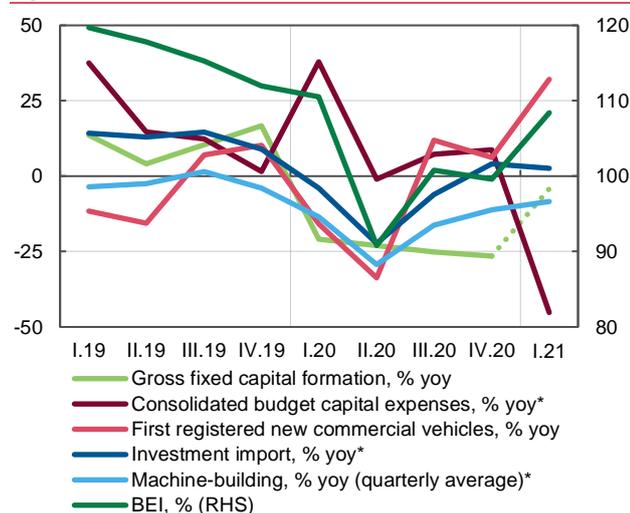
Figure 2.2.7. Selected indicators of private consumption



* New and used ones, excluding cars imported with violation of customs regulations.

Source: SSSU, NBU, Info Sapiens, Ukravtoprom.

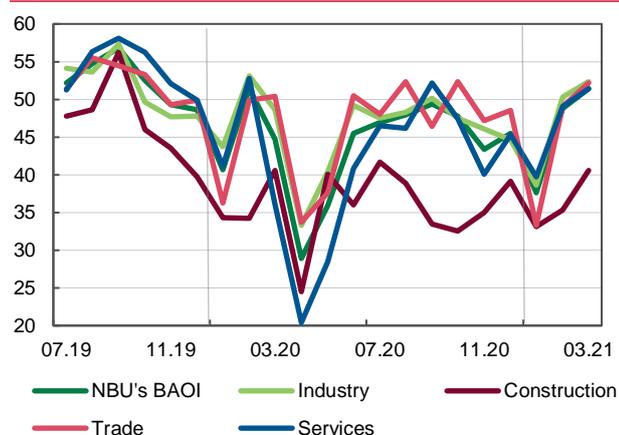
Figure 2.2.8. Selected indicators of investment demand



* I.21 - Jan-Feb 2021.

Source: SSSU, Treasury, NBU, Ukravtoprom.

Figure 2.2.9. NBU's business activity outlook index (BAOI), p.



A level above 50 indicates expansion or growth, a reading below 50 signals a contraction.

Source: NBU.

lockdown, businesses and households had to a large extent adapted to quarantine, in particular by using online trade and delivery services. What is more, the restrictions were not as tight as those imposed last year – people were allowed to sell goods upon prior order, provide individual services by appointment, and use public transport with special permits.

The more difficult weather conditions seen in the current year had a temporary effect on the performance of some sectors (construction and transport sectors). The adverse effect of last year's lower harvest also persisted. Declining stocks of agricultural crops reduced the output of the food industry, exports and, consequently, wholesale trade and cargo transportation. The decline in the agricultural sector continued amid rising feed prices and the worsening of the epizootic situation. Despite high global commodity prices, some industrial subsectors suffered from stronger competition on the external markets (in particular on the mining and metals markets), and from additional trade restrictions.¹⁵ Coupled with the further impact from the poorer harvest in 2020, this deepened the decline in real exports in Q1.

The economy continued to be supported mainly by consumer demand, which remained robust in early 2021 despite quarantine restrictions. This was evidenced by sustained growth in retail trade turnover (by 3.5% yoy) in January, which sped up in February and March, to 5.6% yoy and 13.1% yoy respectively, and by the surge in imports of cars and other consumer goods seen in March. The robust consumption was sustained by further growth in household income (read more in the Labor Market and Household Income Chapter on page 19), and improved consumer sentiment.

Investment demand also showed signs of recovery. This was apparent from improved business expectations, the good performance of some mechanical engineering subsectors, and an increase in investment imports. Nevertheless, budgetary capital expenditures dropped in early 2021. As a result, overall investment activity remained subdued. The negative contribution of net exports to the change in real GDP is expected to rise pronouncedly in Q1 amid a noticeable rebound in imports and a decline in exports. Consequently, the Q1 fall in real GDP has been revised downward, to 1.5% yoy.

¹⁵ In early June 2020, [the Eurasian Economic Commission](#) renewed its antidumping duties on imports of Ukrainian railway wheels, while in February 2021 [the Russian Federation imposed a ban on imports](#) of Ukrainian railway wheels, solebars, and truck bolsters.

2.3. Labor Market and Household Income

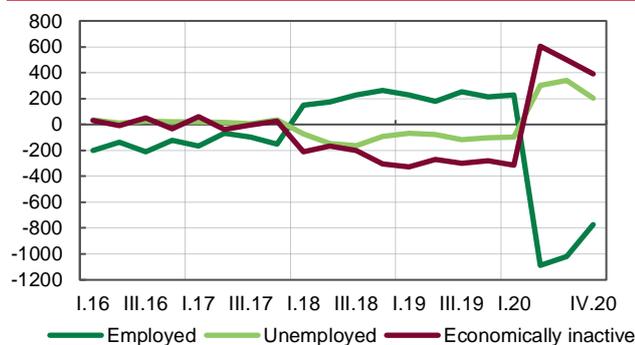
- The labor market gradually improved in H2 2020. This was facilitated by less burdensome quarantine measures, the adaptation of businesses to working under restrictions, and government support. At the same time, the risk of new COVID-19 outbreaks is holding back the recovery in employment.
- Demand for labor remained stable, despite the March lockdown. People were also actively looking for work, although less so during the lockdown.
- Household incomes continue to grow, in part due to the increase in the minimum wage and the indexation of pensions.

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



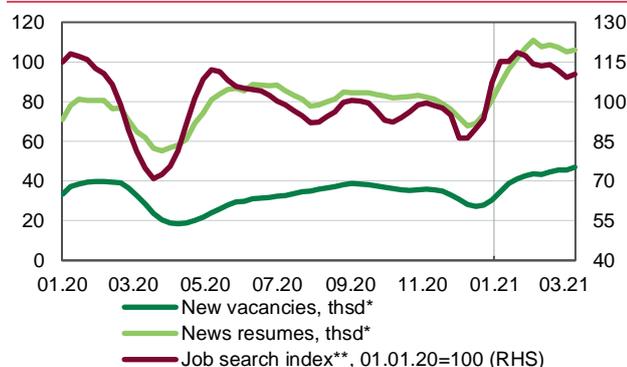
* As a % of population aged 15–70 in the labor force; ** As a % of total population aged 15–70.
Source: SSSU, NBU staff estimates.

Figure 2.3.2. Unemployed, employed, economically inactive, thousand persons, yoy



Source: SSSU, NBU staff estimates.

Figure 2.3.3. Labor supply and demand indicators (4-week moving average)



* Data from work.ua; ** Includes job search queries in Ukrainian and Russian, index - first week 2020 = 100.
Source: SSSU, work.ua, Google Trends, NBU staff estimates.

Employment is gradually increasing, despite tighter quarantine restrictions

During H2 2020, the labor market gradually improved. People resumed their job-seeking efforts (labor force participation increased). At the same time, employment also improved, and the seasonally adjusted unemployment rate decreased (to 9.7% in Q4).

Seasonally adjusted employment grew for both men and women, regardless of their place of residence. Women were more active in resuming job-seeking and employment immediately after the quarantine restrictions were eased, while in Q4 their activity weakened somewhat. This may be due to an increase in the prevalence of the COVID-19 disease at the end of the year, and tightened restrictions on the operation of the services sector.¹⁶ Men's activity, on the other hand, picked up in late 2020, which may be due in part to an increase in construction work and a shift in harvesting paces. The same factors contributed to improved employment in urban and rural areas.

Experienced workers were in relatively high demand from employers. At the same time, employment among young people, especially men, improved. However, the unemployment rate in this group remains the highest, despite the still significantly lower labor force participation rate compared to a year ago.

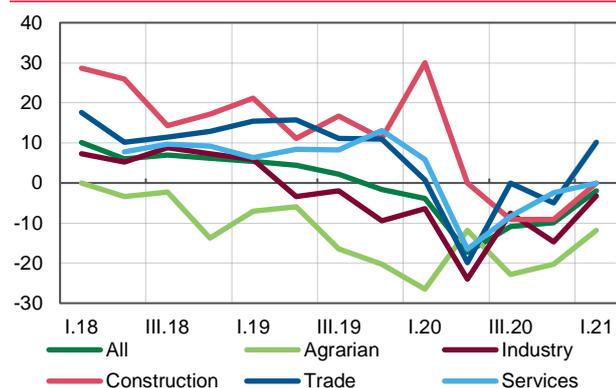
In early 2021, the labor market continued to recover. According to business outlook surveys, businesses in all sectors, except services, had better employment expectations in Q1 than a year ago (however, the survey was conducted in February, so businesses may not have taken into account the March lockdown).

Businesses and households have partially adapted to working in a pandemic. Despite the "red zone" quarantine in effect in some regions in March, the number of vacancies on job search sites grew and remained significantly higher than a year ago. People were also actively looking for work, though less so during the lockdown. Household expectations about unemployment dynamics also deteriorated. This may in particular be explained by the need to care for young children due to the closure of pre-school institutions.

Government programs also supported employment. [A number of laws](#), passed in late 2020, provided for one-off UAH 8,000 coronavirus relief payments to workers and sole proprietors who lost part of their income due to the lockdown.

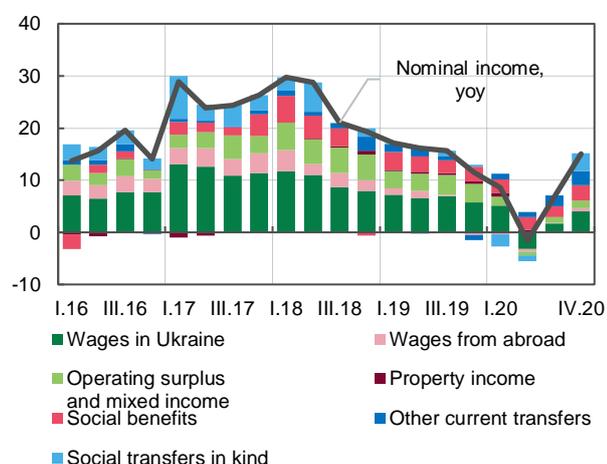
¹⁶ While the risk of contracting COVID-19 does not depend on gender, the decline in women's activity amid the virus's resurgence may be related to the need to care for patients.

Figure 2.3.4. Expectations regarding the change in the number of workers in the next 12 month, by sector (balance of responses), pp



Source: NBU's business outlook survey.

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



Source: SSSU, NBU staff estimates.

Figure 2.3.6. Employee salaries and pensions, % yoy



* Wages as of 02.2021.

** Pensions at the beginning of the quarter. The real pensions at the beginning of April 2021 are calculated with inflation for March 2021.

Source: SSSU, PFU, NBU staff estimates.

Almost 500,000 people have been given compensation under this program. In early 2021, the authorities announced that this program would continue through 2021. This extension was officially [greenlighted in March](#).

As a result, unemployment declined, but at a modest pace, according to NBU estimates – to 9.6% in Q1 2021 in seasonally adjusted terms.

Despite weak economic activity at the beginning of the year, the growth in household income continued, primarily due to government social programs

After falling in Q2 2020, household income continued to rise. Specifically, income growth in Q4 accelerated in both real (6% yoy) and nominal terms (13% yoy). This increase was primarily driven by social programs and wage growth in Ukraine.

The rapid economic recovery in H2 supported wage growth in most sectors. In 2020, nominal wages grew across the board, except for restaurants, hotels, and air transport. In the private sector, the highest wage growth was seen in IT, which easily switched to remote work and enjoyed strong demand for its services. Wage growth was also driven by an increase in budget expenditures on health care and other activities that are mainly funded by the government (education, public administration).

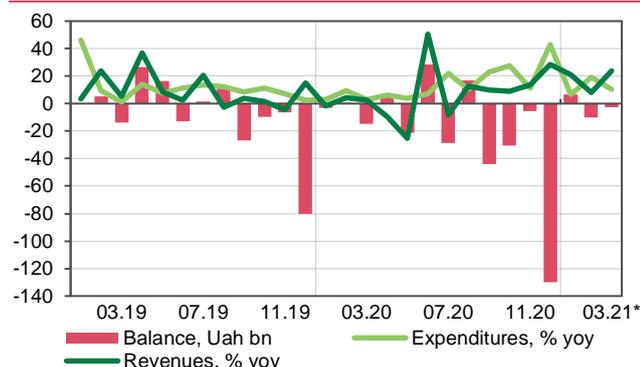
In addition to the increased pensions, minimum wage, and related benefits, government support programs for entrepreneurs gave a substantial boost to household income. High growth rates of profits and mixed income were signs that the financial standing of entrepreneurs had improved. The opening of borders along with labor demand in neighboring countries led to an increase in remittances in Q4.

The imposition of a nationwide quarantine in January and the tightening of restrictions in some regions in March 2021 are likely to have slowed household income growth in Q1 2021. At the same time, the partial adaptation of businesses to quarantine restrictions, and more support from the government, including a minimum wage increase in January, an indexation of pensions in March, a rise in subsidies, and more, will contribute to income growth in Q1 2021.

2.4. Fiscal Sector

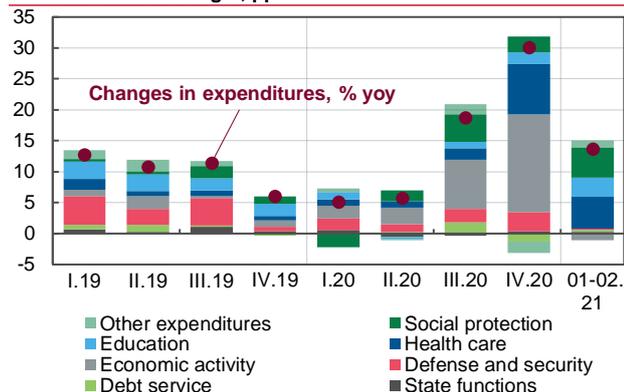
- Fiscal policy at the beginning of the year remained socially oriented, supporting private consumption.
- Despite the slump in economic activity, tax revenues increased due to higher wages, higher prices for natural resources, and a weaker hryvnia than last year.
- Budget needs were financed by domestic borrowings and funds accumulated in the previous year. Public and publicly guaranteed debt remained almost unchanged since the beginning of the year, in particular due to an exchange rate revaluation.

Figure 2.4.1. The main indicators of the consolidated budget



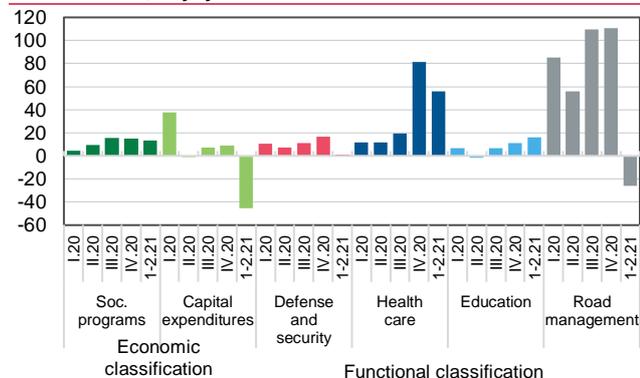
* 03.2021 - estimates. Source: STSU, NBU staff estimates.

Figure 2.4.2. Contributions to annual changes in expenditures of the consolidated budget, pp



Source: STSU, NBU staff estimates.

Figure 2.4.3. Growth in consolidated budget expenditures by selected areas, % yoy



Defense and security includes defense and public order, security and the judiciary. Social programs include wages and social care.

Source: STSU, NBU staff estimates.

¹⁷ In early 2021, the [Pension Fund completed the financing of lump-sum relief payments to individuals](#) who lost part of their income over the January lockdown. Support was also allocated to the Social Security Insurance Fund of Ukraine to finance payments to health workers at public and community healthcare facilities and members of their families due to COVID-19 and its consequences.

¹⁸ The tax breaks included not levying the personal income tax on one-off benefits payable to those who have lost their income because of a ban on their activity; exempting category I sole proprietors from the unified tax and the SSC for the period from 1 December 2020 until [1 May 2021](#), with the period of exemption added to their pensionable service record; and [writing off arrears, fines, and penalties](#).

Fiscal policy at the beginning of the year remained socially oriented

At the beginning of the year, budget resources remained focused on the social expenditures: compensation of employees, transfers to the Pension Fund, including due to the indexation of pensions from 1 March, and housing and utility subsidies for households, inter alia owing to the introduction of reimbursement for higher electricity tariffs, were increased; [COVID-19 relief funds were allocated to fight the spread of the virus and its consequences](#).¹⁷ In addition, the tax breaks for micro- and small businesses introduced in late 2020 remained in place.¹⁸ All of this buoyed private consumption during the new wave of the pandemic.

The government continued to prioritize healthcare expenditures too, including spending on medicines and anti-COVID-19 and sanitation measures. Humanitarian spending, including education, culture, and sports, also increased.

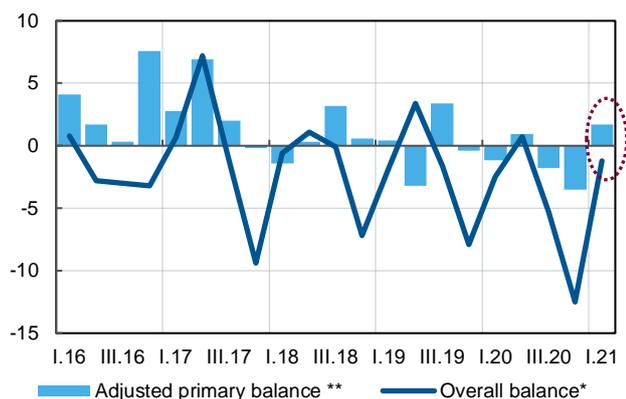
Debt-servicing expenditures rose, among other things due to significant short-term borrowings in late 2020, which came with higher yields. However, the increase was smaller than planned, as the hryvnia came in weaker than was factored into the budget.

