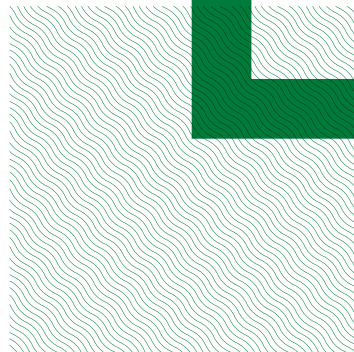




Annual report 2017





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The creative idea of this Annual Report is based on the principle of inclusion and equal opportunities for everyone. This report focuses on the fact that all people live in the financial system rather than existing next to it. In this light, Ukrainian society should pay more attention to people with special needs capable of understanding and multiplying material and spiritual values. Each chapter in this report has a prevailing color from the NBU's new brand book,

and incorporates the raised elements used on Ukrainian banknotes – tactile features that help blind and partially sighted users identify the face value of banknotes. The report also has monochrome pictures of the central bank's interior.

The report's cover features a green square, which symbolizes equality, order, perfection, wisdom and reliability, and is one of the symbols used on the 100 hryvnia banknote.





NBU Governor's Address



Yakiv Smolii

In 2017, the NBU proved its mandate as an independent central bank, by channeling all its energies to delivering price and financial stability. The central bank managed to achieve macroeconomic stability, which promoted economic growth in Ukraine, as evidenced by 2.5% growth in real GDP in 2017.

Headline inflation hit 13.7%, and was higher than the central bank's target range of 8% +/- 2 pp. The NBU is convinced that in the coming years inflation will gradually decrease, reaching its mid-term target of 5% in 2020. The adoption of a tighter monetary stance in the autumn of 2017 had the precise aim of bringing inflation back to its target, using inflation targeting tools.

Last year, the NBU remained committed to a floating exchange rate. With benign external market conditions, the gradual recovery of macroeconomic stability and support from international financial institutions, the NBU was able to increase international reserves to their pre-crisis level (USD 18.8 billion), while at the same time preventing pressure on the hryvnia. This also delivered the right conditions for the continued relaxing, and even removal, of FX restrictions.

In addition, in 2017, the central bank laid the foundations for Ukraine's long-awaited transition to eased FX controls. The NBU has drawn up a draft foreign exchange law, which will replace the outdated Decree of Foreign Exchange Regulation and Controls adopted in 1993. Through adopting this law, Ukraine will discharge the obligations of ensuring free flow of capital it assumed when it signed the EU-Ukraine Association Agreement.

By gradually lifting all existing restrictions, Ukraine will finally achieve the freedom of FX transactions. Businesses and households will be free to make their own decisions related to FX transactions, without having to obtain permission from the regulator. Restrictions will only be applied in turbulent times to prevent or address crises, and to deliver financial stability in the country. This is a required and long-awaited move towards Ukrainian bankers and businesses that want to operate on the international market and foreign investors that are interested in the Ukrainian market.

Reviving lending is one of the NBU's top priority goals for 2017 and 2018 that the regulator is gradually achieving. Indeed, since the start of 2017, hryvnia corporate loans have risen by 8.7%, with hryvnia household loans growing by 38.3%. However, the complete revival of lending requires putting in place laws to protect the rights of creditors, as well as measures to deal with toxic assets. The NBU is directly involved in drawing up and discussing the relevant draft laws in parliament.

In 2017, the banking system's operating income grew by 10%, which was in line with the regulator's expectations. However, the banking sector recorded losses of UAH 24.4 billion in 2017, due to banks – mainly the four largest banks, including PrivatBank – setting aside large provisions. A positive development last year was the reduction in the number of unprofitable banks to 18, down from 33.





All of the 82 banks that were operational in early 2018 had transparent ownership. Most of them completed their three-year capitalization programs ahead of time, and decreased the maximum permissible level of credit risk arising from related-party transactions, as required by the regulator. In 2017, the banks increased their own authorized capital to UAH 495.4 billion. All of these actions are aimed at enhancing the resistance of the banking system to stresses and external shocks.

The central bank has introduced risk-based supervision in order to prevent illegal banking schemes from returning to the market. This supervisory approach is seen as a foundation stone for putting in place effective AML/CFT mechanisms. Banks are now required to take action in the area of AML/CFT commensurate with existing risks, and to pay more careful attention to high-risk clients.

The NBU itself is changing for the better – it is becoming more transparent and accountable to the general public, improving its policy-implementation tools, and making its internal processes more efficient.

The NBU has a clear strategic vision and a well-defined program – it has drawn

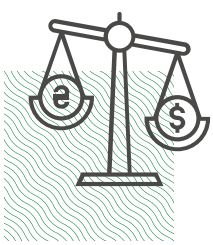
up and presented a central bank strategy for the first time since Ukraine became independent. The regulator has set seven targets that it will strive to achieve in the near future. Apart from delivering its statutory mandate of maintaining low and stable inflation, and ensuring the banking system is both stable and efficient, the NBU will be involved in efforts to revive lending and ensure there is a smooth transition to free capital movement. This will deliver the proper conditions for the sustainable development of the banking sector. The NBU has also set new and ambitious tasks in conducting the effective regulation of the entire financial sector, and promoting financial inclusion. I am convinced that by achieving these goals, Ukraine's banking system will be successfully integrating into the European financial environment.

The NBU is aware that it is facing new challenges and tasks. Let us move forward in order to attain our common goals and achieve strategic objectives.



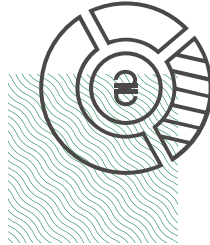


2017 Key Indicators



13.7%

Inflation



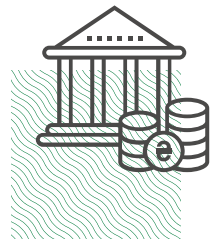
2.5%

Real GDP



USD **18.8** billion

International Reserves



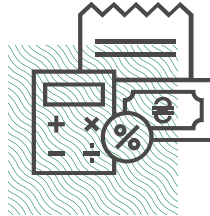
USD **2.6** billion

Overall Balance
of Payments Surplus



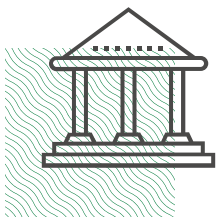
↑ 15.1%
USD **491** billion

Hryvnia Deposits



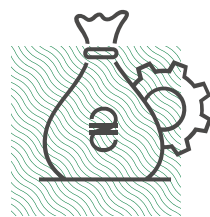
↑ 13.0%
USD **571** billion

Hryvnia Loans



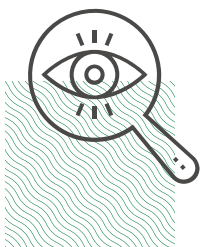
82

Number of Operating
Banks



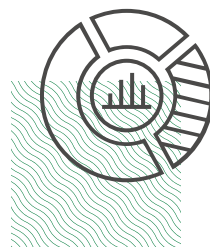
USD **123.4** billion

Regulatory Capital
of Banks



100%

Transparency of the
Banking System



11.1%

Cash Outside
the Banking
System-to-GDP ratio





Strategy of the National Bank of Ukraine

The drawing up of the NBU's strategy was the logical outcome of the regulator's efforts to develop a roadmap of its future actions - its mission, vision and values. The central bank seeks to ensure that its regulation fosters economic growth, taking into account the needs of all customers, and that it is proactive and responsive.

In 2015, the NBU introduced strategic sessions as a new tool for managing change in its organization. The first strategic session was held to determine the central bank's mission, vision and values. The follow-up sessions laid the foundations for change in the NBU, and determined the central bank's main customers (stakeholder groups) and their needs.

The NBU's customers have been classified into the following groups:

- experts, who analyze and forecast market conditions and provide the foundations for creating high-quality regulatory tools
- policy makers, who create high-quality and effective regulatory tools that set the rules of the game for all financial market actors
- financial sector entities, which provide high-quality financial services, give access to financial resources and instruments, and manage financial risks
- economic entities, which enhance the country's investment attractiveness and competitive ability
- the state, which is a service provider that delivers the right conditions for raising social standards, security and people's welfare

- Ukrainian citizens, who are the end users and evaluators of economic benefits.

The central bank's vision of the future and its role were determined by taking into account external and internal factors.

With that in mind, the NBU's team studied the experience of other central banks, and analyzed the risks and the developmental prospects for Ukraine's financial market.

In H2 2017, the NBU's strategy team, together with external experts, outlined the central bank's unified vision and the strategic goals it is to meet by 2020. The strategy's specific nature is its client-focused logic, which aims to meet the needs of the NBU's client groups. In the autumn of 2017, the NBU Board approved seven strategic goals, on which the central bank is to focus its efforts in future. These are:

1. Low and stable inflation
2. Stable, transparent, and effective banking system
3. Resumption of lending
4. Effective regulation of the financial sector
5. Free flow of capital
6. Financial inclusion
7. Becoming a modern, open, independent and effective central bank.

For each strategic goal, we have drawn up several areas of activity and projects that should enable the regulator to meet its goals. We have also outlined indicators to help us monitor progress in meeting our goals.

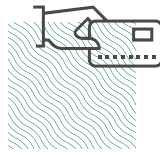
That said, the NBU's priority is to create value for various groups of its clients.





Low and stable inflation

The NBU aims to achieve controlled and predictable inflation in the long term, with the 2020 target being 5% +/- 1 pp. Low and stable inflation, in turn, will help maintain purchasing power, savings, as well as corporate and household income.



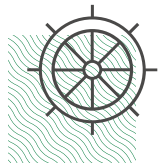
Resumption of lending

The resumption of lending requires launching a credit register, decreasing the amount of NPLs, and enhancing the protection of consumer and creditor rights. The successful achievement of this goal will make loans more accessible to households and businesses, while at the same time not creating additional risks to financial stability.



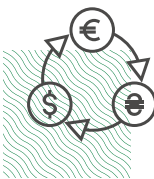
Stable, transparent, and effective banking system

The NBU intends to attain this goal by establishing effective practices for supervising financial institutions, including through risk-based supervision and requiring banks to meet liquidity and capital adequacy ratios based on EU directives and the Core Principles for Effective Banking Supervision. The security of deposits and reasonable loan rates will signal to customers that the banking system is stable.



Effective regulation of the financial sector

Determining a target model for regulating the non-bank financial sector is expected to contribute to the effective regulation of the insurance, leasing and factoring service markets, credit unions, credit bureaus, pawnshops and other financial companies. This will make the financial sector transparent and safe for financial service consumers, and extend the scope of more reliable and easily accessible financial services.



Free flow of capital

With a view to delivering free flow of capital, which is governed by EU principles, the NBU has cancelled FX restrictions and come up with suggestions for an entirely new FX law. This is expected to improve Ukraine's financial climate, and ultimately, provide new opportunities for conducting business and integrating into the European financial market.



Financial inclusion

Financial inclusion will be achieved by making the financial market more effective and improving the financial literacy of the general public, as well as by delivering an effective and reliable payment infrastructure and easily accessible financial services.





Governance

- Address by the Chairman of the NBU Council
- Board of the National Bank of Ukraine
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Address by the Chairman of the NBU Council



Bohdan Danylyshyn

2017 was the first full year of activities for the new lineup of the NBU Council. During this period, the NBU Council concentrated on its constitutional priority of developing Monetary Policy Guidelines and overseeing the implementation of monetary policy.

The professionalism, devotion, and systematic work of my colleagues made it possible for us to fulfill all of the points of the plan we had set for ourselves for 2017. In particular, a new procedure and methodological recommendations for developing the Monetary Policy Guidelines were adopted early in the year. These guidelines form the basis of the new main monetary document of the country for 2018 and the medium term. This document is the product of cooperation between the NBU Council, the NBU Board, and the academic and expert community.

Overall, the NBU Council met 17 times in 2017, while the legislative minimum is ten meetings per year. According to Article 9 of the Law of Ukraine *On the National Bank of Ukraine*, the NBU Board is required to make regular reports to the NBU Council. Seven reports were made, on the following issues:

- the implementation of the Monetary Policy Guidelines
- the current state of the foreign exchange market of Ukraine

- exchange rate and foreign exchange regulation policy
- the development of the banking system and certain regulations on banking activities
- the impact of the public debt policy and tax policy on monetary conditions in Ukraine.

Based on results of these meetings, the NBU Council made an appraisal of the NBU Board's work, and provided recommendations to the NBU Board and the Cabinet of Ministers of Ukraine.

Throughout the year, repeated consideration was given to a range of issues connected to implementing the inflation targeting regime in Ukraine, the methods and forms of forecasting macroeconomic indicators of economic and social development in Ukraine, and the current condition of the country's banking system.

The institutional formation of the NBU Council was completed. Three working consultative bodies and two advisory bodies of the NBU Council were created. In particular, in 2017, the Audit Committee met 19 times, among other things to have preliminary discussions concerning key issues of the NBU Council's work.

The NBU Council in 2017 also paid attention to developing its mode of interaction with market participants. We are proud that we were able to promote a dialog with the general public, the expert community, and civic institutions.

The Expert Advisory Board has now become a platform for direct dialogue between the NBU Board and the public. The Expert Advisory Board met six times in 2017, and discussed issues that were vitally important for economic development, such as:

- the drafting of the Monetary Policy Guidelines for 2017–2018
- the appropriateness and pace of implementation of inflation targeting
- macroeconomic forecasting





- the strategy for developing the banking system
- framework for the development strategy of state-owned banks
- exchange rate and foreign exchange regulation policy
- the development prospects for cryptocurrencies in Ukraine.

Unfortunately, the NBU Board was unable to achieve the goals set by the Monetary Policy Guidelines for 2017 and the Medium Term. Headline inflation accelerated to 13.7% yoy in December 2017, greatly exceeding the target of $8\% \pm 2$ pp envisaged in the above document. At the same time, the NBU Council acknowledges that inflation targets have to be attained over the medium term.

The NBU Council therefore emphasizes the need to improve the NBU's cooperation with the Cabinet of Ministers of Ukraine and other executive agencies in order to develop appropriate institutional arrangements to effectively achieve and sustain price stability in the country.

The state of the financial and banking system has great significance for economic growth. For this reason, the NBU Council supported the NBU Board's constructive initiatives with regard to improving and developing the banking system. In fact, positive trends were seen in the banking sector in the reporting year. In particular, bank deposits grew at an accelerated pace, and the banks became more active in the consumer finance segment of the Ukrainian lending market. In addition, the Ukrainian banks' returns on assets and on equity improved, as did economic indicators throughout the banking system. There was also a significant increase in the number of profitable banks.

We approach 2018 with cautious optimism. The direction of monetary policy should be maintained. The NBU's resolute policy to achieve price and financial stability will form a solid foundation for robust economic growth and will thus contribute to higher living standards for our compatriots.

Handwritten signature



Board of the National Bank of Ukraine



Yakiv Smolii

Governor of the NBU
since 15 March 2018

Governor of the NBU since 15 March 2018. Acting Governor since 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 25 years, since its establishment after the country's got independence. In 1991-1994, he worked at the NBU's Regional Branch in Ternopil oblast. Until 2005, he served as deputy chairman of the board at JS Postal Pension Bank Aval. From 2005 until 2014, Yakiv Smolii served as director of banking business at Prestige-Group.

He graduated from the Ivan Franko National University of Lviv majoring in Applied Mathematics. He holds a PhD in Economics.



Valeria Gontareva

Governor of the NBU
since 19 June 2014
to 15 March 2018

She has over 20 years of experience in management positions at leading Ukrainian and international financial institutions. Before her appointment as NBU governor, she was head of the Investment Board and later managing director at Investment Capital Ukraine Asset Management Company, LLC.

She also held various positions at ING Bank Ukraine JSC, from head of Resource Management to first deputy board chair. At Société Générale Ukraine JSC she was head of the Resource Management Division and later head of the Resource Management Department. She has also worked at the Ukrainian Interbank Currency Exchange.

Valeria Gontareva graduated from the Kyiv Polytechnic Institute with a major in Optical Electronic Instrument Engineering and holds a degree in International Economics from the Kyiv National Economic University.



Roman Borysenko

Deputy Governor of the NBU

Areas under his management include finances, human resources, and management of property and procurement for the National Bank of Ukraine.

Roman Borysenko has worked in Ukraine's banking system for more than 16 years. From 2001 to 2014, he worked at Raiffeisen Bank Aval PJSC, starting his career as an economist and advancing to the position of deputy director and then director of the Human Resources Department.

He graduated from the Ukrainian Academy of Banking of the National Bank of Ukraine in Sumy with a major in Banking.



Kateryna Rozhkova

Deputy Governor of the NBU

Kateryna Rozhkova is in charge of prudential supervision.

Kateryna Rozhkova has been working in Ukraine's banking system since 1998. For more than 12 years, she held management positions of a deputy chair, board member, and 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 worked as director of the NBU 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.

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





Dmytro Sologub

Deputy Governor of the NBU

He 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). From 2004, he worked as a research economist at the IMF Resident Representative Office in Ukraine. From 2007 to 2015, prior to joining the NBU, he was head of analysis and research at Raiffeisen Bank Aval PJSC.

Mr. Sologub graduated from the Belarus National University with a major in Theoretical Economics. Later, he obtained a Master's Degree in Economics (EERC) at the National University of Kyiv-Mohyla Academy. He is a CFA Charterholder.



Oleg Churiy

Deputy Governor of the NBU

He is responsible for open market operations, foreign exchange regulation, and operations of the NBU Depository.

His professional activity in the financial sector began in 1993 and he has more than 10 years of experience in management positions. He began his career at INKO JSB in the international settlements office. Throughout his career, he managed securities transactions at VABank JSC, Spivdruzhnist investment company, and BNP-Dresdner Bank Ukraine JSCB. From 1999 to 2007, he has worked as chief treasury dealer and head of treasury at Bank Austria Creditanstalt Ukraine JSC (in 2002, the bank changed its name to Hypovereinsbank Ukraine JSC). For the following three years, he served first as deputy head and then as head of the Investment Business Department at Ukrsibbank JSCIB. From 2010 to 2014, he was in charge of Fixed-Yield Market Operations at VTB Bank PJSC.

He completed a degree in Economics from the Higher School of Banking of the International Center for Market Relations and Entrepreneurship, majoring in Finance & Credit. He is a CFA Charterholder.





Changes to the NBU's Organizational Chart

In 2017, the NBU's chart was modified as follows:

- The Office for Registration and Licensing was reorganized into a new unit i.e. the Licensing Department, thus enabling centralized licensing in the central bank
- The Banking Inspection Department was reorganized into the On-site Bank Inspection Department. On-site bank inspection processes were improved and functions were assigned more effectively. The newly established department has a linear structure
- The Central Clearing House was removed from the NBU's structure and all its functions were assigned to the Information Technologies Department.

