

## Key Performance Indicators of Ukrainian Economy and Financial Sector in 2019



↑ **3.2 %**

Real GDP  
growth



↑ **2.7 times**

UAH 59.6 billion

Banking sector  
profit



**4.1 %**

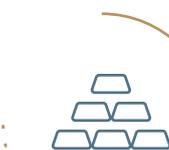
Inflation



↑ **18.5 %**

UAH 639 billion

Hryvnia deposits



↑ **21.6 %**

USD 25.3 billion

International Reserves



↓ **0.9 %**

UAH 608 billion

Hryvnia loans



↑ **9.8 %**

UAH 1,494 billion

Banking sector  
net assets



**9.7 %**

Cash outside banks  
to GDP



↑ **19.2 %**

UAH 150.3 billion

Banking sector  
regulatory capital



**50.3 %**

Cashless settlements  
within total card  
payments

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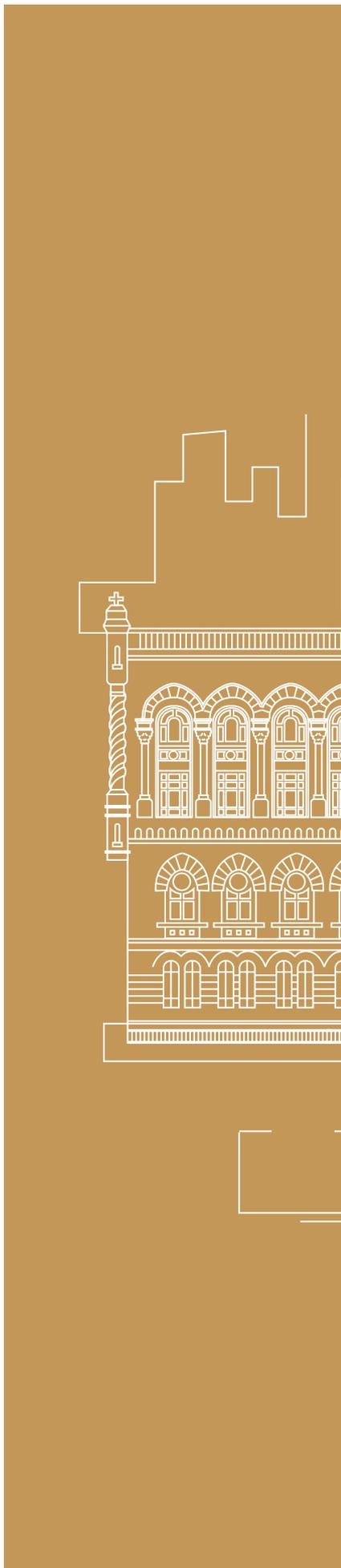
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## Governance

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## Address of the Governor of the National Bank of Ukraine



The Ukrainian economy and financial sector finished 2019 showing good health and strength. This is especially important now, at the beginning of 2020, when Ukraine, along with the rest of the world, is on the brink of a crisis due to the global pandemic of the novel coronavirus infection.

Ukraine entered this period at a time of economic growth and with the lowest inflation rate in six years. Last year, we achieved our medium-term inflation target of  $5\% \pm 1$  pp – a target set in 2015. Despite 2019 being a year of both presidential and parliamentary elections, which usually bring increased political uncertainty and affect economic indicators in any country, Ukraine achieved its inflation target even faster than expected. That became possible primarily thanks to the strengthening of the hryvnia amid macroeconomic stabilization, increased interest from foreign investors, and benign external markets. Notwithstanding the political cycles, the international community recognized our ability to be consistent in attaining price stability, as proven by the GlobalMarkets award.

Low and stable inflation allowed us to start a cycle of monetary policy easing in order to support economic growth without putting upward pressure on prices. In 2019, we cut the key policy rate from 18% to 13.5% per annum. Moreover, it is the current and future low rate of inflation that enables us to use monetary tools in order to support the economy in the difficult times of the COVID-19 pandemic,

without endangering our primary mandate of maintaining price stability.

The banking sector also started the crisis year in good condition. Undoubtedly, this is the result of many years of reform. The banking sector is healthy after having been cleaned up and revamped, and is prepared for potential difficulties thanks to the implementation of stress testing, risk-based supervision, and macroprudential policy. The banking sector was stable, reliable, and transparent in 2019. At the start of this year, the sector was well-capitalized, profitable, and highly liquid, and there were no bankruptcies on the market. The banks are active in issuing retail loans and are gradually resuming corporate lending.

We are convinced that, thanks to the banking sector's resilience, the sector will be able to maintain its good performance in 2020 despite the crisis. The temporary halt in economic activity is a challenge for the financial system. However, we expect no shocks to banks (neither their capital, nor liquidity will be affected) and even forecasts this great challenge to play an important role in rapidly getting the economy back on its feet after the end of the pandemic and the quarantine.

Last year was a special one for us, as we received new powers that will enable the central bank to be more effective in delivering financial stability in Ukraine. Already in 2020, we will regulate most of the nonbank financial market, raise financial literacy, and protect consumer rights in financial services. That is a breakthrough for the entire financial sector.

For five years already, our banks have been following global transparency standards and best practices of financial intermediation. At the same time, nonbank financial institutions operating in Ukraine were not covered by systemic regulation compliant with global standards. The communicating vessels principle applies to the financial market: if one of the vessels leaks, the whole system suffers. In the context of Ukraine, this means that the financial system could not be completely healthy. But we will change that. Together with the National Securities and Stock Market Commission, we will make the entire financial market more efficient, while fostering growth and profitability. In the meantime, the services of financial intermediaries will become



transparent and safe for end customers. We will prevent abuses, making the services more reliable in the eyes of consumers.

Since the start of 2020, we have had greater powers to protect consumer rights in financial services in practice, and not only on paper. It has received the respective powers to be able to influence the behavior of those market participants that violate the laws. We will protect consumer rights.

Also, we are taking a systemic approach to raising financial literacy in Ukraine. It has started a tour across the regions to present its Economic Express educational project, which aims to provide useful knowledge, practical skills, and first-hand information on the central bank's activities to individuals, businesses, teachers at economic universities, students, and journalists in Ukraine. And more will follow.

We have developed a vision of the Ukrainian financial sector until 2025. This vision, along with a detailed roadmap of specific steps, is outlined in the new Strategy of Ukrainian Financial Sector Development until 2025. We developed this document together with the Ministry of Finance of Ukraine, the National Commission for the State Regulation of Financial Services Markets, the National Securities and Stock Market Commission, and the Deposit Guarantee Fund. Our common goal is over five years to make the Ukrainian financial sector

efficient, resilient, and competitive. We will pursue this goal.

We have strengthened its engagement with its stakeholders. In particular, we are cooperating with the government and the parliament, aiming to provide as much expert support as possible when financial laws are being prepared. We are a partner to other state authorities. It maintains dialogue with the financial and business community, giving priority not only to providing information, but also to receiving feedback. We succeeded in that last year, as were proven by winning the 2019 Business Community Award of the American Chamber of Commerce. We bank share our analysis with experts, researchers, and the wide public under NBU Expert Platform project. Our money museum is always glad to welcome visitors to its exhibitions, dedicated to the history of the hryvnia and the central bank's activities. We communicate with Ukrainians living in the regions. We adhere to high standards of transparency in our interactions with the media, since transparency is one of our main values as a central bank and a state institution. We represent Ukraine at high-level forums and meetings of financial experts and central bankers and share our experience.

I can rightfully say that the NBU has set high standards for partnership and transparency, so now I would like to invite you to learn about how we did it.

**Yakiv Smolii**



## Address of the Chairman of the National Bank of Ukraine Council



Ladies and Gentlemen,

In general, the Ukrainian macroeconomic environment was benign in 2019: economic growth was about 3.5% (according to NBU data), the state budget deficit was below 2% of GDP, the ratio of debt to GDP almost fell to a level below 50%, the current account deficit narrowed to a reasonably safe level of 3% of GDP, while the hryvnia took the lead in strengthening among the currencies of developing economies.

The NBU's inflation target is  $5\% \pm 1$  pp, as set forth in the monetary policy guidelines for 2019, which the NBU Council approved in September 2018. The actual figure was 4.1%. Therefore, in the reporting year, the inflation rate came close to the lower bound of the target band approved by the council, and could go below this bound next year.

Over the year, the NBU Council stressed that an inappropriately tight monetary policy, in a time when actual inflation figures are below the target, could pose a real threat to continued GDP growth and to the level of revenues

to the state budget. Cutting the key policy rate slowly when inflation is low makes it difficult to issue hryvnia loans to large companies.

It should be noted that disputes about the causes and consequences of the NBU's excessively tight monetary policy, amid insufficient economic growth, constantly surrounded the regulator's activities, sometimes leading to conflicts in the public sphere. This provides yet more proof that the central bank needs to improve its communications policy further. That is why in 2020 the council will help the NBU Board to improve its communications with the market.

Overall, the council has 20 statutory powers and tasks in overseeing the conduct of monetary policy and supervising internal controls. Article 25 of Ukraine's Law on the National Bank of Ukraine stipulates that control over the conduct of monetary policy will be exerted by using the tools and methods of monetary policy. The NBU Council exercised most of the powers that the above law granted it.

On recommendations made by the NBU Council, the central bank's Board revised its procedures for building up and using equity reserves. As result, UAH 2.1 billion was freed up in 2017, and UAH 5.2 billion in 2019, which had a direct impact on the revenues of Ukraine's state budget. In addition, the NBU Council helped optimize the estimates of administrative expenses: estimates for 2017 were cut by UAH 300 million; for 2018, by UAH 1.4 billion; for 2019, by UAH 600 million; and for 2020, by UAH 500 million.

That said, the council's actions in no way restricted the financial independence of the regulator – the NBU Board had sufficient financial resources it needed to perform its functions, implement relevant programs, and pay decent wages to the bank's employees.

**Bohdan Danylyshyn**



## Board of the National Bank of Ukraine



**Yakiv Smolii**

NBU Governor

Governor of the National Bank of Ukraine (NBU) since 15 March 2018, Acting Governor of the NBU from 11 May 2017 to 15 March 2018, First Deputy Governor of the NBU since October 2016.

Yakiv Smolii has worked in Ukraine's banking sector for more than 28 years, ever since it was established when the country gained independence. In 1991–1994, he served at the NBU's regional branch in the Ternopil oblast. Until 2005, he served as deputy board chairman of the Aval Bank postal-pension stock company. From 2005 till 2014, he served as director of the banking business at the Prestige Group association.

He graduated from the Ivan Franko National University in Lviv with an advanced degree in applied mathematics. He holds a Ph.D. in economics.



**Kateryna Rozhkova**

First Deputy Governor

Kateryna Rozhkova oversees banking supervision, registration and licensing, and financial monitoring of the banking system.

Kateryna Rozhkova has been working in Ukraine's banking system for 22 years. For more than 14 years, she held management positions as deputy chair and board member. She served as advisor to the chairman of the board at Erste Bank PJSC, deputy chair of the board at Finbank PJSC, and acting chair of the board at Platinum Bank PJSC. In 2009, she chaired the NBU's Off-Site Supervision Department for half a year. Between 10 June 2015 and 18 January 2016, she held the position of director of the Banking Supervision Department at the NBU. Up until June 2018, Kateryna Rozhkova was a deputy governor of the NBU.

Kateryna Rozhkova graduated from Kyiv National Economic University with a major in Finance and Credit in Bank Management. She also holds a degree in International Business Management (MBA) from the International Institute of Management (IMI–KYIV).



**Roman Borysenko**

Deputy Governor

He administers finance, operations, human resources, nonperforming asset management and administrative support for the NBU.

Roman Borysenko has worked in Ukraine's banking system for more than 18 years. From 2001 to 2014, he worked at Raiffeisen Bank Aval where he started his career as an economist and reached the position of deputy director and head of human resources.

He joined the NBU in 2014 as Director of Personnel Department. From August 2016, he was acting deputy governor of the NBU. Deputy Governor of the NBU since October 2016.

He earned a degree in banking from the Ukrainian Academy of Banking of the National Bank of Ukraine in the city of Sumy.



**Dmytro Sologub**

Deputy Governor

Dmytro Sologub is responsible for monetary policy, macroprudential policy to ensure financial stability, economic analysis, collection and analysis of statistics and reporting, and research.

In 2002, he started his career as a research associate at the Institute for Economic Research and Policy Consulting (IER). Starting in 2004, he worked as a research economist at the IMF Resident Representative Office in Ukraine. From 2007 to 2015, he was head of analysis and research at Raiffeisen Bank Aval PJSC.

Dmytro Sologub graduated from Belarus National University with a major in Theoretical Economics. Later, he earned a master's degree in economics (EERC) at the National University of Kyiv-Mohyla Academy. Dmytro Sologub is a CFA charterholder.





**Sergii Kholod**

Deputy Governor

His mandate is the development and regulation of payment and settlement systems, and the management of the cash circulation system.

Sergii Kholod has worked in Ukraine's banking system for 29 years. In 1991-2002, he worked at the NBU and was one of the project managers who launched and developed e-mail and the telecommunication network for the NBU electronic payment system.

In 2002-2007, he chaired the IT office at Raiffeisenbank Ukraine JSC (renamed OTP Bank CJSC in 2006). For the next three years, he was the director of IT at Index Bank JSC (Credit Agricole Group). In 2009, Sergii Kholod was appointed the operations director, then first deputy board chairman and member of the board of SWEDBANK PJSC. In 2013, he was deputy board chairman at TASCOMBANK JSC. In 2013-2014, he was a board member of Brokbiznesbank PJSC. Before joining the NBU, Kholod spent five years working as deputy board chairman and board member at VTB Bank PJSC. Deputy Governor of the NBU since 23 July 2018.

He earned two degrees: in economics from the Kyiv National Economics University, where he majored in finance and credit, and in engineering from the Kyiv Higher Military Aviation Engineering College, where he majored in avionics.



**Oleg Churiy**

Deputy Governor

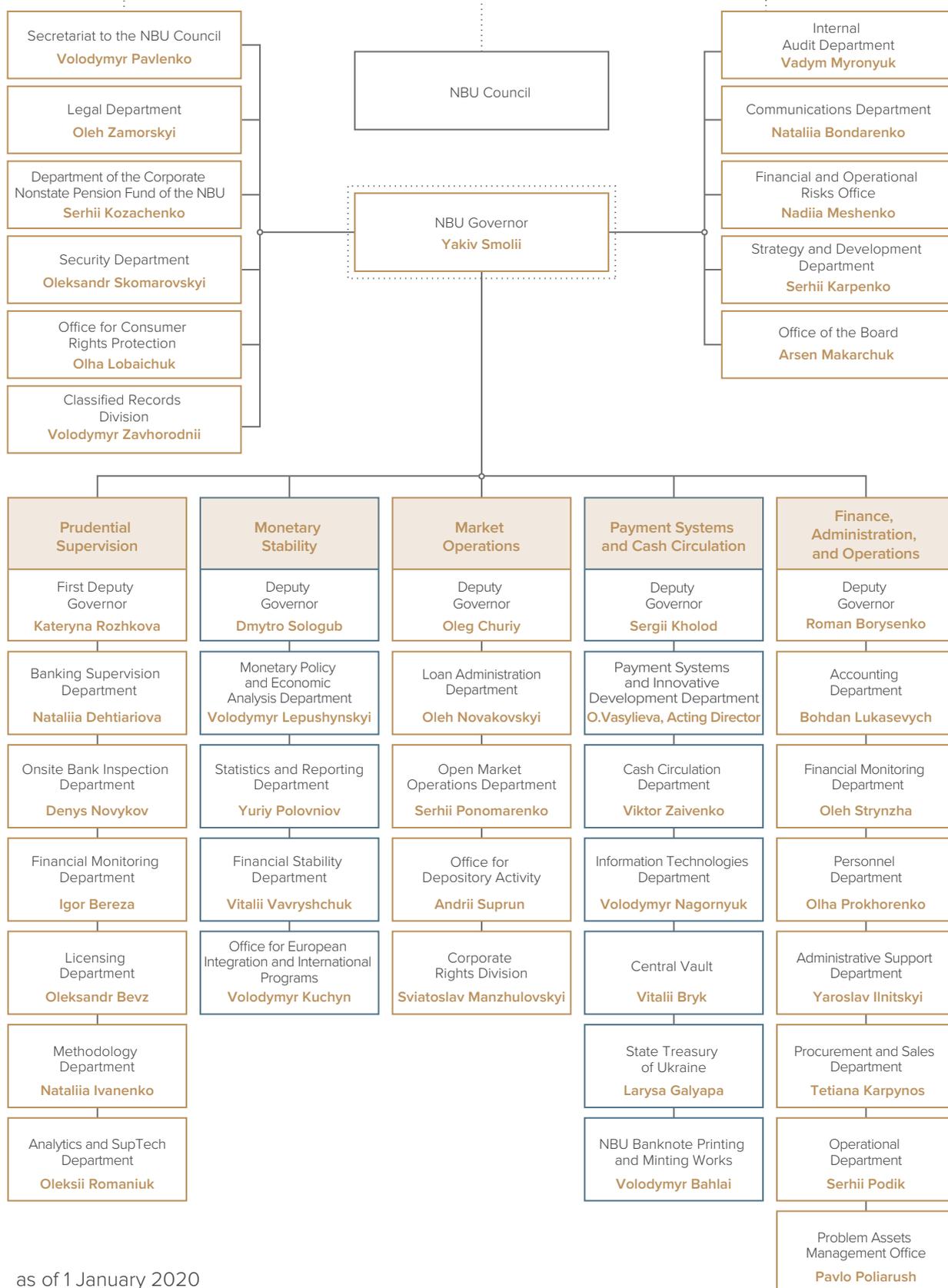
Oleg Churiy is in charge of open market operations, currency regulation, and operations of the NBU Depository. His professional activity in Ukraine's financial sector began in 1993.

He began his career at INKO JSB in the international settlements office. During his career, Oleg Churiy managed securities transactions at VABank JSC, the Spivdruzhnist investment company, and BNP-Dresdner Bank Ukraine JSCB. From 1999 through 2007, he was chief dealer of treasury and head of treasury at Bank Austria Creditanstalt Ukraine JSC (in 2002, the bank changed its name to Hypovereinsbank Ukraine JSC). In the following three years, he served first as deputy head and then as head of the investment business department at Ukrsibbank JSCIB. Between 2010 and 2014, Oleg Churiy was in charge of fixed income market operations at VTB Bank PJSC.

He holds a degree in economics from the Higher School of Banking at the International Center for Market Relations and Entrepreneurship, majoring in finance and credit. Dmytro Sologub is a CFA charterholder.



# Organizational Chart of the National Bank of Ukraine



as of 1 January 2020



## Financial Sector Development

### Comprehensive Program of Ukrainian Financial Sector Development until 2020

Together with other stakeholders, the NBU finished implementing the Comprehensive Program of Ukrainian Financial Sector Development until 2020 (CP 2020), which had served as a roadmap for financial sector reforms for the past five years.

Around 47% of the roadmap was successfully completed. Another 17% included projects carried out by one or several regulators. The remaining 36% will continue to be implemented under a new program, Ukrainian Financial Sector Development Strategy until 2025 (Strategy 2025), which was presented in January 2020.

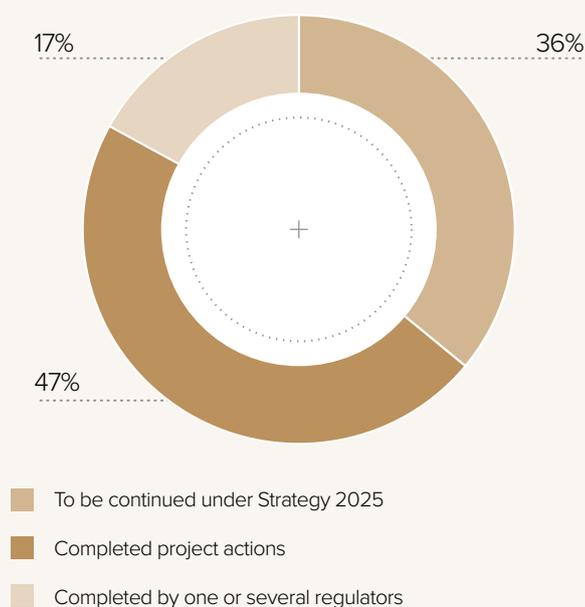
Among its key financial sector reform achievements, the NBU:

- enhanced institutional capacity of the central bank and completed its internal transformation
- implemented the inflation targeting and flexible exchange rate regimes
- rehabilitated the banking sector
- performed currency liberalization
- imposed stricter liability on bank owners and bank management
- formed independent supervisory boards at the state-owned banks
- implemented risk-based supervision and advanced financial monitoring
- introduced remote identification procedures using NBU Bank ID
- implemented the IFRS 9 reporting standard
- created the NBU Credit Register.

Projects that will continue to be implemented under Strategy 2025 include:

- execution of EU Directive PSD2
- Cashless Economy (including ISO 20022, SEP 24/7)
- development of nonbank financial institutions
- protection of consumer rights in financial services
- lending resumption.

### Roadmap Implementation under Comprehensive Program of Ukrainian Financial Sector Development until 2020



The major CP 2020 KPIs were mostly achieved. In particular, consumer inflation decelerated to the NBU's medium-term target of 5 +/- 1%, reaching 4.1% at the end of 2019. International reserves hit a seven-year high. The share of cashless payments increased substantially.



### Meeting Core KPIs of the Comprehensive Program of Ukrainian Financial Sector Development until 2020

	01.01.2015	01.01.2020	2020
Consumer inflation (CPI, % yoy)	24.9%	4.1%	5% ± 1 pp
International reserves (USD billion)	7.5	25.3	As per the economic program under the agreement with the IMF
Percentage of cash in the economy (M0/GDP)	17.8%	9.7%	≤9.5%
Banking sector concentration index (HHI)	564.41	1007.63	≥800
Percentage of cashless settlements <sup>1</sup>	25.0%	50,3%	55%
POS terminals per 1 million people <sup>2</sup>	4.7	8.3	11.0
Percentage of loan and deposit dollarization <sup>3</sup>	46.1%	38.4%	≤40%

<sup>1</sup> The percentage of cashless transactions in total payment card transactions.

<sup>2</sup> The ratio of the number of POS terminals to population (thousand pieces per million people).

<sup>3</sup> Based on bank deposits (loans) of residents (except other banks and the NBU).

### Meeting Core KPIs of the Comprehensive Program of Ukrainian Financial Sector Development until 2020

	01.01.2015	01.01.2020	2020
Nominal interest rates on new loans in the domestic currency <sup>1</sup>	17.6%	19.5%	≤12%
Loan-to- deposit ratio (gross loans)	156%	98.1%	≤110%
Insurance penetration <sup>2</sup>	1.4%	1.1% <sup>4</sup>	0.75%
Percentage of eligible assets in insurers' total assets <sup>3</sup>	47% <sup>5</sup>	73.2% <sup>4</sup>	At least 60%
Assets of pillar 2 pension system <sup>6</sup>	0%	0%	At least 2%
Assets of public collective investment vehicles <sup>7</sup>	0.1%	0.1%	At least 10%

The underperformance in the development of the defined contribution pension system and the collective investment market is attributed to the delay in the adoption of laws.

<sup>1</sup> Weighted average rates on new loans to residents (except other deposit corporations) as of 1 November 2019, % yoy.

<sup>2</sup> Percentage of insurance payments without incoming reinsurance/GDP.

<sup>3</sup> Percentage of eligible assets in insurers' total assets.

<sup>4</sup> As of 1 October 2019.

<sup>5</sup> As of 1 January 2016.

<sup>6</sup> Ratio of assets to the payroll of pillar 2 pension system's participants.

<sup>7</sup> Ratio of assets of public collective investment vehicles to GDP.



## Ukrainian Financial Sector Development Strategy until 2025

On 28 May 2019, the NBU, the National Securities and Stock Market Commission, the National Commission for State Regulation in Financial Services Market, the Deposit Guarantee Fund, and the Ministry of Finance of Ukraine signed the Memorandum of Understanding and Cooperation on Preparation and Implementation of Ukrainian Financial Sector Development Strategy until 2025.

The Strategy aims to ensure that the reform and development of Ukraine's financial sector moves forward in line with international best practices and that the actions envisaged by the EU-Ukraine Association Agreement and Ukraine's other international commitments are duly implemented. The document will replace the Comprehensive Program of Ukrainian Financial

Sector Development until 2020, which set priority reforms for the regulators for the past five years.

The Strategy consists of five sections: on the current condition of the Ukrainian financial sector; looking to the future: the financial sector's mission and vision; strategic goals, expected results, and implementation tools; the roadmap to implement the Strategy; and Ukraine's international commitments in the area of financial services to be implemented under the roadmap.

The Strategy outlines the following five priorities of financial sector development:

- strengthen financial stability
- promote macroeconomic development and economic growth
- develop financial markets
- expand financial inclusion
- introduce innovations in the financial sector.

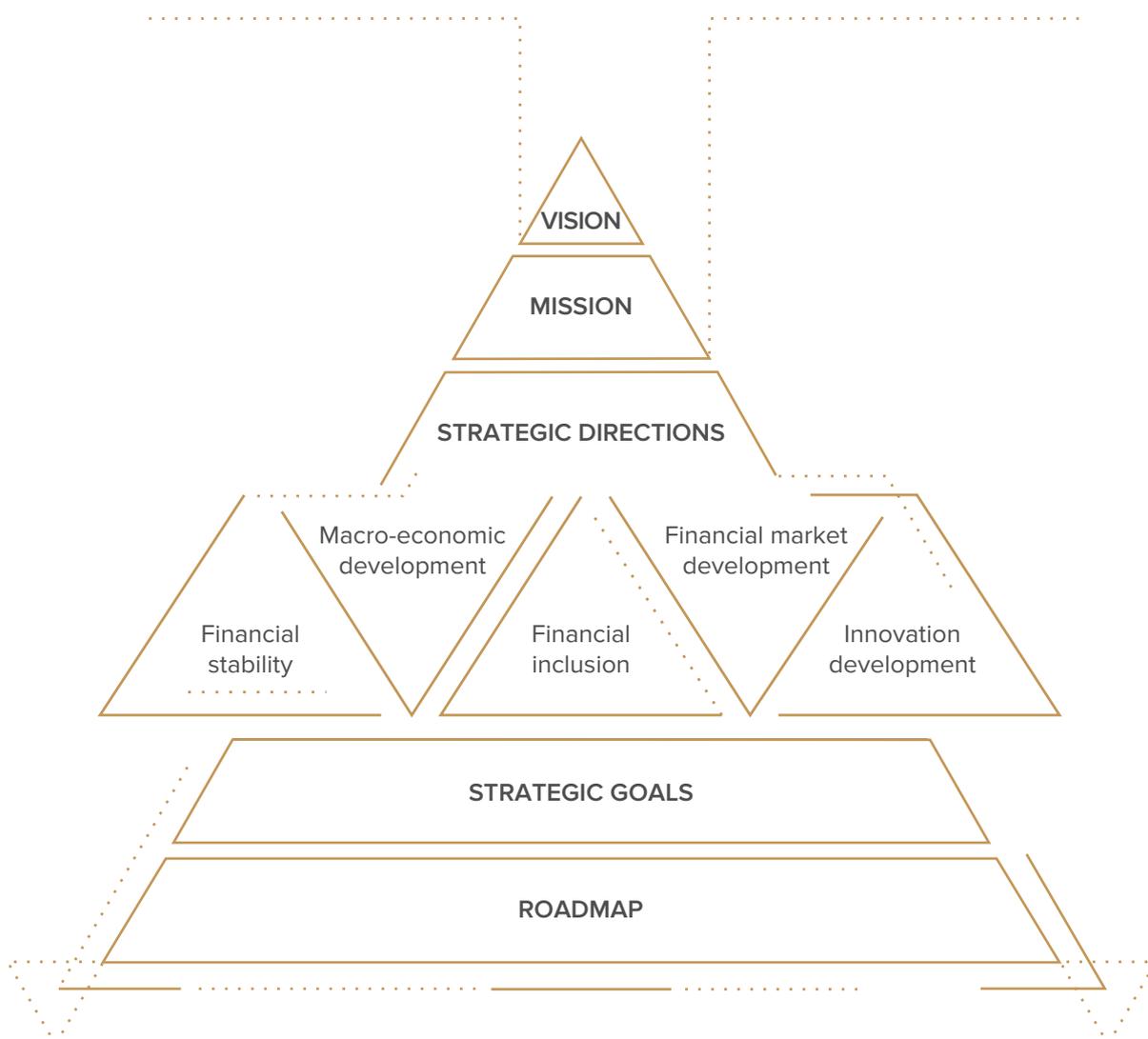


### Vision of Ukraine's Financial Sector

The Ukrainian financial sector is internationally integrated, effective, sustainable, competitive, and dynamic. It ensures Ukraine's stable and inclusive economic growth

### Mission of Ukraine's Financial Sector

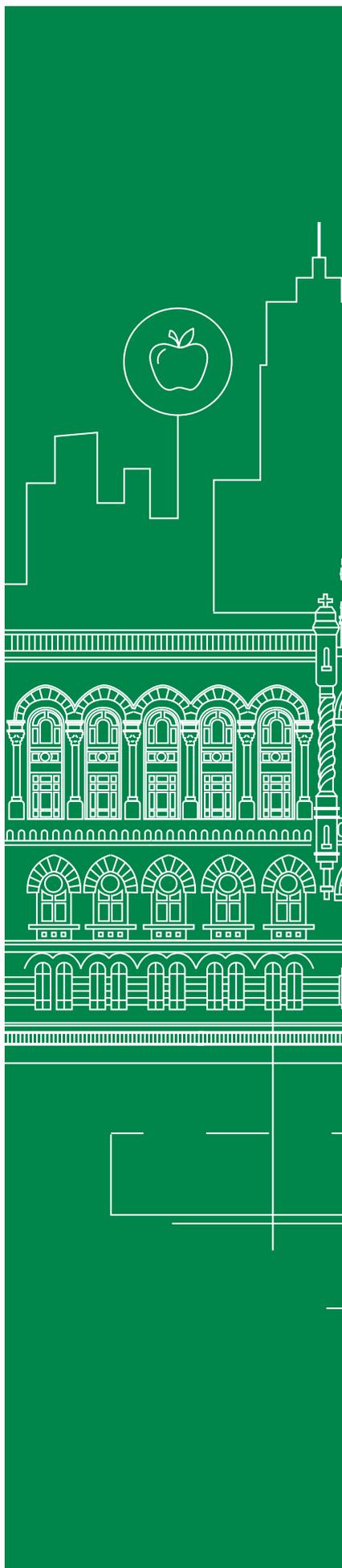
The Ukrainian financial sector drives the stable and inclusive development of Ukraine's economy and helps improve people's welfare by ensuring the effective accumulation, distribution, and circulation of financial resources in the economy



- **In order to further strengthen financial stability**, the regulators will, among other things, focus their efforts on enhancing the protection of creditor and investor rights, implementing the BEPS action plan, improving corporate governance at financial institutions, strengthening requirements as to their internal controls, improving the system for deposit guarantees and resolving insolvent financial institutions, introducing risk-based supervision over nonbank financial institutions, and implementing regulatory requirements in the regulation and supervision of banks and nonbank financial institutions in accordance with the EU-Ukraine Association Agreement, etc.
  - **Macroeconomic development** will be stimulated by intensifying lending to small and medium-sized businesses, in particular to farming enterprises against security of land; by removing obstacles to restarting mortgage lending; and by financing exports. Other important tasks in this area are prudent fiscal policy, development of the market for nonbank lending, enhanced coordination between the Ministry of Finance and the NBU, introduction of the second pillar of the pension system and improvement of the regulation of the third pillar, and development of the domestic market for government securities.
  - **To develop financial markets**, the regulators will work to complete currency liberalization, create liquid markets for financial instruments (derivatives, corporate stocks and bonds, etc.), deregulate the markets for nonbank financial services that are either associated with low risks or not aligned with EU practices, bring the regulation of insurance activities in line with the Solvency II and IAIS principles, ensure that insurance intermediaries are regulated, legislate prerequisites for the development of markets for credit unions and financial leasing services, modernize the stock exchange and depository infrastructure, create a comprehensive information system for stock exchange monitoring, implement international standards for the operation of capital markets infrastructure (CSDR, EMIR, MIFID II, MIFIR, PFM requirements), and more.
  - **Further measures to increase financial inclusion** include implementing standards for financial institutions' market behavior and financial product information disclosure, scaling up targeted programs for improving public financial literacy, enhancing consumer protection, creating incentives to develop the infrastructure for cashless payments, and expanding and streamlining the deposit guarantee system.
  - **Financial sector innovations will cover** a wide range of activities, including developing the BankID remote identification system, creating a crowdfunding and venture capital platform and regulatory sandboxes, introducing new payment and money transfer technologies, broadening financial market participants' access to public registers, developing big data, blockchain, cloud technologies, and so on.
- The Strategy thus envisages reforms across the entire financial sector including banks and nonbank financial institutions and capital markets. The execution of the Strategy will create a transparent, competitive, stable, and high-tech financial sector in the course of five years.
- ### Financial Development Working Group (Committee)
- According to an interagency memorandum signed in May 2019 and in order to implement Strategy 2025, a steering committee including the heads of the signatory institutions was to be set up.
- To this end, the Financial Stability Council resolved at its meeting on 13 December 2019, to establish the Financial Development Working Group (Committee) under the Financial Stability Council.
- The Working Group's main tasks include:
- identify the guidelines and priorities for implementing Strategy 2025
  - facilitate the coordinated implementation of Strategy 2025 actions and monitor their effectiveness
  - consider proposed action plans for financial sector development.



Meeting Strategic Goals



## Low and Stable Inflation

Monetary Policy and Macroeconomic Development

Monetary Transmission Mechanism

Floating Exchange Rate and FX Interventions



# Monetary Policy and Macroeconomic Development

## Monetary Policy Objectives

The priority objective of our monetary policy is to deliver price stability. Other objectives include promoting financial stability and sustainable economic growth. Pursuing its priority monetary policy objective of price stability, we have followed the monetary regime of inflation targeting for four years running<sup>1</sup>. In inflation targeting, we announce our quantitative inflation targets and undertakes to meet them in the medium term.

In accordance with the Monetary Policy Strategy of National Bank of Ukraine<sup>2</sup> and the Monetary Policy Guidelines for 2019 and Medium Term<sup>3</sup>, our medium-term inflation target is set at  $5\% \pm 1$  pp. The strategic documents called for reaching this target level in December 2019 and maintaining it in the following years.

As of the end of 2019, inflation decelerated to the target level, slowing to 4.1% yoy from 9.8% in 2018 and hitting a six-year low.

The attainment of the inflation target owed, in the first place, to a combination of consistent and careful NBU monetary policy aimed at delivering price stability and prudent fiscal policy. While working to bring inflation to the target level, we also took into account the need to support sustainable economic growth and thus gradually cut our key policy rate – by a total of 450 bp, to 13.5%.

## Cooperation with Government to Achieve Objective of Price Stability

In line with best practices adopted by inflation-targeting countries and in order to harmonize the domestic economic, fiscal, and monetary policies, on 3 October 2019, the Cabinet of Ministers of Ukraine and the National Bank of Ukraine signed a memorandum of cooperation aimed at achieving sustainable economic growth and price stability.

The memorandum singled out price stability as a key prerequisite for sustainable economic growth. To achieve these objectives, the NBU

made a commitment to maintain price stability and support the government's economic policy, and the government undertook to support the NBU policy of ensuring a consistently low rate of inflation.

Specifically, the NBU will conduct its monetary policy on the basis of the inflation targeting regime, aiming to keep the annual growth rate of the consumer price index at  $5\% \pm 1$  pp. To this end, the NBU will use the key policy rate as its main monetary policy instrument to influence inflation, and will adhere to a floating exchange rate regime.

In addition, the NBU undertook to promote financial stability and gradual liberalization of the capital market, develop the financial market (including the market for government securities) and payment systems, foster innovations in the financial sector, and more.

For its part, the government pledged to support us in achieving its price stability objective and conduct predictable budgetary and public debt management policies in order to ensure the sustainability of government finances. In particular, the government made commitments to reduce the budget deficit to 1.5% of GDP in 2024 and increase the share of hryvnia-denominated debt to 50% by the end of 2024 so as to lower the foreign exchange risk. The government also undertook to follow clear and predictable policies in the area of administered prices and tariffs, conduct transparent privatization, and pursue an effective antimonopoly policy in order to create a competitive environment for price setting.

The government will coordinate their actions by means of regular consultations at management and specialist levels with us. Strategic issues concerning price and financial stability will be discussed at meetings of the Financial Stability Council. Matters such as current economic conditions, macroeconomic forecasts, inflation targets, financial market development, liquidity forecasts, fiscal policy parameters and sustainability of public debt will be discussed at separate

<sup>1</sup> We de facto switched to inflation targeting in August 2015

<sup>2</sup> Approved by NBU Council decision No. 37 dated 13 July 2018

<sup>3</sup> Approved by NBU Council decision No. 41 dated 11 September 2018



specialist meetings, including in the process of drafting the Budget Declaration and the State Budget of Ukraine.

Effective coordination of economic, fiscal, and monetary policies is an important prerequisite for achieving low and stable inflation, reducing interest rates, and jumpstarting lending and economic growth.

### Monetary Policy Decisions and Underlying Macroeconomic Rationale

Throughout most of 2019, our monetary policy remained sufficiently tight to overcome significant inflationary pressures. These pressures were mainly driven by expanding consumer demand, which was fueled by sustained growth in household income and improved consumer sentiment.

Considering the need to reduce inflation to the target level and the risks that could stand in the way of achieving this objective, the NBU Board deemed it necessary to keep its monetary policy tight in Q1. Thus, we decided twice (in February and March) to leave its key policy rate unchanged at 18.0%.