Other expenditures were financed with restraint

A number of collective services were funded modestly, including defense, public order and the judiciary, road infrastructure. This may be due to the lengthy procedures for approval of programs at the beginning of the year, and adverse weather conditions (for construction work). As a result, expenditures increased moderately in general. Given the faster growth in revenues, the consolidated budget ran a relatively minor deficit in Q1. The cyclically adjusted primary balance became positive. This is evidence of the restraining effect of fiscal policy on economic activity.

Despite the slump in economic activity at the beginning of the year, tax revenues increased

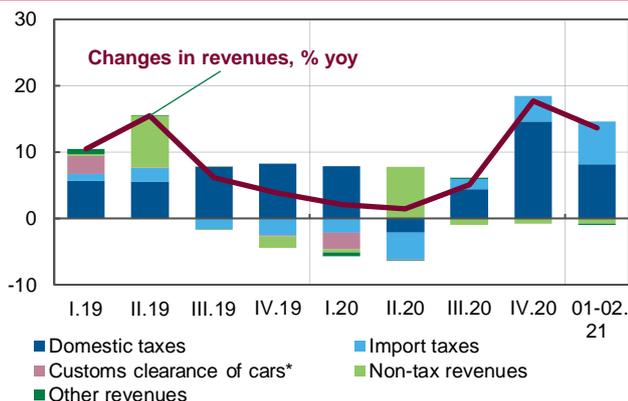
Tax revenues grew at a relatively high pace due to taxes on both domestically produced and imported goods. Wage growth and strong consumer demand contributed to high

Figure 2.4.4. Fiscal balance, % of GDP* and % of potential GDP**

* Overall balance (% of GDP) is the consolidated budget balance, taking into account loans to the Pension Fund from the STA. Q1 2021 - estimates.

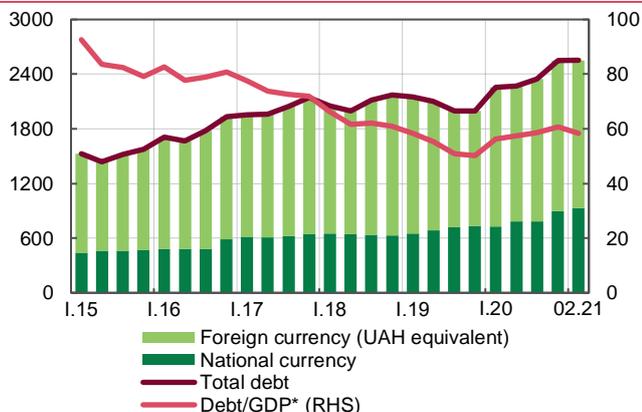
** Cyclically adjusted primary fiscal balance (CAPB) of the general government (% of potential GDP). CAPB is the difference between seasonally adjusted revenues, in the structure of which tax revenues are adjusted for cyclical changes in GDP, and seasonally adjusted primary expenditures. Additionally, one-off proceeds (such as unplanned funds from special confiscation and effects of the Stockholm Arbitration Court's ruling) are subtracted from revenues. A positive value indicates tight fiscal policy, negative – expansionary fiscal policy.

Source: STSU, NBU staff estimates.

Figure 2.4.5. Contributions to annual changes in revenues of the consolidated budget, pp

* The customs clearance of cars transported into the customs territory of Ukraine which fall under the customs regime of transit or temporary import (according to Law of Ukraine, dated 08.11.2018 "On amendments to the tax code of Ukraine concerning the excise tax on cars").

Source: STSU, NBU staff estimates.

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

* In the absence of detailed information on debt repayment by currency as of September 30, 2015 and September 30, 2016, the currency structure was approximated based on data for October 31, 2015 and August 31, 2016, respectively.

** GDP for 2021 - NBU estimates on a quarterly basis.

Source: MFU, SSSU, NBU staff estimates.

revenues from both consumption taxes (domestic excise duties and VAT) and income taxes. Proceeds from corporate income tax declined as expected due to a high base of comparison (the receipt of a lump-sum settlement from the implementation of the rulings made by the Stockholm Arbitration Court in late 2019). However, these proceeds surpassed their planned levels thanks to the improved financial performance of businesses. An additional factor was the better [administration](#) of domestic VAT. Due to high prices for natural resources (oil, natural gas) proceeds from royalties increased.

The growth in tax revenues was also driven by the hryvnia, which weakened from last year, and an increase in natural gas consumption due to colder weather, which was accompanied by both higher gas imports and the customs clearance of gas under the "customs warehouse" regime.

The state budget deficit was financed mainly by borrowings; however, public debt remained almost unchanged, in part due to exchange rate valuation effects

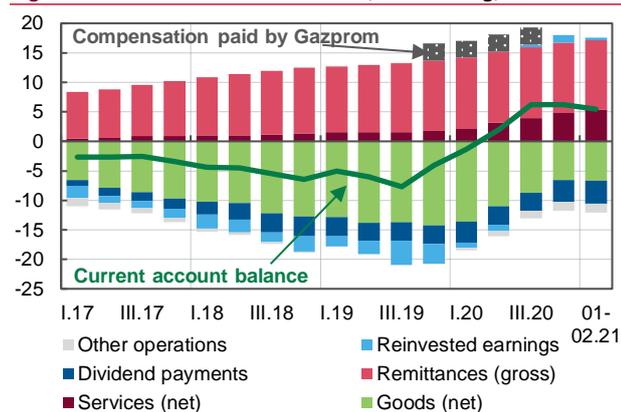
Significant demand for domestic government debt securities in the first months of 2021 led to large domestic borrowings, which were primarily denominated in the hryvnia. However, part of the government's needs (expenditures and repayments on government debt obligations) were financed by the significant funds accumulated in accounts as of the start of 2021.

A relatively moderate increase in net borrowing was offset by the strengthening of the hryvnia compared to the end of December. As a result, the volume of public and publicly guaranteed debt in January–February was almost unchanged from the beginning of the year. The debt-to-GDP ratio actually decreased, according to NBU estimates.

2.5. Balance of Payments

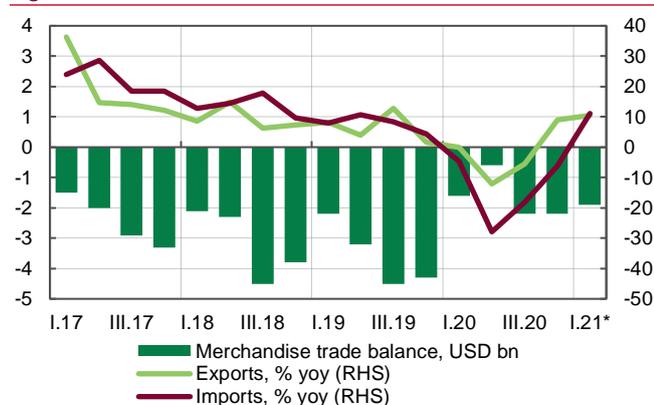
- Despite high global prices, the merchandise trade deficit remained considerable in Q1 2021, propelled by the rapid recovery of imports. In spite of that, the current account surplus persisted on the back of a significantly narrower merchandise trade deficit compared to its pre-crisis level, a widening surplus in the trade in services, and robust remittances.
- The financial account continued to record private sector outflows, which were mainly caused by global trends. Although the government sector continued to generate capital inflows in early 2021 due to nonresidents' interest in domestic government debt securities, these inflows reduced noticeably in late Q1.
- By the end of 2020, Ukraine had built up a certain amount of financial resources. As a result, the balance of payments deficit recorded in Q1 2021 had no significant influence on the adequacy criteria of gross international reserves.

Figure 2.5.1. Current account balance, 12-m rolling, USD bn



Source: NBU.

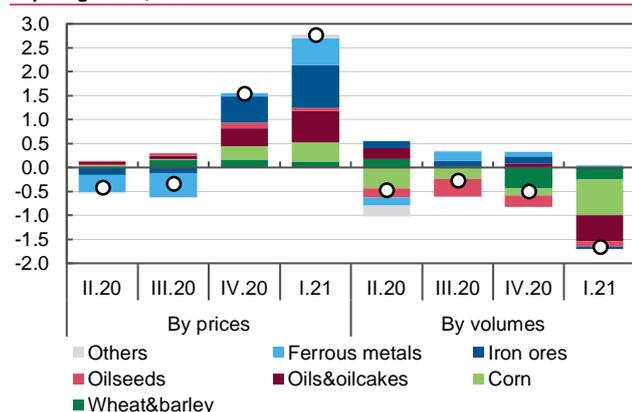
Figure 2.5.2. Merchandise trade



* Estimated data for March 2021.

Source: NBU staff estimates.

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



* 79% of goods exports.

Source: SCSU, NBU staff estimates.

Exports of goods expanded, fueled by high global prices

In Q1 2021, exports of goods grew by over 10% yoy, driven by prices. Higher global prices resulted mainly in larger exports of mining and metallurgical products. More specifically, iron ore exports values reached a new high: high global prices and widening demand from European metallurgical companies offset the drop in these exports to China that was caused, among other things, by [stronger competition from Australia and Brazil](#). Metallurgical exports were also restrained by growing global steel supply and the still weak recovery of the EU's industrial sector. What is more, rising ore prices, coupled with policies that aim to cut carbon dioxide emissions, stimulated [China to shift to using metal scrap](#) and acted as an additional factor slowing the growth in cast iron exports. As a consequence, the increase in metallurgical export values was almost fully the result of high global prices.

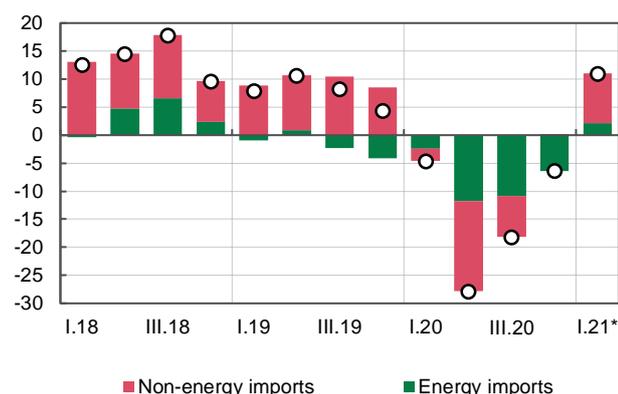
The benign price environment also mitigated the expected losses from last year's poorer harvest. High global prices significantly offset a decline in the exports of vegetable oil, grains and oilseeds. Conversely, [China's resumption of soy bean imports from the United States](#) reduced demand for Ukrainian oil cakes, cutting their exports. Agricultural producers also held back sales in the expectation of [a further rise in export prices](#) and [a decrease in the VAT rate](#). This pushed down food exports.

The growth in exports of goods was also restrained by a [ban on imports of some railway equipment](#) introduced by Russia and the [antidumping duty](#) on imports of rolled-steel wheels imposed earlier by the Eurasian Economic Commission. This duty, which was renewed in June 2020, affected the performance of machinery exports.

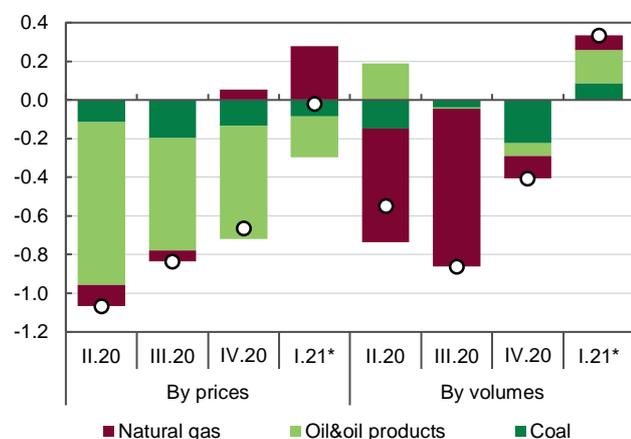
Imports continued to rally quickly in early 2021, buoyed by resilient consumer demand and a rebound in investment demand

Imports of goods rose by 11% yoy in Q1 2021, driven mainly by non-energy imports. In contrast to exports, the growth in imports was driven by both prices and volumes.

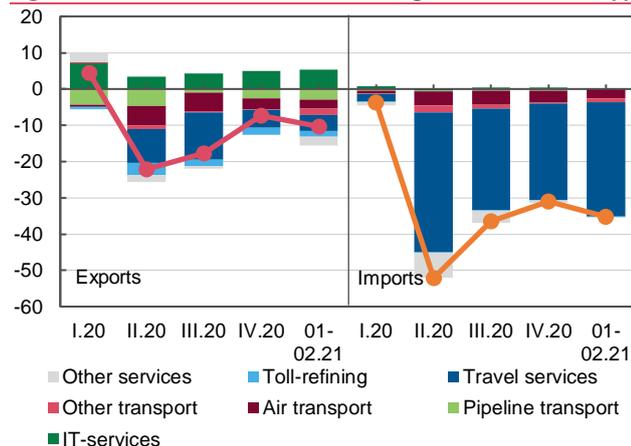
Both consumer and investment imports grew, especially in March. The growth in imports of food, industrial goods and household appliances sped up, while imports of wood products rose further. Chemical imports were driven by the epidemiological situation, which pushed up purchases of

Figure 2.5.4. Contributions to annual change in merchandise imports, pp

* Estimated data for March 2021.
Source: NBU staff estimates.

Figure 2.5.5. Absolute annual change in energy imports, pp

* Estimated data for March 2021.
Source: SCSU, NBU staff estimates.

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

Source: NBU staff estimates.

personal protective products and laboratory reagents. Demand for some medical equipment also grew (read more in Box 3 "Trade in Medical Goods in 2020" on page 26). This, together with stronger investment demand, led to a significant rise in machinery imports. More specifically, there was a noticeable increase in purchases of cars, trucks, some industrial equipment, and agricultural machinery.

Energy imports also returned to growth. A rapid rise in prices and cold weather conditions resulted in a marked increase in the value of natural gas imports. The decline in oil product and coal imports slowed, due to higher purchases of these products because of lower stocks and higher prices compared to the previous quarter.

The current account surplus persisted, thanks to a considerable surplus in services trade, and robust remittances

Remittances declined somewhat in early 2021 compared to the same period last year on the back of tighter quarantine restrictions imposed by other countries. In spite of that, remittances continued to contribute significantly to the current account surplus. In addition, the surplus in services trade widened markedly compared to last year. Imports of services continued to plummet: stricter quarantine restrictions imposed by many countries held back the recovery of foreign tourism. Exports of IT services grew further, propelled by buoyant external demand. The booking of additional transit capacity by Gazprom under the existing gas transit agreement (read more in Box 4 "The 2019 Gas Transit Agreement – Amat Victoria Curam" on page 27) because of the cold winter partly offset the drop in exports of pipeline transport services.

The private sector continued to witness capital outflows amid worsening financial conditions for emerging markets

Early 2021 saw a worsening in financial conditions for emerging markets (read more in The External Environment Chapter on page 6). This also had a bearing on capital flows into Ukraine. More specifically, FDI outflows in January – February resulted from repayments of direct investor loans and negative reinvested earnings caused by larger dividend payments.¹⁹ What is more, the banks' scheduled repayments of Eurobonds, the real sector's external debt repayments, and the almost complete absence of new borrowing led to capital outflows from the private sector in Q1.

The first few months of 2021 saw an expected decline in capital inflows to the government sector compared to late 2020, with inflows generated solely by nonresidents' investment in government securities. However, nonresidents' investment almost completely dried up in late Q1 on the back of a global trend in investors' weakening interest in risky assets, and Russia's increased military presence along the Ukrainian border. Together with the external debt repayments made in March, this narrowed government sector inflows in Q1 to almost zero.

¹⁹ Read more about the calculation of reinvested earnings in "[Changes to the Methodology for Compiling the Ukrainian Balance of Payments: Factoring in Companies' Reinvested Earnings.](#)"

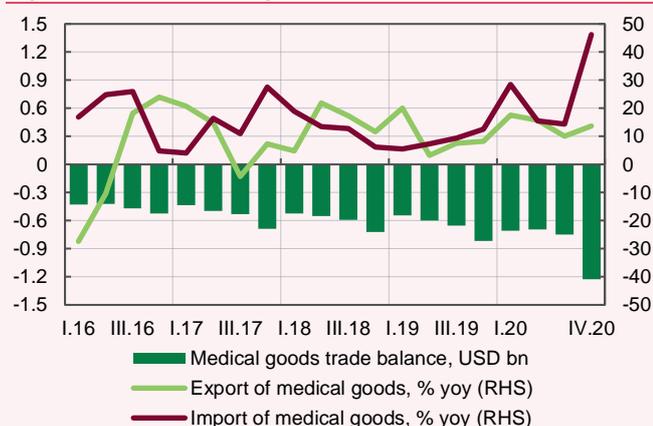
Box 3. Trade in Medical Goods in 2020

While having an adverse impact on the global trade in goods and services in 2020, the COVID-19 pandemic boosted the trade in medical goods. Ukraine's foreign trade turnover of medical goods²⁰ also increased by more than a quarter, fueled mainly by imports.

The 2020 global trade in medical goods grew in the context of tackling the pandemic. More specifically, [the global trade in medical goods](#) surged by 15.8% yoy in H1 2020. Although trade in pharmaceuticals generated over a half of the trade turnover, trade in personal protective products (face masks and hand sanitizers) increased at the fastest pace. The key players on the medical goods market were the United States, China and Germany.

Ukraine significantly expanded its imports of medical goods. Exports of these goods also grew. In 2020, Ukrainian exports of medical goods rose by 14.2% on account of all categories of medical goods.

