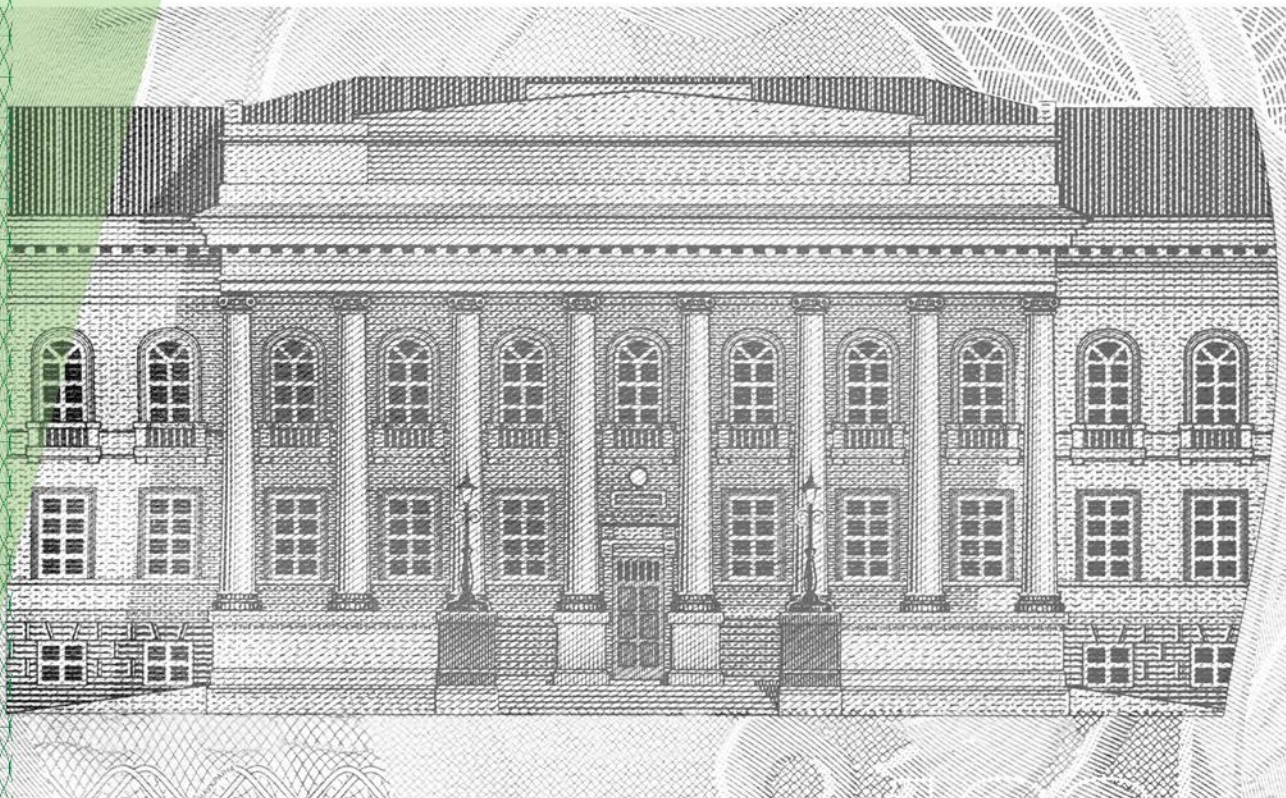




National Bank
of Ukraine

Financial Stability Report

December 2020



The Financial Stability Report (hereinafter the report) is a key publication of the National Bank of Ukraine. It aims to inform about existing and potential risks that can undermine stability of Ukraine's financial system. The report explores further the impact of the current crisis on banking and non-banking segments of financial sector. The report also makes recommendations to the authorities and financial institutions on measures to mitigate risks and to enhance the resilience of the financial system to those risks.

The report is primarily aimed at financial market participants, and all those interested in financial stability issues. Publication of the report promotes higher transparency and certainty of macroprudential policy, helps to boost public confidence in the policy, and thus facilitates National Bank's management of systemic risks.

The report was approved for publication by the Financial Stability Committee of the NBU on 16 December 2020 and by the decision of the National Bank Board of 18 December 2020 No. 747-rsh.

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Summary

The financial sector is successfully weathering through the coronavirus crisis and properly performing its functions. Banks entered the pandemic without any noticeable imbalances, with sufficient capital and high liquidity. The efforts taken since 2015 to clean up the banking system and enhance its resilience have undeniably yielded positive results. For the first time ever, Ukrainian banks did not compound economic instability during the crisis. On the contrary, they have been duly supporting businesses to date and will contribute to future economic recovery through lending. As the crisis struck, the majority of banks quickly moved online. To a certain extent, the format of banking sector operations underwent a structural shift. Despite a temporary drop in the number of open branches, accessibility of banking services did not decline.

Since April, the NBU has deployed practically all the tools a central bank has at its disposal to facilitate recovery from the crisis. The NBU's measures were similar to those taken by regulators in other countries. In particular, the Ukrainian central bank deferred the implementation of the capital conservation buffer and systemic importance buffer in order to give banks more flexibility. Banks can thus use the capital in excess of the minimum required level both to absorb credit losses and increase their loan portfolios. The NBU also encouraged banks to restructure loans to borrowers facing temporary financial difficulties due to pandemic-related constraints. At the same time, such restructurings must be viable, not covering up borrowers' fundamental financial difficulties that are unlikely to be resolved in the coming years. These measures mitigated the impact of the crisis at its peak.

The economy started to grow in Q3, fueled by strong domestic demand and a favorable environment in Ukraine's key export markets. Unlike in previous crises, the foreign exchange market has remained stable, with NBU reserves being large enough to ensure the central bank can provide a timely response to potential challenges in the future. As has been the case historically, slow progress in cooperation with international financial institutions poses a risk to the economy and fiscal system. Without this cooperation, it will be difficult to secure uninterrupted access to global capital markets and attract foreign direct investment. Therefore, cooperation with international financial institutions needs to be restored in full.

The real sector is also recovering from the coronavirus crisis. Although the recovery has been uneven across industries, the corporate sector overall has proved to be resilient. The quality of banks' corporate portfolios did not deteriorate much. Conservative lending standards contributed to borrowers' resilience. Timely restructurings and immaterial exposure to vulnerable industries ensured smooth passage through the crisis. New lending was on hold only briefly in Q2. Already in September, the financial system fully restored its function of financial intermediation, with the loan portfolio increasing gradually. Corporate loans started to grow. Lending to small businesses demonstrated the best dynamics. Low interest rates and the corporate sector's moderate debt burden laid the foundation for lending expansion going forward.

Growth in consumer lending slowed markedly as the crisis unfolded, with both demand and supply shrinking. Past due loans in this segment grew substantially in Q2, which forced selected banks to restructure large volumes of unsecured consumer loans. Customers did not shift from banks to nonbank lenders during the crisis, which reflected a stable segmentation of borrowers. Lending is on the rise, but its growth is unlikely to reach pre-crisis levels in the near future. The NBU considers risks stemming from this segment to be high and thus reiterates its intention to increase risk weights for such bank loans to 150% in 2021.

Mortgage lending has been growing rapidly since July, which is highly unusual for Ukraine considering the depth of the crisis and a high degree of uncertainty. The key factor behind the expansion in mortgages was the sharp decline in interest rates. Banks continue to maintain conservative mortgage lending standards, primarily looking at official income of households and requiring borrowers to make large down payments for residential property.

Loan interest rate reduction will contribute to further development of lending. Deposit interest rates in the banking system fell to the single digits in 2020. Inflation remained low throughout

the year, while monetary policy was accommodative. Current interest rates on loans and deposits are the lowest in the Ukrainian banking sector's history. Provided that macroeconomic stability lasts, loan rates will keep declining. At the same time, room for cutting deposit rates is very limited.

The Ukrainian banking sector remains highly profitable thanks to stable operating income and no significant credit losses. Net fee and commission income fell only briefly at the peak of the crisis before recovering rapidly in the following months. Net interest income was fueled by the still high interest rate spread, as rates on assets and liabilities dropped in tandem throughout the year. At the same time, the spread will inevitably narrow in the medium term, which poses the key risk to banking profitability in the coming years. The narrowing opportunities for investing foreign currency funds pose another challenge for banks. Demand for foreign currency loans fell considerably in the past years, and interest rates on government securities denominated in foreign currency have been declining. This encourages banks to de-dollarize their balance sheets more actively.

The sector's capital adequacy is well above the minimum requirement. Overall, the impact of the crisis on banks' capitalization proved milder than the NBU expected in June based on its express stress test. The resilience of the loan portfolio and weaker actual economic shock than the stress test assumed underpinned this outcome. Banks were mostly conservative in their capital planning this year. The majority of financial institutions among those regularly paying dividends deferred distributions to their shareholders until the fall months. By acting so, banks aimed to ensure that profit distributions will not hamper their ability to withstand the crisis.

In the next two years, the NBU will introduce a number of innovations related to capital requirements for banks. All these innovations will target eliminating loopholes in the regulatory framework and harmonizing Ukrainian rules with recommendations of the Basel Committee. The Net Stable Funding Ratio (NSFR) will start to apply in April, which will encourage banks to decrease the maturity mismatch. In 2021, banks need to prepare for the introduction of capital requirements to cover operational and market risk. This will complete the implementation of Pillar 1 of the Basel recommendations into the Ukrainian regulatory framework.

In addition, next year the NBU will start to gradually increase risk weights for foreign currency-denominated securities issued by the Ukrainian government. This will eliminate the disproportion between banks' capitalization and the amount of credit risk they took on their balance sheets. In January, banks will start to adjust their core capital for the value of noncore assets. This requirement will encourage them to dispose of noncore assets in a timely manner, as holding such assets seriously affects the financial resilience of financial institutions and often distorts their financial indicators.

In December, the NBU updated its Macroprudential Policy Strategy. This document lays the groundwork for macroprudential regulation of the financial sector, intended to prevent the buildup of systemic risk. The Strategy was amended in view of the additional powers vested in the NBU: in July, it became the regulator of insurance companies, credit unions, and microfinance credit institutions. In the NBU's view, currently the non-bank segment carries no systemic risks due to its relatively small size, low interconnectedness between the segment's players and banks, and the specifics of market participants' business models. However, the NBU will follow further developments, standing ready to apply macroprudential instruments if needed.

Financial Stress Index

In H2 2020, the Financial Stress Index (FSI) showed no volatility and was low. Almost all indicators returned to where they were before the pandemic, while some fell to all-time lows. In particular, interest rates on deposits dropped to the lowest level in the domestic banking sector's history, while retail deposits kept growing, demonstrating that households retain confidence in the banking sector. The corporate securities subindex is the only indicator trending higher, which is due primarily to the price volatility of shares of Ukrainian companies¹.

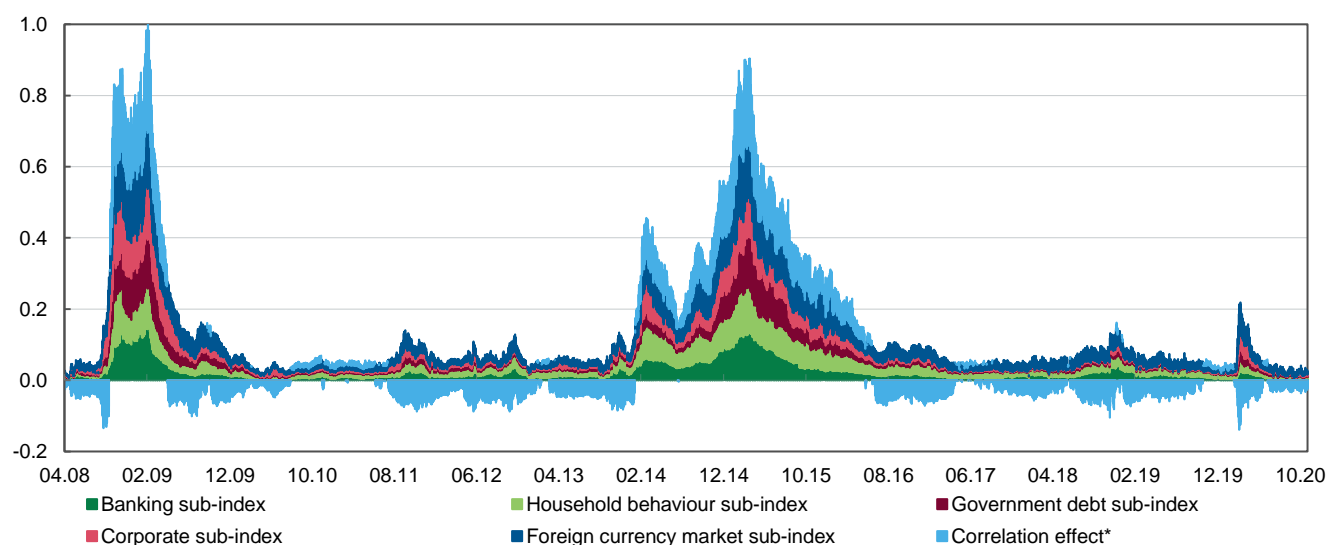
Effective December 2020, the FSI is calculated using a new methodology². Compared to the previous approach, the updated index takes into account the effect of changes in the correlation between subindices over time. This allows for taking into account the strengthening of links between economic sectors amid unfavorable conditions, which in turn has the potential to deepen the crisis. At the same time, the correlation effect is currently negative, thus reducing the impact of individual subindices on the overall level of stress. The FSI only reflects current conditions in the financial sector. It does not indicate any future risks in either the short or long run.

Figure FSI1. Financial Stress Index



Source: NBU.

Figure FSI2. Financial Stress Index Decomposition



* Correlation effect is net effect of the time-varying correlation (excluding the average correlation for the entire observation period).

Source: NBU.

¹ Stock price dynamics based on Warsaw Stock Exchange index.

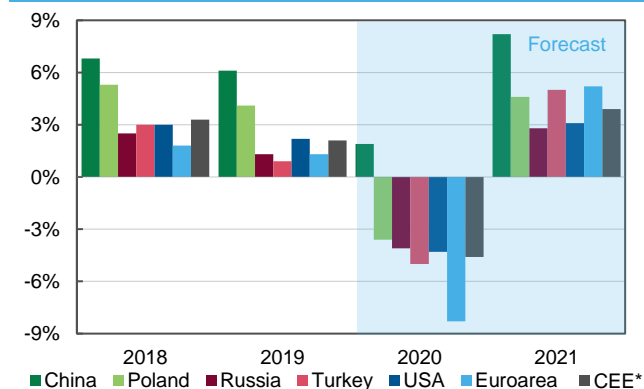
² Filatov, V. (2020). [A new financial stress index for Ukraine](#) (No. 15-2020). Economics Section, The Graduate Institute of International Studies.

Part 1. External Conditions and Risks

1.1. External Developments

The economies of Ukraine's trading partners and global trade are recovering from the crisis precipitated by COVID-19 in H1. However, the risk that the second wave of the pandemic will cause a new downturn is high. Commodity prices are rising to pre-crisis levels. The governments and central banks of many countries as well as international financial institutions (IFIs) continue to stimulate the recovery with fiscal and monetary tools. Geopolitical and geoeconomic risks have eased following the US elections and development of COVID-19 vaccines; that also promoted economic recovery. Interest towards emerging market (EM) assets varies by region. The prospects for the Russian aggression to be restrained by the international community improved thanks to the anticipated US stance.

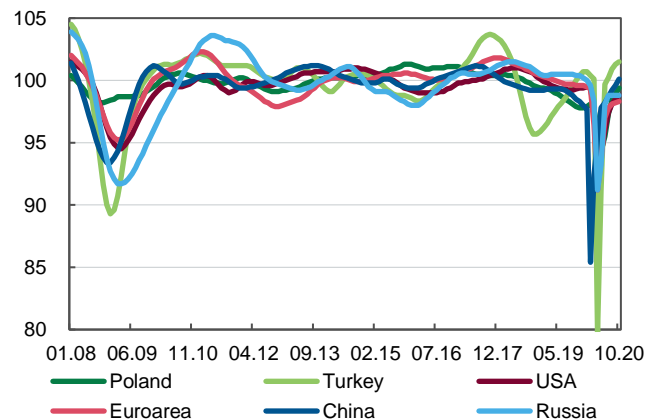
Figure 1.1.1. GDP of Ukraine's main trading partners



* Central and Eastern Europe.

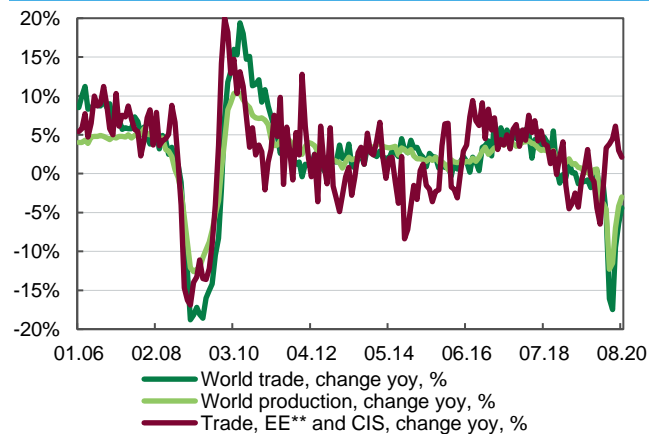
Source: IMF, World Economic Outlook, October 2020.

Figure 1.1.2. Trends of OECD composite leading indicators (CLI) for Ukraine's main trading partners



Source: OECD.

Figure 1.1.3. Global trade and industrial production*



* Volume of global trade; seasonally adjusted. ** Eastern Europe.

Source: Centraal Planbureau (CPB), the Netherlands.

The global economy and trade have started to recover, but risks are high

The coronavirus crisis inflicted economic losses on all of Ukraine's trading partners: on a full-year basis, the economies of most of these countries are expected to contract and growth in China is projected to slow sharply. This year's economic downturn was deeper than during the crisis of 2008–2009 but still not as severe as was expected back in the spring (the IMF upgraded its global economic growth forecast for 2020 by 0.8 pp, to -4.4%).

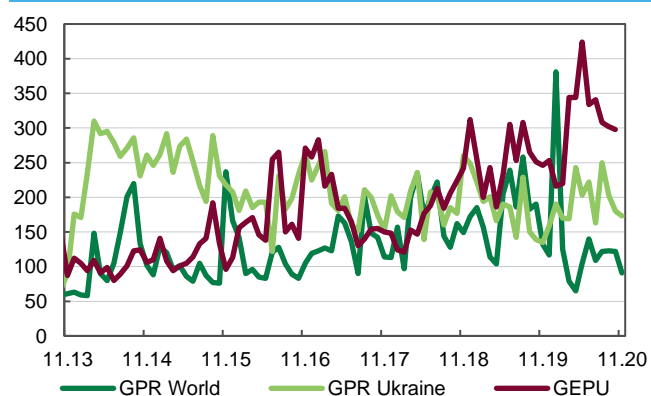
The global economy has been recovering in H2 2020, and growth will continue next year according to the baseline forecast. The development of coronavirus vaccines has inspired hope, supporting upward market dynamics. However, new pandemic outbreaks in spite of vaccine development, large-scale quarantine measures, the buildup of public debt, and premature wrapping up of economic stimulus may considerably worsen the outlook for economic recovery.

Global trade volumes have been on the rise since July but are still 3%–4% below pre-pandemic levels (as of August, according to Centraal Planbureau estimates). World industrial production has been recovering since May. Immediate threats posed to the global financial sector by the coronavirus crisis have turned out to be limited, which was due, among other things, to previously taken prudential measures that ensured sufficient capital and liquidity buffers at banks. However, banks' loan portfolios are likely to deteriorate, and public debt is likely to grow in the future. The services sector has been hit hardest by the coronavirus crisis, whereas industrial production was relatively resilient. Small enterprises are also more vulnerable to the fallout from the crisis. The travel and transportation sectors will continue shrinking, and new technologies will develop rapidly, especially that of remote access. According to the World Bank, as a result of the crisis, remittances from labor migrants to middle- and low-income countries will drop by 7% in 2020 and 7.5% in 2021.

Geopolitical risks and international uncertainty have subsided

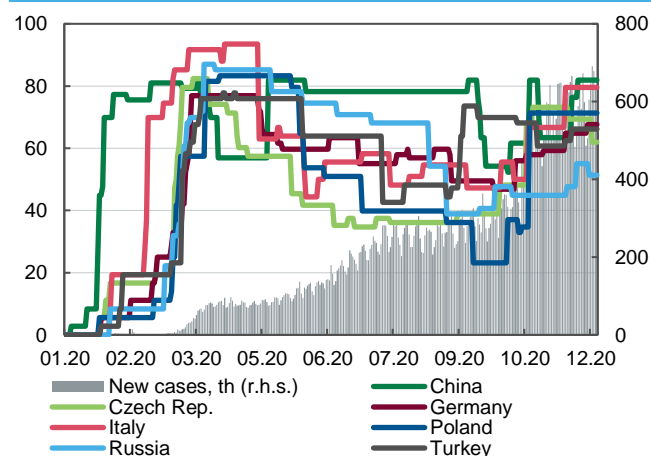
The completion of the US presidential elections and development of the COVID-19 vaccines were the main factors that brought some certainty. At the same time, there is still little clarity about a number of issues including Brexit, future US relations with China and Iran, French-Turkish

Figure 1.1.4. Geopolitical Risk (GPR) Index³ and Global Economic Policy Uncertainty (GEPU) Index⁴



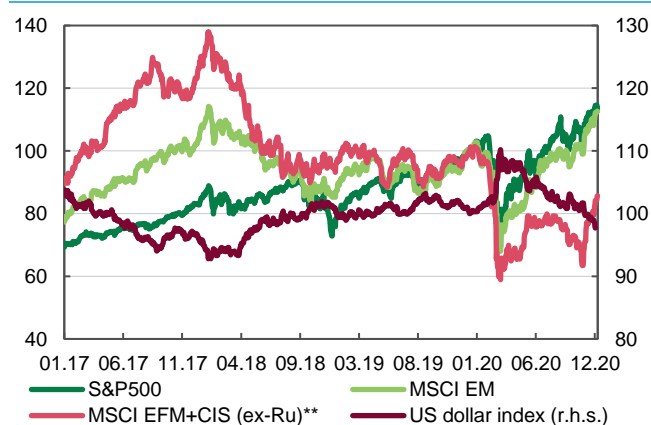
Source: Dario Caldara and Matteo Iacoviello; Davis, Steven J.

Figure 1.1.5. Government response stringency index for selected partner countries and number of new COVID-19 cases registered globally per day



Source: Oxford COVID-19 Government Response Tracker, ourworldindata.org.

Figure 1.1.6. Changes in US and EM stock market indices and US dollar index, 1 January 2020 = 100



* Weighted by trade in goods and services, Fed.

** Index of European frontier economies and Commonwealth of Independent States (CIS) excluding Russia (includes Estonia, Kazakhstan, Lithuania, Romania, Serbia, Slovenia, and Croatia).

Source: Federal Bank of St Louis, Morgan Stanley, Fed.

faceoff, and potential final decisions by the outgoing US president. There remain several hotbeds of tension in our region, particularly Belarus and the South Caucasus, in addition to the separatist-controlled territory in eastern Ukraine. Overall, Russia's leverage in the region has weakened somewhat, particularly after a pro-European president was elected in Moldova.

Potential escalation of the pandemic remains the main risk for the near future. The number of new COVID-19 cases has been growing across the globe since October. Many countries, particularly in Central and Eastern Europe, responded by reintroducing quarantine measures. However, the scale and severity of new curbs were smaller compared to the spring lockdown. According to vaccine developers, the vaccination coverage level sufficient to overcome the pandemic may be reached closer to the end of 2021.

Governments and central banks across the globe are fighting the crisis with previously introduced measures

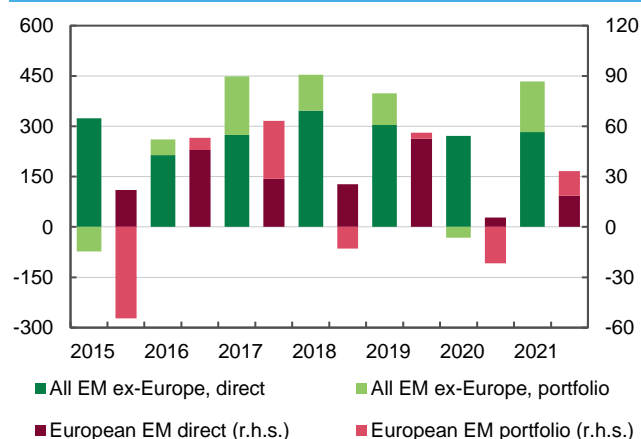
The leading central banks have kept their key rates close to zero. Monetary easing programs launched in response to the coronavirus crisis are under way: the Fed's balance sheet has expanded by more than 70% since the start of the year, while Eurosystem central banks' balance sheets rose by almost 50%. Governments and regulators mainly continued and expanded the programs and measures they had announced in Q2, taking few new steps. [McKinsey](#) estimates the total cost of anti-crisis measures taken by the world's 54 largest economies at USD 10 trillion. Several of the Fed's stimulus programs are due to expire at the end of December 2020, but they are likely to be extended (some measures have already been prolonged to 31 March 2021). The US president-elect has already mentioned such a possibility. The ECB has also signaled that it may continue its stimulus measures to fight the coronavirus crisis. The majority of EMs implemented their own anti-crisis measures, and some of them adopted asset purchase programs for the first time. All these steps limited the pandemic's adverse economic effects and supported recovery and investor appetite. At the same time, this led to an increase in public sector debt. As a result, more vulnerable EMs may find themselves unable to provide large-scale state support for the economy in the event of new shocks.

In turn, the IMF has since March approved USD 102.15 billion in financial assistance for 83 countries to help them cope with the economic fallout from the coronavirus crisis. In particular, out of the USD 6.12 billion earmarked for the European region, the IMF committed USD 5 billion for Ukraine alone. This is the maximum amount Ukraine can draw under the IMF's 18-month Stand-by arrangement aimed at coping with the aftermath of COVID-19 and preserving reforms through closing the fiscal and balance of payments deficits. Only a small portion of this assistance has been received to date, namely the first tranche of USD 2.1 billion, due to Ukraine's slow progress in meeting its obligations.

³ <https://www2.bc.edu/matteo-iacoviello/gpr.htm>

⁴ http://www.policyuncertainty.com/global_monthly.html

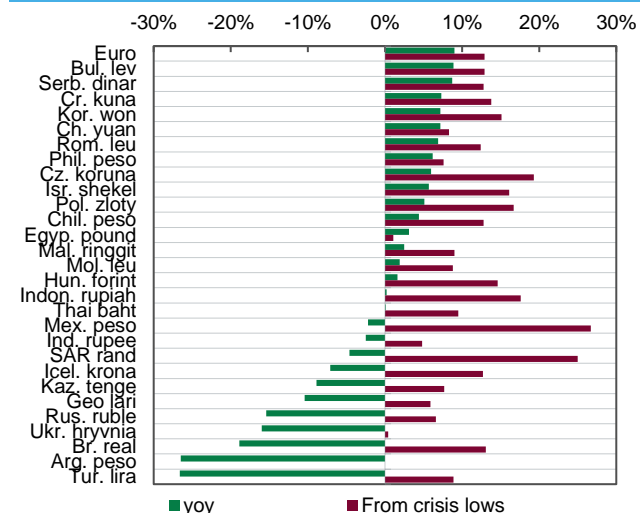
Figure 1.1.7. Change in nonresident investments in EMs, USD billions*



* Negative values represent capital outflow.

Source: IMF, World Economic Outlook, October 2020.