In 2017, as part of in-house transformation the NBU changed the structure of 14 units resulting in improved performance and optimized operation of the NBU. The following units underwent changes:

- Operational Department
- Licensing Department

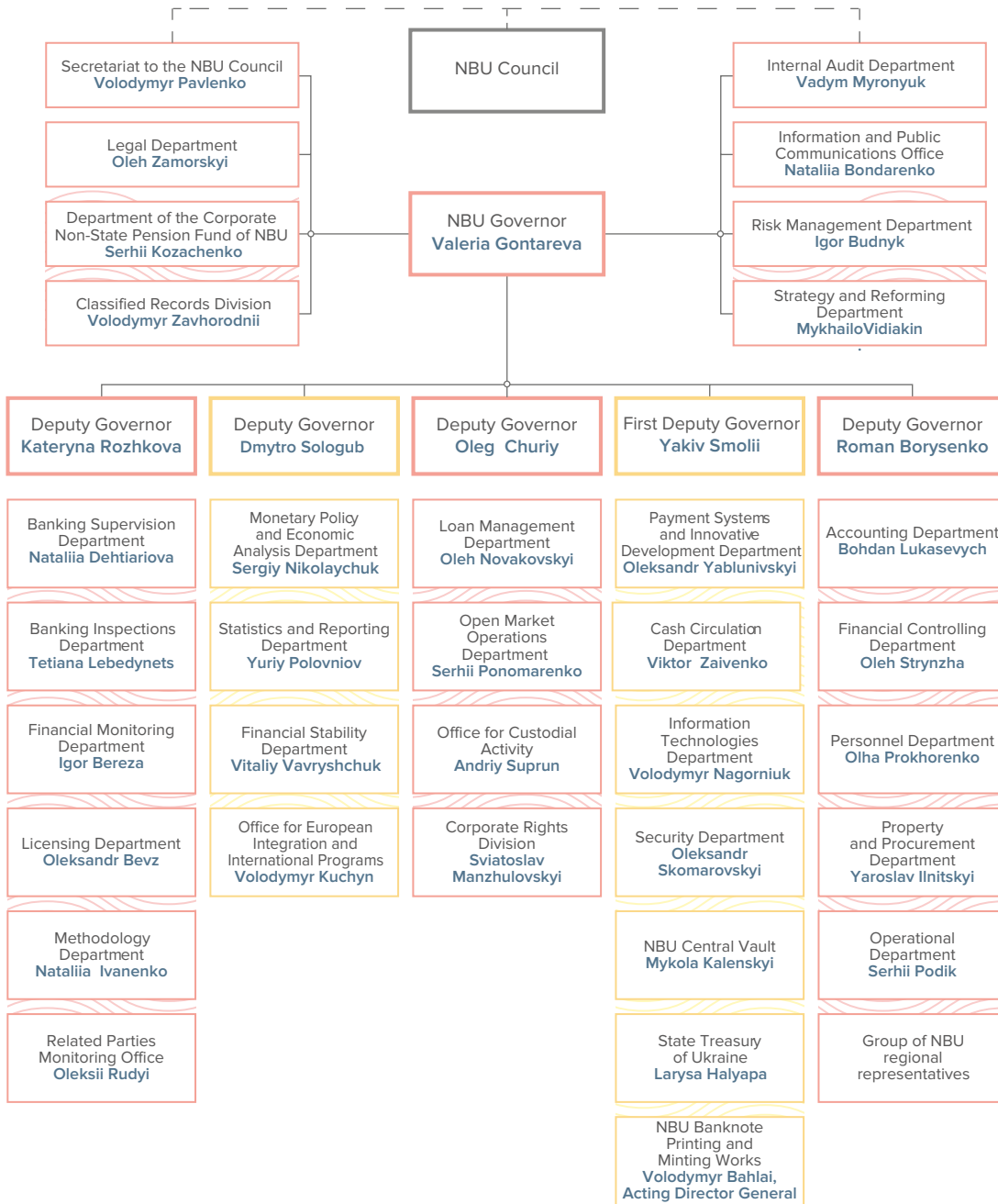
- Information Technologies Department
- Open Market Operations Department
- Property and Procurement Department
- Financial Controlling Department
- Risk Management Department
- Loan Management Department
- Legal Department
- NBU Central Vault
- Cash Circulation Department
- Security Department
- Personnel Department
- Financial Monitoring Department.

In summer 2017, Financial Institutions Servicing Division was set up in Operational Department. This Division is a single point of entry for all requests from financial institutions operating as a service center for financial institutions. By establishing this Division the NBU takes a big step towards market players, since the NBU becomes more customer-oriented.





Organizational Chart of the National Bank of Ukraine as of 1 January 2018





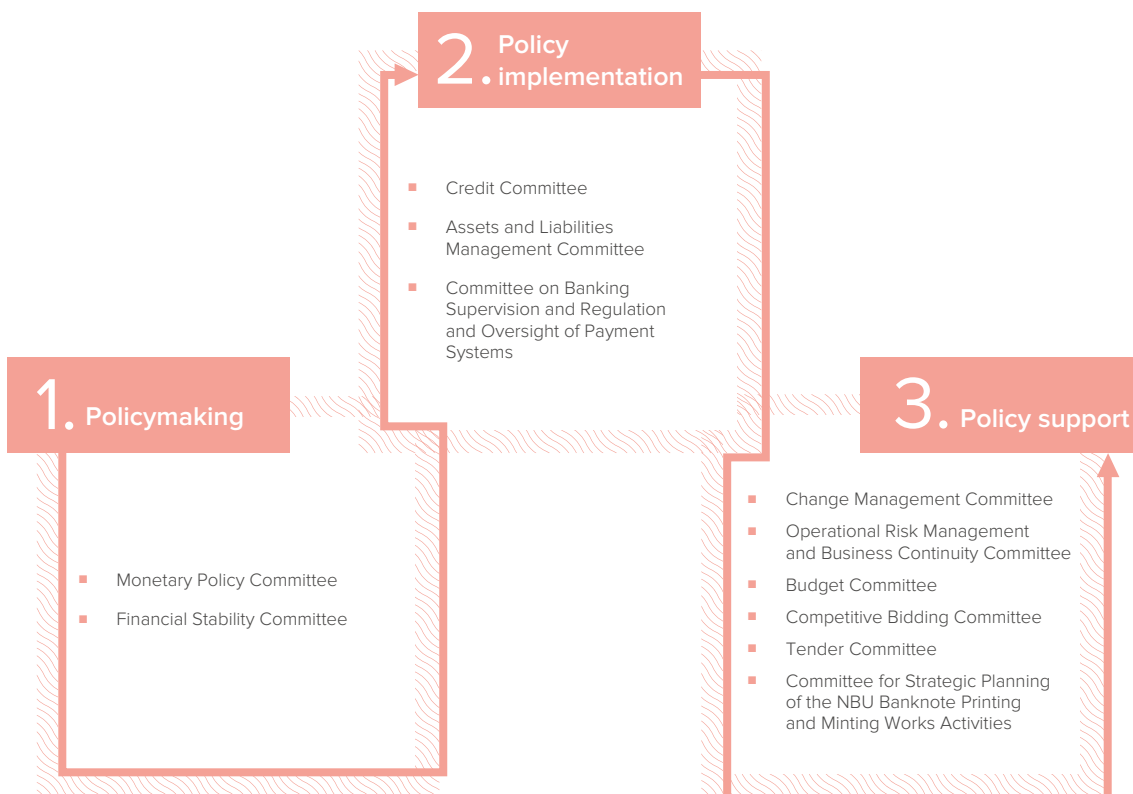
NBU Committees

The professional work of the NBU Board's committees helps ensure the transparency of the NBU's activities. The implemented system made it possible to improve the quality of materials for decision-making, to increase the efficiency of the NBU Board activity, to reasonably distribute the workload between the NBU Board and committees with a cross-functional exchange of information and discussion of the materials by all parties involved before the proposals are submitted for Board consideration.

In 2017, the activity was focused on:

- strengthening the follow-up control over the implementation of committees' decisions.
- The structure of the committees covers all key activities of the NBU that require collective decisions. The committees fall under three main groups:
- I. Policymaking
 - II. Policy implementation
 - III. Policy support
- creating a consistent approach to the work of the committees

Structure of the NBU's system of committees





Committees are established based on a clear separation of functions and the participation of NBU Board Members. Each board member has the right to attend meetings of all committees (as an invited committee member), but is only entitled to be a standing member of between two and five committees.

Decision-making rights distribution among the NBU Board committees in 2017 remains unchanged:

- The NBU Board delegates the authority to make final decisions within its defined mandate to two committees (according to the Law of Ukraine *On the National Bank of Ukraine*), namely:
 1. Assets and Liabilities Management Committee
 2. Committee on Banking Supervision and Regulation and Oversight of Payment Systems.
- The Competitive Bidding Committee also has the right to make final decisions (according to the Law of Ukraine *On Public Procurement*)
- The Monetary Policy Committee is an advisory body. Following the committee's meetings, the NBU Board meets to discuss monetary policy issues and to make decisions
- Other committees are advisory in nature, meaning the decisions they make become effective only upon approval by the NBU Board.

In 2017, the system of committees was expanded. The NBU Board decided to create a special committee for strategic planning of the NBU Banknote Printing and Minting

Works activities to ensure qualitative and effective changes in its activity - Committee for Strategic Planning of the NBU Banknote Printing and Minting Works Activities. The main tasks of this committee are:

- approval of Banknote Printing and Minting Works strategy
- approval of draft financial plan, cost plan for economic elements, investment budget for Banknote Printing and Minting Works for the planned year and amendments thereto
- consideration and approval of initiatives, projects, investment planning programs for the set-up and modernization of facilities and equipment at the Banknote Printing and Minting Works, including the replacement of physically depreciated production equipment.

In addition, the regulator has a Committee for the Audit of Ukrainian Banks, a body that operates on the basis of Ukrainian laws and NBU regulations concerning the activities of banks and banking groups, NBU Board decisions etc. The Committee for the Audit of Ukrainian Banks has nine members (six representatives of the NBU, one representative of the Audit Chamber of Ukraine, one representative of the National Securities and Stock Market Commission, and one representative of the National Commission for the Regulation of Financial Services Markets of Ukraine).

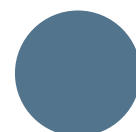
At present, the NBU Board has eleven special committees and one interdepartmental committee.



Monetary Policy and Financial Markets

Second Year of Inflation Targeting in Ukraine
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Towards Free Capital Movement
Development of Capital Market Infrastructure





Second Year of Inflation Targeting in Ukraine

The results of 2017 - the second year Ukraine had officially used inflation targeting – were important both in terms of the NBU gaining monetary policy experience and from the perspective of the public's grasp of monetary policy principles.

In 2017, the regulator demonstrated that inflation targeting works not only under favorable conditions, but also when a central bank has to take unpopular measures, such as adopting a tighter monetary stance.

In 2017, inflation hit 13.7%, missing the target of 8% +/- 2 pp. This was due to the impact on the economy of internal and external shocks, on which monetary policy has practically no influence. The most important shocks included a decrease in the supply of certain goods resulting from unfavorable weather conditions in the first half of 2017, unstable conditions in the animal breeding sector, and a rise in food exports. An increase in production costs, especially labor costs, and a rapid recovery of consumer demand also contributed to the growth of prices.

Deviations from targets are not uncommon among central banks that target inflation. This could be the result of certain short-term factors on which monetary policy has little influence. However, over longer horizons, inflation always depends on monetary factors. This is why a consistent and transparent monetary policy is an important prerequisite for an effective inflation-targeting regime. If a central bank conducts a policy that helps bring inflation back to the target, and explains to the general public how it will do that and how long it will take, it will eventually gain public trust. This policy will anchor inflation expectations by making economic agents believe that, in spite of there being short-term fluctuations, inflation will be close to its target in the mid-term. This enables long-term planning, including investment decisions, which, in turn, fosters economic growth.

An unchanged mid-term inflation target is a prerequisite for the success of inflation targeting. The NBU set its target at 5% per annum. A clear, and most importantly unchanging target, boosts the general public's

understanding of monetary decisions, and stimulates constructive discussion of what steps the central bank has to take to meet its target. The absence of a clear and unchanging target, while saving a central bank a lot of valid criticism, reduces its chances of earning public trust.

The NBU acts in line with the international practice of inflation targeting. With higher underlying risks of inflation, the NBU continued to conduct a sustained policy aimed at delivering price stability, and began a tightening cycle. At the same time, the central bank was involved in efforts to make its policy more transparent, by providing reasons for its decisions, and outlining potential risks and possible responses to these risks.

Throughout 2017 policy rate decisions balanced the need to offset inflation risks against the need to promote economic growth. With that in mind, the regulator responded to short-term price fluctuations to a limited extent, resorting to a tighter monetary policy only when underlying inflation risks appeared.

Given the inflation risks arising from the doubling of the minimum wage, along with an escalation of the military conflict and the trade blockade in eastern Ukraine, the NBU decided not to cut the key policy rate in early 2017.

With inflation risks abating due to the successful revision of the IMF program, the hryvnia exchange rate strengthening, and inflation expectations decreasing, the NBU returned to monetary easing in Q2 2017. The central bank cut its key policy rate by 1 pp in April and by 0.5 pp in May, to 12.5% per annum.

Headline inflation sped up in Q3 2017, driven mainly by supply factors, such as a rise in the global prices of unprocessed foods, and an increase in the domestic prices of meat and dairy products on the back of higher exports of these products. Given the need to mitigate the influence of these factors on inflation expectations, the NBU conducted a tight monetary policy by not cutting the key policy rate any further.





At that time, factors pointing to an easing of policy were looming over the forecast horizon: a resumption of cooperation with the IMF, appreciation pressure on the hryvnia, and slower inflation of administered prices. And most importantly, inflation expectations continued to improve. In addition, a dramatic and rapid turnabout in policy could have led to the unjustified loss of economic growth at that time.

In Q4 2017, inflation expectations started to deteriorate amid high headline inflation, as signals appeared that rising consumer demand was putting pressure on prices, and second-round effects persisted.

These effects arose from a faster increase in the prices of highly processed foods, resulting from a rise in the price of the respective unprocessed foods in previous months.

Under such conditions, the NBU had to conduct a tighter monetary policy, by raising the key policy rate in October by 1 pp, and in December by another 1 pp, to 14.5% per annum.

Over the forecast horizon, the central bank will steer monetary policy to bring headline inflation to its target range in 2019 and towards the midpoint of the target range, the mid-term inflation target of 5%, in 2020.





Influence of Monetary Policy on the Economy

The Ukrainian economy continued to recover from the severe crisis that hit it in 2014 – 2015. Economic growth accelerated from 2.4% in 2016 to 2.5% in 2017.

The Ukrainian economy recovered faster than expected, thanks to a stronger rebound in domestic consumer demand and buoyant investment activity.

At the same time, the situation in eastern Ukraine remained a significant drag on economic growth. In 2017, the negative implications from the breaking of economic ties with companies located in non-government-controlled areas were added to those from the military conflict. Other barriers to growth were restrictions imposed by Russia on imports of Ukrainian goods, and the transit of Ukrainian goods through its territory.

Consumer demand was the main driver of real GDP growth in 2017, as expected. The growth in the final consumption expenditure of households accelerated noticeably in 2017, to 8.4%, compared to 2.7% in 2016. Consumption demand was fueled by the high rates of growth in real wages (on average by 19.1% over the year), as well as by an increase in the average pension. The wage growth was mainly driven by the doubling of the minimum wage, as well as by the strong demand for labor, as evidenced both by Ukraine's State Employment Office data and job search site data. However, mismatches on the labor market and increased migration prevented employers from meeting their demand for labor in full. This kept the unemployment rate at a high level (9.5% over the year), and pushed up labor costs further.

Investment activity remained an important driver of economic growth. Although slowing slightly compared to a year ago (20.4% yoy), the growth in gross fixed capital formation continued to increase at a fast pace (by 18.2% yoy). Unlike 2016, the year 2017 saw capital investment growing across most business activities. The strong growth in investment activity was fueled by a further improvement in business expectations, the active financing of infrastructure projects by Ukraine's Cabinet

of Ministers, as well as by the strong financial performance of Ukrainian companies, including thanks to a pick-up in exports.

After declining in 2016, exports of goods and services were up by 3.5% yoy in real terms. The growth resulted from a rise in food exports, particularly grain and oil seeds, and favorable global prices.

These factors offset a decline in the volumes of ferrous metal exports, due to the capture of some metallurgical plants in non-government controlled areas, and there being no access to the resources and products of companies in those areas. The trade restrictions imposed by Russia in previous years also restricted growth.

The disruption of logistics and production ties with companies located in non-government-controlled areas also led to an acceleration of import growth (to 12.8% yoy from 9.3% yoy in 2016), particularly, due to coal shortages on the domestic market. Nevertheless, the high rates of growth in investment import and a rebound in consumer imports were the main contributors to import growth. Although counterbalanced in part by a further increase in exports of services, mainly thanks to exports of IT and pipeline transport services, the contribution of net exports to real GDP growth remained negative (5.5 pp).

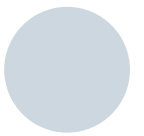
In addition, the breaking of economic ties with non-government-controlled areas was one of the reasons for the uneven pace of recovery across various sectors. Construction output increased most of all (by 20.9%), reflecting sustained investment growth. A pick-up in consumer demand and an improvement in household consumer sentiment propelled retail trade growth. Wholesale trade and transportation also generated growth last year. This offset a decline in gross value added in the agricultural sector, resulting from lower crop yields in 2017 compared with 2016's record high yields for cereals and oilseeds. Industrial output remained at the level of 2016, mainly due to a downturn in the mining and smelting sector, and lower electricity production.





However, the overall negative influence of the military conflict in eastern Ukraine was less significant in 2017 than expected at the beginning of the year, thanks

to a favorable external environment, and companies securing alternative sources of inputs more quickly than previously expected.





Building up International Reserves

In 2017, international reserves rose by USD 3.3 billion or 21.0%, to USD 18.8 billion in the US dollar equivalent as of 1 January 2018, the highest value since early 2014. This figure was higher than the NBU's projection of USD 18.6 billion in the equivalent published in the October 2017 Inflation Report. In early 2018, reserves could pay for 3.4 months of future imports, and were sufficient to meet Ukraine's obligations, as well as finance the current operations of the Cabinet of Ministers and the NBU.