Our tight monetary policy along with stable foreign currency inflows from agricultural exports favored the FX market. Inflationary expectations of businesses, households, and financial market participants improved, despite considerable political uncertainty in a year marked by two elections. High interest rates on hryvnia instruments also made the Ukrainian market more attractive for foreign investors against the backdrop of growing financial market turbulence across developing economies.

In addition to monetary factors, higher domestic supply of selected food products and lower global food prices contributed to easing inflationary pressures. With inflation steadily trending lower toward the 5% target, we were able to start a cycle of key policy rate cuts in Q2 2019, reducing the rate by 50 bp, to 17.5% per annum.

In June, the key policy rate remained unchanged at 17.5% as additional inflationary pressures emerged. The decision to keep the rate unchanged was motivated by the postponement of talks with the IMF on financial support until a new government was formed, the sustained strong consumer demand fueled by growth in real wages, and higher risks to domestic financial stability.

In Q3 2019, inflation slowed moderately. Tight monetary policy remained a powerful tool for holding back underlying price pressures, particularly through the exchange rate channel. Moreover, internal political risks impeding efforts to bring inflation down to the target level eased after newly elected parliament convened and a new government was formed. This allowed for jumpstarting talks with the IMF on a new cooperation program. With that in mind, we proceeded with monetary policy easing, cutting the key policy rate twice by 50 bp in Q3, to 17.0% in July and 16.5% in September.

In Q4, due to the hryvnia's rapid appreciation, inflationary pressures weakened more than expected. Additionally contributing to this price deceleration were the improved inflation expectations and lower global energy prices. The above factors neutralized pressure on prices stemming from robust consumer demand and a lower harvest of selected vegetables.

Given these positive factors and the sustainability of the disinflation trend, we accelerated the pace of monetary policy easing, cutting the key policy rate by a total of 300 bp, to 15.5% in October and 13.5% in December.

### Publication of Key Policy Rate Forecast

In 2019, we started to publish its forecast of the key policy rate on a regular basis, becoming the eighth inflation-targeting central bank globally to adopt this practice.

Since July 2019, the expected trajectory of the key policy rate, aligned with forecasts of other macroeconomic variables, has been presented in the Inflation Report and other our publications.

Publication of the key policy rate forecast marked another important step toward a more transparent and predictable monetary policy, coming after we started to publish summaries of Monetary Policy Committee meetings a year earlier.

From now on, in addition to being able to assess how we see our future monetary policy, market players can also monitor how we change the projected trajectory of the key policy rate as new information comes in and assumptions underlying the macroeconomic outlook shift. Understanding the rationale behind our actions allows market participants to draw conclusions about our future policy and take informed investment decisions.



More transparent and predictable monetary policy also enhances the impact of the key policy rate on market interest rates, the cost of financial resources, and inflation. Being better informed about the logic behind our monetary decisions enables financial market players to adapt their expectations as to the future cost of financial resources. This will allow us to exert a certain influence on the yield curve.

The clarity and predictability of monetary policy contributes to reducing uncertainty, thus diminishing the risk premium added to the price of loans, yields on debt securities, etc.

At the same time, we stress that the key policy rate forecast must not be viewed as the regulator's commitment to follow the published trajectory.

Making decisions on the key policy rate, the NBU Board may diverge from the forecast in order to account for changes in the assessment of risks to our ability to achieve its targets, primarily the inflation goal, and factor into our baseline scenario newly emerged internal and external factors.

Market participants and the expert community reacted positively to the publication of the key policy rate forecast, as evidenced by active discussions about the projected trajectory among analysts and in the media. Moreover, the publication led financial market players to revise their expectations about future monetary policy tightening by us, and the medium-term segment of the yield curve shifted lower as a result.



## Monetary Transmission Mechanism

### Achieving Operational Goal of Managing Interbank Loan Rate

We implement interest rate policy by regulating the demand and supply of money through varying interest rates on our operations. By changing key policy rate, we influence short-term interest rates on the interbank money market. This also has a lagged impact on interest rates on loans, deposits, securities, and so on. These rates have a direct effect on the volumes of consumption and investment by both households and businesses, and thus on inflation.

The operational objective of our monetary policy is to keep hryvnia interbank loan rates close

to the key policy rate and within the range of interest rates on the central bank's standing facilities (overnight loans and certificates of deposit). The Ukrainian Index of Interbank Rates (UIIR) for overnight loans and deposits in the domestic currency is the established indicator of hryvnia interbank interest rates for purposes of interest rate policy.

In 2019, the UIIR responded to key policy rate cuts in line with expectations, hovering within the range of interest rates on the standing facilities. The index fluctuated near the lower bound of the range throughout the year due to the sustained large liquidity surplus in the banking system.

NBU interest rates and UIIR, % per annum

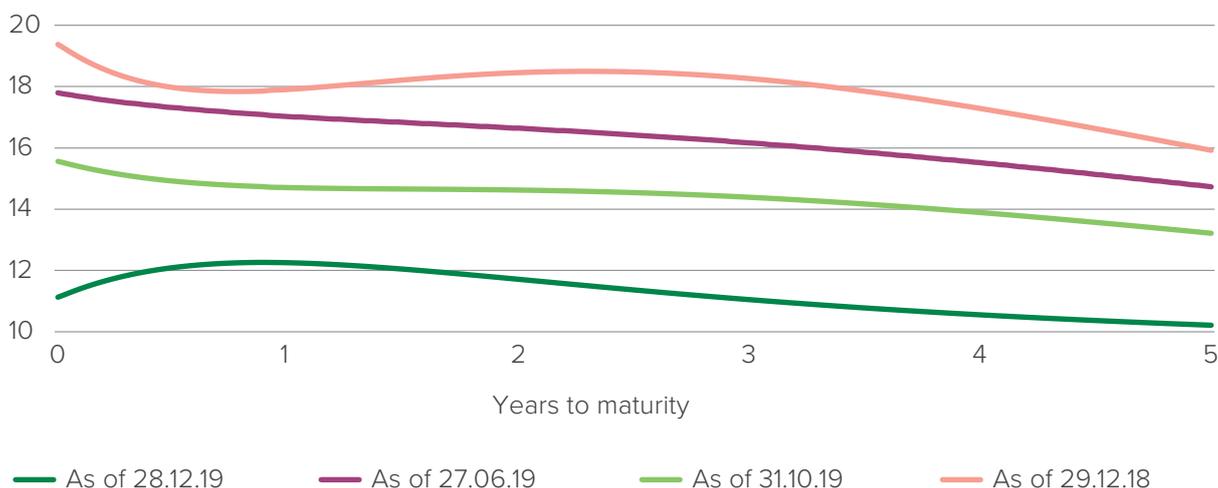


## Transmission into Rates on Domestic Government Debt Securities and Bank Interest Rates

The phased monetary policy easing, which started in April 2019, and expectations of fresh cuts to the key policy rate contributed to a decline in yields on hryvnia-denominated domestic government debt securities across all maturities. Limited supply of government securities in H2 amid sustained high demand from foreign investors was an additional driver behind the yield drop. Investors' anticipation of further key policy rate cuts also whipped up demand for medium- and long-term domestic government debt securities. This had a positive effect on the term structure of public debt.

As interbank resources grew cheaper, this led to a significant decline in the weighted average rates on hryvnia corporate loans and term deposits. At the same time, bank interest rates on retail loans and deposits moved sluggishly due to market-related and structural factors. This was mainly a result of tight competition for resources, including for domestic government debt securities, among some financial institutions and insufficiently flexible price strategies pursued by state-owned banks, the dominant players in the retail segment. In the meantime, the weighted average interest rate on hryvnia loans even increased on the back of sustained high demand for consumer loans.

Zero coupon yield curves for domestic government debt securities in hryvnia\*, % per annum



\* Spot rates with continuous interest compounding, built using Nelson-Siegel parametric model

Key policy rate and rates on new loans and term deposits in hryvnia\*, %



\* 20-day moving average for loan and deposit interest rates



# Floating Exchange Rate and FX Interventions

## Exchange Rate Regime and Objectives of FX Interventions Set in Strategic Documents

By adhering to the floating exchange rate regime, we do not direct our monetary policy toward achieving a certain level or a specific range for the hryvnia exchange rate. The hryvnia's trajectory against foreign currencies is driven by market factors that determine the demand for and supply of foreign currency on the domestic market.

By conducting FX interventions, we do not interfere with fundamental trends but only smooth excessive exchange rate fluctuations that could be harmful to the economy and lead to a buildup of external economic and financial imbalances.

In 2019, NBU FX interventions were aimed at accumulating international reserves and smoothing out FX market fluctuations. Our operations did not hamper the hryvnia's prevailing appreciation trend on the FX market.

## Accumulation of International Reserves

As the FX market environment remained favorable for most of the year, we were able to continue building up international reserves. Total reserves increased by 22% in 2019, to a seven-year high of USD 25.3 billion.

This marked the fifth consecutive year of growth in international reserves. The upward trend persisted even despite Ukraine going through a period of peak external debt repayments.

The following factors provided for the excess of foreign currency supply over demand last year, thereby contributing to growth in international reserves:

- stable inflows of foreign capital into hryvnia-denominated securities issued by the government
- record-high agricultural crop yields
- relatively favorable global prices for Ukrainian exports, including agricultural and metallurgical commodities, for most of the year

- low prices for energy imports
- large and stable inflows of remittances from labor migrants
- higher exports of IT services
- moderate volume of repatriated dividends.

Taking advantage of a benign FX market environment, we conducted active FX interventions in order to replenish its international reserves. We bought USD 7.9 billion on a net basis, a 14-year high.

## Economic Outcomes of Hryvnia Appreciation

In 2019, the hryvnia strengthened markedly against both the US dollar and the basket of currencies of Ukraine's main trading partners. Disregarding earlier seasonal fluctuations and short-lived post-crisis adjustments in the exchange rate, national currency appreciation became a relatively new phenomenon for Ukraine.

The experience of countries that successfully lowered inflation after introducing inflation targeting and went through periods of currency appreciation indicates that the negative effects of a stronger currency are mostly short-term, provided that associated macroeconomic policies remain consistent. At the same time, the positive effects have long-term impact and foster sustainable economic growth.

The strengthening of the hryvnia was the main factor that brought inflation down to the target level of  $5\% \pm 1$  pp. Low and stable inflation is a prerequisite for long-term growth, helping lay the foundation for business planning and accumulation of savings.

At the same time, the hryvnia appreciation adversely affected state budget revenues and exporters' income in hryvnia terms. However, the outcome was not entirely negative, as the structure of public debt improved and debt service costs decreased in the long run.

The stronger hryvnia also reduced costs of both imported raw materials and, crucially, investment





imports, while Ukraine's foreign trade position did not deteriorate. Ukrainian companies became more competitive in the labor market, which is important in view of the country's sizable labor migration.

The appreciation of the hryvnia, along with prudent fiscal policy, was one of the drivers

behind the rapid decline in the ratio of public and publicly guaranteed debt to GDP. This ratio both influences foreign investors' risk perceptions and affects sovereign ratings. The declining ratio thus encouraged inflows of portfolio investments, which also contributed to cutting costs of new borrowings and improving the currency structure of public debt.



Meeting Strategic Goals

# Stable, Transparent, and Effective Banking System

State of the Banking Sector

Transition to Risk-Based Supervision

Harmonization of Prudential Requirements to Banks  
with EU Legislative Norms and Basel Committee  
Recommendations

Information Security and Cyber Defense in Banks

Implementation of Macroprudential Policy

Implementation of Unified Financial Reporting System.  
iXBRL-based Financial Reporting by Ukrainian Banks  
under UA IFRS Taxonomy

Implementation of IFRS 16



## State of the Banking Sector

The banking system's financial standing continued to improve in 2019. Its full-year net profit totaled UAH 59.6 billion, or up 2.7 times compared to 2018. Banks grew more efficient, with 11 institutions booking returns on equity (ROE) in excess of 30%.

For the first time since the implementation of an enhanced credit risk assessment program in February 2017, the ratio of nonperforming loans (NPL) dropped below 50%. NPLs were almost entirely provisioned, posing no risk for the banking system and no significant obstacles to lending recovery.

Consumer lending grew last year, mainly due to rising real household incomes and also reflecting the high profitability of retail lending products for banks.

System liquidity was high throughout the year, with most banks surpassing the new liquidity ratio LCR by a comfortable margin.

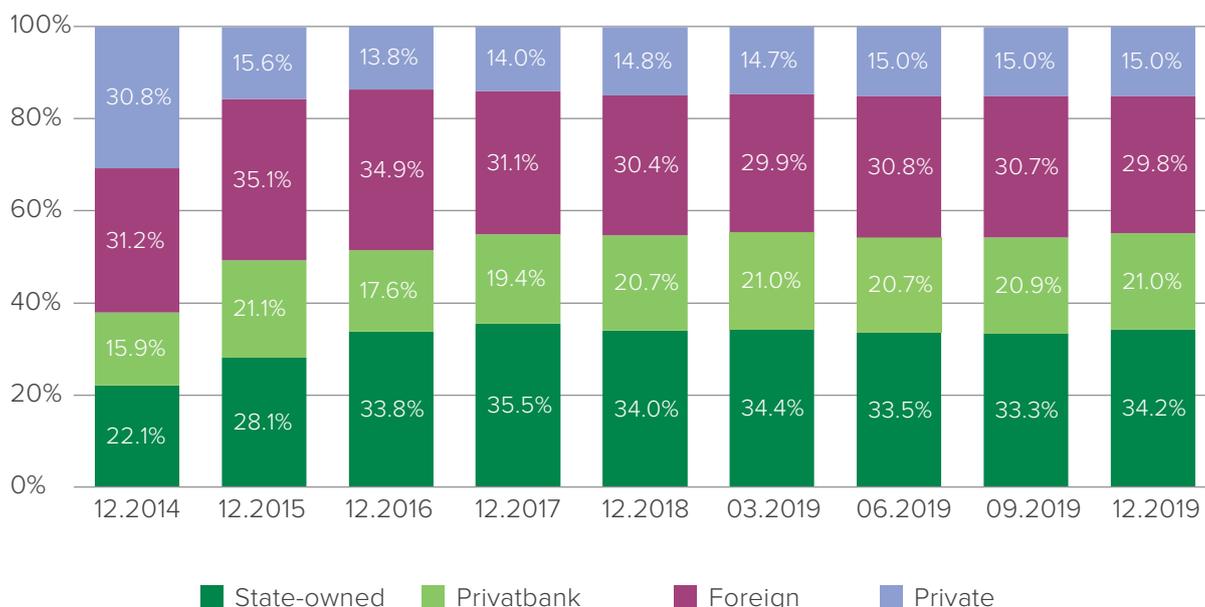
The dollarization of assets and liabilities declined, mainly due to the strengthening of the hryvnia exchange rate. In order to reduce the share of foreign currency liabilities, we set a 10% mandatory provisioning requirement for foreign currency deposits.

In July 2019, the NBU expanded its list of systemically important banks from three to fourteen. These banks will be subject to stricter macroprudential regulation and required to draw up recovery and resolution plans.

### Banking Sector Structure

In 2019, the number of solvent banks decreased by two as Joint Stock Company Vernum Bank surrendered its license and became a financial company and Joint Stock Company Ukrsofsbank was merged into Joint Stock Company Alfa-Bank under a simplified procedure.

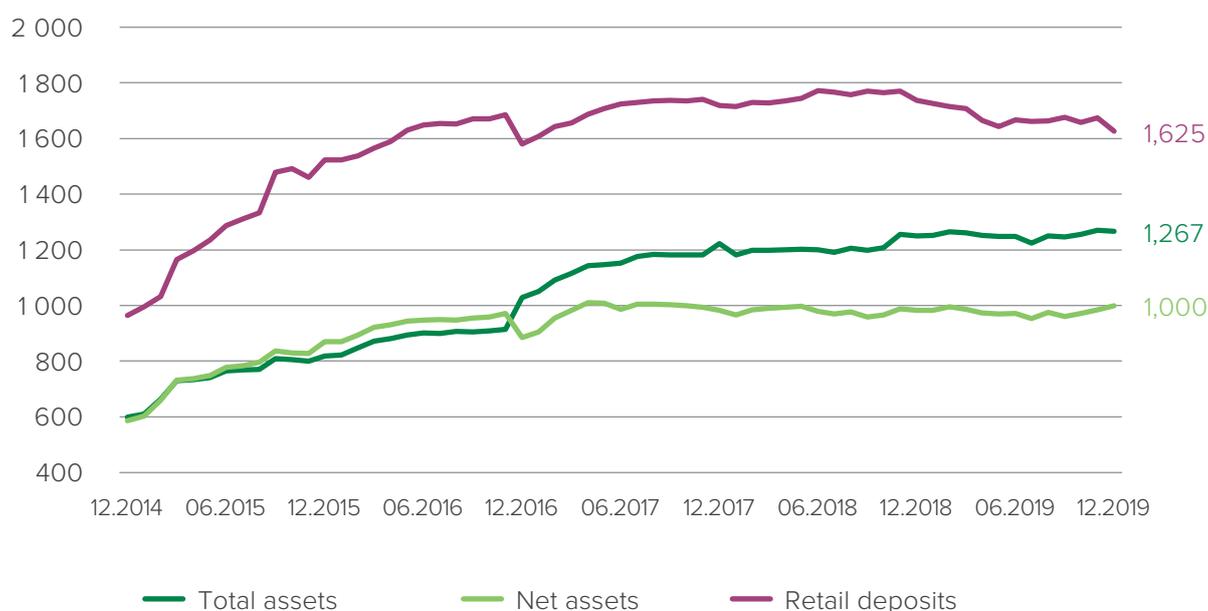
Distribution of net assets by bank group, %



The net asset share of state-owned banks (including PrivatBank) increased by 0.5 pp yoy, reaching 55.2% at year-end. Net assets grew by more than 10% across all bank groups except the banks with foreign capital.

The banking sector's concentration level remains relatively low. The top-20 banks account for 92.2% of the sector's total net assets.

#### Banking sector concentration by HHI\*



\* The Herfindahl-Hirschman Index (HHI) is a measure of banking market concentration. The index is calculated as the sum of squared market shares of individual banks. It ranges from 0 to 10,000, with values below 1,000 indicating low market concentration.

#### Assets

Over the year, banks' net assets increased by 9.8%, to UAH 1.49 trillion<sup>4</sup>. This was due to large inflows into corporate accounts (UAH 70.7 billion in December alone), primarily the accounts of National Joint-Stock Company Naftogaz of Ukraine (Naftogaz), which led to total holdings of NBU certificates of deposit increasing by UAH 90.1 billion during the year (including by UAH 75 billion in December).

Over the year, net hryvnia corporate loans (i.e. loan portfolio less provisions) decreased by 6.2%. The pace of decline was the fastest

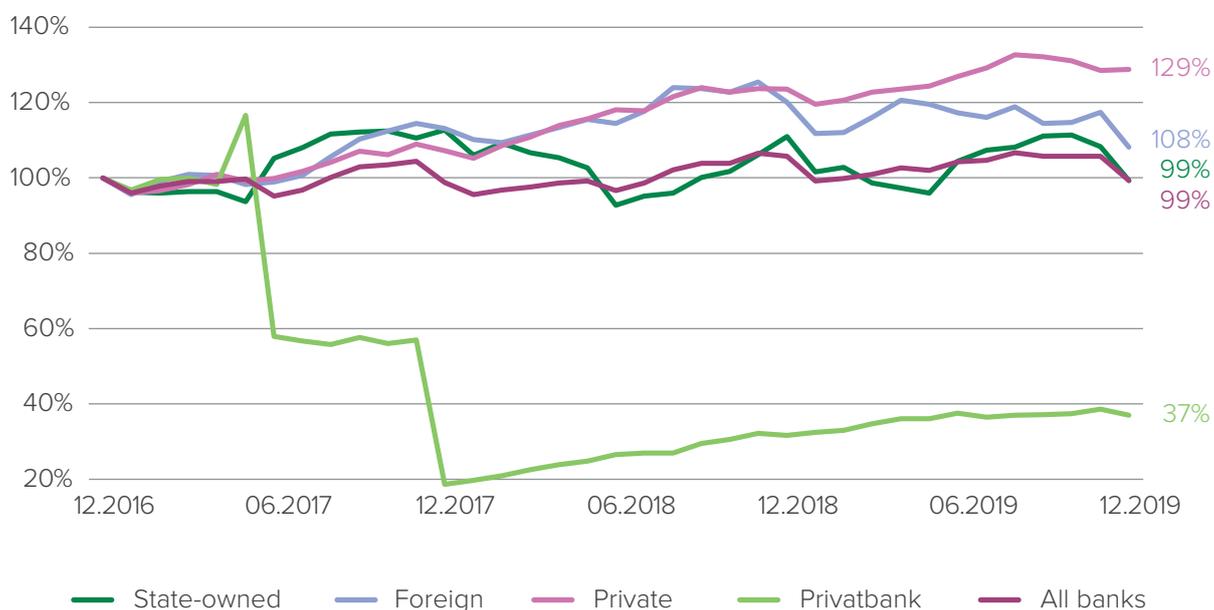
in Q4 as state monopolies and subsidiaries of international groups repaid their loans. Net foreign currency corporate loans declined by 4.1% last year as a result of hryvnia appreciation.

Net retail loans continued to grow rapidly, increasing by 29.8% in 2019. Banks with private Ukrainian capital demonstrated the highest growth in retail lending: +54% over the year. The surge in consumer lending was driven by this segment's high profitability, which prompted banks to lend more. On the borrowers' side, the strong demand for loans was fueled by higher household income and an associated rebound in consumer confidence.

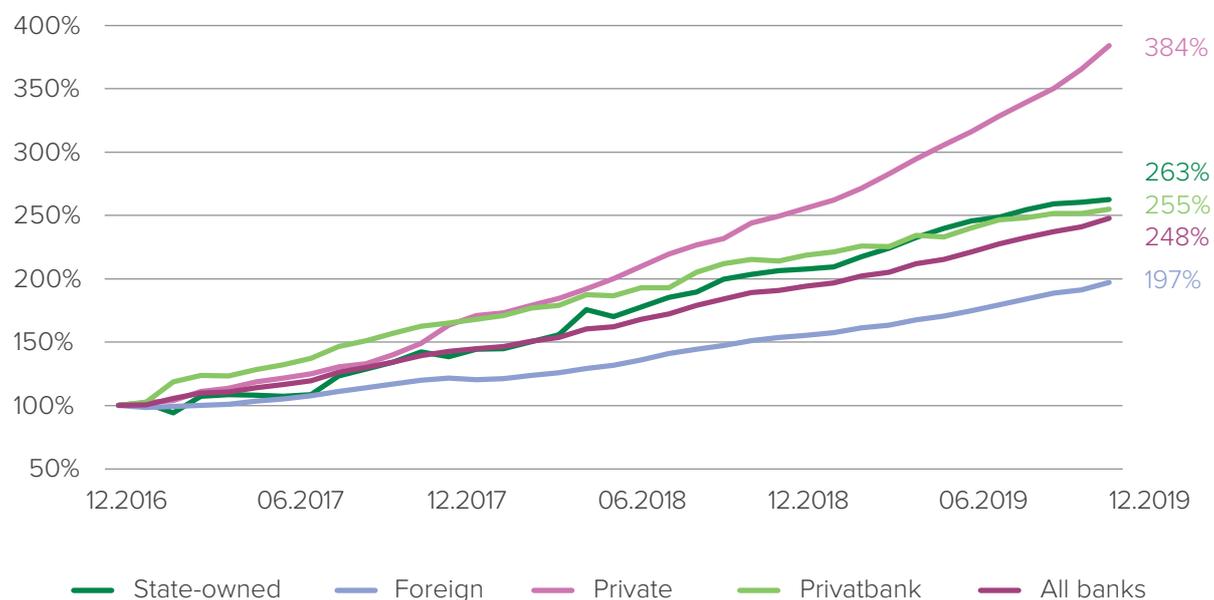
<sup>4</sup> At banks solvent as of end-2019



### Net hryvnia corporate loans, 2016=100%



### Net hryvnia retail loans, 2016=100%



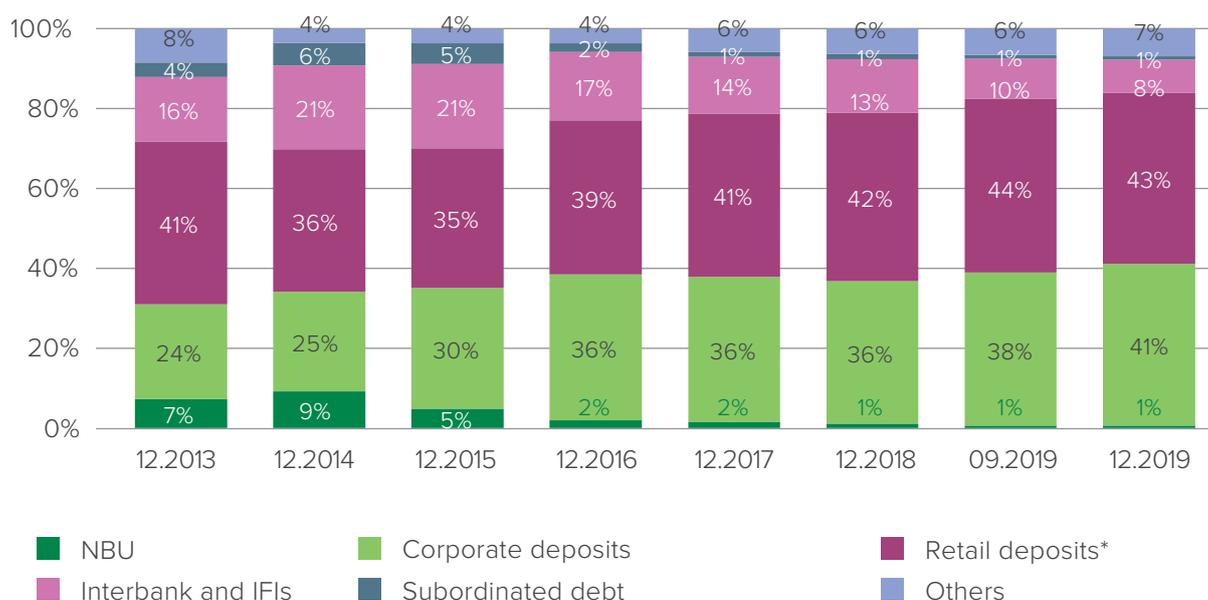
Net hryvnia consumer loans grew by 31%. Net mortgage loans grew by 13.4% in 2019, accelerating from 2018.

Loan portfolio quality improved throughout the year. The system's NPL ratio decreased by 4.5 pp, to 48.4%. It dropped under 50% for the first time since the launch of enhanced credit risk assessment. Compared to its peak level of 58% in July 2017, the NPL ratio decreased by 9.6 pp as of end-2019. The level of NPLs shrank due to a statistical effect from issuance of new loans, restructurings, sales and write-offs against provisions of old corporate loans, and due to the value of nonperforming foreign currency loans declining as a result of hryvnia appreciation. Nonperforming loans pose no threat to the banking system. The level of NPL coverage by all types of provisions increased by 4.8 pp over the year, to 95.2% as of the end of December.

## Funding

Over the year, total bank liabilities increased by 7.3%, to UAH 1.29 trillion. Liabilities increased the most in Q4, by 8.9%. Customer deposit inflows were the main driver of this growth. As a result, retail and corporate deposits as a share of total bank liabilities grew by 5.4 pp over the year, to an all-time high of 83.3%. At the end of the year, budgetary funds saw a seasonal decline, and foreign banks repaid a portion of their interbank liabilities. Banks' gross external debt trended lower throughout the entire period. The pace of decline was the fastest in Q1 2019 on account of state-owned banks repaying their external debts. The share of NBU funds in bank liabilities shrank to a new historical low of 0.6%, reflecting repayments of refinancing loans by state-owned banks.

### Structure of bank liabilities



\* including savings certificates



Hryvnia corporate deposits grew by 19.5% over the year, with state-owned banks boasting the strongest increase of 28.3%. Foreign currency corporate deposits also increased markedly, by 48.4% (in US dollar terms). Their growth in Q3 and Q4 was driven by inflows to accounts of state-owned enterprises. The largest increase was recorded by state-owned banks in Q4, up 43.8% (and up +109.5% yoy). Driving this surge were inflows to the Naftogaz account, which kept increasing in Q3 and Q4. In December, Naftogaz received USD 2.9 billion from Gazprom pursuant to a Stockholm arbitration court ruling, which accounted for the entire foreign currency inflow in Q4.

Retail deposits grew at a steady and high pace. Hryvnia retail deposits increased by 17.5% over the year. The fourth quarter saw the fastest growth in hryvnia retail deposits, up 8.4% over the period. These fluctuations were caused by inflationary and exchange rate expectations. In Q3, when depreciation expectations were high, households preferred foreign currency deposits. At the same time, the stronger national currency and low interest rates on foreign currency deposits in Q4 drove an increase in hryvnia deposits. Foreign currency retail deposits increased by 15.4% over the year. The dollarization level of liabilities to customers decreased by 1.9 pp yoy, to 39.8%.

### Banks' gross external debt, USD billion



To further reduce the dollarization level, we introduced differentiation by currency for the mandatory provisioning rate effective 10 March 2020. The provisioning rate was set at zero for hryvnia deposits and at 10% for foreign currency deposits.

The term structure of retail deposits deteriorated over the year. Demand deposits grew faster than term deposits. However, banks had sufficient liquidity. We raised the LCR twice over the year, from 80% to 100%, and most banks were comfortably in compliance with it.

### Interest Rates

Thanks to lower inflation, we eased its monetary policy and cut its key policy rate five times in 2019, cumulatively from 18% to 13.5% by the end

of the year. This trend continued in early 2020, contributing to lower loan interest rates.

Rates on hryvnia corporate loans dropped by 2.4 pp in Q4, to 15.7% per annum, but retail loan rates remained high.

The monetary policy easing drove a decline in deposit rates. Rates on 12-month hryvnia retail deposits decreased by 0.7 pp in Q4, to 15.1% per annum, and dropped even lower in February 2020, to 12.4% per annum.

### Financial Results and Capital<sup>5</sup>

The banking sector booked record high net profit of UAH 59.6 billion in 2019, up 2.7 times compared to 2018. PrivatBank generated more than half of the combined net income. ROE exceeded 30% at 11 banks. These banks accounted for 43.8%

<sup>5</sup> Preliminary data. NBU Board Resolution No.51 dated 16 April 2020 sets that banks shall make adjusting entries based on external audit findings before 19 June 2020 and submit adjusted data to the NBU before 23 June 2020; 2019 financial reports shall be published on the banks' websites in five days after they are approved by the General Shareholder Meetings.



of sector net assets. At the end of the year, only six institutions were loss-making, making up 0.6% of sector net assets.

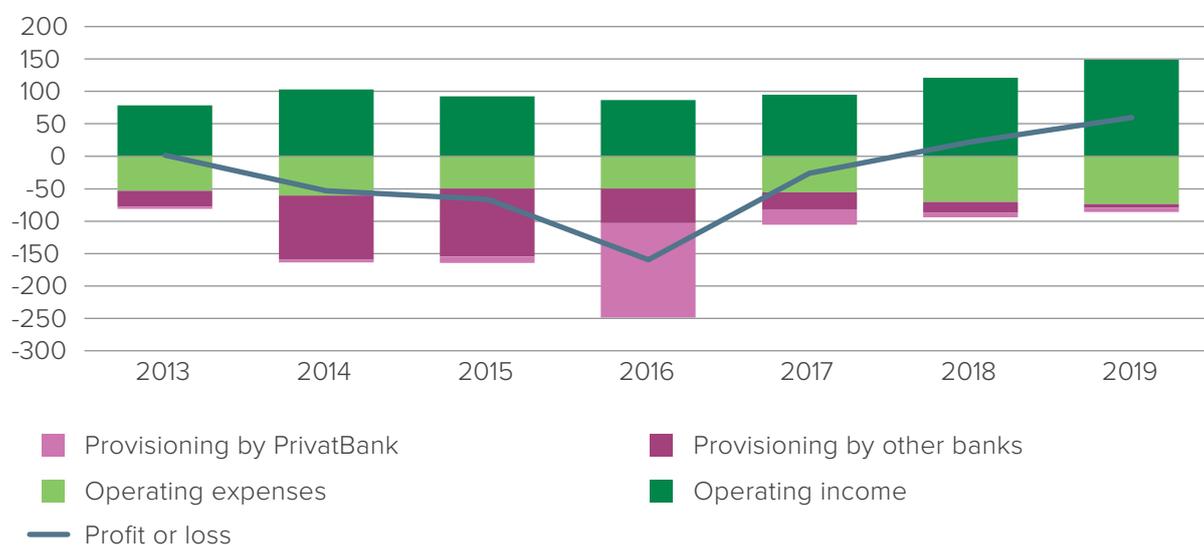
The main profitability drivers were record-low provisioning and high operational efficiency. In 2019, banks boosted total operating income by 22.5% yoy, while their operating expenses increased by only 5.1% yoy. As a result, net operating income rose by 46.9% yoy and operating efficiency improved, with the sector CIR dropping to 49.8% in 2019 from 58.1% in 2018.

As loan rates declined faster than deposit rates, growth in net interest income slowed to 9.9% yoy

from 37.5% in 2018. Total net fee and commission income increased by 16.3% in 2019, thanks to growth in cashless transactions and active retail lending. Also, total banking profits from trading grew by 8.8 times.

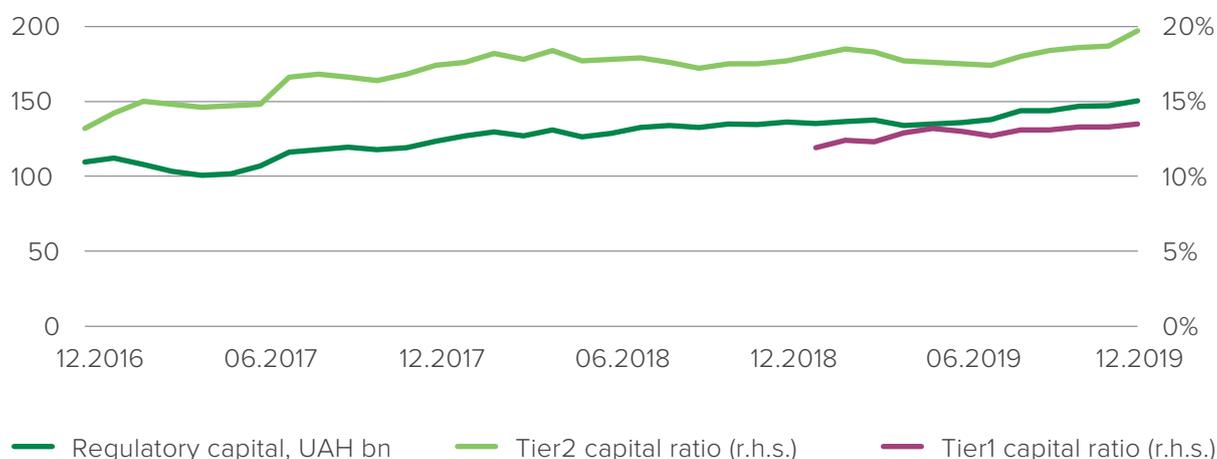
Banks' combined authorized capital increased by 1.1%, to UAH 471.2 billion as of the end of the year, while regulatory capital rose by 10.3%. Capital adequacy across the banking system remained above the minimum requirement. Currently, the average regulatory capital adequacy ratio is 19.4% and common equity adequacy ratio is 13.6%.

### Banks' financial performance\*, UAH billion



\*Annual data, including adjusting entries

### Regulatory capital and regulatory capital adequacy ratio



## Key Banking Sector Indicators

### Entering information about banks into the state register of banks

Information from the State Register of Banks	Quantity
Registered banks	139
Banks that have a banking license to provide banking services	75
Registered branch offices of Ukrainian banks in Ukraine	85
Operating branch offices of Ukrainian banks in Ukraine	83
Operating representative offices of Ukrainian banks:	5
operating in Ukraine	3
operating abroad	2
Registered branches of Ukrainian banks in Ukraine	8,885
Operating branches of Ukrainian banks in Ukraine	7,918
Standalone units of Ukrainian banks in Ukraine that were closed in 2019:	
representative offices	0
branch offices	3
branches	817
Standalone units of Ukrainian banks that were opened in Ukraine in 2019:	
representative offices	0
branch offices	0
branches	169

### Approval of Bank Charter

The NBU approves the charter of a legal entity that intends to do banking (newly established bank). Besides, the NBU approves all amendments

thereto. If a bank increases its authorized capital, the NBU checks the sources of funds the shareholders put into the authorized capital. These must be their own funds rather than borrowed otherwise.

## Changes in authorized capital

As of	01.01.2018	01.01.2019	01.01.2020
Banks that had a banking license	84	77	75
of which:			
banks with less than UAH 200 million in authorized capital	1	0	0
banks with UAH 200–300 million in authorized capital	41	33	32
banks with UAH 301–500 million in authorized capital	11	13	13
banks with more than UAH 500 million in authorized capital	31	31	30

### Approval of Bank Top Managers

In accordance with the established procedure, we approve the appointment of bank top managers (chairperson, deputy chairpersons, and members of the supervisory board; chairperson, deputy chairpersons, and members of the management board; chief accountant and deputy chief accountants); and head of internal audit (hereinafter referred to as top managers).

To approve bank top managers, we verify their compliance with qualification requirements such as impeccable business reputation and professional aptitude, including expertise and professional and managerial experience necessary for properly fulfilling one's job duties taking account of the bank's business plan and strategy as well as the functional load and responsibilities of the particular managerial position; independent directors must also meet independence requirements.