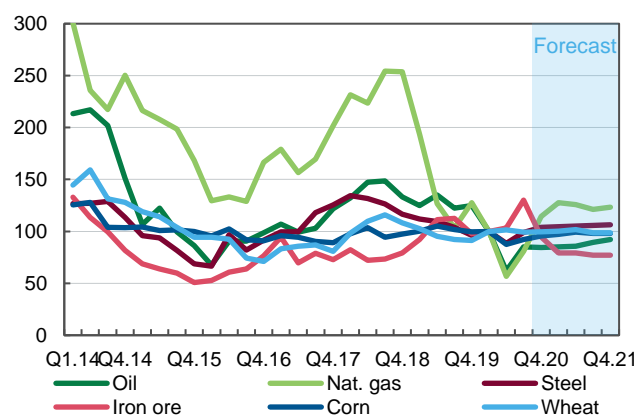
Figure 1.1.8. Changes in EM currency exchange rate and EUR/USD rate, year-on-year at start of December and versus spring 2020 crisis minimums*



* Between mid-March and early May depending on particular country (November for Argentina, Turkey and Ukraine).

Source: Investing.com.

Figure 1.1.9. Global commodity prices*, Q1 2020 = 100



* Brent oil; Russian natural gas; steel square billets; iron ore concentrate, China; wheat and corn, quarterly global average.

Source: NBU, October 2020 Inflation Report.

Capital inflows to EMs resumed but were uneven

After enduring capital flight in H1, EMs saw renewed investment inflows starting in May, but investor interest towards these markets was widely divergent across regions. The new wave of the pandemic increased the risk of new capital outflows. The value of EM assets has been growing along with leading economies' stock indices. At the same time, interest towards Central European assets was relatively lower.

EM currencies weakened as the coronavirus crisis started, but then the trend reversed and the losses were recouped. The currencies of Asian and some Latin American EMs strengthened year-on-year. Meanwhile, other EM currencies (particularly Turkey and Argentina) depreciated due to local factors.

Commodity prices have recovered to pre-crisis levels

Demand from China, and then the gradual easing of quarantine restrictions, supported commodity prices. Crude oil prices hovered around USD 40 per barrel. A compromise reached by OPEC+ on oil production stabilized oil prices. They may gradually rise later on. Natural gas prices will remain elevated, as the effects of high demand and large storage inventories offset each other. Prices for Ukrainian exports remained relatively high despite the crisis, supporting the balance of payments. Steel prices grew on stronger demand, especially from China and countries of the Far East, and will remain relatively high. Together with protracted supply problems, this drove iron ore prices above pre-crisis levels. Grain prices increased in H2 and will remain high going forward.

Current de-occupation scenarios for Donbas were not welcomed by the public

Several proposals were floated to implement the Minsk agreements, in particular as regards holding elections in the temporarily occupied areas and establishing a free economic zone in Donbas. However, these plans have not been accepted by the broader Ukrainian public. The ceasefire at the frontline is regularly broken by the enemy.

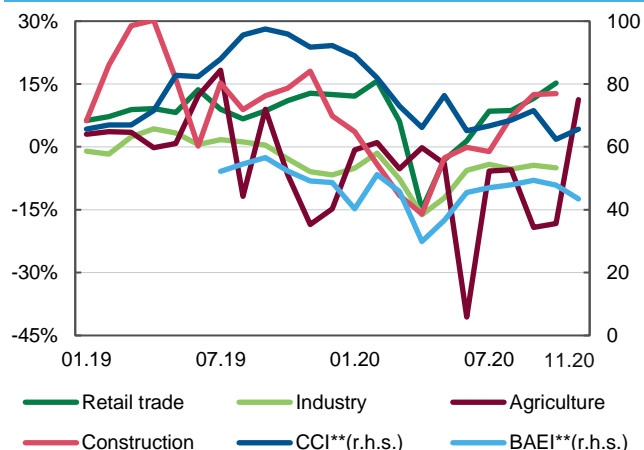
The announced appointments to the incoming US president's administration raise hopes that Russia as aggressor country will come under heavier pressure. In particular, the United States plans to tighten sanctions against companies engaged in finishing the construction of the Nord Stream 2 gas pipeline that bypasses Ukraine. International courts continue considering lawsuits filed by Ukraine and its citizens against Russia.

Part 2. Domestic Conditions and Risks

2.1. Macroeconomic and Fiscal Risks

The need for a stricter quarantine to reduce the incidence of COVID-19 and slow progress in cooperation with the IMF are the main challenges to Ukraine's macro-financial stability. At the same time, the economy has been recovering reasonably quickly from the spring lockdown. The revival has been fueled by favorable conditions in key export markets, strong wage growth, and loose monetary and fiscal policies. Loan interest rates for creditworthy borrowers dropped to an all-time low owing to the key policy rate cut to the lowest level ever – 6%. Optimistic estimates as to key revenue items could complicate execution of the 2021 budget, while the planned financing of the deficit with domestic resources remains a difficult task.

Figure 2.1.1. Economic performance* and sentiments



* Versus the corresponding month of the previous year (calculated on the basis of the following indicators: retail trade index, industrial production index, agricultural production index, and construction output index; ** CCI is the Consumer Confidence Index (calculated by Info Sapiens); BAEI is the Business Activity Expectations Index (calculated by the NBU and reflecting the assessment by businesses of the current state of the economy. Values below 50 signal that pessimistic expectations prevail).

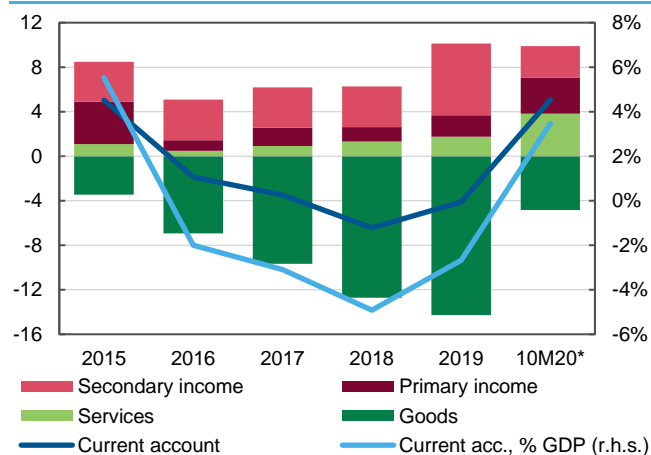
Source: SSSU, NBU, Info Sapiens.

Speed of economic recovery will depend on epidemiological situation

The Ukrainian economy proved more resilient to the crisis than was expected at the onset of the COVID-19 pandemic. In Q3, seasonally adjusted real GDP grew by 8.5% qoq, decreasing by only 3.5% yoy. The main reasons for this were stable consumer demand and a favorable external price environment.

That said, the high incidence of COVID-19 is increasing uncertainty about the future epidemiological situation while also adversely affecting consumer and business sentiment. The government extended the quarantine regime until the end of February 2021 and approved stricter restrictions to be in effect for most of January. Among other things, there will be a ban on the operation of practically all nonfood stores (except those selling medicines, medical devices and hygiene items). The NBU estimates that the new restrictions, thanks to being shorter and milder, will have a much less pronounced impact - at about 0.2 pp of annual GDP - than those in the spring of 2020. The government expanded its anti-crisis programs in December with a view to supporting households and the economy during the pandemic. The implementation of these programs will depend on the government's ability to raise necessary debt financing.

Figure 2.1.2. Current account balance, USD billions



* Preliminary data.

Source: NBU.

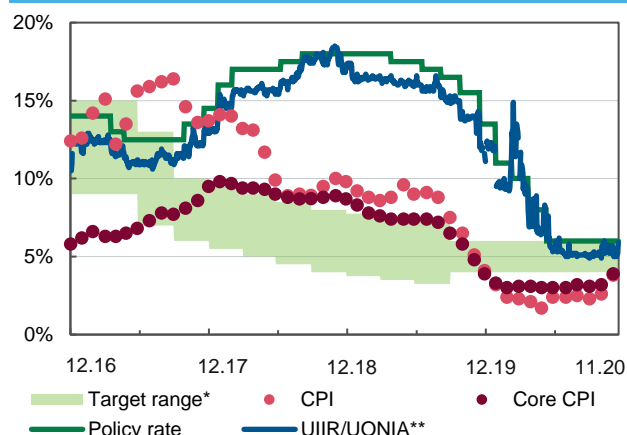
The NBU estimates GDP will rise by 4.2% in 2021. This forecast may be somewhat adjusted in January to factor in external conditions, fiscal policy, and the impact of quarantine restrictions.

External conditions contributing to FX market stability

Ukrainian exports have been rather stable during the pandemic, due to a large share of them being food and raw materials and due to prices for these products growing. Over the first ten months of 2020, merchandise exports shrank by only 5.2% yoy. Domestic exporters were reasonably quick to reorient from European markets, whose GDP plunged, to China, whose economy recovered to its pre-crisis level already in Q2 2020.

Meanwhile, merchandise imports slid by 17.5% yoy. About half of this decline resulted from lower energy imports, due to a drop in both prices and import volumes. Shrinking domestic demand affected imports of consumer and investment goods. Imports of services also slumped, dragged down by a decline in outbound tourism. All in all, the current account surplus came in at USD 5.1 billion.

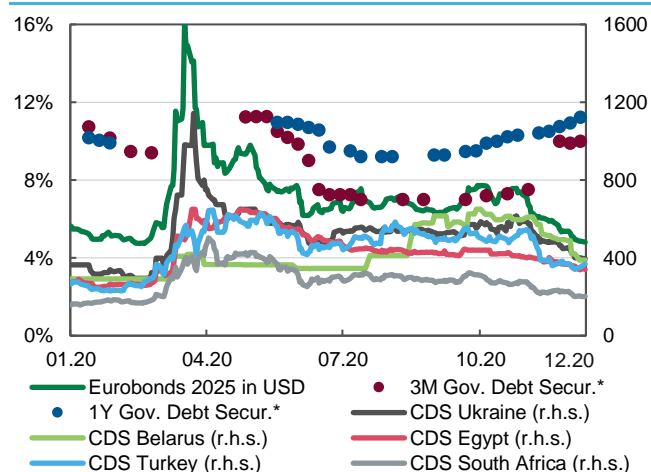
Figure 2.1.3. Consumer price indices, NBU key policy rate and Ukrainian Overnight Index Average (UIIR/UONIA)



* The current inflation target is $5 \pm 1\%$, ** UIIR until 22 June 2020, interest rate on hryvnia O/N unsecured loans and deposits, % per annum.

Source: NBU.

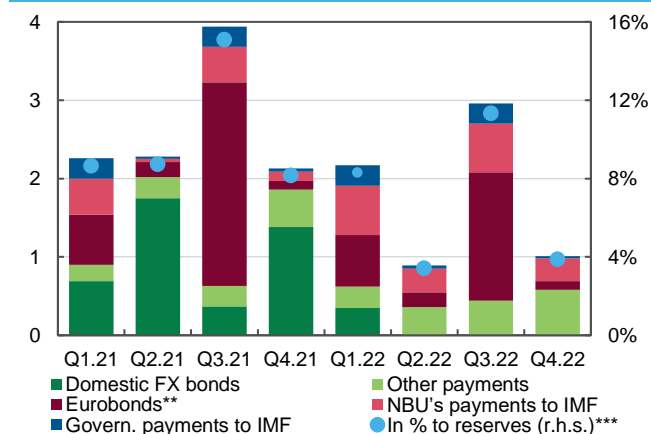
Figure 2.1.4. Yield on Ukrainian government debt securities and sovereign Eurobonds (%) and price of five-year CDS (bp)



* Yield at primary placement of hryvnia domestic government debt securities.

Source: Ministry of Finance of Ukraine, ICE Data Derivatives, Cbonds.

Figure 2.1.5. Foreign currency repayments on public and publicly guaranteed debt, USD billions equivalent*



* Including interest; ** including US-guaranteed Eurobonds worth USD 1 billion to be repaid in Q3 2021; *** ratio of estimated repayments in the respective quarter to Ukraine's gross international reserves as of 1 December 2020 (USD 26.1 billion equivalent).

Source: NBU estimates.

Financial account outflows totaled USD 5.9 billion in January through October, caused by an increase in FX cash outside the banking system, outflows of nonresident capital from the domestic government debt securities market, repayments of external debt by the private and public sectors, and lower FDI. In view of a moderate deficit of the overall balance of payments, international reserves remained at a sufficient level, totaling USD 26.1 billion or more than four months of future imports as of late November.

Favorable terms of trade this year mitigated risks to the balance of payments. If terms of trade deteriorate, these risks may increase in the future.

In Q3 2020, small net demand for foreign currency prevailed on the FX market, arising from more active risk hedging through forward transactions. NBU net FX sales were minor, only USD 106 million, while the UAH/USD exchange rate depreciated by 5.7%. In Q4, supply and demand in the FX market were balanced. As a result, the NBU did not intervene in the FX market for more than a month (from 6 November through 9 December), the longest such period since the flexible exchange rate regime was introduced. In the middle of December, the market enjoyed a net supply of foreign currency as nonresidents returned. However, given the increased probability of record budget spending in the final weeks of the year, short-term depreciation pressure on the hryvnia may reappear.

Monetary policy remained loose, inflation approached target

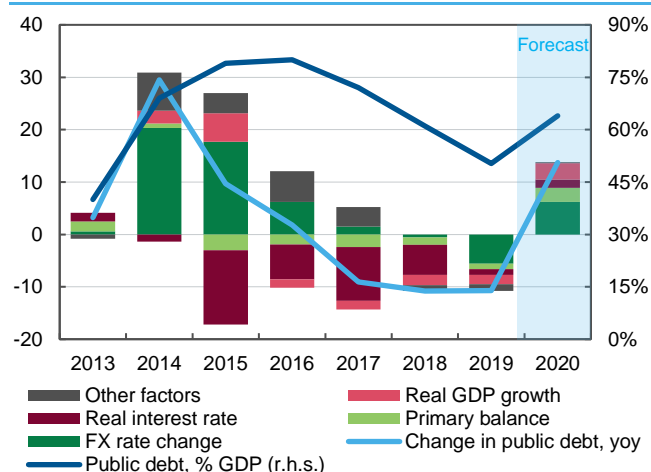
In January–November 2020, inflation was below its target range. The NBU maintained a loose monetary policy stance in order to support the economy and bring inflation to target. The key policy rate has been at an all-time low since June. In real terms, the key policy rate continued to drop and entered negative territory. This drove interest rates on new loans and deposits further down. Loan interest rates for creditworthy borrowers are already the lowest ever. There will be room for cutting loan rates even if the key policy rate remains unchanged.

The NBU's medium-term goal is to keep inflation in the range of $5 \pm 1\%$. The future trajectory of the key policy rate will be determined by the balance of inflationary risks. The NBU may increase its key policy rate in response to rising inflation on the back of economic recovery in Ukraine and globally. At the same time, the NBU can give the economy additional impetus for growth by cutting its key policy rate further should the pandemic intensify and inflationary pressures weaken.

Without cooperation with IMF, risks to budget financing will remain high

In 2021–2022, Ukraine will need to repay over USD 17 billion of public and publicly guaranteed debt. This is equal to about 65% of the early-December international reserves. The accumulated reserves and flexible exchange rate regime provide some margin of safety. However, in order to avoid significant imbalances and loss of reserves, Ukraine needs to maintain constant access to IFI loans and external private

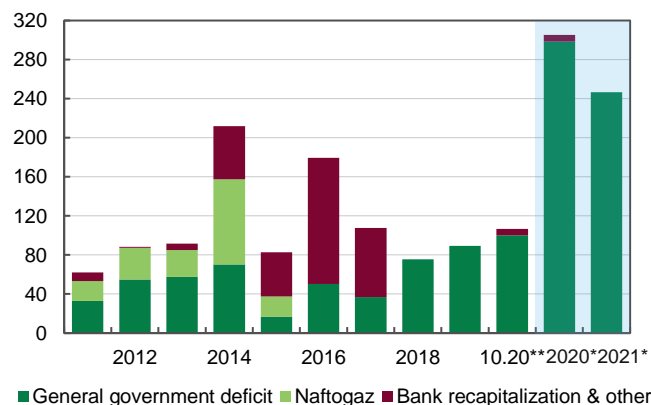
Figure 2.1.6. Ratio of public and publicly guaranteed debt to GDP (%) and factors of its change (pp)



* Other factors include the total contribution of change in the volume of guarantees and assets; positive values show an increase and negative values a decrease in the ratio of debt to GDP.

Source: NBU.

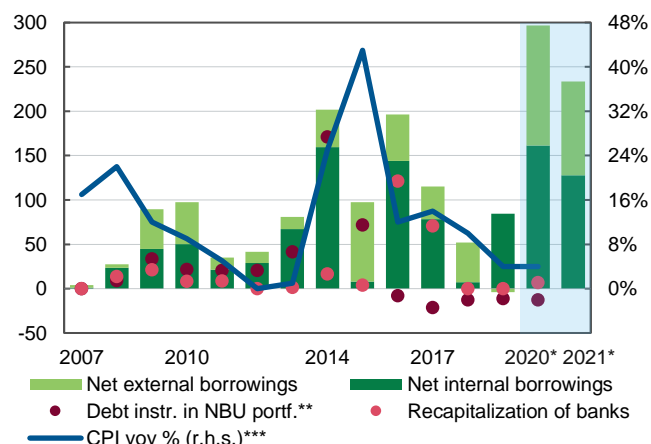
Figure 2.1.7. Broad deficit of general government, UAH billions



* For 2020–2021, state budget deficit caps for respective periods approved by Ukrainian parliament; ** over the first ten months of 2020.

Source: IMF, STSU, Ministry of Finance of Ukraine, NBU estimates.

Figure 2.1.8. Net domestic and external borrowing of the state budget in 2007–2021, spending on bank recapitalization, change in amount of domestic government debt securities held by NBU, UAH billions



* Law of Ukraine *On the State Budget of Ukraine for 2020* (as amended on 13 April 2020), Law of Ukraine *On the State Budget of Ukraine for 2021*; ** as of end of year; *** in 2020, November prices versus December 2019.

Source: STSU, Ministry of Finance of Ukraine, NBU.

capital markets. In December, Ukraine received USD [670.2](#) million from an additional placement of Eurobonds, and EUR [623.5](#) million from the European Union under a macro-financial assistance program. The raised funds were channelled to the budget. Future disbursements will depend on whether Ukraine meets its obligations to carry out reforms.

2021 budget may need to be revised

Despite some adjustments, the 2021 budget is based on optimistic assumptions. This poses the risk that revenues will underperform (including transfers of NBU profits), necessitating revisions to the budget.

The 2021 budget deficit target is substantial, both in absolute (UAH 246.6 billion) and relative (5.5% of GDP) terms. The government's ability to finance the deficit will directly depend on whether or not it has access to external markets and loans from IFIs. Required borrowings total UAH 233.4 billion on a net basis, of which 55% is planned to be raised through domestic government debt securities. It is unlikely that such a large amount can be raised locally unless foreign portfolio investors return to the domestic market. The NBU has repeatedly stressed that it does not intend to indirectly finance the budget deficit by expanding its portfolio of government securities.

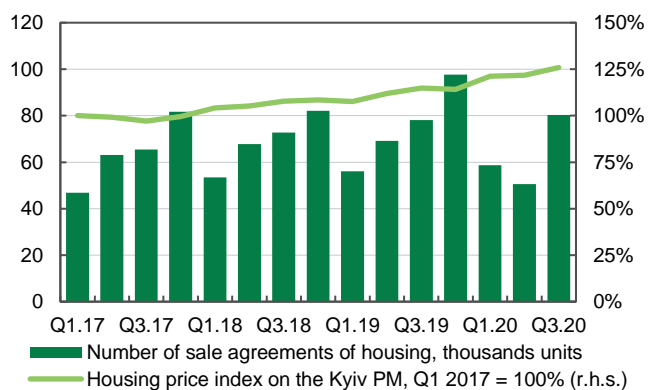
The risk of an increase in publicly guaranteed debt is also high. The approved budget law caps new public guarantees at UAH 88.7 billion. This is more than three times the limit set by the Budget Code and could result in substantial spending on such commitments in subsequent budget periods.

The budget's significant deficit for the second year running was caused by the need to support the economy during the pandemic. With that in mind, the government should focus on targeted programs, which are reasonably small in volume, to support households and businesses through providing small and medium enterprises with compensation, granting portfolio guarantees, and issuing affordable loans under the 5-7-9 program.

2.2. Real Estate Market and Mortgage Lending

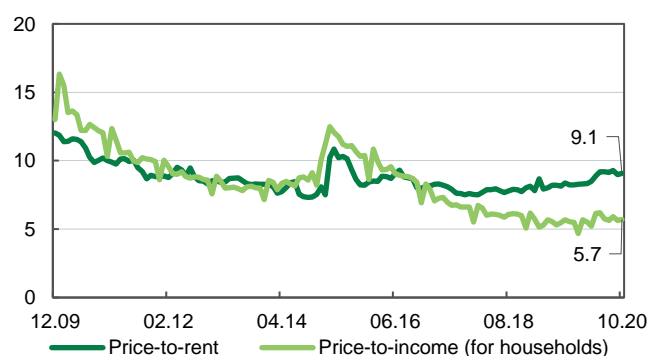
Demand has recovered and is growing gradually, as housing remains affordable compared to previous periods. Prices for real estate also grew moderately despite the pandemic and the economic downturn. The resumption of mortgage lending is gradually gaining weight as a new factor that can significantly influence demand. The key risk to the sector is the delay in addressing the primary real estate market issues and enhancing protection of investor rights in the housing market. In addition, slow reform of the construction control system may reduce the supply of new housing in the future. Commercial real estate has been more heavily affected by the crisis. The future state of the market will depend on the duration of the pandemic.

Figure 2.2.1. Housing market activity



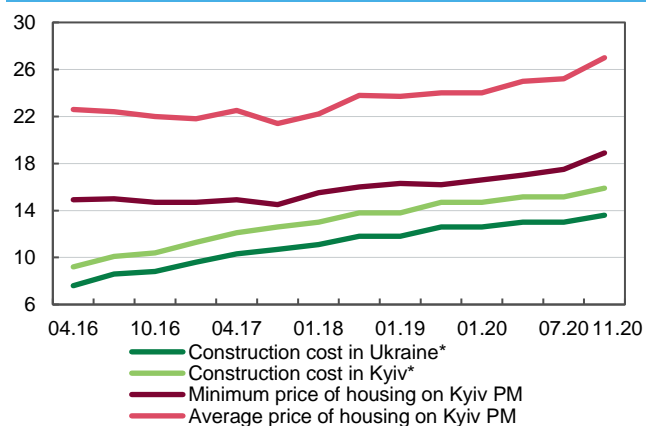
Source: Ministry of Justice of Ukraine, real estate agencies, NBU estimates.

Figure 2.2.2. Price-to-income and price-to-rent ratios of the primary real estate market of Kyiv



Source: SSSU, real estate agencies, NBU estimates.

Figure 2.2.3. Housing prices and construction costs, UAH thousands/sq. m



* Data for November 2020 are preliminary estimates by the Ministry for Communities and Territories Development of Ukraine.

Source: Ministry for Communities and Territories Development of Ukraine, LUN website.

Housing market activity is recovering gradually

After falling sharply in Q2 2020 – by almost a third year-on-year – demand for real estate started to grow slowly. In Q3 2020, the number of agreements concluded to purchase residential property increased by 2.8% yoy, reflecting a gradual realization of pent up demand. Since the start of the quarantine, around fifty housing complexes have been put up for sale in Kyiv (+11% yoy), despite the temporary decline in demand at the peak of quarantine restrictions and the limited role of mortgage in the housing market.

Demand is trending up, among other things, because the affordability of housing has been increasing over a long period, having more than doubled over a decade. As of the end of October, the price-to-income ratio⁵ remained practically unchanged year-to-date, as nominal household income and housing prices grew almost at the same pace. Meanwhile, the price-to-rent ratio⁶ increased due to a slower rise in housing rentals compared to housing prices.

Housing prices continue to grow steadily

UAH prices of newly built residential property in Kyiv grew by 5%–10% yoy in September 2020, while USD-prices on the secondary market rose up to 5%. Market prices for housing in Kyiv are generally close to their fundamental level⁷, although they deviate from it from time to time. For example, housing prices in Kyiv have been rising in recent months even despite the pandemic and related restrictions. Conversely, fundamental factors that underlie price trends, such as unemployment, have somewhat deteriorated.

The growth in housing prices this year was primarily due to an increase in prices for construction materials, which rose by 5.3% yoy at the end of September. In addition, the revival of mortgage lending and growth in households' savings amid the crisis played a role as well. To some extent, the rise in housing prices is also due to a significant decline in interest rates on deposits, which are an alternative to investing in real estate. Further on, housing prices will continue to go up, fueled by the narrowing of developers' margins and the gradual recovery of mortgage lending.

Commissioning of new housing has slowed noticeably

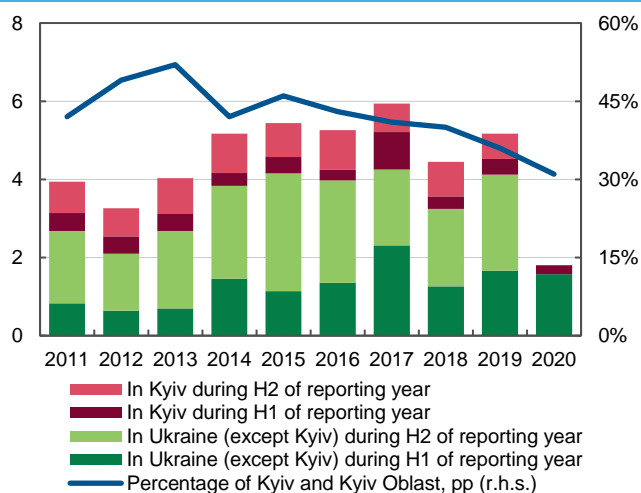
Almost two times less housing in residential buildings was commissioned in Kyiv in H1 2020 than a year earlier. This was primarily due to the complexity of obtaining a certificate of commissioning because of the complicated and lengthy

⁵ The price-to-income ratio is calculated using the following formula: square meter price on the primary real estate market multiplied by the standardized area of an apartment (70 sq. m) and divided by the average annual wage earned by the household after tax.

⁶ The price-to-rent ratio is calculated using the following formula: purchase price per square meter on the primary real estate market divided by annual rental per square meter.

⁷ Fundamental housing prices are estimated based on the NBU methodology.

Figure 2.2.4. Commissioned residential property in apartment blocks, millions sq. m



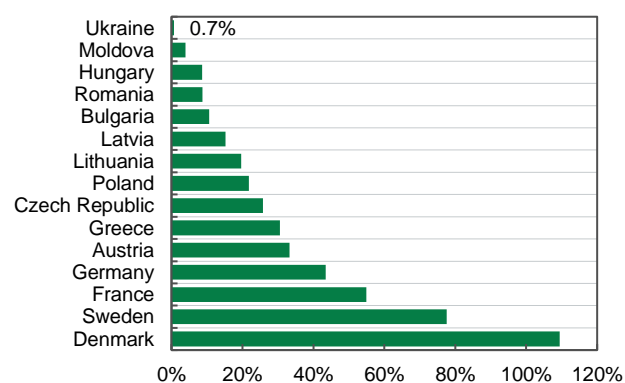
Source: SSSU.

Figure 2.2.5. Permits issued for new construction projects



Source: SSSU, NBU.

Figure 2.2.6. Ratio of mortgages to GDP* in 2020 by country



* GDP forecast for 2020 is IMF estimate, World Economic Outlook, October 2020.

Source: ECB, IMF, National Bank of Moldova, bank survey findings.

reform of the State Architecture and Construction Inspection of Ukraine (SACIU)⁸. Overall, the decline was less significant across Ukraine (excluding Kyiv), reaching 5.2% yoy, as regional construction control authorities retained limited functions allowing them to issue construction permits for projects designed for up to 400 residents, which prevail in regions.

However, slower growth in housing supply comes not only from the statistical effect of the reform. The pandemic and related quarantine restrictions had a significant impact on the construction industry. According to a survey held by the NBU⁹, the balance of developers' assessments of their financial standing deteriorated markedly in Q3 2020 compared to the previous year. Nevertheless, their sentiment improved by almost two times versus the previous quarter.