Reserves were mainly replenished through the NBU being a net buyer of USD 1.3 billion when intervening in the FX market under favorable FX market conditions, and the IMF providing about USD 1 billion in financing.

At the same time, in 2017, reserves were used to repay and service the Cabinet of Ministers' foreign currency debt of USD 3 billion in the US dollar equivalent, as well as to repay and service the NBU's and the Cabinet's debt of USD 1.2 billion in the US dollar equivalent to the IMF.

In 2017 the management of international reserves was conducted according to Ukraine's international reserve investment declaration for 2017, and, as in previous years, was designed to ensure an optimal ratio between security, liquidity, and profitability.

International reserves were held in accounts opened with correspondent banks, as well as in financial instruments with a long-term credit rating of no lower than A. Credit risk was managed by setting credit limits for counterparty banks, while currency risk was managed

by minimizing open foreign exchange positions. Interest rate risk was managed by adopting a conservative investment policy and investing in assets with short maturities.

In managing international reserves, the NBU used external fixed-income securities and short-term deposits with foreign banks. More specifically, in terms of financial instruments, international reserves were composed as follows: bonds accounted for 78%, deposits with banks for 16%, and gold for 6%. Of the bonds included in reserves, 53% were government bonds, 40% quasi-government bonds, with the remaining 7% being financial sector bonds. The NBU, like many other central banks, preferred to invest in US treasury bonds. In late 2017, the currency composition of international reserves was as follows: the US dollar accounted for 71%, the euro for 12%, the renminbi for 4%, the pound sterling for 3%, gold for 6%, with other currencies accounting for 4%.

Counterparty banks met, in full and in due time, all of their obligations to the NBU related to deposits and financial debt instruments.

With the purpose of ensuring the uninterrupted functioning of Ukraine's financial system and the discharge of government obligations in due time, the NBU maintained international reserve liquidity at a high level by choosing highly reliable counterparties and government bonds. This was also done by setting a limit on the planned investment period and constantly monitoring the liquidity parameters of reserve currencies and financial instruments.





Information Disclosure as a Step Towards Enhancing Transparency

In 2017, the NBU was involved in efforts to centralize and standardize the collection and quality control of statistical data, as well as to introduce new ways of collecting and distributing statistics and other information.

The NBU continued to introduce a new approach to reporting entities' compilation and submission of statistical data – collecting data on a range of indicators, which will replace the previous statistical forms. The new approach to compiling and submitting statistical reports was put in place in 2017 for non-bank financial institutions and companies that submit reports to the NBU. These reporting entities have already started to compile statistics on the basis of the NBU's register of indicators, and to submit these data as XML files via the NBU's web portal, which is currently running in test mode. Statistical reports are signed using electronic signatures, which can be obtained at certified key centers.

In 2018, the central bank plans to set the rules for submitting statistics for individual indicators, and to launch a new approach to the compilation and submission of statistics by banks. These changes simplify the compilation and submission of statistics to the central bank, replace paper reports with electronic ones, and bring statistics submission processes closer to international standards. The transition to compiling and submitting statistics for individual indicators, and the replacing of statistical forms are to take place in 2019.

The NBU, supported by the EU-FINSTAR Project, has, together with other financial market regulators, started to introduce FINREP to comply with the EU CRR/CRDIV, as well as to introduce COREP, which addresses capital adequacy and large exposures according to Basel III (part of the EU CRR/CRD IV). The EBA requires all entities to submit reports using FINREP and COREP standards.

The NBU also actively communicated with economic agents, among other things, by conducting market surveys, since understanding and trusting the regulator's actions is a prerequisite for all market players to have rational expectations. These surveys cover business and inflation expectations, bank lending standards, the outlook for foreign direct investment, real estate market trends, systemic risks, and so on.

With that in mind, the central bank has developed a methodology for conducting market surveys, and automated the collection and processing of respondents' information. In 2017, the NBU also introduced the practice of having regular meetings with the managers of the Ukrainian companies that participate in business outlook surveys. Such meetings are widespread across many central banks, and are held to provide explanations, make corrections, and to receive feedback from the business community. In 2017, such meetings, which were organized as seminars, encouraged constructive dialogue and the lively discussion of issues that are relevant to businesses.





Monetary Developments

In 2017, the NBU's monetary policy, as is usually the case, aimed both to deliver price stability and promote economic growth. With that in mind, when inflation risks abated the central bank cut its key policy rate from 14% to 12.5% per annum. However, it was forced to gradually raise the rate again, to 14.5% per annum, towards the end the year in order to counteract new and significant inflation risks.

As expected, rates on interbank loans in the national currency, as well as yields on government domestic loan bonds, were the most responsive to the changes in the key policy rate. Rates on hryvnia loans and deposits also responded to the changes, but more moderately. But overall in 2017 average weighted market rates declined compared to 2016, despite the market rates' response to the NBU's hike of its key policy rate in Q4. Market interest rate developments were also influenced by the borrowing needs of Ukraine's Cabinet of Ministers, banking system liquidity and its distribution among certain banks, the increase of competition among financial institutions, and other factors.

Macroeconomic stabilization, together with the recovery of the banking system amid a significant liquidity surplus and a slight decrease in market interest rates, contributed to the resumption of bank lending. Total hryvnia loan balances in 2017 increased by 13%, despite there being a high comparative base due to significant restructuring of foreign currency loans in the second half of 2016. The banks focused their efforts on reviving hryvnia lending to households, primarily by stimulating consumer lending. Hryvnia loan balances in nonfinancial institutions increased by 9% on the back of a gradual improvement in borrowers' paying capacity. At the same time, there was a continuing trend towards declining foreign currency loan balances (in the dollar equivalent), in both the retail and corporate sectors.

In 2017, the banking sector saw a pickup in deposits. Total deposit balances grew 13% in annual terms. Funds in the national currency grew fastest, supported both by a gradual

improvement in the financial positions of businesses and by the growth of household incomes. Hryvnia account balances of households grew at the fastest pace, by close to 20% per annum. At the same time, corporate deposits in the national currency placed with solvent banks increased by 12%, which was driven by the stronger financial standing of businesses and higher nominal household incomes. Along with this, foreign currency balances (in the dollar equivalent) remained virtually unchanged versus late 2016.

Since the transition to a floating exchange rate in 2015, the currency market has been prone to seasonal fluctuations. For the third consecutive year, there has been a tendency in the first couple of months of the year for demand for foreign currency to increase, driven, in particular, by importers stockpiling goods for the coming year. At the same time, foreign currency supply tends to decline during these two months, especially from agricultural companies, which provide around half of the foreign currency supply volumes in the interbank market during the year. This explains the temporary increase in depreciation pressure on the hryvnia exchange rate at the start of the year. However, the impact of these temporary factors at the start of the year is offset between February and March.

There were similar market developments in 2017. Stronger depreciation pressure on the hryvnia exchange rate at the start of the year was followed by low exchange rate volatility in April through August, coupled with a strengthening of the domestic currency. In general, favorable external conditions and good crop harvests from the previous year supported export increases (exports of goods grew by 18.3% per year). The increase in imports of goods and payments on the primary income account was surpassed in no small part due to further growth of private money transfers to the country (up by 23.3% in 2017, according to the updated evaluation methodology), including through the mitigation





of administrative restrictions by the NBU. Against this background, the current account deficit in 2017 totaled USD 2.1 billion. Also, net inflows to the financial account increased to USD 4.7 billion in 2017, compared to USD 2.6 billion in 2016.

In 2017, unlike in the previous year, the public sector played a significant role in attracting capital. The successful completion of the third review of the IMF's EFF allowed Ukraine's Cabinet of Ministers to receive the fourth loan tranche of the EU's macrofinancial assistance, worth USD 600 million. And after a four-year hiatus, Ukraine returned to the foreign debt markets in September 2017, raising USD 3 billion in dollar-denominated eurobonds to be repaid in 15 years at 7.375% per annum. Some of the funds raised (USD 1.6 billion) were used to repay eurobonds maturing in 2019 – 2020. As a result of the bank's acquisition of domestic government bonds denominated in foreign currency, the banking sector's assets decreased by USD 800 million.

Another significant source of capital were FDI inflows and the reduction of cash outside banks, although this was less than in 2016. Net FDI inflows to Ukraine totaled USD 2.2 billion in 2017. The completion of recapitalization programs by most of the banks led to a decrease in operations to convert debt into authorized capital, to USD 600 million in annual terms, (compared to USD 2.2 billion in 2016). Excluding these operations, net FDI inflows in 2017 increased by a third, to USD 1.5 billion.

Overall, the excess of the supply of foreign currency compared to demand over most of the year allowed the NBU to build up its international reserves – a "safety cushion" to ensure Ukraine's financial stability in the coming years. In total, the NBU purchased USD 1.3 billion worth of foreign currency in the interbank market in the year under review, bringing international reserves to a four-year high.

However, since the end of the third quarter, the tendency for a strengthening hryvnia gave way to depreciation pressure on the national currency, including in the cash market, as commonly occurs due to the influence of seasonal and psychological factors.

In this case, the hryvnia's weakening was driven by higher demand for foreign currency from fuel importers, lower receipts of export revenues from certain commodity groups (particularly grains and oilseeds, due to lower yields in 2017) and the seasonal deterioration of FX rate depreciation expectations.

In response to the elevated pressure, the NBU maintained its presence in the interbank FX market, selling foreign currency to smooth excessive fluctuations, while not interfering with the FX rate tendencies as determined by market factors.

This helped maintain the foreign currency exchange rate at the end of the year at almost the level seen at the start of the year, with the hryvnia depreciating by a mere 3.2% overall last year, to UAH 28.07 per US dollar, despite there being some periods of increased volatility.





Towards Free Capital Movement

Starting from 2016, the NBU embarked on a path of gradually transitioning to a new liberal currency regulation model. During 2017, it continued this currency liberalization, helped by better macroeconomic and financial conditions.

As before, the regulator's approach towards easing administrative restrictions in the currency market is based on the understanding that currency market liberalization should not undermine the stability of the financial system. The currency liberalization processes implemented by the NBU are guided by the concept of a new currency regulation model and the roadmap for the transition to the target model that was presented at the end of 2016. It is envisaged that restrictions are first to be eased on export-import transactions and foreign direct investment, with the aim of boosting Ukraine's export potential. After that, restrictions are to be lifted on portfolio investment and debt capital inflows. Finally, currency liberalization provides for the lifting of all restrictions on financial transactions in the foreign markets effected by individuals.

Thanks to favorable conditions in 2017:

- the NBU lifted restrictions on households withdrawing funds from bank accounts both in the hryvnia and foreign currency, as well as on buying cash in amounts up to UAH 150,000 per day
- the NBU eased surrender requirements for businesses from 65% to 50%, while extending the maximum settlement period for export and import transactions to the pre-crisis period of 180 days
- the NBU allowed foreign investors to repatriate dividends accrued for all previous years within the limits set to maintain financial stability (USD 1.8 billion in repatriated dividend payments in 2017). The regulator allowed foreign repayments of funds received from the sale of corporate rights, certain types of securities, the reduction of the authorized capital of legal entities, and the withdrawal of foreign investors from economic partnerships

- the banks were allowed to more efficiently manage their currency liquidity by being permitted to increase their foreign currency purchases on the interbank market to 1% of their regulatory capital, up from 0.5%.

In addition, the NBU simplified the procedure for issuing individual licenses for placing funds and investing abroad.

Thus, effective from February 2017, only transactions involving transfers of funds from Ukraine are subject to the individual licensing procedure. Individuals can place foreign currency with a source of origin outside Ukraine in foreign accounts without obtaining an individual license from the NBU. For instance, Ukrainian citizens can deposit in foreign bank accounts funds received by them outside Ukraine in the form of wages, scholarships, pensions, alimony, dividends, etc. without an NBU license. Individuals can also make foreign investments by means of funds deposited abroad, without having to obtain an individual license from the NBU. This includes investments using foreign bank accounts, reinvesting funds outside Ukraine, trading in financial instruments on foreign exchanges, and so on.

Secondly, the NBU simplified approaches to licensing individuals' transactions to deposit funds in foreign bank accounts, make investments outside Ukraine, and fulfill obligations to non-residents under life insurance contracts. Starting from July 2017, individuals could automatically receive electronic individual licenses through authorized banks while simultaneously effecting foreign currency transfers for the above types of FX transactions. Based on e-licenses, Ukrainian citizens can make foreign currency transfers abroad worth a total of USD 50,000 (in the hryvnia equivalent) over a calendar year. This simplified procedure for issuing individual licenses made it easier and faster for individuals to effect the relevant FX transactions. In total, some 402 e-licenses were issued from the time of their introduction until the end of 2017. Transactions worth a total of USD 9 million in the hryvnia equivalent were carried out on the basis of 368 of these licenses.





One stumbling block for further foreign currency liberalization is outdated legislation, at the heart of which is the Decree of the Cabinet of Ministers of Ukraine On the System of Foreign Currency Regulation and Control No. 15-93, dated 19 February 1993 (hereinafter the Foreign Currency Decree). The essence of the decree, which can be formulated as "everything that is not explicitly permitted is forbidden," cannot continue to be relevant in the context of the current conditions of economic development. Therefore, beginning from November 2016, the NBU has been drafting a concept of legislative changes to be adopted, using expertise provided by the European Commission within the EU-FINSTAR Project "Technical Assistance in the Financial Sector's Priority Areas."

In 2017, the NBU finalized its proposals for foreign currency regulation legislation – a single framework bill on foreign currency, which is aimed at amending the Foreign Currency Decree and creating the foundation for a fundamentally new, liberal, transparent and understandable regime of foreign currency regulation. In August 2017, the NBU made public its proposals for the draft Law On Foreign Currency, and during the following months the regulator

improved the bill in cooperation with representatives of businesses, the banking sector, experts, government agencies and international organizations.

The proposals for the draft Law On Foreign Currency stipulate that all administrative FX restrictions that are in place will be gradually lifted, paving the way to unrestricted FX operations – provided the stability of economic development is maintained. Everything that is not forbidden will be allowed, without additional anti-crisis restrictions, and therefore currency regulations will not obstruct economic development (as has been the case for the last 25 years under the previous decree on foreign currency regulation) but will instead provide a boost to it. At the same time, the draft Law On Foreign Currency has been designed to enable the NBU (which has been granted a mandate to ensure price and financial stability) to prevent and overcome financial crises. Such an approach is in line with Ukraine's commitment under the EU-Ukraine Association Agreement to begin, starting from 2021, negotiations with the EU regarding a new FX regulation, with a view to ensuring the free movement of capital.





Development of Capital Market Infrastructure

Throughout 2017, the NBU continued to play an important role in developing a future concept of capital markets, elaborating new, and improving existing principles of financial market operations.

In June 2017, the NBU and the National Securities and Stock Market Commission signed a Memorandum of Understanding regarding cooperation in developing the capital markets in Ukraine, emphasizing the vision agreed by the regulators to form a basis for reforming depository and settlement functions, as well as clearing infrastructure. The document formalized the goals of the strategy regarding financial sector reform, in particular the overhaul of capital market infrastructure, and the principles for the functioning of the market and its individual elements. The document also set out the measures required to conduct such a reform:

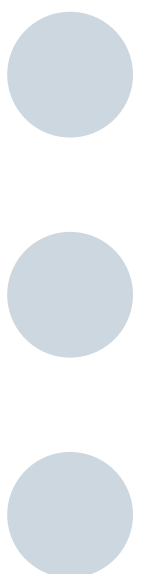
- phasing in a modern clearing model
- revising the requirements for conducting clearing activity
- abolishing, at the legislative level, the monopoly of the bank Settlement Center for effecting cash settlements in transactions with securities
- transforming the bank Settlement Center from a bank into a specialized financial institution that will act as a "simplified central counterparty"
- introducing the highest standards and practices of corporate governance in the National Depository of Ukraine and the bank Settlement Center to enhance the efficiency of business operations and ensure operational cost effectiveness, and to attract a strategic investor to these institutions' shareholders structure
- implementing key requirements to consolidate the NBU's depository with the National Depository of Ukraine, in order to ensure the smooth performance of monetary operations by the NBU, the storage of government securities, and the servicing of their circulation.

At the same time, the NBU was actively improving the existing regulatory framework and client interaction processes. Thus, in December 2017, the NBU adopted new wording of the Regulation on Conducting Depository and Clearing Activities and Ensuring the Settlement of Securities Transactions (hereinafter – the Regulation). The Regulation expanded the opportunities of participants of the securities market to deal with government bonds, in particular, by introducing new settlement models and clearer procedures for dealing with issuers. It also expanded the functionality for the NBU's clients in terms of securities accounting and simplified procedures for opening securities accounts with the NBU.

The adoption of a new legal basis regulating the activity of the NBU depository has the aim of liberalizing the existing approaches to the circulation of government securities and provides new opportunities for market participants, including in terms of servicing cross-border transactions with government securities. In view of the fact that the NBU is constantly working to establish cooperation with international depositories, the Regulation also sets forth the legal basis for this, describing the main processes of interaction with foreign depository systems.

The Regulation is also expected to help streamline the process of transferring government securities to the Central Securities Depository. Following the Regulation's adoption, a process is underway to upgrade software in order to expand the functionality of the NBU depository.

The adoption of new service fees was another step towards introducing commonly accepted approaches to governing the operations of the NBU depository. Clear and flexible pricing principles have been introduced, based on generally accepted approaches used by the world's leading depositories. A new fee system allows for the reduction of the cost of maintaining a securities portfolio, and introduces fees for carrying out transactions with securities. The new fee structure will allow for the more efficient management of the costs of clients



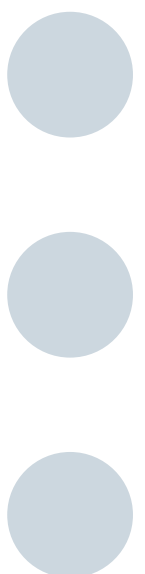


of the NBU depository of servicing their securities accounts, by reducing the share of the fixed components in the expense structure. Taking into consideration global practice, fees were set for transactions with NBU certificates of deposit at a level that covers the costs of maintaining the systems to service such transactions.

In 2017, the NBU, as the main shareholder of PJSC Settlement Center, took the decision to streamline and further develop the Settlement Center. Introducing best practices of corporate governance is seen as an important measure in the process of overhauling PJSC Settlement Center. The first step in that direction was the election of new members of the supervisory board of the Settlement Center, with over one third of its members being independent directors. The new supervisory board approved a strategy for the Settlement Center's operations. It will see the Settlement Center gradually implement alternative settlement

models for transactions with government securities, while improving its risk management and cyber security systems. In the future, the Settlement Center is expected to operate as a non-bank financial institution.