### Approval of bank top managers by NBU in 2019

	Quantity
Document filings for approval of bank top managers received:	251
Results of document review:	
appointments approved	206
appointments rejected	33
filings returned (for revision, based on a bank's request, not reviewed, or for other reasons)	25

### Supervision over bank owners

In 2019, the NBU	Quantity
received applications to become a qualifying holder from	14 applicants
approved applications to become a qualifying holder for	2 applicants
rejected applications to become a qualifying holder for	–
returned applications to become a qualifying holder to	6 applicants
determined the existence of a decisive influence and recognized the person as a qualifying holder	1
imposed fines for unauthorized acquisition of qualifying holding	–



We also draw up a list of entities entitled to purchase insolvent banks or their assets. This process is referred to as preliminary assessment.

In 2019, our list contained 11 assuming banks: 2 banks were included in the list in 2019 and 9 banks received an extension. These banks are eligible to participate in DGF tenders to purchase assets of insolvent banks.

In addition, we extended investor status for one bank on the list in 2019. The investor status makes

its holder eligible to participate in tenders to acquire an insolvent bank or bridge bank.

### Supervision over Ownership Transparency

We examine banks' ownership structure for transparency. The ownership structure reflects links between a bank and its owners.

In 2019, we published 127 information bulletins about bank ownership structures. As of today, the owners of all banks are known, and each bank has a qualifying holder.

### Supervision over banking groups

In 2019, the NBU	Quantity
Approved changes in the ownership structure for	7 banking groups
Derecognized	5 banking groups

In 2019, we derecognized five banking groups: JSC UNEX BANK, JSC VTB BANK, JSC BANK ALLIANCE, JSC CRYSTALBANK, JSC CB PRIVATBANK. In addition, in 2019,

we approved changes in the ownership structure for seven banking groups.

As of the end of 2019, 25 banking groups operated in Ukraine (versus 30 banking groups as of end-2018).



## Transition to Risk-Based Supervision

In 2019, we continued to implement a risk-based approach to banking supervision by following the guidelines of the European Banking Authority on common procedures and methodologies for the Supervisory Review and Evaluation Process (SREP) and recommendations of the Basel Committee on Banking Supervision, applying a proportional approach to supervision.

The proportional approach calls for focusing on bigger, more structurally complex or more risk-exposed banks, taking into account their risk profiles and core business lines. Our risk-based supervision process contributes to financial stability of the banking system and protection of the rights of bank creditors and depositors, and meets best practices in this area.

### Major Results of Off-Site Banking Supervision

In 2019, risk-based banking supervision through off-site supervision on individual and consolidated bases included:

#### 1) SREP assessment of banks

This assessment is performed through the following stages:

- grouping banks based on their importance to the banking system
- identifying business model types for purposes of comparative analysis of banks with similar business lines (peer group)
- conducting a four-component evaluation that includes: (1) analysis and assessment of viability of banks' business models and resilience of their strategies; (2) corporate governance quality assessment, including with respect to the internal control and risk management system; (3) assessment of the capital adequacy to cover the evaluated bank's key idiosyncratic risks; (4) assessment of liquidity adequacy and liquidity and funding risks
- maintaining close communication with banks' top management throughout the SREP.

#### 2) ongoing monitoring of banks' financial standing and banking groups' indicators

As a result of the monitoring process, we delivered a prompt regulatory response to:

- the identified shortcomings/negative trends in individual SREP components and business lines of higher-risk banks, acting on those by issuing recommendations to relevant banks and performing the follow-up monitoring of their implementation
- the identified violations by banks and banking groups of banking legislation and their engagement in risky activities that threatened the interests of depositors or other bank creditors.

Where violations were found, we took, pursuant to applicable laws of Ukraine, adequate corrective actions in order to prevent the affected banks' financial standing from deteriorating, mitigate outstanding risks, and protect the interests of depositors and other bank creditors. In total, the off-site banking supervision process in 2019 resulted in 66 corrective actions being taken with respect to banks, including 37 warning letters; 12 restrictions on individual banks' certain operations, including related-party transactions; 8 fines on individual banks; and 3 written agreements.

#### 3) identification of banks' related parties, control over related-party transactions, and analysis of terms of transactions with customers for compliance with market terms

In 2019, we maintained effective control over relevant banks' implementation of action plans which they had drafted based on 2015-2016 diagnostic studies and which were aimed at bringing them into compliance with applicable laws and NBU regulations concerning related-party (RP) transactions.

Thus, in 2019:

- as per their respective action plans, 13 out of 18 banks brought their maximum exposure ratio (N9) under RP transactions in line with the statutory level (up to 25% of regulatory capital) as of 1 January 2020
- we completed its analysis of banks' funding transactions with related parties in line with the Framework for Monitoring Bank Funding Transactions drafted based on recommendations of the International Monetary Fund
- we assessed risks of RP transactions as part of the SREP.



As far the monitoring of RP transactions is concerned, the key tasks for 2020 include controlling banks' compliance with the underlying action plans and evaluating their active operations with customers for possible non-market terms.

Another challenge in the year ahead is to make banking supervision instruments more effective and technologically enhanced, including through participation in the Supervision Platform project, in order to improve the detection of potential RPs.

#### 4) assessing banks' resilience

In 2019, proceeding from the SREP methodology, we conducted another asset quality review of banks and the banking system.

The resilience assessment included asset quality reviews (AQR) of all the 76 Ukrainian banks. The top 29 banks, jointly accounting for 90% of total sector assets, additionally underwent stress tests.

As part of the resilience assessment, we verified the credit risk assessment of bank assets included in the sample pursuant to the Terms of Reference.

Results of the resilience assessment across individual banks were published on the NBU website.

The resilience assessment completed in 2019 thus demonstrated that the banking sector was sufficiently capitalized. However, in order to ensure solvency and greater resilience

to possible crises, banks need to increase their safety margin.

#### 5) quality control of audit services

In 2019, we continued to enhance its quality analysis of auditor reports on banks' annual financial statements. In particular, this effort included verifying reports on asset quality assessment and eligibility of collateral for lending operations as part of the resilience assessment of banks.

In response to the identified breaches, the Committee on Banking Supervision and Regulation and Payment Systems Oversight rejected two audit firms among those selected by banks to audit their annual financial statements for 2019. A respective report, detailing the grounds for the decisions made, was sent to the Quality Assurance Inspection of the Public Audit Supervision Agency.

### Major Results of On-Site Banking Supervision

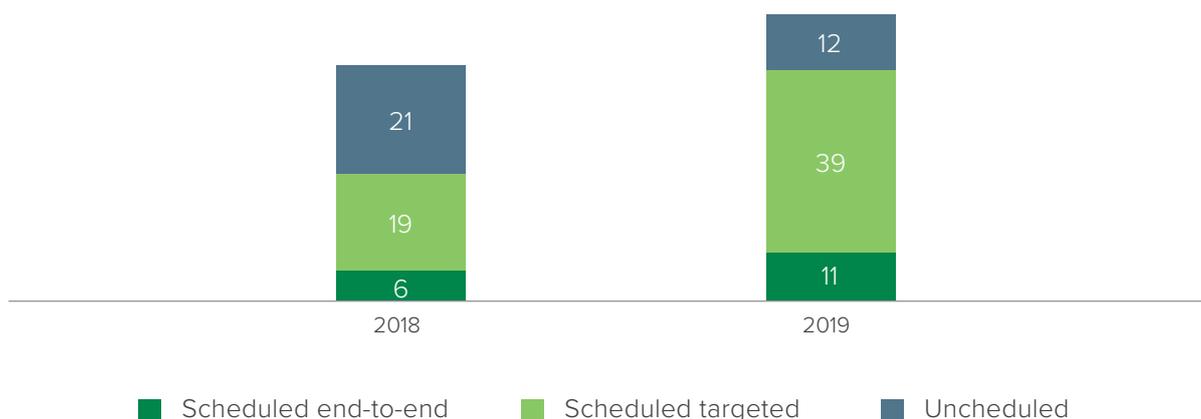
In 2019, we continued to implement the risk-based approach to on-sight banking supervision, including integrating inspection findings and CAMELSO ratings into the SREP and focusing on targeted inspections.

As part of its on-site banking supervision function, in 2019 we conducted 62 on-site inspections at 58 banks. Those banks had combined assets of UAH 1,932.4 billion, or 97% of the banking system's total.

### Quantitative distribution of inspections

Inspections	Quantity
Scheduled including targeted	50
under individual CAMELSO components; for assessment of top management's collective suitability and qualification; for risk management system assessment	39
Unscheduled including targeted:	12
for assessment of top management's collective suitability and qualification	5
for risk management system assessment	2
for assessments of: asset structure and quality and their dynamics; sufficiency, eligibility, liquidity, and diversification of collateral for exposures; credit risk management processes, liquidity risk, etc.	5

### Quantitative distribution of inspections



The focus of the risk-based approach applied during both scheduled and unscheduled inspections was on assessing top management's collective suitability and qualification and evaluating the implementation of the risk management system<sup>6</sup>.

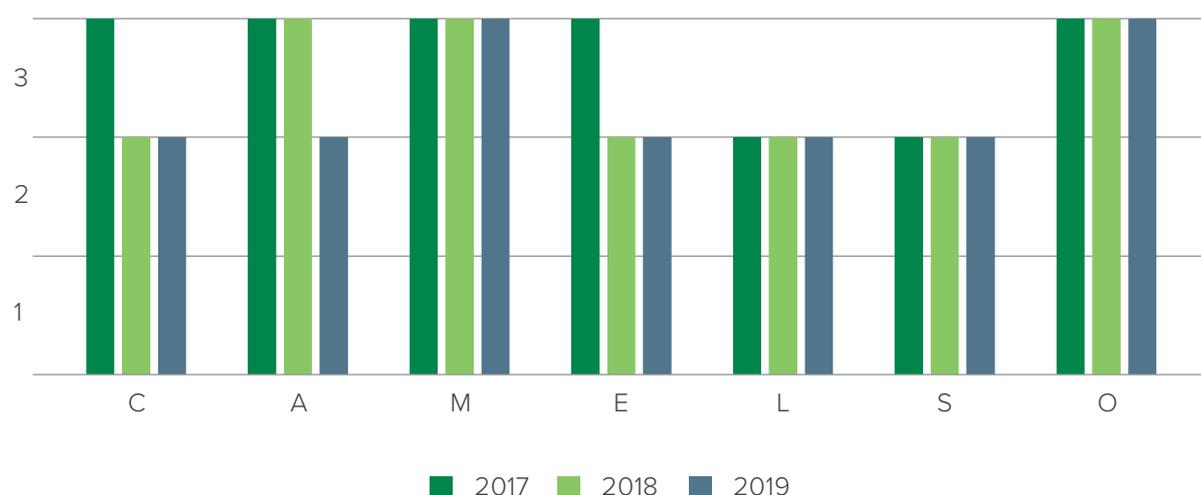
During its scheduled inspections, we continued to assess banks under the revised CAMELSO rating system<sup>7</sup>. As of the end of 2019, 68 banks<sup>8</sup> obtained composite ratings under this system. In 2018-2019, following targeted inspections,

13 banks were rated under individual CAMELSO components.

The average composite rating of all banks under the CAMELSO system stood at 2 in 2019, unchanged from 2018 and up from 3 in 2017.

The banks inspected in 2019 received higher scores under the component A (Assets) than in 2018. The scores under other rating components remained unchanged.

### Banks' average CAMELSO component ratings, 2017–2019

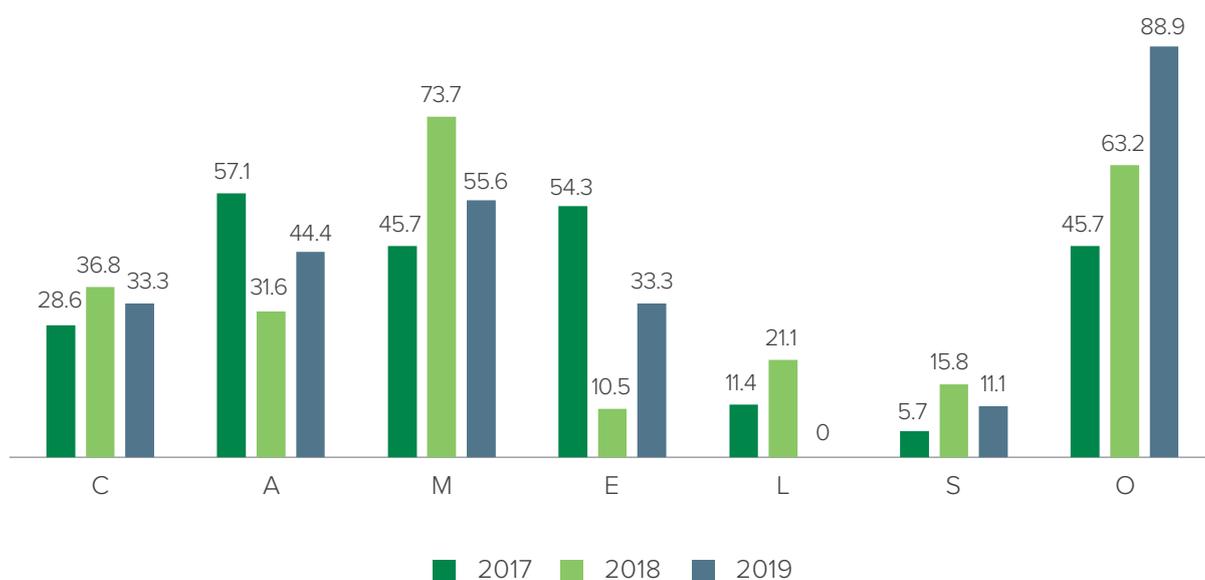


<sup>6</sup> Pursuant to the schedule set out in the Regulation On Organization of Risk Management System in Ukrainian Banks and Banking Groups approved by NBU Board Resolution No. 64 dated 11 June 2018 (as amended).

<sup>7</sup> The Procedure for Establishing and Approving Bank Ratings under CAMELSO Rating System, approved by NBU Board Decision No. 393 (as amended) dated 4 November 2016, introduced a four-point assessment scale (1 being the highest rating and 4 the lowest) and added the component O, with criteria for rating scores revised in 2018.

<sup>8</sup> Whereof 7 banks have already ceased operations.

Share of lowest scores by CAMELSO component, 2017–2019, % of inspected banks



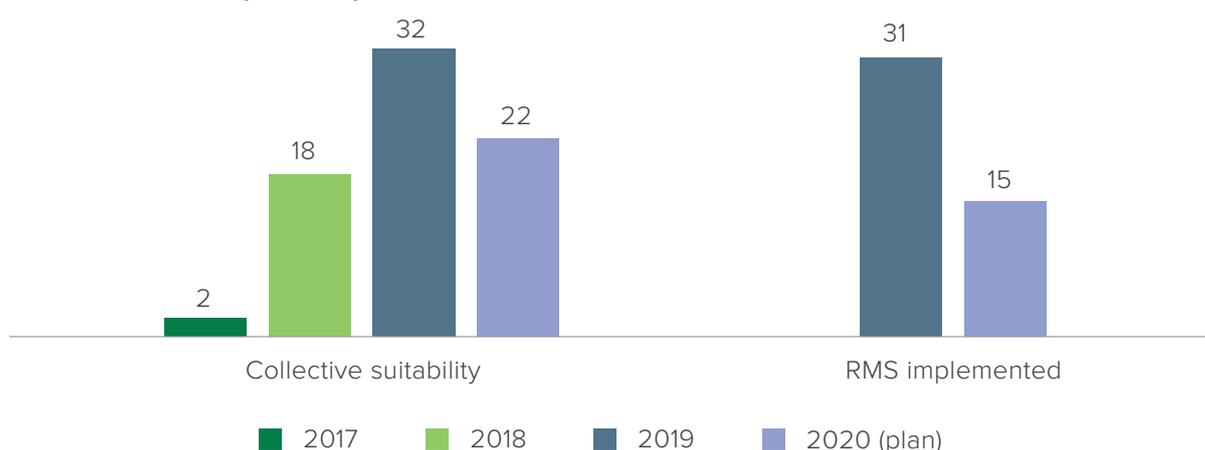
The lowest scores in 2019 were most often assigned under the components O (Operational risk) and M (Management), to 88.9% and 55.6% of the inspected banks, respectively. Similar to 2018, the component O (Operational risk), the lowest rated, remained the main problem area for banks, while none of the inspected banks received the lowest score under the component L (Liquidity).

Working to fulfill Ukraine's obligations under the Stand-By Arrangement with the IMF as set out in the Memorandum on Economic and Financial Policies dated 5 March 2018, we assessed the collective suitability and qualification of top managers at 32 banks. In addition, 31 banks were assessed for compliance with the new Regulation *On Organization of Risk Management System in Ukrainian Banks and Banking Groups* dated 11 June 2018 (hereinafter referred to as the "Regulation").

We made recommendations to banks on corporate governance enhancement and risk management system development for purposes of complying with the requirements of the Regulation as well as implementing best international practices, principles and recommendations of the Basel Committee on Banking Supervision.

The main focus of supervisory actions taken in the wake of bank inspections remained on assessing risky activities, identifying problem areas, and providing constructive and effective recommendations in order to prevent repeat violations. However, in 2019, corrective measures were imposed for violations of regulatory requirements. Specifically, eight banks were served with warning letters, one bank was fined, and restrictions to conduct certain transactions were imposed on one more bank.

Number of bank inspections pursuant to international commitments in 2017–2019



Based on the completed inspections, banks were issued recommendations to adjust their performance indicators as follows:

Key adjustments	UAH, millions
decrease regulatory capital	854.4
increase uncovered credit risk exposure	3,538.1
reduce profit/loss	3.9
<b>Total</b>	<b>4,396.4</b>

### Supervisory Findings of Financial Monitoring and Compliance with Currency and Sanction Law by Banks and Nonbank Financial Institutions

In 2019, we conducted 27 scheduled and one unscheduled on-site inspections at banks; 10 scheduled inspections at nonbank financial

institutions (NBFIs), and 52 bank inspections and one NBFIs inspection as part of off-site supervision. The purpose of these actions was to ensure adequate supervision of compliance by banks and NBFIs with the requirements of financial monitoring and sanction law.

### Inspection findings:

Indicator	Quantity
Completed inspections of banks/nonbank institutions, including:	80/11
Scheduled, on-site	27/10
Unscheduled, on-site	1/0
Off-site	52/1
Banks/nonbank institutions that committed violations, including:	37/9
Banks	37
Nonbank financial institutions	9

In 2019, we conducted 30 on-site inspections including: 27 scheduled inspections of banks and 3 scheduled inspections of nonbank financial institutions as part of supervision of compliance with currency legislation. Also, we inspected 3 banks as part of off-site supervision and conducted 4 desk audits of nonbank financial institutions.

Furthermore, 1,123 cash desks at nonbank financial institutions were inspected last year for compliance with procedures for setting up and conducting foreign exchange transactions.

In order to maintain a constant dialogue with the market players being inspected, we standardized its practice of holding collegial meetings with representatives of financial institutions. Such meetings are held before

an inspection and upon its completion, as well as in the course of on-site/off-site supervision (initiated by the NBU or the institutions). At these meetings, the parties can discuss any issues concerning the organization and conduct of inspections, their findings, recorded violations, other identified problems, and the resulting recommendations.

Also, representatives of the inspected institutions can, on their own or our initiative, attend meetings of the Committee on Banking Supervision and Regulation and Payment Systems Oversight. These meetings are held to discuss the provisional findings of financial monitoring inspections, recommendations on rectifying the identified violations, and motions to impose adequate corrective measures. Representatives of financial institutions attending such meetings have



the opportunity to present their explanations with respect to the identified violations and their circumstances, which the regulator takes into consideration when making a collegial decision on corrective measures within the remit of the Committee.

In addition to the aforementioned novelties, we also responded to proposals from institutions and doubled, from 10 to 20 calendar days, the advance notification period for on-site financial monitoring inspections and mandated advance disclosure to market players of the matters to be inspected on-site.

### Cooperation with Law Enforcement Bodies Based on Findings of Financial Monitoring and Supervision of Compliance with Currency and Sanction Law

In 2019, we sent information<sup>9</sup> to the Security Service of Ukraine regarding 35 banks and 2 nonbank financial institutions, namely:

- based on the results of financial monitoring inspections, we sent 24 communications to the law enforcement bodies to report on suspicious financial transactions by customers of banks and nonbank financial institutions totaling over UAH 29.2 billion, USD 98 million
- based on the results of currency supervision and in order to implement the state policy on combating organized crime, we sent 18<sup>10</sup> communications to report large-scale financial transactions by bank customers totaling about UAH 1.4 billion, USD 1.12 billion, EUR 51.1 million, RUB 69.6 million, and PLN 48 million.

Also, in 2019, we sent four notifications on suspicious financial transactions to the National Anti-Corruption Bureau of Ukraine, and, pursuant to Article 9 of the Law of Ukraine *On Combating Terrorism*, one report was made to the Security Service of Ukraine.

The communications sent to the law enforcement bodies were largely related to financial transactions by customers of banks/nonbank financial institutions that bore the hallmarks of capital withdrawal, legalization of criminal proceeds, conversion of cashless funds into cash, fictitious entrepreneurship, tax evasion, and other infractions.

Moreover, throughout last year, we regularly reported to the State Financial Monitoring Service of Ukraine information that was obtained in the course of financial monitoring and supervision of compliance with currency and sanctions legislation and raised suspicions of legalization (laundering) of proceeds from crime, financing of terrorism, and financing of the proliferation of weapons of mass destruction. This cooperation took place pursuant to the Agreement on Cooperation and Exchange of Information between the State Financial Monitoring Service of Ukraine and the NBU.

### Corrective Measures Based on Findings of Financial Monitoring and Supervision of Compliance with Currency and Sanction Law

Acting on the identified violations, we imposed corrective measures/sanctions, including in the form of fines and warning letters. We regularly release information on corrective measures imposed on banks and nonbank financial institutions<sup>11</sup> through press releases published on its official website. This information contains the name of the bank or nonbank financial institution and the imposed corrective measures, and provides a summary of the identified violations and grounds for the corrective measures. If any decision to impose corrective measures is appealed in court, we disclose it in due course and publishes any further information on the outcome of the appeal.

<sup>9</sup> Pursuant to Article 18 of the Law of Ukraine *On the Procedural and Legal Framework for Combating Organized Crime*.

<sup>10</sup> Including 13 communications with information obtained from financial monitoring and currency supervision inspections and which were part of the aforementioned communications sent by the NBU to the Security Service of Ukraine based on the results of financial monitoring inspections.

<sup>11</sup> Specifically, corrective measures imposed on banks based on the findings of financial monitoring and corrective measures imposed on NBFIs for violations of currency laws.



### Application of corrective measures/sanctions for breaches of financial monitoring legislation in 2019

Indicator	Quantity <sup>12</sup>
Warning letters	14 <sup>13</sup>
Fines charged to banks	19 resolutions totaling UAH 51,392,515.21
Fines charged to nonbank financial institutions	8 resolutions totaling UAH 137,700.00
Written demands to banks to remedy and prevent future occurrence of breaches of Ukrainian legislation	37 <sup>14</sup>
Written demands to nonbank financial institutions to remedy and prevent future occurrence of breaches of the Ukrainian legislation	9

### Application of corrective measures/sanctions for breaches of currency legislation of Ukraine in 2019

Indicator	Quantity <sup>15</sup>
Written warnings for banks or nonbank financial institutions	24
Fines charged to banks or nonbank financial institutions	26 resolutions totaling UAH 3,881,937.25
Resolutions on holding banks accountable for breaching currency legislation	3 resolutions totaling
Written demands to banks or nonbank financial institutions to remedy and prevent future occurrence of any breaches of currency legislation of Ukraine and NBU regulations	UAH 62,560.00

### NBU Awareness Campaigns as Part of Transition to Risk-Based Supervision

Continuing its practice of previous years, in 2019 we held awareness campaigns for reporting institutions, namely banks and nonbank financial institutions as well as legal entities and individuals, on the application of relevant laws and regulations, including NBU regulations and legislation on personal economic and other restrictive measures (sanctions).

In general, we closely cooperate with reporting institutions and self-regulatory organizations such as the Independent Association of Ukrainian Banks (IAUB) and the Forum for Leading International Financial Institutions (FLIFI). In 2019, various financial monitoring issues were discussed at joint meetings, workshops, round tables, and conferences, including with the involvement of representatives of other state agencies of Ukraine that are reporting institutions, international

<sup>12</sup> Court proceedings were initiated regarding some of the resolutions.

<sup>13</sup> Out of 14 warning letters, one was issued to a bank, including for violation of currency law.

<sup>14</sup> Out of 37 written demands, five were issued for violations of currency law.

<sup>15</sup> Court proceedings were initiated regarding some of the resolutions.



specialist associations in the area of financial monitoring, and foreign companies providing customized services for reporting institutions.

Furthermore, in 2019, as part of the regular national risk assessment, we completed a financial sector risk assessment (SRA) with the involvement of both supervised banks and nonbank financial institutions. The respective SRA opinions and recommendations were included in the second report on the national assessment of risks in the prevention of and counteraction to legalization (laundering) of the proceeds

from crime, terrorism financing, and financing of proliferation of weapons of mass destruction.

In H2 2019, we actively participated in preparing and deliberating Draft Law of Ukraine *On Prevention and Counteraction to Legalization (Laundering) of the Proceeds from Crime, Terrorism Financing, and Financing of Proliferation of Weapons of Mass Destruction* No. 2179 dated 25 September 2019. The Law (No. 361-IX) was passed on 6 December 2019 and published on 28 December 2019. We held a workshop for reporting institutions to familiarize them with new provisions in the aforementioned law.



## Harmonization of Prudential Requirements to Banks with EU Legislative Norms and Basel Committee Recommendations

Throughout 2019, we continued to implement the measures that form the core of the Comprehensive Program of Ukrainian Financial Sector Development until 2020, the Action Plan on Enhancing Banking Supervision, and the NBU's Plans on the Implementation of EU legislation in line with the EU-Ukraine Association Agreement. This was done in conjunction with the IMF, World Bank, European Commission, and other IFIs.

I. In order to improve the efficiency and sustainability of the Ukrainian banking system, based on the provisions of European legislation, in particular Directive 2013/36/EU, Directive 2014/59/EU, EU Regulation 575/2013, the Basel Committee recommendations on Banking Supervision, and the documents of the European Banking Authority, a number of regulations were adopted to introduce/improve:

- minimum capital requirements to cover operational risk
- net Stable Funding Ratio (NSFR)
- requirements to recovery plans for Ukrainian banks and banking groups
- procedure for defining systemically important banks
- requirements for administering troubled assets management at banks
- approaches to organizing corporate governance at banks
- bank licensing process.

In 2019, in collaboration with the World Bank experts, we finalized the Methodology for Calculating Bank Regulatory Capital (within the new structure) based on EU Regulation No.575/2013. Introducing new capital requirements for banks requires certain legislative changes, namely the adoption by the Verkhovna Rada of Ukraine of the amendments to the Law of Ukraine *On Banks and Banking*.

NBU Board Resolutions No.156 and 157 dated 24 December 2019 introduced the procedure for Ukrainian banks determining the minimum amount of operational risk and taking it into account when calculating capital adequacy ratios.

Throughout 2020, banks will calculate the minimum amount of operational risk in test mode, and starting from the reporting date as of 1 January 2022 – on a regular basis.

NBU Board Resolution No.158 dated 24 December 2019 introduced the net stable funding ratio (NSFR), a new long-term liquidity ratio. The NSFR determines the minimum level of a bank's liquidity over a one-year horizon and is calculated as the ratio of the amount of available stable financing to the amount of required stable funding.

The introduction of the NSFR will help reduce one of the systemic risks to financial stability associated with short-term bank funding, as well as balance banks' assets and liabilities by their maturities, and create incentives for banks to attract long-term deposits.

The NSFR for banks is set at 100%, according to EU rules. We will determine the period the banks need to reach this value on the basis of test calculations.

Banks will carry out test calculations of the NSFR during a period of five months

starting from 1 August 2020.

NBU Board Resolution No.95 dated 18 July 2019 introduced the requirements for the recovery plans for Ukrainian banks and banking groups.

According to these requirements, banks and banking groups have to develop realistic options for restoring financial resilience in the event of material deterioration of financial position or a crisis. The availability of such a plan and the implementation of its measures will promote the quick stabilization of their operations in the shortest terms.

The development of plans in compliance with the NBU requirements is mandatory for systemically important banks and recommended for other banks.

NBU Board Resolution No.79 dated 19 June 2019 introduced changes to the procedure for identifying systemically important banks.



These changes involve two stages of identifying systemically important banks:

- the first stage – by the indicators that characterize the bank’s size, its lines of business, and the degree of its financial interrelations
- the second stage – by the level of household deposits, guaranteed by the Deposit Guarantee Fund.

By NBU Board Resolution No.97 dated 18 July 2019, we adopted the Regulation *On Establishing the Process of Asset Management in Ukrainian Banks*.

In particular, the minimum requirements were set for:

- components of the troubled asset management process (early response system; introduction of tools to manage debt arising from nonperforming exposures; management of foreclosed assets)
- organizational aspects of troubled asset management (having a three-year strategy and operational plan to reduce the level and volume of these assets; creating a separate unit for dealing with nonperforming exposures; monitoring the effectiveness of the process).

In order to enhance the efficiency of corporate governance in banks and banking groups, we approved the Regulation *On Organization of Risk Management System in Ukrainian Banks and Banking Groups* (NBU Board Resolution No.88 dated 2 July 2019).

The Regulation defines the basic goals and principles of organization and functioning in banks and banking groups of a comprehensive, adequate, and efficient internal control system and sets minimum requirements for the organization of this system.

Specifically, the Regulation:

- details the authority and responsibilities of the entities of the internal control system
- introduces requirements for the establishment of an internal control system of a bank/banking group based on the “Three Lines of Defense” model
- details the procedures and types of internal control
- establishes criteria for the implementation and operation of components of the internal control system of a bank/banking group

- identifies criteria for assessing the efficiency of the internal control system of a bank/banking group.

In addition, the NBU Board adopted the amendments to the Methodological Recommendations on Corporate Governance in Ukrainian Banks (NBU Board Decision No.885-pw dated 28 November 2019).

The above-mentioned amendments include the following:

- improvement of the definition of the term “conflict of interest”
- procedures for evaluating candidates for independent board membership
- introduction of an annual performance assessment of the bank’s board.

In order to improve the process of bank licensing, we amended the Regulation *On Bank Licensing* with NBU Board Resolution No.72 dated 27 May 2019. The amendments improved the requirements for the owners of qualifying holding and bank top managers.

II. On 7 February 2019, the Law of Ukraine *On Currency and Currency Operations* came into effect and introduced of a new liberal system of currency regulation, currency supervision and licensing of currency transactions.

In order to bring NBU regulations on foreign exchange control and licensing of foreign exchange operations in line with legislative amendments, the following was done:

- NBU Board Resolution No.9 dated 2 January 2019 amended the Regulation, *On the Rules for Granting a General License for Foreign Exchange Operations to Nonbank Financial Institutions and the National Postal Service Operator* (hereinafter – Regulation No.297). The amendments extended the requirements of Regulation No.297 to each and all postal service providers and loosened conditions for issuing licenses to conduct foreign exchange operations for non-bank financial institutions and postal service operators.
- NBU Board Resolution No.13 dated 3 January 2019 approved the *Regulation on Currency Supervision* (replacing the *Regulation on Foreign Exchange Control*) that defined the main principles of currency supervision in Ukraine, carried out by the NBU and authorized institutions, as well as the grounds and procedure for the NBU to implement enforcement measures for violations of currency legislation by authorized institutions



- NBU Board Resolution No.14 dated 3 January 2019 approved amendments to the Regulation *On the Application of Enforcement Measures by the National Bank of Ukraine*, which extended the Regulation's scope of application to cover banks' violations of currency legislation.
- NBU Board Resolution No.15 dated 3 January 2019 approved amendments to the Regulation

*On the Procedure for Onsite and Offsite (Desk) Inspections* as to the compliance of banks, other financial institutions, and the national operator of postal services with the currency legislation of Ukraine, as well as to the inspections of foreign exchange bureaus in the territory of Ukraine. Pursuant to the amendments, the Regulation's scope of application extended to cover all postal operators without exception.



## Information Security and Cyber Defense in Banks

In 2019, the second stage of setting up the NBU Center for Cyber Defense was completed. During the second stage, the Computer Security Incident Response Team in the Ukrainian banking system (CSIRT-NBU) of the NBU Center for Cyber Defense introduced up-to-date equipment for monitoring, detecting, analyzing and examining samples of malware, as well as improved mechanisms for sharing information on cyber attacks and cyber incidents.

In 2019, the CSIRT-NBU examined 3,000 samples of malware, informed Ukrainian banks on detected cybersecurity incidents and reported attempted cyberattacks. Furthermore, the CSIRT-NBU has devised cyber threat indicators and prepared recommendations on countermeasures.

The NBU Center for Cyber Defense has continued cooperation with the National Coordination Center for Cybersecurity under the National Security and Defense Council of Ukraine, the CERT-UA, and the Situational Centre for Cybersecurity in Ukraine of the Security Service of Ukraine, having signed respective memorandums of understanding and cooperation and having connected to the MISP-UA.

We made yet another step towards paperless technologies in the Ukrainian banking system and improved conditions for applying electronic signatures and electronic seals. Respective provisions are set out in the revised Regulation regarding the application of electronic signatures in the Ukrainian banking system<sup>16</sup>.

For the purpose of the Law of Ukraine *On Electronic Trust Services, the Resolution*

*On Approval of Requirements to Certified Electronic Trust Service Providers Included to the Trust List upon the Submission of the Certification Authority*<sup>17</sup> was approved.

This enables the improvement of quality, user-friendliness and expediency of customer banking, and ensures the compliance of electronic trust services with the European and global standards. At present, the Certification Authority is ready to put electronic trust service providers on the Trust List in line with the Law of Ukraine *On Electronic Trust Services* and provide qualified electronic trust services for generating, verifying, and confirming the qualified electronic signature or seal applying state or international electronic signature algorithms (DSTU-4145, ECDSA, RSA).

To continue efforts intended for payment market participants to improve the effectiveness of approving documents, including for streamlining operation conditions and procedure with regards to protecting data, we have drafted a range of recommendations and identified standard comments posted on NBU official website.

In September 2019, the requirements of additional data security measures for banks took effect. These requirements were prescribed by Section V of the Regulation *On Measures to Ensure Information Security in the Banking System of Ukraine*<sup>18</sup>. Introducing these requirements by Ukrainian banks in full, along with compliance control by NBU specialists, promotes the stability of the Ukrainian banking system and strengthens banks' capacity to withstand present-day cyber threats.

<sup>16</sup> NBU Board Resolution No. 42 dated 25 September 2019.

<sup>17</sup> NBU Board Resolution No. 116 dated 19 September 2019.

<sup>18</sup> NBU Board Resolution No. 95 dated 28 September 2017.



## Implementation of Macroprudential Policy

In 2019, the NBU continued to work toward achieving the goals it had outlined in its Macroprudential Policy Strategy a year earlier.

In particular, the NBU conducted its second annual resilience assessment of banks and the banking system. The assessment included an asset quality review of all banks, with the largest banks also undergoing an important diagnostic procedure known as stress testing. The central bank stress-tested a total of 29 financial institutions, which jointly represent more than 90% of banking system assets. The focus of stress tests was on analyzing banks' consumer loan portfolio, which had grown rapidly over the past two years. Based on completed stress tests, the NBU mandated required (target) capital adequacy levels, which for 18 banks exceeded the statutory minimum. Seven of those banks, however, had higher capital adequacy levels assigned under a negative scenario only. All banks that were identified as being short of capital have already drafted and agreed with the NBU their recapitalization and restructuring programs. The deadline for implementing these programs is by the end of September 2020.

The surge in consumer lending (up almost 30% as of the end of 2019) poses an increasingly bigger challenge for Ukraine's financial stability. Banks relax their loan approval requirements, and some institutions have aggressively expanded in this segment while failing to ensure a sufficiently conservative assessment of risks under unsecured consumer loans. To prevent the accumulation of systemic risks, we recommend that the banks assess the risks and possible losses on these loans more realistically. If necessary, we can introduce increased risk weights for consumer loans.

The high level of dollarization of the Ukrainian financial system is another issue that risks undermining domestic financial stability, and one that the NBU's Macroprudential Policy Strategy addresses. In December, the central bank made an important decision aimed at de-dollarizing bank balance sheets, raising the reserve requirement ratio for FX deposits to 10% and cutting that for hryvnia deposits to zero.

The regulator continues to work on introducing new liquidity management tools in order to create a margin of liquidity to tide the sector over in

the event of a crisis. The liquidity coverage ratio (LCR), introduced in late 2018, was the first step in implementing a game-changing approach to liquidity risk management in line with Basel recommendations. The LCR requirement is intended to make banks more resilient to short-term liquidity shocks. Its minimum value was set at 100% in December 2019. Also, in late 2019, the NBU approved the methodology for calculating the net stable funding ratio (NSFR), a new ratio for long-term liquidity. The main purpose of the NSFR is to balance banks' assets and liabilities by maturity, create incentives for banks to attract long-term deposits, and reduce their dependence on short-term financing. The ratio will be introduced in the course of 2020. The NSFR's initial value and the transition period for its implementation will be determined based on test calculations.

The NBU also worked last year on improving the regulation and supervision of systemically important banks (SIBs). In June 2019, the NBU approved a revised methodology for identifying systemically important banks, which was based on international practices, particularly the EBA (European Banking Authority) guidelines. The updated methodology introduced more accurate metrics to map SIBs' significance for the financial market. This methodology expands the list of SIB criteria and introduces a two-stage process for identifying such institutions. At stage one, SIBs are identified using nine indicators characterizing the size of a bank's assets, its lines of business, and the degree of importance of its financial relationships. At stage two, banks that hold at least 1% of guaranteed household deposits are added to the list compiled at stage one. The Ukrainian methodology's important innovative and distinctive feature is that it establishes systemic importance for banking groups on a consolidated basis, meaning all banks in a group are assigned SIB status. Under the new methodology, the number of SIBs increased to 14 from 3, while their share of sector net assets expanded to more than 80% – close to levels in Eastern European countries.