Figure 1. Trade in medical goods



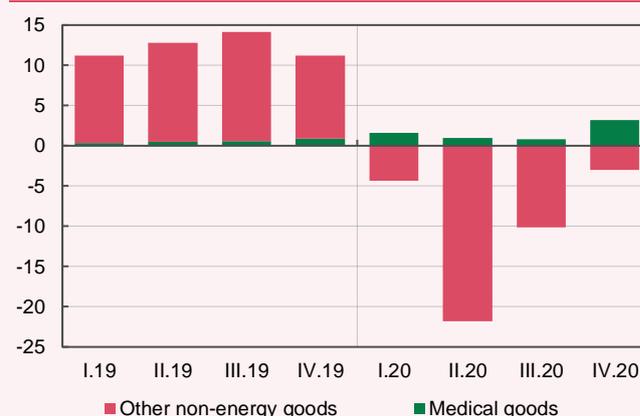
Source: NBU staff estimates.

The largest contribution to the growth in exports of medical goods was made by pharmaceuticals and those of reagents used in the production of coronavirus tests. Q1 2020 saw a noticeable increase in exports of personal protective products, such as face masks. Nevertheless, this growth had

practically no influence on total exports, as in 2020 exports of medical goods accounted for only 0.9% of total non-energy exports (0.8% in 2019).

At the same time, given the weaker position of domestic producers compared to those of advanced economies (in terms of technological complexity, R&D, import dependence, compliance with international standards, and so on), rising demand for medical goods from households, medical facilities and the state²¹ pushed up imports of these goods. Imports of medical equipment and pharmaceuticals made the largest contribution to the growth in imports of medical goods (by 27.4%). Imports of personal protective products increased moderately, due to, among other things, stepped-up domestic production. The share of imports of medical goods in total non-energy imports was 9.4% in 2020, compared to 6.6% in 2019. Imports of medical goods curbed the decline in total imports in 2020 – excluding them, total imports would have dropped by 9.6% instead of 7.9%.

Figure 2. Contributions to annual change in non-energy imports, pp



Source: NBU staff estimates.

²⁰ With a view to quantifying the dynamics of the trade in medical goods, [the WTO made a list of these goods](#) that consists of the following four main categories: pharmaceuticals, medical supplies, medical equipment, and personal protective products (96 commodity items).

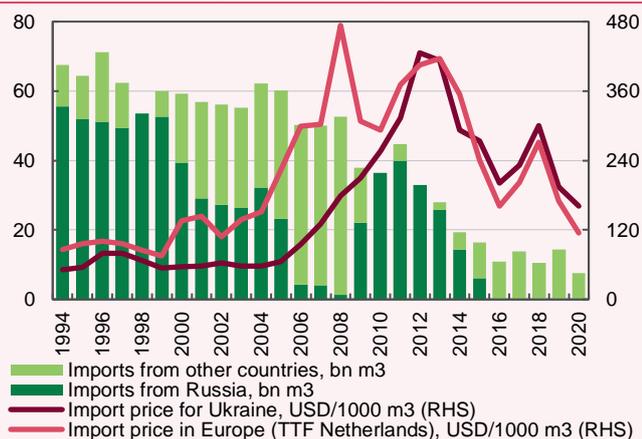
²¹ "Great Construction", a government program, envisaged purchases of equipment for medical facilities, speeding up growth in imports of medical goods in Q4 2020.

Box 4. Gas Transit Agreement 2019: Amat Victoria Curam²²

At the end of 2019, Ukraine and Russia signed a new natural gas transit agreement for 2020–2024. Despite the expected decline in transit revenues amid Russia's active development of new transit routes, this agreement guaranteed that gas would flow through the Ukrainian gas transportation system (hereinafter the GTS) and enshrined a number of favorable provisions for Ukraine. The main ones guaranteed minimum volumes of natural gas transit based on the "ship or pay" principle, and the absence of a clause obligating Ukraine to buy gas from Russia. In addition, work leading up to the signing of the agreement helped address a number of problems in the energy sector that had accumulated in previous years. Those issues primarily included the liberalization of Ukraine's gas market and the capability to render new services through the GTS. The latter, together with the implementation of some of the agreement's provisions, secured about USD 0.5 billion in direct benefits to Ukraine in 2020. At the same time, the GTS's prospects depend on whether Ukraine can optimize it to the market's needs, find additional gas sources to load it to capacity, and ramp up domestic gas production.

Complex relations between Ukraine and Russia in the gas sector. The high energy intensity of Ukraine's economy is a long-standing problem. Although this [indicator has been steadily declining since the mid-1990s, it remains one of the highest in the world](#). Ukraine spends three times more energy to produce one unit of output than neighboring Poland, according to the World Bank data. This not only affects the competitiveness of Ukrainian goods. With its lack of domestic energy resources, the country's energy dependence is also fueled by this inefficiency. In the 1990s, even while in a deep economic slump, Ukraine imported 60–70 billion cu. m of natural gas a year. Reform of the energy and housing sectors was stalled. To reduce the price of imported gas, Ukraine made political concessions in talks with Russia, then its main supplier of energy: from granting preferences to individual companies²³, to suspending in late 2013 its efforts to sign an association agreement with the EU, as well as extending Russia's lease to station part of its Black Sea fleet in Crimea – a blunder that made the peninsula's subsequent annexation by Russia virtually effortless.

Figure 1. Volumes and price of natural gas imports



Source: World Bank, NBU staff estimates.

Pressure from Russia culminated in the signing in 2009 of a ten-year gas supply and transit agreement. Under its terms²⁴, the price of gas for Ukraine reached the European level in

2010 and surpassed it soon after. In contrast, Gazprom systematically failed to meet its contractual obligations, including with regard to transit volumes. As a result of this deal, Ukraine suffered USD 32.1 billion in losses, [according to Naftogaz of Ukraine NJSC estimates](#).

Building leverage for 2019 negotiations. In 2014, Ukraine launched an ambitious and far-reaching reform of the energy sector [to adapt to the requirements of the Third Energy Package](#) and meet its commitments under the [Energy Community Treaty](#). Milestones in this overhaul in 2014–2019 included: (1) securing reverse gas supplies from Europe, thus enabling Ukraine to abandon imports of Russian gas in late 2015 and accumulate significant gas reserves (about 22 billion cu. m) prior to the 2019 talks; (2) liberalizing the gas market, thus eliminating Naftogaz's quasi-fiscal deficit, facilitating the transition to RAB²⁵ prices for gas transit, and making the market more accessible to private companies; (3) unbundling Naftogaz by separating the gas transportation function and transferring it to an independent company, GTS Operator of Ukraine LLC, which operates under EU law; and (4) opening a "customs warehouse" on the basis of Ukraine's underground gas storage facilities in 2017 and upgrading the GTS step by step. In addition, Ukraine's position in future negotiations was strengthened by the international community's sanctions against Russia's energy policy. In particular, the United States in late 2019 imposed sanctions against the construction of Russian Nord Stream-2 and TurkStream gas pipelines, both bypassing Ukraine, while the EU [restricted Gazprom's right](#) to use the OPAL pipeline.

Key terms of the new transit agreement. On 30 December 2019, a five-year agreement to transmit Russian gas was signed. The deal came with a 10-year extension option. One of its highlights was fixing the minimum volumes of gas transit on "ship-or-pay"²⁶ terms at 65 billion cu. m in 2020 and 40 billion cu. m in 2021–2024. Gazprom thus pledged to pay for the transit of 225 billion cu. m of gas within five years, guaranteeing Ukraine an estimated USD 7.2 billion in

²² Victory loves preparation (Latin).

²³ For example, to resolve the gas conflict in early 2006, Ukraine was forced to purchase gas through the intermediary Rosukrenergoo.

²⁴ The agreement was based on the "take-or-pay" principle: Ukraine pledged to buy at least 52 billion cu. m of gas or otherwise pay the value of at least 41.6 billion cu. m. The basic price of gas was fixed at an exorbitant 450 USD/1000 cu. m, and was to be adjusted to match petroleum product prices in the EU market. The volume of gas transit from Russia was to be at least 110 bcm a year. However, no sanctions for breach of this clause were stipulated.

²⁵ Capacity reservation pricing for GTS entry/exit points instead of paying for actual volumes of transit.

²⁶ It is a widespread principle in concluding hydrocarbon supply agreements that reserved capacity at the entrance and exit points of a GTS is paid for, regardless of the actual volume of transportation.

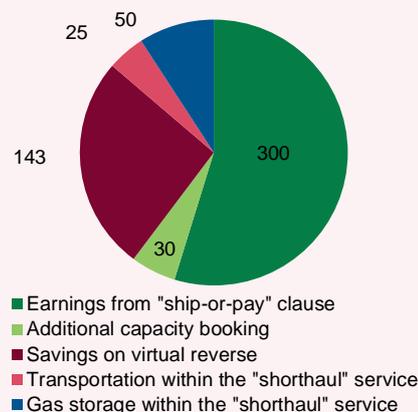
proceeds from transit.²⁷ The agreement also provided for the possibility of reserving additional transit capacity using price multipliers.²⁸ This was the first ever agreement that did not oblige Ukraine to buy gas from Russia. The parties also reached an amicable settlement, under which Gazprom was to pay USD 2.92 billion by order of the Stockholm Arbitration Court, and the parties were to drop all lawsuits related to the previous agreement that were pending court rulings.

Benefits from the new transit agreement in 2020. During 2020, the GTS Operator of Ukraine transmitted 55.8 billion cu. m of Russian gas to Europe (down by 38% on 2019). The reasons for this decrease were weaker demand for gas due to the pandemic, significant stocks being held in European storage facilities, among other things due to the warm winter of 2020, and the launch of new bypass pipelines. However, Ukraine received USD 2.1 billion for transit services under the agreement, which is only 21% less than in 2019. The ship-or-pay clause thus brought Ukraine about USD 300 million in additional gains. Moreover, due to rising demand and prices for gas in the EU at the end of 2020, Gazprom booked additional transit capacity in Q4 and paid another [USD 30 million for it](#).

In the process of unbundling, the GTS Operator of Ukraine concluded a number of direct interoperator agreements with GTS operators in neighboring countries. Under the new transit agreement, this allowed market participants to provide new services, such as the virtual reverse and [short haul](#),²⁹ which can be used in “customs warehouse” mode, meaning gas can be held in Ukrainian storage facilities free of customs duties. As a result, [45% of all gas transportation](#) from the EU to Ukraine (about 7.2 billion cu. m) was done by virtual reverse. Accordingly, the virtual reverse saves Ukraine an [estimated](#) USD 20 per 1,000 cu. m, bringing the customers of the GTS Operator of Ukraine about USD 143 million in cost savings. With gas prices low and underground storage facilities in the EU filled to capacity, the short-haul service was also in high demand. During 2020, [60% of all “customs warehouse” supplies](#) (6.1 billion cu. m) were made through this service. Ukraine earned a total of about USD 25 million in revenues from [short-haul gas transit](#) for the year³⁰. In addition, short-haul service users also paid some USD 50 million for storing gas in Ukrainian underground storage facilities.

Ukraine thus received close to USD 0.5 billion in total gains from the new transit agreement, partially offsetting the losses from the expected decline in gas transit.

Figure 2. Benefits from the new transit contract in 2020, USD mn



Source: GTSOU, Naftogaz, NBU staff estimates.

Expanding the range of GTS services not only contributed to its further integration into the EU energy system, but also ensured that the country in early 2021 amassed its [largest stocks of natural gas in the last 10 years](#) in its underground storage facilities (23.5 billion cu. m). Despite a significant share of this gas being owned by nonresidents (up to 7.7 billion cu. m in “customs warehouse” mode), its availability contributes to strengthening energy security, as gas from foreign traders can be sold in Ukraine. In addition, having significant gas reserves has a positive effect on the technical conditions of the GTS.

Outlook. Given the further reduction in gas transit volumes and the expiration of the current agreement in four years, it remains vital for Ukraine to maintain its status as a gas transit country. This will depend on both the availability of gas sources to load the GTS, and the optimization of operating costs. Addressing these issues requires that Ukraine take a number of steps: (1) upgrade the GTS further and expand its services (including the transmission of LNG and renewable gases) in order to become a European gas hub; (2) provide GTS access to other suppliers; and (3) increase domestic gas production to make the GTS more flexible. The steps already taken by Ukraine under the 2019 gas transit agreement are key to implementing these vital measures in the years ahead.

²⁷ The transit price information is confidential, but according to unofficial data, it was increased by 2% compared to 2019, to 2.66 USD/1000 cu. m per 100 km, and fixed for the entire term of the agreement.

²⁸ When booking additional capacity, Russia pays the fixed rate multiplied by 1.1 for a quarter, 1.2 for a month, and 1.45 for a day, [according to unofficial data](#).

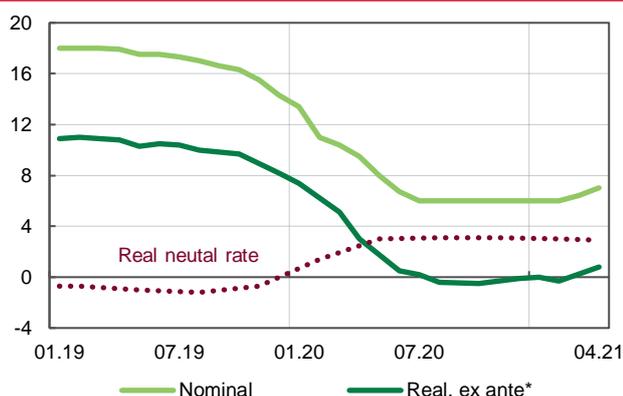
²⁹ In the virtual reverse, operators offset each other's counterbids, so that natural gas can be imported without being moved across the border. Short haul is a service that allows a discount to be received while transporting gas between a GTS's points of entry and exit.

³⁰ The 2020 estimates were made by extrapolating data from the GTS Operator of Ukraine and Naftogaz of Ukraine NJSC for the first 9 months of 2020.

2.6. Monetary Conditions and Financial Markets

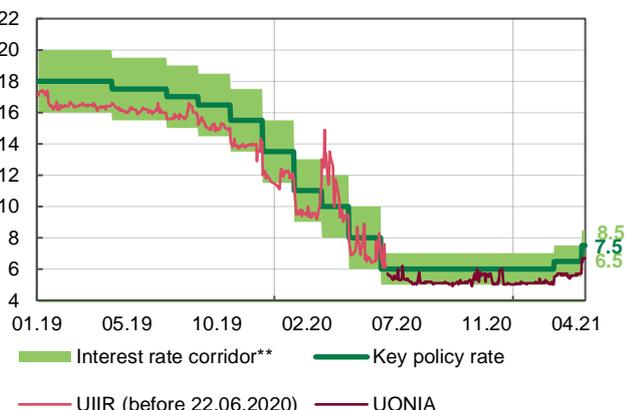
- Since the start of the year, the NBU has raised its key policy rate twice, to gradually reduce inflation to the target, amid recovery of the Ukrainian and global economies.
- Most market interest rates in hryvnia have yet to respond to the key policy rate increase.
- In Q1 2021, especially in its first half, supply in the FX market moderately exceeded demand. As a result, the hryvnia strengthened slightly against the U.S. dollar.

Figure 2.6.1. Key Policy Rates, average, %



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

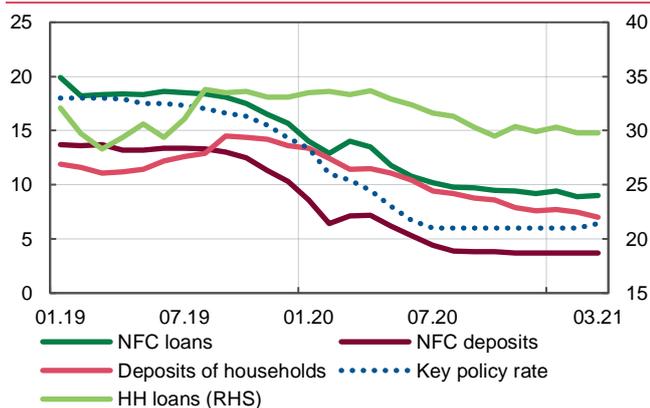
Figure 2.6.2. NBU policy rates and UIIR/UONIA*, %



* As of 21.04.2021.

** 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.

The key policy rate hike was the NBU's response to deteriorating inflation expectations and a significant increase in underlying inflationary pressures

In March 2021, the NBU [raised its key policy rate](#) by 50 bp, to 6.5%. This decision was necessary to keep the inflation expectations of households and businesses from deteriorating further, and to return consumer inflation to its target range. The interest rate rise was in line with the baseline forecast published in the January 2021 Inflation Report. However, monetary policy in Q1 2021 continued to be accommodative: the increase in the key policy rate was offset by the deterioration of inflation expectations. As a result, the real key policy rate in Q1 2021 remained close to zero and below its neutral real level of around 3%, according to NBU estimates.

In April, the NBU continued to tighten its monetary policy, raising the key policy rate by 100 bp, to 7.5%. The main argument in favor of this decision was the strengthening of underlying inflationary pressures and higher inflation expectations.

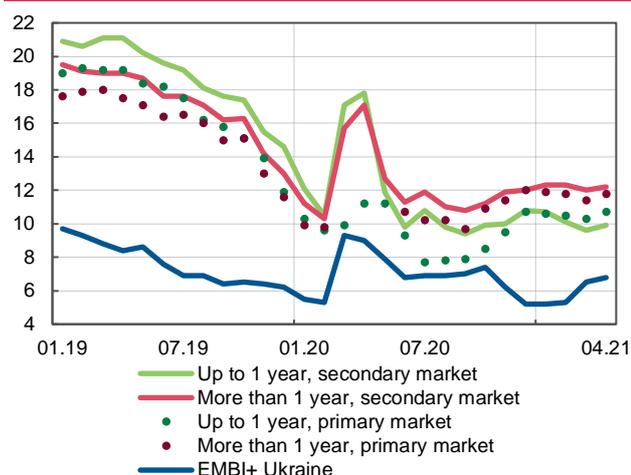
Most interest rates on hryvnia resources have yet to respond to the increase in the key policy rate

Interest rates in the interbank market increased, continuing to correlate closely with the dynamics of the key policy rate. The sustained large liquidity surplus in the banking system kept the [UONIA](#) almost at the level of the lower bound of the NBU's interest rate corridor. The main drivers of the growth in the banking system's liquidity were the NBU's FX interventions and refinancing loans, although demand for the latter declined significantly during Q1 2021.