During 2017, the NBU focused on establishing correspondent banking relations with the international depository, envisaging the opening of an account by the international depository at the NBU depository. The implementation of this measure will enable the circulation of government securities abroad and, consequently, facilitate the access of foreign investors to the government securities market. The establishment of correspondent relations is a complex and multilevel process for all of its participants, but in 2017 a number of important steps were taken that marked a new stage in the project's implementation, and created the necessary prerequisites for expediting the process over the next year.





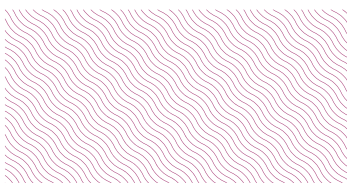
Financial Stability

Improving the Health and Restoring
the Effective Operation of the Banking Sector

Improving Regulation and Banking Supervision
Effectiveness

Risk-based Approach to the Analysis
of Financial Transactions

National Bank of Ukraine in the Financial
Stability Board





Improving the Health and Restoring the Effective Operation of the Banking Sector

In 2017, the banking sector gradually improved – after more than a three-year crisis almost all key banking indicators showed a positive trend. The cleansing of the banking sector has almost been completed, and household and corporate lending is gradually recovering.

Lending started to revive in the retail segment, which demonstrated vigorous growth throughout last year. Hryvnia corporate lending by most banks, apart from PrivatBank, started to rebound in H2 2017. The adoption of new rules for measuring credit risk and the international practice of determining non-performing loans made it possible to calculate the actual amount of NPLs in Ukraine. The percentage of NPLs across all bank groups, except PrivatBank and Russian-owned banks, started to decrease after new rules for measuring credit risk were introduced.

Deposits are on the rise, which shows that the confidence of Ukrainians in the banking system is gradually reviving.

In spite of there being a drop in deposit rates, the funding base was stable throughout the year. The lower deposit rates improved banks' cost-to-income ratios, increasing further the number of profitable banks in 2017.

Structural Changes in the Banking Sector

The number of operating Ukrainian banks decreased by 14 entities in 2017 (1.7% of the banking sector's net assets as of the start of the year). Out of these banks, four banks were transformed into financial companies, and one bank was merged with another one.

In 2017, nine banks were declared insolvent, of which:

- four banks, due to failing to implement their capitalization programs
- three banks, due to failing to meet minimum capital requirements
- one bank, due to failing to discharge its obligations to its creditors
- one bank, due to having a non-transparent ownership structure.

In early 2018, there were 82 solvent banks in Ukraine.

Although two medium banks in terms of asset size were shut down in H1 2017, the percentage of privately-owned banks increased in 2017 for the first time since the crisis began. Active lending and the purchase of several banks from foreign owners enhanced the role of domestic privately-owned banks¹. At the same time, the market shares of state-owned banks also increased: by 3.6 pp to 54.9% in net assets, and by 2.9 pp to 62.5% in deposits.

Concentration increased noticeably, with the 20 largest banks accounting for 90.7% of the banking sector's net assets (up by 1.3 pp yoy²).

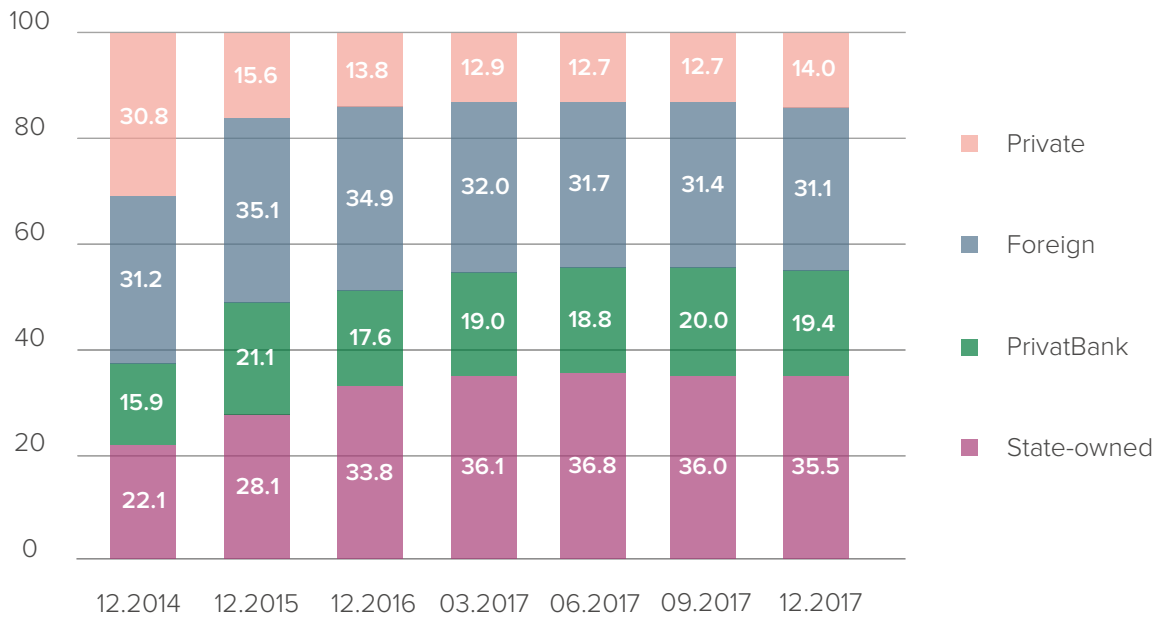
The composition of net assets by groups changed markedly, driven mainly by a pick-up in retail lending and a drop in PrivatBank's net hryvnia loans (by 79.5% yoy), due to the bank setting aside provisions for loans to companies related to its former shareholders.

¹ Of the banks that were solvent as of the reporting date
² yoy is the annual change compared to the same period last year

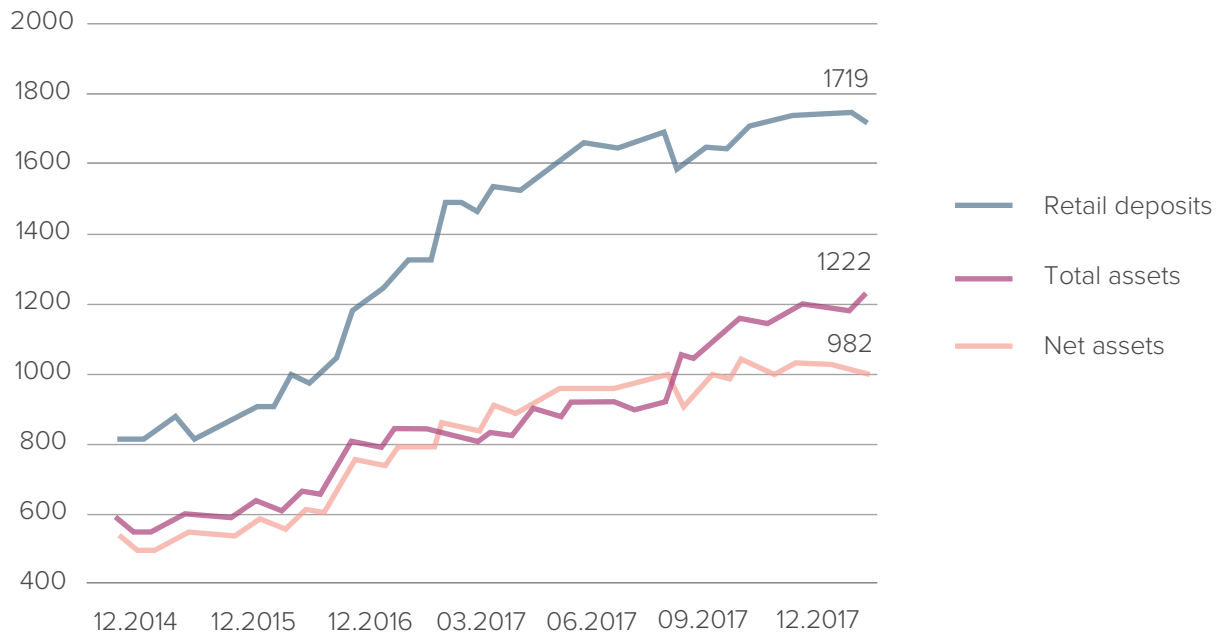




Distribution of net assets by bank groups, %



Concentration as defined by the HHI³



³ The Herfindahl-Hirschman index (HHI) is a measure of market concentration. It is calculated by squaring the market share of each bank competing in a market, and then summing the resulting numbers, and can range from zero to 10,000





Assets

The banking sector's net assets grew by 8.2%⁴, to UAH 1,336 billion in 2017, and most pronouncedly in Q4 (by 4.6%). This mainly resulted from injections of additional capital into state-owned banks, and the consequent increase in their domestic government bond portfolios. In 2017, the government issued government bonds worth a total of UAH 70.7 billion to increase the authorized capital of state-owned banks, of which bonds worth about UAH 48.4 billion were issued for PrivatBank, UAH 14.6 billion for Oschadbank, and UAH 7.7 billion for Ukreximbank.

Other banks also invested free liquidity into domestic government bonds and the NBU's certificates of deposit. This pushed up banks' portfolio of NBU-refinanced securities by about UAH 107 billion. At the same time, interbank loans and deposits at the NBU dropped by UAH 27 billion.

The foreign currency loan portfolio⁵ decreased noticeably, on the back of written-off and restructured loans, which was offset by a rise in hryvnia lending. However, in spite of there being a hike in retail lending, net household and corporate loans were practically unchanged when calculated at a fixed rate

The solvency of real sector companies is gradually recovering, with more new borrowers becoming attractive to lenders. In 2017, net hryvnia corporate loans, excluding loans by PrivatBank, grew by 14%, with the largest increases being generated

by foreign- and state-owned banks (by 18% and 13% respectively). PrivatBank's net hryvnia loans dropped by 80% yoy, due to the bank setting aside provisions for loans to companies related to its former shareholders. Government monopolies, trade, and agricultural companies were mainly responsible for the corporate lending growth. The restructuring of foreign currency loans increased the hryvnia loan portfolio by one fourth.

Household lending grew rapidly, contributing 42% to the net hryvnia loan growth over the year. Household lending by privately-owned banks increased at the highest pace (by 64% yoy), due to these banks focusing on household lending for over two years. The largest growth in the hryvnia household loan portfolio was generated by PrivatBank, after the bank started to report P2P loans on its balance sheet and ramped up retail lending.

Consumer lending (98% of new loans) was primarily responsible for the household lending growth. Despite a rebound in mortgage lending, the small amounts of new loans and the writing-off of old loans reduced the percentage of mortgage loans in the household loan portfolio.

New lending improved the quality of the loan portfolios of all the banks (apart from PrivatBank), due to statistical effects. The percentage of non-performing loans declined by 3.2 pp, to 54.5%⁶ in H2. The percentage of these loans, excluding state- and Russian-owned banks, was 28.4%.

⁴ Here and below data are given for the banks that were solvent in late 2017

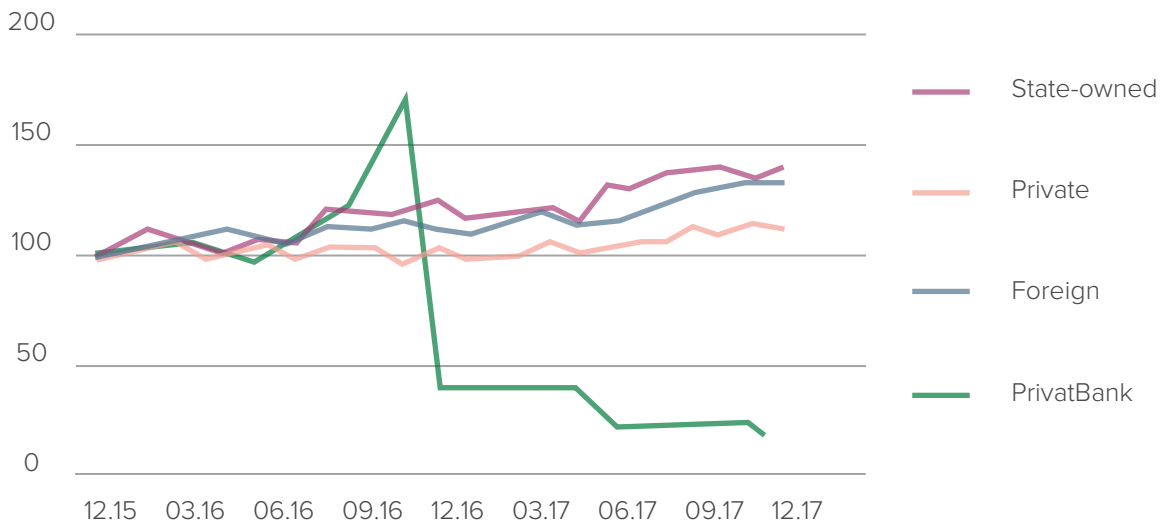
⁵ According to supervisory statistics on loans extended to residents and nonresidents by banks and their branches in Ukraine and abroad, including accrued interest

⁶ Of all reporting banks

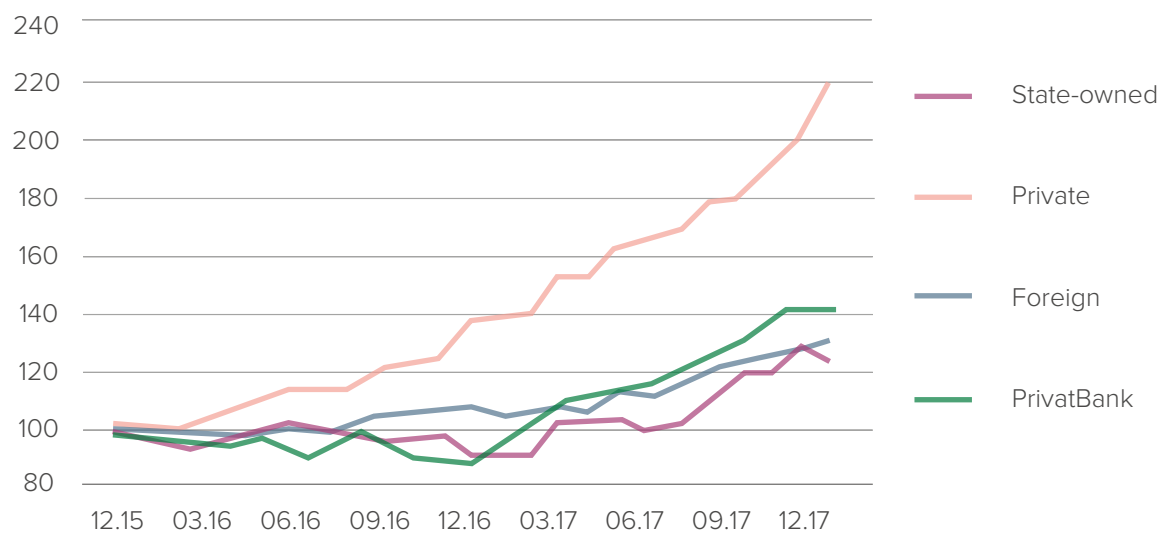




Net corporate loans in UAH, 2015 = 100, %⁷



Net household loans in UAH, 2015 = 100, %⁷





Funding

In 2017, banks relied more and more on domestic sources of funding, rather than external sources of financing. Deposits grew by 8.4% in 2017, to UAH 905 billion, while the gross external debt of banks declined by USD 2.7 billion in 2017. The percentages of household and corporate deposits in banks' liabilities increased by 2.1 pp, to 77%.

Banks repaid refinancing loans worth UAH 4.6 billion to the NBU, as their liquidity situations improved. In 2017, the percentage of NBU loans in the liabilities of financial institutions decreased from 2% to 1.6%. Banks that needed additional capital continued to convert obligations to their parent institutions (subordinated debt and interbank loan) into capital.

Growth in the percentage of internal sources in banks' funding base increased liquidity risk because internal funding is mostly short-term. That created the need to improve liquidity management by putting in place a safety cushion consisting of high quality liquid assets to be used in the case of an unexpected outflow of funds. To that end, the NBU will introduce the liquidity coverage ratio (LCR) in 2018. The LCR aims to enhance banks' resilience to liquidity bottlenecks.

Gradual cuts in the key policy rate by the NBU (from 14% to 12.5%) in H1, together with a liquidity surfeit, paved the way for a decline in deposit rates. Last year, rates

on 12-month household deposits dropped by 3.2 pp, to 14.3% per annum. The largest decreases were generated by state-owned banks, PrivatBank in particular. Although decreasing household deposit rates noticeably in August, PrivatBank still took the lead in attracting hryvnia household deposits. Meanwhile, Oshchadbank was most active in attracting foreign currency deposits. The central bank's decision to raise the key policy rate in late 2017 increased rates on hryvnia deposits with maturities up to six months by 0.2 pp to 0.4 pp, while having practically no effect on longer maturities. Rates on foreign currency household deposits, at 3.7% per annum, remained at historical lows, due to banks' weak demand for foreign currency deposits.

In 2017, hryvnia household deposits grew by 22.4%, to UAH 235 billion, while foreign currency ones were unchanged⁸.

Q2 and December saw the largest hryvnia deposit inflows. The percentage of household deposits returned to their pre-crisis levels (40.8% as of the end of December).

The removal of restrictions on foreign currency deposit withdrawals did not have any negative influence on deposit trends.

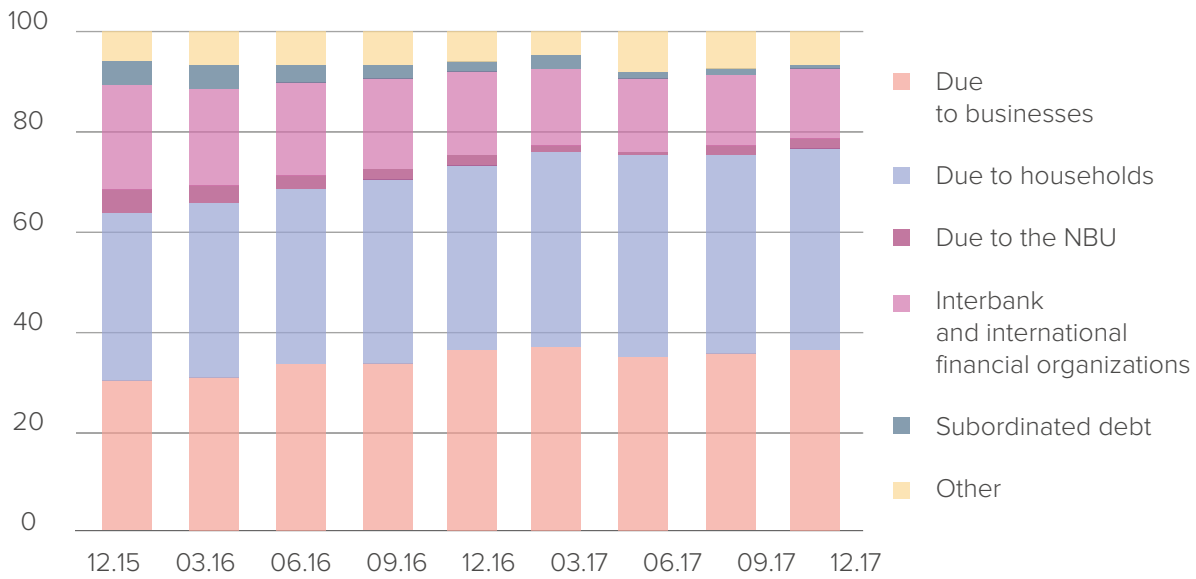
Hryvnia corporate deposits grew by 13.6% in 2017 (by 11.1% in December), to UAH 264 billion, driven by increased budgetary spending at the end of the year. Foreign currency corporate deposits declined by 10% in the US dollar equivalent.