The area of future residential premises for which construction permits were obtained also decreased noticeably: by more than a third across Ukraine and by almost seven times in Kyiv. That is also the effect of the long-lasting reform of the controlling body. The industry is slowly recovering from the quarantine shock, and the construction activity should rebound further on. However, the supply of new housing may be affected by delays in issuing construction permits.

The primary real estate market remains opaque

Delays in the SACIU reform have already become a major problem for the market. In a year after it was announced, it is still at the initial stage, and the target format of the construction control framework has not been defined yet. With no effective regulation in place, risks pertaining to the primary real estate market are persisting.

The primary real estate market remains unregulated and opaque, which poses risks for both private investors and lending banks. The number of scam victims is growing: this year, it increased by more than 12,000 people who invested in Arcada (on top of almost 30,000 scammed investors in development projects of Ukogroup and Ukrbud). A number of draft laws have been produced in the recent months in order to regulate the market and improve the mechanisms of housing construction financing, but there is no progress in this area. Unless the industry becomes more transparent, developers' liability is increased, and construction financing mechanisms are introduced to prevent scams, mortgage will not be widely used on the primary real estate market.

Mortgage lending still has little influence on the market

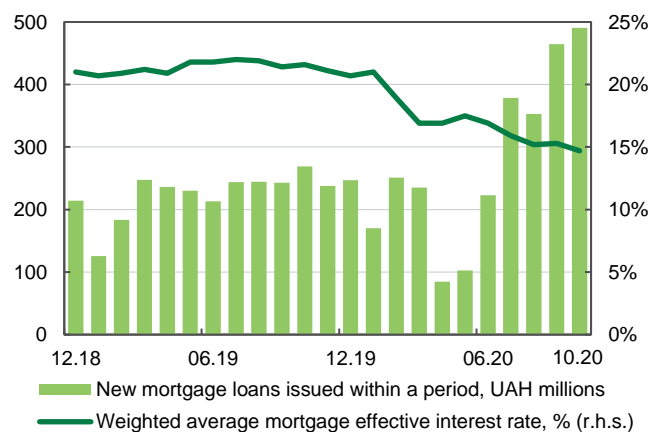
As of now, less than 5% of housing purchase agreements is financed with mortgages. Therefore, mortgage lending has a great potential for growth. Alongside the overall decline in interest rates, mortgage rates have decreased markedly since the start of the year: according to banks' assessments of their mortgage business¹⁰, over the first ten months of 2020

⁸ The SACIU is a state authority that issues and revokes permits to conduct preliminary development and construction and approves commissioning of completed facilities.

⁹ The information was collected under the quarterly Business Outlook Survey.

¹⁰ Findings of the bank survey on mortgage lending volumes are available [here](#).

Figure 2.2.7. New mortgage disbursements and interest rates



Source: banks' data.

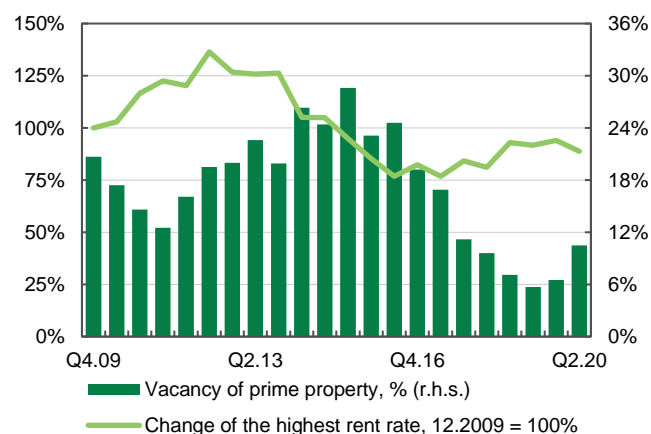
the weighted average effective rate dropped by almost 7 pp, to 14.7%.

New mortgage disbursements also grew: banks issued 64% more new mortgages in Q3 2020 than a year earlier. However, this growth still comes from a very low comparison base: the ratio of mortgage portfolio to GDP is extremely low. Moreover, banks prefer dealing with the secondary real estate market: only around a tenth of new mortgages are issued to purchase newly built property. This points to high risks of the primary market for banks and housing investors.

Commercial real estate market has been hit harder

The office real estate market was much less active in H2 2020 than before the crisis. The majority of lessees introduced remote work for their employees for an indefinite period. Demand for premises remains low. New agreements are an exception, while existing agreements are extended to cover smaller areas or provide for lower rental rates. Since the start of the pandemic, lessees have been in the strong position on the office real estate market, which forces lessors to make concessions in order to sustain demand. That already affected rental rates: prices of renting office space dropped by up to 10% yoy as of the end of H1. The decline in rates is also driven by increasing vacancy rate, which will be further fueled by the supply of new office premises. In 2020–2021, the total supply will increase by almost 8% of new premises. Even after everything returns to normal, the full recovery of the sector will take at least a year.

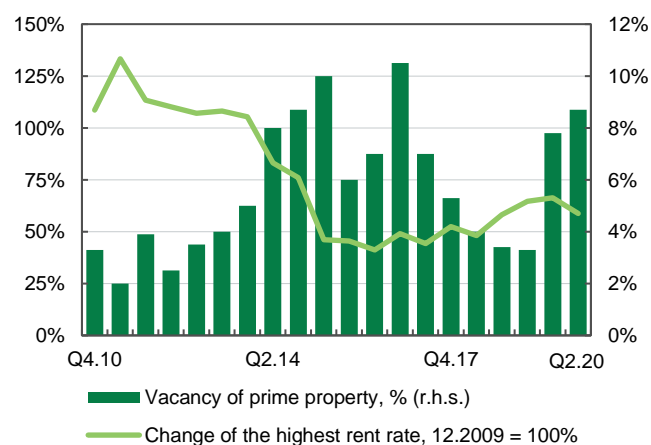
Figure 2.2.8. Performance indicators of office property market in Kyiv



Source: consultancies, NBU estimates.

Retail property market managed to maintain steady performance thanks to higher earnings and flexibility of quarantine restrictions. Despite lower numbers of shopping mall visitors, the average sales slip increased, as consumers started to better plan their shopping. In some segments of retail trade, goods turnover was even better than last year. Retailers that sell food products, clothing, and electronic devices were the least affected by the pandemic. At the same time, entertainment suffered the largest losses. However, this is unlikely to cause a structural transformation of supply, as consumer habits should return as quarantine restrictions are lifted. The vacancy rate grew by 5.4 pp yoy, primarily on account of the entertainment segment. Rental rates for retail premises decreased somewhat, whereas the variable, turnover-driven share in total rental payments rose.

Figure 2.2.9. Performance indicators of retail property market in Kyiv



Source: consultancies, NBU estimates.

Further performance of the commercial real estate market depends on the duration of the pandemic. However, same as the residential real estate market, this sector carries no risks to the stability of the banking system. The share of the sector's companies in bank loan portfolios is small, at around 2.1%. Still, new risks of this segment will encourage banks to take a more conservative approach to projects of constructing and purchasing commercial real estate.

Box 1. Findings of Mortgage Lending Survey

The market of residential mortgage remains concentrated: a little less than 90% of new loans are issued by five banks. Almost all newly issued loans are intended for buying residential property on the secondary market. The average loan amount is rising, but lending conditions remain conservative. Banks plan to grow their mortgage portfolios next year.

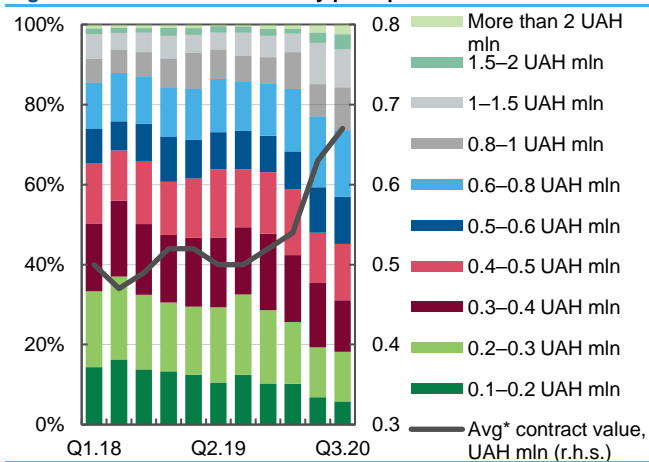
This overview reflects the results of the NBU's annual mortgage lending survey. Respondent banks issued more than 90% of new mortgages in the banking system over the year.

In the first three quarters of 2020, respondent banks issued more than UAH 2 billion of mortgages. This was 11% more than in the same period of 2019, even despite a sizeable decline in lending in Q2 2020. Only around tenth of these loans were issued for buying newly-built property, as banks keep away from the primary market. Kyiv led among regions in terms of issued mortgages: it accounted for around 40% of new loans issued in Ukraine.

Average mortgage grew markedly

The average mortgage in Q3 2020 was larger than a year before by a third. In 2020, more than half of mortgages fell within the range of UAH 0.5–1.5 million. About 85% of mortgages over the year were loans to buy housing worth up to UAH 1.6 million.

Figure B.1.1. Loan distribution by principal



* Average, weighted by the number of issued loans.

Source: banks' data.

Half of mortgages were issued for the term of 15 to 20 years. The average term grew over the year, reaching 13.7 years. However, the actual term was much shorter: the average lifespan of mortgages that were repaid this year was 9.5 years.

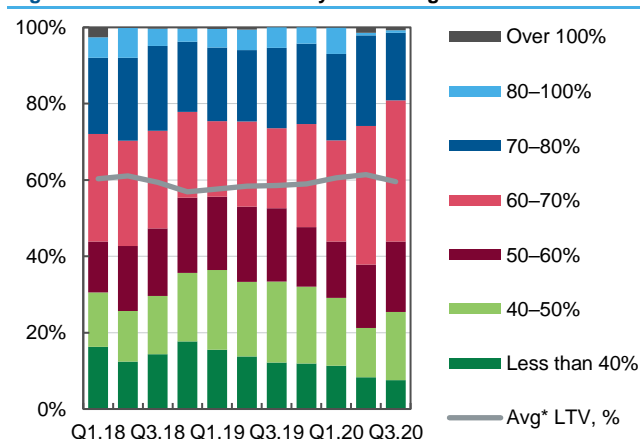
The average age of borrowers remained unchanged over the year, standing at around 38 years. The share of debtors aged under 30 was below 20%. The average monthly income of borrowers also remained practically unchanged, at nearly UAH 50,000. That said, almost quarter of loans were issued to borrowers who earned less than UAH 20,000 per month.

Banks follow a prudent approach to issuing mortgages

The approval rate of mortgage applications was 65.6% in the first nine months of 2020. This averaged to around one

thousand new mortgages issued every quarter this year. The average Loan-to-Value (LTV) ratio was quite low: 59.6% for mortgages issued in Q3 2020.

Figure B.1.2. Loan distribution by LTV at origination

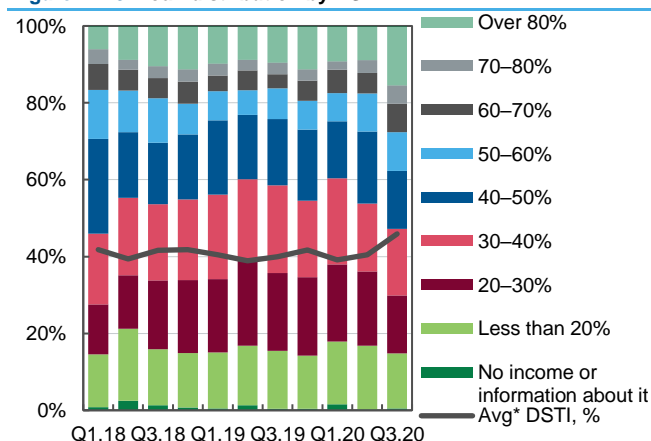


* Average, weighted by the volume of issued loans.

Source: banks' data.

Meanwhile, the debt service-to-income ratio (DSTI) grew significantly over the year and was rather high (45.9%). Although half of new mortgages issued in Q3 2020 imposed a moderate debt load of up to 40% on borrowers, the proportion of loans with DSTI of over 70% rose by 7.6 pp.

Figure B.1.3. Loan distribution by DSTI



* Average, weighted by the volume of issued loans.

Source: banks' data.

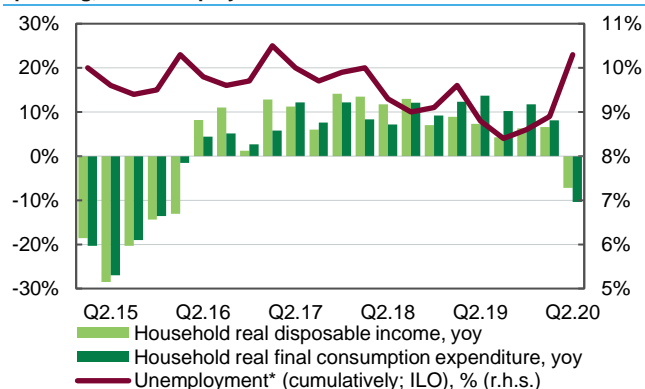
Banks plan to grow their mortgage portfolios

If macroeconomic conditions are stable, banks plan to provide almost 1.5 times more new mortgages on average in 2021. This is the volume they are ready to lend even despite the existing problems that hamper the active development of mortgage lending. Banks see the main problems in the lack of solvent borrowers, chaos on the primary real estate market, high interest rates, and the moratorium on foreclosures on foreign-currency mortgages.

2.3. Households and Related Risks

The quarantine restrictions and economic crisis expectedly hit real household income. That influenced the financial behavior of the majority of medium- and high-income households. They cut their consumer spending and directed the bulk of their funds to savings. As a result, balances in bank accounts were growing. Demand for retail loans fell during the acute phase of the crisis. However, key income components started to recover as the quarantine was eased. In particular, wages and remittances from migrant workers increased. Consumer lending rose as well. Growth in demand for mortgages accelerated noticeably for the first time in many years, albeit from a very low comparison base. Households' total debt burden remained low.

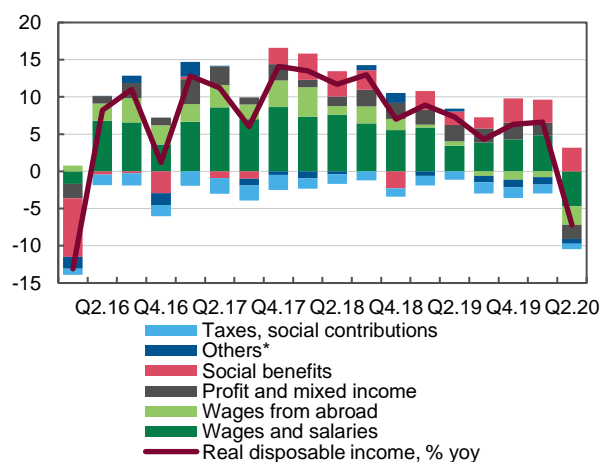
Figure 2.3.1. Change in real disposable income, consumer spending, and unemployment rate



* Ratio in % to economically active population of working age.

Source: SSSU, NBU estimates.

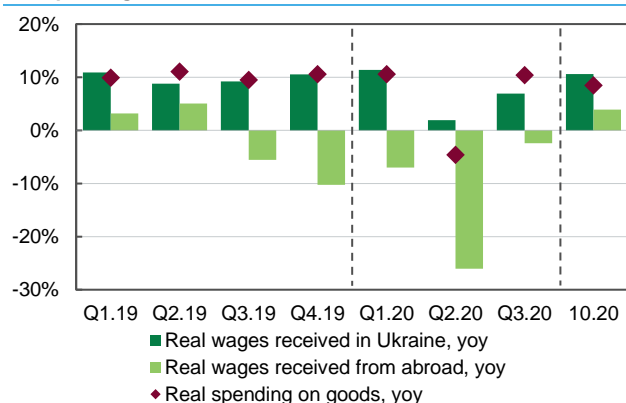
Figure 2.3.2. Drivers of household real disposable income growth, pp



* Includes property income and other current transfers except those already paid.

Source: SSSU, NBU estimates.

Figure 2.3.3. Change in main components of household income and spending



Source: SSSU, NBU estimates.

Real disposable household income recovering rapidly after plunge

The quarantine restrictions introduced in mid-March cut real disposable household income by 7.2% yoy in Q2. A major factor behind the reduction was a steep rise in unemployment, which reached 10.3% in H1. This is comparable with levels seen in previous crises. The constraints imposed on businesses due to the quarantine, expectations of a lasting economic downturn, and deterioration of companies' financial standing hit demand for labor, including informal employment. Wages temporarily fell in real terms. Remittances from migrant workers dropped by a quarter, which also affected real disposable income. As countries closed their borders, many migrant workers had to return to Ukraine.

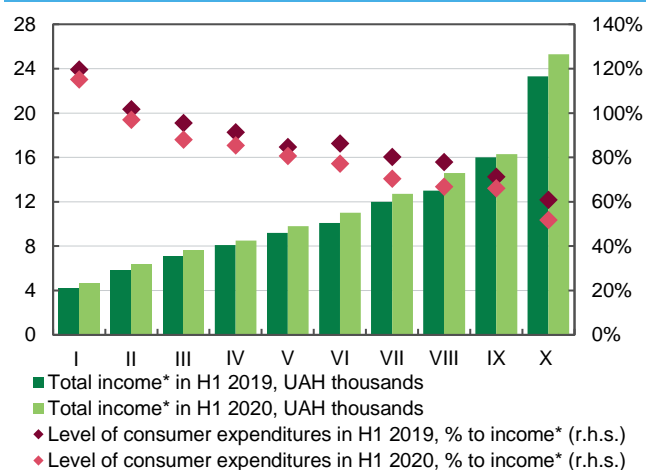
After quarantine restrictions were eased in Q3, and thanks to businesses adjusting quickly to new conditions, the main components of household income returned to growth. In particular, real wages unexpectedly accelerated to 10.6% yoy in October. Wage growth was influenced by an increase in the minimum wage and related indexation of wages in the public sector, as well as by growth in earnings of IT specialists. At the same time, social benefits also rose, particularly on the back of temporary unemployment benefits paid during the quarantine to self-employed and employees of sole proprietors. Relaxation of the quarantine made it easier for migrant workers to cross borders, allowing them to return to their jobs abroad. Thus, remittances from migrant workers recovered noticeably, growing in October after a sharp drop in Q3.

Real disposable income will keep rising in the coming months, but perhaps at a slower pace. The key risk factor here is the re-tightening of quarantine restrictions and associated uncertainty, especially in the trade and services sectors. The risk of large losses is directly linked to the duration and stringency of future quarantine restrictions. However, incomes will be supported by relatively fast recovery in wages in other sectors, which makes this crisis different from previous ones.

Pandemic and crisis dented sole proprietors' income

Three quarters of sole proprietors surveyed by the European Business Association in April reported income losses of as much as 75% during the spring's strict lockdown. Those engaged in the services sector were hit hardest. More than half of respondents estimated they would need at least a year to recover their performance. In September, the second wave of the survey showed 42% of private entrepreneurs doubting

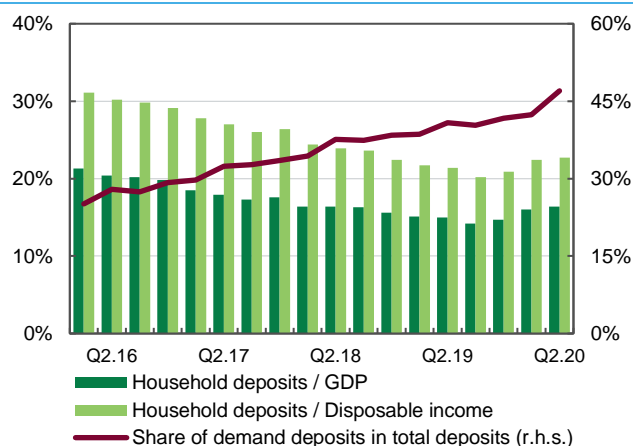
Figure 2.3.4. Average monthly income* and consumer spending level per household by decile group



* Excluding goods and services received free of charge.

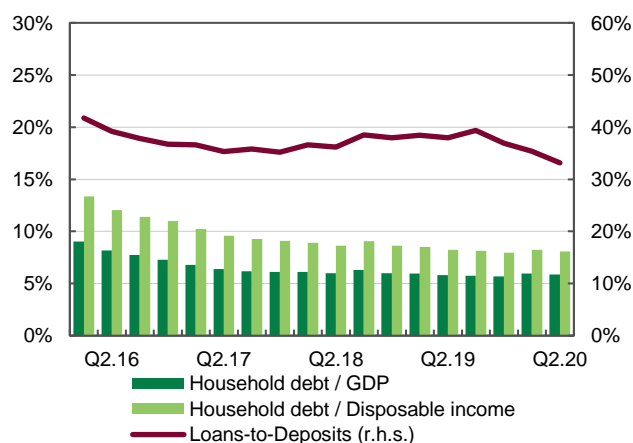
Source: SSSU, NBU estimates.

Figure 2.3.5. Household deposits



Source: SSSU, NBU estimates.

Figure 2.3.6. Household debt burden



Source: SSSU, NBU estimates.

whether they would be able to continue their business in case of another tight lockdown. The weekend quarantine imposed in November and the likely lockdown early next year will inflict losses on sole proprietors, especially those in the trade and services sectors. However, some support will come from a number of government initiatives. In particular, entrepreneurs will be compensated for expenses on paying the single social security contribution for their employees and will receive tax preferences in the event of another tight lockdown. The previously launched program of partial interest rate compensation and a new program of government guarantees for SME loans will remain available.

Pandemic increased households' propensity to save

Households sharply cut their consumption when the quarantine was introduced. This was preceded by a deterioration in both consumer sentiment and assessment by consumers of their current financial standing, according to a survey by Info Sapiens. The quarantine also limited the opportunities for holiday travel abroad, meaning households did not bear these regular annual expenses. As shown by a study of households' living conditions conducted by the State Statistics Service of Ukraine, medium- and high-income households cut their spending on durable goods, recreation, and entertainment. They were thus able to accumulate savings, as manifested by a 27% yoy increase in household bank deposits. These were mainly funds held in current accounts. General growth in the propensity to save is typical for crisis periods. Further income growth will allow for maintaining the current level of deposits while gradually raising consumption.

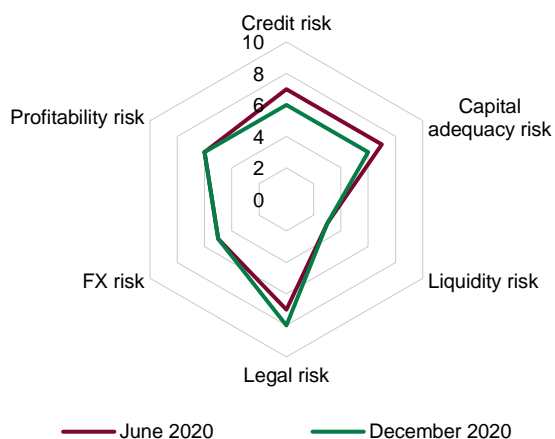
Demand for retail loans is recovering

Bank and NBF retail lending slowed down in Q2. The ratio of new loans to consumer spending declined to 12.5% from 14.8% in Q1. However, demand for consumer loans for current consumption recovered gradually in Q3. Pent-up demand for real estate also started to be released, in particular through the issuance of mortgages. As the volume of new lending is rather small, the household debt burden remained practically unchanged. The household debt burden has stood at 6% of GDP for around three years. As before, households prefer to borrow from banks, with the share of loans taken from nonbank financial institutions remaining below 10%. Despite an increase in mortgages, households' debt service expenses remained almost unchanged, as mortgages are issued for a longer term and at lower rates than consumer loans, while the standards to assess borrowers' solvency in this case are higher. As a result of the slowdown in lending and growth in deposits, the loan-to-deposit ratio (LtD) has dropped by almost 4 pp, to 33%, since the start of the year.

Part 3. Banking Sector Conditions and Risks

3.1. Banking Sector Risk Map

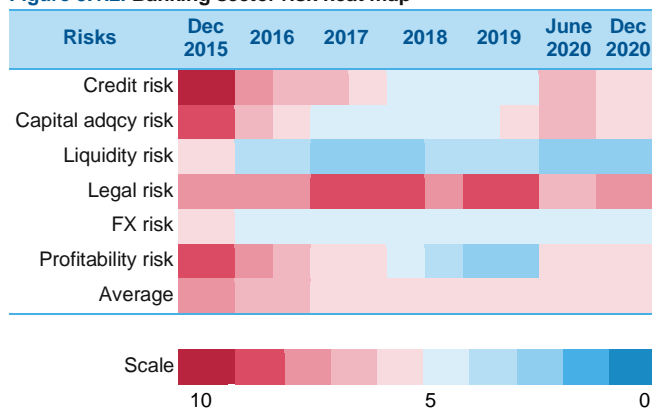
Figure 3.1.1. Banking Sector Risk Map*



* The NBU assesses risks on a scale from 0 to 10, with 0 being the lowest level of risk and 10 the highest. The assessment reflects the outlook for the next six months.

Source: NBU estimates.

Figure 3.1.2. Banking sector risk heat map



Source: NBU estimates.

Description:

- Credit risk reflects expected changes in the share of non-performing loans in bank loan portfolios and the need for extra provisions for those loans.
- Capital adequacy risk measures the ability of banks to maintain an adequate level of capital.
- Liquidity risk is a measure of the ability of banks to meet their liabilities to depositors and creditors in full and on time.
- Legal risk is an estimate of the ability of banks to use legal instruments to effectively protect their rights.
- FX risk is the risk that foreign exchange market trends will affect the financial performance of banks.
- Profitability risk reflects the ability of banks to generate net profit.

Credit risk: down

This risk materialized to a lesser extent than the NBU had expected back in June. This was due to banks having the flexibility to restructure loans to borrowers experiencing temporary financial difficulties and due to the availability of government programs to support businesses. However, banks will recognize some credit losses only next year. The level of credit risk remains moderately high.

Capital adequacy risk: down

This risk has weakened thanks to recapitalization of a large state-owned bank but remains above average. The gradual materialization of credit risk and moderate decline in profitability will erode banks' ability to generate capital. Updated regulatory capital requirements will also take effect soon. Going forward, this will require banks to plan and manage their capital properly to avoid violations.

Liquidity risk: unchanged

The liquidity stock remains high. Households' propensity to save remains high. Confidence in the banking sector is also strong, contributing to deposit inflows. At the same time, the share of time deposits is declining. This may complicate liquidity management. The government's ambitious borrowing plans will put additional pressure on liquidity.

Legal risk: up

The Constitutional Court and courts of general jurisdiction have been issuing controversial rulings. Specifically, the anti-corruption reforms agreed with IFIs were revoked. This once again elevated legal risks after they subsided following the passage of amendments to banking legislation that made returning insolvent banks back to the market impossible.

FX risk: unchanged

This risk is assessed as medium. The dollarization level of banks' balance sheets has not increased since the start of the crisis despite the moderate weakening of the hryvnia and narrowing of the spread between hryvnia and FX deposit rates. But the opportunities to invest in foreign currency are shrinking. Banks remain quite resilient to possible exchange rate fluctuations.

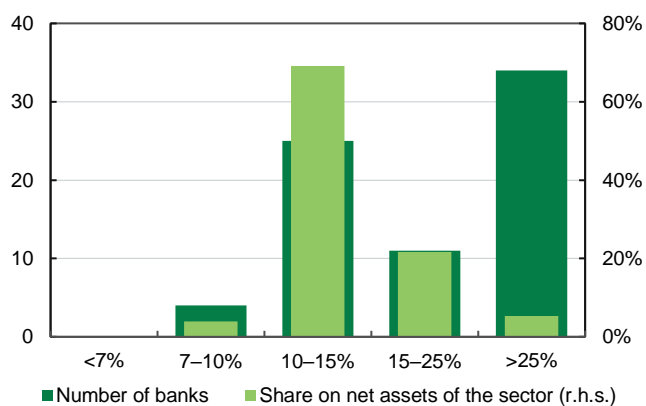
Profitability risk: unchanged

Demand for banking products has recovered, as has commission income. Overall, banks' interest income has not declined significantly. However, the interest rate spread will narrow and the loan portfolio will grow slowly. Thus, risks that banking profitability may decline remain. These risks can partially be offset by improving operational efficiency. Future provisioning will also put pressure on profits.