The NBU will apply stricter prudential requirements to SIBs to ensure that these institutions have an additional margin of safety. In particular, the central bank imposed tighter portfolio diversification requirements on SIBs and mandated that these banks draw up recovery and resolution plans. SIBs also need to comply with a stricter



single-counterparty exposure limit of no more than 20%. SIBs will be required to maintain a systemic importance buffer on a continuous basis. This buffer will range from 1-2%, depending on a bank's systemic importance indicator. Systemically important banks will have time to prepare for the tightened regulatory requirements, as their coming into force was delayed by the coronavirus crisis.

In addition, new requirements are being introduced for capital structure and adequacy. The new rules will be phased in over a long adaptation period, taking into account quantitative estimates of their impact on the banking sector. As it implements international standards, the NBU takes into account domestic peculiarities, particularly the current development stage

of the banking sector and financial markets in general. This is in alignment with European approaches and regulations. More specifically, the banks were to have formed the first part of the capital conservation buffer at the level of 0.625% at the beginning of 2020 and to have increased its size to 2.5% over the next three years. As the authorities began to impose quarantine restrictions to contain the pandemic, we postponed the requirement for banks to comply with the capital conservation buffer amid a global tendency to ease regulatory requirements for capital buffers. The macroprudential measures and the existing reserves of capital and liquidity should enable the banks to successfully survive the crisis and to continue to operate as financial intermediaries.



## Implementation of Unified Financial Reporting System. iXBRL-based Financial Reporting by Ukrainian Banks under UA IFRS Taxonomy

In 2019, financial regulators worked hard to develop and implement the Financial Reporting System, which will enable the electronic collection and processing of financial data received from reporting entities.

The regulators are continuing to fulfill the requirements of the *Memorandum of Understanding on Developing and Implementing the Financial Reporting System No. 102/15* dated 18 December 2017, which aims to define the scope of cooperation and interaction between regulators in line with the Law of Ukraine *On Accounting and Financial Reporting in Ukraine*.

The new financial reporting system is based on the iXBRL electronic format under the UA IFRS Taxonomy and is meant to improve the market's transparency by providing market participants and regulators with exhaustive and reliable financial data.

The National Securities and Stock Market Commission will provide the resources for the financial reporting system. The system will be designed to function as a single window, i.e. as a financial statement collection center accessible by other regulators (to administer reporting and upload information to their own data repositories).

Financial statements will be presented in the international format familiar to foreign investors and stakeholders that monitor the development of the Ukrainian financial sector.

XBRL is a common international standard for submitting IFRS financial statements in electronic form. This format is popular across the globe and supports multiple qualitative and quantitative indicators.

Implementing the iXBRL-based IFRS reporting is an essential step towards raising the information disclosure standards for reporting entities, particularly for banks and other financial institutions.

Submitting electronic financial statements to the single window of the Financial Reporting System will streamline the banking system's transition to paperless technologies. Moreover, we will be able to process standardized and consolidated financial reporting data quickly and automatically when analyzing financial statements and performing supervisory functions. This includes the timely detection and prompt response to risks and close monitoring of financial statements submitted by banks and other financial institutions.



## Implementation of IFRS 16

International Financial Reporting Standard 16 *Leases* (IFRS 16 *Leases*) became mandatory effective 1 January 2019. It superseded International Accounting Standard 17 *Leases* (IAS 17 *Leases*).

Following the implementation of IFRS 16 *Leases*, amendments were made to NBU regulations to reflect in accounting and financial reporting lease transactions conducted by banks in line with the laws of Ukraine and international financial reporting standards.

Unlike IAS 17 *Leases*, which classified leases based on the right to use an asset within an agreed period of time in exchange for payment, the IFRS 16 *Leases* classification is based on controlling the use of the identified asset within a set period of time in exchange for compensation.

IFRS 16 *Leases* has introduced major changes to the lessee bank's accounting. As of the first day of the lease, the lessee bank must recognize the right-of-use asset that is subject to

depreciation and impairment and liabilities on the lease (in the amount of current lease payments).

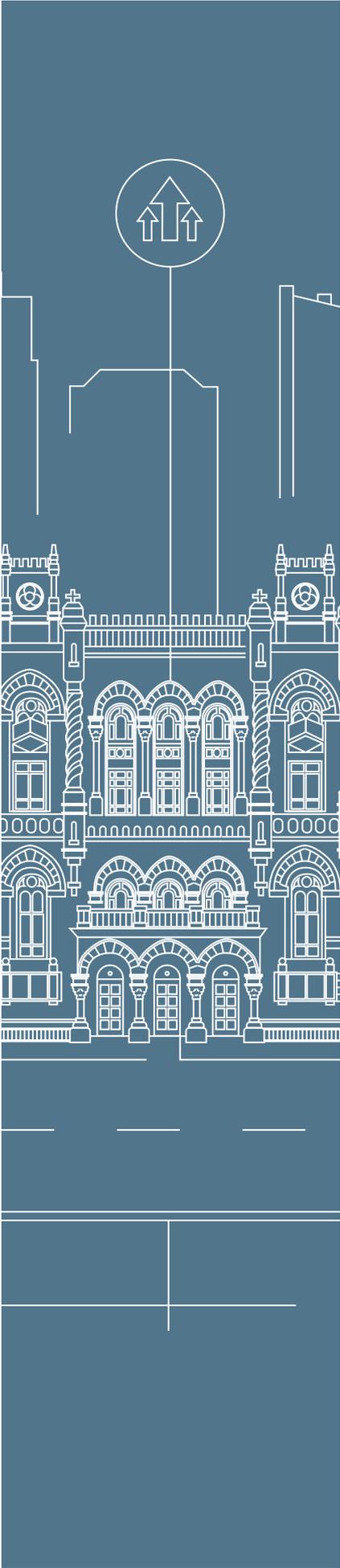
We monitored the banking system's readiness for the implementation of IFRS 16 *Leases* by sending questionnaires and analyzing received information.

In order to ensure the gradual implementation of IFRS 16 *Leases*, in early 2019, banks were given a three-month transition period during which no corrective measures were imposed for violating regulatory requirements and statistical reporting rules in case the violations were related to the transition to IFRS 16 *Leases*. This period was extended until the end of June 2019.

Reporting under IFRS 16 *Leases* will enable banks to improve the transparency of disclosing lessee information in their financial statements, which will raise stakeholders' trust in Ukrainian banks.



Meeting Strategic Goals



# The Resumption of Lending

Maintaining a Credit Register



## Maintaining a Credit Register

With a view to safeguarding compliance with Ukraine's Law On Amending Some Ukrainian Laws that Govern the Creation and Keeping of the NBU's Credit Register and Improving Credit Risk Management Processes at Banks, which was drawn up with support from the NBU, we approved a credit register regulation (NBU Board Resolution No. 50, dated 4 May 2018).

This regulation sets the rules for:

- banks and the Deposit Guarantee Fund providing information (about insolvent or liquidated banks) to the credit register and removing information from the register
- banks, private individuals and businesses obtaining information from the register
- keeping a register of the requests that banks, private individuals and businesses send to the credit register.

Since 1 September 2018, banks have been required to provide information to the NBU's credit register (the "credit register"), and have been allowed to obtain information about borrowers that owe more than the equivalent of 100 minimal wages to one bank.

Borrowers whose data have been entered into the credit register are also entitled to receive information about themselves from this register and, if they disagree with this information, to request that changes be made to it. Banks must update the information in the credit register as of the first day of each month.

On 1 December 2019, we introduced a procedure stipulating how banks should factor in information from the NBU's credit register when measuring credit risk.

The respective amendments to Regulation No. 351 were made in accordance with NBU Board Resolution No. 70, dated 16 May 2019, On Approving Amendments to Some NBU Regulations, which came into effect on 21 May 2019.

These amendments aimed to improve banks' credit risk assessments, through taking into account how borrowers are discharging

their liabilities to other banks, and relying for that on the information available in the credit register.

As of 1 January 2020, all banks were providing information to the credit register, as required by Ukraine's Law On Amending Some Ukrainian Laws on Creating and Keeping the NBU's Credit Register, and Improving Banks' Credit Risk Management.

We constantly monitor how banks comply with the existing laws that govern the operation of the credit register, and checks whether or not all of the provided data are up to date. The register currently contains information on more than 75,000 borrowers, 48,000 of whom are private individuals. The other 27,000 are businesses.

As part of comprehensive measures taken to improve the quality of credit register data, we work closely with banks to expand controls on collecting and submitting information about borrowers and collateral provided by borrowers for loans.

While sending information about borrowers that are private individuals to the credit register, banks are guided by Ukrainian law, in particular Ukraine's Personal Data Protection Law. The credit register allows banks to measure credit risk more effectively, contributes to the resumption of lending, and provides reliable and honest borrowers with access to bank loans.

With a view to improving and streamlining the credit register, we took the following steps in 2019:

- 1) developed and introduced software that provides information support to banks' risk measurement processes (as required by the Regulation on Measuring Credit Risk Generated by Banks' Exposures, approved by NBU Board Resolution No. 351, dated 30 June 2016, as amended)
- 2) the software, which was designed to enable banks to search for information about borrowers and their related parties in the credit register,



has successfully processed over 575,000 requests for information since early 2019

3) developed and tested web service software that provides private individuals with access to credit register data. We tested the service's remote identification feature through the central bank's BankID system

4) started testing the process of information exchange between the Deposit Guarantee Fund and the credit register

5) organized several meetings with representatives of banks and the Independent Association of Ukrainian Banks in order to discuss issues related to the credit register. Among other things, the participants discussed issues that arise when information about lending operations that banks receive from, and send to, the credit register is compiled and verified. As a result of these meetings, credit register software was upgraded and improved both in the banks and in the NBU.



Meeting Strategic Goals

## Effective Regulation of the Financial Sector

Adoption of Split Law and Consolidation of the State  
Regulation of the Financial Services Market

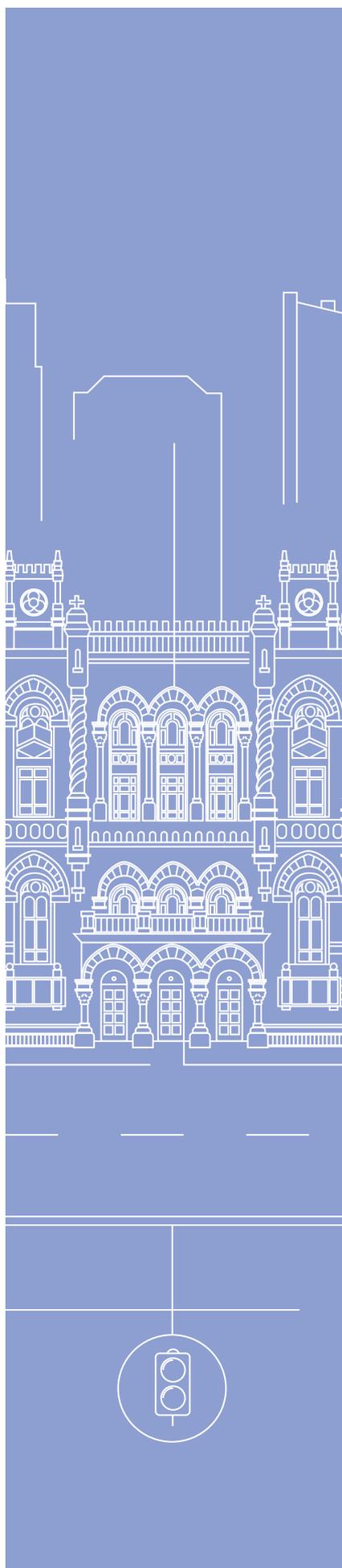
Implementation of the Revised Payment Service Directive  
(PSD2) and Future Regulation of Payment Systems

Status of the Ukrainian Payment Market

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Regulation of Cash Circulation



## Adoption of Split Law and Consolidation of the State Regulation of the Financial Services Market

On 12 September 2019, the Verkhovna Rada of Ukraine adopted the Law of Ukraine *On Amendments to Certain Laws of Ukraine On the Consolidation of Functions of the State Regulation of the Financial Services Markets* (Split Law).

Consequently, and in order to effectively manage transfer of functions to the NBU in line with division of state regulation and supervision of nonbank financial services from the National Commission

Regulating Financial Services Markets, we have organized and takes active part in the respective work groups in order to meet market players and receive their suggestions on future regulation of nonbank financial services market.

We have conducted an inventory and analysis of the current regulation nonbank financial services market and drafted a vision of the future regulatory framework.



## Implementation of the Revised Payment Service Directive (PSD2) and Future Regulation of Payment Systems

For implementation of PSD2 in June 2019, we have approved the Framework for amending Ukrainian laws on payment services.

This Framework provides for replacement of the Law of Ukraine, *On Payment Systems and Money Transfer in Ukraine*, with the new Law of Ukraine *On Payment Services*. Along with amendments to the main law other Ukrainian legal acts require amendments.

The key novelties prescribed by new laws are:

- new payment services and business models
- issue of electronic means of payment and electronic money to nonbank payment service providers
- introduction of Open Banking (a safe online access to funds and data on customer accounts for individual service providers that initiate payments and provide consolidated information on accounts)

- revision of licensing and registration procedures.

The new architecture of the payment services market will enable provision of payment services by banks, payment institutions, e-money institutions, postal operators, as well as government authorities and local self-governments. Banks will render payment services under banking licenses. Nonbank institutions will provide services according to the respective license. Also, options to transact payments are considered for special categories of payment services providers (e.g. telecommunications and internet operators, CIT companies etc.).

The deliberation of a new legal framework on payment services with different representatives of the payment market is expected to last through 2020.



## Status of the Ukrainian Payment Market

At the end of 2019, 46 payment systems and settlement systems were registered in Ukraine, including:

- 12 operated by nonresidents
- 34 operated by residents (whereof 30 are intrabank money transfer systems; 7 – established by banks; 17 – established by nonbank institutions).

Furthermore, 29 payment service providers were recorded in the register.

### Registration of Payment Systems, their Participants, and Payment Service Providers

In 2019, we registered:

four new payment systems:

- TRANSFAST international money transfer system (payment system operator – WYNDPAY LTD)
- PayRun international payment system (payment system operator – PAYRUN LLC)
- LIME MONEY national payment system (payment system operator – SMART FINEXPERT LLC)
- UAPAY national payment system (payment system operator – FC UAPAY LLC)

six new payment service providers:

- UNIT LLC
- AC DC PROPROCESSING LLC
- UKRKART LLC
- AI FINTECH LLC
- EASYTRANSFER LLC
- ProFIX

### Licensing for Conducting Money Transfers in Hryvnias without Opening Accounts

As of 1 January 2020, 63 nonbank institutions held licenses to make money transfers in hryvnias without opening accounts.

In 2019, we issued five new licenses to the following nonbank institutions:

- ProfitHid LLC
- FC ALFA-INVEST GROUP LLC
- FC CREDITON LLC
- FC LIBERTY FINANCE LLC
- FC YE HROSHI LLC

In 2019, we also improved the procedure and requirements for issuing licenses to nonbank financial institutions for domestic currency transfers without opening accounts, as well as the procedure and requirements for issuing such licenses to postal operators.

Also, the licensing procedure has been simplified for nonbank institutions conducting money transfers. In particular, nonbank institutions are no longer obligated to gain NBU approval for the internal rules for money transfers. Now, instead of internal money transfer rules, the set of documents for a license application will provide information on the requirements and procedure for money transfers of respective nonbank institutions in the form of a template questionnaire.

Furthermore, requirements to the business plan were revised that are to be submitted by nonbank institution to the NBU for a license.



## Regulating Payment Systems

In 2019, we took measures in line with the Comprehensive Program of Ukrainian Financial Sector Development Until 2020 and streamlined regulation of payment systems for implementation of NBU strategy for advancing cashless settlements.

We implemented ISO 13616 in Ukraine, the international bank account number (IBAN) that simplifies payer and payee identification mechanisms, prevents errors in filling out payer/payee account details, streamlines payment processing, and ensures a standardized approach to generating bank account numbers for both cross-border and domestic payments.

Also, in order to advance business in Ukraine, legal provisions were amended due to:

- cancelling the requirement for resident legal entities to submit copies of registered incorporation documents to a bank to open a current account
- cancelling the requirement for customers to submit signature sample cards to banks
- authorizing a bank representative to sign a power of attorney of a sole proprietor and a self-employed individual, if the power of attorney is executed in the bank (with the account holder and attorneys present)
- banks closing current accounts of sole proprietors that ceased their business (if the account balance is zero)
- banks changing accounts of retail customers that ceased their business and has a positive account balance.

In 2019, we authorized postal operators to conduct money transfers in hryvnia without opening accounts. For that purpose, the following was envisaged:

- the requirements for postal operators to receive the NBU license
- the list of documents to be submitted by postal operators for the license
- the requirements to financial standing, business reputation and individual suitability of top managers of postal operators
- grounds for the NBU to revoke the license for conducting money transfers in hryvnia without opening accounts from postal operators.

Also, we have streamlined the licensing procedure for money transfers in hryvnia without opening accounts (instead of internal rules on money transfers, information on the requirements and procedure for money transfers is to be provided) and introduced the requirement to draft and approve (with no obligation to provide to the NBU):

- internal rules on fund transfers in line with the requirements and procedure approved by the NBU for nonbank institutions to transfer funds, rules of the payment system, where the nonbank institution is or intends to be a member, and compliance with Ukrainian legal requirements on fund transfers
- the procedure of internal control for transferring funds.

Regarding the use of payment cards, legal requirements were clarified as to:

- powers of customers' authorized representatives to collect payment cards on their behalf, without giving them the right to use these cards
- obligation of the payment services providers to inform users on price of services provided
- obligation of banks to set out the procedure for issuing/reissuing electronic payment means to users in customer agreements.

Furthermore, in 2019 we:

- set the procedure for banks to send notifications to public or private enforcement services about the opening/closing of the accounts of individuals whose information is entered in the Unified Register of Debtors
- regulated the application of a signature on an electronic sensor for business interactions between banks and retail customers
- set the procedure for opening current accounts for nonresident legal entities
- set the procedure for banks opening a special/separate account for resolution of a corporate borrower and restructuring of debts/settling debts of a retail borrower (sole proprietor)
- expanded the list of entities authorized to accept hryvnia cash to be transferred





and included postal operators licensed by the NBU to transfer funds in hryvnia without opening accounts

- regulated the use of electronic payment means of payment applications
- regulated the operation of IT intermediaries of fund transfers through electronic payment means
- authorized self-employed individuals to use corporate payment cards
- authorized banks to issue electronic payment means for accounts of individuals declared disabled by the court in the name of legal representatives (guardians) of such individuals
- authorized banks to transfer payment cards to users through their agents authorized to identify/verify customers.



## Oversight of Financial Market Infrastructures

Oversight is an important central bank function aimed at sustainable and effective performance of financial market infrastructures.

As per the Law of Ukraine *On Payment Systems and Money Transfer in Ukraine*, we conduct oversight of payment and settlement systems by means of:

- payment systems monitoring
- evaluation of payment systems for compliance with Ukrainian law and international oversight standards (the *Principles for Financial Market Infrastructures* drafted by the Payments and Market Infrastructure Committee of the Bank for International Settlements and the Technical Committee of the International Organization of Securities Commissions (PFMI))
- inducing change (as needed, issuing instructions and recommendations on improving operations and imposing corrective measures, if violations are found).

Overseen entities in line with Ukrainian law are the following:

- payment system operators
- participants in payment systems
- payment service providers (clearing and processing institutions, and other entities authorized to provide services or perform operational and other technical functions within payment systems).

In 2019, for implementation of recommendations of the International Monetary Fund on expanding oversight functions, we drafted a methodology for oversight of other financial market infrastructures, i.e. the central depository, the central counterparty and the settlement system in securities.

In 2019, we conducted the following activities as part of its oversight mandate:

1) Comprehensive assessment of the National Depository of Ukraine Public Joint Stock Company (NDU) for compliance with international oversight standards.

The valuation was carried out with the technical support of the IMF, whose mission worked in Kyiv in September 2019. Representatives of the Technical Assistance Mission provided advice and clarifications to the NBU regarding

the application of the principles to the central securities depository and the securities settlement system, and, in cooperation with members of the NBU Working Group, interviewed NDU executives and experts.

The Financial Stability Committee and the NBU Board have reviewed the report on the preliminary evaluation of the NDU.

Based on the results of the evaluation, we have made recommendations to bring the NDU closer to international standards.

2) Targeted assessment of an individual area of operation of a single systemically important payment system in Ukraine, NBU SEP, i.e. operational risk management (Principle 17, the PFMI). The choice of Principle 17, the PFMI, is dictated by increased attention to leading international institutions (the World Bank, the International Monetary Fund) to management of operational risks of the systemically important infrastructures. It should be noted, that Principle 17 is the one of the key PFMI principles.

According to findings of the targeted assessment, recommendations were devised for reconciliation of NBU SEP operation with the international standards regarding operational risk management.

3) Onsite monitoring of overseen entities. The onsite monitoring of overseen entities is conducted to control compliance with Ukrainian law, as well as to detect and prevent risky operations.

In H1 2019, five payment system operators and two participants of payment systems underwent regular onsite inspections, and one unscheduled inspection was conducted for a payment system participant.

The main violations found by onsite monitoring were as follows:

- failure to recognize transactions on fund transfers in reporting systems
- misrepresentation of financial statements on operation of the payment system and its participants in violation of NBU regulations
- services provided in violation of rules approved by the NBU



- failure to ensure business continuity and information security
- noncompliance with the protection of consumer rights in terms of payment system services.

We imposed corrective measures in response to the detected violations as set out in Article 41 of the Law of Ukraine *On Payment Systems and Money Transfer in Ukraine*.

2) Offsite monitoring of overseen entities. In 2019, we also conducted offsite monitoring of overseen entities to check for compliance with Ukrainian law, specifically the following:

- operational compliance by payment systems and participants with the rules set by payment system operators
- compliance of overseen entities with regulatory requirements of the NBU to posting information on official websites of payment system operators and payment system participants

According to the findings of offsite monitoring, we made recommendations to overseen entities on bringing their operations in line with Ukrainian law.



## Regulation of Cash Circulation

In 2019, the NBU actively implemented its Policy on Cash Circulation in Ukraine<sup>19</sup>.

Particularly, as required by the Law of Ukraine *On the National Bank of Ukraine*, and in fulfilling the cash circulation policy, we continued to transfer its cash surpluses into the custody of authorized banks. The NBU's cash inventories were transferred under respective agreements with Oschadbank JSC, PrivatBank CB JSC, and Raiffeisen Bank Aval JSC in proportion to the limits set on the amounts each bank is allowed to store in all oblasts, including the government-controlled areas of the Donetsk and Luhansk oblasts, the city of Kyiv and Kyiv oblast. The number of locations of the authorized banks amounted to 66 by the end of 2019, which was 53.5% more than 43 locations in the end of 2018.

Due to changes to the Regulation *On the Selection Procedure and Eligibility Criteria for Banks to Qualify as Custodians of NBU Cash Reserves*<sup>20</sup>,

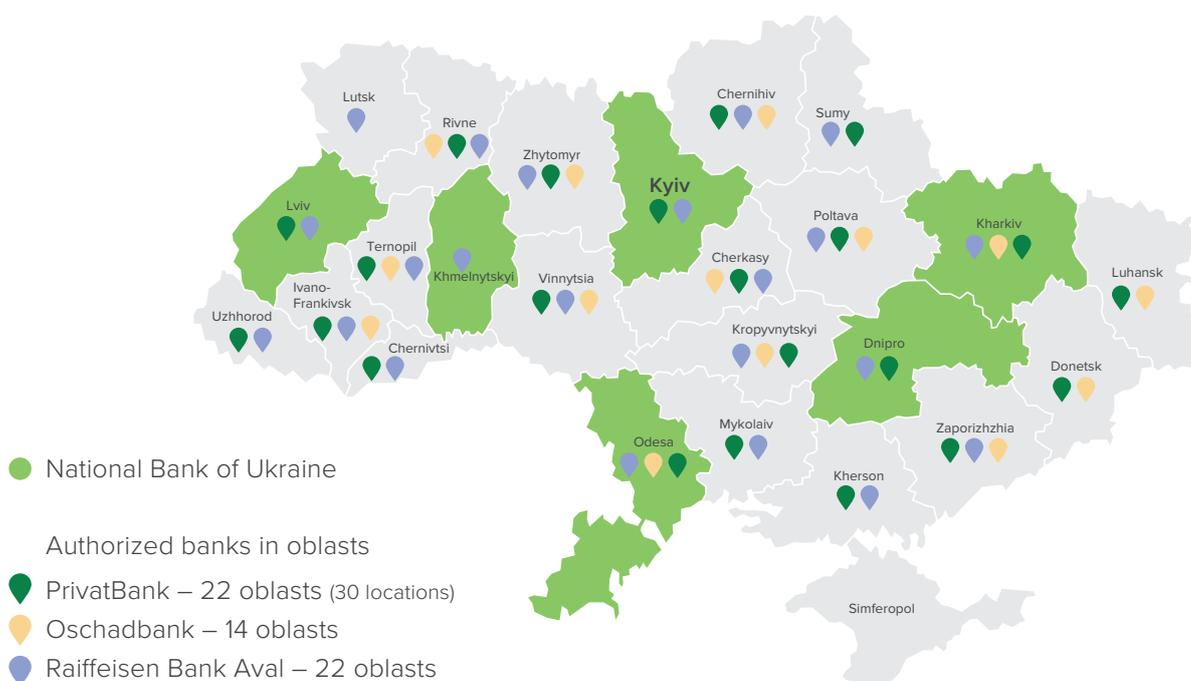
the list of banks authorized to provide cash custodial services to the NBU was expanded.

In particular, First Ukrainian International Bank JSC became the fourth bank authorized to process the NBU's cash inventories, as well as supply cash to regional banks and accept from them the cash that is unfit for circulation and surplus. The respective decision No. 718-rsh *On Granting First Ukrainian International Bank JSC Status of Authorized Bank* was approved by the NBU Board on 23 September 2019.

Thus, as of 1 January 2020, the following four banks are authorized to provide cash custodial services to the NBU: Oschadbank JSC, PrivatBank CB JSC, Raiffeisen Bank Aval JSC, and First Ukrainian International Bank JSC.

During 2019, we also streamlined the procedure for transferring its cash inventories into the custody of authorized banks. The relevant Resolution No. 145, which introduced changes to the Regulation *On Transferring Cash Inventories to Authorized*

### Cash handling by authorized banks in 24 oblasts as of end-December 2019



<sup>19</sup> Approved by NBU Board Decision No. 207-rsh dated 11 August 2016

<sup>20</sup> NBU Board Resolution No. 106 dated 14 August 2019

*Banks for Custodial Storage*<sup>21</sup>, was approved by the NBU Board on 3 December 2019.

In 2019, the NBU's cash inventories at authorized banks received UAH 170.4 billion for custodial storage. It was by UAH 128.1 billion, or four times more, compared with UAH 42.3 billion in 2018. The cash was used by the banks to replenish their cash desk inventories. At the same time, we withdrew cash worth UAH 18.3 billion from its inventories kept in custody, including UAH 7.7 billion in unfit banknotes (in 2018, it was UAH 5.1 billion and UAH 2.95 billion, respectively).

In 2019, we supplied UAH 101.2 billion in banknotes and coins to the cash circulation subunits of the Cash Circulation Department (hereinafter – the cash units) and the Central Vault from its reserve funds. At the same time, cash surplus in the total amount of UAH 3.5 billion from the cash units and the Central Vault was transferred to the reserve funds.

With a view to improving the management of cash circulation and making it fast, reliable, and efficient, in 2019 we amended its regulations and updated its software for transferring cash inventories to authorized banks, which is part of the NBU's centralized system for automation of cash circulation.

We streamlined cash handling in Zaporizhia oblast<sup>22</sup>, taking into account the ongoing internal transformations at the NBU and centralization of its functions. There was no failure in operation when implementing the delegated model for supplying regions with cash.

With a view to improving cash handling by Ukrainian banks, during 2019, we amended the *Instruction On Cash Handling by Ukrainian Banks*<sup>23</sup>, particularly in the following areas:

- bringing activity in line with the Laws of Ukraine On Currency and Currency Operations and On Electronic Trust Services
- financial monitoring function
- introduction of international bank account numbers (IBAN)
- streamlining banknote and coin denominations
- cash handling management at banks, etc.

Additionally, in 2019, we improved its tariff policy due to the changes in the banknote denominations and the issue of the new UAH 1,000 banknote.

## Performed Inspections

Under the laws in force, we perform revisions and inspections of cash inventories in custody at authorized banks to control how the banks comply with the NBU's regulations on handling cash inventories in custody, procedures for cash storage, proper cash sorting during its automated processing, and control over the issue of cash into circulation.

In 2019, we performed 31 revisions of the NBU's cash inventories in custody at 31 structural units of authorized banks, in particular, at:

- CB PrivatBank JSC (12 units) – 12 revisions
- Oschadbank JSC (5 units) – 5 revisions
- Raiffeisen Bank Aval JSC (14 units) – 14 revisions.

The above revisions contributed to the following:

- high-quality control over the NBU's cash inventories in custody
- ensuring the proper saturation of cash circulation, i.e. availability of appropriate banknote and coin denominations in circulation
- preserving the sufficient cash infrastructure and the high quality of cash in the stocks of the authorized banks.

Moreover, in 2019, we participated in 1,123 inspections of separated structural units of 34 nonbank financial institutions located in 24 Ukrainian oblasts. Such inspections were performed with the aim to ensure that the nonbank financial institutions, licensed by the NBU to conduct currency operations, protect the life and health of their staff members and ensure proper conditions for storing cash and other valuables.

## Cash Collection

In 2019, we continued to outsource cash handling to third parties (CIT companies). Cash handling will be conducted according to the rules set and supervised by the NBU. At present, ten CIT (cash-in-transit) companies have already obtained licenses to provide cash collection services to banks.

<sup>21</sup> approved by NBU Board Resolution No. 408, dated 7 December 2016

<sup>22</sup> NBU Board Decision No. 60 dated 25 January 2019

<sup>23</sup> approved by NBU Board Resolution No. 103, dated 25 September 2018



In 2019, we granted a permit to CIT Security LLC to expand their operations to include cash processing and storage. We approve CIT companies as providers of cash collection services, as well as cash processing and storage services, with the aim to implement the delegated model under the framework of the Policy on Cash Circulation in Ukraine.

As of the end of 2019, CIT companies provided cash collection services to 58 banks, 916 business entities, and 709 bank branches, and collected cash from 358 ATMs and 1,113 self-service kiosks. During 2019, we inspected the cash collection activities and compliance with the licensing requirements of seven CIT companies. The inspections revealed no material drawbacks.

### Optimization of Banknote and Coin Denominations

As with other central banks, we constantly improves the security features of banknotes to prevent counterfeiting and to make it easier for people to identify authentic banknotes without extra help.

In 2019, we continued to streamline the banknote and coin denominations, and issued into circulation, the following upgraded hryvnia banknotes with an improved design and security system:

- UAH 1,000 of the 2019 design – on 25 October 2019



- UAH 50 of the 2019 design – on 20 December 2019.



On 20 December 2019, we also issued 5-hryvnia coins into circulation.



The process will be completed with introduction of the 200-hryvnia banknote of the 2019 design on 25 February 2020 and the new 10-hryvnia circulating coin in mid-2020.





Under the optimization framework and pursuant to NBU Board Resolution No. 82 On the Withdrawal of Low-Denomination Coins from Circulation dated 20 June 2019, coins of 1, 2 and 5 kopiikas ceased to be legal tender in Ukraine and were withdrawn from circulation on 1 October 2019. In addition, the 25-kopiika coin will continue to be used as legal tender for now, but will be phased out eventually.

As a result, after the withdrawal of these coins and the introduction of the new denomination banknote, the hryvnia denomination series will be reduced from 17 to 12 denominations. All in all, there will be six coin denominations (10 and 50 kopiikas and 1, 2, 5 and 10 hryvnias) and six banknote denominations (20, 50, 100, 200, 500, and 1,000 hryvnias).

Furthermore, in 2019<sup>24</sup>:

- The Banknote Paper Mill produced 423.728 tons of paper (100% of the planned amount)
- The Banknote Printing and Minting Works produced 347,987,300 units of banknotes (101% of the planned number) and 337 million coins (100% of the planned number) and transferred them to the Central Vault.

## Licensing of CIT Companies

In 2019, we issued one license to the legal entity GLOBAL COLLECTION LLC on providing cash collection services to banks.

Overall, as of the end of 2019, the following ten legal entities had the right to provide cash collection services to banks:

- CIT Security LLC
- Ukrainian Collection Service LLC
- First Cash-in-Transit Company LLC
- O-Mega LLC
- Ahenstvo Kompleksnoi Bezpeky – Security Firm LLC
- Diamant Security LLC
- Panorama Prykarpattia LLC
- Comservice–Bezpeka PC
- Cash and Security LLC
- GLOBAL COLLECTION LLC

In 2019, with a view to implementing the Policy on Cash Circulation in Ukraine, we started issuing permits to CIT companies to perform cash processing and storage.

Additionally, we clarified certain procedures on granting licenses to legal entities for providing cash collection services and simplified the requirements for the start of cash processing and storage activities.

<sup>24</sup> Pursuant to NBU Board Decision No. 407 On Organizing the Production of Banknotes, Small and Circulating Coins, and Banknote Paper in 2019 as amended, dated 27 June 2018.



Meeting Strategic Goals

## Free Movement of Capital

Development of Capital Market Infrastructure

Currency Liberalization



## Development of Capital Market Infrastructure

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In a landmark development for the Ukrainian financial market in 2019, we signed a correspondent relationship agreement with Clearstream, the international central securities depository.

Clearstream's securities account with the NBU Depository gave foreign investors much easier access to hryvnia-denominated government debt securities, making this market more attractive and more liquid.

The Clearstream link enabled the government to tap new sources of long-term financing, cut borrowing costs, and improve the currency structure of public debt by increasing the share of hryvnia funding. Foreign investors bought almost USD 4.3 billion worth of hryvnia government bonds last year, expanding their portfolio by a factor of 20.

The NBU Depository also stepped up work in the course of 2019 on automating its processes and performing technological and operational software upgrades.

The implemented software enhancements allowed for holding auctions to sell domestic government bonds via the Bloomberg Auction System,

a state-of-the-art electronic trading platform. This also facilitated access for Ukrainian and international banks to the primary market for domestic government bonds.

Professional stock market players in Ukraine were offered the opportunity to develop and integrate with the NBU Depository their own automated systems for online transactions with domestic government bonds.

This innovation was made possible through the launch of API technologies at the NBU Depository, which provided for automated interaction between stock market players' internal systems and the NBU's depository accounts. It also enabled stock market participants to not only automate their regular operations but also introduce cross-cutting processes for new products and services.

Stock market players will now be able to remotely conduct transactions with government securities on behalf of their clients, open securities accounts, issue customer statements, etc. In turn, customers served by professional market players will have the opportunity to conduct transactions via mobile applications.



## Currency Liberalization

Our new liberal system of currency regulations took effect on 7 February 2019, along with the enactment of the Law of Ukraine *On Currency and Currency Operations*. The new regulatory framework replaced nearly 40 outdated FX regulations in the course of the year. Some of the most important steps toward full currency liberalization included:

- canceling the foreign currency surrender requirement for companies
- allowing private individuals to buy foreign currency online
- lifting all limits on the repatriation of dividends
- launching a convenient system of e-limits for investments outside of Ukraine
- revoking the requirement for companies to make hryvnia-denominated deposits prior to buying foreign currency
- allowing legal entities to use their accounts abroad without limitations
- removing the cap on daily foreign currency purchases by individuals
- allowing early repayment of external obligations
- abolishing the procedure for registration of external borrowings
- introducing foreign currency forwards to hedge business risks
- canceling currency oversight over immaterial export/import transactions
- doubling the maximum settlement period under export/import contracts to 365 days
- lifting sanctions in the form of termination of foreign economic activity for failure to meet settlement deadlines
- allowing foreign currency purchases with borrowed funds.

We phased out these restrictions only gradually, aligning its actions with improvement in Ukraine's macroeconomic indicators and legislative reform progress in the Verkhovna Rada. The relaxation of currency controls thus had no negative impact on either the FX market or the balance of payments. In fact, trading volumes in the FX market increased and the hryvnia enjoyed record appreciation. Exporters boosted foreign currency sales, while households were net sellers of FX for the fourth year running.

Businesses and households welcomed the currency liberalization steps, embracing new products such as e-limits, instruments to hedge currency risks, and online FX purchases. The currency liberalization reform also contributed to increasing foreign investors' interest in the Ukrainian market and improving the perception of the domestic business environment.

Addressing the restrictions remaining in effect, we published a roadmap for their gradual removal and listed the prerequisites for transitioning to free movement of capital, the ultimate goal of the currency liberalization process. The currency liberalization steps laid out in the roadmap have no preset time frame. This means that the sooner favorable macroeconomic and financial conditions are put in place, the more rapidly we will be able to remove the remaining FX market restrictions.

The lifting of FX restrictions will thus continue to be preceded by our assessment of macroeconomic and other indicators such as GDP growth, inflation dynamics, FX market stance, financial stability, external market environment, and other factors. A number of restrictions are related to the adoption of a raft of draft laws by the Verkhovna Rada on combatting BEPS and the implementation of an already enacted Split law that has distributed the powers to regulate the financial market between regulators.



Meeting Strategic Goals



## Financial Inclusion

Payments and Settlements

System of Electronic Payments of the National Bank of Ukraine

PROSTIR National Payment System

NBU BankID System

Exploring the Possibility of Issuing e-Hryvnia, Central Bank Digital Currency

Protection of Consumers of Financial Services

Raising Financial Literacy



## Payments and Settlements

### Development of Payment Cards in Ukraine

#### Payment Card Transactions

In 2019, payment card transactions continued to increase (both noncash and cash withdrawals). Transactions on payment cards issued by Ukrainian banks reached 5,057.3 million in number (by 29.2% yoy) and UAH 3,576.7 billion in value (by 24.3% yoy).