⁸ According to supervisory statistics for domestic and foreign currency deposits attracted by banks and their standalone structural units in Ukraine and abroad, and taking into account accrued interest

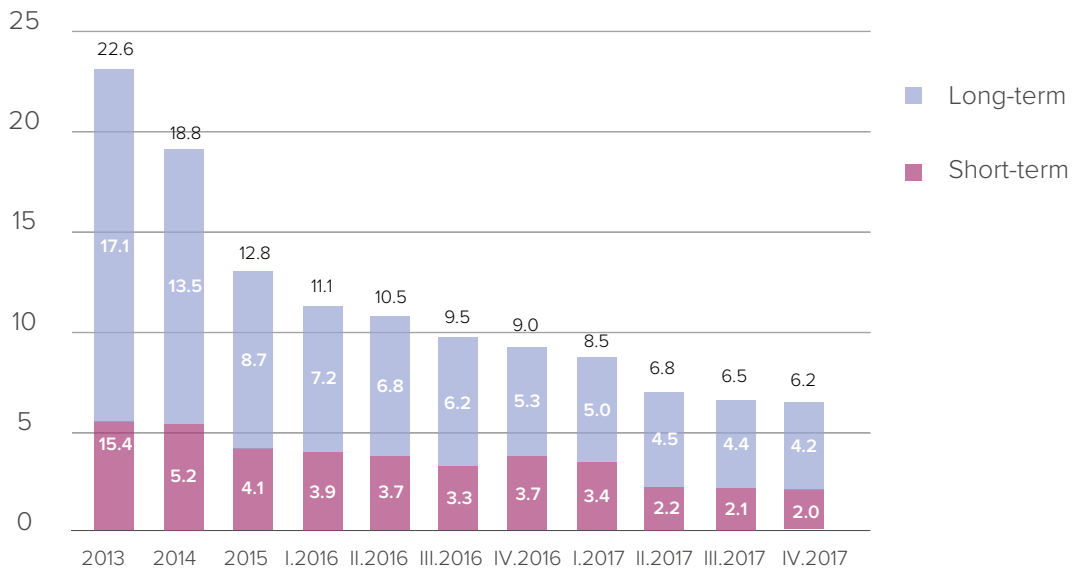




Structure of bank liabilities, %



Gross external debt of banks, USD billion





Profit or Loss and Capital

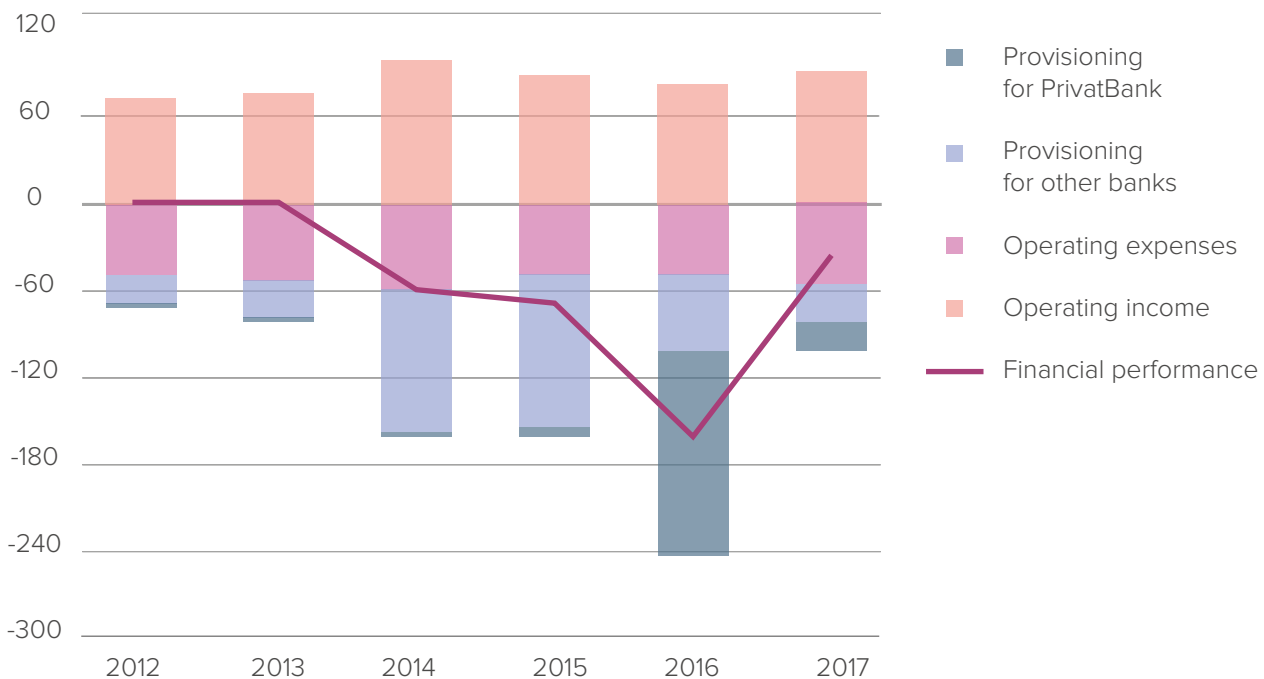
The operating income of the banking sector increased by 10% yoy in 2017, to UAH 95 billion at the end of the year. Cuts in deposit rates and a pick-up in consumer lending increased net interest income in 2017. Net commission income was also on the rise, driven by an increase in payments and a change in fee schedules. However, the overall cost-to-income ratio did not increase, due to a significant rise in the administrative expenses of some banks. The operating profit before provisioning grew by 7%, to UAH 40 billion. The number of banks that incurred operating losses

before provisioning decreased from 23 to 14 entities over the year.

Although most banks generated net positive cash flows, the banking sector reported a loss of UAH 26.5 billion in 2017, due to banks making large provisions. Losses were mainly generated by four banks, including PrivatBank. The number of unprofitable banks dropped from 33 banks in 2016 to 18 banks in 2017.

The authorized capital of solvent banks had risen by 20.4% or UAH 84 billion by late 2017, mainly thanks to capital injections into state-owned banks. Regulatory capital grew by UAH 16.4 billion, or 15.3%. Capital adequacy across the sector increased, and was higher

Profits/losses of solvent banks, UAH billion





Improving Regulation and Banking Supervision Effectiveness

In 2017, off-site supervision continued the practice of applying the Early Warning System (EWS).

The Early Warning System is an important additional instrument of banking supervision and is a type of an alert system. The Early Warning System (EWS) is designed for early detection of hidden signs of deterioration in banks' financial standing intended for timely preventive supervisory actions. Crossing the set threshold value is indicative of a future threat to the bank's financial standing.

NBU's Risk-based Approach to Banking Supervision

In 2017, the NBU enhanced the risk-based supervision approaches to improve banking supervision. For this purpose in line with adopted Comprehensive Program of Ukrainian Financial Sector Development Until 2020, in 2017, the NBU drafted new instruments regulating banks' assessment and ongoing monitoring of banks' financial standing as part of off-site banking risk-based supervision. These instruments are based on the Guidelines for Common Procedures and Methodologies for the Supervisory Review and Evaluation Process (Supervisory Review and Evaluation, SREP) (Guidelines – EBA/GL/2014/13 of 19 January 2014) outline based on principles and recommendations of the Basel Committee on Banking Supervision.

Bank assessment during off-site banking supervision under SREP methodology is implemented to create a uniform bank evaluation system in the NBU based on appraisal of their risks and viability, as well as to allocate proportionally supervisory resources and outline the banking supervision strategy using risk-based approach.

The aforesaid bank assessment comprises as follows:

- bank assessment procedure during off-site supervision under SREP methodology

- approaches to categorizing banks in order to implement the principle of proportionality when deciding on the scope, frequency and application of regulatory measures to banks
- determining banks business models according to peer groups according to lines of business. This will provide for contrastive analysis of peer banks' operations and viability assessment using quantitative and qualitative indicators for evaluating bank's business model, capital adequacy and liquidity
- engaging the NBU units in the assessment process
- standing dialogue with Ukrainian banks on assessment findings (SREP) and viability assessment
- supervisory measures with regard to the bank's systemic significance and collecting data on the bank's risk level, as well as considering the comprehensive bank assessment (SREP) while drafting the schedule of banks' inspections.

Thus, having introduced new instruments of off-site banking supervision using risk-based approaches, the NBU will foster efficiency of supervisory resources by implementing the principle of proportionality in determining the scope, frequency and application of regulatory measures to banks depending on the level of banks' risks and systemic significance. The novelties will also foster:

- assessment of the Ukrainian banks on viability using unified approaches applied by the EU member states
- identification of peer groups for contrastive analysis of banks' operations and monitoring financial standing trends
- enhancement of supervisory response at early stages of banks' risk detection.





Annual Assessment of Banks' Resilience

The NBU has introduced the annual assessment of banks' resilience (NBU Board Resolution No. 141 *On Approval of the Regulation on Assessing Resilience of Banks and Banking System of Ukraine* dated 22 December 2017). As of 1 January 2018 the assessment will be performed annually in three stages: The first stage will be executed by independent audit firms as part of the annual audit of annual financial statements, consolidated financial statements, and other information related to bank's financial and economic activities. The NBU will conduct the second and third stages of assessment of banks' resilience, extrapolating the results of the first stage and the stress testing.

Launching the Credit Register at the NBU

One of the key remaining concerns of banks' operations is the low quality of loan portfolio. Hence, there is a real need for ensuring effectiveness of the information exchange system for the purpose of lending. The NBU Credit Register should become an important component of this system.

On 6 February 2018, the Verkhovna Rada of Ukraine adopted the Law of Ukraine *On Amendments to Certain Laws of Ukraine on Establishing and Maintaining of the Credit Register of the National Bank of Ukraine and Improving Credit Risk Management of Banks*.

The NBU Credit Register will become an additional efficient banking supervision instrument, and introduction hereof will positively effect the macrofinancial stability of the country.





Major Outcomes of On-site and Off-site Banking Supervision

In 2017, the off-site supervisor imposed 154 corrective measures on banks (vs. 158 in 2016).

As a result of implemented measures intended for improving financial standing, the problem bank status was lifted from six banks.

At present, these banks continue to operate on the market. At the time of lifting

the problem status all six banks have brought their operations in line with Ukrainian law, however with different levels of stabilization, thus they remain under special control of the NBU.

Inspections of banks remained one of the main forms of banking supervision. During 2017, the NBU's inspectors carried out 64 inspections of 59 banks.

Corrective measures imposed on banks by the NBU in 2017

Corrective measure	Number of corrective measures	Number of banks
Warning letter	62	44
Declaring the bank a problem bank	10	10
Introducing the special regime of control and appointment of the curator	21	20
Fines imposed on banks	24	23
Fines imposed on officials or qualifying holders	1	1
Written agreement	5	5
Imposed restrictions on or cessation of transactions	7	7
Declaring the bank insolvent	9	9
Revoked banking licenses and liquidated banks	15	11





Quantitative Distribution of Inspections

Inspections	Quantity
Scheduled	35 ⁹
Unscheduled including:	29
▪ inspections held within the framework of bank diagnostics	22
▪ inspections related to discharge of obligations under loan agreements concluded with the NBU	1
▪ inspections initiated by the Banking Supervision Department	1
▪ inspections held to monitor compliance with laws and regulations of the NBU, as well as on related party operations initiated by the Related Parties Monitoring Office	1
▪ inspections held to assess quality of assets and plans on resolving non-performing loans initiated by the Financial Stability Department	3
▪ inspections held to determine the level of safety and stability of the bank's operations, reliability of the bank's reporting and compliance with the Ukrainian laws on banks and banking and the NBU regulations	1

Over 2017, in order to discharge obligations assumed by Ukraine under the Memorandum of Economic and Financial Policies concluded with the IMF's Extended Fund Facility, 34 banks were subject to diagnostic study. Asset quality review and capital adequacy assessment both found that four banks were in need of recapitalization in order to comply

with the statutory requirements of the NBU.

In the course of scheduled inspections in 2017, banks were evaluated under the rating system CAMELSO that was revised in November 2016. By the end of 2017, already 38 banks were evaluated according to the revised rating system.

⁹ This includes diagnostic studies of 12 banks conducted during scheduled inspections





Standardizing and Detailing Methodological Procedures

In 2017, the NBU continued its efforts to improve the standardized approaches to, and the procedures for, conducting supervisory inspections in banks (check lists and questionnaires, in particular).

It also started developing approaches to assessing the collective suitability of a bank's board and the qualifications of its top managers for inspections that will be

carried out together with international experts.

In particular, the NBU made a list of key criteria for fit and proper assessments, and prepared a draft assessment report. These approaches were tested in two banks.

In addition, the NBU took corrective action against banks/their officials that were commensurate with identified violations. These included written warnings, written agreements, fines, and administrative proceedings.

Recommendations for banks based on inspection findings

Recommendations	Amount, UAH billion
Based on diagnostics of banks to determine the amount of required additional capital	0,14
Based on scheduled inspections	12,8
<ul style="list-style-type: none">based on inspections to determine whether or not a bank's regulatory capital has to be corrected (augmented)	6,8
<ul style="list-style-type: none">based on inspections to determine whether or not there has been an increase in uncovered credit risk	5,8
<ul style="list-style-type: none">based on inspections to determine whether or not the amount of a bank's profit/loss has to be corrected (decreased)	0,2





Corrective actions taken for breaking banking laws

Fines based on inspection's findings	Calculated, UAH million	Paid, UAH million	Main reasons for imposing fines/taking administrative proceedings
Fines	2,3	2,3	<ul style="list-style-type: none"> ▪ failing to comply with banking regulations ▪ submitting false and/or incomplete reports to the NBU ▪ performing risky activities that pose a threat to the interests of depositors or other bank's creditors
Administrative proceedings were brought against 14 officials	0,4	0,4	
Total	2,7	2,7	-

Written warnings were sent to two banks. Two notifications of financial transactions that could bear signs of criminal activities were sent to the enforcement agencies.

Improving Quality of Audit Services

In 2017, the National Bank of Ukraine conducted a detailed analysis of audit reports of audit firms on annual financial statements of 89 banks. Considering confirmed violations of Ukrainian laws and the NBU regulations the Committee on Audit of the Ukrainian Banks expunged one audit firm from the Register of Auditors. Other four audit firms was expunged from the Register of Auditors on their request.

Instead, in 2017, the Committee on Audit of the Ukrainian Banks added two audit firms to the Register of Auditors.

Reform of Corporate Governance in Banks

According to experts, main triggers of the recent financial crisis in Ukraine were

the flawed system of corporate governance and issues of the banks' risk assessment system. Consequently, one of the priorities of the NBU's regulation and supervision in 2017 was improving principles and mechanisms of the corporate governance and the system of risk management in the banking sector of Ukraine.

An important step towards this goal was adoption of Law of Ukraine *On Amendments to Certain Legal Acts of Ukraine on Facilitating Business and Attracting Investments by Issuers of Securities* No. 2210-VIII that was drafted jointly with the NBU (the law entered into effect on 6 January 2018).

In line with the reform of corporate regulations introduced by this law, sufficient changes were introduced to banks' operations, such as:

- the restriction on banks' legal form limiting it only to a public joint stock company was lifted, instead banks were entitled the discretion to decide on their legal form based on the type of assets banks were





raising. At that, standards for disclosing information and advanced requirements to corporate governance are applied to all banks notwithstanding the type

- the supervisory board's role in bank's management grew through specifying a range of issues that are in the board's exclusive competence and that cannot be delegated to other organs of the bank (except for issues put forward for consideration at a general meeting of shareholders at the initiative of the board itself)
- the minimum number of independent directors on a bank's board was increased (to no less than one third of the total number of members and no less than three persons); and requirements concerning their independence were tightened
- changing the approach to assessing the professional aptitude of bank managers: the strict requirements to education and experience were replaced with a comprehensive professional aptitude assessment based on the person's education (including additional professional training), previous experience (particularly managerial experience) in view of the business plan and strategy of the bank, as well as the functional load and responsibilities of the particular manager of the bank.

In order to further transpose into laws of Ukraine the EU standards on corporate governance and risk management in banks, in 2017, the NBU with experts from international organizations drafted comprehensive amendments to the Law of Ukraine *On Banks and Banking*.

Such amendments include as follows:

- introducing in addition to current fitness and propriety criteria of bank managers criteria to collective suitability of the bank's management body i.e. the management body should reflect the knowledge, professional and managerial experience necessary to fulfil its functions and responsibilities consistently with the structure size and complexity, and profile of the bank's risk
- a list of issues that fall under exclusive

remit of the bank's supervisory board, including regulating issues on corporate governance

- improving effectiveness and quality of the bank's supervisory board due to mandatory appointment of committees on the supervisory board
- enhancing the role of units that perform the internal control function (risk management and compliance), as well as fostering requirements to managers of such units.

The aforesaid mechanisms and actions developed as part of the corporate governance reform within banks will have a positive impact on the quality of bank's decision-making and the system of internal control, that in its turn fosters the NBU's effective supervision, as well as transparency and sustainability of individual banks and the banking system as a whole.

Simplifying Reorganization and Capitalization Procedures for Banks

In March 2017 as part of the Comprehensive Program of Ukrainian Financial Sector Development Until 2020, Law of Ukraine No. 1985-VIII *On Simplifying Bank Reorganization and Capitalization Procedures* drafted by the NBU with the Committee on Financial Policy and Banking of the Verkhovna Rada of Ukraine, regulators of the financial sector and the expert community was adopted (the law entered into effect on 29 April 2017 and expires on 1 August 2020).