The increase in the liquidity of the banking system was also facilitated by the traditional decrease in cash in circulation at the beginning of the year. However, this process was slower than in previous years, due to the persistence of high uncertainty over the future course of the COVID-19 pandemic.

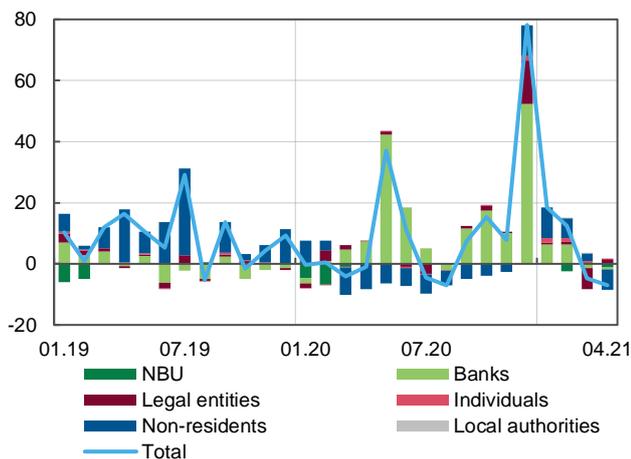
In Q1 2021, the primary market yields on hryvnia domestic government debt securities continued to decline. In the first half of the quarter, foreign portfolio investors showed significant interest in the domestic public debt market. This was facilitated by favorable conditions in the global financial markets, a shortage of high-yielding assets, and optimism about the start of vaccination against COVID-19. Ukrainian banks and individuals also increased their investments in domestic government debt securities. Investments by individuals in hryvnia domestic government debt securities

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



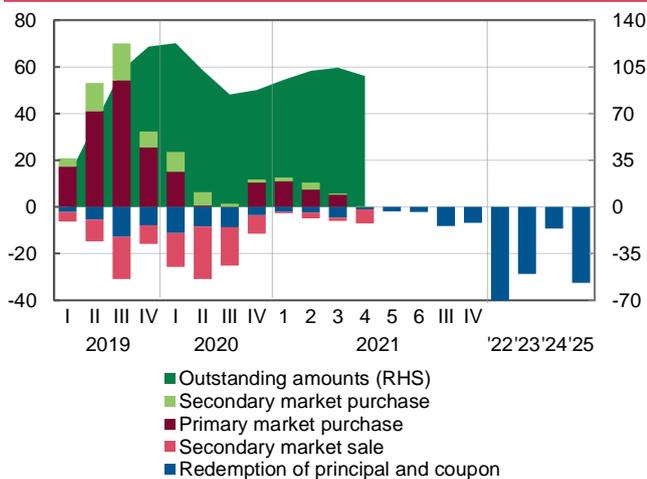
* As of 21.04.2021.
Source: Bloomberg, NBU.

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



* As of 21.04.2021.
Source: NBU.

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



* As of 15.04.2021.
Source: NBU.

increased, as they offered more attractive returns than deposits, but the volume of these investments remains relatively insignificant (less than 2% compared to the volume of hryvnia deposits).

A certain reduction in outstanding hryvnia domestic government debt securities during March–April 2021 was due to the redemption of short-term securities placed at the end of last year, as well as the cautious behavior of investors due to increasing tensions near the border with Russia. Heightened risk perceptions due to the latter factor led to an increase in yields on hryvnia domestic government debt securities in April, while in Q1, yields declined across all maturities due to the combined effect of strong demand and government caps on the supply of short-term securities.

In Q1, hryvnia rates on most bank transactions declined slowly due to the intrinsic inertia in interest rate responses. Rates for nonfinancial corporations were at record lows, while interest rates on retail time deposits fell below the level of households' inflation expectations. At the same time, most interest rates stopped declining in early April, while some of them edged higher.

The FX market in Q1 2021 was dominated by appreciation pressure, which eased in the second half of the quarter

Favorable price conditions for exporters along with restrained imports and investments by nonresidents in hryvnia domestic government debt securities contributed to the hryvnia's strengthening, which was more evident at the beginning of Q1 2021. Among exporters, the following sectors sold foreign currency the most: agriculture, metallurgy, and mining. However, in the second half of the quarter, supply and demand in the FX market were almost balanced, despite further growth in external prices. This was due to increased imports, as well as a deterioration in global financial conditions for the EM countries, which dampened foreign investors' interest in risky assets.

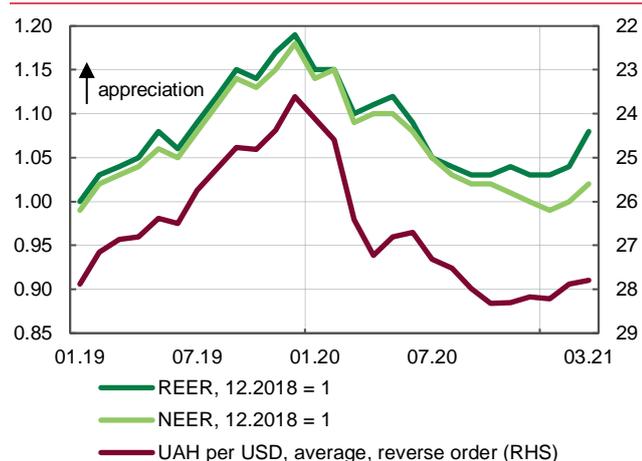
However, the official hryvnia exchange rate strengthened slightly in Q1 compared to both the previous quarter and the beginning of the year (by 1.1% and 1.4%, respectively). Meanwhile, most currencies of Ukraine's MTPs depreciated against the U.S. dollar in 2021. This led to a strengthening of the nominal hryvnia exchange rate and, with inflation being higher than in the MTPs, the real hryvnia exchange rate.

Given the virtually balanced market in the second half of the quarter, the NBU significantly reduced its presence in the FX market. In Q1 2021, it intervened only 10 times, and net FX purchases amounted to USD 220 million.

These trends enabled the regulator to further liberalize the FX market. Specifically, in Q1 2021, the NBU:

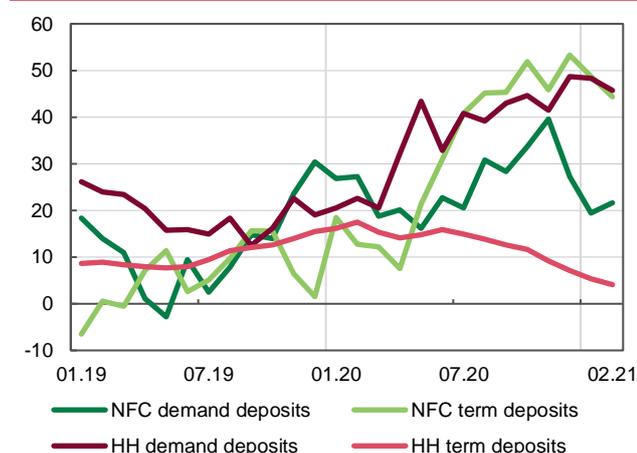
- [removed bans](#) on certain FX forward and swap transactions, margin trading, and FX settlements when buying FX-denominated government securities
- **allowed banks and non-bank financial institutions to use cashless hryvnias to make FX purchases from individuals through self-service terminals**

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



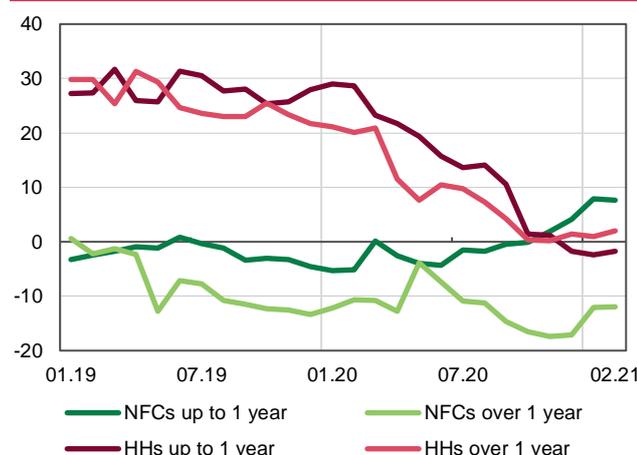
Source: IFS, NBU staff estimates.

Figure 2.6.8. Hryvnia deposits, % yoy



Source: NBU.

Figure 2.6.9. Hryvnia loans, % yoy



Source: NBU.

- allowed individuals to use digital passports in the mobile application *Dija* to transfer foreign currency outside Ukraine and receive such transfers
- [increased the e-limit for certain transactions by individuals.](#)

Deposits remain the most popular tool for financial savings. Lending activity is slowly recovering

In Q1 2021, the hryvnia deposits of nonfinancial corporations and households continued to grow, but at a slower pace. The slowdown in business deposit growth is likely due to weaker business activity at the beginning of the year. At the same time, the smaller increase in retail time deposits indicated that the potential for further rate cuts had been exhausted. With interest rates on these products being lower than household inflation expectations, incentives to seek alternative investment instruments or spend more on goods and services have increased.

The lending activity of banks is gradually recovering, albeit slowly. The main driver of the lending recovery was the reduction in interest rates, according to the [Bank Lending Survey](#). Retail lending is also reviving. This has been facilitated by the easing of lending standards and increased demand for mortgages.

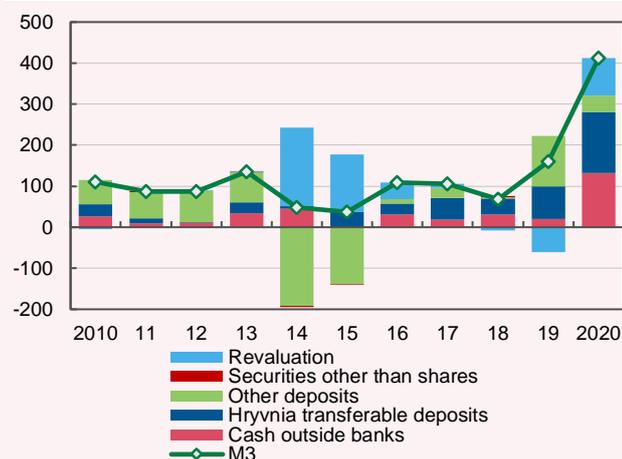
Box 5. Money Supply: Does Size Matter?

In 2020, money supply grew by almost a third, the highest pace in the past 12 years. Despite 2020 being a crisis year, the lion's share of this growth came from an increase in deposits, namely demand deposits. Cash also rose significantly. Increased demand for the most liquid assets has been observed in most countries of the world. This is how the public typically responds to elevated uncertainty in times of crisis. Although domestic lending increased in 2020, this was primarily due to significant hryvnia borrowings by the government to finance the expanded budget deficit. The year 2020 showed that increases in the money-to-GDP ratio are not always accompanied by more lending to the private sector. In 2020, money supply increased for other reasons. In an inflation targeting regime, what matters is the value of the money in the economy, not its amount.

The dynamics of money supply are analyzed both in terms of the components that comprise M3 (what has changed) and in terms of their corresponding items (why it has changed).³¹

In 2020, money supply grew by UAH 412 billion or 28.7%. The lion's share of this growth was driven by an increase in deposits, largely due to demand deposits. The lack of deposit outflows in the first year of the pandemic has been another feature of the COVID-19 crisis.

Figure 1. Changes in the money supply and its components, UAH bn



Source: NBU.

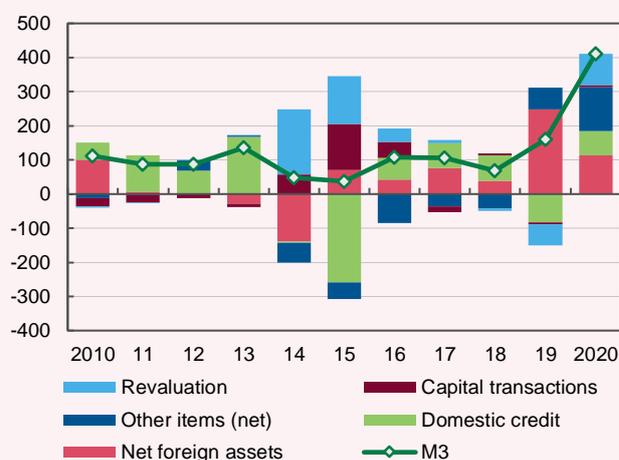
Cash was another component that made a significant contribution to the growth in money supply. Stronger demand for the most liquid assets is a typical response of the population in times of crisis and growing uncertainty. A rapid increase in cash in 2020 was observed in most countries, and Ukraine was no exception. Specifically, the cash-to-GDP ratio in Poland increased by 3.5 pp to 13.8%, in the Czech Republic by 1.4 pp to 12.6%, in Russia by 2.8 pp to 12.5%, and in Ukraine by 2.6 pp to 13.3%.

The dynamics of cash are primarily determined by demand from bank customers. In response to these needs, the central bank issues the appropriate number of banknotes and coins. Such increases in cash in circulation do not increase inflationary pressure, as in this case one asset (funds in banks' correspondent accounts) is replaced with another (cash in circulation).

However, this does not mean that the NBU does not pay attention to the dynamics of cash. The Strategy for Ukraine's

Financial Sector Development until 2025 provides for measures to stimulate the development of noncash settlements and deepen financial inclusion. Even during the pandemic, noncash payments have continued to rise. Moreover, they have grown increasingly popular with the shift to e-commerce. Coupled with a reduction in uncertainty over the further spread of the pandemic, this will help weaken the demand for cash.

Figure 2. Changes in counterpart items of money supply, UAH bn

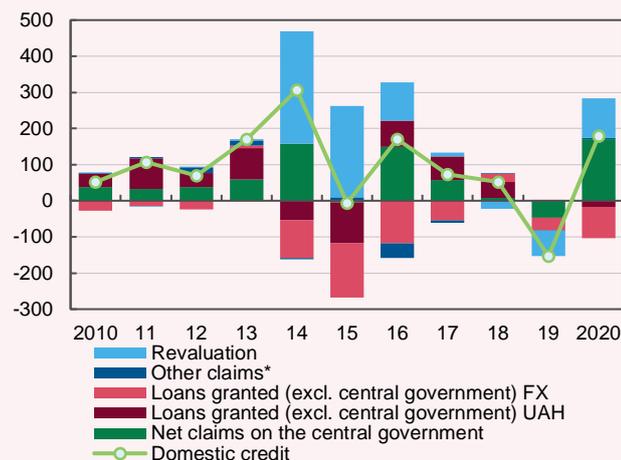


Source: NBU.

As with the components, all of the factors influencing the change in M3 had a positive effect in 2020. Money supply grew with the expansion of domestic credit and an increase in external assets.

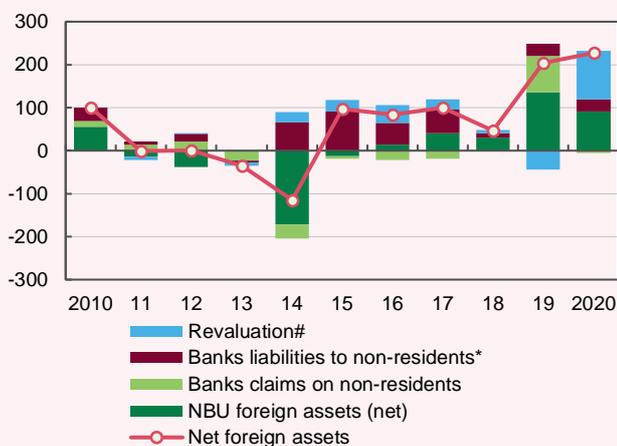
Domestic credit in 2020 grew mainly due to significant hryvnia borrowing by the government to finance increased fiscal needs during the coronavirus crisis. At the same time, outstanding loans to the private sector declined in 2020, reflecting both the general weakening of lending during the crisis and the stepping up of banks' efforts to write off NPLs (see Box 6 "Outstanding Loans: developments over the last few years" in the January 2021 Inflation Report).

³¹ The deep crisis of 2014–2015 was accompanied by a transition to a flexible exchange rate regime. This led to there being a significant impact on the dynamics of M3 indicators from revaluation. The figures show separately the change in indicators due to transactions and the estimated level of revaluation (a change in value due to variation in prices and/or exchange rates).

Figure 3. Changes in domestic credit, UAH bn

* - investments in other securities (excl. central government).

Source: NBU.

Figure 4. Changes in net foreign assets of the banking system, UAH bn

* A positive value means a reduction in liabilities. # incl. revaluation (changes in financial flows due to prices of financial assets and/or exchange rates) and other changes in the volume of assets (e.g., due to the classification of financial assets or loss of financial assets owing to catastrophic events).

Source: NBU.

The accumulation of the government's FX funds had a decisive impact on the increase in net foreign assets in 2020, primarily due to external borrowing, including from the IMF, and NBU interventions. In turn, a significant amount of net FX purchases became possible due to the formation of one of the largest current account surpluses in history.

Last year showed that a significant expansion of money supply does not automatically lead to an increase in lending to the private sector. On the contrary, in the case of a lending recovery, there is an increase in domestic credit, which is a basis for increasing the money supply.

The main impediments to increasing lending lie mainly in the legislation: the weak protection of creditors, the moratorium on the foreclosure on FX mortgages, the unregulated and nontransparent market for new buildings, and so on. The business climate and adherence to the fundamental principle of the rule of law, which will promote business development and increase the number of reliable borrowers, are also important factors.