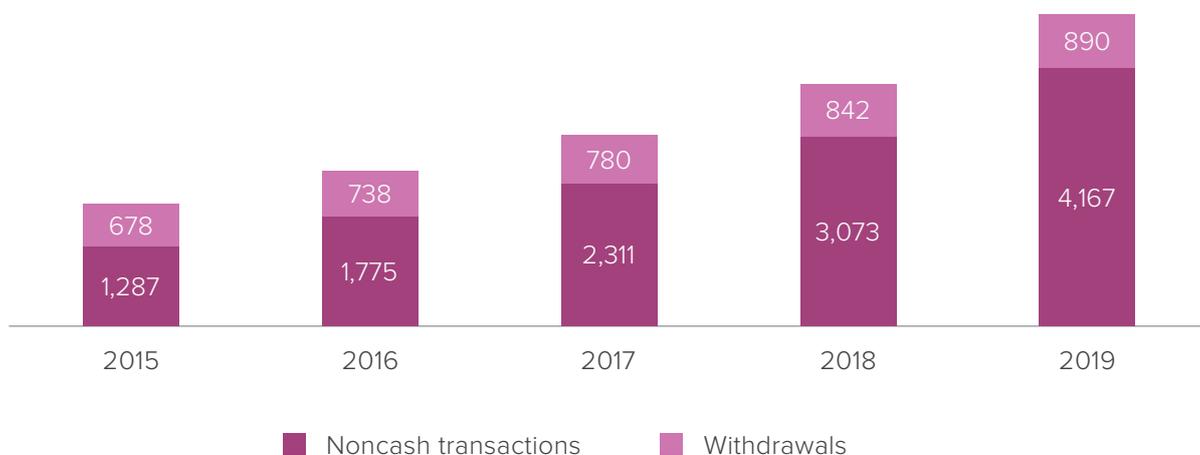
Most of these transactions were conducted in the proprietary networks of Ukrainian issuing banks (60.6% in number and 78.5% in value of all card transactions). Nonproprietary bank networks

accounted for 35.9% in number and 17.3% in value of card transactions.

Abroad, transactions on cards issued by resident banks remained as low as 3.5% in number and 4.3% in value. At the same time, the share of domestic transactions on cards issued by nonresident banks remained as low as 1.2% in number and 2.0% in value.

In 2019, in contrast to 2018, the number of noncash payment card transactions increased by 35.6% to 4,167.1 million (82.4% of total transactions) and the value – by 38.6% and reached UAH 1,798.3 billion (50.3% of the total value of card transactions).

Number of payment card transactions, million



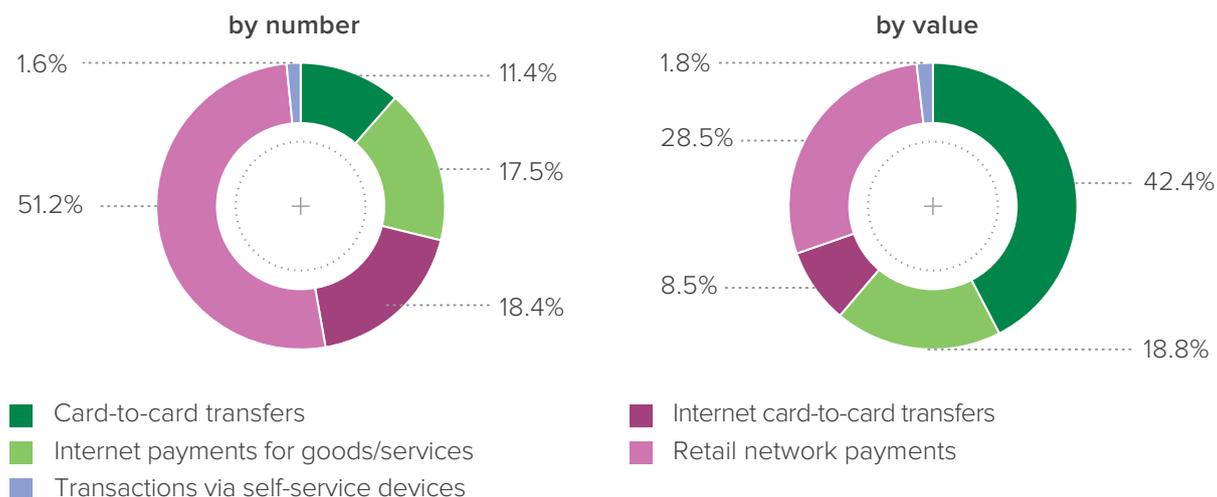
Number of payment card transactions, UAH billion



Over a half of noncash payment card transactions (51.2%) are executed in retail networks accounted for 28.5% of the value of noncash transactions. At the same time, a third of these transactions (36.1% – in number, 35.9% – in value) were executed by means of contactless payment devices.

Furthermore, 42.4% of the value of noncash payment card transactions were card-to-card transfers and accounted for 11.4%.

### Noncash card transactions in 2019



### Issue and Types of Payment Cards

The number of cards issued by Ukrainian banks as of 1 January 2020 was 68.9 million. This is a 16.0% increase over the previous year. Whereof active cards<sup>25</sup> accounted for 42.2 million (61.2% of issued cards).

Security, expediency and convenience of contactless payments using contactless cards, smartphones, and other NFC devices promote wider use of cards that are based on these technologies. The number of contactless payment cards in 2019 more than doubled from 3.9 million to 8.6 million cards. The number of tokenized payment cards<sup>26</sup> as of 1 January 2020 increased by 2.5 million. In general, 26.5% of active payment cards are contactless and tokenized.

The majority of active cards (28.7 million, or 68.1%) were issued by MasterCard international payment system. The second and the third place in terms of number of active cards are attributed to VISA (12.9 million, or 30.7%) and PROSTIR (0.5 million

or 1.1%). As of 1 January 2020, one Ukrainian<sup>27</sup> had 1.2 active cards.

Top card issuers are as follows:

- CB PrivatBank JSC (47.6% of all issued cards)
- Oschadbank JSC (21.0%)
- Raiffeisen Bank Aval JSC (5.3%)

### Payment Infrastructure

One of the factors contributing to the increase of noncash transactions in 2019 was the payment infrastructure development. Thus, the number of POS-terminals in retail and service networks grew by 19.7% to 333,800 in contrast to 2018, whereof 302,100 (90.5%) – contactless terminals. In general, the number of POS-terminals in retail and service networks over the last five years almost doubled from 174,300 to 333,800. At the same time, the last three years show a gradual annual decrease of banking devices (ATMs, self-service kiosks, and bank terminals) from 56,600 to 52,300.

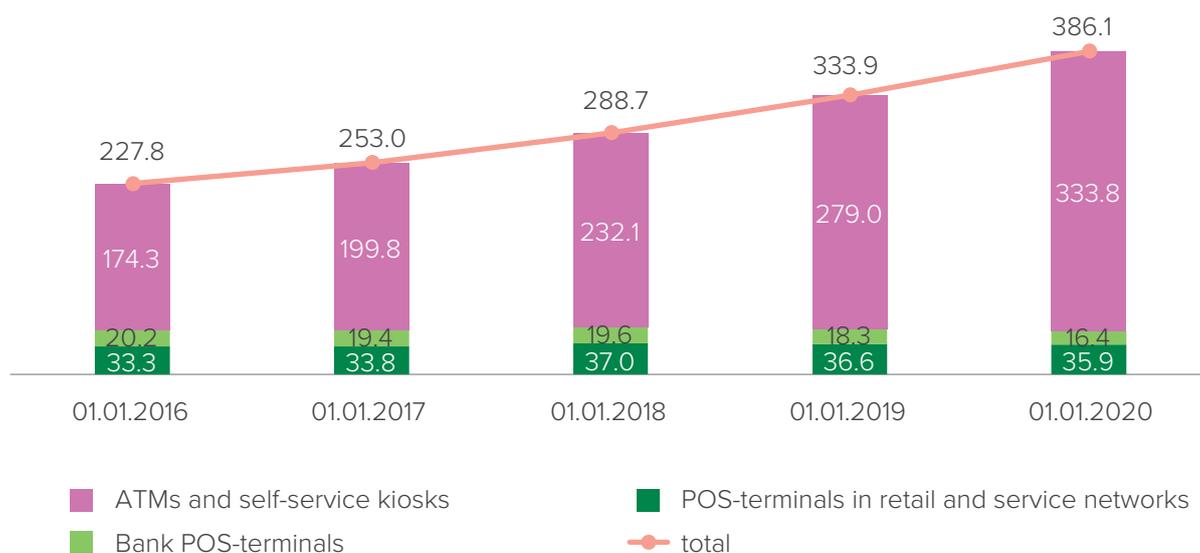
<sup>25</sup> Active cards are those with at least one debit operation over the last three months.

<sup>26</sup> Generated by changing the details of payment cards for unique digital identifiers and further used for transactions by means of NFC devices (in particular, such payment services as Apple Pay, Google Pay, Garmin Pay etc.).

<sup>27</sup> Estimates are based on the population over 18 years as of 1 January 2019, according to the State Statistics Service of Ukraine.



## Payment infrastructure, thousand units



The number of POS-terminals in retail and service networks as per one million of resident population of Ukraine<sup>28</sup> over the year increased from 7,100 to 8,400 (by 18.3%).

Regional distribution of POS-terminals remains quite uneven. The top regions are Kyiv city (21,900 terminals per 1 million residents), Kyiv oblast (12,000 terminals), and Dnipropetrovsk oblast (11,200 terminals). The least number of terminals per 1 million residents is in Zakarpattia (4,600 terminals), Donetsk (3,500 terminals), and Luhansk (2,100 terminals) oblasts.

CB PrivatBank JSC accounts for the majority of POS-terminals (60.8% of all POS-terminals) followed by Oschadbank JSC (16.9%) and Raiffeisen Bank Aval JSC (8.3%).

### Operation of Money Transfer Systems in Ukraine

In 2019, 37 money transfer systems were operational, including:

- 330 systems established by residents
- 7 systems established by nonresidents.

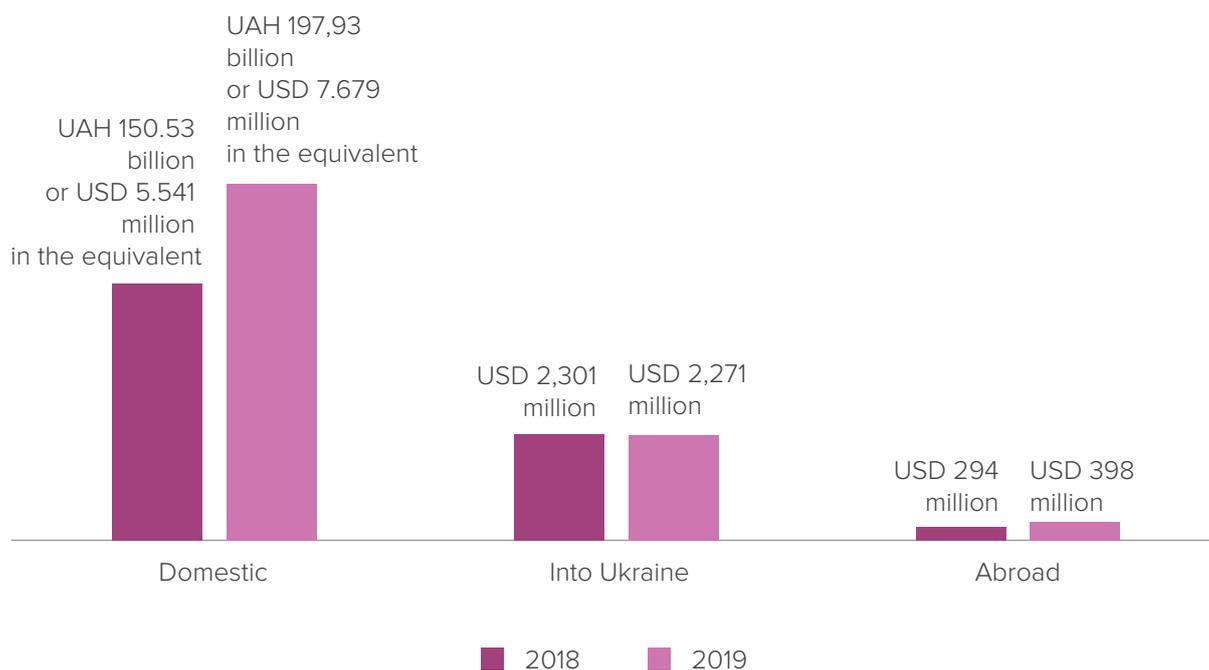
In 2019, money transfer systems established by both residents and nonresidents transferred:

- UAH 197.9 billion (the equivalent of USD 7,679.4 million) in domestic transfers
- into Ukraine – USD 2,270.6 million in the USD equivalent
- abroad – USD 398.1 million in the USD equivalent.

<sup>28</sup> Population as of 1 December 2019 according to the State Statistics Service of Ukraine



**Transfers in money transfer systems, USD million (in the equivalent)**



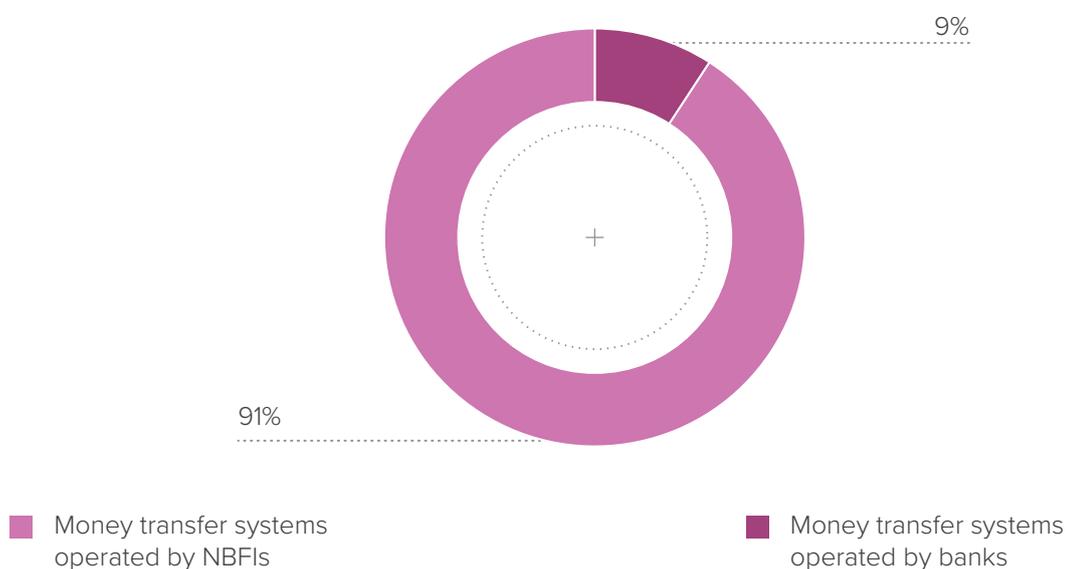
*Operation of Money Transfer Systems Established by Residents*

In 2019, seven money transfer systems were established by banks, 14 systems set up by nonbank institutions, and 9 by interbank transfer systems operated in Ukraine.

The following amounts were transferred via money transfer systems established by banks and resident nonbank institutions in 2019:

- UAH 197.8 million (equal to USD 7,677.3 million) in domestic transfers
- into Ukraine – USD 143.3 million in the USD equivalent
- abroad – USD 5.8 million in the USD equivalent.

**Value of payment transfers through systems established by banks and nonbanks in Ukraine in 2019**



In 2019, NovaPay (3,344.6 million in the USD equivalent) and Poshtovyi Perekaz (1,748.6 million in the USD equivalent) became the top money transfer systems in terms of domestic transfers.

### Operation of Money Transfer Systems Established by Nonresidents

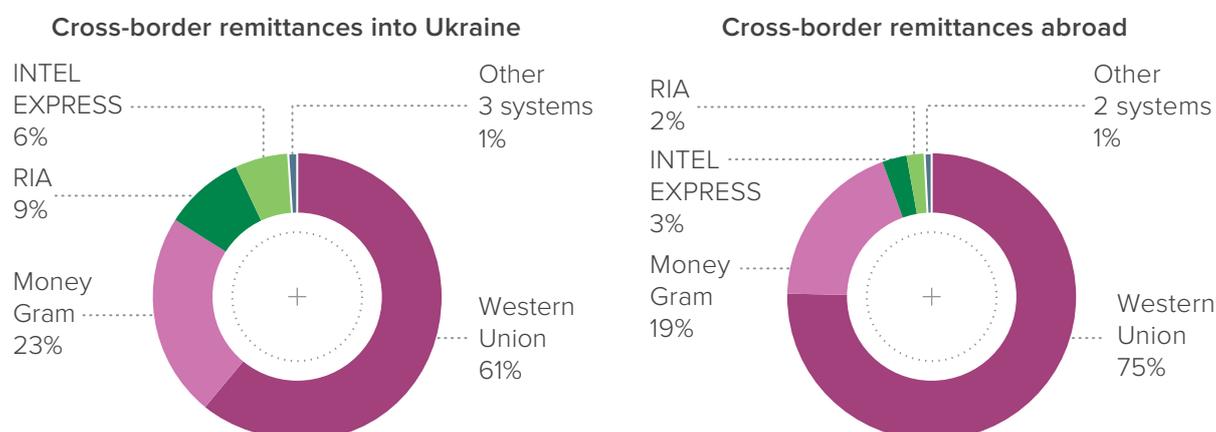
In 2019, seven money transfer systems operated in Ukraine that were established by nonresidents, whereof four are U.S. based, and by one from Georgia, Canada, and Azerbaijan.

In 2019, the systems established by nonresidents transferred:

- UAH 54.7 million in domestic transfers (equal to USD 2.1 million)
- into Ukraine – USD 2,127.3 million in the USD equivalent
- abroad – USD 392.3 million in the USD equivalent.

In 2019, Western Union accounted for the greatest share of transfers to Ukraine and abroad (61% of cross-border transfers to Ukraine and 75% to foreign destinations).

### Value of cross-border transfers via nonresident systems



Ukraine remains a net recipient of cross-border transfers. In 2019, the amounts received in Ukraine through international money transfer systems exceeded amounts sent abroad by six times.

The largest transfers to Ukraine came from the U.S. (18%), Israel (14%), and Italy (9%). Last year, the largest transfers from Ukraine were to Russia (31%), Georgia (11%), and Azerbaijan (6%).

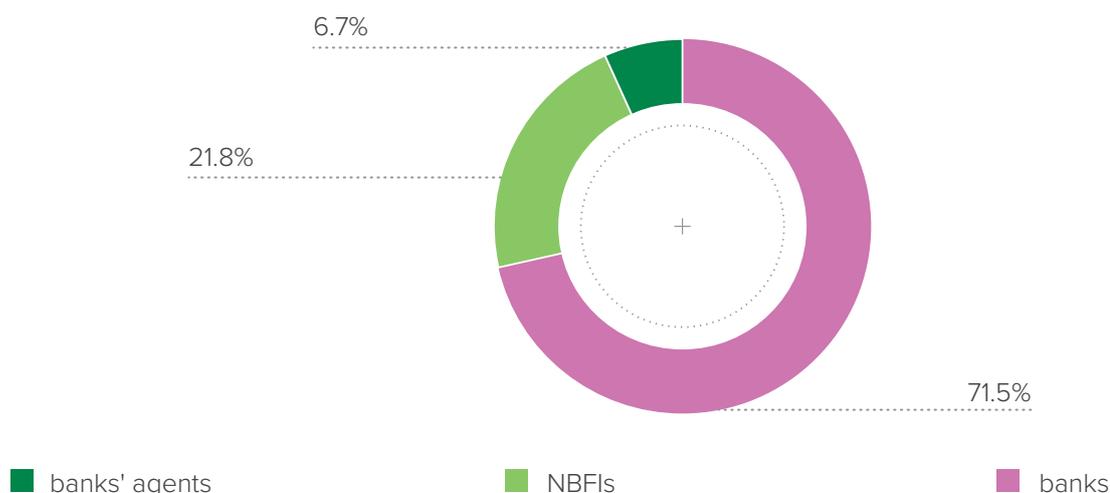
### Accepting Cash Payments for Further Transfer

In 2019, cash payments were accepted for further transfer:

- via payment devices: by 19 nonbank institutions as part of fund transfer systems, 33 banks using proprietary payment devices and 11 bank agents
- cash acceptance points: by 27 nonbank institutions as part of fund transfer systems and 18 bank agents

In 2019, accepted cash payments for further transfer amounted to UAH 643.3 billion, a 27.7% increase yoy.

### Distribution of accepted cash payments for further transfer in value in 2019



The greater share of cash payments was accepted by bank payment devices (UAH 459.7 billion or 71.5%).

### Opening Accounts for Customers by Banks

As of 1 January 2020, Ukrainian banks provided services to 61.9 million customers, including:

- to 2.5 million business entities, including 1.4 million sole proprietors
- to 59.4 million individuals.

Thus, banks opened 119.1 million accounts.

4.7 million accounts were opened for business entities, including 4.5 million current accounts and 0.2 million deposit accounts. Over 1.7 million business entities' accounts are serviced remotely and customers can track account balances and execute transactions in real time.

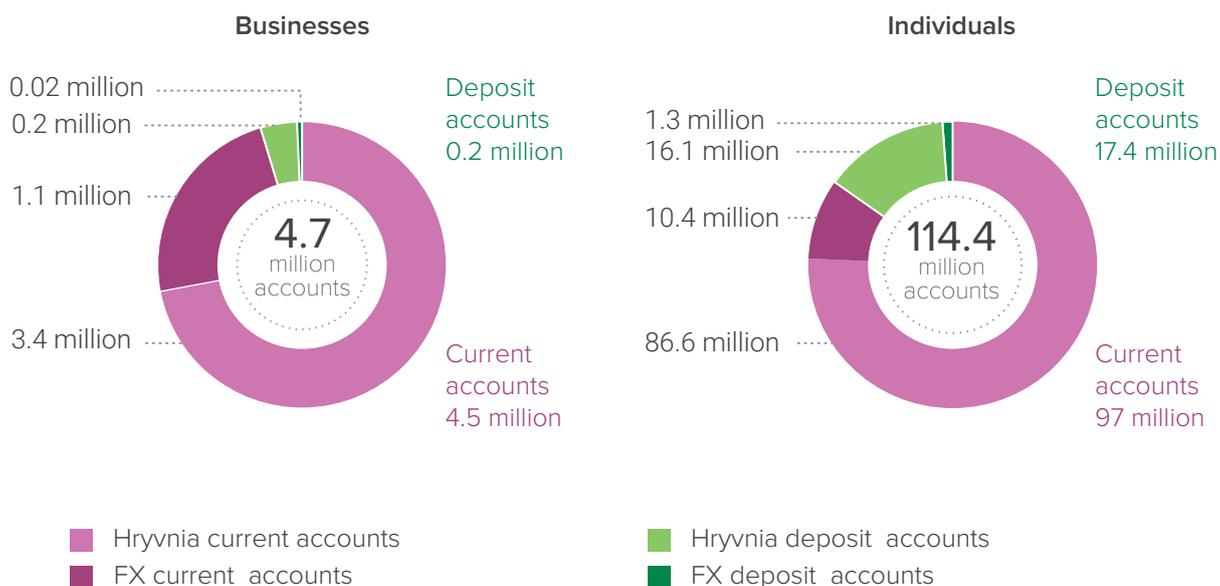
Individuals opened 114.4 million accounts, including 97 million current accounts and 17.4 million deposit accounts.

In 2019, the number of accounts opened by business entities grew by 8%, retail accounts – by 25%.

### Number of bank customers and accounts



## Accounts of businesses and individuals



## E-money

The e-money market has grown rapidly in Ukraine over 2014.

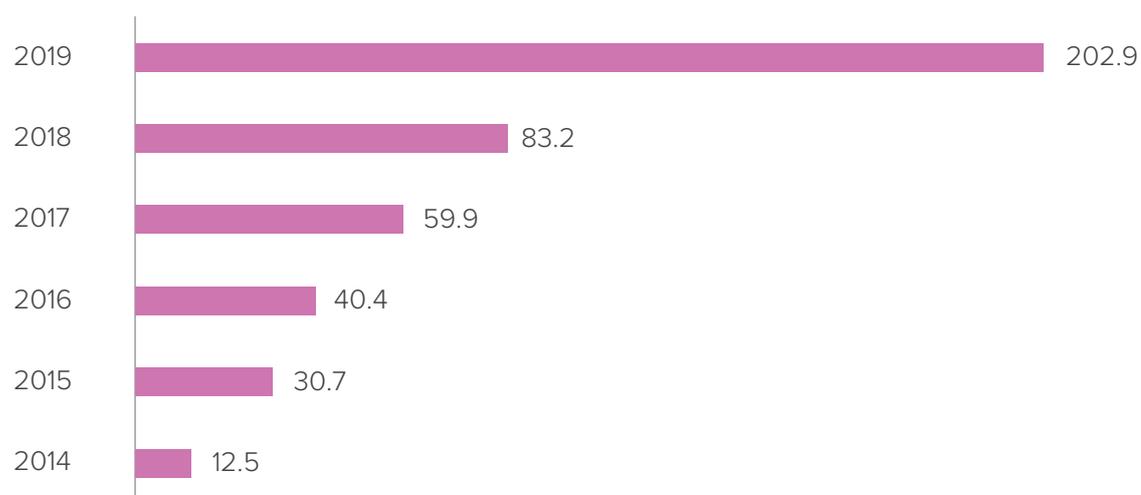
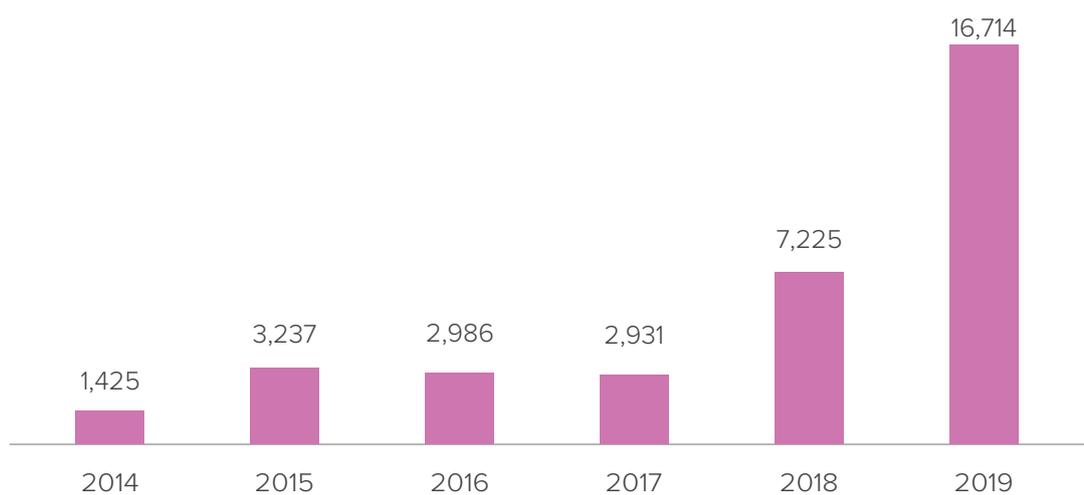
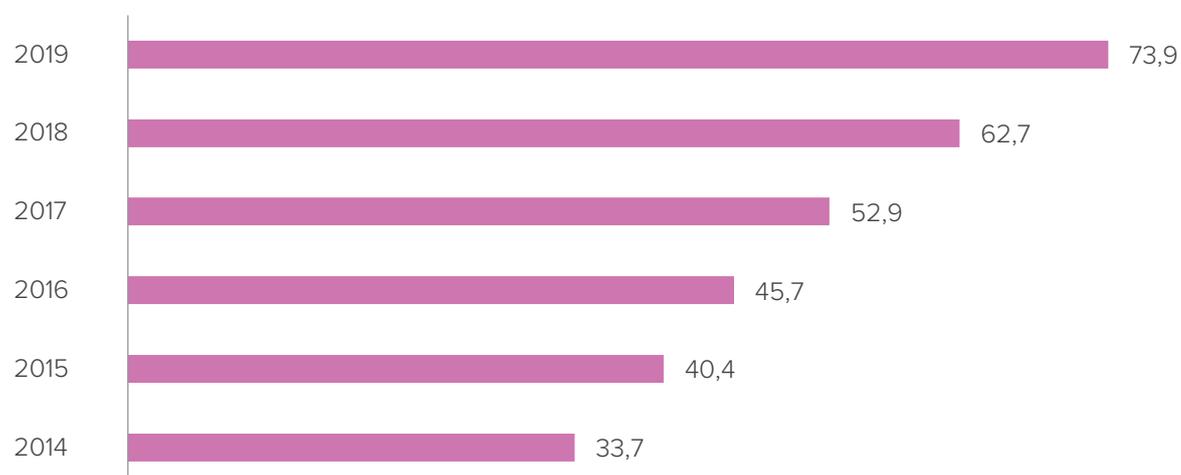
- In 2019 compared with 2018, issuing banks increased:
- e-money issue by almost 2.5 times (by UAH 119.7 million) from UAH 83.2 million to UAH 202.9 million
- e-money transactions by 2.3 times (by UAH 9,489 million) from UAH 7,225 million to UAH 16,714 million
- number of e-wallets by 17% (by 11.2 million) from 62.7 million to 73.9 million.

In 2019, the following banks issued e-money and conducted e-money transactions:

- Maksi (TASCOMBANK JSC)

- XPAY (BANK SICH JSC)
- FORPOST (ALFA-BANK PJSC)
- GlobalMoney (CB GLOBUS PJSC/BANK ALLIANCE JSC)
- ELECTRUM (UKRGASBANK JSB)
- ALFA-MONEY (ALFA BANK JSC)
- MasterCard (BANK VOSTOK PJSC, ALFA-BANK PJSC, TASCOMBANK JSC, CB PrivatBank PJSC, FUIB PJSC, OSCHADBANK JSC)
- Visa (OSCHADBANK JSC, FUIB PJSC, CB PrivatBank PJSC, INDUSTRIALBANK JSCB, JSCB CONCORD JSC, MEGABANK JSC, Raiffeisen Bank Aval JSC)
- PROSTIR (UKRGASBANK JSB, ALFA-BANK JSC, UNEX BANK JSC, BANK VOSTOK PJSC).



**E-money issued, UAH million****Transactions, UAH million****E-wallets by number, million**

## System of Electronic Payments of the National Bank of Ukraine

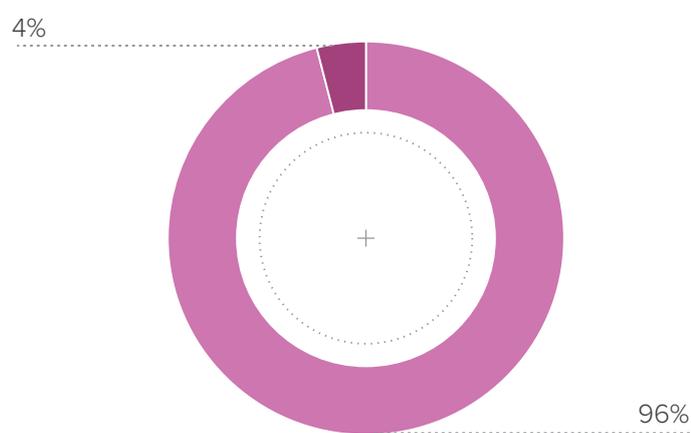
In 2019, we ensured the reliability of domestic interbank transfers through the System of Electronic Payments (SEP) and created the conditions to meet the needs of interbank market participants.

The SEP handled 96% of all UAH-denominated interbank transfers within Ukraine in 2019.

### SEP. 2019 facts and figures

System corporate participants as of 1 January 2020	75 Ukrainian banks State Treasury Service of Ukraine National Bank of Ukraine
Number of transactions Value of transactions	384 million payments UAH 32,472 billion
Daily average transaction	1.5 million payments UAH 130 billion
Batch payments	383 million payments UAH 18,319 billion
Real-time payments	759,000 payments UAH 14,153 billion
Average daily balances on SEP participant accounts	UAH 84.17 billion
Structure of payments (number)	under UAH 1,000 – 51% between UAH 1,000 and UAH 100,000 – 45% over UAH 100,000 – 4%
Structure of payments (value)	under UAH 1,000 – less than 1% between UAH 1,000 and UAH 100,000 – 6% over UAH 100,000 – 93%

### Interbank hryvnia transfers through direct correspondent accounts and through the SEP

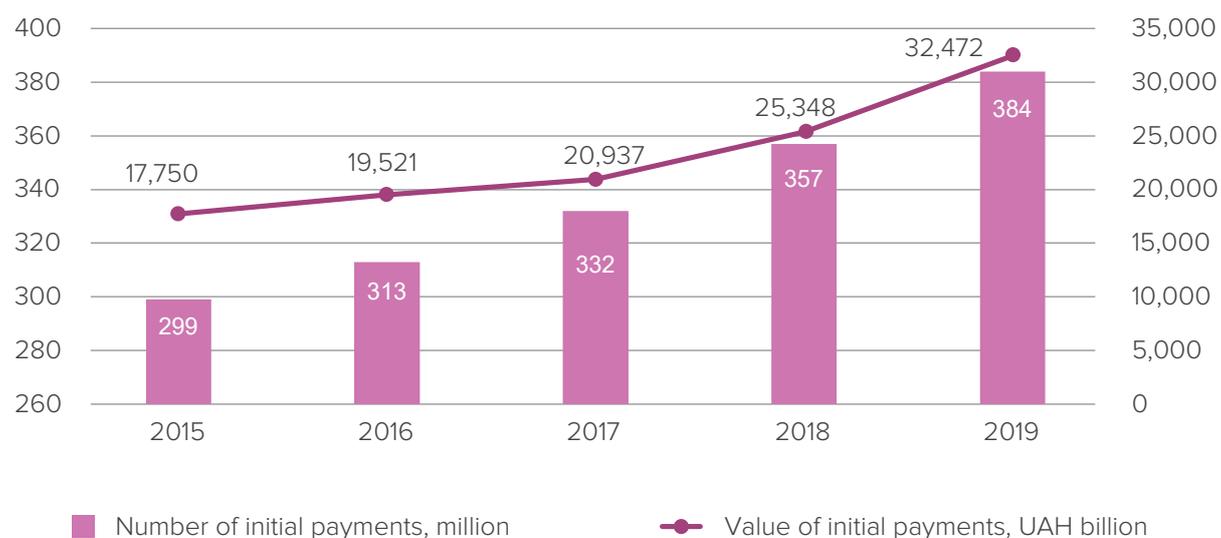


■ Direct correspondent accounts

■ Correspondent accounts of banks with the NBU



### Value of payments through the SEP



### Daily average turnover ratio on the accounts of SEP participants



In 2019, the following tools were introduced in SEP:

automatic payments in the batch mode, which are not confirmed by the direct participant of the SEP – the recipient of funds – at the end of the banking day, which is a prerequisite for 24/7 operation of the SEP

an electronic signature for an interbank electronic payment document (instead of a digital signature)

interbank electronic payment document due to transition to the International Bank Account Number (IBAN).



## PROSTIR National Payment System

In 2019, we kept on improving and promoting the PROSTIR National Payment System (PROSTIR NPS), as prescribed by the Comprehensive Program for the Development of Ukraine's Financial Sector until 2020<sup>29</sup>.

The priority for 2019 was enhancing the infrastructure for PROSTIR card acceptance and ensuring conditions for fast and easy payments for goods and services across Ukraine and online.

### PROSTIR NPS Participants

As of end-2019, 50 Ukrainian banks and the national postal service were participants in NPS PROSTIR. Two Ukrainian banks joined PROSTIR NPS during the year: BANK FORWARD JSC and MOTOR BANK JSC. At the same time, Ukrspotsbank JSC stopped operating in the banking services market and was therefore excluded from the system's participants.

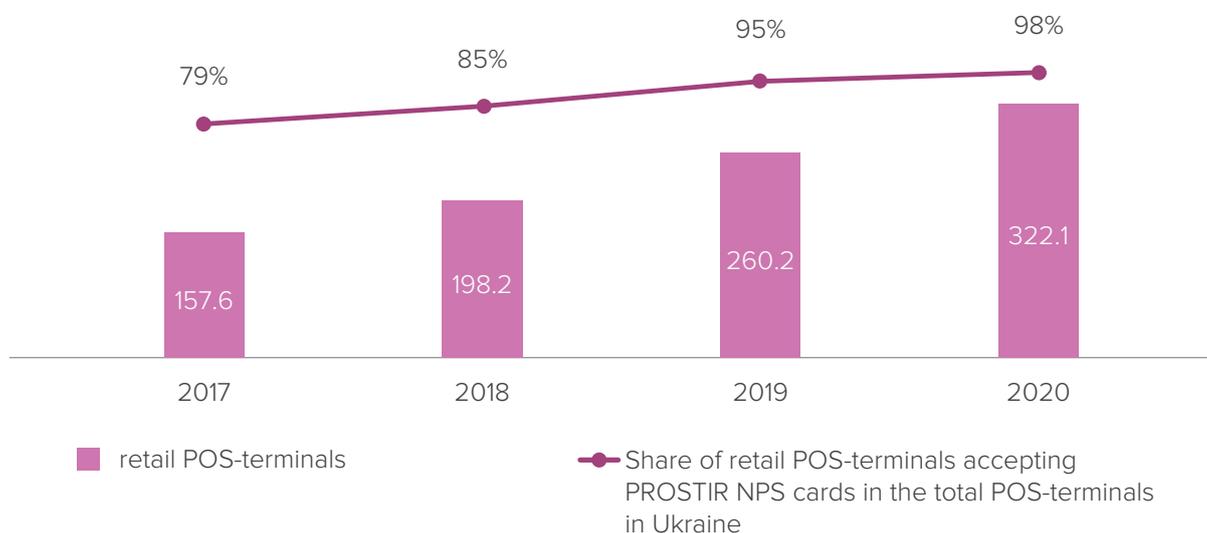
The number of participants engaged in issuance and/or acquiring in PROSTIR NPS grew to 31 banks. In 2019, seven new banks joined the system (BANK FORWARD JSC, JSCB CONCORD JSC, TRUST CAPITAL BANK JSC», ALTBANK JSC, BANK PORTAL JSC, MOTOR BANK JSC, COMINVESTBANK JSC) and an independent processing center (PROCARD LLC).