The law provides for a simplified procedure of a bank takeover in a significantly shorter period (reduced from 1.5 years to 3-4 months) due to shorter periods for receiving regulatory and corporate approvals and cancellation of mandatory procedures that caused undue delay for the reorganization. As a result of such simplified procedure, bank's reorganization by means of a takeover is considered by most market players as an alternative to bank's capitalization on account of additional paid-in capital, which is of special benefit to banks, where shareholders are incapable or unwilling to pay in additional funds.





On the other hand, the simplified takeover procedure contributes to consolidation of the banking sector being one of the objectives of the NBU.

An example of successful reorganization under the simplified procedure in 2017 was the takeover of JSB ExpressBank PJSC by Industrialbank JSB, which main stages were completed within four months as of the NBU's approval of the reorganization.

Besides, the law considerably simplifies and reduces the procedure for increasing the authorized capital on account of paid-in shareholder capital without restricting the NBU's control of sources of funds paid in the bank's authorized capital. Reduced terms for the capitalization procedure is also preconditioned to a shorter period for receiving regulatory and corporate approvals, as well as cancellation of a number of mandatory action to be taken by the bank under the standard procedure.

In 2017, 12 banks have benefited from the simplified capitalization procedure.

Ceasing Banking Activities Without Liquidation of the Legal Entity

Law of Ukraine No. 1985-VIII *On Simplifying Bank Reorganization and Capitalization*

Procedures dated 23 March 2017 prescribes the new procedure for the banking sector of Ukraine for revoking a bank's license without liquidating the legal entity.

The procedure allows banks unable to meet the NBU's capitalization requirements and/or having other financial issues to leave the banking market without creating a financial burden for the DGF, and to continue operating in the financial (non-banking) sector.

In line with the law, the banking license shall not be revoked, unless and until the bank discharges liabilities to depositors and other creditors, as well as complies with other measures according to the NBU approved plan (the term for completing such actions is 180 days).

In 2017, the NBU received applications on ceasing banking activities without liquidation of the legal entity from five banks. The NBU refused to approve the resolution plan of one of such banks. The remaining four banks have successfully ceased banking activities without having to liquidate the legal entity:

- Commercial Bank Financial Partner PJSC
- Apeks-Bank PJSC
- Industrial and Financial Bank PJSC
- Credit Optima Bank PJSC.





Recording banks' information in the State Register of Banks

Information in the State Register of Banks	Number
Registered banks	177
Banks holding a banking license for providing banking services, including 2 banks declared insolvent and placed under a provisional administration	84
Registered branches of Ukrainian banks in the territory of Ukraine	90
Operating branches of Ukrainian banks in the territory of Ukraine	88
Operating representative offices of Ukrainian banks	7
In Ukraine	5
Abroad	2
Registered branches of Ukrainian banks in the territory of Ukraine	10 569
Operating branches of Ukrainian banks in the territory of Ukraine	9 411
Standalone units of Ukrainian banks in the territory of Ukraine that were closed in 2017:	
Representative offices	1
Branches	1
Regional offices	1 630
Standalone units of Ukrainian banks in the territory of Ukraine that were opened in 2017:	
Representative offices	1
Branches	-
Regional offices	376





Approving bank's bylaws

Documents submitted for approval	2015	2016	2017
Document packages submitted			
▪ total	184	126	128
▪ for approval of an increase in the authorized capital	60	76	98
Approved changes to bylaws:			
▪ total	159	102	100
▪ for approval of an increase in the authorized capital	49	59	77
Rejected changes to bylaws			
▪ total	0	2	3
▪ for approval of an increase in the authorized capital	0	2	3
Packages of documents returned	16	21	20

The bylaws of new banks and any changes to existing bylaws are subject to the NBU's approval.

When there are changes to a bank's authorized capital, the NBU checks the sources of the funds that are injected into the bank's authorized capital.

These funds cannot be borrowed, and must be a bank's own funds.

The authorized capital of a new bank must be at least UAH 500 million, while that of an operating one cannot be below UAH 200 million. The NBU established a schedule for a gradual increase in banks' capital up to UAH 500 million.

Change in authorized capital

As of	01.01.2016	01.01.2017	01.01.2018
Banks that had a banking license	120	100	84
of which:			
authorized capital no less than UAH 200 million	58	43	1
authorized capital from UAH 201 to UAH 300 million	18	16	41
authorized capital from UAH 301 to UAH 500 million	13	11	11
authorized capital over UAH 500 million	31	30	31





Approval of Bank Managers

The NBU according to its procedure approves the positions of bank managers (chairperson and deputy chairpersons of the supervisory council; chairperson, deputy chairpersons and members of the management board; chief accountant and deputy chief accountants).

To approve bank managers, the NBU verifies compliance with fit and proper criteria set

by the NBU such as impeccable reputation and professional aptitude i.e. expertise, professional and managerial experience necessary for the proper performance of the official duties of a bank manager, in view of the business plan and strategy of the bank, as well as the functional load and responsibilities of the particular manager of the bank.

Bank managers approved by the NBU in 2017	Number
Reviewed applications on approval of bank managers:	862
■ on the appointment of bank managers	425
■ on the reappointment of bank managers	437
Outcomes of the review of applications:	
■ approved appointments of bank managers	305
■ confirmed fitness and propriety of reappointed bank managers	407
■ denied approval/ denied confirmation of fitness and propriety	50
■ applications returned (to be finalized, on banks' requests, not reviewed etc.)	100





Supervision of banks' holders

In 2017, the NBU	Number
received applications to become a qualifying holder from	34 applicants
approved applications to become a qualifying holder for	13 applicants
rejected applications to become a qualifying holder for	4 applicants
returned applications to become a qualifying holder to	15 applicants
imposed fines for acquiring a qualifying holding without permission on	3 applicants
pending approval applications from	2 applicants

The NBU is responsible for supervising banks' qualifying holders. This is required to control lending to related-parties, such as the companies owned by a bank's owners, as well as to ensure the bank's owners are liable to its creditors, depositors in particular.

All acquisitions of qualifying holdings in a bank (no less than 10% of a bank's shares) are subject to the NBU's approval.

The central bank also draws up a list of entities entitled to purchase insolvent banks or their assets. This is called a preliminary assessment.

In 2017, the NBU entered three banks into the list, and retained one bank in the list. All banks on this list have the right to take part in a contest to purchase the assets of insolvent banks. Such contests are held by the Deposit Guarantee Fund.

In 2017, the NBU also entered one legal entity into the list as an investor. Investors have the right to take part in a contest to buy an insolvent or bridge bank.

Supervision over banking groups

In 2017, the NBU	Number
approved ownership changes	12
rejected	1
derecognized	2
considered notifications of intensions to become a controller	2





In 2017, the NBU recognized 11 banking groups. These were: Avangard Bank PJSC, Alliance Bank PJSC, Asvio Bank PJSC, ING Bank Ukraine PJSC, Cominvestbank PJSC, Krystalbank PJSC, Motor Bank PJSC, Sich Bank PJSC, Taskombank JSC, Ukrainian Capital Bank PJSC, and Forward Bank PJSC.

As of 1 January 2018, 28 banking groups operated in Ukraine, up from 19 banking groups as of 1 January 2017.

In 2017, the NBU drew on its experience in supervising banking groups to develop new approaches to determining participants in banking groups, as well as principles for identifying such participants.

Supervision over Ownership Transparency

In 2017, the NBU made public 189 pieces of information about bank's ownership structure.

The NBU constantly supervises the transparency of the ownership structure of banks. If the NBU has suspicions regarding a bank shareholder (specifically, a nominee shareholder), the NBU verifies financial standing of that entity. If a bank has a non-transparent ownership structure, the NBU may impose sanctions on the bank.

The strictest sanction is shutting a bank down.

In 2017, the NBU shut down one bank, Narodny Kapital Bank, PJSC, due to the bank

having a non-transparent ownership structure.

Another bank was fined by the regulator for providing false information about its ownership structure.

Licensing Non-Bank Financial Institutions

In 2017, the NBU centralized licensing processes and unified approaches to the licensing of banks and financial companies. To that end, the central bank amended its Regulation on issuing general FX licenses to financial companies (NBU Board Resolution No. 137 dated 21 December 2017.) In addition, NBU Board Resolution No. 80 dated 17 August 2017, approved the Regulation on issuing licenses to non-bank financial institutions for transferring hryvnia funds without opening accounts.

The new regulations are designed to unify approaches to assessing the ownership structure and reputation of financial companies, as well as to making licensing decisions based on submitted documents.

Apart from that, the NBU launched electronic registers of general FX licenses and licenses issued to financial companies. A list of financial companies that have been issued NBU licenses is now publicly available on the regulator's website, enabling visitors to the site to read licenses online and to download any license required.





General FX licenses

In 2017, the NBU	Number of banks	Number of non-bank financial institutions
issued new general FX licenses, including due to:	4	10
expanding a list of permitted FX transactions	2	-
changes in a bank's name	1	3
reissued general FX licenses without stating a bank's address	1	-
issued general FX licenses for currency exchange	-	4
issued general FX licenses for securities transactions	-	3

In 2017, the NBU issued three new general FX licenses, due to expanding a list of permitted transactions (two licenses), and changes in a bank's name (one license). The central bank also reissued a general license to one bank without stating the bank's address.

Financial companies are required to obtain general licenses prior to conducting FX transactions. Currency exchange is also classified as a FX transaction.

In 2017, 10 financial companies received general FX licenses, of which four companies were issued licenses for currency exchange, three were given new licenses due to changing their names, and another three received licenses to carry out securities transactions. General FX licenses for securities transactions were issued to another three companies. In 2017, the central bank revoked general licenses for 11 financial companies, of which:

- three licenses were cancelled at the request of the companies' owners
- three licenses, due to violations and imposed sanctions
- two licenses, due to companies conducting no transactions over 180 days
- three licenses, due to companies receiving new licenses.

Diagnostic Study Findings of Related-party Transactions

In 2017, the NBU completed the review of programs for reducing related-party debts according to diagnostic findings of banks' related-party exposures. These programs were drawn up and submitted to the regulator by the banks that were found to be in breach of related-party transaction requirements during 2015 and 2016 diagnostics. In early 2017, 44 out of the 99 diagnosed banks were in breach of the said requirements.

As of 1 January 2018, 22 banks were still implementing their individual programs to decrease their related-party exposures to the maximum level of related-party risk permitted by the central bank. A number of other breaching banks were shut down in 2016 – 2017, while the remaining ones brought their related-party exposures in line with the applicable regulatory requirements.

Taking into account banks' experience with implementing their individual programs and wishes, in 2017 the NBU allowed banks to file requests that their action plans be extended to two years.

To have its request granted, a bank must take every action outlined in its action plan in good faith. More specifically, it had to decrease the above-limit debt of its related parties by 20% during the first year of the program implementation.





Completing diagnostics of banks' related-party exposures and banks' developing and submitting programs to decrease related-party debt is only one step towards establishing a comprehensive system for identifying and monitoring related-party transactions by both banks and the NBU.

In 2018, in order to monitor banks' asset- and liability-side counterparty transactions, with a view to identifying related party transactions, the NBU intends to:

- continue to monitor how banks are meeting the schedules for implementing their individual programs, and to take appropriate corrective action against non-complying banks
- put in place a comprehensive system for assessing banks' methodological frameworks for identifying related parties and related party transactions. The above system should also help unify and harmonize banks' approaches to identifying related parties and monitoring related-party transactions with the NBU's regulatory requirements.

Improving the Regulatory Framework

In 2017, the NBU continued to improve methodology for regulation and supervision of the banking sector. For this purpose the NBU Board adopted the following Resolutions:

- Resolution No. 57 *On the Procedure of Identification and Recognition of the Banking Groups* dated 22 June 2017
- Resolution No. 48 *On Approving Amendments to the Regulation on Specifics of Bank's Reorganization upon the Decision of the Bank Owners* dated 8 June 2018 and Resolution No. 56 *On Amendments to Some Regulatory Documents of the National Bank of Ukraine* dated 16 June 2017
- Resolution No. 49 *On Approving Rules for Ukrainian Banks for Calculating Total Cost of the Credit to the Consumer and Real Annual Interest Rate Charged under a Consumer Loan Agreement* dated 8 June 2017

- Resolution No. 50 *On Regulating Consumer Lending Intermediaries in the Banking Services Market* dated 8 June 2017
- Resolution No. 89 *On Amendments to Regulations of the National Bank of Ukraine on Accounting* dated 11 September 2017
- Resolution No. 105 *On Approval and Amendments to Certain Regulations of the National Bank of Ukraine on Bank Audit* dated 24 October 2017
- Resolution No. 110 *On Keeping the Register of Audit Firms Authorized to Audit Banks* dated 10 November 2017 that prevents banks from hiring audit firms with bad reputation
- Resolution No. 141 *On Approval of the Regulation on Assessing Resilience of Banks and Banking System of Ukraine* dated 22 December 2017
- Resolution No. 145 *On Amendments to the Regulation on Planning and Conducting Inspections* dated 28 December 2017.

Also NBU Resolution No. 136 was adopted *On Amendments to Some Regulatory Documents of the National Bank of Ukraine* dated 21 December 2017, that postpones (extends) the deadline for banks to increase the minimum amount of the authorized capital and the regulatory capital.

In order to perform AQR and diagnostic study of capital adequacy in line with Resolution No.80-D *On Banks Diagnostic Study* dated 13 February 2017 the NBU Board has approved:

- the Terms of Reference (ToR) were developed in order to review asset quality, adequacy of regulatory capital, Tier 1 capital (T1), and determine the required recapitalization for banks for the period until the end of 2018
- the revised version of the Regulation on the Steering Committee for Monitoring and Controlling the Diagnostic Study of Banks
- the schedule for bringing the regulatory capital adequacy ratio (H2) and the core





capital adequacy ratio in line with the NBU regulations

- requirements to drawing up the banks capitalization program/resolution plan (standardized format).

In 2017, the NBU amended the *Regulation for Measuring Credit Risk Generated by Banks' Asset Operations*, as approved by NBU Board Resolution No. 351 dated 30 June 2016. The amendments include as follows:

- NBU Board Resolution No. 5 *On Amendments to Some Regulatory Documents of the National Bank of Ukraine* dated 16 January 2017 details the definition and extended the deadline for implementing certain attributes of high credit risk before early 2019, harmonizes credit risk assessment for Swaps, clarifies series of requirements to monitoring collateral, and reduces LGD value for calculation of credit risk for state-owned companies
- NBU Board Resolution No. 75 *On Approval of Amendments to the Regulation for Measuring Credit Risk Generated by Banks' Asset Operations*. Amendments to the said Regulation include application of consistent approaches by banks to assess credit risk associated with collateral value, which seizure/sale is subject to legal restrictions; banks' discretion as to deciding on the party of recourse factoring operations; clarification of requirements to collateral verification performed by banks regarding the existence and status of pledged real estate and land plots; assessment procedure for housing associations
- NBU Board Resolution No. 113 *On Approval of Amendments to the Regulation for Measuring Credit Risk Generated by Banks' Asset Operations* dated 15 November 2017. The NBU has added city council guarantees to the list of collateral approved for banks' credit risk assessment of exposures.

As part of implementation of International Financial Reporting Standards 9 and with regard to approval of the new Chart of Accounts for banks of Ukraine, respective

amendments were made to calculation of economic ratios and *Calculation Methodology for Economic Ratios Regulating Banking Activities in Ukraine* was revised.

In order to reduce operational risks of banks that provide trust management services the approach to classifying specialized trust management banks was reviewed and regulations were introduced that improved control effected by banks over intended use of resources by construction financing funds managed by the banks.

The NBU has revised requirements to organizing and conducting inspections of banks and other persons that are subject to the regulator's supervision by amending the *Regulation On Planning and Conducting Inspections (NBU Board Resolution No. 145 dated 28 December 2017)*. The regulator has reviewed the organization and procedure of inspections and:

- prescribed schedules of the NBU inspections
- structured the inspection stages
- detailed the powers and obligations of inspectors, managers and employees of the inspected institution
- outlined the course of action for the NBU inspectors in case of resistance from the inspected institution, and interference on the part of the institution's representatives with the due and proper procedure of the inspection
- prescribed submission of the inspection findings for review of the Committee on Banking Supervision and Regulation and Oversight of Payment Systems and endorsement of recommendations according to the review.

Also, in 2017, the NBU approved the revised *Regulation On the Procedure for Granting General Licenses for Foreign Exchange Transactions to Non-banking Financial Institutions and State Post Office* (NBU Board Resolution No. 137 dated 21 December 2017). By means of this document the NBU has liberalized the conditions for issuing general licenses for FX transactions.



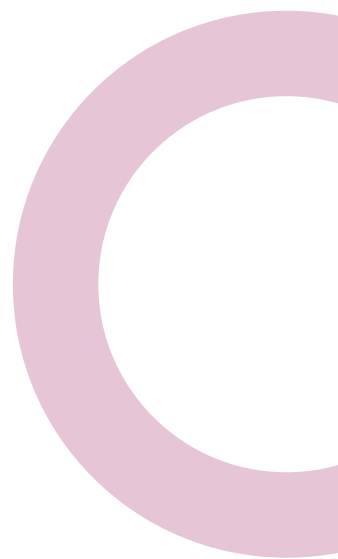


Furthermore, NBU Board Decision No. 280-D *On Enhancing Banking Supervision in Ukraine* dated 4 May 2017 approved the *Action Plan on Enhancing Banking Supervision* designed with the technical assistance from the World Bank as part of self-assessment of compliance with the Core Principles for Effective Banking Supervision (the Basel Committee's Core Principles).

As part of the Comprehensive Program of Ukrainian Financial Sector Development Until 2020, the Action Plan on Enhancing

Banking Supervision, and the NBU plans on EU laws adaptation in line with the EU-Ukraine Association Agreement, the regulator drafted laws and regulations for the implementation of Directive 2013/36/EU and EU Regulation No. 575/2013 based on Basel III provisions for:

- introducing new requirements to capital (new capital structure, capital adequacy ratios)
- introducing the new liquidity ratio – LCR, i.e. Liquidity Coverage Ratio.





Risk-based Approach to the Analysis of Financial Transactions

During 2017, the National Bank of Ukraine completed all measures envisaged by the plan aimed at development of the System for Prevention and Counteraction to Legalization (Laundering) of the Proceeds from Crime, Terrorism Financing and Financing Proliferation of Weapons of Mass Destruction for the period before 2020 approved by Order of the Cabinet of Ministers of Ukraine No. 601-p dated 30 August 2017.