3.2. Capital Adequacy Risk

The coronavirus crisis raised capital adequacy risks for banks. All main risks materialized at once for the first time: credit risk, market risk, and operational risk. The NBU based the express stress test it conducted in spring on the assumption that these risks would adversely affect the banking system. However, today banks feel better than estimated during the stress test. This is mainly explained by the weaker economic shock, stronger financial standing of borrowers from the beginning, and robust demand for banking services. At the same time, there are persisting risks that credit losses will grow in H1 2021 or that they will be recognized with a delay. The NBU continues working on updating regulatory requirements for capital, although the implementation schedule was loosened. Banks must improve the quality of capital management in order to remain resilient to probable future shocks.

Figure 3.2.1. Banks' required core capital adequacy ratios (CCAR) as of 1 November 2020



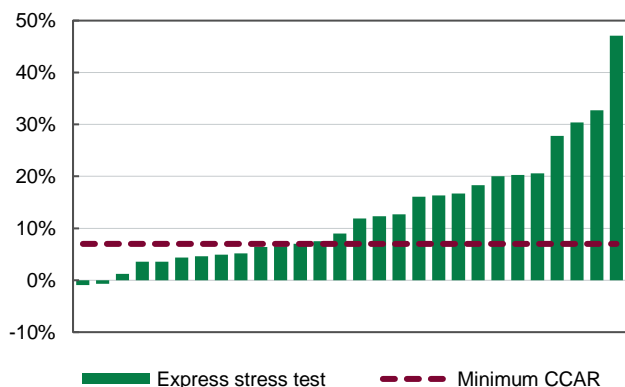
Source: NBU.

Table 1. Adverse stress test scenarios, % change

Indicator	Assumptions of the 2019 stress tests	Assumptions of the express stress test	NBU forecast
Real GDP	-4.1	-8.7	-6.0
Consumer price index	15.6	8.8	4.1
Exchange rate (UAH/USD)	-23.2	-5.2	x

Source: NBU.

Figure 3.2.2. Core capital adequacy ratio based on results of express stress tests, by bank



Source: NBU.

Banks proved resilient to the crisis

Banks entered 2020 having large capital buffers, which made them resilient to unfavorable events. Despite some fears, financial institutions quickly adapted to new conditions and continued to lend to the economy. In particular, they participated in the implementation of state programs to support small businesses and provided financing that the economy needed. Therefore, they are fulfilling their main function despite the deterioration in macroeconomic conditions, and thus contribute to a faster recovery.

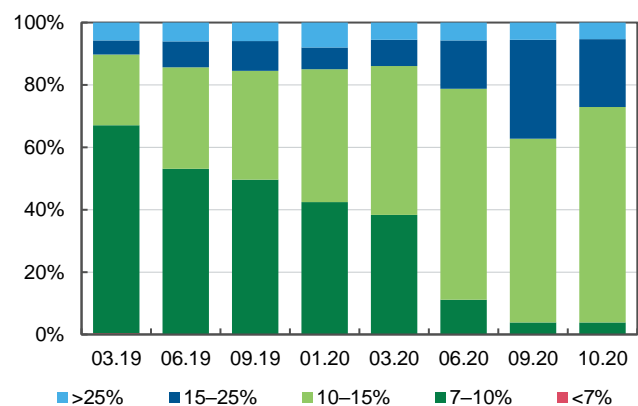
The coronavirus crisis gave rise to challenges, which the banking system had not faced before. Market and operational risks materialized on a large scale almost simultaneously (read more in the box [Operational Risk Losses Caused by COVID-19 Pandemic](#)). It also became clear that credit risk will also eventually materialize due to the deterioration in macroeconomic conditions. Therefore, the capital adequacy risk rose markedly for banks.

Express stress test that the NBU conducted in May was based on pessimistic expectations of key performance indicators. The express stress test covered banks that accounted for 91% of the sector's total assets. The estimates were based on the banks' reports as of 1 May 2020. They were built on assumptions that were slightly worse than the NBU macroeconomic forecast at the time. As usual, the NBU took the assumption that banks' balance sheets were static. It means that the stress test did not take into account banks' potential actions to reduce the impact of the crisis and that they capability to distribute to or attract capital from shareholders. In such an adverse scenario, only nine banks might need a capital increase, of which two banks were state-owned. In total, banks needed UAH 10.3 billion in additional capital. Since then, state-owned Ukreximbank has been recapitalized by UAH 6.8 billion. Overall, banks performed better than expected.

Banks' capital adequacy has grown since the start of the year

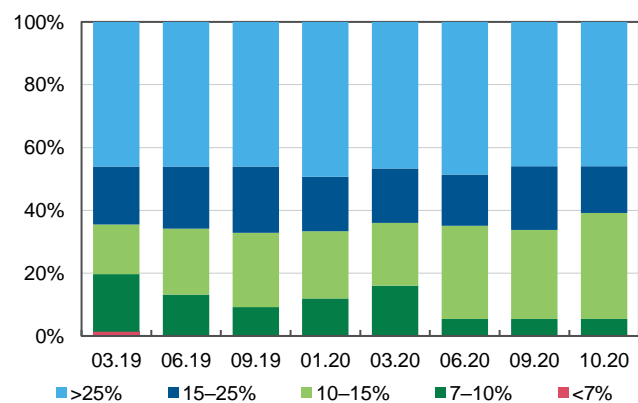
Banks' capital adequacy ratios are high. The share of assets held by financial institutions that have large capital cushion in excess of the minimum requirements even increased compared to March. Capital buffers were deactivated as the crisis started, allowing banks to use the available capital excess to cover possible losses and continue lending. The decision to re-impose the buffer requirements will be taken

Figure 3.2.3. Distribution of Core Capital Adequacy ratios (CCAR) of banks by their share of total assets



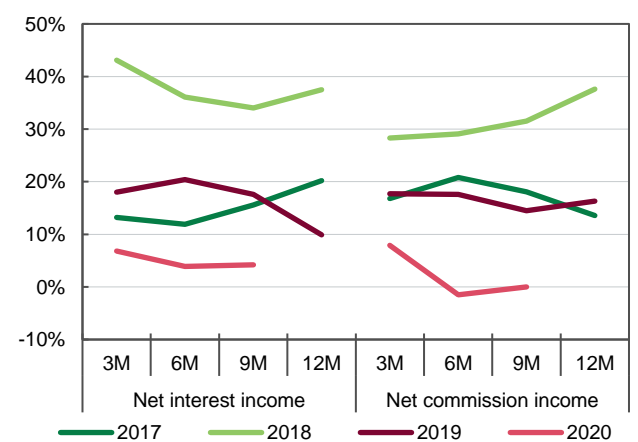
Source: NBU.

Figure 3.2.4. Distribution of Core Capital Adequacy ratios (CCAR) of banks by number of banks



Source: NBU.

Figure 3.2.5. Change in net interest income and net fee and commission income, % yoy



Source: NBU.

no sooner than in 2021, taking into account the state of the economy after the crisis, and will envisage a prolonged period for banks to build the buffers. Therefore, banks can be flexible in using capital formed before the crisis. Many of them have prudently decided to postpone dividend distribution for 2019. Large foreign-owned banks paid out dividends only in autumn after making sure that capital distribution would not affect their financial resilience.

For many financial institutions, the main reasons behind better-than-expected performance amid the crisis were:

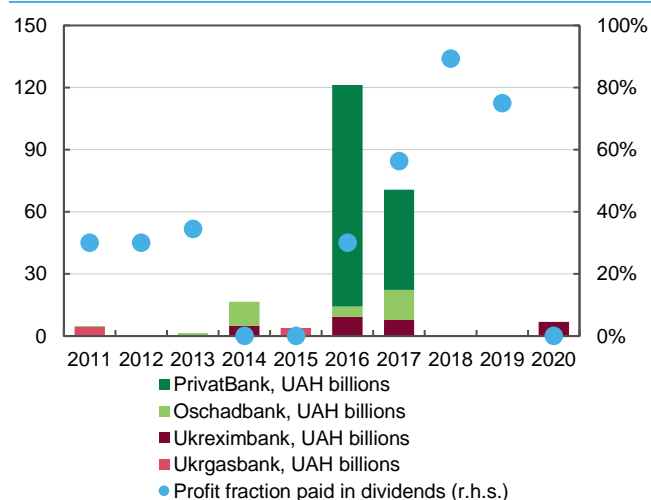
- Moderate losses caused by credit risk. Although solvency of some borrower groups worsened significantly, banks managed to support them by providing timely restructuring. State programs to support businesses also helped reduce the losses, namely the compensation of interest expenses for small and medium enterprises and tax preferences provided for the duration of the quarantine. Moreover, at the start of the crisis, banks' portfolios mainly consisted of loans issued to financially resilient borrowers with transparent ownership structures and acceptable debt load. At the same time, recognition of some credit losses, especially on the retail portfolio, will be carried forward to 2021, which means that risks are persisting.
- Fee and commission income of banks did not decrease as sharply as it could be expected. A large share of customers continued to use banking services online. A fast recovery in consumption bolstered demand for banking services after quarantine restrictions were eased. Further on, fee and commission income may decline only temporarily due to the three-week lockdown, but there are no fundamental risks.
- As assumed, banks' interest rate spread did not decline rapidly and sometimes allowed banks to increase their interest income compared to pre-crisis levels. However, their interest margin is most likely to decline going forward.
- Foreign exchange rate risk did not materialize. Banks did not incur any significant losses from the moderate depreciation of the hryvnia. The main risk to be faced by banks in the future will be driven by their limited ability to invest foreign-currency funds.
- Operational efficiency remained high. The ratio of administrative expenses to revenue has deteriorated only slightly since the start of the quarantine.

After-effects of the crisis will be fully seen later

It is still early to make conclusions about the fallout from the crisis. Credit risk losses may rise at the start of 2021. This will be driven by recognizing provisions based on results of auditing financial reports and to possible delayed effects for some borrowers who will not be able to service their debts in full even despite restructuring. Moreover, a tightening of quarantine measures in early 2021 may affect borrowers' solvency.

At the same time, the NBU will resume annual stress testing in 2021 in order to assess banks' resilience to potential

Figure 3.2.6. Recapitalization and dividends distribution in state-owned banks



Source: NBU, banks' financial reports.

unfavorable changes in macroeconomic conditions, particularly a longer duration of the coronavirus crisis. Stress tests will be preceded by asset quality review focusing on restructured loan portfolios of banks.

Capital requirements for banks will be enhanced

The banking system has remained stable in the crisis, among other things, thanks to improving regulation and supervision in the past years. The current good condition of the sector and the moderate impact of shock events allows the NBU to continue working on strengthening banks' resilience by introducing regulatory changes. All planned changes are aimed solely at eliminating loopholes that may, in certain conditions, reduce banks' ability to withstand external shocks. At the same time, the schedule to implement new capital requirements has been adjusted to avoid excessive pressure on banks during the crisis and create no obstacles to the resumption of lending.

The planned changes include: deduction the amount of noncore assets from the regulatory capital, setting nonzero credit risk weights for foreign-currency domestic government debt securities, increasing risk weights for unsecured consumer loans, and setting operational and market risks capital requirements. The quantitative analysis of expected changes shows that the effect will be moderate for the majority of banks, while the available capital cushion and high profitability will make it easy for banks to transition to the new rules.

Meanwhile, banks need to improve their capital management procedures. This will be facilitated by the implementation of the internal capital adequacy assessment process (ICAAP). It envisages capital planning for a three-year horizon taking into account banks' own strategies and business plans, all significant risks, and regulatory changes. The implementation of ICAAP will allow banks to better understand where capital needs come from and allocate available capital among their units and business lines more efficiently.

Box 2. Operational Risk Losses Caused by COVID-19 Pandemic

The coronavirus pandemic has not only increased banks' financial risks but also caused losses from operational risk. Banks' estimates of these losses vary from zero to massive amounts. A survey held by the NBU showed that some financial institutions tend to underestimate the adverse effect of the pandemic on their operations, and that the system's total losses may exceed UAH 1 billion. Banks need to have sufficient capital in order to be resilient to operational risk.

Operational risk (OR) is always present in the banking business. The main sources of operational risk are fraud, failures in bank systems and processes, court rulings, and unfavorable external events. The peculiarity of this type of risk is that it materializes in atypical ways which are difficult to forecast and may sometimes have devastating effects. The COVID-19 pandemic is a vivid example of an OR event that threatened banking operations.

In order to raise their resilience to operational risk, banks need to ensure that this risk is properly managed. Among other things, it requires analyzing and recording losses from OR events. In November, the NBU surveyed banks on OR losses that they had recorded in their loss databases in order to analyze how banks perceive powerful shocks. The survey concerned two extraordinary events, the COVID-19 pandemic and the 2017 Petya cyberattack.

The survey covered 18 banks with a combined 77% share of total system assets, which claimed to have maintained a loss database of OR events for a long time. Only 10 of those banks recognized the pandemic as an OR event. More than a third of them did not record any losses from this event. In most cases, banks did not reflect the losses because they believed the quarantine mode of operation to be a radical, long-term shift in the external environment and treated related losses as recurrent operating expenses.

Table 2. Findings of OR events survey

Indicator	Petya	COVID-19 pandemic
Number of banks that recognized event	7	10
including banks that recorded zero losses	3	4
Total number of events	7	34*
Total losses, UAH millions	17.4	468.4
Average losses (per event), UAH millions	0.8	66.9
Median losses (per event), UAH millions	0.8	13.0

* Similar events at one bank were merged.

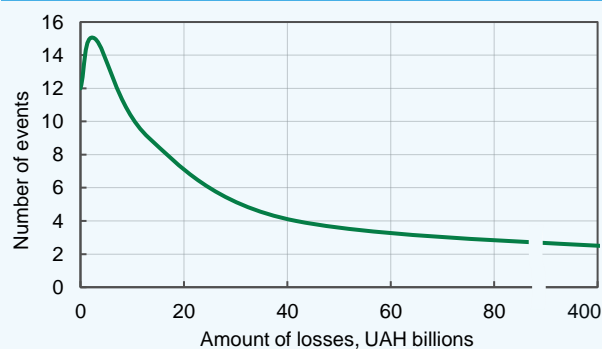
Source: bank survey.

However, this approach has shortcomings. First, the changes banks experienced adversely affected service quality at selected institutions, which itself is a manifestation of an OR event. Complaints submitted by consumers of financial services to the NBU have increased in number since April, citing closed bank branches, non-functioning ATMs, and inability to use one's money. These complaints also concerned the banks that did not record any OR losses.

Second, the consensus among regulators and the banking community is that such shocks must be properly recorded and taken into account when assessing operational risk. In particular, the Basel Committee on Banking Supervision issued in August a new document, Principles for Operational Resilience, which emphasized the need to improve the system of risk assessment and monitoring based on the experience drawn from similar major disruptions in banks' activity.

Among the banks that did record OR losses, the majority recognized one such event, though sometimes several similar events were registered. Some of the events are still in progress, which means loss estimates may be updated. Total losses the respondent banks incurred as a result of the pandemic-related OR amounted to UAH 468 million, or 1.1% of banks' capital on average. Of course, OR profiles vary from bank to bank. However, applying the obtained ratio to the entire banking system, including the institutions that reported zero losses, puts losses caused by the pandemic at UAH 1 – 1.5 billion.

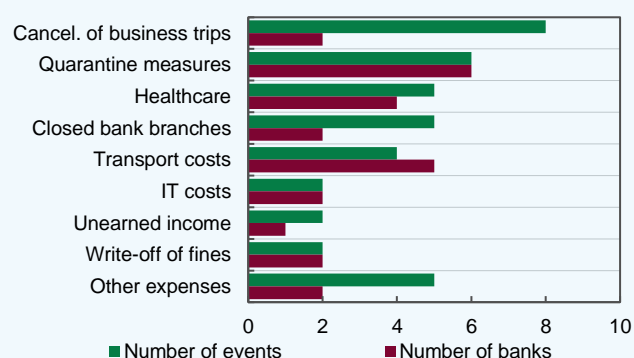
Figure B.2.1. Distribution of losses from OR events related to Petya ransomware and COVID-19 pandemic



Source: bank survey.

The most widespread pandemic-related OR events included losses due to cancellation of business trips (nonrefundable losses), introduction of quarantine measures (purchases of personal protective equipment and disinfection of offices), and healthcare measures (tests and insurance for employees).

Figure B.2.2. Types of OR events caused by COVID-19 pandemic



Source: bank survey.

The survey results show that some financial institutions tend to underestimate losses from major OR events such as the ongoing pandemic. However, these losses may prove very significant. In order to protect banks from insolvency, operational risk should be covered by capital. This requirement will take effect soon in Ukraine.

Box 3. Change in regulatory capital requirements for banks

In line with the recommendations of the Basel Committee on Banking Supervision and established practice, banks must hold sufficient capital to cover key risks. In the coming years, the NBU plans a number of changes to banking regulation to harmonize rules for Ukrainian banks with Basel recommendations and EU legislation. The introduction of new standards is scheduled over a three-year period.

The nearest change, taking effect in January, is the deduction of the value of noncore assets from core capital. In the first stage, capital will be reduced by 25% of the value of the non-core assets that have been held on the balance sheet for more than three years, followed by gradual deduction of the remaining assets.

Beginning 1 April 2021, non-zero risk weights for domestic FX debt securities will start to be implemented. Weights will be set pursuant to the general rules for sovereign securities and will depend on the international rating. Ukraine's current rating implies 100% risk weights. Risk weights will be applied only to the securities that banks will buy starting in April 2021, and additional weight reduction coefficients will be in effect for another nine months. This design will allow banks to plan their investment policies.

Over H1 2021, the NBU will decide on the capital buffer formation schedule for banks, which will take into account the state of the banking system and macroeconomic conditions. When the crisis broke out, the capital conservation and systemic importance buffers were disabled so that banks could absorb losses without scaling back lending.

By the end of 2021, risk weights for unsecured consumer loans will be gradually increased to 150%. This decision was taken in view of the risks that this segment poses to banks. In particular, portfolio quality is highly dependent on changes in macroeconomic conditions. Disregarding this relationship

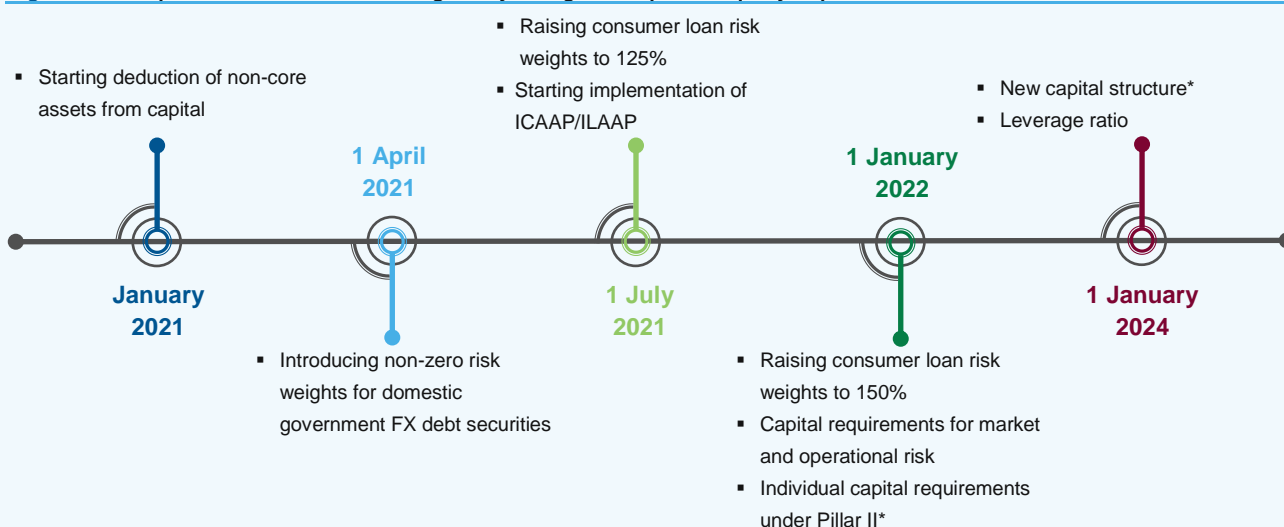
poses the risk that provisions will be underestimated (see [Consumer Lending Risks](#)).

Banks will launch internal capital adequacy assessment process (ICAAP) in 2021, initially in test mode. Under the ICAAP, banks will regularly calculate the required amount of internal capital, taking into account all significant risks over a three-year horizon. At the same time, financial institutions must take into account their own business strategies and business plans and make sure that there is enough capital to implement them, even under stressful conditions.

From 2022, operational and market risks will be covered by capital. For a number of banks, factoring in operational risk will significantly affect their capital adequacy ratios. However, the main component of market risk, FX risk, is already being taken into account by banks. Their trading positions that are sensitive to other market risk factors are insignificant. Thus, the impact of the introduction of capital requirements to cover market risk will be moderate.

With the adoption of amendments to the *Law On Banks and Banking*, banks will face the following innovations: the possibility of setting individual capital requirements by the regulator; changes in the capital structure; and introduction of the leverage ratio. Individual capital requirements will be based on SREP results. At the same time, the new capital structure with all relevant "prudential filters" and leverage ratio will be introduced in 2024 at the earliest.

Figure B.3.1. Implementation schedule for regulatory changes to capital adequacy requirements



* This requires amending the *Law On Banks and Banking*.

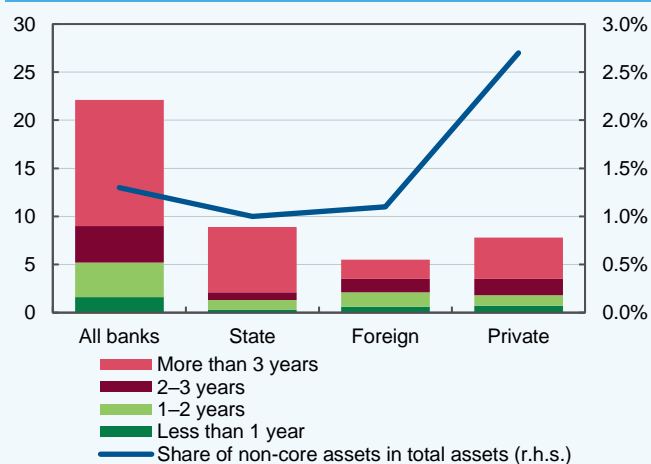
Source: NBU.

Box 4. The NBU Is Encouraging the Banks to Divest from Noncore Assets

One of the ways banks can settle nonperforming loans is by foreclosing on collateral. In fact, this collateral can remain bank property for a long time. These are noncore assets – they are illiquid for the most part, generate practically no income, and their value can be overestimated. The share of noncore assets on the balance sheets of several small Ukrainian banks is critically large, posing risks to their financial sustainability. In order to encourage the banks to get rid of such property, the NBU required them to gradually deduct the value of such assets from their core capital starting from January 2021. These changes were announced about a year ago. The deduction schedule was recently relaxed due to the coronavirus crisis. This requirement will help enhance the banks' financial resilience in the medium term.

The appearance of noncore assets (NCAs) on the banks' balance sheets¹¹ was mainly a result of collateral foreclosures on NPLs. Several small Ukrainian banks have an excessive share of NCAs in their assets. In many cases, banks received such assets in repayment of related party NPLs. At the same time, the ultimate beneficiaries of the banks remained indirectly the owners of such assets. In such cases, the banks do not make real efforts to sell their NCAs or to rent them out to third parties.

Figure B.4.1. Noncore assets by terms of retention on the banks' balance sheets by groups of banks, UAH billions



Source: surveys of banks, NBU estimates.

The fair value of NCAs is sometimes difficult to estimate, as many facilities are non-typical, and the market is inactive. In some cases, the declared value of the property is overestimated, thus distorting the financial indicators of banks. The NCAs of some banks are comparable in size with their core capital. This is increasing their risks. In 2020, two banks had to leave the market after becoming insolvent due to the loss of large real estate assets.

To reduce the risks of an excessive build-up of NCAs on balance sheets, the NBU required the banks to gradually deduct their value from their core capital ([read more in the Chapter "Changes in the Regulatory Environment"](#)). The first stage will begin in January 2021. At this stage, the banks will have to deduct 25% of the value of the NCAs they have held on their balance sheets for over three years. Although this requirement will put pressure on the capital of some banks, the long-term effect on the stability of the banking system will be positive.

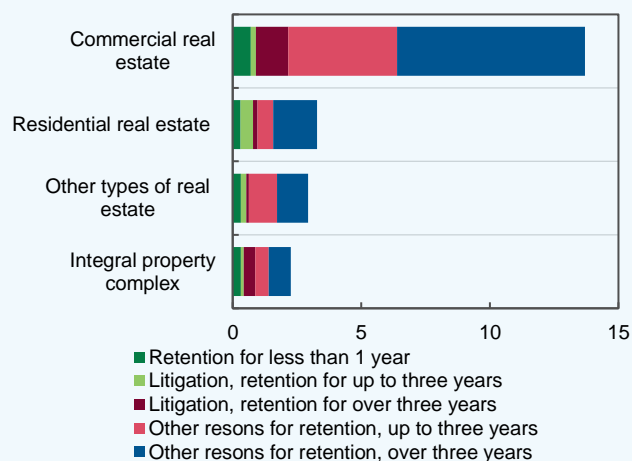
To assess the impact of this new rule on capital, the NBU surveyed banks about the size and composition of NCAs,

how long they were held, and problems they encounter in selling them. As of 1 November 2020, the banks had NCAs worth UAH 22.2 billion on their balance sheets, which is 1.3% of the banking system's net assets. The money raised through selling NCAs could be used for lending.

The banks plan to, or have already rented out or leased, only 9% of these assets. The survey showed that rental rates range between 3.7% and 7% per annum, which is only slightly higher than the average cost of funding in the sector.

About 60% of NCAs have been held on bank balance sheets for more than three years. Only 13% cannot be sold immediately, because they are involved in litigations, or there is a ban imposed on their sale. There are no formal impediments to selling most NCAs. The bulk of assets are not sold because their declared value and profiles are unattractive to investors. The banks are reluctant to lower the estimated value and price of such property, as they are unwilling to recognize additional losses.

Figure B.4.2. Composition of noncore assets by property types and terms of retention on bank balance sheets, UAH billions



Source: surveys of banks, NBU estimates.

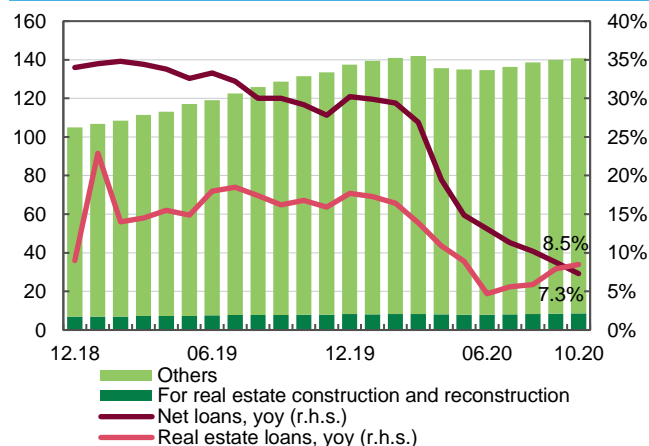
The calculations made by the NBU based on the survey results show that the impact of deduction on the banking system at the first stage is not material, while for half of the banks the reduction in the core capital adequacy ratio will be negligible – less than 0.05 pp. Only a few banks will have additional pressure on their capital in 2021. The NBU expects that in the coming years the new rule will encourage the banks to divest from NCAs in due time, thus boosting their resilience and profitability.

¹¹ Noncore assets are noncurrent assets held for sale; foreclosed property; fixed assets that are not used by a bank in carrying out its activities.