Also, in 2019, Thales DIS France S.A. gained the status of PROSTIR cards producer, enlarging the list of authorized card producers, in particular, the earlier announced co-badged PROSTIR-Union Pay cards.

### Payment Infrastructure of PROSTIR NPS

As of end-2019, 98% of all retail POS terminals in Ukraine accepted PROSTIR cards, including NFC cards. This was 3 pp more than at the year start.

Retail POS-terminals servicing PROSTIR NPS cards (thousand)



<sup>29</sup> approved by NBU Board Resolution No. 391 dated 18 June 2015 (Project A9. Ensuring Further Development of Cashless Transactions and Retail Cashless Payments through Electronic Payment Facilities).



The number of banks servicing PROSTIR cards was 17,000 as of the end of 2019 (87% of the total number of Ukrainian banks, which was 2pp up from the figure at the year start).

Enhanced acceptance of PROSTIR cards online was one of the key achievements of 2019. This was the result of the largest online shops being connected to the system, as well as acquiring bank services: Oschadbank JSC, CB PRIVATBANK JSC (LiqPay service), Raiffeisen Bank Aval JSC, TASCOMBANK JSC, Pivdenny JSB and VOSTOK BANK PJSC. This enabled the acceptance of PROSTIR cards by more than 80% of online shops and marketplaces.

### PROSTIR NPS Card Status and Transactions

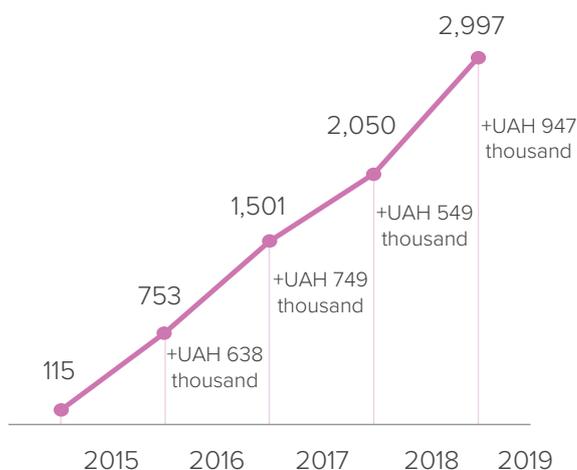
In 2019, the total number of PROSTIR cards issued by PROSTIR member banks grew by 7%

to 625,300 cards. At the same time, 77% (or 483,700 of the issued cards) are active payment cards.

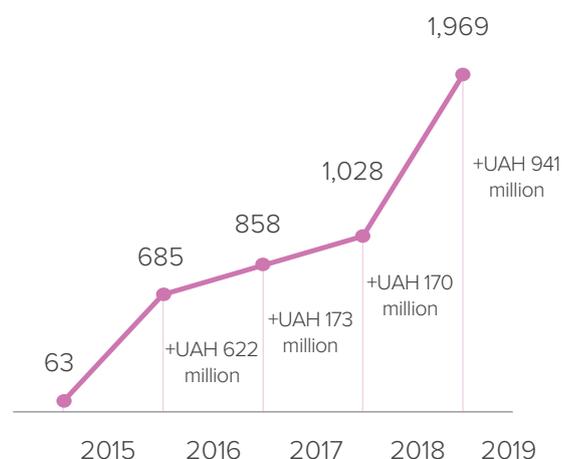
In 2019, the value of transactions with PROSTIR cards and e-money issued by the member banks was UAH 28,536 million, which was 25% more than in 2018. The number of such transactions was 24,219 thousand, an increase of 79% from the previous year.

In 2019, 73% of PROSTIR card transactions were conducted within bank issuers' proprietary systems. The Central Router of PROSTIR NPS processed 2,997 thousand interbank transactions in 2019 (a 46% increase yoy), with the value of the transactions almost doubling to reach UAH 1,969 million.

Interbank transactions by number, thousand



Interbank transactions by value, UAH million



## NBU BankID System

### Participants of NBU BankID System

In 2019, the number of participants in the NBU BankID System expanded. Clients of any Ukrainian bank connected to the system may use the NBU BankID System.

In 2019, six banks connected to the system. As of 1 January 2020, the NBU BankID System had 11 bank participants: Bank Alliance, Forward Bank, Pivdennyi Bank, FUIB, Monobank (Universal Bank), Oschadbank, Kredobank, Radabank, Motor Bank, Bank Vostok, Idea Bank.

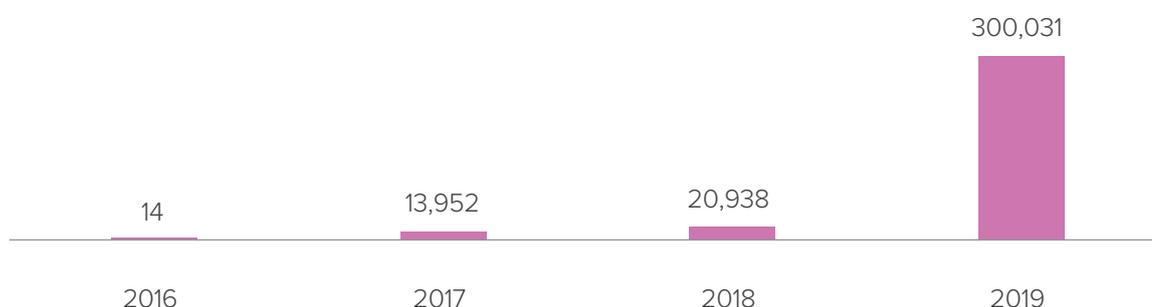
Several banks are finalizing integrational testing in the system. For instance, PrivatBank has successfully finished all testing and is going to shift to a commercial server environment.

In 2019, the NBU BankID System was integrated with the Ministry of Digital Transformation. The mobile application Diia for the NBU BankID System can be used as one of the main identification instruments of its users in order to receive public services.

As of end 2019, the NBU BankID System had 15 subscribed service providers. Among them, seven commercial institutions were connected to the system during 2019. As a result, the list of web sites broadened on which the users of the NBU BankID System could get access to banking, administrative (public), financial, commercial services, etc.

The number of transactions processed by the system significantly increased and totaled over 300,000 transactions in 2019. It is 15 times more (1,433%) than in 2018.

### The dynamics of the number of electronic identifications performed using the NBU BankID System per unit



### Establishing Commercial Application of NBU BankID System

The commercial application of the NBU BankID System is planned for 2020. This involves setting rates for subscribed service providers who provide financial and/or commercial services to users. It will enable bank identifiers to monetize data transferred to such subscribers. At the same time, identification will remain free of charge for administrative and noncommercial services.

In order to establish a model of commercial use of the NBU BankID System in 2019, a number of changes to the NBU's regulations were approved, notably:

- We incorporated a collegial body, the Council of the NBU BankID System, to perform the functions of development, support and operational support for the system.
- A new regulation for the NBU BankID System has been developed and published for open discussion.
- A list of subscription rates for electronic identification services has been approved for the users of the NBU BankID System.
- A package of other documents regulating interbank settlements and the introduction of a commercial model to use the NBU BankID System has been developed.

## Exploring the Possibility of Issuing e-Hryvnia, Central Bank Digital Currency

In 2019, we generalized its research in exploring the possibility of issuing e-hryvnia, the central bank digital currency, and published it in the Analytical note based on the results of a pilot project.

As part of this project, we analyzed international experience, studied legal issues and macroeconomic effects, and drew up optimum versions of business models for e-hryvnia circulation. Along with theoretical studies, our project also conducted case studies. A limited volume of e-hryvnias was put into circulation in order to test a blockchain platform technology. Transactions involving e-hryvnia were tested by task forces consisting of NBU staff, volunteer companies, and World Bank experts, which provided advice to the NBU in the form of technical assistance.

These tests yielded valuable results on the issue of issuing own digital currency. The key findings were as follows:

e-Hryvnia could be an alternative to existing means of, and instruments for, retail payments, such as cash, payment instructions, payment cards, and e-money. The advantages of the e-hryvnia include its simplicity of use, availability, security (repayments and payments are guaranteed by the NBU), and rapidity of settlements.

Since the pilot project had a limited number of operations and users, and its transactions were small in number and volume, it could not fully assess the attractiveness and the potential number of users of this instrument. This makes it difficult to estimate the number of Ukrainians who will use e-hryvnias if a decision is taken to introduce it at the national scale.

e-Hryvnia may be considered to be a disruptive technology, since it has the potential to change the ecosystem of Ukraine's payment market

and reassign the current roles of market participants.

Launching e-hryvnia on the Ukrainian payment market should also take into account the possibility of introducing other innovative payment instruments, such as fast payments and new instruments with the Open Banking concept.

The launch of e-hryvnia requires a great deal of investment and time, both to update the payment infrastructure and to make it popular as a new instrument, taking into account existing consumer habits.

Launching e-hryvnia is possible by one of two models for participant interaction: centralized or decentralized. Under the centralized model, we will be the sole issuer of e-hryvnia, with commercial market participants performing only servicing (agent) functions. Under the decentralized model, both banks and nonbank financial institutions will be authorized to issue e-hryvnia under the NBU's supervision.

Distributed register technology (DLT, blockchain) could be used as a platform to issue and circulate e-hryvnia. However, the main advantages of this technology will not be available in the centralized model.

We will continue looking into the possibility of issuing e-hryvnia, taking into account the project's findings, the current needs of the financial market, and potential economic development. While studying global trends, we will continue cooperating and exchanging its experience of using digital currencies with other central banks and international financial institutions. Together with Ukrainian payment market participants, we will continue to develop target business models for e-hryvnia.



## Protection of Consumers of Financial Services

For many years, no government body was responsible for protecting the rights of consumers of financial services in Ukraine. Last year alone, we received about 17,000 complaints from consumers. Most of these complaints indicated that the rights of these consumers had been violated.

In 2019, parliament authorized us to protect the rights of financial services' consumers by adopting Ukrainian Law No. 122-IX, dated 20 September 2019. This law amended certain Ukrainian laws that concern the protection of consumers of financial services.

So we started to introduce new approaches. Among other things, it established the Office for the Protection of Consumers of Financial Services, a special unit that addresses issues that are of concern to consumers of financial services. This unit deals with complaints from consumers, makes requirements related to the protection of consumer rights for financial institutions, and monitors whether or not financial institutions disclose complete information about their services and the cost of these services in their advertising and on their websites. It has also been authorized to take part in inspections of financial institutions.

Since it was established, the office has already processed over 3,600 complaints. The bulk of these complaints, at 65%, concerned the treatment of consumers by banks, with 9% being complaints about the provision of services by non-bank financial institutions. The rest were requests to provide clarifications regarding banks that had been liquidated and those that were being liquidated.

Households accounted for 95% of complaints and requests for information, with legal entities accounting for only 5%.

Consumers most often raised the following issues: relationships arising from loan agreements (33%), the operation of payment systems and payments (25%), servicing by banks (10%), relationships with non-bank financial institutions (7%), and relationships arising from deposit agreements (7%).

We provided explanations for 43% of the complaints and requests. Over a third (36%) of issues raised were resolved in favor of consumers. Almost 9% were transferred to other relevant government authorities. About 1% of complaints and requests were returned, as they did not provide sufficient information about the issue in question.

The Office for the Protection of Consumers of Financial Services identified the most common types of violations of consumer rights on the basis of the complaints and requests it received. These included misleading advertising for products, differences between the interest rates specified in agreements and those produced by actual calculations, failure to meet the deadline for replying to complaints or requests, or providing no replies at all, accruing interest on interest, increasing credit limits to repay existing debts, failure to comply with court rulings, debiting up to 50% of people's own money to repay debt without proper authorization, etc.

At this stage, our main objective is to ensure that consumers are dealt with by financial institutions in a transparent manner. With that in mind, we have already put forth new requirements as to how banks should disclose information about their services and the full cost of these services in adverts and on their official websites, as well as recommendations on how banks should address complaints and requests from consumers. This means that by June 2020 banks must have disclosed reliable, complete and understandable information about their services to consumers, show consumers the full cost of their service, including fees and commissions and payments to third parties, such as insurance companies, notaries, state registrars, appraisers, etc. Banks have also been required to make sure that they address complaints and requests from consumers in a proper manner.

The Office for the Protection of Consumers of Financial Services will monitor websites and adverts on a daily basis. The objective is to take preventives measures and, together with banks and other financial institutions, to ensure transparency and openness in financial market relations.

When we gain the power to regulate the nonbank financial market on 1 July 2020, we will apply its requirements on transparency and the protection of consumer rights to non-bank financial institutions, taking into account the specifics of each segment.

The introduction of requirements on transparency and the protection of rights of financial services' consumers will provide Ukrainian consumers with an understanding of the full cost of services and related risks, while also enabling them to compare the services offered by various institutions and informing their financial decisions. For financial institutions, this will mean growing trust from consumers, and the involvement of Ukrainians in the financial system.



## Raising Financial Literacy

### Financial Inclusion

Financial inclusion is about creating conditions and attracting households and businesses to use various financial services. At the same time all services should be accessible as to their infrastructure and price, legally regulated and should meet the needs of households. The goal of financial inclusion is to promote economic growth in a country and reduce social inequality in a society.

In 2019, we identified financial inclusion as one of its strategic goals and included it in its Financial Sector Development Strategy 2025. Our main goal here is to ensure accessible (user-friendly and affordable) and convenient financial services to all Ukrainians.

It should be noted that financial inclusion is not only about an increase in the number of consumers of financial services. It is about social responsibility – the transparency and clarity of products to their users.

Its fulfillment is achieved with the creation of a consumer rights protection system, measures to improve financial literacy of Ukrainians, and the development of a cashless economy.

### Financial Inclusion Forum

The second international financial inclusion forum, entitled “Financial Inclusion Forum. Leaving No One Behind,” took place on 12 June. The forum was co-organized by the National Bank of Ukraine, the USAID Financial Sector Transformation Project, MasterCard, and Visa.

This year’s event gathered more than 300 experts and brought together speakers from ten countries. Experts from Australia, Great Britain, India, Kenya, Norway, Poland, Romania, USA, Turkey and France shared their experience. The discussions focused on effective practices for enhancing financial inclusion as a common way for the state and businesses to speed up economic growth.

The strategic importance of the forum’s theme, both for Ukraine and the whole world, was affirmed by the address of HM Queen Maxima of the Netherlands serving as the U.N. Secretary-General’s Special Advocate for Inclusive Finance

for Development (UNSGSA), the Honorary Patron of the G20’s Global Partnership for Financial Inclusion (GPI), and the Honorary Chair of Money Wise, the Dutch platform for financial literacy.

HM Queen Maxima is a leading global voice on advancing universal access to and responsible usage of affordable, effective and safe financial services. The statement was read on her behalf by Eduard Hoeks, the Netherlands ambassador to Ukraine.

### Financial Literacy

In September 2019, we received the mandate for improving the financial literacy of Ukrainians. The Law of Ukraine, On the National Bank of Ukraine, was respectively amended.

Improving the financial literacy of households has become our 35th function. Granting us the authority to implement financial literacy measures will foster the sustainability and consistency of the associated government policies.

Nataliia Bondarenko, Director of Communications Department, presented the NBU’s vision of the Strategy for Financial Literacy at the second international Financial Inclusion Forum. Leaving No One Behind”. The strategy is intended to unify, coordinate and combine the efforts of state agencies, businesses and society for improving financial literacy.

The strategy is based on the results of a number of strategic sessions involving multiple stakeholders, the successful practices of leading countries in financial literacy, and research at the level of financial literacy in Ukraine based on the international methodology of the Organisation for Economic Co-operation and Development.

Five key priorities of the strategy:

1. To change financial culture: tax, loan, investment, pension.
2. To make Ukrainians financially aware.
3. To focus on youngsters 10 to 24 years old. These are the agents of change who will teach their friends, parents, and grandparents on financial expertise and skills.



4. To develop a single communication platform that will combine all stakeholders and events, and will become recognizable and help build up trust.
5. To create an educational-information center at the NBU that will combine a visitor center, the Money Museum, a youth enlightenment center, and a teacher competency center.

We consider financial literacy primarily as the development of financial culture and behavioral change.

This requires long-term efforts, as well as transparency and accountability for the use of resources and measurability of results. Also, it expands the possibility for including a wider circle of partners.

We have been working on improving the financial literacy of the public for a long time. This year, we organized 700 events on financial literacy for different target audiences.

### National Survey on Financial Awareness of Ukrainians

Ukrainians earned a score of 11.6 out of 21 points in the Index of Financial Literacy based on the results of the USAID research report, "Financial literacy, financial inclusion and financial welfare in Ukraine" presented in June 2019. For the first time in Ukraine, the research was conducted using the methodology of the Organisation for Economic Cooperation and Development (OECP), which enabled comparing Ukraine's results with the indicators of the world's other countries.

It turned out that Ukraine's index, along with Poland's index (11.6), were among the lowest scores out of 30 countries, according to the OECP 2016 survey. Ukraine's result is slightly below the average (12.1) indicator of the six neighboring countries, with low and average income levels, which participated in the OECP survey (Belarus, Georgia, Hungary, Poland, the Russian Federation, Turkey).

Questions dealt with understanding the essence of the most common economic terms (such as inflation, effective interest rate), advantages of spending over saving money, income and expenditure planning, savings, taking advice, financial products usage, financial welfare, etc.

### Global Money Week

Ukraine participated in Global Money Week for the seventh time.

We have become the traditional central venue for hosting educational activities. During the week, we held 56 events for pupils and students. Among them were lectures on finances, personal finance workshops, interactive classes, the intellectual game "What? Where? How Much?", master classes on how to hold debates, the debates themselves and excursions to the our premises.

More than 320,000 pupils, students and professors joined various offline and online events, where they gained the knowledge and skills necessary to make financial decisions confidently and prudently during their lives.

Ukraine joined the top 10 most active countries of the world, based on the results of Global Money Week 2019 Countdown Challenge. Overall, 175 countries took part in the project.

### NBU University Challenge

This year, we held its First All-Ukrainian Student Competition Monetary Policy: NBU University Challenge. Forty-two teams representing 26 universities from different regions of Ukraine participated in the competition.

In the final round, student teams presented their monetary policy recommendations to the jury, which played the role of the NBU Board.

Kyiv National Economic University named after Vadym Hetman was the winner of the NBU University Challenge 2019. The winners were invited to participate in a motivation breakfast with NBU top managers.

### Economic Express Program

The traditional regional Financial Awareness Days, held within our Economic Express program, occurred in 2019 in nine cities – Zhytomyr, Lviv, Vinnytsia, Dnipro, Odesa, Ternopil, Chernivtsi, Kharkiv, and Kherson. During the year, the project drew 5,500 listeners, students and university instructors, representatives of mass media and local business. In H2 2019, pupils and teachers also joined the Economic Express.

During 2019, an entire team of our experts, including deputy governors and the project's partners, discussed in the regions trends in the financial sector, our monetary and macroprudential policy, the FX market and its liberalization, as well as the specifics of the work of the payment market. Except for lectures, the NBU's Express team prepared competitions and games on financial literacy for students and pupils, informed the audience of the new UAH 1,000 banknote before it was officially issued into circulation, and educated the audience on the foundations of personal security during online settlements.

Also in the eight cities, the representatives of regional business had meetings with NBU deputy governors at which entrepreneurs received answers on the issues of most concern: the FX market, financial monitoring at banks, and the forecast for near-term projections of economic development.

The NBU's Economic Express team prepared additional activities for mass media representatives. Master classes on "How to Write Interestingly About the Economy" were held for journalists at regional media in partnership with the Center for Improving Economic Journalism at the Kyiv School of Economics, jointly with the Suspilne:UA television network. During the master class, viewers had the opportunity to communicate frankly on economic issues with one of the NBU deputy governors.

### World Savings Day

On 2 November, we took part in celebrating World Savings Days, which took place at Platforma Art Zavod premises. The event was held by the Independent Association of the Banks of Ukraine as a family holiday.

On the event, our specialists proposed the guests to review their level of financial awareness, shared interesting facts about the history of money, the security features of banknotes, and life hacks on how to save and manage personal finances.

Approximately 2,000 adults and children visited World Savings Day.

### Money Museum

The NBU Money Museum has established itself as a communication platform for pupils and youth. It was they who were the main part of visitors in 2019, or 75% of the museum's guests.

Demand for excursions to the NBU is growing significantly each year. In 2019, 7,853 individuals visited the museum, which is nearly 30% more yoy. Overall, nearly 32,000 visitors have visited the Money Museum since 2014.

Nine new excursions and lectures were added to the museum's program in 2019. Young guests especially loved the quests and interactive classes.

In December 2019, the Money Museum updated its exposition for the first time in six years. It has been supplemented with valuable exhibits revealing the history of money circulation in Western Ukraine and showing more deeply the emergence of the national currency in the 1990s.

The Money Museum managed to hold twice as many events (548) as in 2018 due to a new convenient landing, an increased number of activities and strengthened relations with educational institutions. Activities included sightseeing excursions, quests, lectures, interactives, excursions for foreigners, workshops and walking tours along the historic Instytutska Street, where the NBU building has already stood for 115 years.

In 2019, the NBU Money Museum participated in a large-scale exhibit, Ukraine Wow, which demonstrated the hryvnia of the Kyiv Rus era, which is more than 1,000 years old, as well as the money of 1919 of Skoropadsky era and the Ukrainian National Republic, based on Narbut's designs. The exhibit was visited by nearly 150,000 people.

Meeting Strategic Goals

## A Modern, Open, Independent, and Effective Central Bank

A Revised Strategic Approach to Preparing the NBU's Strategy until 2025 and the Development of Process Management

Revisions to Project Methodology

Ensuring Cash Circulation

Expert Advisory Council on Communications with Innovation Companies and Projects

Work with Governmental Authorities of Ukraine and the business community

Cooperation with International Partners

NBU Communications Management

Annual Research Conference Central Bank Communications: From Mystery to Transparency

Management of Human Capital

Improving the Reporting System. Openness, Transparency, and Accessibility of Data

Internal Audit

Research at the NBU



## A Revised Strategic Approach to Preparing the NBU's Strategy until 2025 and the Development of Process Management

In 2019, we revised our approach to (the strategic framework for) drawing up and implementing the central bank's strategy. This enabled us:

- to focus its strategic development on the needs of its clients and to meet their needs to the fullest possible extent, taking into account global trends and external and internal contexts
- to synchronize the planning of the financial sector's strategy with the NBU's strategy
- to synchronize strategic planning with financial planning (the process of estimating costs)
- to involve the greatest possible number of employees in the strategic planning process, through a combination of top-down and bottom-up approaches
- to introduce new operational planning tools that will allow the central bank to create an end-to-end system for setting goals, and for cascading strategic goals for its units

- to synchronize and systematize the processes of strategy planning and implementation through projects and processes.

We plan to implement our revised strategic approach in 2020, as part of preparing its strategy until 2025.

The meeting of strategic goals hinges directly on how logically processes are set up, managed, assessed and controlled. We remain committed to boosting our process management. It also conducts an annual self-assessment of our level of maturity by surveying a focus group that consists of NBU unit heads and agents of change. We rely on this information to draw up a policy for the continued development of process management in the current year. The constant efforts of all of the central bank's employees are helping increase the level of maturity.



## Revisions to Project Methodology

Our Project Office is improving and streamlining our project management methodology with a view to enhancing the effectiveness of project implementation. This concerns both our internal transformation projects and financial sector development projects.

In 2019, we revised our approaches to planning, monitoring and overseeing projects and their results. Among other things, we

- implemented the stage-gate technique, in which a project is divided into distinct stages. The results of each stage are approved by the NBU's Change Management Committee.
- introduced resource planning for project stages, which allows for a clearer and more transparent assignment of participants to specific periods of project implementation

- put in place a control panel – a tool used to monitor the use of project products once the project has been completed and given to the ordering customer to use.

In addition, we deployed a methodology for managing a project program – a tool used to effectively coordinate several projects and tasks that aim to achieve a common large-scale goal.

Also we established a steering committee consisting of the main participants in the project program in order to manage the program more effectively. This made it possible to respond more quickly to problems and unresolved issues related to the implementation of the program, while also making it easier for project participants to interact with each other.

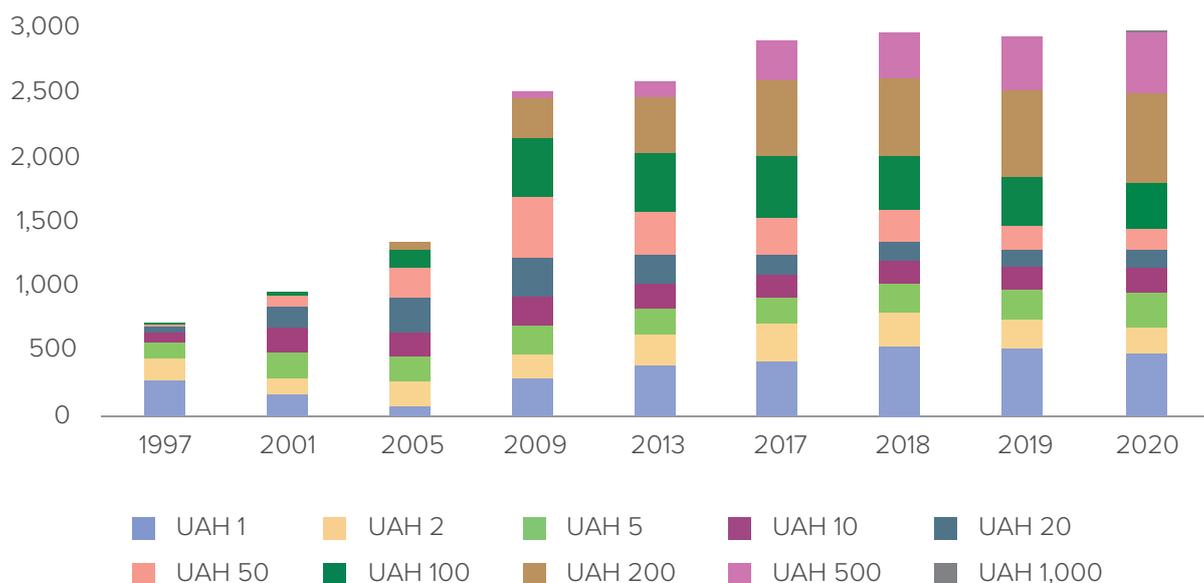


## Ensuring Cash Circulation

As of 1 January 2020, Ukraine had UAH 425.0 billion in banknotes and coins in circulation.

This is UAH 24.9 billion, or 6.2% more than the beginning of 2019 (UAH 400.1 billion).

### Number of banknotes in circulation as of the year start, million notes



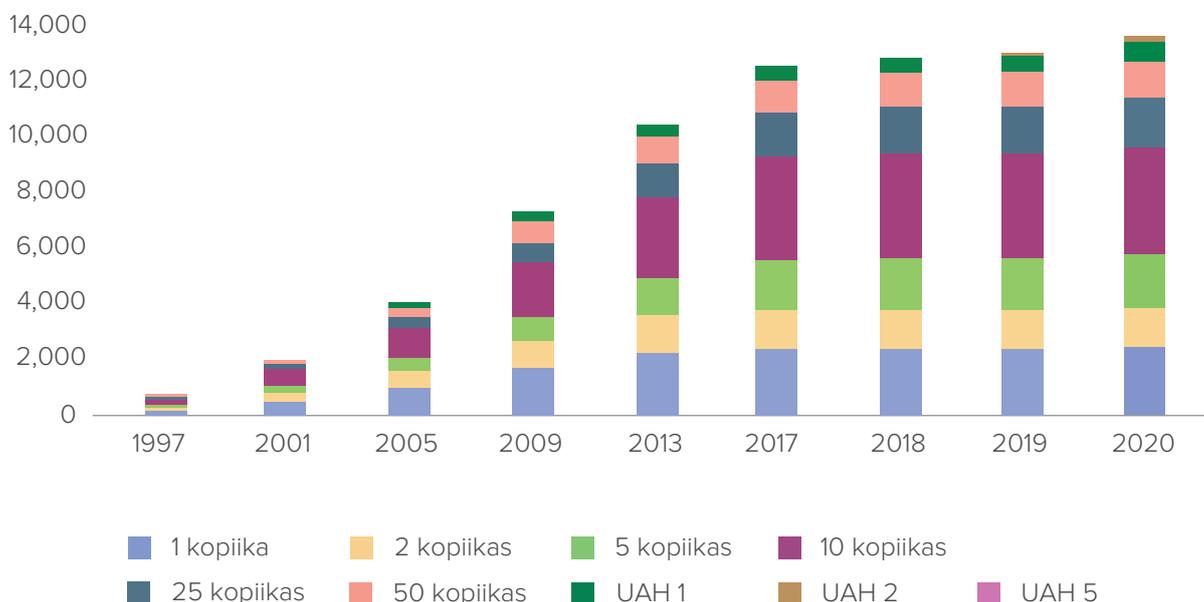
Notably, Ukraine had:

- 2.9 billion banknotes worth UAH 422.3 billion
- 13.4 billion banknotes worth UAH 2.6 billion
- 17.3 million commemorative and investment

coins worth UAH 97.2 million in circulation.

In 2019, the number of banknotes in circulation decreased by 18.4 million (0.6%). By contrast, the number of coins increased by 257.7 million (2.0%).

### Number of coins in circulation as of the year start, million coins



UAH 200 banknote and 10-kopiika coin are the most circulated denominations (23.4% and 28.8%, respectively).

At the same time, by late 2019, nearly 4 million notes of the highest-denominated banknote, UAH 1,000, have been in circulation since 25 October 2019.

As of 1 January 2020, there were 70 banknotes and 182 coins (small denomination and circulating coins of UAH 1, UAH 2 and UAH 5) per capita in Ukraine (as of 1 January 2019 – 69 banknotes and 309 coins).

Due to removal of small-denomination (one-, two- and five- kopiika) coins from the market since 1 October 2019 and conducting acceptance-only transactions with 25-kopiika coins, the average

number of coins per capita decreased by 41% as of the end of 2019.

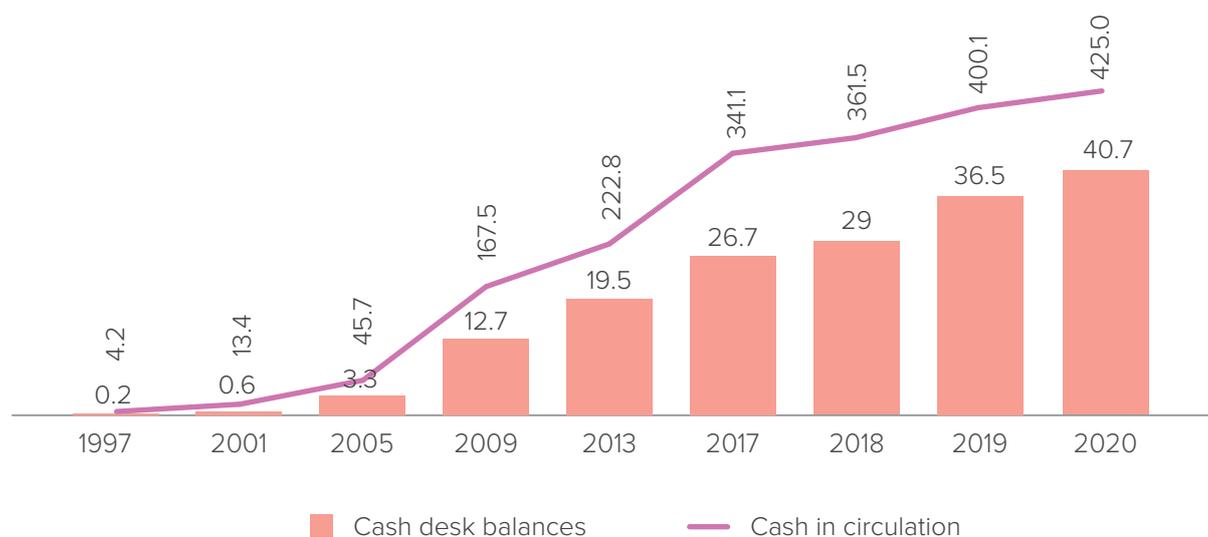
### Cash Circulation in Ukraine

In 2019, growth of cash in circulation volumes was registered in Ukraine.

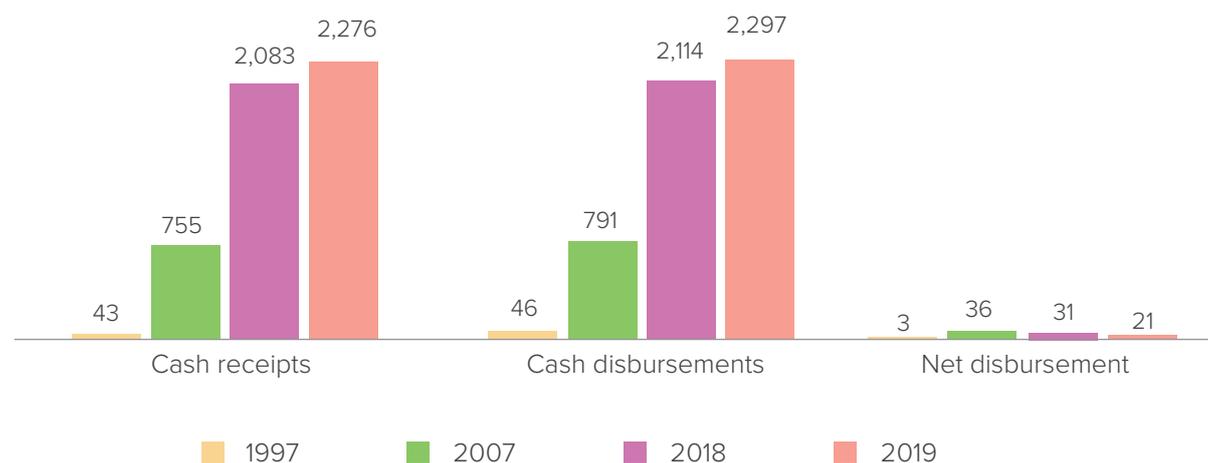
As of 1 January 2020, cash balances in banks' cash desks made UAH 40.7 billion, being the largest balances since Ukraine's currency reform of 1996. In 2019, cash balances in cash desks increased by UAH 4.2 billion, or 11.5%, throughout the year.

In 2019, cash received by banks increased by UAH 193.6 billion, or 9.3% yoy, to UAH 2,276.8 billion.

### Cash in Circulation and Cash Desk Balances in Banks, UAH billion



### Cash desk turnover in banks of Ukraine, UAH billion



The following cash receipts increased significantly in year-over-year terms:

- card-based receipts increased by UAH 92.2 billion, or 11.9%, to UAH 867.6 billion
- cash receipts from all services increased by UAH 38.9 billion, or 25.0%, to UAH 194.6 billion
- cash receipts from foreign currency sales increased by UAH 28.7 billion, or 26.6%, to UAH 136.3 billion
- sales revenue receipts increased by UAH 14.9 billion, or 2.0%, to UAH 745.8 billion.

Cash disbursements by banks grew by UAH 183.4 billion, or 8.7%, to UAH 2,297.4 billion.

The following cash disbursements increased the most in 2019:

- payment card-based disbursements increased by UAH 193.9 billion, or 12.5%, to UAH 1,741.5 billion
- cash backing to postal enterprises increased by UAH 8.3 billion, or 7.0%, to UAH 127.3 billion.

At the same time, the following decreases occurred in:

- disbursements of deposits of individuals

by UAH 8.3 billion, or 6.8%, to UAH 115.0 billion

- loan cash disbursements by UAH 5.7 billion, or 65.8%, to UAH 3.0 billion.

The balance of foreign exchange transactions – the excess of cash disbursements to purchase foreign currency over cash receipts from foreign currency sales – decreased to UAH 2.2 billion in 2019 (from UAH 37.2 billion in the prior year).

### Cash Processing

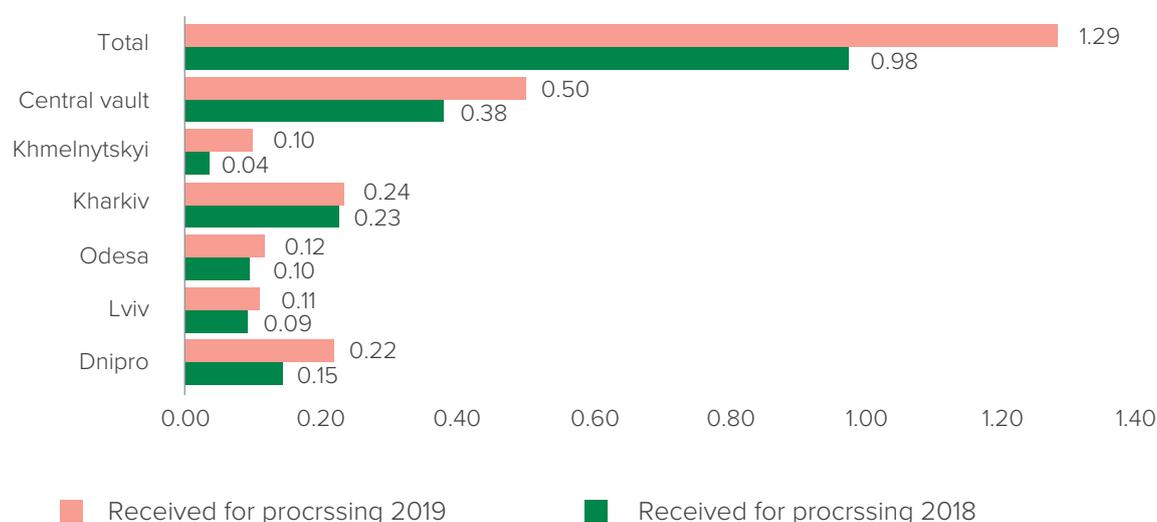
In 2019, five NBU regional cash circulation divisions and the Central Vault received 5% more cash (USD 1.29 billion) from banks than in 2018 (USD 1.22 billion). For background, in 2018 we operated 12 cash circulation regional divisions and the Central Vault.