The main achievement was the NBU's further improvement of a risk-based approach to planning and conduct of compliance monitoring, as well as to banks' reviews of customers' operations. This approach is the basis for the implementation of an effective System for Prevention and Counteraction to Legalization (Laundering) of the Proceeds from Crime, Terrorism Financing, and, as a result, the prevention of return of scheme operations to banking market.

From now on, banks have no right to demand information from most of their clients for the so-called "quarterly analysis". They need to use their own resources in the field of AML/CFT adequately to the risks and, accordingly, pay more attention to those clients who carry out high-risk or suspicious scheme operations.

In order to facilitate for banks the risk assessment of their clients' transactions, the NBU and the Independent Association of Ukrainian Banks introduced a joint project on compliance monitoring.

Understanding the risk of money laundering and terrorist financing using a risk-based approach is the main and the first of the 40 recommendations of the FATF (Financial Action Task Force), an intergovernmental body whose purpose is to develop and implement, at the international level, AML measures and standards.

MONEYVAL Assessment

In 2017, the NBU representatives worked with the experts of Council of Europe Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism (MONEYVAL) of 5th Round of the assessment of the national system for combating money laundering/terrorist financing. Also, NBU representatives as a part of the governmental delegation of Ukraine participated in the 55th MONEYVAL Meetings, as a result of which the Report on Mutual Assessment of Ukraine is approved within the framework of 5th Round of the assessment by MONEYVAL Committee.

The report confirms that Ukraine is a reliable jurisdiction in combating money laundering, terrorist financing and the financing of proliferation of weapons of mass destruction, which does not require special control measures by MONEYVAL and the FATF.

MONEYVAL experts highly appreciated the work of the National Bank of Ukraine in the area of combating the legalization of proceeds from crime / terrorism financing. In particular, they noted the high level of regulatory and supervisory activity in the banking sector, which has a marked positive impact on bank's compliance with legislation.

Improving the legal framework

In 2017 the NBU improved legal framework for preventing and combating money laundering/terrorist financing, including with the purpose of implementing international standards in this area. In particular, the following documents were amended:

- Regulation *On Compliance Monitoring by Banks* approved by the NBU Board Resolution No. 417 dated 26 June 2015 (NBU Board resolutions: No. 42 dated





25 May 2017; No. 90 dated 12 September 2017; No. 99 dated 3 October 2017)

- Regulation on *Procedure for Organization and Carrying out Inspections on Prevention and Counteraction of Legalization (Laundering) of Proceeds from Crime, Terrorism Financing and Financing of Weapons of Mass Destruction Proliferation* approved by NBU Board Resolution No. 197 dated 20 June 2011
- Regulation *On Financial Monitoring by Non-Bank Financial Institutions Regarding Funds Transfers* approved by NBU Board Resolution No. 388 dated 15 September 2016 which are being approved.

Inspections of the Banks and Non-banking Financial Institutions

In order to ensure proper supervision of the compliance of banks and non-bank institutions with the financial monitoring legislation, taking into account the risk assessment in this area, during 2017 the NBU experts performed 27 scheduled on-site inspections of banks and four scheduled inspections of non-bank financial institutions with respect to their compliance with relevant legislation and regulations, 22 off-site supervision reports were written (20 banks and 2 non-bank financial institutions).

Findings of the compliance monitoring inspections of banks and non-banking financial institutions

Indicator	2017
Number of performed inspections of banks/non-banking institutions, including:	47/6
▪ scheduled on-site	27/4
▪ unscheduled on-site	0/0
▪ off-site supervision reports	20/2
Number of banks/non-banking institutions in activities of which violations were revealed, including:	53
▪ banks	47
▪ standalone subdivisions of banks	0
▪ non-banking financial institutions	6





In 2017, 1080 inspections on compliance with currency legislation of Ukraine, including 62 off-site inspections and 1018 inspections of cash desks of non-banking financial institutions and their structural subdivisions.

In addition, on-site comprehensive inspections of 27 banks and two non-bank financial institutions were performed on compliance with the FX legislation of Ukraine.

Cooperation with Law Enforcement Bodies

In 2017, the National Bank of Ukraine based on findings of the supervision over banks and non-bank financial institutions in terms of compliance monitoring and compliance with FX legislation continued to provide the law enforcement bodies with information that may be indicative of organized criminal

activities and can be used to detect, stop and prevent such activities. Thus, as of 1 January 2018, 33 letters were sent to law enforcement bodies with information on suspicious financial transactions of clients of 41 banks.

In addition, the NBU sent 35 notifications to the State Financial Monitoring Service within the framework of interaction on financial monitoring issues while exercising supervision functions.

Enforcement Measures

Based on revealed violations corrective measures / sanctions were imposed (appropriate to a violation or level of threat to creditors and depositors of the bank), including in the form of fines, written warnings, reports of violations of foreign exchange legislation.

Application of the corrective measures/sanctions for breach of AML/CFT laws, decision on non-compliance of the bank's manager with the requirements of the Ukrainian legislation in 2017

Indicator	Number ¹⁰
Warning letter	37
Fine imposed on a bank	15 decisions for the total amount UAH 67,552,001
Fine imposed on non-bank financial institution	3 decisions in the total amount UAH 76,500
Suspension of some types of bank's operations	1
Decision on non-compliance of the bank's manager with the requirements of the Ukrainian legislation.	1
Written requirement for banks to eliminate (to prevent further) breaches of the law	31
Written requirement for non-bank financial institutions to eliminate (to prevent further) breaches of the law	2
Decision on non-compliance of the bank's manager with the requirements of the Ukrainian legislation	1





Application of corrective measures/sanctions in case of violations of FX laws in 2017

Indicator	Number ¹¹
Warning letter	19
Resolution on holding accountable bank or non-bank financial institution (including national postal operator) for the breach of foreign exchange legislation	138 for the total amount UAH 6,355,943
A withdrawal of a general license for conducting FX transactions from a non-bank financial institution	1
Report of the breach of foreign exchange legislation	124
Written requirement for banks to eliminate (to prevent further) breaches of the law	12

The National Bank of Ukraine carried out explanatory work for the subjects of initial financial monitoring – banks and non-bank financial institutions, as well as legal entities and individuals regarding the application of laws, in particular, NBU regulations and legislation on the application of personal special economic and other restrictive measures (sanctions). Thus, in 2017 around 350 explanations were delivered in response to such inquiries.

The NBU held training for representatives of Ukrainian banks, including jointly

with the Forum of Leading International Financial Institutions and with the involvement of the Financial Technology Transfer Agency (Luxembourg), on the topics: *Topical issues of interaction between banks and law-enforcement bodies, Topical issues of financial monitoring and currency control performed by banks, Prevention of Money Laundering and Combating the Financing of Terrorism – fundamentals, Financial Monitoring Best Practices.*





National Bank of Ukraine in the Financial Stability Board

Financial Stability Board (hereinafter - FSB) is a key platform for discussion of ways for management of risks threatening the financial stability of Ukraine.

NBU is a FSB member since 2017:

- two of seven FSB members are NBU representatives
- administrative and analytical support is provided by the FSB Secretariat, which consists of NBU representatives
- in 2017, five of the seven issues considered by the FSB were initiated by the NBU¹²
- the NBU prepared the second Annual report on FSB activity and press-releases on FSB meetings.

In general, in 2017, almost all risks to financial stability, other than inflation ones, remained moderate. At the same time, cooperation with the International Monetary Fund remained one of the key discussion topics at the FSB meetings. As early as from the second half of 2017, delays with the resumption of cooperation with the IMF has become a key macroeconomic risk for Ukraine. Taking into account the significant level of payments on external public debt that Ukraine will have to pay in 2018 - 2019, the FSB stressed the need for timely implementation of the reforms envisaged by the program of cooperation with the International Monetary Fund. The FSB focused on the state-owned banks activity, in particular, on the need to reform their corporate governance and development strategies. For this purpose, the Ministry of Finance of Ukraine prepared a draft law on Specifics of State-Owned Banks Management. The document is aimed at introducing the best world corporate governance standards by state-owned banks in terms of strengthening their independence

from political influence. Also, as soon as in February 2018, the Cabinet of Ministers of Ukraine approved an updated Strategy for the Development of State-Owned Banks. In order to better coordinate actions and achieve price and financial stability, the issue of eliminating uneven budget expenditures during the year was discussed at FSB meetings. The sharp increase in expenditures of the Single Treasury Account every year in December causes significant fluctuations in the foreign exchange market. The Ministry of Finance of Ukraine assured that issue will be resolved after a full-fledged transition to medium-term budget planning at the central and local levels. The relevant legislation (regarding the introduction of medium-term budget planning) was approved in January 2018 by the Cabinet of Ministers of Ukraine, however it is still pending adoption by the Verkhovna Rada of Ukraine. The issue on the legal status of Bitcoin and other cryptocurrency in Ukraine was reviewed at the FSB. The dialogue resulted in a joint statement of the NBU, National Securities and Stock Market Commission and National Commission for the State Regulation of Financial Services Markets. The statement outlines the vision of regulators regarding the status of cryptocurrencies which is that they are neither money, nor monetary substitute, currency valuables, or securities. Also, the possible risks of operations with cryptocurrencies are covered. Among other issues discussed by the members of the FSB in 2017, the development of capital markets infrastructure in Ukraine, the reformation of depository clearing and settlement infrastructure, as well as better potential for life insurance market growth and consumer protection level.

¹² In addition to the traditional issue of a systemic risk review presented by the NBU





Payments and Settlements

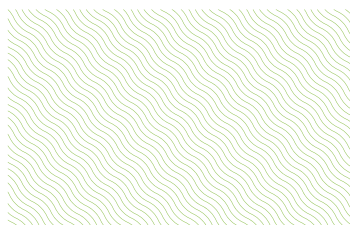
Payment Systems Operation

Cashless Payments

System of Electronic Payments
of the National Bank of Ukraine

The National Payment System
Ukrainian Payment Area PROSTIR

Banknotes and Coins





Payments and Settlements

In 2017, the NBU focused more on the issues related to implementing the strategy of cashless settlements and performing tasks provided for in the Comprehensive Program of Ukrainian Financial Sector Development Until 2020:

- the *Payment Market Infrastructure and Oversight* project was launched, which will make it possible to regulate activities of new providers of transfer services and create favorable conditions for functioning of payment institutions in the Ukrainian market, particularly:
 - to establish conditions for functioning of online payment providers in Ukraine
 - to improve payment systems regulation and procedure for payment infrastructure oversight
 - to streamline activities of non-bank financial institutions and entitle them to issue e-money.
- to tighten control over transactions involving cash acceptance non-bank financial institutions and commercial agents were entitled to open separate current accounts for depositing cash accepted by them, for its further transfer
- the Council of the SEP payment institutions was established
- the rules for domestic currency interbank transfers were improved with regard to:
 - implementation by banks of measures related to seizure of funds in correspondent accounts of correspondent banks according to private bailiff's decision
 - acceptance by banks for execution of payment requests for enforcement of claims by debiting a client's bank account, which shall be formalized by a private bailiff
 - harmonization of a new method of concluding NBU agreements with banks for interbank fund transfers through SEP via joining the Single agreement.
- the procedure for approval of requirements and operating procedure for operators of payment infrastructure services was simplified
- the *Recommendations for Drawing Up Rules of Payment Systems Operated by Resident Payment Institutions* were developed and published to simplify the rules of launching the payment system business in Ukraine
- proposals were submitted to the Ministry of Economic Development and Trade of Ukraine with respect to a draft Resolution of the Cabinet of Ministers of Ukraine *On Approval of Requirements to Business Entities as regards Acceptance of Electronic Means of Payment as a Payment for the Goods Sold (Services Supplied) by Them* in order to strengthen the protection of the consumer right to the free choice of a payment method and to develop the payment infrastructure
- with the aim of facilitating business in Ukraine:
 - problem issues related to the use of bank guarantees in tender procedures of public procurement were resolved in cooperation with the Ministry of Economic Development and Trade of Ukraine
 - a new type of an account, namely, an escrow account was introduced
 - banks' clients were allowed to enter into agreements on opening bank accounts, bank deposits, and escrow accounts in the electronic form
 - the requirement of stamping documents by business entities was cancelled
 - entities having accounts with a bank were allowed to open further accounts in the bank through information and telecommunication systems
 - the right for assignment of claims under the bank deposit agreement has been settled
 - entities were allowed to transfer foreign currency to current accounts of employees to cover business trip expenses.





Payment Systems Operation

As of 1 January 2018, 46 payment systems operated in Ukraine, whereof 10 systems were established by nonresidents and 36 systems – by residents (of which 12 systems were intrabank money transfer systems, 9 systems were established by banks, and 15 systems were established by non-bank institutions).

In 2017, the NBU registered:

- 4 new payment systems:
 - international payment system Avers No. 1 (payment institution Credit Optima Bank PJSC)
 - inter-state payment system Leo (payment institution FC Leogaming Pay LLC)
 - inter-state payment system Platyservis (payment institution Platyservis LLC)
 - inter-state payment system City24 (payment institution Financial Company Phoenix LLC).
- 3 new payment infrastructure service operators:
 - Mosst LLC
 - Starmoney LLC
 - Benefit Systems LLC.

Money Transfer Systems Operation

As of 1 January 2018, a total of 61 non-bank financial institutions were licensed to transfer funds in the domestic currency without opening accounts.

In 2017, the NBU issued to NBFIs nine licenses on transferring domestic currency funds without opening accounts, three licenses were reissued due to a change in the NBFIs' location (to perform funds transfers a financial company should be licensed by the NBU).

In 2017, 36 money transfer systems provided services in Ukraine, 29 of which were established by residents and 7 by nonresidents.

In 2017, total volumes of transfers via money transfer systems (those established by both residents and nonresidents) were as follows:

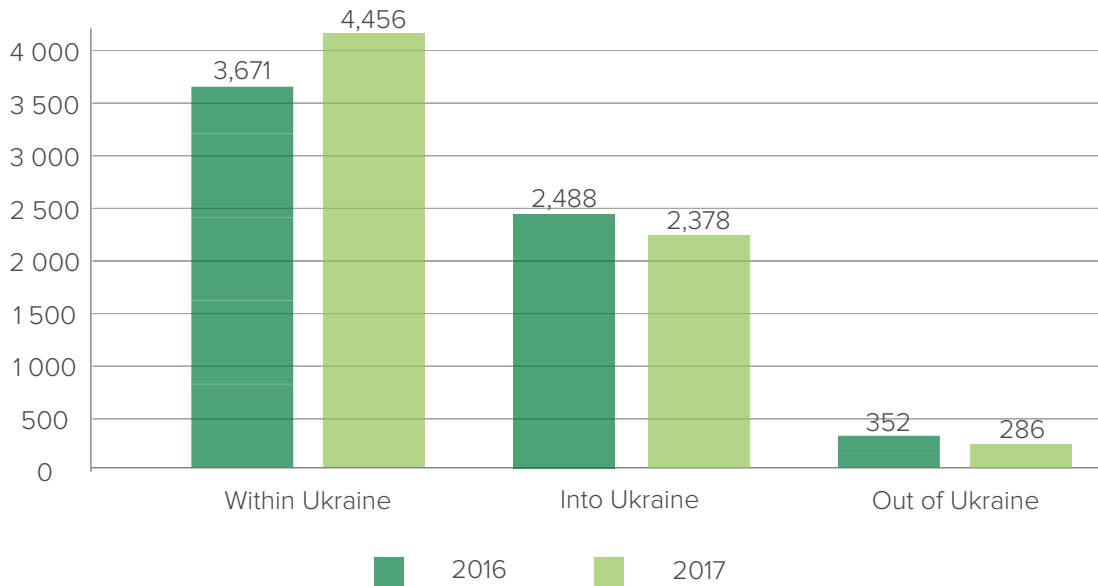
- UAH 118,586 million (currency equivalent of USD 4,456 million) within Ukraine
- USD 2,378 million (currency equivalent) into Ukraine
- USD 286 million (currency equivalent) abroad.

In 2017, the international payment system TYME was the leader among resident-established payment systems¹³ with transfers at a value of USD 1,360 million (currency equivalent).





Volumes of transfers via money transfer systems, USD million (currency equivalent)



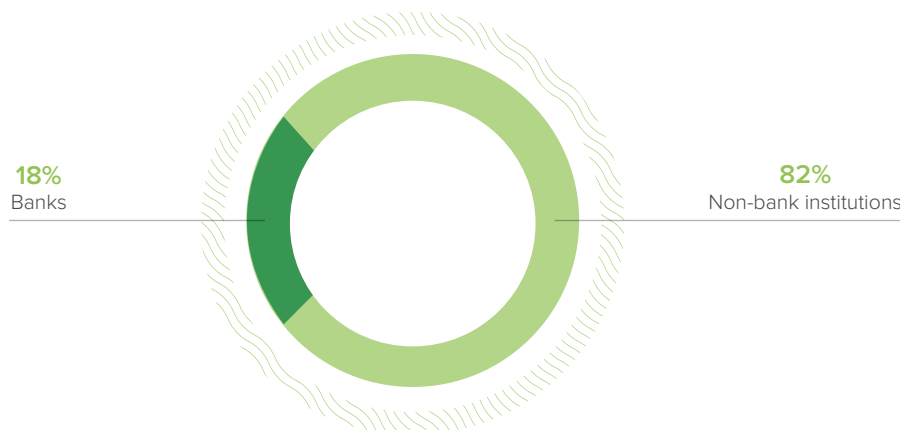
Operation in Ukraine of Money Transfer Systems Created by Residents

In 2017, the following money transfer systems provided services in Ukraine: 8 systems created by banks (out of the registered 9 systems), 12 systems created by non-banks (out of registered 12 systems), and 9 intrabank money transfer systems (out of the registered 10 systems).

The following amounts were transferred via money transfer systems created by banks and resident non-bank institutions:

- UAH 118,507 million (currency equivalent of USD 4,453.04 million) within Ukraine
- USD 113.66 million (currency equivalent) into Ukraine
- USD 3.06 million (currency equivalent) abroad.

Payment transfers through systems established by banks and non-banks within Ukraine in 2017, value of transfers





Operation in Ukraine of Money Transfer Systems Created by Nonresidents

In 2017, seven money transfer systems established by nonresidents operated in Ukraine, including: three from the US and one each from Georgia, the UK, Canada, and Azerbaijan.