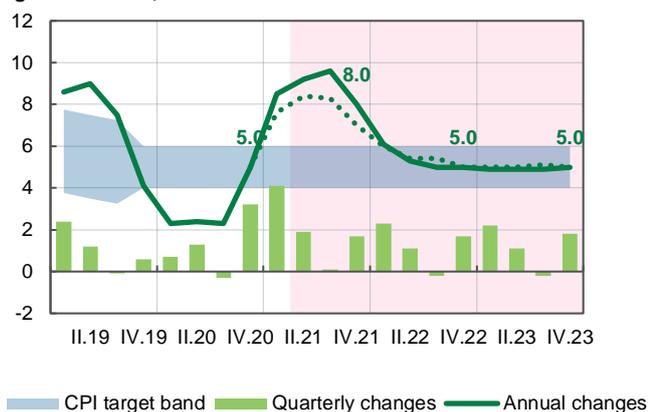
The ratio of money supply to GDP also depends on the level of development of the financial system, and the confidence of the public and business in the banking system and national currency. In the absence of confidence in the latter, excess money supply will be used to buy foreign currency, reducing monetization. The ratio of monetary aggregates is thus a rather ambiguous indicator that cannot serve as a benchmark for assessing the development of lending or of the economy. What matters is not the amount of money in the economy, but its value and confidence in the NBU's ability to ensure price and financial stability.

Part 3. Economy of Ukraine: Forecast

3.1. Inflation Developments

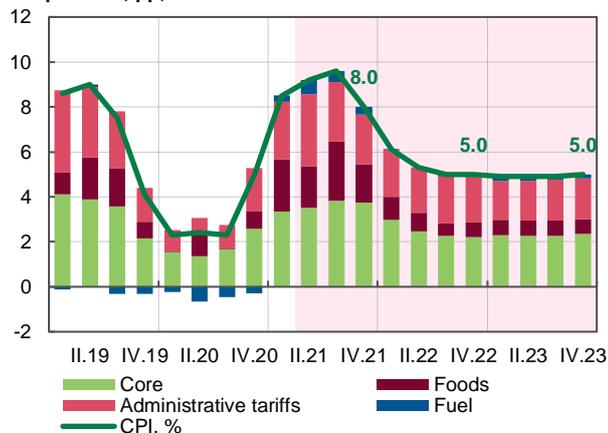
- Inflation will accelerate markedly this year, fueled by increases in global prices, production costs, and domestic demand.
- The waning of supply effects and a tightening of monetary policy in 2021 will bring inflation back within its target range of 5% ± 1 pp in H1 2022.

Figure 3.1.1. CPI, %



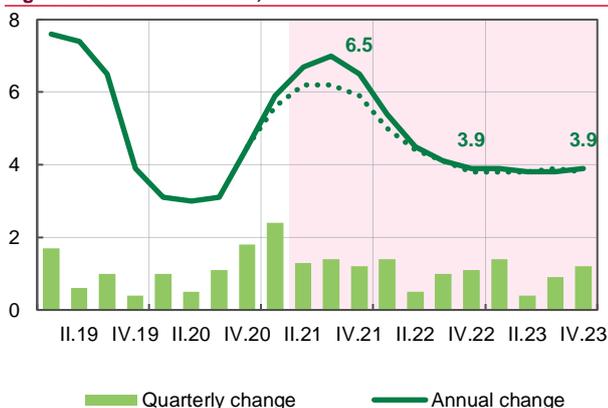
Source: SSSU, NBU staff estimates.

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.

In 2021, inflation will exceed its target range due to temporary supply factors and rapid growth in demand

Compared to the previous Inflation Report, the inflation forecast for the current year has been revised upward, from 7.0% to 8.0%. The peak of the inflation surge will occur in Q3 2021, through the effect of last year's low comparison base. On the supply side, the rise in inflationary pressures in 2021 will be driven by higher energy prices, accelerating global inflation, and increased production costs – especially labor costs. While impacting inflation directly, higher fuel prices will also push up production costs for many goods. On the demand side, pressures will be augmented by household income rising as the economy recovers.

Growth in raw food prices will be an important driver of inflation in 2021 due to the smaller harvests gathered last year and higher global food prices. Through the production costs channel, this will spur inflation of the processed foods that are a component of the Core CPI. Coupled with faster growth in wages (driven by a large increase in the minimum wage among other things), this will cause core inflation to rise to 6.5% this year.

As declared previously, the NBU allows for temporary deviations from the inflation target in order to let the economy recover more quickly. The inflation trend will reverse gradually as new harvest supplies come to market, the effect of a low comparison base wanes for some products, and the NBU raises its key policy rate. Inflation will start to decline in autumn, return to its target range of 5% ± 1 pp in H1 2022, and subsequently remain there.

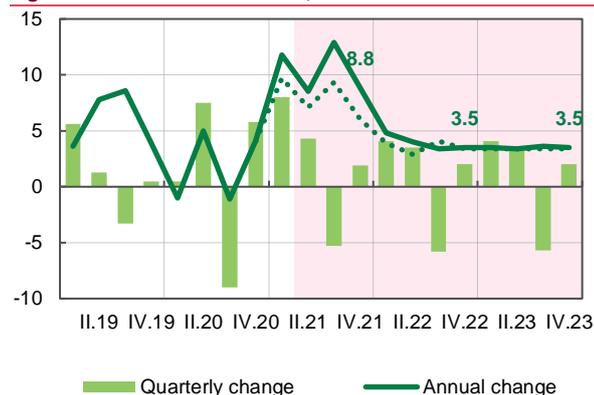
Core inflation will accelerate in 2021 due to second-round effects from higher food price inflation and wage increases

Underlying inflationary pressures will rise this year as economic activity recovers. The largest contribution to the growth in core inflation will come from the increase in prices for processed foods, which will continue to be impacted by higher raw food prices.

Wage growth will boost consumer demand, but will also lead to an increase in businesses' payroll expenses. Businesses will compensate for this increase in expenses by raising their prices. This will be most visible in the services sector, in which labor costs account for a major share of production costs. Inflationary pressures from prices of imported goods will rise as global inflation increases on the back of economic recovery, and as stimulus programs are continued.

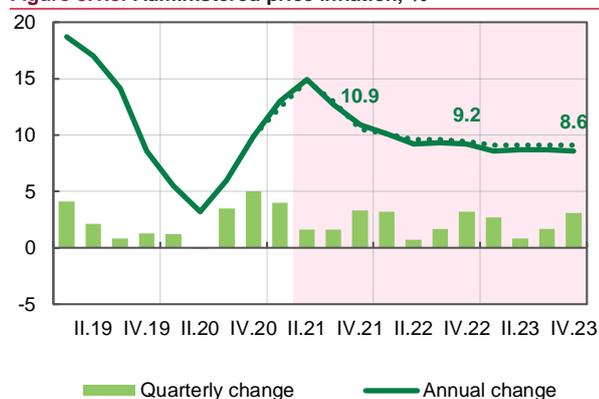
The increase in the key policy rate by the NBU early this year will allow underlying inflationary pressure to ease in 2022. Core inflation is expected at around 4% over the medium term

Figure 3.1.4. Raw food inflation, %



Source: SSSU, NBU staff estimates.

Figure 3.1.5. Administered price inflation, %



Source: SSSU, NBU staff estimates.

and will mainly be supported by further growth in household income.

Food price inflation will accelerate temporarily due to high global prices

Higher global food prices will be one of the main factors behind increases in both raw food inflation and the CPI in Ukraine this year. Production costs related to wage growth, higher feed prices in animal farming, and increased fuel prices will also play an important role. New harvest supplies coming to the market in H2 will dampen pressures on food prices. Food price inflation is forecast to decelerate gradually to below 4% starting in 2022 as global market conditions settle down and Ukraine gathers larger harvests.

High administered inflation (9%–11% per year) will be driven mainly by higher prices for tobacco products and electricity

Having peaked at around 15% in the middle of the year, administered inflation will start to decline gradually, but will remain the highest of the CPI components. The growth in administered prices is primarily driven by higher energy prices. Natural gas prices are expected to more than double this summer compared to the last year's minimum prices. The contribution coming from natural gas prices will thus account for more than a third of the annual administered price inflation in Q2. As of the end of 2021, gas prices will approach the last year's level, thanks to gradual gas price decreases in European gas hubs during the year and stronger competition in the domestic market. However, prices for heating and hot water supplies will rise, as no adjustments were made in 2020 despite higher gas prices and labor costs. In the utilities sector, the growth in wages (including due to the increase in the minimum wage) and other production costs will drive up prices of some utility services.

An increase in the excise tax on tobacco products will remain the main driver of administered price inflation after its energy component stabilizes, pushing up the prices of these products by 14%–15% per year.

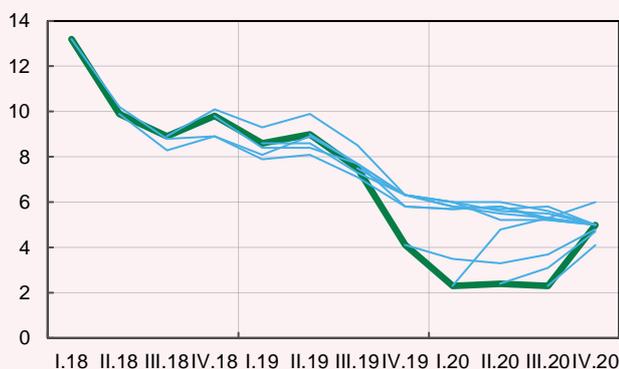
Box 6. Estimating the Accuracy of the NBU's Macroeconomic Forecasts

Accurate macroeconomic forecasts significantly increase the effectiveness of the inflation targeting regime, as the effect of monetary policy instruments has a lag of 9–18 months. The annual analysis of forecasts allows adjustments to be made to the forecasting toolkit if systematic errors are found in forecasts. It also helps determine how much market participants rely on NBU forecasts, and thus trust them. The accuracy of NBU forecasts is either similar or better than average forecasts by market participants. Errors in the forecasts are mainly caused by external shocks.

In this box, the NBU continues its practice, started in 2019, of carrying out annual assessments of its macroeconomic forecasts. As usual, forecast accuracy is assessed according to four indicators: the CPI, GDP, the current account of the balance of payments, and the key policy rate.

The NBU's inflation forecasts have a high accuracy. The trajectory of forecasts made in 2018–2020 quite accurately reflected the actual trajectory of the annual change in the CPI (Figure 1), except for the crisis episode in 2020. At the end of 2019, actual inflation was lower than expected, mainly due to a significant strengthening of the hryvnia on the back of nonresident capital inflows to hryvnia-denominated domestic government debt securities. Forecasts made in 2020 envisaged economic recovery and a corresponding rise in inflation at the end of the year. This forecast materialized, and inflation actually increased slightly more on the back of weaker harvests in Ukraine and abroad, which led to increases in the prices of food products.

Figure 1. Forecast history: CPI (2018–2020), % yoy



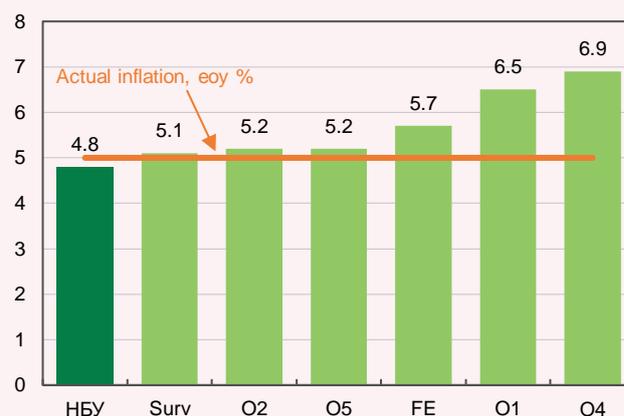
Source: NBU.

The actual inflation rate in December 2020 (5%) was somewhat higher than the NBU forecast in January (4.8%), but lower than that forecast by other organizations (Figure 2). The inflation target was met thanks to a mixture of factors impacting inflation processes in 2020. The downward pressure on inflation, driven by economic decline in Ukraine and across the globe – and by a sizeable drop in fuel prices in particular – was offset by the growth in administered prices, a decrease in supply of some goods, and hryvnia depreciation.

The NBU's forecasts and the Focus Economics (FE)³² consensus forecasts for 2017–2018 were rather close to each other and turned out to be below the actual level of inflation, which means that the shocks were unexpected for the majority of forecasters (Figure 3). The NBU's forecasts of

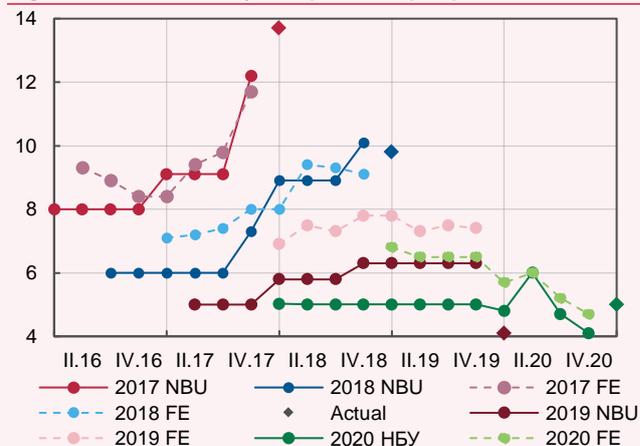
the CPI for 2019 were more accurate compared to the consensus forecasts. This indicates that other organizations underestimated the NBU's ability to bring down inflation in 2019.

Figure 2. Comparison of the CPI forecasts for 2020 at the beginning of the 2020, eop, %



Source: NBU.

Figure 3. Forecast history: CPI (2017–2020), eop, %



Source: NBU.

The NBU's CPI forecasts for 2020 were below consensus forecasts and envisaged inflation returning to its target range. Forecasts were slightly revised in both directions during the crisis year of 2020, which was primarily due to reassessments of the fallout from the crisis, the further recovery in consumer demand, and a revision of harvest estimates.

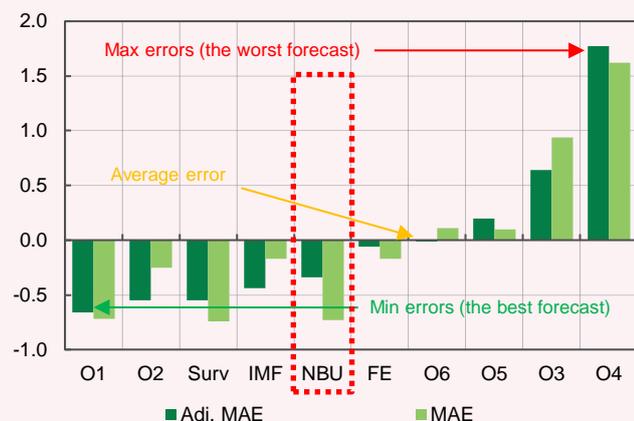
The NBU compared its forecasts with those made by other leading institutions³³ (such as the Ministry of Economics, Alfa Bank Ukraine, ICU, Dragon Capital, Raiffeisen Bank Aval, J.P. Morgan, OTP Bank, Goldman Sachs, and the IMF),

³² Focus Economics is a publication that surveys around 30 organizations regarding macroeconomic indicators.

³³ The names of organizations, apart from the IMF, have been anonymized and replaced with O1–O8; the order organizations are listed here does not coincide with the order in which they appear on the charts.

consensus forecasts produced by FE and CE³⁴, and the central bank's surveys of financial analysts (Surv).³⁵

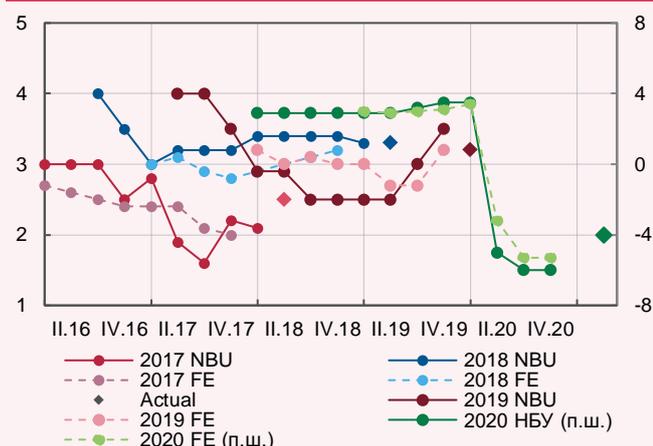
Figure 4. Forecast rating: CPI (2016-2020), eop, %



Source: NBU.

The accuracy of the NBU's inflation forecasts for 2016–2020 is higher than average (Figure 4). The NBU's CPI forecasts, in terms of unadjusted forecast error, were among the best.

Figure 5. Forecast history: GDP³⁶ (2017-2020), %



Source: NBU.

The NBU's real GDP forecasts were also quite accurate, and close to consensus forecasts (Figure 5). Forecasts for 2017–2018 were revised in view of shocks, both external (terms of trade and trade wars) and internal (harvest and growth in real household income). The central bank's forecast for 2019 was somewhat gloomier than the consensus forecast practically over the entire forecast horizon, as the NBU expected grain crop yields to decline following the bumper crops of the previous year. Another factor was the assumption that monetary policy tightening would be required to bring inflation back to its target.

The NBU's pre-crisis forecasts and the consensus forecast for 2020 were very close. However, in 2020 the NBU was

somewhat more conservative in its assessments of economic recovery. As a result, the recovery turned out to be faster than forecasters had predicted. The NBU's forecast envisaged a slower recovery in consumption on the back of weaker growth in real household income.

Figure 6. Forecast rating: GDP, %



Source: NBU.

The crisis of 2020 caused a wider variation range of GDP forecasts, and thus greater error. The accuracy of the NBU's GDP forecast is average compared to the forecasts produced by all of the organizations covered (Figure 6), in terms of both adjusted and unadjusted errors.