3.3. Consumer Lending Risk

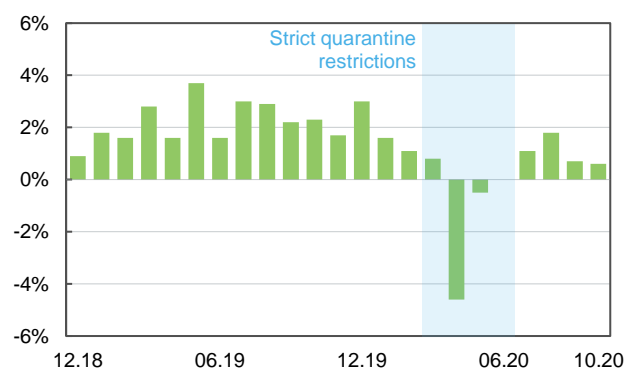
Growth in consumer lending slowed sharply this year. The slowdown was natural, considering the deterioration in macroeconomic conditions and consumer sentiment. Credit losses also increased on the back of worsened payment discipline. However, not all banks have fully provisioned these losses as yet. At the same time, consumer loans remain key for banks, generating a sizable share of their income. In order to encourage banks to consider both the advantages and risks of working in this segment, and to strengthen banks' resilience to credit risks, the NBU will introduce higher risk weights for unsecured consumer loans.

Figure 3.3.1. Net hryvnia household loans, UAH billions



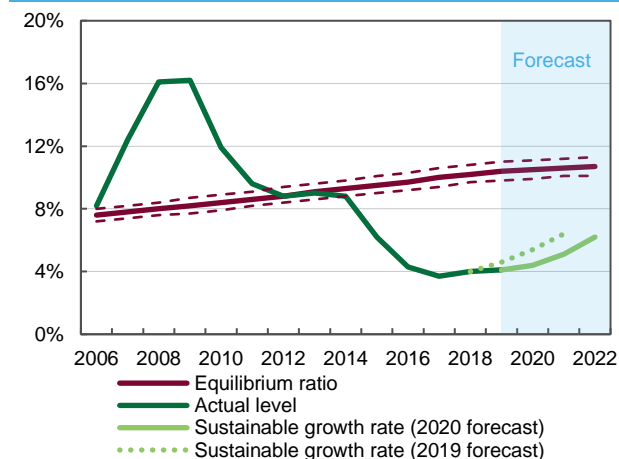
Source: NBU.

Figure 3.3.2. Month-on-month change in net loans



Source: NBU.

Figure 3.3.3. Equilibrium level of consumer loans and changes in consumer loans-to-GDP ratio



Source: NBU.

Growth in consumer lending is recovering after slowing down sharply during quarantine

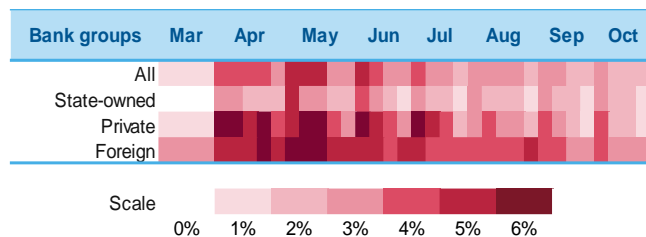
After the quarantine was introduced, the net household loan portfolio plummeted already in April. The majority of banks cut new lending. Credit limits that were open at the time mostly remained intact. However, financial institutions tightened their standards for approving new loan applications. According to the [Bank Lending Survey](#), the main reasons for this included more downbeat assessment of borrower solvency and of overall economic conditions. At the same time, such a slowdown was natural in view of the ongoing economic downturn. First of all, demand from households fell as consumer confidence substantially deteriorated. Compounding this were the restrictions on the operation of home appliance stores, as banks also offer loans in these stores.

The portfolio returned to growth in July only. But monthly growth rates are still trailing pre-crisis levels. Currently, the size of the loan portfolio is close to that at the start of the year. In annual terms, net loan portfolio grew by 7.3%. Consumer lending allows financial institutions to support their profitability when demand for corporate loans is subdued and loan rates decline. Therefore, banks are primed to actively develop this segment. In the first nine months of 2020, retail lending generated 34% of banks' total interest income. The majority of banks note that they plan to loosen their lending standards going forward, although the risks that loan quality may deteriorate are high.

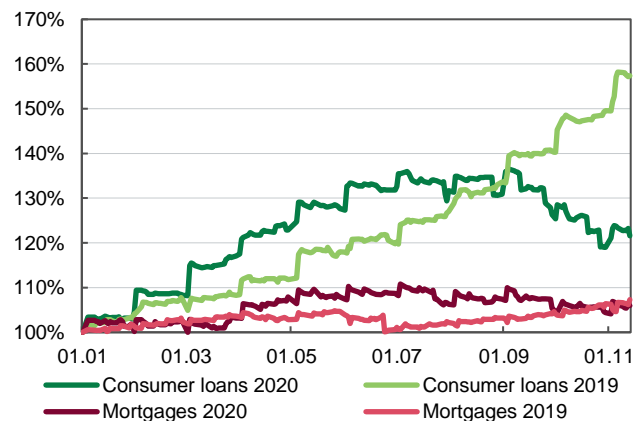
Worsened macroeconomic conditions reduced equilibrium growth trajectory of consumer loans

In 2019, the NBU undertook a study¹² to determine the equilibrium level of consumer lending (loans-to-GDP ratio) in Ukraine, and has since regularly updated its research. First, the NBU estimates a long-term relationship between loan penetration and macroeconomic indicators for Ukraine and a group of countries in the region. The explanatory variables are inflation, interest rates, and the contribution of private consumption to GDP. The estimated equilibrium level totals 10% of GDP, which is above the current value of 6%. Additionally determined is the equilibrium growth rate, which depends on current macroeconomic conditions and prior lending growth rates. As macroeconomic forecasts were downgraded in 2020, and lending decelerated, the equilibrium growth rate of consumer loans decreased this year. It is expected to rise in 2022.

¹² Csajbok, A., Dadashova, P., Shykin, P., Vonnak, B. (2020). [Consumer Lending in Ukraine: Estimation of the Equilibrium Level](#). Visnyk of the National Bank of Ukraine, 249, 4-12.

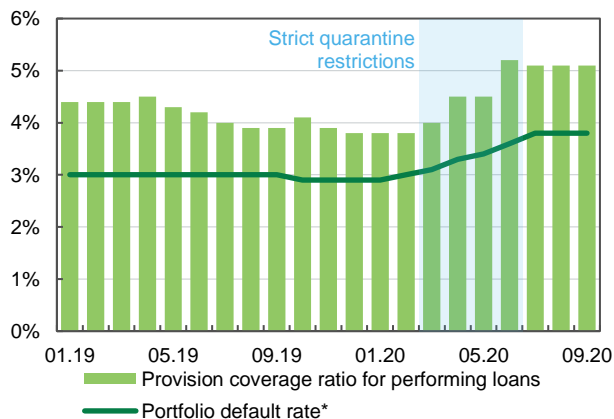
Table 3. Growth in share of past due hryvnia retail loans compared to 1 March 2020

Source: NBU.

Figure 3.3.4. Change in amount of past due interest* on hryvnia retail loans, start of year = 100%

* Interest past due for less than two years as of 1 April 2020. Based on data from 12 banks that are the most active in retail lending.

Source: NBU.

Figure 3.3.5. Changes in quality of retail loan portfolio

* Over 12-month horizon, average weighted for banks that account for 60% of total net retail portfolio.

Source: NBU.

Table 4. Rationale behind introduction of increased risk weights**Advantages of introducing increased risk weights**

- A capital buffer will be created for covering unexpected losses caused by a deterioration in portfolio quality.
- This instrument is simple and universal.
- Banks will take a more prudent approach to allocating capital among their lines of business depending on underlying risks and profitability.
- The impact on the cost of loans will be moderate.

Source: NBU.

Borrowers' payment discipline deteriorated, especially among high-risk borrowers

Retail borrowers' payment discipline deteriorated most severely last spring. At the time, the share of overdue principal and interest payments surged. Default rates at banks that were leaders in the segment also grew, albeit unevenly. The rate of increase in overdue balances depended on the specifics of underlying loan offerings, with portfolios dominated by cash loans¹³ showing a weaker performance. In the summer, banks increased their provisioning for the performing loan portfolio to 5% from 3.8%. However, actual credit losses may be larger, as some borrowers had their loans restructured and payment terms extended.

Starting in April, banks were allowed flexibility in restructuring loans to borrowers whose payment discipline worsened. At least a tenth of the portfolio was restructured. Meanwhile, the specifics of some credit products, in particular credit cards, enabled banks not to recognize debts as overdue but to add accrued interest to the principal amount within the credit limit. In such cases, it was not binding on banks to register new past due balances. In order to eliminate this loophole, the NBU amended its Regulation No. 351 on credit risk assessment by banks. From now on, nonpayment of accrued interest by a borrower will be deemed as past due even if such interest is capitalized.

Banks should not overlook loan quality while their portfolios recover

As unsecured retail loans are short-term, around half of the performing loans that banks had in their portfolios at the start of the crisis have already been repaid. The share of this older portfolio that outlasted the quarantine is declining with a pickup in lending. Average portfolio quality indicators will thus improve going forward. However, banks should closely analyze the servicing status of their loans, especially the restructured ones, and recognize it properly.

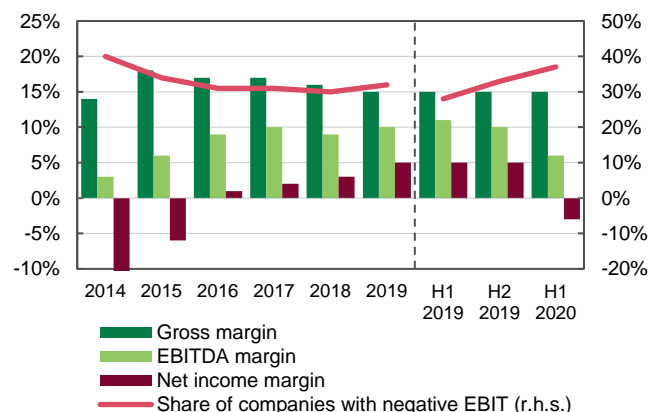
In view of the risks pertaining to the segment, the NBU remains committed to its decision to introduce increased risk weights for unsecured consumer loans. Risk weights will be increased in phases: to 125% from 1 July 2021 and 150% from 1 January 2022. Based on an underlying analysis, such changes will not lead to violations of capital requirements, as banks are resilient enough. At the same time, these changes are aimed at enhancing lenders' resilience to potential crisis events, in particular encouraging them to properly consider both the advantages and risks of working in this segment.

¹³ A cash loan is a loan issued by a bank as a one-time lump sum pursuant to contractually specified terms, either in cash or as a cashless transfer.

3.4. Real Sector and Quality of Corporate Loan Portfolio

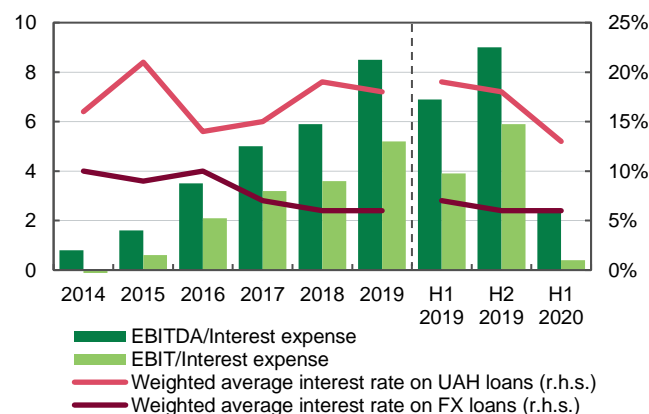
The real sector was adversely affected by the coronavirus crisis in H1. However, the subsequent easing of quarantine restrictions helped most industries stabilize. Individual trends are divergent, with the services sector and industries reliant on investment demand remaining under pressure and the food industry and agriculture emerging practically unscathed. Banks' corporate portfolios proved resilient; although provisioning increased, the incurred losses proved lower than expected. Their limited lending exposure to vulnerable industries, prudent policies, and timely restructurings during the quarantine allowed banks to come through the crisis in an orderly manner. Despite the turbulence, interest rates on corporate loans dropped to an all-time low. This will promote lending during the recovery phase.

Figure 3.4.1. Real sector profitability and share of companies with operating losses



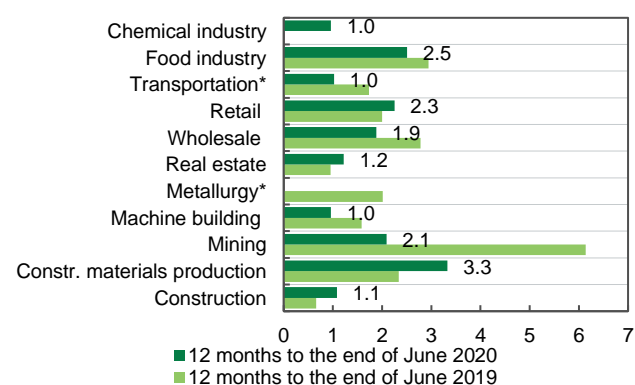
Source: SSSU, NBU estimates.

Figure 3.4.2. Non-financial corporations' interest coverage by operating profit and EBITDA, interest rates on new loans



Source: SSSU, NBU, NBU estimates.

Figure 3.4.3. Interest coverage ratio by sectors



Negative values are not shown.

* Data adjusted for outliers.

Source: SSSU, NBU estimates.

Real sector is recovering from coronavirus crisis

Companies' output and turnover plummeted in March-May 2020 with the onset of the global COVID-19 pandemic and ensuing tight lockdown. In H1, the total income of real sector¹⁴ companies contracted by 7% yoy, while operating profit shrank by a factor of 6.5. The drop in earnings worsened companies' liquidity and reduced their resources for debt service. In H1, the ratio of EBITDA to interest expenses stood at 2.4x, compared to 6.9x in the same period last year. Although the shock was short-lived and recovery began as early as Q3, the crisis gave rise to material risks for industries that had to suspend operations due to the quarantine or lost income due to falling demand.

The easing of quarantine restrictions and gradual economic recovery globally normalized operations across much of the corporate sector. The moderate currency depreciation and low inflation, two features that make this crisis distinct from previous similar episodes, also played a role. Private consumption rebounded sharply, thanks in part to pent-up demand for goods and services. Robust foreign demand for Ukrainian exports was another important contributor. Overall, the Ukrainian economy proved resilient to the coronavirus crisis. This was due to Ukraine having a smaller share of services in GDP compared to other countries, an increased share of non-cyclical industries in production and exports, and a financial sector that was functioning properly.

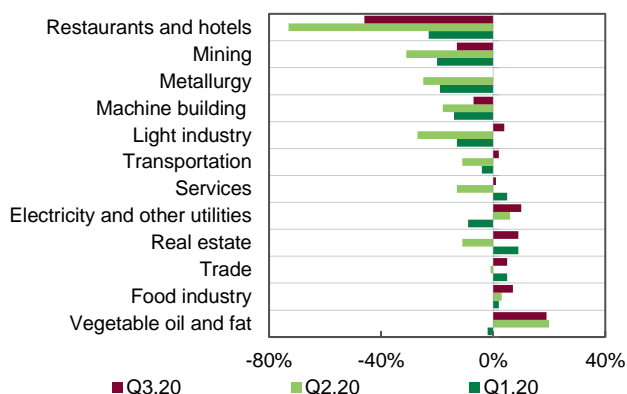
Downturn and recovery were uneven

The current crisis is characterized by the different degrees of shock that various industries experienced. The services sector, in particular eating venues, shopping malls, passenger transport, tourism, and the hospitality industry, were hit hardest by quarantine curbs. Although the transition from strict lockdown to the adaptive quarantine regime enabled these businesses to partly resume their operations, they are yet to recover fully. Another reinforced lockdown to be introduced in January is posing new challenges. The new restrictions will mainly affect nonfood retail, shopping malls, and some subsectors in services and leisure.

In the industrial sector, mining, machinery and metal producers reported the largest revenue drops in H1. Mining industry sales slumped due to lower energy prices. Meanwhile, machinery manufacturers and metal producers saw revenues fall due to, respectively, shrinking demand for investment goods and low ferrous metal prices. In Q3, these industries demonstrated quite divergent results. Mining and

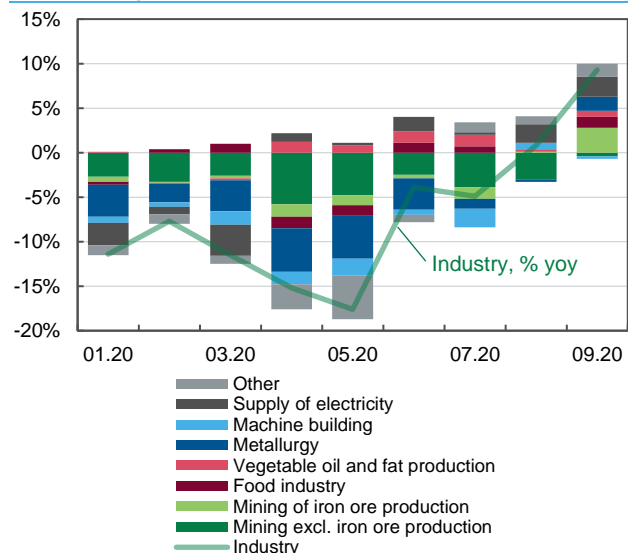
¹⁴ These data do not capture small companies.

Figure 3.4.4. Sales of goods and services in key industries, yoy



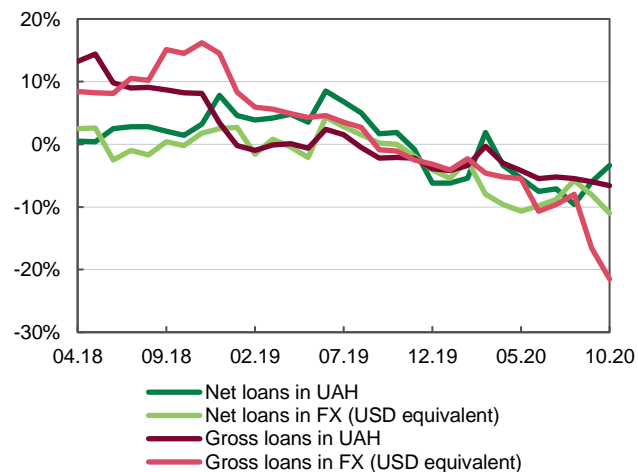
Source: SSSU, NBU estimates.

Figure 3.4.5. Contributions to the annual change in sales of industrial output from individual industries



Source: SSSU, NBU estimates.

Figure 3.4.6. Gross and net corporate loans, yoy



In solvent banks as of 1 November 2020.

Source: NBU.

machinery industry sales remained substantially lower yoy, but the metal industry recovered to the level of Q3 2019. In Q4, metal manufacturers enjoyed an even stronger rebound thanks to rising global prices.

Despite the crisis, selected industries, namely producers of vegetable oils and fats, food and pharmaceuticals increased sales. These industries have the lowest solvency risk. Food producers are expected to keep generating profits due to favorable external prices and rising global demand.

The largest public companies in the food industry and agriculture have already released their financial statements for the first three quarters of 2020. The vast majority reported stable or even increased profits for the period, even despite a lower harvest. Their results were underpinned by buoyant demand in the global food markets amid limited supply and worsening expectations for future harvests. These companies have sustainable debt load, enabling them to continue attracting cheap financing in the domestic and foreign markets.

Corporate portfolio: incipient recovery

Banks' loan portfolio has been shrinking yoy, both in gross and net terms, since late 2019. However, starting in October, the downtrend appeared to reverse, with net hryvnia loans growing for two consecutive months. In contrast, lending to small and medium-sized businesses showed positive dynamics, with net loans recalculated at a fixed exchange rate growing by 3% yoy. Lower interest rates and a government loan interest compensation program drove lending to this segment (read more in [Box 6. Drivers of Lending to Small Businesses](#)).

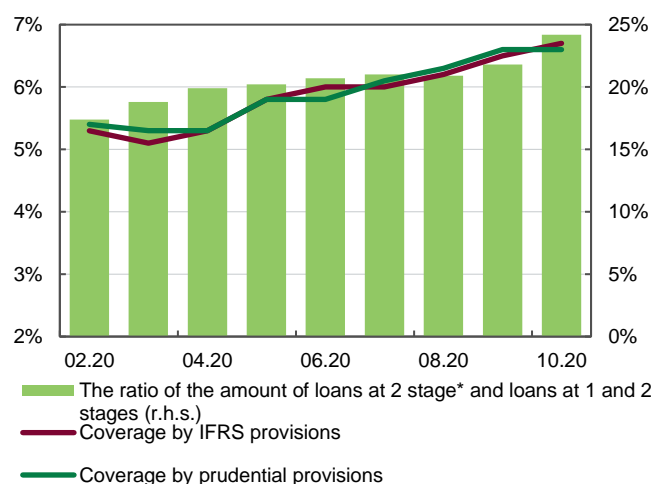
Repayments by several large borrowers, including Ukrainian and international agricultural companies, made a sizable contribution to the corporate portfolio reduction in H1. Some of those borrowers replaced bank loans with long-term financing raised in international markets, while others faced lower working capital needs during the crisis. Provisioning was an additional factor behind the drop in net loans.

The reduction in gross loans resulted mainly from write-offs of legacy NPLs, those that had not been serviced for a long time and were fully provisioned. State-owned banks took the lead, transferring legacy NPLs worth UAH 90 billion to their off-balance-sheet accounts in the first 10 months of the year.

Corporate portfolio proved resilient to crisis

Most borrowers saw their income drop as the crisis unfolded. This triggered a temporary liquidity shock, with 40% of non-defaulting borrowers having an unsatisfactory EBITDA/Interest Expenses ratio in H1. Q2 saw an increase in past due payments on performing loans.

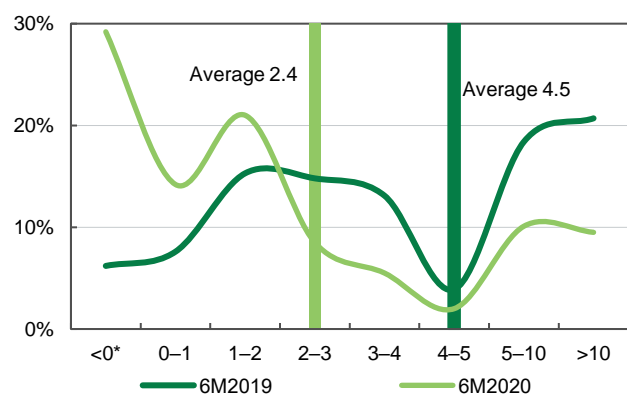
Contributing the most to corporate loan quality deterioration were industries whose operations were not directly constrained by the quarantine. These are pro-cyclical industries that depend on investment demand or the

Figure 3.4.7. Coverage of gross performing corporate loans by prudential provisions and IFRS provisions

In solvent banks as of 1 November 2020.

* Impairment stages under IFRS 9.

Source: NBU.

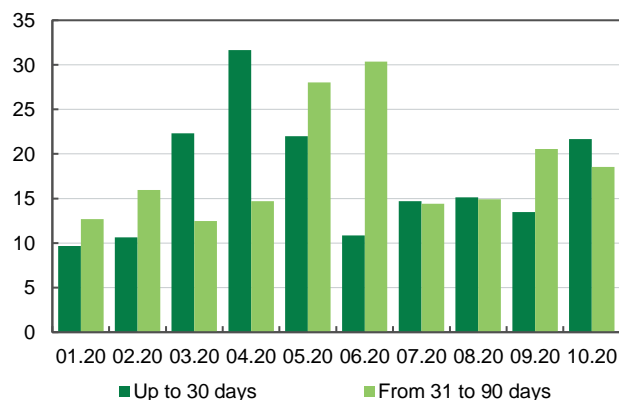
Figure 3.4.8. Breakdown of EBITDA to interest expenses for borrowers with performing loans

* Share of borrowers' loans with negative EBITDA.

Average value weighted by loan amounts as of 1 July 2020.

Calculated based on standalone financial statements of borrowers.

Source: NBU.

Figure 3.4.9. Overdue corporate loans, UAH billions

Source: NBU.

environment in certain commodity markets. On top of this, troubles persisted in the utilities sector, adding to banks' problems.

Banks offered concessions to borrowers who had difficulty servicing their debts due to the quarantine. The NBU acted in advance to put in place favorable regulatory conditions¹⁵ for restructuring loans to such financially strained borrowers. Since the period of tight lockdown, close to 7% of the portfolio has been restructured. About 10% of the restructured loans amount was repaid by late November, while the solvency of most borrowers has been recovering. Although the crisis led to increased provisioning for performing loans, the default rate in the corporate sector was lower than had been expected at the onset of the crisis. Given the increase in past due loans seen in September and October, portfolio quality may deteriorate further. However, it is already clear that these losses will not be material. Timely measures taken by banks and the regulator softened the effect of the temporary shock on borrowers, while limited exposure to service sector companies helped corporate portfolios remain resilient.

Crisis in alternative energy sector affecting banks

[The domestic electric industry has grappled with a payment crisis](#) since March 2020. A revision of energy laws partially stabilized the situation. Reduced tariffs helped ease the burden on the state-owned company in charge of implementing state guarantees as to purchases of green electricity. Renewable energy producers received payments due to them for September-August in full. At the same time, the accumulated debt of state-owned companies responsible for compensating for the feed-in tariff poses risks. What is more, payments for supplied green electricity continue to be delayed, with the amounts owed for March-July not yet paid. This problem is affecting some of the banks that actively lent to the renewable energy sector. The latter's outstanding debt stood at UAH 45.1 billion as of end-October, with 75% of this amount owed to state-owned banks. Aiming to ease the impact of the crisis, the NBU relaxed its requirements for measuring credit risk¹⁶ and put in place flexible restructuring terms for borrowers from the renewable energy sector. Although banks partially prolonged the loans to this sector, full stabilization of the situation depends on the resumption of timely payments to producers.

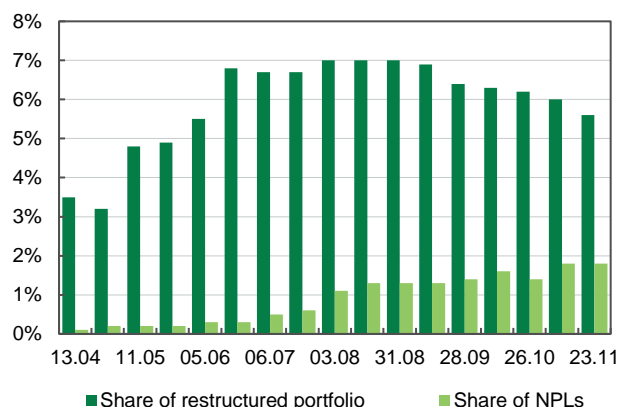
Bank loan rates have fallen dramatically

The reduced cost of funding and ample liquidity in the banking system positively affected loan costs for corporate borrowers. Despite the crisis, interest rates on hryvnia corporate loans fell to an all-time low. Interest rates on FX loans also remain depressed. At present, it is cheaper for creditworthy borrowers to take out new FX loans than to attract international market financing. Most Ukrainian issuers' current Eurobond yields are higher than the average loan rate charged by Ukrainian banks. That said, lending terms and conditions greatly depend on the reliability of a borrower and

¹⁵ NBU Board Resolution No. 39 of 26 March 2020 *On the Specifics of Applying the Requirements Set Out in the Regulation On Measuring Credit Risk by Ukrainian Banks Arising from Their Exposures in Connection with the Introduction of Quarantine Measures.*

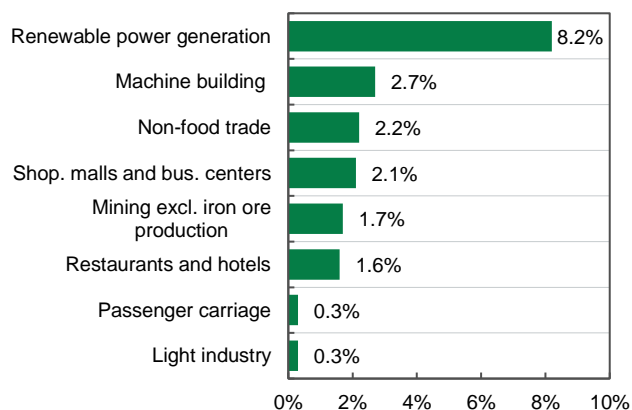
¹⁶ NBU Board Resolution No. 118 of 18 August 2020 *On the Specifics of Complying with Some NBU Regulations on Credit Risk Measurement.*

Figure 3.4.10. Shares of performing corporate loans as of 1 March 2020, that were restructured and recognized as non-performing since the beginning of the crisis



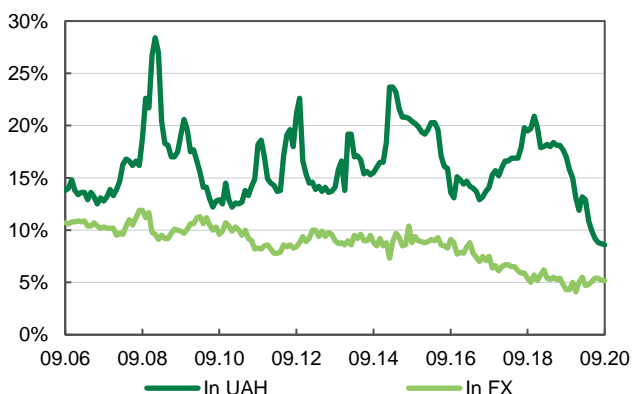
Source: survey of the 22 largest banks, NBU estimates.