In 2019, the following amounts of hryvnia banknotes were transferred for processing to the NBU from banks:

- to cash circulation regional divisions – 0.786 billion banknotes, up by 0.186 billion banknotes from 2018 (0.60 billion banknotes). Individually, all regional divisions showed higher volumes of cash received from banks for processing, as compared with 2018.
- to the Central Vault – 0.50 billion banknotes, up by 0.12 billion from 2018 (0.38 billion banknotes).

### Banknotes received for processing, billion notes

#### Cash circulation department regional division



In 2019, 1.58 billion banknotes were processed, up by 0.023 billion banknotes from 1.55 billion in 2018. At that, 1.53 billion banknotes were processed by automated banknote processing systems (102.6% of 2018 volumes), which made 97% of banknotes processed in 2019.

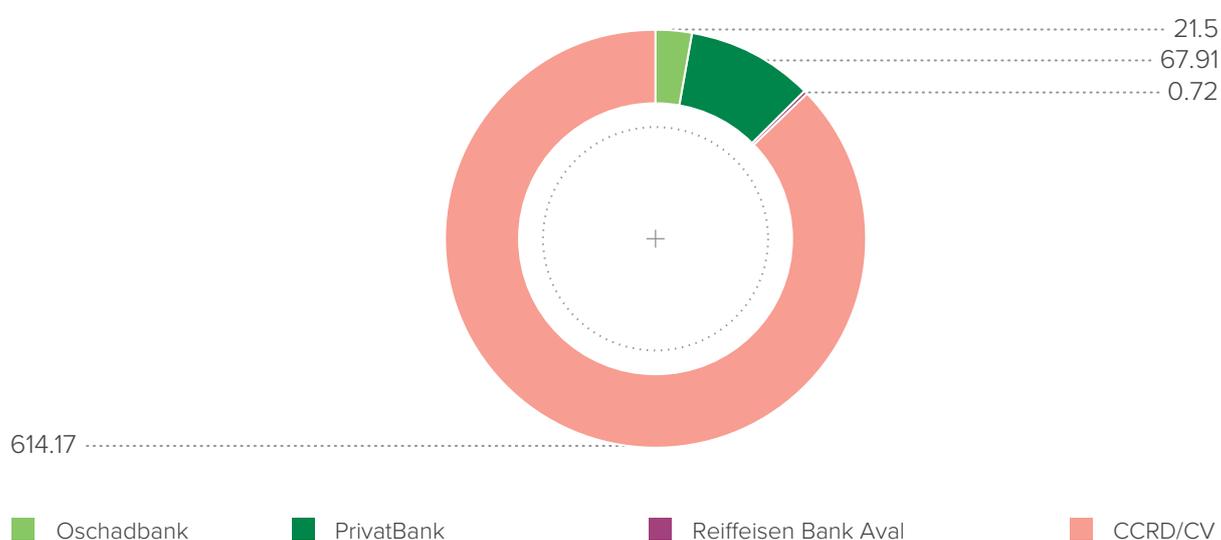
### Withdrawal of Worn-Out Banknotes

In 2019, authorized banks and we withdrew 704.38 millions of worn-out banknotes worth

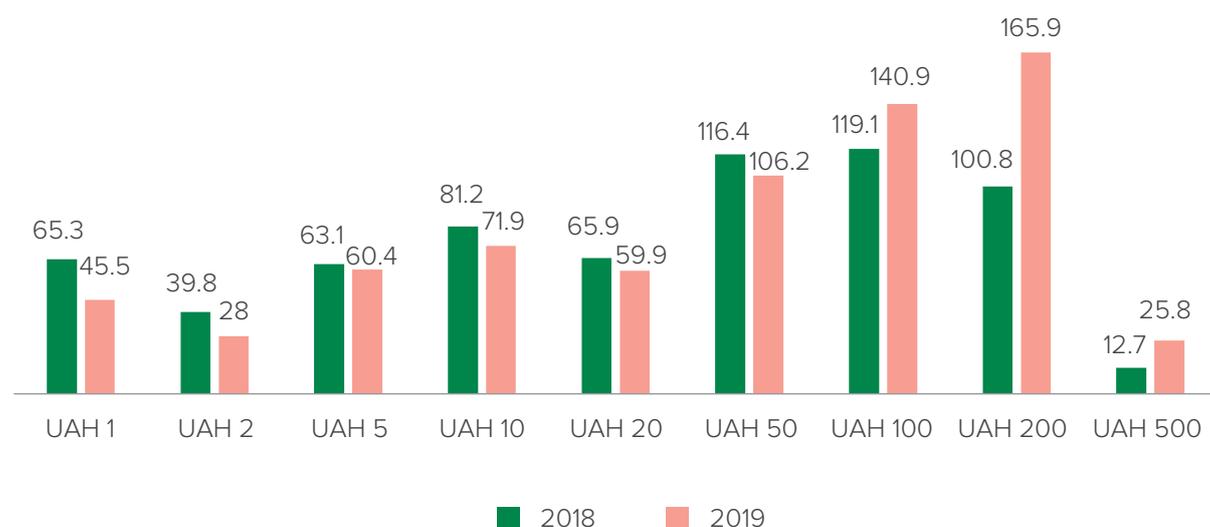
UAH 67,771.3 million, a 6% increase from 2018 (or 664.3 million banknotes worth UAH 46,827.5).

Specifically, the withdrawals of worn-out banknotes of one- to fifty-hryvnia decreased by 8%-30%. The withdrawals of worn-out banknotes in denominations of UAH 100, 200- and 500 increased (by 15%, 18% and 100%, respectively).

**Worn-out banknotes withdrawn by Cash Circulation Regional Divisions/Central Vault, lodged as cash stocks with Ukrainian banks, million notes**



**Withdrawal of worn-out banknotes by denomination in 2019 vs. 2018, million notes**



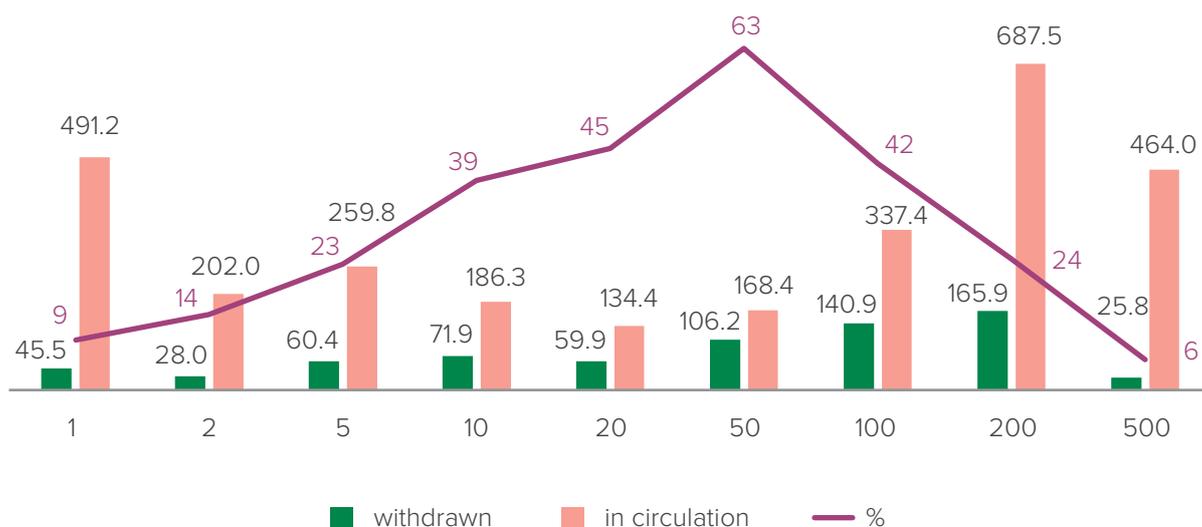
Worn-out banknotes withdrawn from circulation in 2019 represent 24% of banknotes in circulation as of 1 January 2020.

The largest percentage of worn out banknotes withdrawn from circulation were in denominations of 10- to 100-hryvnia: UAH 10 (38.5%)

- UAH 20 (44.5%)
- UAH 50 (63.0%)
- UAH 100 (41.5%)

The trend was driven by issuance of new banknotes of UAH 20, UAH 50 and UAH 100.

### Worn-out banknotes withdrawn in 2019 compared with banknotes in circulation as of 1 January 2020, million notes



### NBU Revenues From Cash Services Provided To Banks

We revenue from cash services provided to banks in 2019 is UAH 13.08 million (in 2018 – UAH 117.58 million):

- for hryvnia banknotes and circulating coins – UAH 11.60 million
- for small denomination coins (10-kopiika and 50-kopiika) – UAH 1.47 million.

In particular, the NBU's units received the following revenues:

- cash circulation regional divisions for cash services to banks (banknotes, circulating coins, small coins) – UAH 9.20 million (in 2018 – UAH 90.22 million).
- Central Vault –for cash services to banks (banknotes, circulating coins, small coins) – UAH 3.88 million (in 2018 – UAH 27.60 million).

### Withdrawal of Counterfeit Money from Circulation

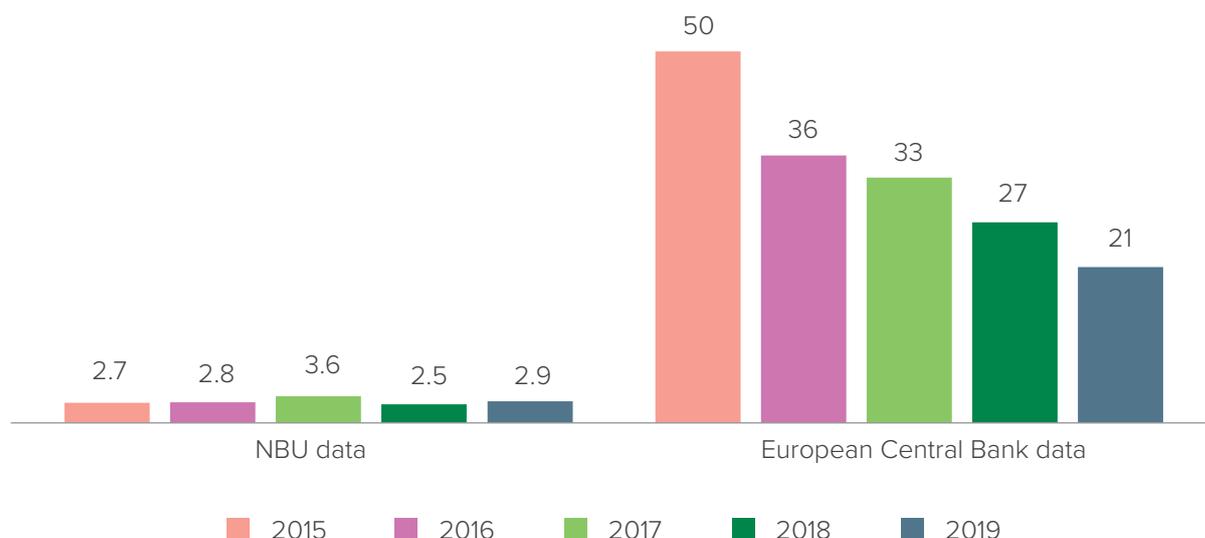
We have been monitoring the withdrawal of counterfeit money from circulation and have confirmed a relatively low amount of counterfeit hryvnia banknotes.

In 2019, the number of counterfeit banknotes withdrawn from circulation accounted for 0.00029% of total banknotes in circulation in Ukraine's banking system.

This means there were approximately 2.9 counterfeit banknotes per one million authentic banknotes.

For comparison, the same ratio in the EU was approximately 23 counterfeit euro banknotes in 2019, according to the official website of the European Central Bank.

### Number of counterfeit banknotes per million authentic banknotes



In 2019, we removed from circulation almost 8,800 counterfeit hryvnia banknotes worth UAH 3.3 million (compared to 7,400 counterfeit hryvnia banknotes worth UAH 2.1 million in 2018).

Increase in counterfeit banknotes withdrawn from circulation was due to counterfeits of the old design of the 500-hryvnia banknote. These counterfeits accounted for almost 65% of the total number of counterfeit banknotes withdrawn from circulation.

At the same time, in 2019, the number of counterfeit banknotes decreased for the following denominations:

- UAH 200 by 17%

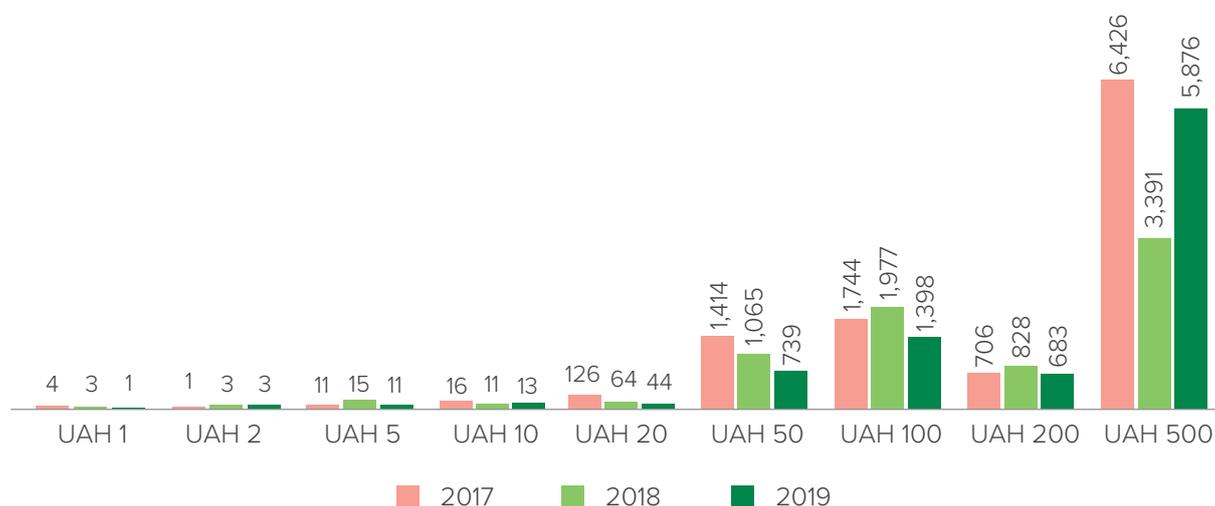
- UAH 100 by 29%
- UAH 20 and UAH 50 by 31%

The vast majority (99%) of counterfeit banknotes withdrawn from circulation were among four denominations:

- UAH 500 (67% of the total number of withdrawn counterfeit notes and 90% of their total value)
- UAH 100 (16% and 4%, respectively)
- UAH 50 (8% and 1%)
- UAH 200 (8% and 4%)

Counterfeit one-, two-, five-, ten-, and twenty-hryvnia banknotes that we withdrew accounted for just 1% of all withdrawn banknotes.

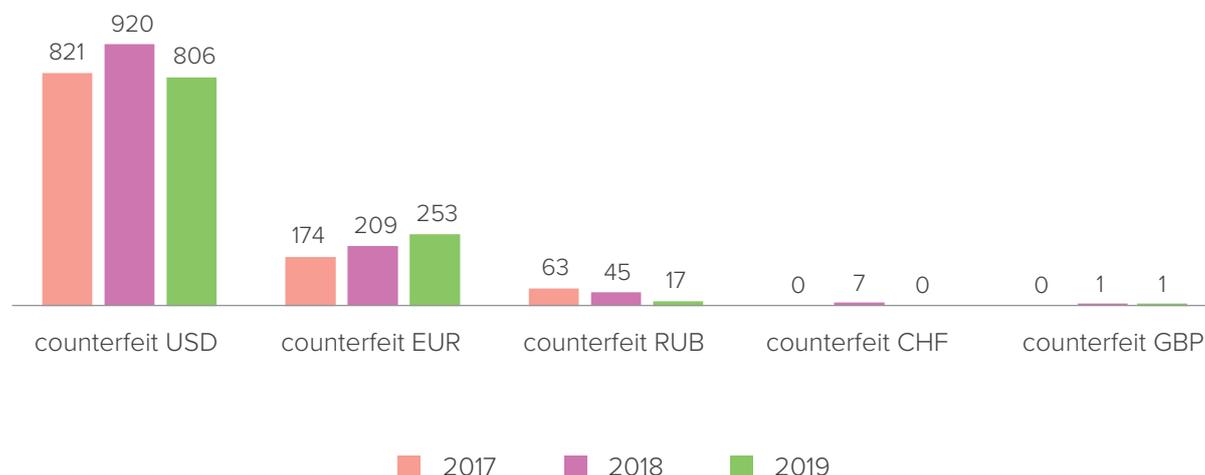
### Number of withdrawn counterfeit UAH banknotes by denomination, million notes



In 2019, the following counterfeit foreign currency banknotes were withdrawn from circulation:

- U.S. dollars (75% of all counterfeit foreign currency banknotes withdrawn from circulation)
- euros (23%)
- Russian rubles and GB pounds (2%).

#### Number of withdrawn counterfeit foreign currency banknotes, million notes



Counterfeit USD 100 notes accounted for 96% of all seized counterfeit U.S. dollars; counterfeit EUR 50 and EUR 500 notes accounted for 56% and 21% of all seized counterfeit euros, respectively; counterfeit RUB 5,000 and RUB 1,000 banknotes accounted for 53% and 47% of all seized counterfeit Russian rubles, respectively.

In order to combat the spread of counterfeit banknotes, we are in constant cooperation with the National Police of Ukraine, the Cyber Police Department of the National Police of Ukraine, and the Security Service of Ukraine.

Also, as part of establishing a competency center to combat the banknote counterfeiting, we conducted 11 seminars on determining the authenticity of the banknotes in four cities of Ukraine, Kyiv, Odesa, Lviv and Dnipro, involving more than 300 participants – cash employees of banks, government institutions, and retailers.

Information about signs and ways to determine new kinds of counterfeit banknotes were promptly and regularly published on our website, Facebook and YouTube.

#### Issuance and Sale of Commemorative and Investment Coins

Based on its Plan for issue of commemorative and investment coins, as well as souvenir

products, in 2019 we put into circulation 3,775,000 units of 38 commemorative coins (32 titles), including:

- one gold coin
- 16 silver coins
- 18 nickel silver coins, and
- 3 coins of zinc-based alloy.

We issued two commemorative medals dedicated to 175th anniversary of the establishment of the Uman National University of Horticulture and the 100th anniversary of the Chortkiv offensive (a military operation by the Ukrainian Halytska Army). Their total mintage was 30,000 units.

The issuance of a set of Pectoral coins became a technical innovation in 2019. The set consists of four silver coins forming a diamond shape.



In preparing numismatic products in 2019, we used color printing, pad printing, as well as gold-plating and patination techniques, etc.

In 2019, we continued launching special issues of 10-hryvnia commemorative coins made of nonprecious metals (zinc-based alloy) dedicated to the Armed Forces of Ukraine with 1 million mintage each:

- Standing Guard over Life
- Participants in Military Operations in Foreign States
- KrAZ-6322 Soldier

Such issuances enable the inclusion of wider circles of the public to collecting and are an element of the patriotic development of society, particularly youth.

Issuing commemorative coins, we also commemorated the 100-year anniversary of the Ukrainian revolution, the 100-year anniversary of the Act of Union – the Unity of Ukrainian Lands and the Kholodnyy Yar uprising, as well as the anniversaries of prominent Ukrainians, including Bohdan Khanenko, Panas Saksahanskyi, Oleksii Pohorielov, Ivan Trush, Kazymyr Malevych, Panteleimon Kulish, and Mykola Lukash. Four commemorative coins were minted to commemorate the event of the granting of the Tomos of Autocephaly of the Orthodox Church of Ukraine. We also commemorated the 1,000-year anniversary of the beginning of the rule of Kyiv Prince Yaroslav the Wise.



The Cosmic Ukraine series was issued to commemorate the first launch of the Zenit-3SL carrier rocket. Another set of coins were devoted to the Yavoriv toys, which are a unique phenomenon of the Ukrainian culture.

In 2019, we provided for the preparation and supply of information and photo materials about 210 commemorative coins to issue an electronic catalogue, Banknotes and Coins (2015-2019).

Overall in 2019, we sold domestically 1.79 million units of Ukrainian commemorative and investment coins, souvenirs, and accessory products worth UAH 273.32 million, notably:

1.49 million commemorative coins worth UAH 169.02 million (2,490 gold coins, 59,490 silver coins, 809,820 nonprecious metal coins, and 625,780 zinc-based coins)

19,700 investment coins worth UAH 80.99 million (4,610 gold coins and 15,090 silver coins).

In 2019, we purchased 420 investment coins from households (in particular, 386 gold coins and 34 silver coins), which is 60% more than in 2018 and demonstrates the investment nature of these products.

During 2019, we sold 43,000 units of numismatic products worth UAH 11.86 million at nine auctions held for the sale of commemorative coins of Ukraine.

In 2019, individuals sold 32 commemorative coins, souvenirs and sets of new issues via an automated online order system on our official website.<sup>30</sup> We received orders for nearly 643,000 units, out of which 497,000 coins and souvenirs were sold through the online ordering system, or 77% of all orders. This confirms the effectiveness of online sales of Ukraine's commemorative coins and souvenirs. At the same time, the stocks of commemorative coins that had been issued until 2017 were reduced to 128,700 from 189,400 in the Central Vault.

Overall in 2019, we generated revenue of UAH 227.82 million from the domestic sale of Ukrainian commemorative and investment coins, souvenirs, and accessory products and paid UAH 29.38 million in taxes to the state budget.

In order to comply with the terms of our agreements concluded with nonresident companies, 126,780 units of commemorative and investment coins and souvenirs worth EUR 954,900 were sold at the external market in 2019. In 2019, Great Britain and Singapore markets became new sites for selling numismatic products, in addition to those of the U.S., Germany, Hong Kong, South Korea and Poland.

<sup>30</sup> has been functioning since 6 September 2016.



In 2019, we held its annual all-Ukrainian competition to determine the best coin of 2018. The winner of the Best Coin of the Year and Best Explored Theme categories was the *100-year Anniversary of the National Academy of Sciences* coin set of five-hryvnia silver commemorative coins: *The Era of Peace, The Era of Changes, The Era of Technologies, and Mankind, Time, and Space*.

The commemorative coin *Defenders of Donetsk Airport* was among the Top 10 coins in the world, according to the COTY2019 international competition in the Coins Depicting Current Events category.



We also continued working on promoting Ukrainian numismatic products at the international market. We exhibited our commemorative and investment coins and souvenirs at the International Numismatic Exhibition at the World Money Fair in Berlin. It is the biggest exhibition in the world for producers and collectors of numismatic products, as well as the producers of equipment, materials, and packaging for coins, etc.

### NBU Strategic Initiatives and Cash Circulation Plans in 2020

Our strategic initiatives and plans for cash circulation in 2020 include:

- transforming the cash circulation framework into the Cash Circulation Development in Ukraine program, which will enable combining the NBU's cash circulation development projects
- creating the framework to reduce cash circulation in favor of cashless settlements and efficient use of cash within the framework of the Cash Circulation Development in Ukraine program
- expanding the number of institutions authorized to store banknotes and coins in order to provide cash to banks and other participants of cash circulation
- expanding the list of cash circulation participants to embrace CIT companies to help improve the liquidity of banks, while reducing the use of cash
- strengthening control over the activity of authorized banks that will serve as an important tool for providing quality cash to consumers of financial services
- introducing innovative logistics elements and improving cash management automation
- completing the optimization of banknote and coin denominations (in particular, with the introduction of the 200-hryvnia banknote of the 2019 design and a 10-hryvnia circulating coin)
- continuing the improvement of software for transferring our cash reserves for storage at authorized banks
- creating a competency center at the NBU to combat banknote counterfeiting with centralized investigations and to analyze the counterfeit of domestic and foreign currencies
- launching an online store to sell our numismatic products.



## Expert Advisory Council on Communications with Innovation Companies and Projects

In 2019, as part of a pilot project, we established an Expert Advisory Council on Communications with Innovation Companies and Projects<sup>31</sup> (hereinafter – the Expert Council). The purpose for its establishment was to stimulate the development of FinTech solutions in Ukraine. This communications platform provides for dialogue with financial market participants and resolves issues related to the introduction of innovative financial services, payment instruments, payment schemes, technology platforms, etc. in the financial market of Ukraine.

The main task of the Expert Council is to provide for dialogue, to expand proposals on the financial services market and improve competition on the market.

NBU Board Resolution No.63 dated 23 April 2019 determines the procedure for cooperation between the NBU and innovation companies and projects.

The procedure for becoming a participant is rather simple. A company that has innovative products and/or services must meet the following requirements:

- the product and/or service is unique in the financial market or offers significant improvement for the available services/products
- it is in conformity with the legislation of Ukraine on the protection of economic competition
- its introduction conforms with the laws of Ukraine
- it improves customer service, simplifies the delivery of services and promotes the development of the Ukrainian financial market
- it has a plan for implementation

- it has available documents confirming the absence of risks or outlining its risk management system.

Since its creation, the Expert Council reviewed eight applications from innovation companies, of which five were related to PayTech projects and three to Regtech projects.

To compare, in 2019, the Regulatory Sandbox of the Monetary Authority of Singapore considered six applications, while the Central Bank of Lithuania considered five applications.

The applicants received constructive feedback from the NBU's experts during the meetings with the Expert Council.

Also, other public authorities, including the Ministry of Finance of Ukraine, the State Tax Service, the Ministry of Economic Development and Trade, the National Commission for Regulation of Financial Services Markets and the National Securities and Stock Market Commission, were involved in the review of innovative products and services.

The Expert Council was expected to operate by the end of 2019 as part of the pilot project. However, based on the performance of the Expert Council, we decided to prolong its functioning until a group is created that is responsible for the establishment and operation of the regulatory sandbox. We assumed the obligation to create regulatory and technical sandboxes, in accordance with the Strategy of Ukrainian Financial Sector Development until 2025, with the approval of Decision No.1010 dated 26 December 2019.

The report on the expert council's activities in 2019 is available on the official NBU website<sup>32</sup>.

<sup>31</sup> NBU Board Decision No.304 dated 23 April 2019.

<sup>32</sup> [https://bank.gov.ua/admin\\_uploads/article/Report\\_GO%20FinTech\\_pr\\_2019.pdf?v=4](https://bank.gov.ua/admin_uploads/article/Report_GO%20FinTech_pr_2019.pdf?v=4)



## Work with governmental authorities of Ukraine and the business community

In 2019, we continued cooperation with government authorities and the business community.

Thus, we deepened relations with the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine and respective ministries both through strengthening and activating the existing forms of cooperation, and through establishing new formats of effective interaction.

Our active cooperation with the Verkhovna Rada of Ukraine resulted in the adoption of the following laws, which are important for financial sector reform:

- Law of Ukraine No.79-IX *On Amendments to Certain Laws of Ukraine On the Consolidation of Functions of the State Regulation of the Financial Services Markets* dated 12 September 2019
- Law of Ukraine No.122-IX *On Amendments to Certain Laws of Ukraine On the Protection of Consumer Rights in Financial Services* dated 20 September 2019
- Law of Ukraine No.361-IX *On Preventing and Combating the Legalization (Laundering) of Proceeds from Crime and the Financing of Terrorism and the Proliferation of Weapons of Mass Destruction* dated 6 December 2019.

Our proactive approach to improving legislation consisted in the following:

- working with the Ukrainian parliament and its committees, MPs and their assistants on issues falling within the central bank's mandate
- providing comments and suggestions to the draft laws of Ukraine
- presenting our position to parliamentary committees during the process of drafting laws.

In January 2019, at the Verkhovna Rada's plenary session, NBU Governor Yakiv Smolii presented a report on the regulator's performance for the previous year. This way, we complied with the current legislation and demonstrated our openness and accountability to society.

Overall, in 2019, members of the NBU Board, department directors, and other experts attended 15 meetings of the Verkhovna Rada's Committee on Financial Issues, Taxation and Customs Policy. That committee held four meetings with the participation of the NBU Governor, two with deputy governors, and eight with relevant department directors.

In the overwhelming majority of cases (14 out of 15), the NBU representatives attended committee meetings at their own initiative, and only once by invitation.

In addition, in November, the Verkhovna Rada's Committee on Financial Issues, Taxation and Customs Policy held a meeting on the NBU's premises. This meeting was dedicated to the central bank's policies, the regulator's reporting on the implementation of safeguards in accordance with the Law of Ukraine *On Currency and Currency Operations*, and plans for the NBU's legislative proposals for 2020.

Participation of the NBU's top management in the work of the Verkhovna Rada's Committee on Financial Issues, Taxation and Customs Policy:

- 15 times: NBU representatives attended committee meetings
- 4 times: the NBU Governor participated in the meetings
- 2 times: deputy governors attended the meetings
- 8 times: relevant department directors took part in the meetings
- 1 time: the NBU representatives were invited to participate in the meeting
- 14 times: NBU representatives attended at their own initiative.

In addition, NBU deputy governors, department directors, and relevant specialists attended the meetings of other committees of the Verkhovna Rada of Ukraine:

- Committee on Economic Development – 3 times



- Committee on EU Integration of Ukraine – 2 times;
- Committee on Organization of Public Authorities, Local Government Bodies, Regional and Urban Development – 2 times;
- Committee on Social Policy and Protection of Veterans' Rights – 6 times
- Committee on Anti-Corruption Policy – 3 times
- Committee on Education, Science and Innovation – 1 time.

In addition to its law-making activities, we continuously exchange information with the Verkhovna Rada of Ukraine. On a weekly basis, we send information on adopted regulations and duly certified copies of NBU Board resolutions. They may be found in the Legislation of Ukraine section of the Ukrainian parliament's website. Our resolutions are also included in the Single Registry of Regulations and published in the official newsletter of the Ministry of Justice, *Ofitsiynyi Visnyk Ukrainy*.

By signing of a Memorandum of Cooperation, we have also regulated our cooperation and coordination with the Cabinet of Ministers in order to achieve sustainable economic growth and price stability. This is the first time that kind of memorandum has been signed.

It is through the achievement of price stability and sustainable economic growth that interest rates can be reduced, lending boosted and economic growth accelerated. To this end, according to the Memorandum, the government has obligated itself to support the goals and principles of the NBU's monetary policy on the basis of inflation targeting, which aims at providing a moderate inflation rate of 5% +/- 1% in the coming years. At the same time, the central bank completely maintains its institutional independence.

In practical terms, cooperation between the NBU and the government consists in constant interaction and coordination. In particular, the heads of institutions coordinate economic policy through weekly coffee meetings.

We also collaborated closely with the Ministry of Finance and financial regulators as part of the work of the Financial Stability Council. The Council held three meetings during this period, remaining a key platform for coordinating regulators in promoting financial sector reform.

In addition, under the financial stability council, a specialized financial development committee was established to monitor the implementation of the new Strategy of Ukrainian Financial Sector Development until 2025. This committee is responsible for the following:

- identifying the directions and priorities for the strategy's implementation
- facilitating coordination and monitoring its effectiveness
- considering proposed action plans of the strategy.

We also worked with other government bodies in the area of economic development. To that end, NBU Governor Yakiv Smolii regularly participated in the work of the National Investment Board and the National Security and Defense Council.

Our interaction with the business community was active and systematic. Last year, the NBU management took part in over 100 various events organized by business. The formats of these events consisted of:

- speeches at the annual meetings of business associations
- participation in the activities of business associations' committees
- high level business meetings in the form of business breakfasts
- bilateral meetings with individual business representatives.

It is through constant and constructive dialogue that we received the 2019 Business Choice Award of the American Chamber of Commerce in Ukraine.

The Business Choice Award of the American Chamber of Commerce in Ukraine has existed for five years now. It has been awarded to organizations, projects, and individuals that have significantly contributed to the development of a favorable business and social environment in Ukraine or have been promoting Ukraine internationally.

Last year, we received this award for pursuing an effective monetary policy, promoting macroeconomic stability, continuing to clean up the banking sector, and protecting the central bank's independence.

Recall that in previous years, the award of the American Chamber of Commerce in Ukraine was given to the former Minister



of Finance Natalie Jaresko, former deputy Minister of Internal Affairs Eka Zguladze, former Minister of Health Ulana Suprun, and former NBU Governor Valeria Gontareva.

One of the key events within the interaction with various stakeholders was the NBU's second annual meeting with clients and partners, which took place at the NBU premises on 16 January 2019.

It was yet another testimony to the central bank's transparency and an important tool for building institutional relations. During the event, the NBU publicly presented its operation plans for the year, outlined in the central bank's Action Plan 2019. That's why we are confident that direct interaction with stakeholders will enable building effective dialogue, feedback processes, and the formation of realistic expectations from business and public for the year.



## Cooperation with International Partners

We strengthened our international presence by expanding our circle of international partners, joining the work of international organizations, and sharing our experience. The NBU remains a reliable and open partner for foreign stakeholders.

### Cooperation with Central Banks of Foreign Countries

In 2019, we actively cooperated with foreign central banks, which served as the basis both for developing bilateral cooperation and strengthening our position in the world community of central banks. The following central banks remained the NBU's key partners in 2019: Narodowy Bank Polski, Sweriges Riksbank, De Nederlandsche Bank, the Central Bank of the Republic of Turkey, the Bank of Italy, the Bank of Spain, the National Bank of the Republic of Belarus, the Bank of Lithuania, the Bank of Canada, and the Bank of England.

Within a bilateral framework, the NBU Advisory Council held two meetings with the National Bank of the Republic of Belarus in 2019 (Rivne in June and Brest in October). In addition, the 85th East

Jour Fixe, Ukraine: Political, Economic and Migration Challenges, was held jointly with the Oesterreichische Nationalbank in Vienna in September. Also, the NBU governor discussed ways to further promote bilateral cooperation during his visit to the Bank of Canada in July.

In 2019, we continued to successfully share our experience and provided a platform for hosting a series of international multilateral conferences, roundtables, and bilateral expert events and meetings for the central banks of other countries, at which participants shared their main achievements, challenges their institutions faced, and approaches to resolving them in various spheres of activity. Over the year, 28 such events took place, seven of which were large conferences and forums. Representatives of financial institutions from 40 countries visited the NBU to participate in these events. It is worth mentioning the main partners with which we shared our professional achievements and experiences with in 2019. They include the central banks of the Republic of Turkey, Poland, Tunisia, Moldova, Lithuania, and Belarus.

### The NBU participated in the following major international conferences, forums, and roundtables of foreign central banks:

- Annual Fintech Conference (the Bank of Lithuania, Ministry of Finance of the Republic of Lithuania)
- The current global and European financial cycle – where do we stand and how do we move forward (the Bulgarian National Bank, the Bank for International Settlements)
- Policy challenges related to new forms of consuming or doing business in the digital era (the National Bank of Belgium)
- Demographics, Jobs and Growth – Navigating the Future in Central, Eastern and Southeastern Europe (International Monetary Fund, the Croatian National Bank)
- A Brave New World. The Future of Banking in Emerging Europe (the Bank of Albania, Institute of Global Affairs)
- Design and Practice of Bank Resolution (De Nederlandsche Bank);
- Challenges for Monetary Policy (the Federal Reserve Bank of Kansas City)
- Singapore FinTech Festival (the Monetary Authority of Singapore).

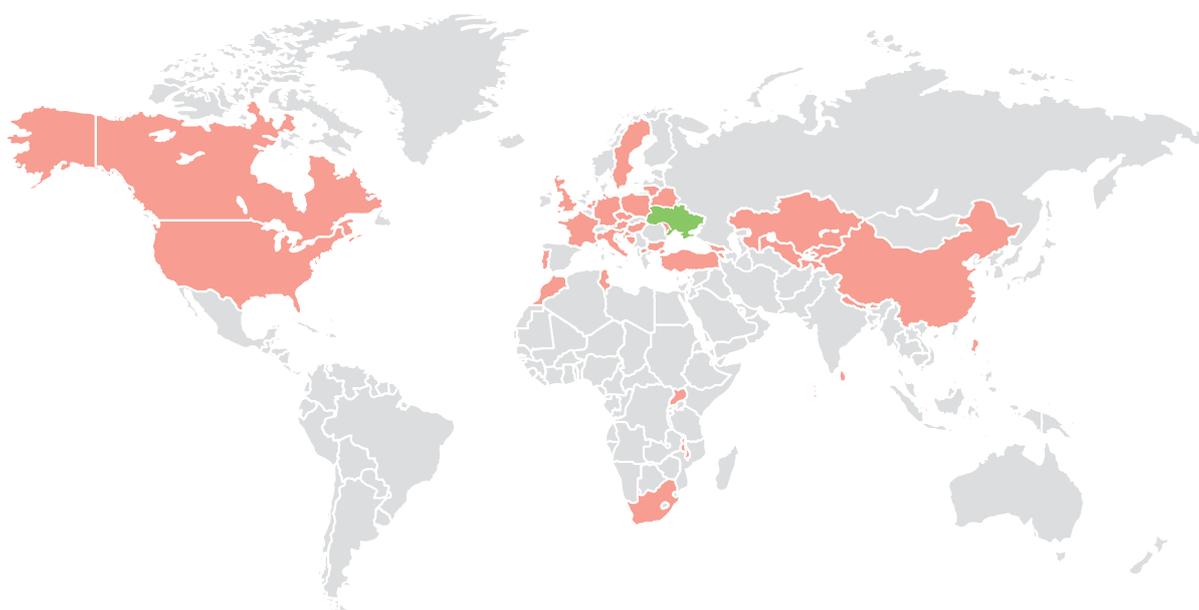


Moreover, the NBU governor, board members, and other representatives shared their experience and expertise as key speakers and participants in high-level and expert events organized by the world's leading central banks and international organizations.