The forecasts for the current account were rather volatile due to their high vulnerability to external and internal shocks (Figure 7). This vulnerability was driven, in particular, by changes in prices, revised harvest estimates, and travel restrictions. Changes in the forecast methodology to take into account reinvested earnings were another factor affecting the forecast revision.³⁷

Forecasts for 2017–2019³⁸ were revised significantly both up and down, but were quite accurate on average. The revisions were driven by faster growth in investment and consumer demand, a stronger hryvnia, better terms of trade, and unexpectedly large harvests. Unlike in previous years, the current account recorded a surplus in 2020 – primarily due to factors related to the coronavirus crisis. Consequently, forecasts made in H2 2020 were more accurate. The forecast revisions were impacted by a sizeable decline in imports of goods, less international travel, and more favorable terms of trade.

³⁴ [Consensus Economics](#) is a leading global company that conducts macroeconomic surveys.

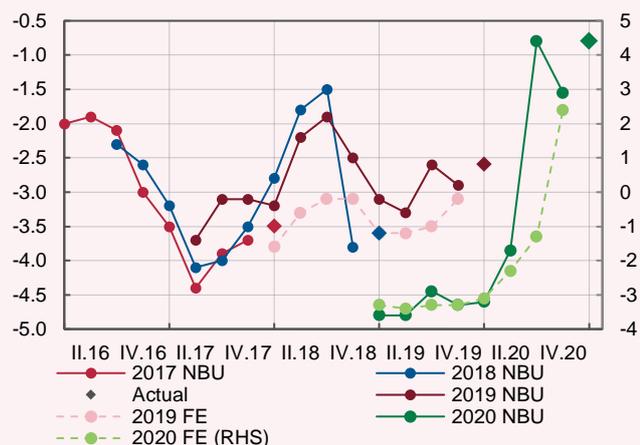
³⁵ The rating used the mean absolute errors (MAE) of the forecasts, and MAE adjusted for the forecast period (adj. MAE). The longer the forecast's period, the smaller is its weight coefficient. Short-term forecasts thus had a larger weight (read more in the [April 2020 Inflation Report](#)). Zero values in the charts indicate that errors of a forecast by an individual organization correspond to the average errors of the forecasts of all organizations; positive values indicate that the average errors of a forecast by an individual organization exceed the average errors of all forecasts, and negative values indicate that the errors are below the average errors of all forecasts.

³⁶ Actual data, shown on figures, reflects preliminary official estimates, which are not adjusted after further revisions.

³⁷ Read more in Box 4 of the [July 2020 Inflation Report](#).

³⁸ A one-time payment that Russia's Gazprom made to Naftogaz under a Stockholm arbitration court ruling (USD 2.9 billion) was deducted from the actual figure for 2019.

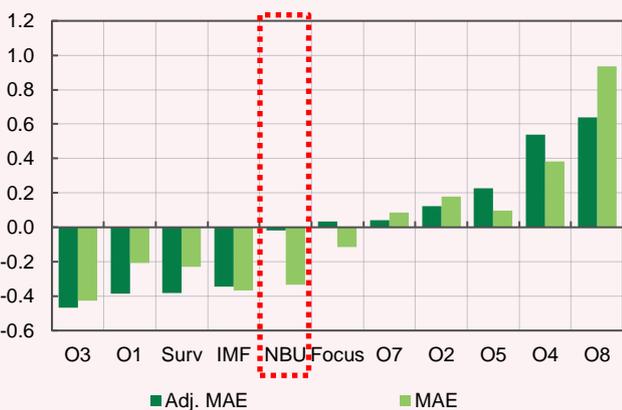
Figure 7. Forecast history: Current account balance (2017-2020), % GDP



Source: NBU.

The accuracy of the NBU's forecasts of the current account balance for 2016–2020 is close to consensus forecasts; the accuracy is mid-range compared to the forecasts produced by other organizations (Figure 8). When unadjusted for the timing effect, the errors of the NBU forecasts are among the smallest when compared with other organizations.

Figure 8. Forecast rating: current account balance (2016-2020), % GDP



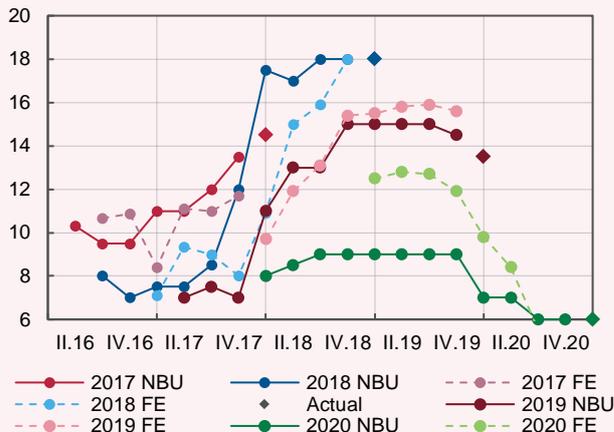
Source: NBU.

The NBU's forecasts for the key policy rate are more accurate than those produced by other market participants (Figure 9). After the NBU shifted to a tighter monetary policy starting mid-2017, the central bank forecast a faster increase in the key policy rate in 2017–2018 than foreseen in the consensus forecast, taking into account its priority of maintaining price stability.

The situation reversed after monetary policy easing was started in 2019–2020. Market participants predicted a slower decline in interest rates than the NBU. At the end of 2019, the key policy rate was reduced even more than forecast by the

NBU, due to rapid disinflation on the back of the stronger exchange rate and a favorable macroeconomic environment.

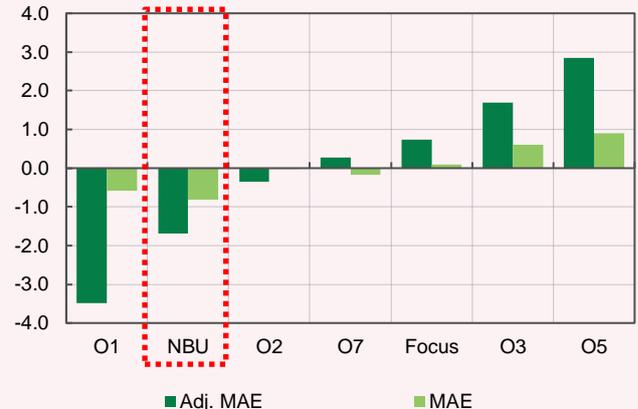
Figure 9 Forecast history: key interest rate (2017-2020), eop, %



Source: NBU.

In early 2020, the market did not expect further decreases in the key policy rate. This was explained by high uncertainty and the expectation that the NBU's behavior would be more passive. After the interest rate was cut to an all-time low of 6% in the middle of the year, market participants were almost unanimous in forecasting no changes to the rate until the end of the year.

Figure 10. Forecast rating: interest rate (2016-2020), % eop



Source: NBU.

Compared to last year's assessments, the accuracy of the NBU forecasts versus those of the central banks of other countries in the region (the Czech Republic, Poland, Serbia, Hungary, and Romania)³⁹ remained almost unchanged: the inflation forecast error decreased, while error in the GDP forecast increased. Overall, the NBU continues to show average results in terms of forecast accuracy. In particular, the accuracy of the NBU's forecast of the CPI and the current account is higher than the average accuracy of all other countries, and the accuracy of its GDP forecast is slightly lower.

³⁹ In order to compare the errors of the CPI and GDP forecasts, the forecasts were normalized to the average pre-crisis indicators (2016–2019) for each of these countries.

3.2. Demand and Output

- Ukraine's economy will grow by 3.8% in 2021 on the back of the global recovery, favorable terms of trade, and the easing of quarantine restrictions. The economy will grow at a pace of around 4% in 2022–2023.
- Private consumption will rise over the entire forecast horizon as household incomes grow and consumer confidence improves on the back of the weakening economic impact of the pandemic.
- Investment activity will pick up in 2021 due to the release of pent-up demand. After that, investment is expected to grow moderately thanks to improved financial performance by businesses. Along with robust private consumption, this will affect the dynamics of goods imports.

Table 3.2.1. Assessment of the impact of quarantine restrictions in Q2 2021 on annual GDP

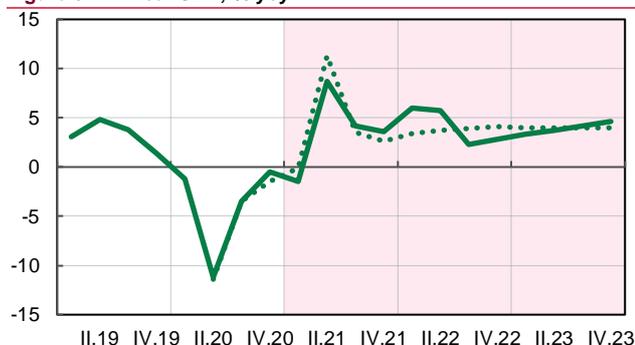
	Duration/rigidity* of restrictions			Impact on annual GDP, pp.
	April	May	June	
Baseline (12-13 oblasts + Kyiv)**		1/3		-0.4-0.5
Mild, all of Ukraine	mild			-0.2
	mild			-0.6
	mild			-0.8
Strict, all of Ukraine	strict			-0.5
	strict			-1.0
Mix, all of Ukraine		mild		-1.5
				-0.8

* Mild quarantine includes restrictions in effect during the January lockdown: restrictions on the operation of restaurants, trade in non-foods, mass events, etc. Strict quarantine includes restrictions above, as well as restrictions on the operation of transport, sports clubs, distance learning at schools and the closure of kindergartens, etc.

** As of April 11, 2021.

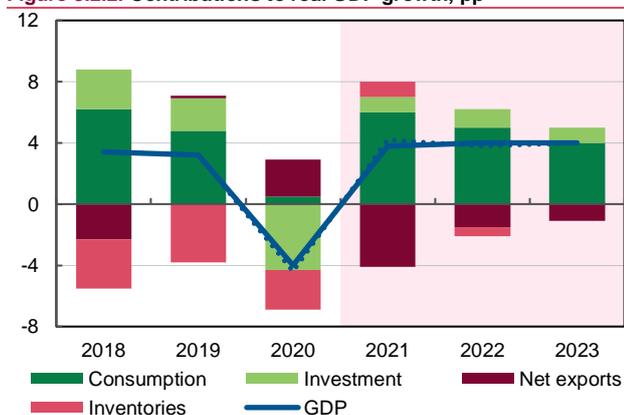
Source: NBU staff estimates.

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.

In 2021, the economy will recover and exceed pre-crisis levels. A low comparison base, together with looser quarantine restrictions and the economy adapting to new conditions, will produce strong growth figures in Q2. Consumer demand will remain the main driver of growth. Investment demand will also rise gradually as the global economy revives and more progress is made in overcoming the pandemic.

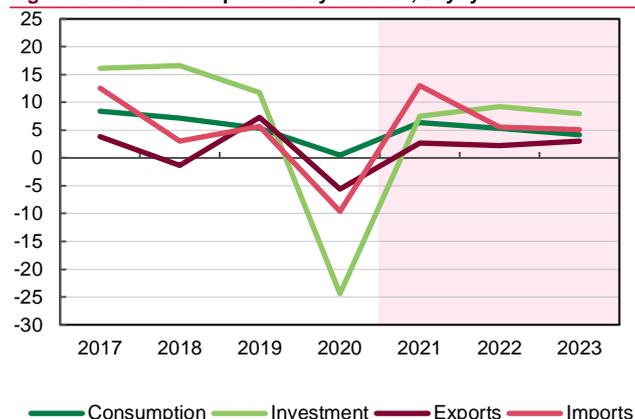
This macroeconomic forecast is built on the assumption that the adaptive quarantine remains in place in H1 and that the current restrictions already start to ease in May. According to the baseline scenario, no more than 13 oblasts will be under the strict lockdown (red zone) at the same time, and this number will gradually decrease. In this scenario, the impact of all quarantine restrictions imposed in H1 on annual GDP is estimated at (-0.5)–(-0.6) pp. Further on, restrictions will be aimed at ensuring the population complies with anti-epidemic measures, but will not include bans on economic activity.

GDP growth in 2021 will be fueled by a recovery in the global economy, looser quarantine restrictions, and improved consumer confidence

The majority of economic sectors have already adapted to operating under the quarantine, so production is forecast to rise by the end of the year. Rapid economic recovery across the globe, supported by monetary and fiscal stimuli in most countries and fast-paced vaccination campaigns, will contribute to the growth in production. The terms of trade will thus become favorable for the Ukrainian economy, and will be the most beneficial for export-oriented sectors (particularly industry and agriculture). The rate at which the pandemic is overcome inside the country will determine the time when the services sector, which is vulnerable to quarantine measures, can fully recover. The easing of quarantine restrictions and lower uncertainty will contribute to an improvement in consumer confidence and a pickup in business activity. Subsequently, annual GDP is expected to start growing as early as Q2 2021.

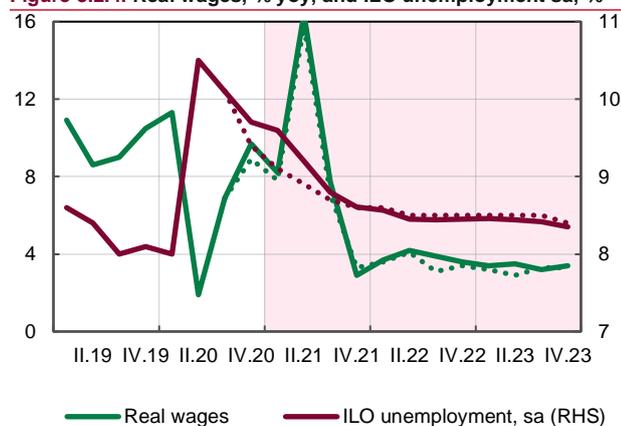
Over the medium term, the Ukrainian economy will grow, owing to both internal and external factors. The expected recovery of the global economy will prop up the growth in exports and the investment necessary for it. This will be supported by better financial performance of companies and the resumption of lending, which will drive growth in private

Figure 3.2.3. GDP components by end use, % yoy



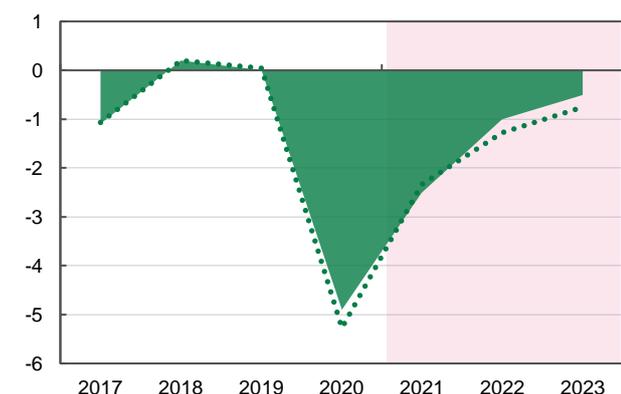
Source: NBU staff estimates.

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



Source: SSSU, NBU staff estimates.

Figure 3.2.5. Output gap, % of potential GDP



Source: NBU staff estimates.

consumption on the back of higher household incomes, and encourage growth in the importing of goods.

The revision of the real GDP growth forecast for 2021, to 3.8% from 4.2%, takes into account the longer and stricter quarantine restrictions in H1 that will have put the brakes on the economy. At the same time, this increases the growth potential for 2022, and growth rates of real GDP were thus revised upward from 3.8% to 4.0%.

Both consumer and investment demand are expected to recover rapidly on the domestic market

Domestic demand will increase in 2021, primarily thanks to the faster growth in real household incomes. The average nominal wage will exceed last year's level by 18%. For workers with the lowest incomes, another increase in the minimum wage will be an additional factor. The accelerated growth in private consumption (7.5%) will provide the largest contribution to GDP growth in 2021.

Despite the recovery of economic activity, the decline in unemployment in 2021 will be slowed by a significant increase in businesses' payroll expenses. However, in 2022 unemployment is expected to decline to its natural level of 8.5%.

Together with a further improvement in consumer confidence, sustained growth in household income, and a pickup in lending, this will ensure there is stable growth in private consumption over the medium term (4.5%–6% per year).

Investment activity will recover after last year's downturn, the recovery being driven by the release of pent-up demand as uncertainty over the pandemic decreases, and businesses' financial standings improve against the background of a gradual macroeconomic stabilization. Capital investment will grow by 8-9% annually. Additional factors for growth in investment will be the rise in lending, continued development of road infrastructure, and the renewal of production facilities by exporters amid favorable conditions on global commodity markets. At the same time, a large increase in businesses' labor costs will constrain the growth in investment, affecting the competitiveness of the economy.

The recovery of domestic demand and international tourism will stimulate imports, meaning net exports will again make a negative contribution to GDP

The rapid recovery of consumer and investment demand will lead to a significant increase in imports. Imports will grow by 13% in real terms in 2021, but slow to around 5% per year later on. The revival of foreign tourism will be among the factors behind the growth in imports. The recovery in economic activity will also spur demand for imported energy. At the same time, exports will grow at a slower pace: the recovery in global demand will be partially offset by Ukrainian exporters facing increased competition on their major markets, and by protectionist measures.