Figure 3.4.11. Share of vulnerable industries in the gross corporate performing portfolio of 1 November 2020



Source: NBU.

Figure 3.4.12. Interest rates on new loans to non-financial corporations (excl. overdrafts)



Source: NBU.

the term of a loan. For example, the top-ranking companies with audited financial statements, transparent ownership structure and positive credit history can take out short-term hryvnia loans at 7% to 8% and FX loans at 2% to 3%. Interest rates on long-term loans are higher by 3 pp and 1 pp, respectively. Conversely, financially unstable or non-transparent borrowers have to compensate the lender for additional risks or otherwise fail to borrow from banks at all.

Banks should not lower their corporate borrower assessment standards during crisis

In order to minimizing the impact of quarantine restrictions on the banking system and bank borrowers, the NBU introduced a special regime for assessing debtors. In particular, it allowed the banks to capitalize the past due debts of borrowers who were in temporary financial difficulty due to the quarantine. Nevertheless, this temporary easing of regulatory requirements should not become a tool for concealing credit losses. It is critical that banks adequately assess the financial standing of borrowers and recognize the existence of long-term problems. It is already clear which industries will take a long time to recover completely. Banks should already start recognizing credit losses from loans to borrowers operating in the respective industries. The NBU will oversee the reliability of those assessments as part of its supervisory process. And during its annual resilience assessment in 2021, the central bank will verify the correctness of credit risk measurement by each bank.

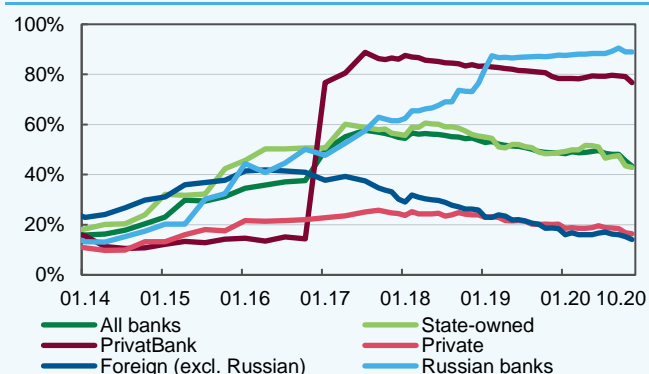
Box 5. Banks Will Finally Get Rid of Legacy Nonperforming Loans

In 2020, pursuant to new NBU requirements, Ukrainian banks approved three-year strategies for managing nonperforming exposures. Banks plan to reduce their nonperforming exposures (NPE) by more than UAH 400 billion by the end of 2022. The main measures for NPE resolution include writing off and selling of nonperforming loans (NPLs). The NBU reviewed banks' NPE management strategies and will control their implementation.

The NPL ratio reached an all-time high of 57.7% in 2017. Most of these NPLs had been granted before 2015. Since then, not all banks have effectively resolved their NPLs. Foreign-owned and domestic private banks reduced their NPLs through voluntary and enforced settlements, while state-owned banks were less active. State-owned banks succeeded in implementing financial restructurings and write-offs only recently, though they still have the largest NPL portfolios¹⁷.

In NPE management strategies, banks defined their approaches to resolving NPLs. Writing off legacy nonperforming loans is the main measure planned by the state-owned banks. Among other things, the toxic portfolio held by PrivatBank needs to be gradually written off, as repayment of these debts is unlikely. Banks will continue to defend their right to be compensated for their losses in courts despite having written off the debts, as write-off does not mean debt forgiveness. In the first ten months of 2020, Ukrainian banks wrote off UAH 118.7 billion of NPLs.

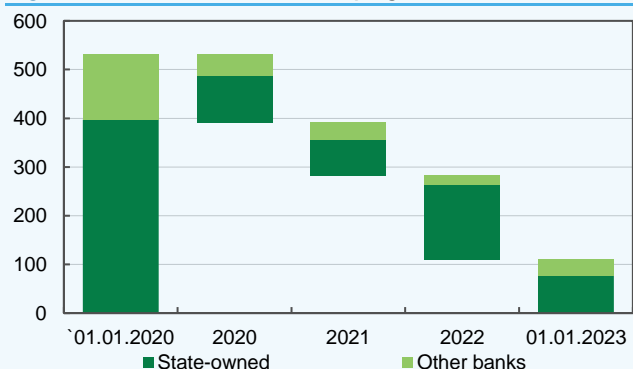
Figure B.5.1. NPL ratios, by groups of banks



Source: NBU.

Starting from June by the end of October 2020, the NPL ratio declined by 6.3 pp, to 43.4%, which marks a shift in NPL resolution, especially at state-owned banks. The NBU-developed requirements on NPE management at banks contributed to the decline. Pursuant to these requirements, banks have already submitted their NPL management strategies. Moreover, in 2020, criteria were set for writing off debts that are not expected to be repaid.

Figure B.5.2. Banks' NPL resolution programs*, UAH billions**



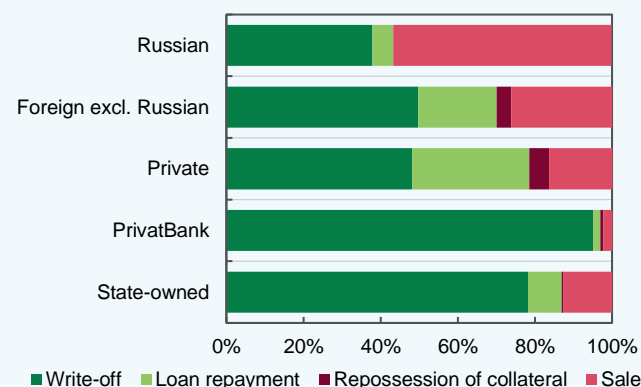
* To be updated annually by banks.

** Excluding migration to and from the NPL portfolio and changes in exchange rates.

Source: banks' data, NBU estimates.

Foreign-owned banks have the lowest NPL ratios and plan to write off and sell these debts or expect to settle them on a voluntary basis. Banks with Ukrainian capital plan to reduce their NPLs by writing them off and selling the loans not being serviced.

Figure B.5.3. Main measures of NPL resolution by the end of 2022*



* Excluding migration to and from the NPL portfolio and changes in exchange rates.

Source: banks' data, NBU estimates.

The quarantine measures imposed in 2020 and economic crisis affected the quality of debt service, but the NPL portfolio did not grow much. Banks supported their customers and implemented short-term debt restructurings. At the same time, banks are required to properly assess the financial performance of their borrowers, recognize new NPLs in a timely manner, and take necessary actions to manage debts with attributes of declining credit quality.

¹⁷ Financial Stability Report, December 2019. Box 6. Ways to Reduce NPL Portfolio.

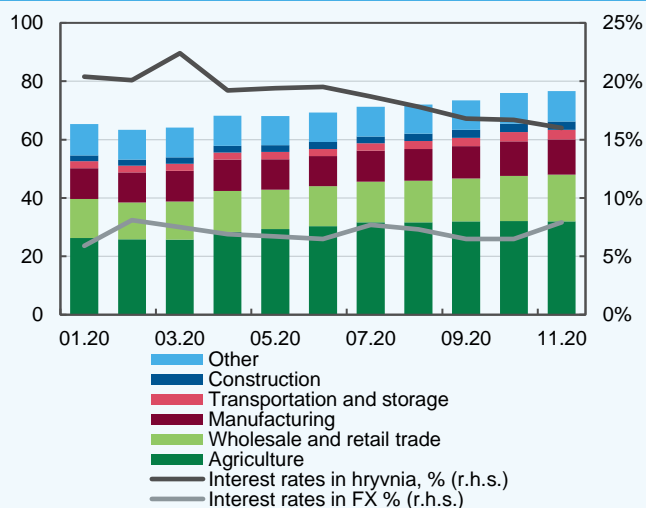
Box 6. Drivers of Lending to Small Businesses

Small businesses used to have less access to bank loans. However, today lending to this segment is growing even despite the coronavirus crisis. Lower interest rates on loans and the state program of interest rate compensation have created conditions for growth in small business lending.

In order to analyze the trends of lending to small businesses, a customer cluster has been defined to include borrowers that comply with criteria of a micro or small enterprise (MSE)¹⁸. The cluster comprises borrowers which do not belong to large business groups and which owe less than UAH 100 million to banks.

Available data show that banks stepped up lending to small businesses in 2020 despite the fact that these businesses were hit harder by quarantine measures than medium- or large-sized companies¹⁹. Since the start of the year, loans to the cluster grew by 17% to reach UAH 76.6 billion, not taking into account the impact of exchange rate fluctuations. A reduction in interest rates for small businesses, which had always been higher than the rates offered to medium and large enterprises, coupled with the state programs of lending support, has widened the circle of potential borrowers.

Figure B.6.1. Loans to MSE, by economic sector*, and interest rates Loans 5-7-9% program, UAH billions



* Foreign exchange rate as of 1 November 2020.

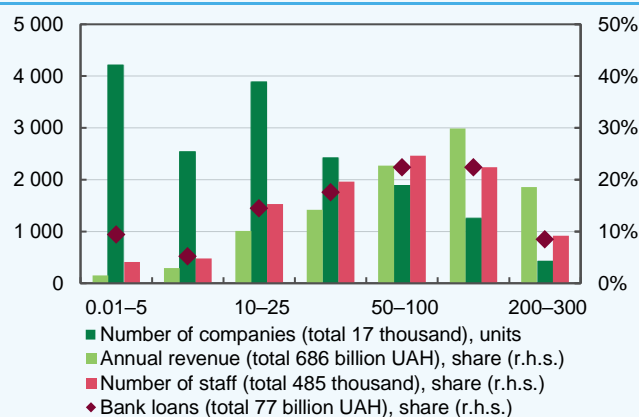
Source: NBU, Credit Register.

Almost all loans to this cluster are performing, borrowers are mostly of high quality, and the collateral coverage ratio is high. The quality of loans to small businesses that are part of large business groups is notably worse, and the collateral coverage ratio is lower. That is largely explained by the fact that large and medium companies which have faced financial difficulties and lost their revenue move to the category of small businesses.

Affordable Loans 5-7-9% program, which envisages partial compensation for interest expenses, contributed to the growth in lending to this cluster. Authorized banks have already issued about 6.3 thousand loans to the total amount of UAH 14.7 billion, of which 68% were issued to refinance previously issued loans, 19% to develop business, and 13% to implement anti-crisis measures. Agricultural businesses

are the most active participants of compensation programs, as they can access a special program – *Financial Support to Agricultural Producers*. Around 3.6 thousand companies have already taken part in this program.

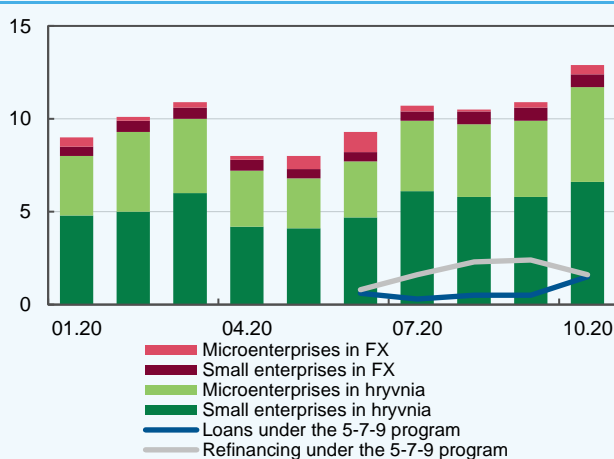
Figure B.6.2. MSE borrower profiles by revenue level, UAH millions



Source: NBU, Credit Register.

Affordable Loans 5-7-9% program is available only to high-quality borrowers, to which banks are ready to lend at the rate that does not exceed 13% (the current maximum floating rate), which is then compensated by the government, fully or partially. This rate is below the standard market loan rates offered to small businesses. Only around 40% of all loans were issued at rates of up to 13%.

Figure B.6.3. New MSE loans, including loans under the Affordable Loans 5-7-9% program, UAH billions



Source: NBU, Ministry of Finance of Ukraine.

The government also approved the mechanism of providing state guarantees for loans on a portfolio basis (up to 70% for each individual loan and 50% for a pool of loans), which will be an additional stimulus for small business lending. Banks will be able to transfer a part of borrower credit risk to the state. This should eliminate the main obstacle to lending to solvent small businesses, which is the lack of adequate collateral.

¹⁸ MSEs are micro or small enterprises whose annual revenue from any activity does not exceed the equivalent of EUR 10 million.

¹⁹ According to businesses' assessments published in the [Q3 2020 Business Outlook Survey](#).

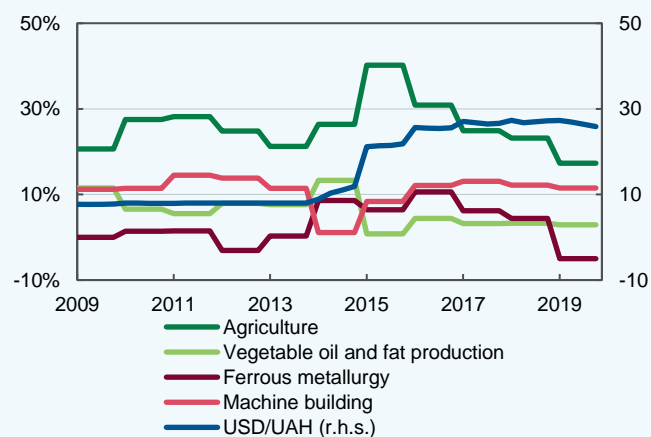
Box 7. Impact of Exchange Rate Fluctuations on Exporters

The exchange rate of the hryvnia against key world currencies is not a decisive factor in exporters' profitability. Commodity prices are the main factor. After-effects of strengthening or weakening of the hryvnia on profitability are usually offset by the currency component in the cost of production and the impact on debt revaluation.

The exchange rate was fixed in Ukraine until 2015. In crisis periods, this caused the hryvnia to depreciate uncontrollably under the pressure of accumulated imbalances, which had a major negative impact on the economy. In order to ensure price and financial stability, the NBU introduced inflation targeting and a floating exchange rate regime. Since then, the exchange rate has occasionally weakened or strengthened on a significant scale, which raised concerns about exporters' profitability.

To assess the impact of hryvnia exchange rate fluctuations on exporters, the largest exporting industries were analyzed, namely metallurgy, machinery production, agriculture, and oil and fat industry, as well as seven listed companies in these industries which accounted for a third of the country's export revenue²⁰.

Figure B.7.1. Exchange rate and EBITDA margin of exporting industries



Source: SSSU, NBU.

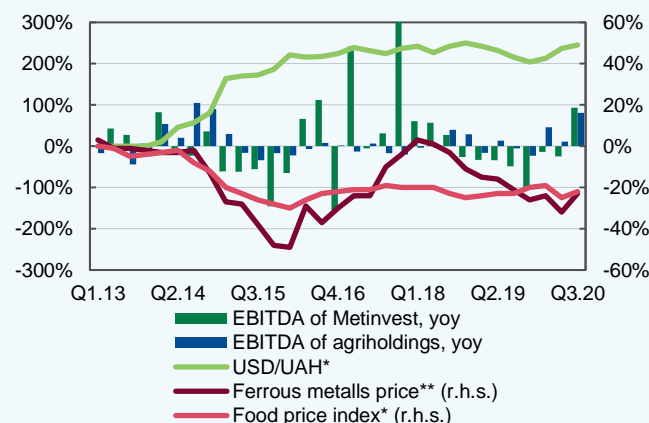
The analysis revealed a weak dependence of exporters' profitability on exchange rate movements. Global commodity prices were the key factor for their profitability, as most Ukrainian exporters specialize in exports of raw materials.

The weak statistical dependence is explained by the fact that 50%–70% of exporters' production costs are linked to the exchange rate. These are imported goods or commodities the value of which is set on global markets in US dollars, while domestic prices in the hryvnia quickly react to changes in global prices. Thus, decreases or increases in hryvnia revenues are largely offset by changes in costs. A 1% change in the exchange rate translates into a 0.2% change in exporters' EBITDA margin in the same period. Even after significant changes in the exchange rate, profitability of most companies returns to normal in one or two years as prices are adjusted for components of production costs.

Some exporting industries have a long production cycle. Therefore, exchange rate movements have less impact on

exporters' cash flows than on their accounting profits. This is due to accounting rules: production costs first include the oldest inventories purchased at old prices.

Figure B.7.2. Changes in quarterly EBITDA, exchange rate, and commodity prices



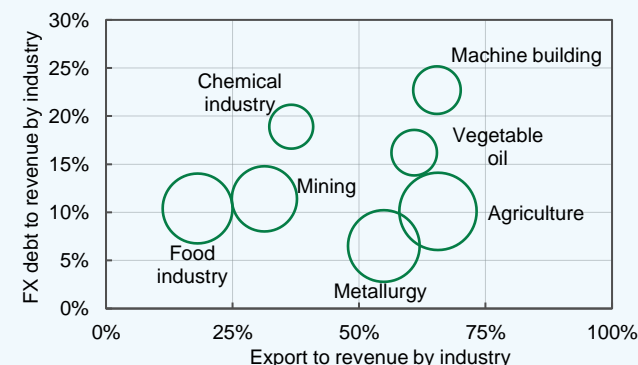
* Change from December 2012.
 ** Steel Billet Exp FOB Ukraine (change relative to Dec. 2012).

Source: companies' data, FAO, Thomson Reuters, NBU.

Most Ukrainian exporters borrow in foreign currencies. Thus, a change in the exchange rate increases their debt burden in case of depreciation. For example, most Ukrainian exporters suffered significant revaluation losses during the crises of 2008–2009 and 2014–2016. Loss of income and debt revaluation forced even the most resilient companies into restructuring.

Prudent monetary policy and the free-floating exchange rate regime also delivered record-low interest rates. As a result, access to credit improved for businesses, including exporters (read more in Section 3.4. Real Sector and Quality of Corporate Loan Portfolio).

Figure B.7.3. Share of exports in revenues for 2019 and foreign-currency debt of exporting industries as of 1 January 2020



Circle size indicate revenue of an industry.

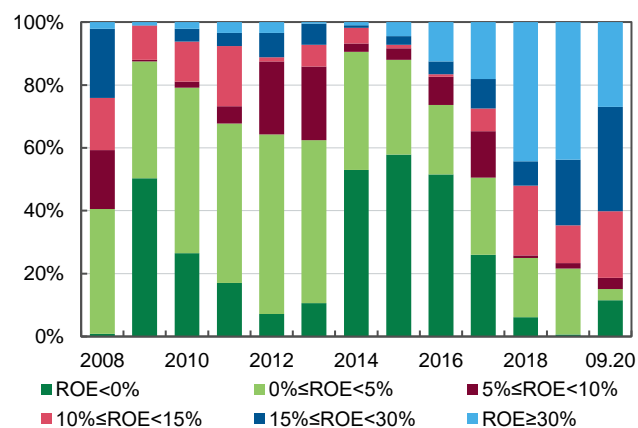
Source: SSSU, NBU estimates.

²⁰ Astarta, IMC, Kernel, Metinvest, Motor Sich, MHP, and Ferrexpo.

3.5. Profitability Risk

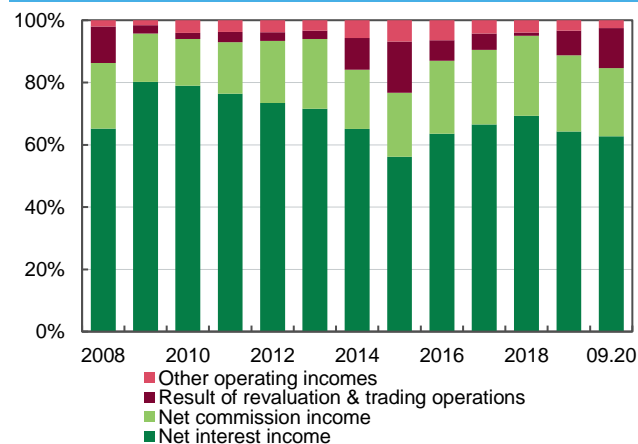
Risks to profitability have not yet materialized: operating profitability is high, while credit losses reported by banks are not excessive. The crisis demonstrated that fee and commission income is the most vulnerable to the severity of quarantine measures. However, the decline in fee and commission income was short-lived, thanks to growth in noncash transactions. Profitability was ensured by a high interest rate spread: it has remained virtually unchanged since the beginning of the year despite a significant drop in the absolute level of interest rates. In the medium term, the risk that interest rate spread may fall is significant. There is also some uncertainty about the adequacy of provisions made for loan losses.

Figure 3.5.1. Distribution of banks' assets by ROE



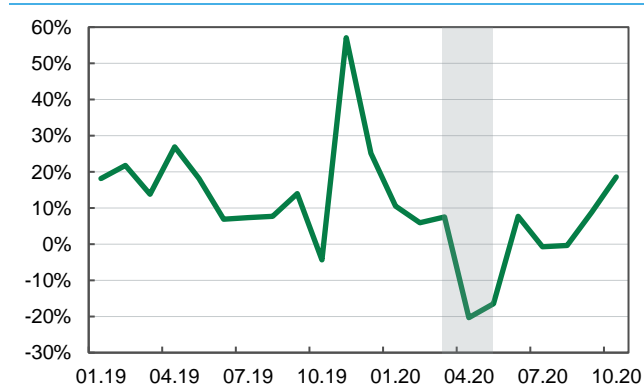
Source: NBU.

Figure 3.5.2. Components of banks' operating income



Source: NBU.

Figure 3.5.3. Change in net commission income, yoy



* Hereinafter in the section – in solvent banks at the reporting date. The shaded area marks the introduction of the nationwide quarantine from 12 March 2020, tightening of restrictions from 17 March 2020, and transition to the adaptive quarantine from 22 May 2020.

Source: NBU.

Coronavirus crisis impact on profitability is still moderate

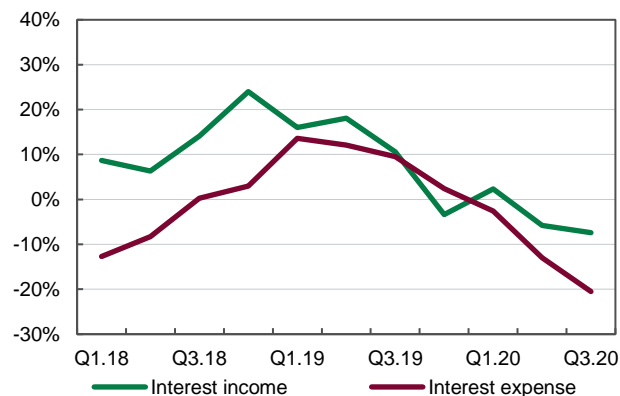
The coronavirus crisis has worsened the financial standing of banks, but less noticeably than was expected in the spring. Banking sector profits in the first ten months of 2020 fell by only a quarter compared to the same period last year. The number of loss-making banks did not increase. The worst financial performance was seen in Q2, when tight quarantine restrictions were in place, reflecting a drop in demand for banking products and higher provisioning volumes. However, interest and commission income began to recover already in Q3 and accelerated even more in the final months of the year. Fourteen banks, accounting for almost two-thirds of total sector assets, have maintained their ROE at above 15%. Sector profits are very concentrated: Privatbank generated 57.4% of total net income, while the share of the five most profitable banks totaled 88.2%.

Quarantine strongly affected commission income

Net commission income is the second most important component of banks' operating income. Quarantine restrictions had a rapid and significant adverse effect on this revenue item. The volume of banking operations for which a fee is charged decreased during the severe phase of the quarantine. The principal factor was the reduced flow of customers through shopping outlets and bank branches, as well as activity slowdown among small and medium-sized businesses. A temporary contraction of the portfolio of unsecured consumer loans, which generate accompanying fees for banks, also had a negative impact. Commission income saw uneven dynamics. After sustaining a significant shock in the spring, it began to recover along with the revival in economic activity. In October, commission income increased by 18.6% yoy. Among other things, revenues from teller services rose sharply. Going forward, a short-term decline in commission income is possible during the January lockdown.

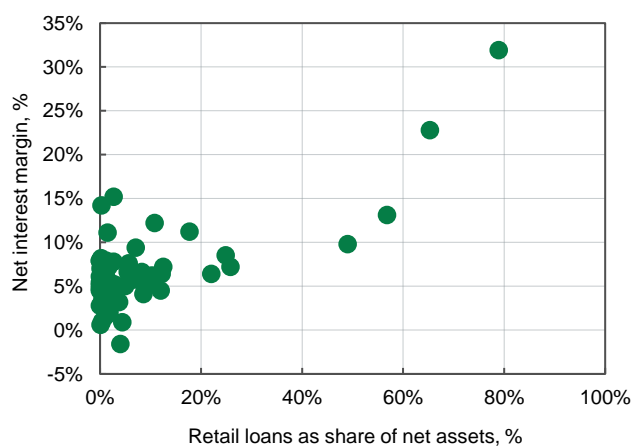
Commission income used to be fundamentally resistant to adverse conditions. But quarantine restrictions reshaped the landscape of customer preferences in very short order. In a matter of several months, consumer demand underwent a structural transformation that normally would have taken years. Demand for online banking services surged. Banks facilitated it by lowering fees for cashless payments and transfers. The NBU authorized remote identification of customers. The expansion of cashless payments, however, did not lead to a decrease in demand for cash. Some banks introduced or raised fees for cash transactions.

Figure 3.5.4. Change in interest income and interest expense, yoy



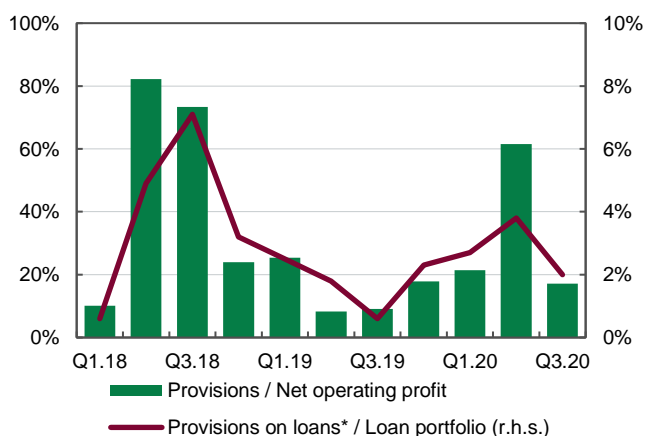
Source: NBU.

Figure 3.5.5. Retail loans' share in assets and NIM of banks as of 1 October 2020



Source: NBU.

Figure 3.5.6. The ratios of loan loss provisions to loan portfolio and net operating profit



* Annualized data.

Source: NBU.