In September 2019, during a visit by the delegation of the Central Bank of Tunisia to the NBU, the parties signed a memorandum

of understanding to exchange their experience in HR management, communications, transformation, monetary policy, and currency regulation. Prior to this, the NBU and the Central Bank of Montenegro signed a Memorandum of Understanding on banking supervision at the spring meeting of the International Monetary Fund and the World Bank.

### Partner Countries Exchanging Experience with the NBU



In order to implement reforms throughout the year, our experts studied the international experience of world's top financial institutions – leaders in monetary policy, financial stability, and banking supervision, communications and financial literacy, digital financial services and payment systems, statistics, strategic planning, the introduction of state-of-the-art technologies (FinTech), accounting, and the implementation of international reporting standards.

This year, we also joined the Bilateral Assistance and Capacity Building Program for Central Banks,

funded by the Swiss State Secretariat for Economic Affairs. Besides the NBU, the program's participants included the central banks of Albania, the Republic of Azerbaijan, Bosnia and Herzegovina, Colombia, Peru and Tunisia.

Cooperation with the U.S. Agency for International Development continued as to the implementation of the Financial Sector Transformation and the Credit for Agriculture Producers technical assistance projects.

## Cooperation with International Organizations

In what is by now a tradition, we represented Ukraine in the management bodies of international financial institutions and participated in various sector-specific task forces: the Annual and Spring Meetings of the International Monetary Fund and World Bank Group, the Annual Meetings of the European Bank for Reconstruction and Development (EBRD), the Black Sea Trade and Development Bank (BSTDB), and the Bank for International Settlements (BIS).

We significantly increased our representation in international organizations, becoming a member of the Euro Area Business Cycle Network (EABCN), a platform for knowledge-sharing and research within the organization's working field, and the International Financial Consumer

Protection Organization (FinCoNet), the purpose of which is to promote sound and effective standards for supervision and to exchange best practices in consumer protection among regulators.

We also enhanced our cooperation with international organizations and associations within the existing technical assistance projects and new ones launched. The cooperation is aimed at the NBU's successful implementation of reforms. Throughout 2019, we continued to draw support from international donors such as the European Union, International Monetary Fund, World Bank Group, and the European Bank for Reconstruction and Development.

Our experts were invited to join the technical missions of international financial institutions.

### The NBU's Participation in the Events of International Organizations

- Special Meeting of the Black Sea Trade and Development Bank
- Second Full Forum of the European Bank Coordination of the Vienna Initiative
- Meeting of the Basel Advisory Group
- Spring Meeting of the International Monetary Fund (IMF) and the World Bank (WB)
- Annual meeting of the European Bank for Reconstruction and Development
- Meeting of the Financial Stability Board Regional Consultative Group for Europe
- Annual Conference of the Group of Banking Supervisors from Central and Eastern Europe
- Annual Meeting of the Black Sea Trade and Development Bank
- Meetings of IMF regional groups and WB member-states
- Annual Meeting of the Bank for International Settlements
- Annual Meeting of the IMF and WB



## The NBU in the International Relations of Ukraine

We continued to actively cooperate with the IMF within the current Stand-By Program, approved on 5 December 2018. Notably, we successfully fulfilled all the measures required under this program. In September 2019, consultations took place under Article IV of the IMF's Articles of Agreement and negotiations were launched on a new loan program under an Extended Fund Facility (EFF).

Furthermore, we participated in finalizing and implementing the USD 750 million project with the World Bank, *Economic Growth and Fiscally Sustainable Services Policy Based Guarantee for Ukraine*. As a result, in Q1 2019, the Ministry of Finance of Ukraine used this guarantee to attract USD 100 million in loans in order to finance the general fund of the State Budget.

We successfully implemented the measures required for Ukraine to receive the second tranche under the fourth EU Macro-Financial Assistance program, the resources of which are aimed at improving the country's balance of payments, supporting the budget, and replenishing international reserves.

Also noticeable in 2019 was our role in cooperation with international rating agencies. In particular, we organized a series of meetings and video conferences with representatives of Standard & Poor's, Moody's, and Fitch Ratings. In November 2019, we participated in a conference organized by Fitch Ratings in Kyiv.

We developed Ukraine's international relations by maintaining a dialogue with foreign business and investors at high-level events, joining our country's international negotiation process, and fulfilling Ukraine's commitments under the loan programs and projects of international financial institutions and associations.

In January 2019, we participated in the 49th World Economic Forum in Davos, where we met with business representatives from Ukraine's partner countries, international organizations, and foreign institutions. In September 2019, we participated in an official meeting with investors during the president's visit to the U.S.

In addition, we held a series of bilateral meetings with representatives of foreign business entities,

including the Italian Export Credit Agency (SACE), Bayerische Landesbank, KPMG, and Sumitomo Group.

Our representatives also participated in numerous events organized by investment companies in Ukraine and abroad, such as: Global Funding and Financing Summit 2019 (Luxembourg, January 2019), Global Emerging Markets Corporate Conference (Miami, February 2019), Dragon Capital Investment Conference (Kyiv, February 2019), Small Talks Symposium (USA, April), CEEMEA Conference 2019 (London, May 2019), Bloomberg Emerging Frontier Forum, Ukrainian Banking Day in London (London, June 2019), Conference on Financing Opportunities in Ukraine (Berlin, June 2019), Third Ukraine Reform Conference *Innovation and Opportunity in Ukraine Now*, Ukraine Roundtable (Toronto, July 2019).

Throughout the year, we took measures to implement the World Trade Organization (WTO) Trade Facilitation Agreement and participated in negotiations within the WTO initiative on e-commerce and domestic regulation of services. In addition, we were involved in reviews of WTO member states' trade policies, the consideration of WTO candidate countries' applications, and the implementation of the Action Plan for deepening cooperation between the OECD and the Ukrainian government for 2019-2020.

## European Integration

In 2019, we continued our efforts to implement the EU-Ukraine Association Agreement. We particularly focused on streamlining banking regulation and supervision, liberalizing capital flows, updating the operational basis for payment systems, and further safeguarding consumer rights in financial services in line with international and European standards.

With the aim of fulfilling the commitments under the EU-Ukraine Association Agreement, the following key measures were taken:

- implementation of international standards, including the Basel Committee's Core Principles for Effective Banking Supervision, FATF Recommendations to Combat Money Laundering and Terrorist Financing, and the OECD Tax Information Exchange Agreement
- transitioning to a new liberal system of currency regulation: the legislative and regulatory framework was updated, while



- about 40 foreign currency restrictions for businesses, banks, foreign investors, and households were eased or canceled
- approximation of the national legislation of Ukraine to the EU acquis, particularly with regard to strengthening requirements for banking activities, improving banking regulation, combating money laundering and terrorist financing
  - development of the concept of the new legal framework for the market of payments and money transfers
  - intensifying efforts to protect consumer rights in financial services, taking into account the NBU's authority in the respective sphere in accordance with the Law of Ukraine, *On Amendments to Certain Laws of Ukraine Regarding Protection of Consumer Rights in Financial Services*.

In order to effectively implement the E.U.-Ukraine Association Agreement and strengthen Ukraine's financial sector, the NBU also took part in the implementation of the E.U. technical assistance programs and projects, in which we:

- successfully completed cooperation with the E.U. Project: *Technical Assistance in the Ukrainian Financial Sector's Priority Areas* (EU-FINSTAR)
- enhanced interaction with the E.U. project, *Strengthening the Regulation and Supervision of the Non-Bank Financial Market* (EU-FINREG)
- participated in the incubator program of the E.U. Association Lab within the GIZ Project, *Advisory Fund for EU Association of Ukraine*
- prepared a new E.U. Twinning project, *Strengthening the Institutional and Regulatory Capacity of the National Bank of Ukraine to Implement the E.U.-Ukraine Association Agreement*, the implementation of which is planned for 2020
- conducted a training session jointly with the Italian Carabinieri Currency Anti-Counterfeiting Command, under the Pericles program of the European Commission, concerning the detection and combatting of counterfeiting money for the NBU and the National Police of Ukraine.

In 2019, we were engaged in developing a closer dialogue and cooperation between Ukraine and the E.U. More specifically, we participated in the E.U.-Ukraine Cluster 1 meeting during which discussions were held on macroeconomic indicators, current economic conditions, progress in banking sector development, and implementation of the Association Agreement, etc. In addition, we were involved in preparing meetings of the E.U.-Ukraine Association Committee and the E.U.-Ukraine Association Committee in the trade sector.



## NBU Communications Management

In 2019, the NBU handled its communications in line with the Communications Strategy approved by the NBU Board at the end of 2018. The NBU targeted all its communications at achieving three goals: reinforcing trust in the regulator, maximizing the influence of the NBU policy on the behavior of target audiences, and reducing economic uncertainty by providing information required to make informed decisions.

The regulator has focused on effective transparency, consistency, as well as targeting and accessibility of communications, both from the point of view of content and communication channels. Other priorities were building a powerful NBU brand, liberalizing the regulator's communications and increasing financial literacy of Ukrainians. As a result, according to the Razumkov Centre credit of trust to the NBU increased from (-62) to (-23).

### New NBU Website: Informative, User-Friendly, Responsive

On 1 August 2019, the NBU launched the new website and the main communication channel of the central bank. The new website is located on the [www.bank.gov.ua](http://www.bank.gov.ua), replacing the old one created in the early 2000s.

The goal is to improve access for customers to the exhaustive information, thus the new website is a great improvement on the old version due to a cutting-edge appearance, simple structure, and ease navigation.

Availability of key indicators and widely used materials is at the core of new NBU website. At the same time, there is the option of site search for specialized information and publications required for in-depth analysis. All information on the website is divided by themes, such as, monetary policy, financial stability, supervision, payments and settlements, financial markets, and the hryvnia. Instead of long texts with complicated terminology, now the website will contain exhaustive explanations on the central bank operation, as well as answers to the frequently asked questions. Instead of disseminated data, statistics are consolidated in the Statistics section by topics and user-friendly interactive diagrams in the Financial Markets section. And for deep

analytics, over two dozen themed microsites and landings were brought together.

The new website was designed to be responsive to customer needs:

- more attention is paid to visual presentation of information, such as interactive diagrams with indicators and over-the-time trends
- the website will be responsive to all devices, including smartphones and tablets.
- the new website features a special version for people with visual impairments.

In 2019, nearly 4.9 million users visited both the old and the new NBU websites, exceeding the user number of the two previous years.

### Focusing on Increasing Numbers and Improving Quality

In line with the NBU's Communications Strategy, the regulator continues proactive communication with target audiences using both conventional channels (official website publications, public events for customers and partners, as well as communicating with the media), as well as contemporary means of direct and two-way interaction, primarily through social networks. However, regardless of the communication channel, the regulator strives not just to increase the number, but to improve quality as well. As a result, significant progress is achieved in both directions.

In 2019, the number of press releases and official announcements increased by 9%. NBU speakers gave 57 interviews and 139 comments on TV, radio, the Internet and printed media, not to mention over 500 information requests processed daily by the NBU press service. During this period, our representatives communicated with the media at about 40 NBU events organized specially for the media. At the same time, NBU speakers took active part in professional discussions and expert communications explaining the regulator's policy to financial market players, business, the expert community and other stakeholders. In 2019, NBU representatives increased direct communications by a quarter with the mentioned groups: they participated



337 times in social events held by the NBU for stakeholders, as well as other events in which they were invited as speakers, like conferences, roundtables, etc.

In order to advance the quality of dialogue, the regulator focused on developing visual communications through the social network. This approach was based on the understanding that visual content is easier to comprehend and more appealing to the general public and requires from readers minimum time and attention. Therefore, it is easily consumed amid the continuous accumulation of available information and data in the world. Consequently, the NBU almost tripled its infographics, video and other visual products both on the website, and on its social networks in contrast to 2018.

This resulted in significant growth in the number of readers of the NBU's webpages. In particular, in 2019, NBU Facebook page was visited 47,000 times, a 25% yoy increase, Ukrainian Twitter almost doubled its members to 10,000, Instagram account – by 80%, up to 4,000.

### Liberalizing NBU Communications: Reaching out to Experts

As of the beginning of 2019, the National Bank of Ukraine (NBU) launched the Expert Platform, i.e. a communication space bringing together experts from the central bank in various fields of economy and finance.

In contrast to traditional communications of the NBU, the Expert Platform is not a news source on NBU policy. This is an outlet for analysts and researchers studying various topics of economics, finance, and international experience and have their vision of the present day economic trends in Ukraine and the world. Thus, in line with the NBU's Communications Strategy, the NBU shares with the public its analytics and expertise of its employees, enriches discussion in the Ukrainian expert community and liberalizes public communications of the regulator.

The Expert Platform includes research that was previously shared within the central bank as the basis for NBU Board decision-making and had not been published officially. The Expert Platform also includes analytics presented in simple language in the form of posts, columns,

executive summaries, answers to frequently asked questions, and video blogs. Our specialists release their materials on landing of the Expert Platform, Facebook, and NBU YouTube channel. In its first year, the Expert Platform released 125 publications and posts from 33 authors.

### Strategy for Financial Literacy

In September 2019, the Verkhovna Rada adopted the Law of Ukraine *On Amendments to Certain Laws of Ukraine Regarding Protection of Consumer Rights in Financial Services* giving the NBU the mandate to improve financial awareness of Ukrainians. As part of preliminary measures, already last year the NBU presented its vision of the joint Strategy for Financial Literacy for the financial market and all stakeholders. This document is intended to uniform, coordinate and combine efforts of the state agencies, business and the civic society for improving financial literacy at the national level.

Five priorities of the strategy:

- To change the financial culture that covers taxes, loans, pensions, etc.
- To make Ukrainians European and financially aware.
- To reach out to youth aged 10 to 24 years. The agents of change can be the youth that will educate their friends, parents, grandparents on financial expertise and skills.
- To create a single communication platform that will unite all stakeholders and events, and become recognizable and help to build up trust.
- To set up the Information and Communications Center that will combine the visitor center, the Money Museum, the youth education center, and the educators' competence center.

In addition to strategic pillars for advancing financial literacy, the regulator continued with similar practices. The NBU arranged and hosted over 700 events last year on financial awareness for different target groups and different scale in Kyiv and other regions.

Ukraine took part in the Global Money Week for the seventh time. Over 320,000 school and university students were engaged in various offline and online events in which they were taught theory and developed practical skills required for making confident



and reasoned financial decisions in life. Last year, the NBU held the First All-Ukrainian Student Competition, Monetary Policy: NBU University Challenge. Also, NBU Money Museum, which has gradually assumes the functions of the Information and Communications Center, hosted a record number of visitors, or more than 7,700.

Meanwhile, the traditional regional Financial Awareness Days in 2019 were held in nine cities:

Zhytomyr, Lviv, Vinnytsia, Dnipro, Odesa, Ternopil, Chernivtsi, Kharkiv, and Kherson. In addition, almost 5,500 people attended the Economic Express events, where young people could train to make confident and reasoned financial decisions. Business representatives were informed on the regulator's latest decisions, while Ukrainian university educators and students were provided with the latest economic insights from the experts of the NBU and partner organizations.



## Annual Research Conference Central Bank Communications: From Mystery to Transparency

On 23–24 May 2019 Narodowy Bank Polski (NBP) and the National Bank of Ukraine (NBU) held the traditional international annual research conference for the fourth time. This event themed *Central Bank Communications: From Mystery to Transparency* coincided with the NBU's winning the Central Banking Transparency Award.

The Kyiv Conference gathered such central bank representatives, as policy-makers, communication experts, and researchers from over 30 countries, namely, from the United States of America, Canada, and European, Latin American, Asian, and African countries. About 400 persons participated in the event supported by the Canada-IMF Technical Assistance Project NBU Institutional Capacity Building, the Kyiv School of Economics, and the Journal of Monetary Economics. They included representatives of central banks and international organizations, leading researchers from prominent universities of Europe and the United States, and Ukrainian and global experts.

For decades, central banks thought it best to stay out of the public eye and talk as little as possible. In a modern world, transparency is a means of survival for central banks. "Gone are the days when central banks could afford to be closed technocratic institutions that spoke in numbers and vague terms. In this day and age, central banking is, first and foremost, about transparency, openness, and accountability. In the years to come, central banks will have to be client-oriented and capable of maintaining direct dialogue with the public," noted Yakiv Smolii, NBU Governor in the conference opening speech.

Today openness to dialogue, eagerness to explain policy decisions and to clear policy prospects, responsibility for the words and actions, responsibility for words and actions, and accountability are key to gaining trust, tackling populism and preserving independence of central banks. Moreover, communications have also become an impactful policy tool, which strengthens effectiveness of policy decisions by shaping expectations and altering behavior of stakeholders.

Together participants of the international event tried to find answers to questions: How much should central banks communicate? Can talking too much cause even greater uncertainty? Are communications equally effective in different areas of policy?

Answers to these questions were suggested by conference speakers that decide on the policies and provide expert opinion from the central banks of the UK, Canada, Lithuania, Germany, Poland, the United States, France, the Czech Republic, and Sweden, as well as the European Central Bank, the International Monetary Fund, and the world's leading universities.

One of the keynote speakers was Ms Cecilia Skingsley, the Deputy Governor of the Riksbank honored with the Central Banking Transparency Award in 2014 for effective communications. "There is a clear connection between the central bank's ability to communicate and its ability to preserve its independence. The global practice shows that independent central banks are more effective in implementing their mandate – ensuring price stability and preventing financial turmoil – in contrast to regulators influenced by politicians," noted Ms Skingsley.

Also, the NBU Governor Yakiv Smolii, Member of NBP Management Board Paweł Szałamacha, the Bank of Lithuania's Governor Vitas Vasiliauskas, the Czech National Bank's Ex-Governor Miroslav Singer, the ECB's Director General for Communications Christine Graeff, and the Head of the Content and Strategy Division in the Communications area of the Bank of England Emma Murphy shared their perspectives on central bank transparency at the conference.

"The only thing that will ensure a central bank's independence and resilience to political pressures is public confidence," believes Yuriy Gorodnichenko, a professor at the University of California, "The public should recognize value in a central bank's independence. But how do you build that trust, if the public has no understanding



of what the regulator does, and what are its instruments, goals and limitations?”

Conference speakers were convinced that in order to build trust in a central bank, its communications should adjust swiftly to the present-day media landscape, in which the news cycle, the rate of appearance and consumption of information, and the communications channels have changed. Plain language, video and other instruments of visual communication need to be applied, the audience should be broken down, and as much as benefit possible should be derived from the social media.

However, one should not mistake quantity for quality. Christine Graeff of the ECB expressed her confidence that the approach “the more communications, the better” does not work for central banks. “More communication equal

more white noise. Eventually, the public loses focus and the central bank has a hard time spreading its messages,” said the ECB’s Director General for Communications. Christine Graeff stressed that transparency should be effective.

A series of educational events were held as part of the annual research conference and Ukraine Economy Week. First, central bankers and economists from regulators of Europe and the USA and scientists from world’s leading universities gave seven lectures for Ukrainian students. Second, economists of the IMF and central banks of France and Finland held three open research seminars at the NBU. Furthermore, as part of the Annual Research Conference and Ukraine Economy Week, the NBU and the Kyiv School of Economics held a Career Breakfast for 30 students of leading Kyiv high schools.



## Management of Human Capital

During 2019, we continued to implement projects and achieve goals under our HR strategy for 2018–2020. The strategy covers the key areas of cooperation with personnel. We worked on the creation of a flexible motivation system. In particular, 2019 saw the transition to Total Rewards principles. Under these principles, the employer takes care of not only financial remuneration, but also the satisfying of needs of employees. In terms of forming employer branding, we conducted research, developed a value proposal, and determined the channels and forms of the employer brand promotion. That means different approaches for different target groups. From now on, we work with each audience based on its requests, values, and aspirations. For example, we engaged students in solving cases and offered them internships. The most effective ones were offered jobs at the NBU.

### Total Rewards – Rebranding of our Views on Rewards

In 2019, we started to change approaches to reward management based on Total Rewards principles. The concept redefines existing approaches to bring reward management in line with modern requirements and to create comfortable conditions within the organization. In particular, it supports the following:

- systematization of existing rewards for NBU staff
- higher flexibility of management decisions
- taking into account the individual needs of each employee and ensuring their protection
- transparency and clarity of reward elements
- improving the situation by attracting and retaining staff
- increasing the level of the NBU's recognition in the labor market.

### What are the advantages of the Total Rewards approach?

#### Consistency

comprehensive approach to attracting, motivating, developing, and retaining staff taking into account all financial and nonfinancial benefits in the organization

#### Uniqueness

corporate culture's special features are factored in the organization's business processes

#### Strategy

remuneration is in line with the organization's development strategy

#### Integration

remuneration system is integrated in the HR strategy

#### Personal approach

attention to individual needs and particular qualities of staff members

#### Diversity

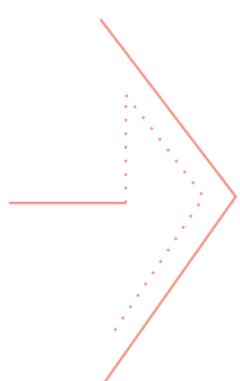
flexible system of remuneration and freedom of choice of elements

#### Distinctiveness

Employer brand identity and recognition

#### Agility

long-term and ongoing improvement

- 
- Flexibility
  - Improving the situation by attracting and retaining staff
  - Increasing the level of the NBU's recognition in the labor market
  - Taking into account the individual needs of employees
  - Transparency and clarity of components and opportunities
  - Protection, prosperity



We preserved the best reward practices and integrated them into the Total Rewards system to ensure a comprehensive management of rewards. All these elements are aimed to satisfy the needs of NBU staff and increase the flexibility of management decisions (in particular, this includes compensations, additional remunerations and services, system of personal, professional and career development and recognition, work-life balance).

### Rotation as an Effective Instrument of Development

In 2019, we improved the rotation program and updated our participation conditions.<sup>33</sup> Such changes enabled each employee to initiate rotation on their own. The instrument helps to gain experience, deepen the understanding of processes in other units, increase independence, avoid professional burnouts, and boost career advancements.

Each NBU staff member employed for more than six months can use the following relocation options:

- internship in their own or other NBU structural unit
- job swap – two employees swap their workplaces
- job shadowing – work observation of an experienced colleague (this does not include independent performance of tasks and functions)
- Gemba – managers take the workplaces of their subordinates to analyze a specific process.

Internship, observation and job swaps are possible not only in their related units. Each rotation should have defined goals and performance indicators. During the year, 14 staff members participated in the rotation. The average rotation period was 1.5 months.

### Employer Brand Research Project

We are the leader of reforms in the public sector and we set new standards and offers ample professional opportunities for personal fulfilment and the public good. In 2019, under the NBU brand research project, the NBU as an employer studied the needs and expectations of the brand's target

audience – current and potential employees of the central bank.

In particular, we studied the “Profile of an NBU employee,” defined the desired positioning of the central bank, and developed profiles of target groups by nominal and personal characteristics: students, young specialists, and experts. Additionally, we organized surveys and focus groups among students, young specialists, interns, NBU staff and external experts to learn what criteria are taken into account when choosing the “perfect employer.” Almost 650 people participated in the surveys and about 100 – in focus groups.

The results obtained from the surveys and focus groups were used to develop the employer value proposition (EVP: Brand Essence - Brand Values - Emotional Benefits - Rational Benefits) for the following target groups: students, young specialists, and experts. Additionally, several initiatives were developed to aid in implementing the proposal, as well as separate communication channels were devoted to building effective communications with each target group. Total Rewards (a set of instruments to attract, motivate, develop and keep employees) became the value proposal for NBU staff that helps to satisfy everybody's emotional and rational needs.

### Involvement of Generation Z: the NBU Works with Students and Young Specialists

Our team had developed an idea for an innovation project that was implemented at the beginning of 2019: an all-Ukrainian championship of business case solving. Talented students and young specialists became the event's target audience. The project enabled the NBU to bring together its key clients and young people to jointly develop a *Bank of the Future* business model to emerge in seven to ten years.

The case consisted of two stages: the qualifying stage and the final one. Teams that qualified for the final stage got mentors assigned – top managers from the banking community or consulting companies. The case solving was supplemented by meetings with mentors, themed events, panel discussions, workshops, and lectures by renowned speakers. The project proved to be a unique event under the auspices of the NBU, which united and involved numerous

<sup>33</sup> Staff rotation is a management instrument that involves relocating staff to other workplaces based on their professional and qualification levels.



stakeholders and various clients of the regulator. The project's communication campaign involved representatives of the education sector, including the Ministry of Education and Science of Ukraine, more than 40 higher educational institutions from across Ukraine, business schools, and student communities.

During 2019, we welcomed more than 80 students from Kyiv's leading universities for internships. Half of the students interned for a month, 7% of them stayed longer than a quarter. The Administrative Support Department, the Strategy and Development Department, and the Monetary Policy and Economic Analysis Department had the largest numbers of interns. Eleven students got job offers after their successful internship.

Also, we invited students and young specialists to participate in master classes and workshops in the new formats: "Learning budgeting by time machine travel" and "Starting point for recruitment development".

### New Mixed Format of Training

We were quick and flexible when responding to the needs of our target audience for dynamic development of the corporate culture. In particular, the format of training in competencies and interpersonal skills was changed. Thus, in 2019, in addition to three corporate competencies (proactiveness, cooperation, performance) and two management competencies (responsible leadership and effective management), we introduced trainings in seven functional competencies in a new (mixed) format of online and offline workshops. At the same time, the Distance Learning System offered additional materials to strengthen the acquired knowledge on these subjects.

During 2019, we organized 622 training events for our employees to develop their professional and personal skills. The events were attended by 6,630 participants. In particular, 400 events were aimed at enhancing professional expertise, including 119 events held abroad. The following countries were the main training providers: Austria, USA, Germany, France, and Poland.

### NBU Communities

NBU employees always have an active attitude towards life and gather in communities based

on common interests or to solve cases and challenges. The NBU's Facebook page T&D was updated to present the news in a timely and accessible manner and it expanded the list of topics for discussion. In 2019, a few hundred new members joined the Facebook group NBU Life.

Additionally, the website Here's an Idea for submitting new suggestions was upgraded. The NBU's community of innovators can suggest their innovations through the website to make life and work at the central bank more effective, wholesome and interesting. During the year, 44 ideas were submitted, five of which were implemented.

In spring and fall of 2019, W5H-style intellectual games "What? Where? When?" were organized for NBU staff. Our intellectual community united over a hundred participants. Each series of the games involved the participation of 12 teams from different blocks and departments. The winner was awarded a traditional cup shaped as an owl.

In the spring, supported by the labor union organization, the NBU's track team took part in the 27th charitable Chestnut Run. In this way, the NBU participated in supporting the Center for Pediatric Cardiology and Cardiac Surgery of the Ministry of Health of Ukraine. Last fall, the most enduring employees participated in the half marathon.

We also encourage participation in outdoor activities and invites new members to its hiking community, NBU Hike!, as well as to the NBU: Wild Rivers community. Their participants regularly conquered new peaks and rafted wild rivers in Ukraine, as well as abroad.

In October, together with the Kyiv City Blood Center we organized its traditional Donor Day. Over 50 employees were involved in the initiative. Under the corporate volunteer programs, NBU employees visited an orphanage in Kyiv oblast to give a lecture on economic literacy, raised money to help destitute senior citizens in the Ivano-Frankivsk oblast, and participated in aiding children undergoing treatment at the National Cancer Institute. Volunteer groups of NBU staff also visited animal shelters.



## HR analytics

Indicators	2019
Average age	44
Average number of years	12
Women/men in the bank	46.5%/53.5%
Women/men in management positions	42.7%/57.3%
Women/men in nonmanagement positions	54.5%/45.5%
Number of staff	4527
Staff turnover	5.7%

### NBU's Awards as Public Recognition

In 2019, the NBU was one of the top three employers in the banking and financial sectors of Ukraine, according to EY Ukraine, which based its research on Best Employer 2018.

At the same time, our project, *Bank of the Future*, was recognized as the best transformative project in the special nomination, *Growing the Future*, of HR Brand of Ukraine Award of 2019.



## Improving the Reporting System. Openness, Transparency, and Accessibility of Data

We continued to improve the reports that reporting entities submit to us. The introduction of new approaches to statistical reporting aims to harmonize this reporting with international standards, and strike a balance between the reporting burden on respondents and the internal needs of NBU units and the central bank's clients to obtain complete, up-to-date and reliable information.

In particular, we have introduced the collection and disclosure of loan indicators that are based on counterparties' relatedness to business groups, the maturity of a financial instrument, and the type of interest rate pegging in contracts. These practices are in line with European standards for statistical information dissemination.

Data on lending to small- and medium-sized companies based of their relatedness to business groups are important for understanding the structure of the Ukrainian economy. These data provide proof of the existence of many borrowers which, being formally small companies, are in actual fact part of much larger business groups.

In addition, we have launched the practice of compiling and disseminating, on a monthly basis, statistical indicators on financial soundness. Before, these data were made public on a quarterly basis.

The central bank also continued to modernize external sector statistics, bringing them into line with international and European standards.

As part of the action plan designed to improve foreign direct investment statistics that the NBU is implementing jointly with Ukraine's State Statistics Service, we in October 2019 participated in the IMF's coordinated direct investments survey (CDIS) for the first time.

We have also started to publish information on a quarterly basis about the cost and geographical breakdown of external borrowing by businesses, and to provide more details about the monthly balance of payments.

We have completed a project to introduce XBRL-based FINREP/COREP standards, in relation to banks' compiling their financial reports using the FINREP standard. With a view to introducing international information disclosure practices, we approved rules for compiling and making public banks' generalized financial reporting, in accordance with the FINREP XBRL taxonomy.

Work continued on compiling data, as required by the standardized regulatory reporting framework (COREP). More specifically, banks started to submit reports about their calculations of liquidity coverage ratios (LCR). The regulator put in place daily and monthly statistical reporting files to control LCR forecasts and to make sure LCR forecasts are adhered to.

We continued to hold regular meetings with companies' top managers in order to maintain effective bilateral communications with the business sector, to inform these managers of our activities, and to discuss relevant issues. So we organized two meetings that consisted of presentations and discussions in 2019: the first took place in April in Lviv, and the second in October in Kyiv.

We have also introduced the monthly business activity expectations index (BAEI), which is calculated on the basis of surveys of Ukrainian real sector companies. In contrast to the long-established business outlook index (BOI), which shows companies' expectations of development prospects for the next 12 months, the BAEI focuses only on businesses' assessments of the current state of the economy.

Monthly business activity expectations indices are calculated on the basis of respondents' replies to this survey. These indices are as follows: the sectoral indices (for each sector of the economy) and the composite index (describes the country's economic development over a month). This additional up-to-date information bolsters the analytical support for the NBU's key decisions, and can be useful to the central bank's other clients when making forecasts and planning.



## Internal Audit

During 2019, the Internal Audit Department (the IAD) assessed and promoted the improvement of our corporate governance processes, risk management, and internal control functions through audits.

In total for 2019, the IAD conducted 23 audits to assess the effectiveness of risk management, internal control and governance processes over the core activities of the NBU's operating units. In particular, these included audits of the implementation of IMF recommendations, based on the results of an assessment of safeguards and pursuant to the Memorandum of Economic and Financial Policies with the IMF.

The audits were conducted in 2019 in accordance with the Plan for Internal Auditing of the NBU's operating units, which had been approved by the NBU Council.

Those planned audits covered all the areas of the NBU's activity and applied process- and risk-based approaches to the auditees.

In 2019, the IAD regularly communicated the results of audits to the NBU Council, the Council's Audit Committee, and the NBU Board and informed them about the identified risks. During the year, audit findings were used numerous times in the review of related matters during meetings of the NBU Council Audit

Committee in order to assess the effectiveness of the internal control system.

We also carried out a comprehensive program for quality assurance and internal audit improvement in 2019. It includes a program for the professional development of auditors at its internal Audit School organized for NBU staff.

In 2019, independent external experts confirmed the quality of the NBU's internal audit. The internal audit's conformity with the International Standards for the Professional Practice of Internal Auditing, pursuant to the requirements of the Law of Ukraine *On the National Bank of Ukraine*, was confirmed by the results of the external assessment conducted by independent experts from De Nederlandsche Bank, who provided their report and conclusions.

The independent external assessment recognized the maturity, substantial progress, and distinct improvement of functions achieved by the NBU's internal audit over the last five years. We received the highest possible score for assessing the quality of the internal audit – “Level 5: Optimizing” – based on the evaluation scale for public sector organizations (including central banks), which is characterized by the highest standards, principles, and requirements for effectiveness of performance of internal audit.



## Research at the NBU

The most important event in the NBU's research life became the annual research conference *Central Bank Communications: From Mystery to Transparency* organized jointly with the Narodowy Bank Polski and supported by the Canada-IMF Technical Assistance Project NBU *Institutional Capacity Building*, the Kyiv School of Economics, and the Journal of Monetary Economics. The conference gathered approximately 400 participants, among them central bank representatives from over 30 countries of Europe, the United States, Canada, Latin America, Asia, and Africa. Cecilia Skingsley, the Deputy Governor of Sveriges Riksbank, delivered the keynote lecture at the conference. Jonas Fisher, Vice President of the Federal Reserve Bank of Chicago, Christine Graef, the ECB Director general for Communications, Vitas Vasiliauskas, the Chairman of the Board of the Bank of Lithuania, and other well-known researchers and representatives of international financial organizations were valuable speakers and participants of research sessions and panel discussions. It is worth noting that the conference materials were published for the first time in a special issue of the [Journal of Monetary Economics](#), one of the leading economic magazines.

In 2019, we worked in a research field covering three main areas:

- monetary policy
- financial stability
- macroeconomic modeling and forecasting

The studies of Oleksandr Faryna, Magnus Jonsson and Nadiia Shapovalenko (O. Faryna, M. Jonsson, N. Shapovalenko (2019) deserve special attention among twenty major research projects that NBU employees worked on directly in the reporting year. *Disinflation in closed and small open economies* NBU Working Papers, 1/2019), Pervin Dadashova and Magnus Jonsson (P. Dadashova, M. Jonsson (2019). *Mitigating the cost of stricter macroprudential policies*. NBU Working Papers, 2/2019). These works are very important given the subject of study, as the issue of disinflation and macroprudential policy are among the core competencies of the central bank.

It is also worth mentioning the work of Anton Grui and Artem Vdovychenko (A. Grui, A. Vdovychenko (2019). *Quarterly projection model for Ukraine*.

NBU Working Papers, 3/2019). This publication describes in detail the NBU's quarterly projections model, which is a basis for macroeconomic projections and decisions for monetary policy.

During 2019, NBU researchers presented the results of their studies at many prestigious international conferences and seminars.

Serhii Kyiashko presented his work *Government Debt Maturity Structure, Fiscal Policy, and Default* at the seminars of the Bank of Canada and Humboldt-Universität (Germany), as well as at the conference, *European Economic Association – Econometric Society European Meetings* (Manchester, Great Britain), *10th RCEA Macro-Money-Finance Conference* (Waterloo, Canada). *The study Government Debt Maturity Structure, Fiscal Policy, and Default* was presented at the conference *Computing in Economics and Finance* (Ottawa, Canada) and at the international seminar at the Bank of Poland.

Oleksandr Faryna made presentations of his study *Disinflation in Closed and Small Open Economies* and *The Transmission of International Shocks to CIS Economies: GVAR model results* at Sveriges Riksbank, the Oesterreichische Nationalbank and Narodna banka Slovenska.

Mihnea Constantinescu presented his study *Digital Technologies in Real Estate: Enhancement not Replacement* at the 15th seminar on real estate education, which was held at Bucharest University of Economic Studies.

In addition to participating in the scientific forums of well-known research centers, we also organized its own research events. Subject discussions took place at 12 open research seminars organized throughout the year. The regulator engaged prominent researchers, experts and representatives of international organizations to deliver speeches. Specifically, our speakers were Tymofiy Mylovanov (Ministry for Development of Economy, Trade and Agriculture; Kyiv School of Economics), Klodiana Istrefi (Banque de France), Elisa Newby and Iikka Korhonen (Bank of Finland, Institute for Economics in Transition), Etibar Jafarov (IMF), Andrei Kirilenko (University of Cambridge) and many other famous researchers.

In 2019, we actively collaborated with the Canada-IMF Technical Assistance Project NBU *Institutional*



*Capacity Building.* It was agreed to further support research initiatives, conferences and seminars, as well as to expand the program of visiting scholars. Due to the program, a work on joint projects with scholars from the universities of Birmingham, Lehigh, New York (CUNY) and Mangaia will continue in 2020.

We also paid attention to the development of studies and education in Ukraine. In order to stimulate quality research and search for young talent, we, jointly with Kyiv School of Economics, traditionally hold a third scientific conference for students and young researchers *The Banking Sector and Monetary Policy: Prospects for Development.* Upholding the best

international practices, the NBU held its First All-Ukrainian Student Competition *Monetary Policy: NBU University Challenge.* Furthermore, apart from Monetary Policy Committee members, Prof. Elisabeth Curtis (Dartmouth College) and Andriy Bezpyatov (Dragon Capital, CFA) acted as independent judges at the competition. The winners of the conference and competition were granted internships at the NBU.

Finally in 2019, we developed and launched a new website of the journal *Visnyk* of the National Bank of Ukraine, which is now indexed by such scientific databases and search resources as Index Copernicus, RePeC, Google Scholar, SciLit, Lens, Dimensions, DOAJ.