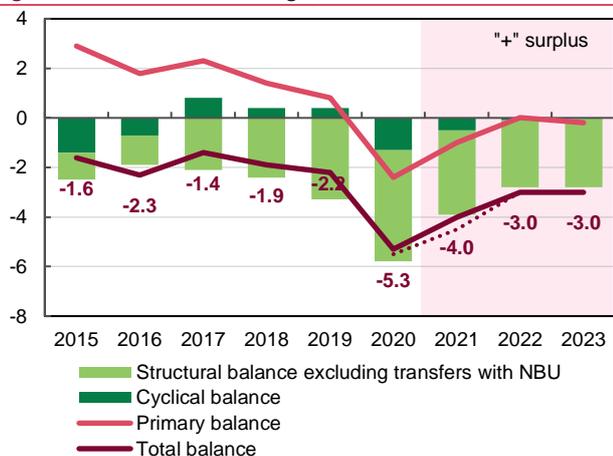
The negative GDP gap will gradually narrow and close in 2023, reducing the disinflationary impact

Figure 3.2.6. Actual and potential GDP, % yoy



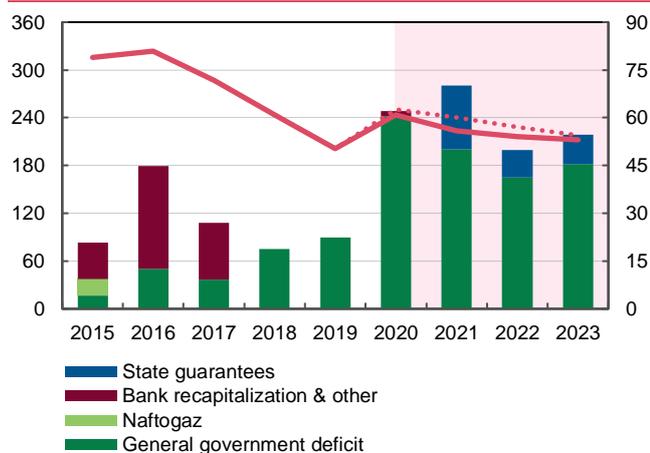
Source: SSSU, NBU staff estimates.

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.

In 2021, the negative GDP gap will narrow sharply compared to the previous year, facilitated by the rapid economic recovery and benign terms of trade. The gap will continue to narrow in 2022, and close in 2023 due to growing domestic demand and the recovery in investment activity. As the output gap narrows, the disinflationary pressures that help return inflation to its target will also decline.

The increase in the level of potential GDP will stem from growth in labor productivity as businesses adapt to working under the quarantine, and from the active renewal of fixed assets.

Fiscal policy will become more restrained as the economy emerges from the crisis; the budget deficit and debt will gradually decline

This year, the government will continue to run a sizeable budget deficit (4% of GDP according to the NBU’s estimates) in order to revive the economy and overcome the pandemic. However, government incentives will decrease when the economy achieves sustainable growth, which will allow the debt position to gradually improve. Therefore, the deficit is expected to narrow to 3% of GDP in 2022–2023.

The size of the budget deficit in 2021 is determined primarily by the possibilities for its financing. The deficit is planned to be financed with official borrowing and borrowing on the markets. Effective cooperation with the IMF will thus play a key role, not only by unlocking other official financing, but also by facilitating access to the international capital markets.

Budget revenues will be fueled by a rapid nominal GDP growth (including through a considerable increase in the GDP deflator). General government revenues are projected to grow by almost 11% this year, primarily on account of tax revenues. Revenues from personal income tax and contributions to the Pension Fund will grow the most (18%–19%) due to significant increases in nominal wages. The collection of goods and services taxes, including the VAT and the excise tax, will increase by almost 10% on the back of the recovery in aggregate demand. The financial performance of businesses will improve as the economy emerges from the crisis, which will increase corporate income tax revenues. This year’s nontax revenues will decrease compared to the previous year due to a smaller amount of NBU profits being transferred to the state budget.

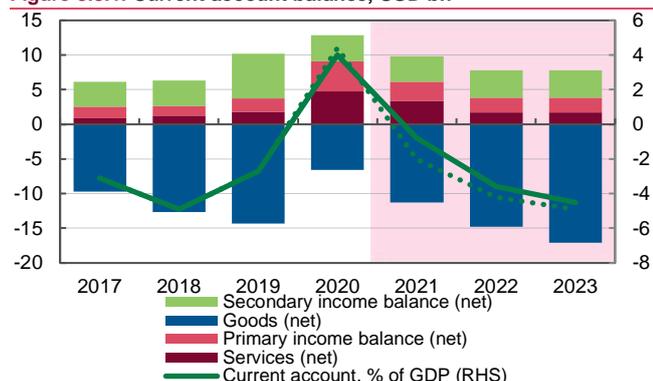
Budget expenditures will grow more slowly this year. This will mainly be due to the need to reduce the budget deficit, and will limit the government’s ability to actively increase its investment spending. On the other hand, supporting the population amid the pandemic and raising social standards will require raising budget expenditures on both wages and other social benefits.

With the economy growing and exchange rate volatility being low, adhering to a prudent fiscal policy will cause the decline in public and publicly guaranteed debt to resume, and keep it below 60% of GDP.

3.3. Balance of Payments

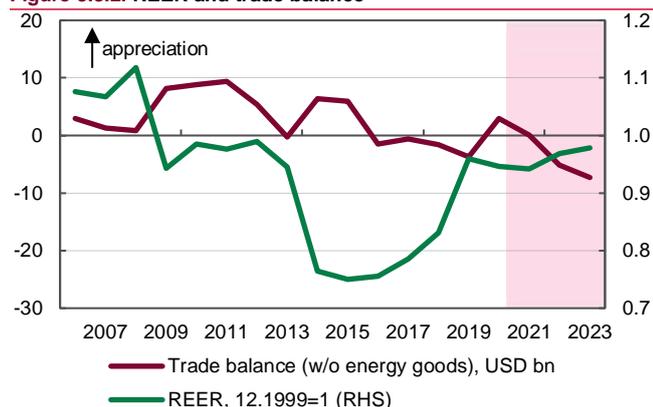
- The current account of the balance of payments will record a small deficit in 2021, which will widen in 2022–2023 on the back of growth in domestic demand and less favorable terms of trade.
- In 2021–2023, debt capital inflows to the private sector will resume as economic activity picks up.
- International reserves will fluctuate within the range of USD 29–30 billion, provided that Ukraine continues to cooperate with the IMF.

Figure 3.3.1. Current account balance, USD bn



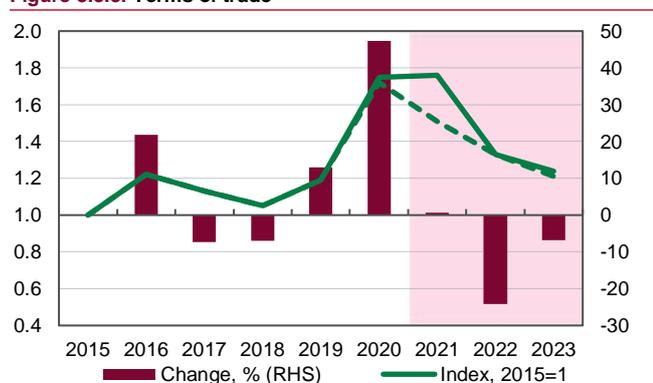
Source: NBU.

Figure 3.3.2. REER and trade balance



Source: NBU.

Figure 3.3.3. Terms of trade*



Source: NBU.

Terms of trade index reflects price changes in commodities traded with MTPs for certain period of time. It is calculated as a ratio of the weighted index of export prices to import prices (in % to a base period). The index of export prices for Ukraine includes: iron ore, ferrous metals, wheat, corn and sunflower oil. The index of import prices includes: coal, oil products and gas.

The current account balance will turn negative again in 2021 and will gradually increase in 2022–2023

The current account is expected to return to a small deficit (0.8% of GDP) in 2021 due to growing domestic demand and the gradual recovery of international tourism. The current account deficit will widen markedly in 2022–2023, primarily due to less favorable terms of trade for exporters of agricultural and metal products, and lower revenues from natural gas transit. This will also be influenced by continued growth in imports of consumer and investment goods, driven by a full-fledged recovery of the global and Ukrainian economies from the coronavirus crisis.

In 2021, exports and imports of goods will exceed the pre-crisis level of 2019. Higher commodity prices will be the main driver of the growth in exports in 2021. Meanwhile, this trend will reverse in 2022–2023, and nominal export values will stop growing despite increasing physical volumes.

Unlike exports, imports will grow over the entire forecast horizon, driven by both energy and nonenergy components. This will be the result of the rapid recovery in consumer and investment demand and the strengthening of the REER. Strong demand for pharmaceuticals and medical equipment as the fight against the pandemic continues will be another factor behind the growth in imports.

The surplus in the trade in services will gradually narrow in 2021–2022 due to recovering tourism and lower gas transit volumes. Tourism-related imports will reach their pre-crisis level in 2022. Exports of services will rise gradually, led by the IT sector, which showed steady growth in the crisis year of 2020. The narrowing of the trade in services surplus will stop in 2023, due to slower growth in imports of tourist services.

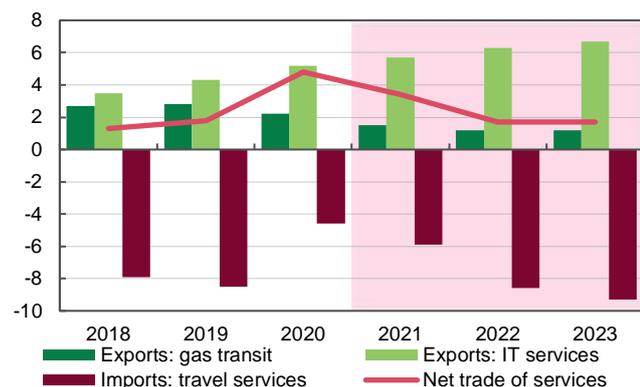
In 2021–2023, remittances will grow as incomes of Ukrainian labor migrants increase, on the back of the economic growth in recipient countries and as moderate migration persists.

Repatriation of dividends will remain at the average level of previous years.

Provided that Ukraine continues to cooperate with the IMF, the country's international reserves will fluctuate within the range of USD 29–30 billion as capital inflows to the private sector resume

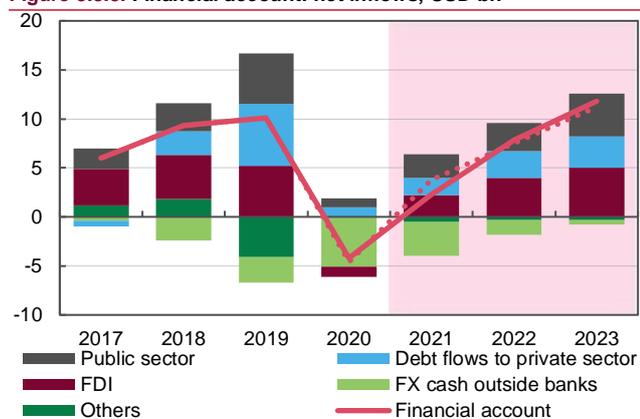
The widening in the current account deficit over the forecast horizon will be fully financed by financial account inflows, which will gradually grow as economic activity recovers.

Figure 3.3.4. Trade of services: selected items, USD bn



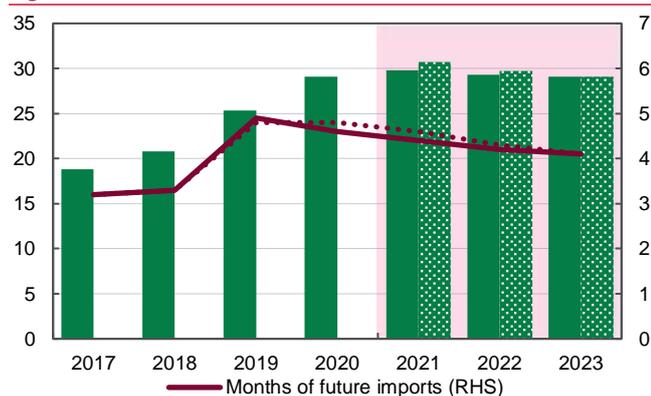
Source: NBU.

Figure 3.3.5. Financial account: net inflows, USD bn



Source: NBU.

Figure 3.3.6. International reserves



Source: NBU.

FDI inflows will increase in 2021–2023, due to, among other things, a rise in reinvested earnings. Global economic growth and sustained macroeconomic stability in Ukraine will boost inflows of debt capital and reduce the outflow of foreign cash outside the banking system starting in H2 2021.

The NBU expects further progress to be made in negotiations between Ukraine and the IMF. Cooperation with the IMF and other international partners strengthens the ability of the Ukrainian government to support the economy during the crisis and will help the country to pass the peak of debt repayments in autumn. The government expects to continue to receive financing from the EU and the World Bank, and to issue Eurobonds. Nonresident demand for hryvnia domestic government debt securities is expected to be moderate until the end of this year. Thanks to cooperation with the IMF, Ukraine's international reserves will be fairly high in 2021–2023, in the range of USD 29–30 billion. The adequacy of reserves according to IMF metrics will be 90% as of the end of 2021.

The current account deficit forecast (as % of GDP) was revised downward over the entire forecast horizon. The revision was driven by both the growth in nominal GDP and an improvement in the terms of trade in 2021. The decline in the current account deficit will be restrained by greater-than-expected demand for pharmaceuticals and medical equipment, as well as by an increase in imports of investment goods fueled by rising FX earnings of businesses.

The forecast of capital inflows to the financial account remained almost unchanged over the entire forecast horizon. Only the forecast for inflows of debt capital in Q2 2021 was revised down – in view of the uncertainty caused by the postponement of the IMF cooperation program and the higher probability of an escalation of the military conflict by Russia.

Box 7. Potential SDR allocation by the IMF and Its Consequences for Ukraine

In 2021, the IMF may allocate special drawing rights (SDRs) to help the global economy recover from the coronavirus crisis. The new allocation of SDRs, in the amount of around USD 650 billion, will provide extra liquidity to the 190 IMF member countries. The NBU estimates that Ukraine will receive USD 2.7 billion in international reserves if the IMF Executive Board approves the decision.

In June 2021, the IMF Executive Board will consider the proposal to allocate SDRs equivalent to a total of USD 650 billion in order to increase reserves of the fund's member countries. [IMF Managing Director Kristalina Georgieva](#) stated that this move will help overcome the consequences of the global recession, which has been the most severe since the Great Depression. IMF members will be able to convert the SDRs into reserve currencies. In particular, [the US Treasury agreed to use the funds accumulated in the Exchange Stabilization Fund for this operation](#). This will increase liquidity in low-income countries and emerging markets, while also helping them to cope with the COVID-19 pandemic. The allocation of SDRs will also allow the accumulation of additional reserve buffers and significantly reduce the risks of global stagnation.

SDRs are international reserve assets created by the IMF in 1969 to supplement the international reserves of IMF member countries. The value of SDRs is determined by a basket of five major currencies: the US dollar (42%), the euro (31%), the Chinese renminbi (or yuan) (11%), the pound sterling (8%), and the Japanese yen (8%). The allocation of SDRs means an increase in the account balances with the IMF that can be used by member countries for their own needs, in accordance with the IMF charter. As of today, SDR 204 billion (equivalent to USD 290 billion) have been allocated. This amount is allocated in proportion to a country's quota in the IMF (0.42% for Ukraine⁴⁰).

Table 1. SDR allocation, billion SDRs

Date	World	Ukraine
1970–1972	9.3	-
1979–1981	12.1	-
28.08.2009	161.2	1.0
09.09.2009 (special allocation)	21.5	0.3
Total as of April 2021	204.2	1.3
New allocation	456.6	1.9
Total taking into account the new allocation	660.8	3.2

Source: IMF, NBU estimates.

The NBU estimates that Ukraine will receive SDR 1.9 billion (equivalent to USD 2.7 billion) if the IMF approves the

allocation. SDRs allocated in 2009 increased international reserves and were also used to finance the budget deficit. Another allocation of SDRs will in any case lead to an increase in international reserves. The possibility of using these funds for other purposes remains uncertain until the relevant decisions are made.

Figure 1. SDR interest rate, %



Source: IMF.

The main advantage of the allocated funds is the low cost of using it, which is currently 0.05% (Figure 1). The interest rate is set every Friday on the basis of the three-month rates on the government bonds of the countries whose currencies are included in the SDR basket. The rate, however, cannot be less than 0.05%. After the SDR allocation, countries will earn interest on the allocated amount and pay the same interest for using the assets. If a country holds a smaller amount of SDRs than the allocated amount (for example, if a country converts a portion of its SDRs into a currency to meet its obligations), it will pay interest on the utilized amount. Conversely, if a country holds SDRs in excess of the allocated amount, it will make a profit.

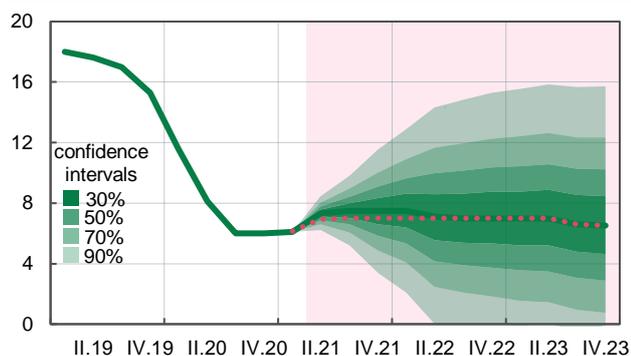
According to external sector statistics (BPM6), this transaction is reflected simultaneously in external assets and liabilities. Thus, it does not affect the net international investment position, but increases the long-term external debt.

⁴⁰ <https://www.imf.org/external/np/sec/memdir/members.aspx>.

3.4. Monetary Conditions and Financial Markets

- Raising the key policy rate and maintaining it at 7.5% in 2021 and Q1 2022 will help reduce underlying inflationary pressures, improve expectations, and thus return inflation to its target in 2022.
- Inflation in Ukraine being higher than in the country's main trading partners will cause the REER of the hryvnia to appreciate, which will reduce the competitiveness of Ukrainian goods.
- Lending will continue to pick up, bolstered by the economic recovery and state support programs.

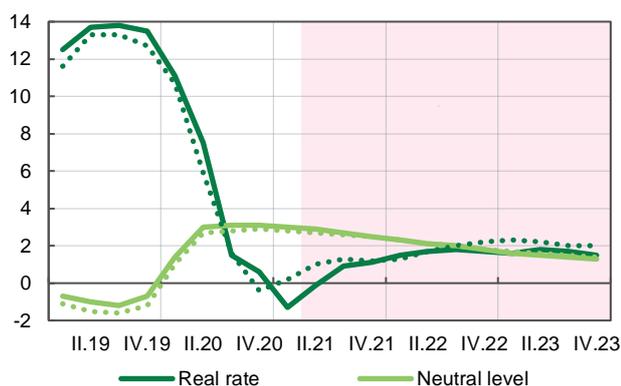
Figure 3.4.1. Key policy rate*, average, %



* Decreases in key policy rate are limited by the zero lower bound.