Net interest income remained stable

The coronavirus crisis unfolded amid a series of interest rate cuts. Over H1, the NBU cut its key policy rate by 7.5 pp, to an all-time low of 6%. Combined with favorable macroeconomic conditions, including low inflation and a stable funding base, this contributed to lower rates on deposits and loans. In H1, for the first time in the Ukrainian banking sector's history, hryvnia deposit rates fell to the single digits. Since the start of the year, banks have succeeded in keeping the interest rate spread consistently high. One explanation for that is that the cost of funding was changing faster than the return on assets due to term mismatches. In general, net interest income during the quarantine was steadily growing at 4-5% yoy.

Deposit rates virtually stopped trending lower in recent months due to rising inflation expectations. But loan interest rates will continue to drop. In the corporate segment, loans will be prolonged and issued at lower rates. This will be facilitated by competition between banks for quality borrowers and further deployment of government lending support programs. At the same time, spreads in the retail segment will remain high due to the dominance of unsecured consumer loans, which come with traditionally high interest rates. In the medium term, interest rate spreads in this segment will decrease due to the growing share of mortgages. However, loan portfolio expansion will amply compensate for spread reduction.

Provisioning has grown as expected

In the first ten months of 2020, provisioning almost doubled compared to last year (in addition, Privatbank booked significant one-off provisions for legal risks). Over the same period, banks recognized average credit risk losses equaling 1.6% of the gross loan portfolio and 2.9% of the net loan portfolio. Since the start of the year, about 20% of the portfolio has migrated from the first to second stage of risk assessment under IFRS 9. Credit risk associated with these loans increased significantly. Credit losses reported by banks are not critical to profitability. At the same time, it is still difficult to assess whether these losses have been sufficiently reflected. In some cases, banks deferred the recognition of asset quality deterioration by restructuring loans. Borrowers in some sectors of the economy may also face new financial difficulties due to the tightening of quarantine restrictions in January 2021.

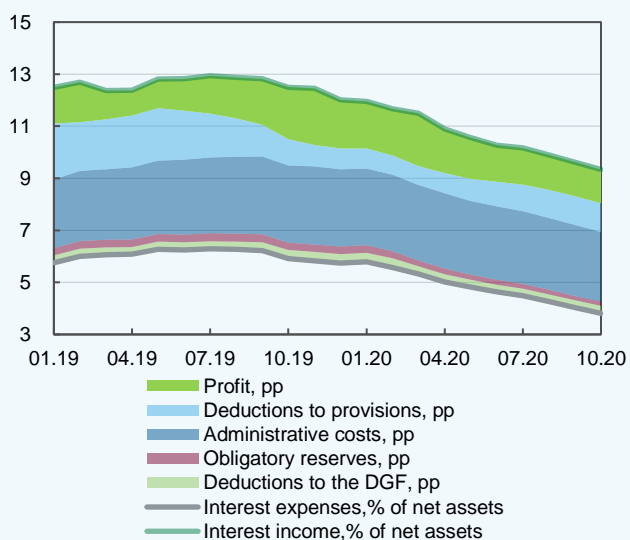
Box 8. Decomposition of Banks' Net Interest Margin

As the overall level of interest rates declines, banks find it increasingly more difficult to maintain high profitability. The current net interest margin allows financial institutions to cover all related expenses without difficulty, including general and administrative expenses, as well as loan loss provisions. The margin may decline over time, leading to a gradual decrease in the share of earnings that underlie banks' net profits.

A rapid decline in the cost of bank funding since the start of the year created conditions for a fall in loan rates. Loan rates have been declining in parallel with rates on deposits, so interest rate spreads remained almost unchanged. However, the spreads are expected to narrow in the future, which may also affect the interest margin.

The net interest margin (NIM) is calculated as the difference between interest income and expenses per one hryvnia of net assets that generate interest income. The calculation uses annualized values of income and expenses. Assets that generate interest income include both lending transactions and investments in securities issued by the government and the NBU. The NIM calculated in this way reflects the average return on a bank's main exposures. Currently, the average NIM* is 5.5%, having decreased by 0.8 pp since the start of the year.

Figure B.8.1. Decomposition of Ukrainian banks' NIM*



* Trailing three months. Calculated as the ratio of interest expenses and income to the average volume of net interest-bearing assets. Administrative expenses were taken into account proportionally to the ratio of net interest income and net fee and commission income less contributions to the Deposit Guarantee Fund. Provisioning included loan loss provisions and provisions for debt securities, taken as an average for the past 12 months. Profit was estimated on a residual basis. At banks that were solvent as of the reporting date.

Source: NBU.

The cost of funding has decreased by around 2 pp since the start of the year, driven by a decline in interest rates on both hryvnia and foreign-currency deposits. Banks' financing of interest-bearing assets currently averages 3.8% per annum. Since it is an all-time low, it is unlikely to continue to decline.

The difference between the NIM and expenses to cover operating needs and risks is considered as the profit generated by this segment. All expenses were compared with the volume of net interest-bearing assets and expressed as percentage points. Banks' administrative expenses were taken into account relative to the share of net interest income in net operating income. It is assumed that banks' general and administrative expenses are distributed between lines of business in proportion to operating income they generate. Expenses on contributions to the Deposit Guarantee Fund (DGF) were recognized separately and taken into account in full. Expenses related to deterioration in the loan portfolio quality were reflected in relevant provisioning. Banks' expenses on holding a part of required reserves on correspondent accounts were additionally taken into account.

Administrative expenses account for around 2.7 pp of interest margin and have the greatest effect on profit calculation. Their amount have remained unchanged for a long time, while their share in the NIM is growing. Therefore, optimizing administrative expenses may substantially increase yields on exposures. At the same time, DGF contributions and expenses on holding required reserves have a minor effect.

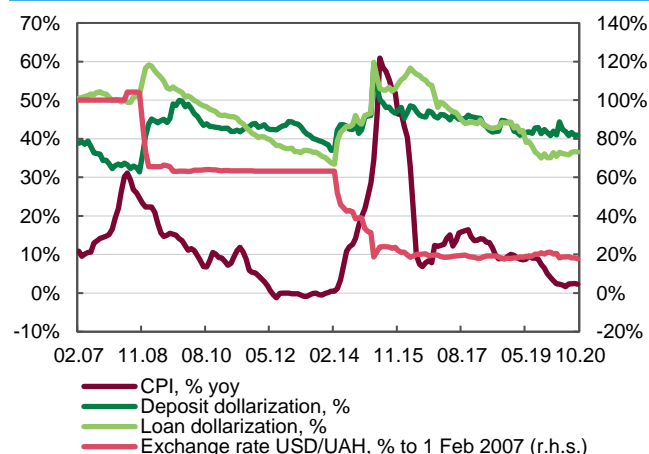
Loan loss provisioning was record low in 2019, with related expenses accounting for only 1 pp of the NIM. As credit risk rose in 2020, provisions increased slightly. In the near future, this component may grow and put pressure on profitability. Given the overall level of credit risk, provisioning expenses are unlikely to decrease.

The difference between interest margin and incurred expenses determines banks' profitability. Banks have retained 1–2 pp of the NIM for the past two years. Further decreases in loan interest rates will additionally encourage banks to improve their efficiency in order to prevent the margin from declining.

3.6. Dollarization Risk

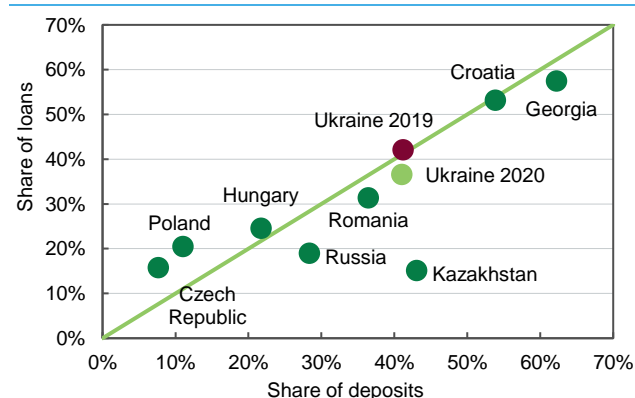
In 2020, FX risk did not materialize, while the dollarization rate continued to trend lower despite the crisis. Depositor's preferences also changed gradually: despite the falling interest rates on hryvnia deposits and the interest rate differential between hryvnia and FX deposits hitting an all-time low, customers preferred to save in hryvnia. With weaker demand for FX loans and record low yields on domestic government FX debt securities, the opportunities for banks to invest FX funds are narrowing. The imbalance between the share of FX funding and opportunities to invest it is therefore growing. This will encourage banks to de-dollarize their balance sheets further. Should favorable macroeconomic conditions persist, the share of hryvnia assets and liabilities will rise.

Figure 3.6.1. Banking sector dollarization rate



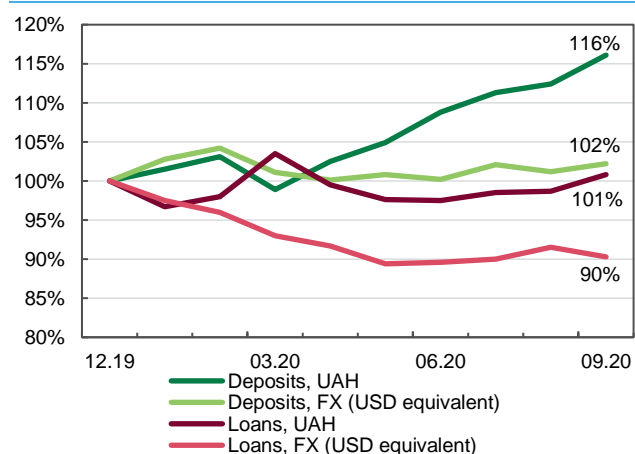
Source: NBU, SSSU.

Figure 3.6.2. Dollarization of loans and deposits as of 1 October 2020



Source: ECB, NBU, national central banks.

Figure 3.6.3. Change in deposits and loans, by currency, 1 January 2020 = 100%



Source: NBU.

Despite decreasing, dollarization remains a systemic risk for the banking system

The dollarization rate of banks' balance sheets has hovered near 40% for a long time, being at least double the natural rate for Ukraine²¹. The coronavirus crisis had no adverse impact on this indicator, as, for the first time ever, it was not accompanied by uncontrolled hryvnia depreciation. Since the start of the coronavirus pandemic, the hryvnia exchange rate has fluctuated only moderately under the influence of market factors, falling by 12% against the US dollar in the first nine months of the crisis. As a result, in contrast to previous crises, banks incurred no substantial losses because of the high dollarization of their balance sheets. What is more, the relative exchange rate stability staved off the statistical effect of higher portfolio dollarization. In the past, this indicator was very volatile due to the revaluation of assets and liabilities to match a new exchange rate.

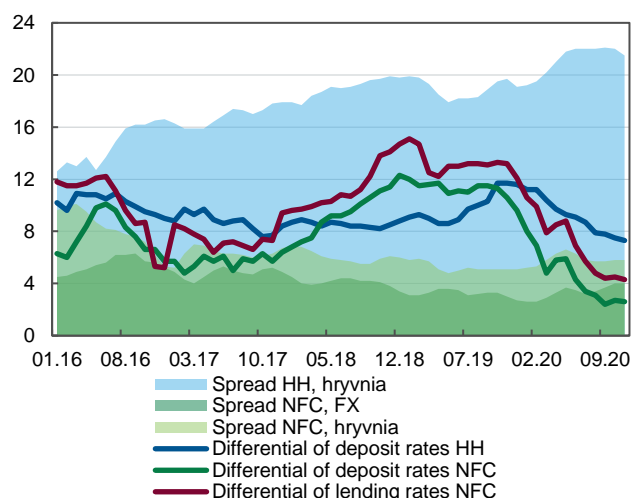
On the eve of the crisis, financial institutions were generally more prepared to withstand potential FX market shocks, which ultimately did not materialize. More specifically, they for the most part had balanced FX positions, were guided by conservative prudential restrictions, and had their market risk arising from open FX positions covered by capital. In addition, a number of banks succeeded in cutting their dollarization rate in recent years, and this trend will continue. Contributing to it is the radical change in depositors' behavior. Despite the sharp drop in interest rates on hryvnia deposits and record low interest rate differential between hryvnia and FX deposits, customers continue to prefer hryvnia deposits. This phenomenon has macroeconomic underpinnings. In particular, inflation remains low and under control, balanced macroprudential policy enhances the financial system's resilience, and effective tools for hedging FX risks are arising in the market.

Reduced options to invest FX funds is to promote de-dollarization

With the broad decline in interest rates and receding risks of sharp hryvnia devaluation, hryvnia loans are growing more attractive for borrowers. Corporate demand for hryvnia loans is rising much more rapidly than that for FX loans. At the same time, FX lending to households has remained banned since 2009. All this caused a fundamental shift in preferences as to the lending currency of choice, which banks need to take into account. The coronavirus crisis only strengthened this trend. Since the quarantine was imposed, the FX loan portfolio has contracted by 8%. Banks also tightened their

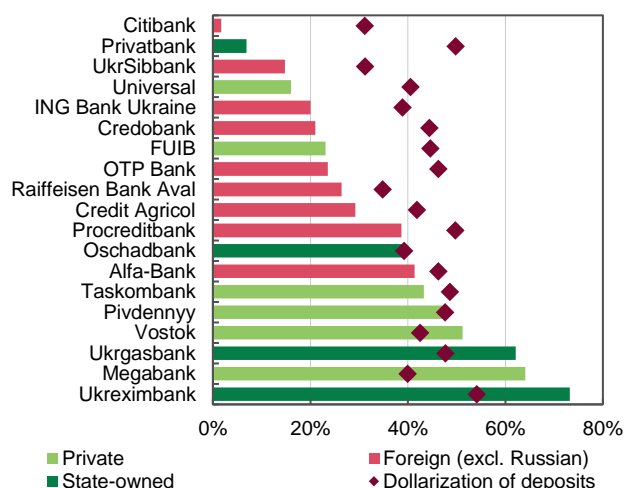
²¹ Khvedchuk, K., Sinichenko, V., Topf, B. (2019). [Estimating a Natural Level of Financial Dollarization in Ukraine](#). Visnyk of the National Bank of Ukraine, 247, 38-44.

Figure 3.6.4. Spreads* between loan and deposit rates and hryvnia and FX interest rate differentials, pp



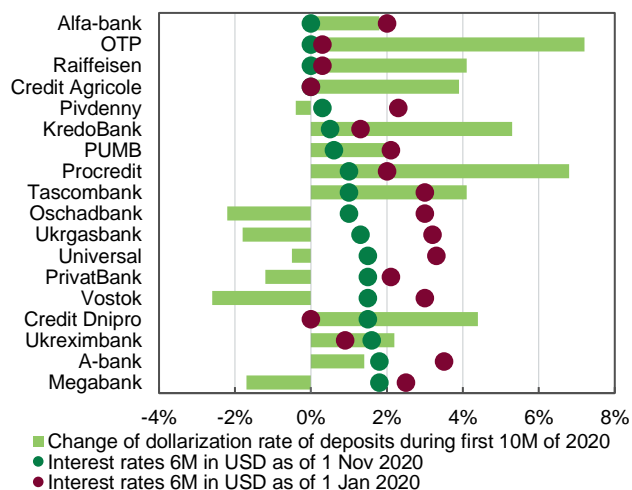
* Moving average for last three months.
 HH – households, NFC – Non-financial corporations.
 Source: NBU.

Figure 3.6.5. Dollarization rate of net loan portfolio, by bank*, as of 1 November 2020



* Top 20 banks, except Russian-owned.
 Source: NBU.

Figure 3.6.6. Bank deposit rates*



* Top 20 banks except for Russian banks taking retail deposits.
 Source: NBU, bank websites.

requirements for borrowers, approving fewer applications for FX loans.

In addition, interest rate spreads for FX loans have for a long time been narrower than those for hryvnia loans. This means that banks on average earn less on FX lending. Investing in domestic government FX debt securities has for a long time been an attractive alternative. However, yields on these securities have also dropped to historical lows. As a result, the risk-return ratio of FX assets has substantially increased for banks in recent years. With limited opportunities to invest their FX funds, banks are forced to keep the bulk of them in correspondent accounts abroad, generating no income.

Banks are discouraging FX deposits to minimize balance sheet imbalances

Mismatches between FX deposits and loans are more common for foreign banks. This is why these banks at times discourage new deposits by setting zero rates. Despite that, their FX funding base remains stable or is even increasing, as their credibility in the eyes of customers becomes the winning consideration in the environment of low interest rates. Selected banks with Ukrainian capital are facing the opposite situation. Despite offering higher interest rates on FX deposits, most of them are seeing their FX funding contract. Meanwhile, FX loans continue to account for a considerable share of their loan portfolios.

The high required reserve ratio also affects the cost of FX deposits. It totals 10% for FX loans, compared to 0% for hryvnia loans. After attracting FX liabilities, banks are thus required to keep the hryvnia equivalent of a tenth of the raised amount in a correspondent account with the NBU. In some cases, the interest banks pay on these deposits exceeds their investment income.

Banks should optimize their interest rate policies and funding strategies

Banks need to make sure that the volume of FX funding raised is commensurate with the opportunities to deploy it. They should also take into account future regulatory changes, in particular the introduction of risk weights for domestic government FX debt securities. Banks with limited opportunities to invest FX funds should adjust their FX deposit rates accordingly.

Overall, the lasting macrofinancial stability and change in preferences demonstrated by depositors and borrowers will extend the natural de-dollarization trend of banks' balance sheets. This obviates the need for any additional macroprudential restrictions for the time being. That said, the NBU will keep intact the existing restraints, such as elevated required reserve ratios for certain FX liabilities.

3.7. Changes in the Regulatory Environment

In H2 2020, the Ukrainian parliament passed laws aimed at achieving the full-fledged development of capital markets and the protection of microcredit consumers. At the same time, the extension of the moratorium on foreign-currency mortgage foreclosures has put on hold the resolution of these bad debts, and will restrain the recovery in mortgage lending next year. The NBU has updated the schedule for implementing new regulations for banks, and started to develop and implement new regulations for the nonbank financial services market.

Setting the regulatory framework for capital markets and for their infrastructure development

The law on simplifying the attraction of investment and implementing new financial instruments (No. 738-IX) came into force in August 2020. The law set out the fundamental regulatory framework for the market of securities and derivatives. It introduced new types of securities: bank certificates of deposit, green bonds, option certificates, depositary receipts, etc. The law resets the rules in the stock and commodity markets and promotes widening of the range of financial services, the development of the corporate bond market, and ensuring conditions for effective protection of bondholders' rights.

Strengthening the protection of microcredit consumers' rights

In September 2020, the parliament of Ukraine approved a law (No. 891-IX) that widens the range of loans covered by the law *On Consumer Lending*. After the law comes into effect in early 2021, loans with maturity of less than one month and loans under one minimum wage will be considered consumer loans. Previously, these loans were not covered by the law. Under such agreements, the amount of fines and penalties charged in case a consumer default is limited to double the amount of the loan. The law prohibits lenders from raising the interest rate on such loans, and regulates the submission of information about them to the Credit Bureau.

Extending the moratorium on foreclosing property provided as collateral for foreign currency loans

Law No. 895-IX extended the moratorium on FX mortgage foreclosure and on assigning claims on such loans until 21 April 2021. This will restrain growth in mortgage lending.

Introducing requirements for banks to disclose information about the services they provide, and their cost

From 1 September 2020 onward, banks are required to provide complete information about consumer loans and retail deposits on their websites in a single format. First of all, banks must indicate real annual interest rates on loans, including the cost of additional services (services of an insurance company, a state registrar, a notary, and an appraiser) if the bank requires a borrower to receive these services; the term of the service; the estimated total cost of the loan and the repayment schedule; a warning about the possible consequences in the case of loan repayments being overdue; conditions for the early withdrawal of deposits; etc.

Implementing the SREP procedure

In October 2020, the NBU started to apply a single procedure and methodology for the Supervisory Review and Evaluation

Process, the SREP. The regulator will no longer use the CAMELSO rating system to assess banks' operations. The SREP methodology, which comprises CAMELSO components, is based on risk assessment, taking into account an analysis of a bank's current condition, strategy, business model, and development plans. The evaluation will be held annually as of 1 January, but the supervisory process itself is continuous.

Simplifying procedures for licensing and approving bank top managers

In August 2020, the NBU simplified the procedures for approving the top managers and charters of banks, and implemented the procedure for revising decisions on recognizing owners of a qualifying holding. In particular, it widened the list of grounds for the NBU qualification commission to interview bank top managers as part of the approval procedure. From now on, the interviews will be mandatory for all bank top managers if:

- The bank's business model and/or corporate governance and internal control arrangements are deemed as posing a high risk to the bank's viability.
- The top manager has never been approved by the regulator or has not been approved within the past five years.
- The bank is systemically important.

Updating the regulatory framework for application of corrective measures

In October 2020, the NBU implemented new legislative requirements and provisions of international standards in financial monitoring (AML). The amendments provide for:

- a gradual transition from using the instrument of "risky activities in the area of financial monitoring" to assessing the adequacy of risk management systems. In particular, the NBU set a single attribute of risky activity with regard to financial monitoring: a bank failing to take sufficient measures to prevent and counteract the legalization (laundering) of proceeds from crime and terrorism financing;
- envisaged the possibility of concluding a written agreement if a bank violates the AML legislation. From now on, monetary liability is a mandatory condition for concluding any written agreement with a bank. The minimum amount of a bank's monetary liability is 1,000 tax-free minimum incomes of an individual. For financial monitoring agreements the monetary liability will be 25% of the estimated amount of a fine, if the estimated fine equals or exceeds UAH 2 million;
- envisaged the possibility of revising the amounts of fines on banks for breaching AML legislation, as well as the types of such violations.

Implementing a new procedure for financial monitoring (AML) by non-bank institutions

The new AML procedure (Resolution No. 107) takes into account the specifics of the non-bank financial sector. Some requirements for NBFIs are simplified compared to the requirements set for banks, in particular:

- It is recommended that most institutions have an automated AML system, but it is mandatory only for payment systems that provide online money transfers.
- NBFIs assess customer risk under a simplified procedure, which includes the possibility of assessing customer risk on a group basis.
- Insurance companies need to take special actions to perform due diligence of customers and beneficiaries using the risk-based approach.
- NBFIs do not need to seek NBU approval for their candidates for the position of AML officer. The AML officer may hold multiple jobs and combine positions.

The new procedure also covers remote customer identification and verification. The full-scope verification models are: using NBU BankID, qualified e-signatures, video transmission, and verification using the *Diia* public services online portal.

Improving regulation of the e-money market

The new rules stipulate the need to identify the users of e-money, setting new limits on e-money transactions, tightening requirements for e-money issuing banks with regard to the control over commercial agents, and strengthening the protection of the rights of e-money users. For identified and verified e-wallet users, the NBU lifted the restrictions set previously on the amounts of e-money settlements and transfers. A maximum amount of UAH 400,000 can be held in a replenishable e-wallet, and UAH 5,000 in a nonreplenishable e-wallet. The changes took effect on 15 September 2020. Banks have six months to bring their operations in line with the new requirements.

Improving operational risk management procedures for payment infrastructure entities

The NBU has developed guidelines for payment infrastructure entities on managing operational risk and storing customer information. The guidelines take into account up-to-date approaches to ensuring the cyber resilience of financial market infrastructure, and regulate procedures for detecting threats and reducing their impact on prompt recovery.

Updating the Macroprudential Policy Strategy

Taking into account current macroeconomic conditions and in view of the implementation of the SPLIT project, the NBU has revised risks to financial stability and updated its plans to introduce and apply macroprudential instruments. In particular, the policy focus now also comprises risks of the non-bank financial sector. NBFIs currently carry no systemic risk, as their interconnectedness with other financial and nonfinancial institutions is weak and they are relatively small in size.

Defining the methodology for evaluating municipal bonds as potential collateral for refinancing loans

In August 2020, the NBU approved the approach to determining the fair value of municipal bonds that can be included into a collateral pool for refinancing loans. The evaluation of such securities will take into account their inherent credit risk, which is strictly limited by the Budget Code of Ukraine. Including these bonds into a collateral pool will provide banks with more tools to manage their liquidity, encouraging the development of regional infrastructure projects and the securities market as a whole.

Expanding the list of eligible collateral for emergency liquidity assistance loans

From now on, the eligible collateral for emergency liquidity assistance includes property rights under loan agreements with legal entities, both in hryvnias and in foreign currencies (the US dollar and the euro), with lower adjustment coefficients. The list of eligible collateral also now includes property rights under loan agreements with legal entities that belong to class five (instead of class four as before).

Changing the procedure for deducting the value of noncore assets from bank capital

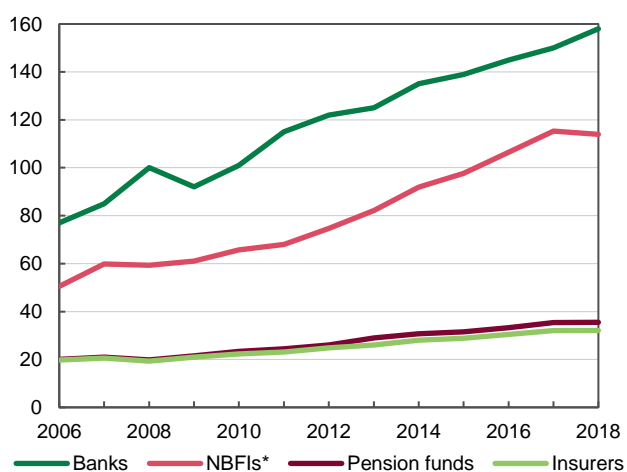
From January 2021 onward, banks are required to reduce their capital by 25% of the value of noncore assets retained on their balance sheets for an extended period of time. This is mainly residential and commercial real estate recovered as loan collateral. Considering the adverse effects of the coronavirus crisis on the real estate market, the NBU has extended from one to three years the period banks may retain the property on their balance sheets without making any deductions from capital. In fact, banks could not sell recently received assets obtained before the onset of the crisis. In 2022, financial institutions will return to the normal schedule for deducting noncore assets value: in two years for residential real estate, and in one year for other assets.

Part 4. Non-Banking Sector Conditions and Risks

4.1. Systemic Risks Arising from Nonbank Financial Sector

This year, non-bank financial institutions have been assigned new regulators, the NBU and the National Securities and Stock Market Commission. Both these regulators will carry out micro-prudential supervision going forward, with a view to ensuring the sustainability and transparency of each financial institution. Moreover, the NBU, which has a mandate to promote financial stability, conducted an analysis to identify any systemic risks in this segment. Non-bank financial institutions currently pose no systemic risk due to their small size, low interconnectedness with one another and with banks, and the specifics of their business models. Nevertheless, the NBU will continue to monitor sector developments and, if required, deploy macroprudential tools in order to prevent systemic risks in the financial system from building and materializing.

Figure 4.1.1. Total global financial assets, USD trillions



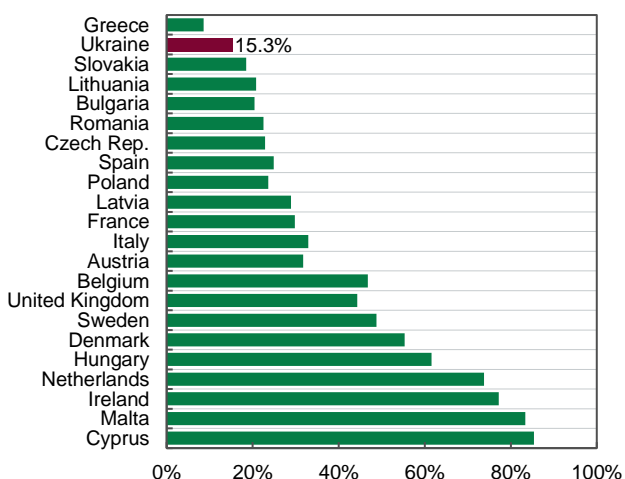
* Non-bank financial institutions except insurers and pension funds.

Source: Financial Stability Board.