Source: NBU staff estimates.

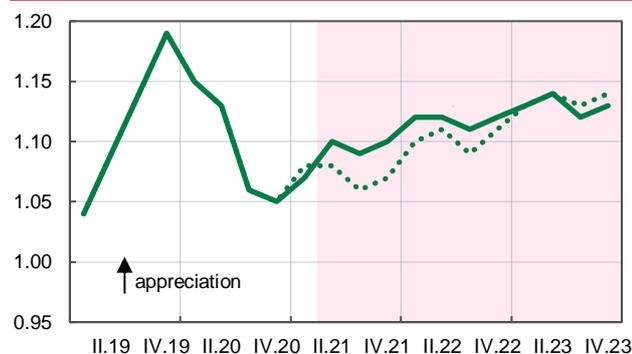
Figure 3.4.2. Real interest rate* and its neutral level, %



* Deflated by inflation expectations that are based on the QPM.

Source: NBU staff estimates.

Figure 3.4.3. Hryvnia REER index, IV.2018 = 1



Source: NBU staff estimates.

After two consecutive increases, the key policy rate will remain unchanged throughout the year

An increase in underlying pressures on prices and a deterioration in inflation expectations will require that the key policy rate be kept higher than expected. The NBU's forecast envisages that the key policy rate will remain at around 7.5% until the end of the year. Considering the current inflation dynamics, this should be enough to bring inflation to its 5% target in H1 2022.

The tighter monetary policy, other things being equal, will reduce inflationary pressures through the exchange rate channel. It will also have a positive influence on inflation expectations, signaling the NBU's intentions to bring inflation back to its target. Following the increase, the key policy rate will remain below its neutral level for some time, which will have a stimulating effect on the economy.

In 2021, the hryvnia's REER will strengthen gradually due to domestic inflation being higher than that in Ukraine's main trading partners. Lower inflationary pressures in 2022 will help stabilize the REER of the hryvnia.

Hryvnia deposits are expected to keep growing as household incomes continue to rise. However, a deterioration in inflation expectations will reduce the speed of the increase in term deposits. This may prompt banks to raise their deposit interest rates, especially on long-term instruments.

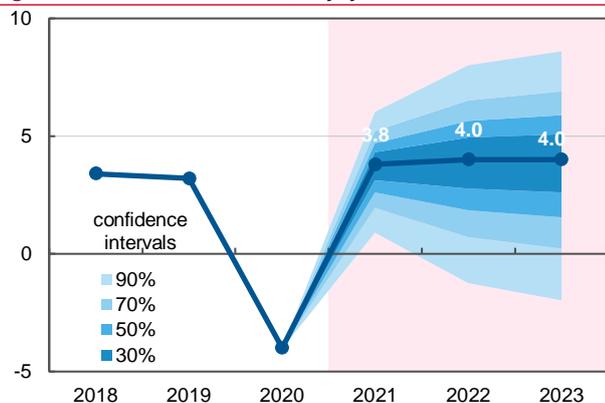
The economic recovery and acceptable loan rates will contribute to a further strengthening of the demand for corporate and retail loans. Although the cost of funding is forecast to rise, a decline in the interest margin will restrain the growth in loan rates. High liquidity and increased competition between banks [will contribute to an easing of lending standards](#). State support programs will also favor the resumption of lending.

Despite the development of cashless payments, cash will remain in high demand, as the further course of the pandemic is still very uncertain. At the same time, cash will grow much more slowly, and its ratio to GDP will decrease.

3.5. Risks to the Forecast

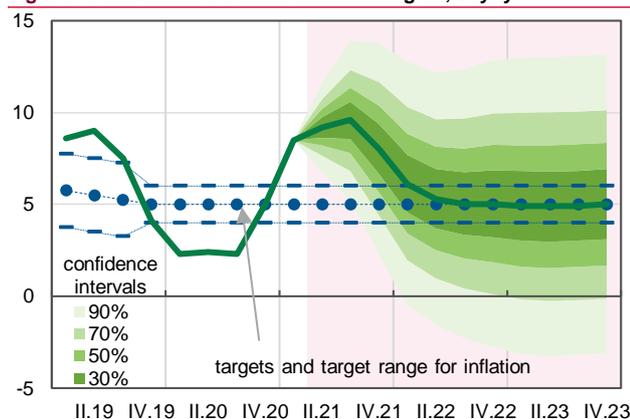
- Further cooperation with the International Monetary Fund remains the basic assumption of the macroeconomic forecast.
- The tightening of the quarantine in Ukraine and globally and the slow pace of vaccination in Ukraine are the key risks to the macroeconomic forecast.

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 current macroeconomic forecast is based on the assumption that the IMF cooperation program will be continued. It is a precondition for properly covering budget needs, including through receiving related financing provided by international partners. A delay in the program may cause problems with securing external sources for financing the state budget deficit. Large borrowings from the domestic market could increase the cost of borrowing and make the Ministry of Finance compete more with businesses for bank loans. This would threaten the resumption of lending due to the crowding-out effect, while also slowing the economic recovery. Moreover, a suspension of the IMF program could seriously worsen inflation and depreciation expectations. This would require the NBU to tighten its monetary policy more than envisaged in the baseline scenario.

New waves of the pandemic and new coronavirus strains forced countries to tighten their quarantine restrictions again in Q1 2021. Although businesses have partially adapted to the new conditions, this is slowing down the recovery of business activity. The slow pace of vaccination in Ukraine creates an additional risk of future economic losses if inflationary pressures rise amid the global economic recovery. Therefore, a tighter monetary policy may be required if expectations become unbalanced. Global economic growth will accelerate if vaccination campaigns across the globe are rolled out faster and cover more people. As a result, global inflation may accelerate more quickly, putting pressure on domestic prices.

Risks of an escalation of the military conflict in eastern Ukraine are increasing. This may significantly worsen Ukraine's investment attractiveness and the expectations of economic agents, and generate additional pressure on the exchange rate and inflation. Thus, the monetary policy may need to be tightened. Any progress achieved in resolving the issue with the temporarily occupied areas will improve Ukraine's investment climate, while also decreasing risk premiums on the country's securities.

Over the short and medium term, success in overcoming the pandemic will have a significant impact on the volatility in global capital markets. The wrap-up of state support programs in the world's largest economies or the introduction of additional stimuli may have a major influence on liquidity in the global capital markets, and on investor interest in EM countries. The NBU's monetary policy will take into account possible increases in capital flows both to and from the country.

Any significant change in the terms of trade is another risk to the forecast. If global prices for Ukraine's main export goods decline sharply from their current high levels, or if energy

		Probability that a risk will materialize		
		Low <15%	Medium 15%–25%	High 25%–50%
Degree of impact on the baseline scenario	Weak	Higher volatility of global food prices		
	Moderate	Smaller harvest of main agricultural crops	Significant changes in the terms of trade	
	Strong		Escalation of the military conflict Delays in cooperation with the IMF Rapid global economic recovery Volatility in global capital markets	Longer duration of the coronavirus pandemic

prices rise significantly, the depreciation pressure on the hryvnia exchange rate would increase. In this case, the NBU would conduct a tighter monetary policy. At the same time, if the terms of trade remain benign for a long time or continue to improve, the supply of foreign currency would increase, strengthening the hryvnia. The disinflationary pressure coming from the FX channel would allow the NBU to pursue a looser monetary policy compared to the baseline scenario.

The macroeconomic forecast is based on an assumption that there will be no significant food supply shocks, either negative or positive. A poor harvest of grains, oilseeds, or other fruit and vegetable crops, in particular due to unfavorable weather, poses another risk to the forecast. A consequence of that would be a rise in food price inflation and a decline in GDP due to decreased agricultural output. The monetary policy response would balance the need to reduce inflationary pressures against the need to minimize economic losses.

Inflation in Ukraine is sensitive to food supply shocks, which is due to the large share of food products in its CPI structure. Rapid climate change gives rise to risks of higher volatility of global food prices, which may make inflation deviate from the target either in the short run or for a longer period. The monetary policy response will take into account the influence the supply shock has on inflation expectations.

Terms and Abbreviations

GDP	Gross domestic product	HH	Household
GVA	Gross value added	NFC	Nonfinancial corporation
STSU	State Treasury Service of Ukraine	OPEC	Organization of the Petroleum Exporting Countries
SCSU	State Customs Service of Ukraine	MTP	Main trading partner
CD	Certificate of deposit	PJSC	Public Joint-Stock Company
SESU	State Employment Service of Ukraine	VAT	Value-added tax
SSSU	State Statistics Service of Ukraine	PIT	Personal income tax
EEC	Eurasian Economic Commission	FDI	Foreign direct investment
STA	Single Treasury Account	REER	Real effective exchange rate
EU	European Union	Russia	Russian Federation
ECB	European Central Bank	WTO	World Trade Organization
CPI	Consumer price index	SDRs	Special Drawing Rights
BAOI	Business Activity Outlook Index	U.S.	United States of America
IT	Information technologies	Fed	Federal Reserve System
CMU	Cabinet of Ministers of Ukraine	EM	Emerging market
QPM	Quarterly Projections Model	EMBI	Emerging Markets Bond Index
IMF	International Monetary Fund	IIF	Institute of International Finance
ILO	International Labour Organization	UAWCPI	Weighted average of the CPI in Ukraine's MTP countries
MY	Marketing year	UAWGDP	Weighted average of economic growth in Ukraine's MTP countries
MFU	Ministry of Finance of Ukraine	UIIR	Ukrainian Index of Interbank Rates
NJSC	National Joint-Stock Company	USDA	United States Department of Agriculture
NBU	National Bank of Ukraine		
NEER	Nominal effective exchange rate		
m	million	yoy	in annual terms; year-on-year change
bn	billion	qoq	in quarterly terms; quarter-on-quarter change
UAH	Ukrainian hryvnia	sa	seasonally adjusted
USD	US dollar	mom	in monthly terms; month-on-month change
bp	basis point		month-on-month
pp	percentage point	RHS	right-hand scale
bbl	barrel		

Indicators	Macroeconomic forecast (April 2021)																										
	2020				2021				2022				2023														
	2018	2019	I	II	III	IV	current forecast	forecast 01.2021	I	II	III	IV	current forecast	forecast 01.2021	I	II	III	IV	current forecast	forecast 01.2021							
REAL ECONOMY, % yoy, unless otherwise stated																											
Nominal GDP, UAH bn	3561	3978	854	875	1163	1302	4194	4079	1035	1115	1349	1456	4955	4580	1170	1250	1457	1578	5455	5015	1271	1363	1595	1735	5965	5475	
Real GDP	3.4	3.2	-1.2	-11.2	-3.5	-0.5	-4.0	-4.4	-1.5	8.7	4.2	3.6	3.8	4.2	6.0	5.7	2.3	2.8	4.0	3.8	3.3	3.7	4.2	4.6	4.0	4.0	
GDP Deflator	15.4	8.2	5.3	5.6	8.4	17.5	9.8	7.2	23.0	17.2	11.0	8.0	13.8	7.8	6.7	6.0	5.6	5.4	5.9	5.5	5.2	5.2	5.1	5.1	5.1	5.0	
Consumer prices (period average)	10.9	7.9	-	-	-	-	2.7	2.7	-	-	-	-	8.5	7.7	-	-	-	-	5.7	5.6	-	-	-	-	5.0	5.0	
Consumer prices (end of period)	9.8	4.1	2.3	2.4	2.3	5.0	5.0	5.0	8.5	9.2	9.6	8.0	8.0	7.0	6.1	5.3	5.0	5.0	5.0	5.0	4.9	4.9	4.9	5.0	5.0	5.0	
Core inflation (end of period)	8.7	3.9	3.1	3.0	3.1	4.5	4.5	4.5	5.9	6.7	7.0	6.5	6.5	5.9	5.4	4.5	4.1	3.9	3.9	3.8	3.9	3.8	3.8	3.9	3.9	3.8	
Non-core inflation (end of period)	10.7	4.8	1.5	1.8	1.1	5.9	5.9	5.9	12.4	12.6	13.3	10.1	10.1	8.6	7.0	6.3	6.4	6.5	6.5	6.6	6.2	6.2	6.4	6.3	6.3	6.6	
raw foods (end of period)	3.3	3.9	-1.0	5.0	-1.1	4.1	4.1	4.1	11.8	8.5	12.9	8.8	8.8	10.0	4.0	4.0	3.4	3.5	3.5	3.4	3.5	3.4	3.6	3.5	3.5	3.4	
administrative prices (end of period)	18.0	8.6	5.5	3.2	6.0	9.9	9.9	9.9	13.0	14.9	12.7	10.9	10.9	10.5	10.1	9.2	9.3	9.2	9.2	9.4	8.6	8.7	8.7	8.6	8.6	9.1	
Producer prices (end of period)	14.2	-7.4	-4.2	-4.6	-1.7	14.5	14.5	14.5	26.3	32.2	28.6	21.5	21.5	6.8	7.2	6.9	6.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Nominal wages (period average)	24.8	18.4	14.3	4.0	9.5	13.9	10.4	10.2	16.1	26.9	17.9	11.6	17.8	16.6	10.9	9.9	9.3	8.8	9.7	9.3	8.4	8.4	8.2	8.5	8.4	8.3	
Real wages (period average)	12.5	9.5	11.3	1.9	6.9	9.7	7.4	7.2	8.2	16.4	7.7	2.9	8.6	8.3	3.7	4.2	3.9	3.6	3.9	3.6	3.4	3.5	3.2	3.4	3.4	3.2	
Unemployment (ILO, period average)	8.8	8.2	-	-	-	-	9.5	9.5	-	-	-	-	9.1	8.8	-	-	-	-	8.5	8.5	-	-	-	-	8.4	8.5	
FISCAL SECTOR																											
Consolidated budget balance, UAH bn	-67.8	-87.3	-	-	-	-	-224	-224	-	-	-	-	-199	-207	-	-	-	-	-164	-151	-	-	-	-	-	-181	
% of GDP	-1.9	-2.2	-	-	-	-	-5.3	-5.5	-	-	-	-	-4.0	-4.5	-	-	-	-	-3.0	-3.0	-	-	-	-	-	-3.0	
Public sector fiscal balance (IMF methodology), UAH bn	-75.4	-89.2	-	-	-	-	-242	-225	-	-	-	-	-200	-206	-	-	-	-	-165	-151	-	-	-	-	-	-182	
% of GDP	-2.1	-2.2	-	-	-	-	-5.8	-5.5	-	-	-	-	-4.0	-4.5	-	-	-	-	-3.0	-3.0	-	-	-	-	-	-3.0	
BALANCE OF PAYMENTS (NBU methodology)																											
Current account balance, USD bn	-6.4	-4.1	2.2	2.0	0.5	1.5	6.2	6.6	0.5	-0.1	-1.7	-0.2	-1.4	-3.2	-1.2	-2.3	-2.7	-0.8	-7.0	-7.4	-1.8	-3.1	-3.1	-1.3	-9.3	-9.3	
Exports of goods and services, USD bn	59.2	63.6	15.3	13.2	14.9	17.3	60.7	60.6	16.2	16.2	17.1	18.8	68.3	64.0	16.6	15.7	16.9	18.4	67.5	66.2	16.6	16.0	17.4	18.2	68.3	67.7	
Imports of goods and services, USD bn	70.6	76.1	16.2	12.3	16.0	17.9	62.5	62.3	16.8	18.5	20.3	20.7	76.2	73.1	18.8	19.6	21.0	21.3	80.7	79.4	19.5	20.5	21.9	21.7	83.7	83.0	
Financial account, USD bn	-9.3	-10.1	2.3	0.7	2.2	-1.0	4.2	4.6	1.6	-2.6	0.4	-1.7	-2.3	-3.8	-2.7	-2.3	-2.2	-0.6	-7.8	-7.5	-4.1	-2.4	-3.6	-1.6	-11.8	-11.2	
BOP overall balance, USD bn	2.9	6.0	-0.1	1.3	-1.7	2.5	2.0	2.0	-1.1	2.6	-2.1	1.6	0.9	0.6	1.5	0.0	-0.5	-0.2	0.8	0.1	2.3	-0.7	0.6	0.3	2.5	1.9	
Gross reserves, USD bn	20.8	25.3	24.9	28.5	26.5	29.1	29.1	29.1	27.0	29.7	27.7	29.8	29.8	30.7	31.4	31.1	29.8	29.3	29.3	29.7	30.8	29.8	29.4	29.1	29.1	29.1	
Months of future imports	3.3	4.9	4.7	4.9	4.3	4.6	4.6	4.8	4.1	4.5	4.1	4.4	4.4	4.6	4.6	4.5	4.3	4.2	4.2	4.3	4.3	4.1	5.1	4.1	4.1	4.1	
MONETARY ACCOUNTS (Cumulative since the beginning of the year)																											
Monetary base, %	9.2	9.6	0.9	11.6	18.9	24.8	24.8	24.8	2.1	8.1	11.0	18.2	18.2	13.5	0.6	2.5	4.4	8.0	8.0	7.1	0.2	1.6	3.1	6.6	6.6	3.8	
Broad money, %	5.7	12.6	5.5	12.0	19.7	28.6	28.6	28.6	0.2	3.9	8.9	16.7	16.7	13.3	1.3	2.1	5.5	11.2	11.2	11.9	3.0	2.5	5.6	12.6	12.6	11.2	
Velocity of broad money (end of year)	2.8	2.8	-	-	-	-	2.3	2.2	-	-	-	-	2.3	2.2	-	-	-	-	2.3	2.1	-	-	-	-	2.2	2.1	