Non-bank financial sector is actively developing globally

Banks have traditionally served as the main intermediaries in the financial sector. However, technological advances, deregulation and globalization increased competition and helped non-bank financial institutions (NBFIs) enter the market and grow, especially in developed countries. Non-banks have an important competitive advantage: in contrast to “overregulated” banks, they mostly operate without having to comply with strict requirements. However, their operations were closely related to those of banks, leading to strong interconnections among the actors. As a result, risks that built up on the balance sheets of some institutions spilled over to others, thus becoming systemic risks. It was the significant interconnectedness between financial institutions and lack of regulatory oversight that generated considerable losses for the financial sector during the 2008 crisis. Following the crisis, regulators imposed overall stricter microprudential requirements for NBFIs and their market conduct. In addition, regulators have since placed a particular emphasis on systemic risk.

Figure 4.1.2. Non-bank financial sector* in European countries as of 1 July 2020



* Calculated as a share of the financial system's total assets. Total assets include the assets of central banks, depository corporations, and other financial intermediaries.

Source: Eurostat, NBU.

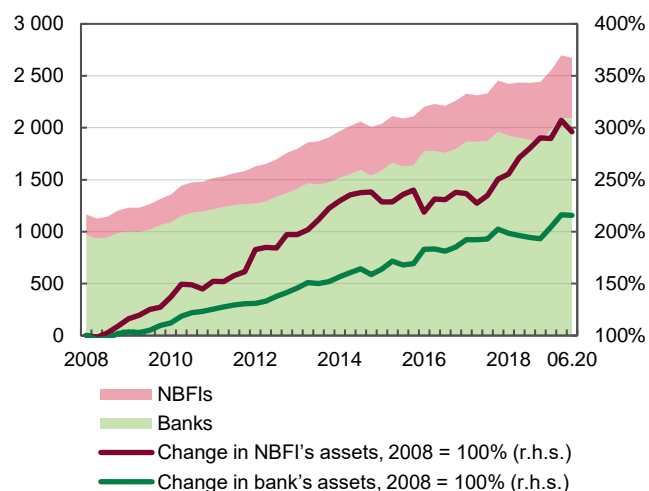
Systemic risk means that all or part of the financial system could be damaged, to the extent threatening its proper operation. The experience of the 2008 crisis demonstrated that NBFIs can also play a role in generating systemic risks. Factors leading up to this include a significant increase in their share of the system, often disguised as off-balance sheet transactions, their growing interconnectedness with other financial institutions, and laxer regulatory requirements applied to them. In this light, the European Systemic Risk Board recommended applying macroprudential tools to some NBFIs, thus recognizing their significant impact on financial stability²².

Until recently, regulation of NBFIs was not sufficiently effective

For a long time, the former National Commission for State Regulation of Financial Services Markets (NSSMC) failed to pay proper attention to NBFIs. The relative softness and obsolescence of regulation and supervision tools led to a build-up of risks and undermined the sector's transparency. NBFIs were also sometimes used to redistribute funds among business groups and for tax evasion purposes. The so-called “SPLIT” reform, which provided for reallocating the functions of the NSSMC between two other regulators, aims to boost

²² [Macprudential policy beyond banking: an ESRB strategy paper, July 2016.](#)

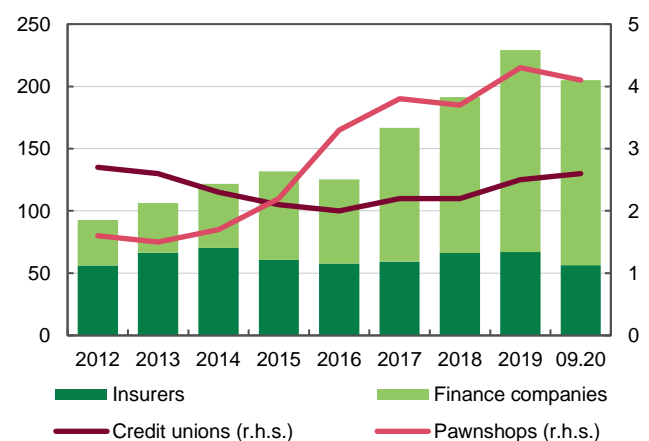
Figure 4.1.3. Ukrainian financial sector assets, UAH billions



* Based on quarterly financial accounts.

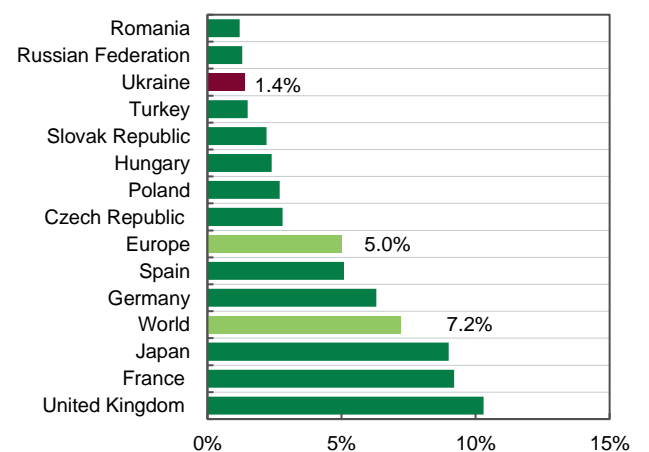
Source: NBU.

Figure 4.1.4. Assets of non-bank financial institutions under NBU regulation, UAH billions



Source: NBU.

Figure 4.1.5. Ratio of insurance premiums (life and non-life) to GDP in 2019



Source: Swiss Re, Statista.

the transparency of the sector, eliminate potential regulatory arbitrage, and create a system of proportional regulation of the non-bank market. From now on, the NBU is charged with regulating finance and insurance companies, credit unions and pawnshops, while the NSSMC became responsible for regulating construction financing funds and collective investment vehicles.

NBFI assets are too small to generate systemic risk

Though not decisive, size is still a reasonably important factor of the emergence of systemic risk in a segment. NBFIs' asset share of the Ukrainian financial market, which historically never exceeded 25%, shrank recently due to their slower growth compared to banks. NBFI assets enjoyed the strongest growth in 2010–2012, sometimes at 25% annually. The expansion naturally slows during crises.

Collective investment vehicles (CIVs) account for a large share of NBFI assets. But unlike the worldwide pattern of CIVs financing the real sector, in Ukraine they mainly redistribute cash flows for tax optimization and serve other purposes not related to financial intermediation. The rapid expansion CIVs enjoyed after 2008 was due to tax preferences. The limited role of CIVs is evidenced by the low share of financial instruments and high share – over 60% – of receivables in their assets.

Among the companies supervised by the NBU, finance companies have the largest assets. They account combined for about 4% of total financial system assets. Corporate loans constitute a significant share of their assets, which could indicate that finance companies are involved in supporting intragroup transactions. At the same time, finance companies fund less than a tenth of total household debt. Thus, they play only a moderate role in financing the economy.

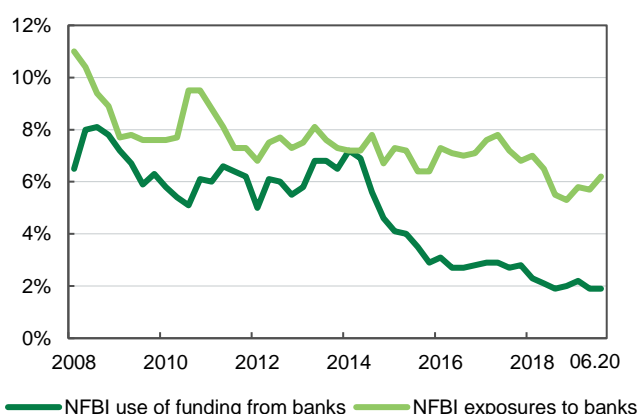
The second largest segment is that of insurance companies. The number of insurance companies as well as their assets have been shrinking lately. Exiting the market were mostly companies that did not provide services to households. Many of those companies were in the internal reinsurance business. The penetration of insurance services is low: in 2019, insurance premiums accounted for only 1.4% of GDP, of which life insurance premiums made up only 0.14%. In this regard, Ukraine differs from most European countries where these percentages are several times higher.

Other NBFIs account for less than 1% of financial sector assets. Therefore, the rather small size of the non-bank financial sector and limited penetration of its services point to the absence of risks that could be classified as systemic.

Low interconnectedness of non-banks also reduces systemic risk

High interconnectedness of financial institutions is a key factor of systemic risk. However, at present this is not the case in the Ukrainian market. The strongest ties are currently between insurance companies and banks, as insurers keep a significant share of their assets in bank accounts. At the same

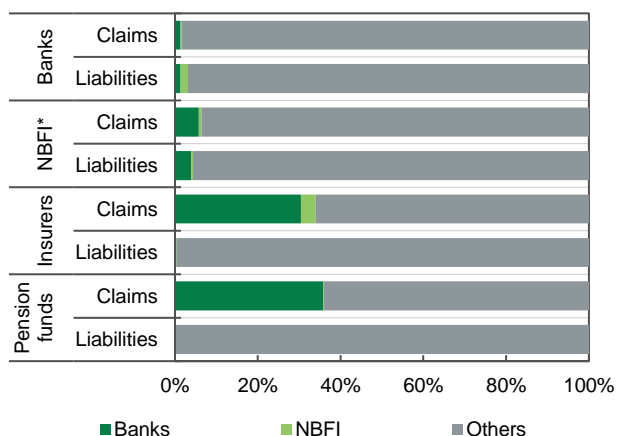
Figure 4.1.6. Interconnectedness between NBFIs* and banks, % to NBFIs' financial assets



* Non-bank financial institutions regulated by the NBU and NSSMC (based on quarterly financial accounts).

Source: NBU.

Figure 4.1.7. Interconnectedness between banks and non-banks as of 1 July 2020



* Non-bank financial institutions, including insurers and pension funds.

Source: NBU.

Table 5. Available macroprudential tools that might apply to financial institutions

Instrument	Banks	Credit unions	Finance comps	Insurers
Capital buffers:				
countercyclical	Introduced / legally bound to be introduced			
capital conservation	Introduced / legally bound to be introduced			
systemic importance	Introduced / legally bound to be introduced			
systemic risk	Introduced / legally bound to be introduced			
Liquidity requirements	Introduced / legally bound to be introduced			
Requirements to assets	Introduced / legally bound to be introduced			
Borrower-side caps (LTV, DSTI)	Introduced / legally bound to be introduced			
Recovery plans	Introduced / legally bound to be introduced			
Caps on exposure concentration	Introduced / legally bound to be introduced			
Stress tests	Introduced / legally bound to be introduced			

Legend:
■ Introduced / legally bound to be introduced
■ Intended to apply later
■ May be deployed in a longer run

Source: NBU.

time, excessive deposit concentration in a single bank is limited by regulatory requirements mandating that deposits be diversified. Insurers' deposits are of limited significance for banks, as they account only for 1% of banks' total liabilities. The interconnectedness between banks and insurers through loans that need to be insured is also low.

The non-transparent ownership structure of some NBFIs makes it impossible to accurately identify sources of their funding. However, it is unlikely that funding comes from banks, in view of their conservative risk management procedures. Imposing stricter requirements on NBFIs to disclose their ownership and funding structures will enable the NBU to more accurately identify interconnectedness channels.

NBFI activities pose no systemic risks

Non-banks are less likely to generate systemic risks compared to banks because:

- their funding is mostly longer-term and more predictable. Non-depository financial institutions are mainly financed by statutory capital or long-term loans, with their on-demand liabilities being insignificant. This is why their liquidity risk is lower than that of depository institutions.
- the correlation between risks and macroeconomic conditions is lower. For example, the main risk faced by insurance companies – underwriting risk, which refers to underestimation of losses from insured events – is unrelated to macroeconomic indicators, and therefore seldom materializes concurrently with other financial risks.
- they less often perform unique critical functions for the market, which makes it easier to substitute them. The disappearance of one microcredit institution from the market is offset by the availability of others. NBFIs seldom serve as key lenders to industries or regions. In addition, these institutions rarely depend on the stability of other institutions, having no equivalent of the interbank market.
- the concentration of their operations is low, and a NBFI growth is likely to promote risk diversification.

Therefore, NBFIs currently pose no systemic risks due to the peculiarities of their operation, their small assets, and their low interconnectedness between each other and with banks. Of course, this may change over time. The NBU will therefore work on a constant basis to identify any risks in the non-bank sector. If NBFIs start to pose threats to financial stability, the NBU may respond by deploying macroprudential tools. This is explained in greater detail in the [Macroprudential Policy Strategy](#) which the NBU updated due to the SPLIT. The principle of applying such tools will be functional, meaning that the NBU will use the instruments it finds appropriate for a financial institution's line of business. For example, the NBU may limit a lender's ability to lend to those households that do not have sufficient income to service their debt.

Box 9. Non-bank Lending to Households During Coronavirus Crisis

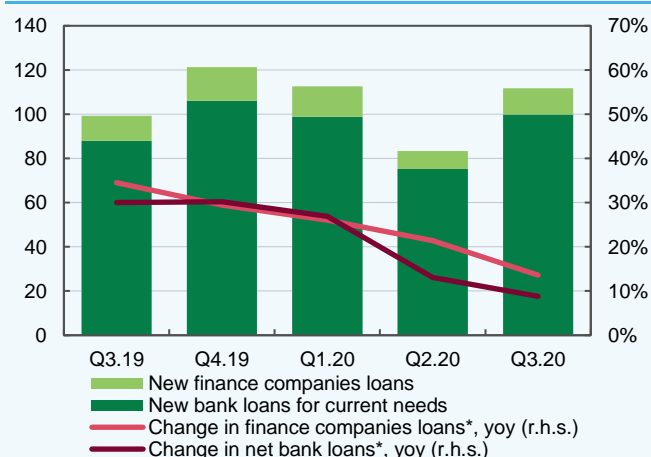
The onset of the economic crisis and associated deterioration of borrowers' solvency increased the risk that lending could migrate from banks to the non-banking sector. However, this risk did not materialize in Ukraine during the coronavirus crisis, as lending by non-bank financial institutions decelerated. As most loans were short-term and repaid steadily, this segment's loan portfolio shrank noticeably. Some financial institutions tightened their requirements for borrowers, while others were limited in their ability to operate during the quarantine. Demand for their services also fell. As a result, non-bank institutions' share of total household loans remained unchanged.

Retail lending in Ukraine grew very rapidly for a long time. Both bank and non-bank lending portfolios were on the rise, expanding by about 30% yoy in early 2020. As most loans are short-term, they turn over very rapidly. Household lending is the main line of business for many finance companies.

The clients of finance companies are often borrowers who need money urgently, have no time to go to a bank, and are ready to pay a higher interest rate. People with poor credit histories or low solvency, whose loan applications are rejected by banks, comprise another sizable customer group. People often borrow from non-bank lenders in order to repay previously obtained loans, including those from banks. The onset of the crisis and deteriorating solvency of borrowers increase the likelihood of customers moving between the sectors.

However, as became evident in recent months, this was not the case. As the crisis began, household [demand for consumer loans](#), both from banks and non-bank institutions, fell dramatically. The number of search queries for online loans proves it. The fall in demand had a palpable impact on lending by finance companies. Their portfolio dropped by 11% in Q2, while the amount of issued loans almost halved compared to Q1. The decline was even more pronounced than that reported by the banks.

Figure B.9.1. Retail lending, UAH billions



* Change at the end of the period.

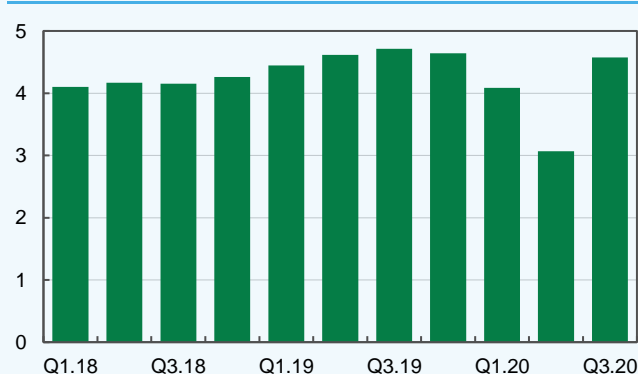
Source: NBU.

Finance companies also responded to changes in the macroeconomic conditions and households' solvency caused by the crisis. Some companies substantially tightened their

borrowing requirements. In addition, public awareness about the terms of non-bank loan offerings, in particular their high cost, increased in recent years. This also partly deterred people from running up undue debts during the crisis. Therefore, according to market participants, the quality of the loan portfolio did not deteriorate significantly during the crisis.

Household lending by pawnshops also slowed, falling by 12% qoq in Q1 before plunging by 25% qoq in Q2. Growth in new loans recovered in Q3 only. Likewise, credit unions were not active lenders to households during the pandemic. Credit unions' activity was severely constrained by a ban on serving customers at branches, which was imposed at the start of the quarantine. Moreover, unlike finance companies, credit unions do not serve their clients online.

Figure B.9.2. Pawnshop's loans, UAH billions



Source: NBU.

Thus, the risk that lending may migrate to the non-bank financial sector during the coronavirus crisis failed to materialize. The share of non-bank lending even shrank during the strict lockdown phase, due to both falling supply and weaker demand from households. Most non-bank players are reinvigorating their lending activity quite rapidly, with their rates of growth even outpacing those at banks. However, banks will maintain their position in the consumer lending market due to the considerably larger volume of their operations and significantly higher solvency of bank customers compared to non-bank institutions' clients. In addition, in recent years, banks strengthened their competitive position thanks to the convenience of their services and a large number of ancillary services offered to the public.

Recommendations

Achieving financial stability requires both smooth cooperation among all financial market participants – including the NBU, banks, non-bank financial institutions, and other market regulators – and active support from state authorities. The NBU makes recommendations to government authorities and financial institutions, and communicates its near-term goals and plans.

Recommendations to State Authorities

Ensure meeting all conditions for cooperation with international donors

Ukraine has thus far managed to receive only USD 2.1 billion out of the IMF's USD 5 billion Stand-by Arrangement. In order to secure the remaining disbursements, which are needed to maintain financial stability and return to steady economic growth after the pandemic is over, Ukraine must meet all commitments it undertook under the current and previous programs. The commitments under cooperation programs with the World Bank and the EU must also be fully implemented. Overcoming the constitutional crisis, resuming judicial reform, and fighting corruption are the steps toward this goal.

Pass legislation aimed to promote financial sector development:

amendments to the **Law of Ukraine *On Banks and Banking*** (No. 4367), intended to improve the system of corporate governance and internal control at banks and further harmonize capital requirements with EU legislation, including changes to the capital structure. Furthermore, this bill clarifies certain provisions concerning the consolidated supervision of banking groups, bank licensing, approval of acquisition of a qualifying holding in a bank, and requirements as to bank ownership structures.

bill on payment services (No. 4364), aimed at bringing up to date the regulation of Ukraine's payments and transfers market and establishing a legal framework for integrating the Ukrainian payments market into the European market.

Update laws that regulate non-bank financial market

The NBU is finalizing the bills *On Financial Services and Finance Companies*, *On Insurance*, and *On Credit Unions*. They are aimed at ensuring relevant institutions' financial resilience, transparent ownership structure, and risk-based supervision, simplifying licensing procedures, implementing corporate governance standards that take into account the size of an institution, and introducing the concept of market conduct.

Resolve Deposit Guarantee Fund's solvency issue

In September, the Financial Stability Council approved the mechanism for restructuring debts of the Deposit Guarantee Fund (DGF), aiming at restoring its solvency and resilience of the deposit guarantee system. The Council recommended converting the DGF's current liabilities to the government and future interest payments into contingent liabilities. In addition, Oschadbank is expected to join the deposit guarantee system. Taking into account the set timelines (in particular, the restructuring to be completed by the end of 2021), efforts to implement the plan should be stepped up.

Strengthen regulation of primary real estate market

Financing schemes employed in the primary market remain complex and confusing, the market itself is extremely opaque, and there are still virtually no reputational requirements for developers. Investors' rights are constantly violated through postponing commissioning deadlines or freezing construction. Because of these factors, only less than 13% of mortgages finance purchases of newly built property. The reform of the State Architecture and Construction Inspection of Ukraine (SACIU) should be completed as soon as possible, and the system of construction controls should be put in order. Otherwise, obstacles to receiving permits and commissioning residential property will reduce supply in the market already next year. In its December 2019 Financial Stability Report, the NBU recommended to enhance transparency of the primary real estate market and strengthen protection of investors' rights.

The revival of mortgage lending in Ukraine is also being blocked by a number of other problems, particularly by prolonged and ineffective collateral recovery procedures, complicated registration of mortgages for families with underage children, limited access to information about the real estate market, and the extended moratorium on foreign-currency mortgage foreclosures.

Create conditions for transactions with agricultural land and using land as collateral in bank lending

Opening the agricultural land market next year requires a large-scale preparation. It is desirable to establish a specialized partial guarantee fund for agricultural loans. Guaranteeing loans to small and medium-sized agricultural producers by such a fund will reduce banks' risks and make it easier for farmers to take out loans for purchasing land and financing their production.

Recommendations to Banks

Many recommendations to banks made in previous financial stability reports remain relevant, namely those to actively work out nonperforming loans, maintain a conservative approach to assessing credit risk, reduce the dollarization of balance sheets, actively raise and retain more stable long-term funds, maintain proper lending standards, and control corporate borrower concentration levels.

Prepare for introduction of new capital requirements

In H2 2021, risk weights will be increased for unsecured consumer loans, and the NBU will start to implement the process for banks to assess the adequacy of internal capital and internal liquidity (ICAAP/ILAAP). The minimum requirements for capital to cover market and operational risk will take effect at the start of 2022. The NBU will also set the time frame for activating the capital conservation buffer and the buffer for systemically important institutions. According to preliminary estimates, the new requirements will not pose a problem for the majority of banks. At the same time, banks must adopt a conservative approach to managing their capital, in particular by refraining from paying out dividends in order to be prepared for the implementation of the new requirements. Moreover, banks must prepare and submit by 1 March 2021 recovery plans specifying realistic recovery measures in case of significant financial deterioration or distress.

Implement new liquidity standard and comply with it

On 1 April 2021, the Net Stable Funding Ratio (NSFR) will become a regulatory requirement. It will first be set at 80% and gradually raised to reach 100% in April 2022. The implementation of this requirement had been initially scheduled for early 2021 but had to be postponed to the following quarter in view of the increased operational burden on banks caused by the pandemic. Banks have been computing the NSFR in test mode since August 2020.

Reduce portfolio of nonperforming loans

Efforts to resolve nonperforming loans (NPL) have already yielded tangible results. In particular, state-owned banks stepped up efforts to work out their NPLs. Financial institutions need to proceed with cleaning up their balance sheets, including by adhering to the strategies and operational plans for NPL management and reacting to deterioration in borrowers' financial standing in a timely manner.

Recommendations to Nonbank Financial Institutions

The NBU will implement a proportionate and risk-based approach to the supervision and regulation of non-bank financial institutions. The NBU laid down its vision in the relevant White Papers for insurance undertakings, credit unions, finance companies, factoring, pawnshops, and financial leasing. The NBU plans to fundamentally revise the regulation principles for several of these segments. However, in the early stages, non-bank financial institutions should focus on the following areas:

- ensuring a transparent ownership structure;
- improving the quality of financial and statistical reporting;
- complying with anti-money laundering requirements;
- improving the quality of corporate governance and establishing the internal control system;

- for insurers: focus on ensuring proper asset quality and full compliance with solvency requirements;
- for credit unions: pay special attention to proper provisioning of NPLs and raising operational efficiency.

NBU Plans and Goals

Continue harmonizing banking regulations with EU legislation on capital and liquidity

- In H1 2021, the NBU will set new timelines for activating the capital conservation buffer and the buffer for systemically important institutions. The implementation of requirements to build these buffers was suspended in March because of the coronavirus crisis.
- In April 2021, the NBU will implement the NSFR as a requirement, setting it at 80% and then gradually raising the ratio by 10 pp every six months until it reaches 100%.
- In H2 2021, risk weights for unsecured consumer loans will be increased in stages, to 150% from the current level of 100%; banks will also start assessing, in test mode, the adequacy of internal capital and internal liquidity (ICAAP/ILAAP).
- On 1 January 2022, the minimum requirements for capital to cover market and operational risk will take effect, preceded by a period of test calculations.
- Starting in 2024, banks' capital structure will be brought in line with international standards. This will include the implementation of a three-tier capital structure; new requirements as to capital components and the procedure of capital deductions; the leverage ratio, setting capital adequacy requirements depending on total assets; and full-fledged implementation of ICAAP/ILAAP.

Update regulation and supervision of non-bank financial sector

The NBU has already discussed with market participants a number of key bills, work on them will continue in parliament. At the same time, the NBU is developing major bylaws on regulation and supervision of the non-bank financial market. In particular, the NBU is working on a regulation on inspecting nonbank financial institutions and amendments to the procedure for determining insurers' assets eligible for covering technical reserves. The regulator is to start assessing the overall financial standing of insurers starting 1 January 2021. It also plans to strengthen control over compliance with the minimum requirements and reporting quality of non-bank financial institutions.

Hold asset quality reviews (AQR) and stress tests of banks

Assessing the quality of assets will help determine whether banks accurately reflect the state of their loan portfolios and make provisions. It is important that the capital adequacy levels reported by banks reflect the reality and that banks duly recognize their actual and expected losses. The schedule for implementing new capital requirements may be adjusted taking into account the AQR and stress test results.

Update Regulation No. 351

In 2021, the NBU plans to implement new requirements for assessing specialized loans. The regulator will update the approach to project finance and also implement assessment rules for object financing and income-generating real estate financing. Moreover, it will propose a simplified approach to credit risk assessment for small loans.

Abbreviations and terms

AML	Anti-money laundering	Naftogaz	National Joint Stock Company Naftogaz of Ukraine
ATM	Automated teller machine / cash machine	NBFI	Non-bank financial institution
CCAR	Core capital adequacy ratio	NBU	National Bank of Ukraine
CDS	Credit default swap	NCA	Noncore assets
CIR	Cost-to-income ratio	NFC	Non-financial corporations
CIV	Collective investment vehicles	NSFR	Net stable funding ratio
COVID-19, COVID	Coronavirus disease 2019	NIM	Net interest margin
CPI	Consumer price index	NPE/NPL	Non-performing exposure / loan
DGF	Deposit guarantee fund	NSSMC	National Securities and Stock Market Commission
DSTI	Debt service to income ratio	OECD	Organization for Economic Co-operation and Development
EBA	European Banking Authority	O/N	Overnight (rates)
EBIT	Earnings before interest and taxes	OPEC	Organization of the Petroleum Exporting Countries
EBITDA	Earnings before interest, taxes, depreciation and amortization	OR	Operational risk
ECB	European Central Bank	Parliament	Verkhovna Rada of Ukraine (Supreme Council)
EM	Emerging markets	PM	Primary (real estate) market
EU	European Union		
FAO	Food and Agriculture Organization		
Fed	US Federal Reserve System	PrivatBank	Public Joint-Stock Company Commercial Bank "PrivatBank"
FX	Foreign currency/exchange		Regulation of the NBU of 30 June 2016 No 351 approving Regulation on credit risk calculation by Ukrainian banks
GDP	Gross Domestic Product	Regulation No 351	
ICAAP	Internal Capital Adequacy Assessment Process		
IFI	International Financial Institutions	ROE	Return on equity
IFRS	International Financial Reporting Standards	SME	Small and medium-sized enterprises
ILAAP	Internal Liquidity Adequacy Assessment Process	SREP	Supervisory Review and Evaluation Process
ILO	International Labor Organization	SSSU	State Statistics Service of Ukraine
IMF	International Monetary Fund	STSU	State Treasury Service of Ukraine
LCR	Liquidity coverage ratio	US	United States of America
LTV	Loan-to-value ratio		
th	thousand	yoy	year-on-year
mln	million	qoq	quarter-on-quarter
bn	billion	mom	month-on-month
sq. m	square meters	bp	basis point
EUR	euro	r.h.s.	right hand scale
UAH	Ukrainian hryvnia	Q	quarter
USD	US dollar	H	half-year
pp	percentage points	M	month