In 2017, payment systems established by nonresidents handled transactions worth:

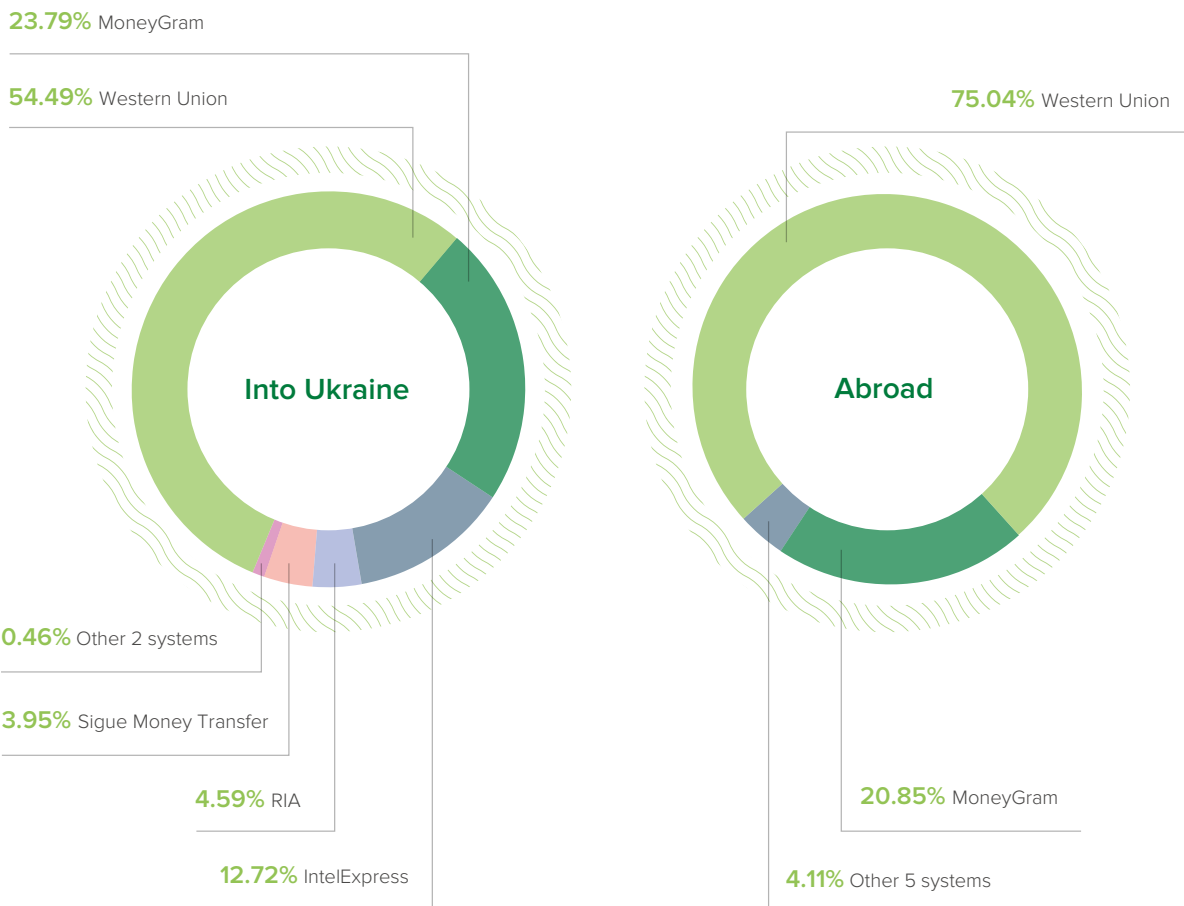
- UAH 71 million (currency equivalent of USD 2.68 million) within Ukraine
- USD 2,264.26 million (currency equivalent) into Ukraine

- USD 282.98 million (currency equivalent) abroad.

Western Union was the top nonresident payment system in 2017 with 54.49% of all cross-border transfers into Ukraine and 75.04% of all cross-border transfers abroad.

Ukraine remains a net recipient of cross-border transfers. In 2017, the amounts received in Ukraine through international money transfer systems exceeded amounts sent abroad by eight times.

Cross-border transfers via nonresident systems, value of transfers





Oversight of the Payment and Settlement Systems

Below is the list of NBU's accomplishments in 2017 in the oversight of the payment and settlement systems:

- It exercised off-site and on-site supervision of the entities subject to supervision (oversight), namely (according to the laws), payment institutions of payment systems, payment system participants/members, and operators of the payment infrastructure. In particular, in 2017, 11 on-site inspections of the entities subject to supervision (oversight) were conducted. Corrective measures, as provided for by the laws of Ukraine, were taken for violations found
- It performed a comprehensive assessment of the domestic payment system FLASHPAY (Bank Familnyi PJSC), which was included in the category of important payment systems in Ukraine by volumes of transactions and types of services.

The comprehensive assessment was made in order to assess the compliance of FLASHPAY operation with the Ukrainian laws and international standards of payment systems oversight (Principles for Financial Market Infrastructures, CPSS-IOSCO). In order to improve activities of the payment system FLASHPAY as an important payment system in Ukraine, relevant recommendations were sent to the payment institution.

Accepting Cash Payments for Further Transfer

In 2017, a considerable number of transfers within Ukraine was initiated by cash via payment devices and cashiers.

As of 1 January 2018, the following institutions accepted cash in hryvnias for its further transfer via payment devices:

- 19 – NBFIs
- 12 – banks' agents
- 32 – banks using their own payment devices.

The following changes were observed in 2017 versus 2016:

1) the number of payment devices:

- NBFIs increased by 3,000 pcs
- those of banks – by 4,100 pcs.

2) volumes of cash accepted via payment devices showed the following increase:

- by NBFIs – 37%
- by banks' agents – 14%
- by banks – 40%.

Despite an increase in volumes of transfers initiated via payment devices, cash acceptance points continue to be in favor.

As of 1 January 2018, the following institutions accepted cash in hryvnias for its further transfer via cash acceptance points:

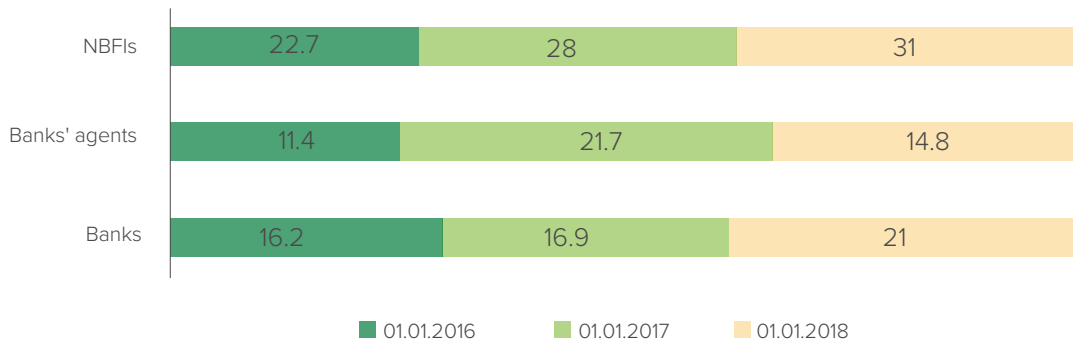
- 22 – NBFIs
- 14 – banks' agents.

Comparing with 2016, 2017 was noted for a rapid growth (by 52%) in cash payments accepted via cash acceptance points of NBFIs.

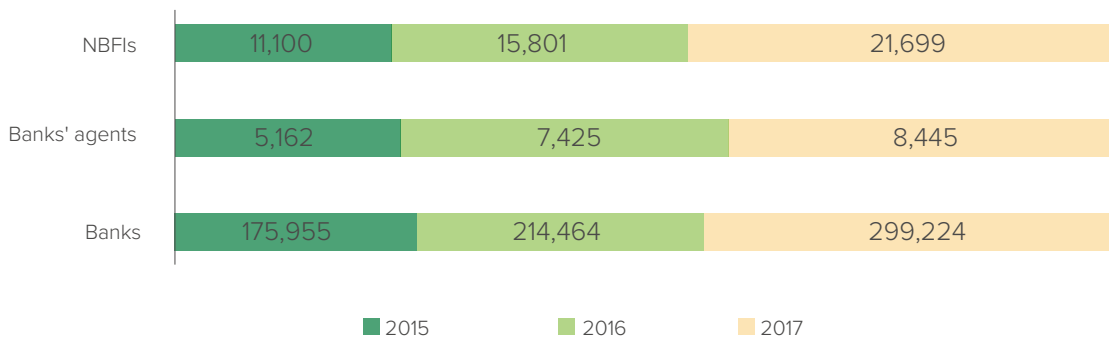




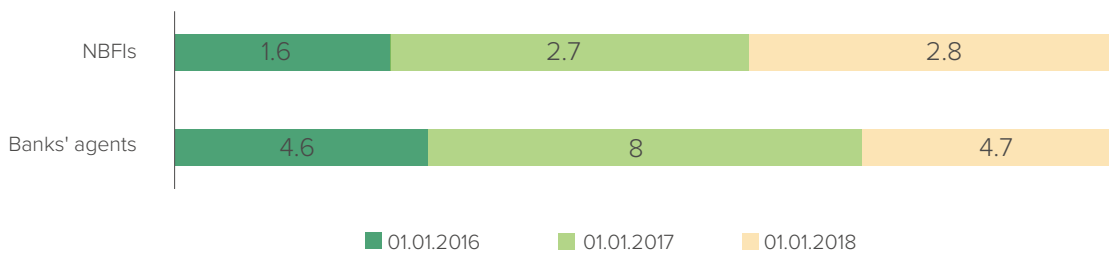
Number of payment devices, thousand of pieces



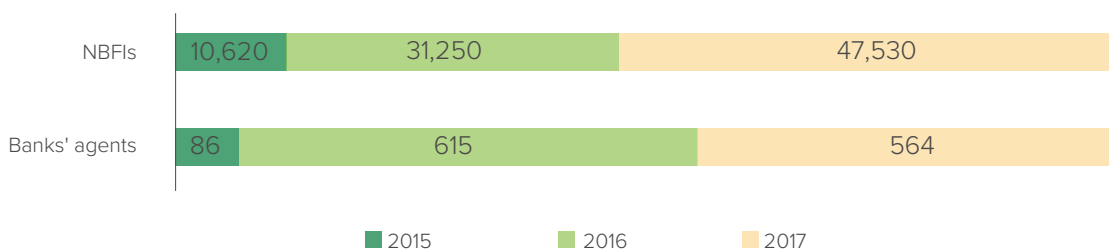
Volumes of cash payments accepted via payment devices, UAH million



Number of cash acceptance points, thousand of pieces



Volumes of payments accepted via cash acceptance points, UAH million





Cashless Payments

Opening Accounts for Clients by Banks

As of 1 January 2018, banks of Ukraine provided services to 63.4 million clients, including:

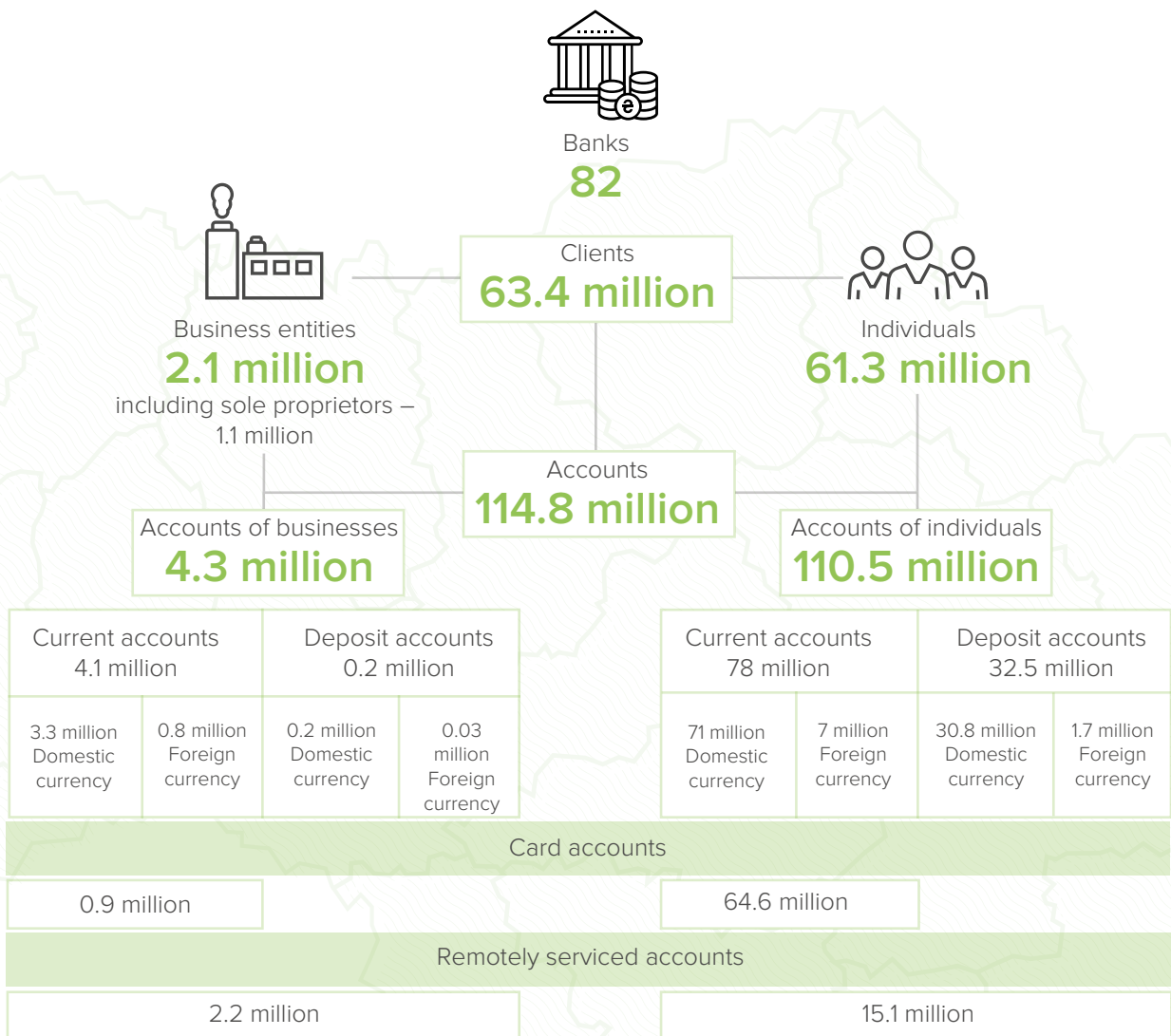
- to 2.1 million business entities
- to 61.3 million individuals.

114.8 million accounts were opened to bank's clients, 5.4% more than in 2016. 4.3 million accounts were opened for business entities

and 110.5 million accounts – for individuals. Versus 2016, the number of deposit accounts opened for individuals added 84.1% (growth of UAH 14.9 million).

In 2017, the number of clients using remote banking services tended to increase, reaching 15.1 million clients by 1 January 2018 (three times as much as in 2016). The number of current and/or deposit accounts serviced in a remote mode grew twice versus 2016 to UAH 17.3 million.

Number of clients and accounts with Ukrainian banks as of 1 January 2018





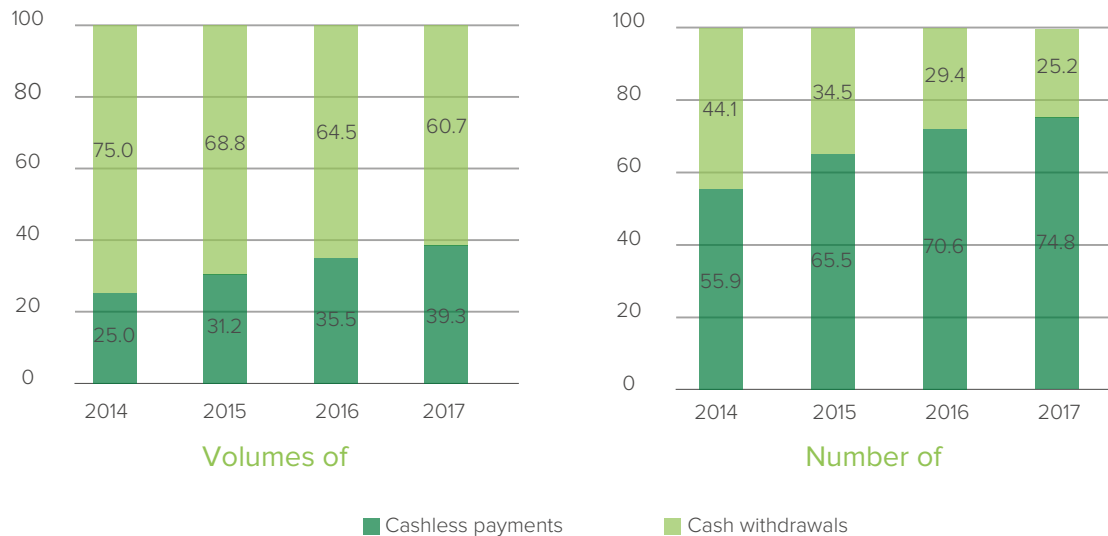
Payment Cards Market

In 2017, an upward trend of cashless payments using payment cards persisted.

The analysis of the payment cards market in 2017 shows that in Ukraine, a share of cashless settlements by means of payments

cards increased to 39.3% in terms of volumes of transactions (from the beginning of 2017, by 3.8 pp). In terms of the number of transactions, the share of cashless settlements increased to 74.8% (up by 4.1 pp versus the previous year).

Volumes and the number of transactions via payment cards, %



In 2017, Ukrainians carried out more than three billion transactions using payment cards issued by Ukrainian banks in the amount of UAH 2,125 billion (excess of 23.0% and 31.9%, respectively, versus 2016).

The majority of transactions via cards issued by Ukrainian banks in 2017 were conducted through own networks of issuing banks – 66.4%; at that, 31.3% of transactions were conducted through networks of other resident banks, and 2.3% of transactions were carried out abroad. In 2017, merely 1.4% of transactions were conducted on the territory of Ukraine using payment cards issued by nonresident banks.

Cashless settlements demonstrate a sustainable upward trend. In 2017:

- The number of cashless transactions amounted to 2.3 billion (versus 2016, it grew by 30.2%)
- The volume of cashless transactions amounted to UAH 835 billion (versus 2016, it grew by 46.2%).

In 2017, the structure of cashless transactions was as follows:

- card-to-card transfers: 26.4% in terms of volume and 6.1% in terms of their number
- online transactions: 38.8% in terms of volume and 41.0% in terms of their number
- in retail stores: 31.9% in terms of volume and 50.6% in terms of their number
- via self-service devices (ATMs, ATMs accepting cash, self-service payment kiosks (SSKs)): 2.9% in terms of volume and 2.3% in terms of their number.

The number of payment cards over the year increased by 3.9% and at the end of 2017 was 59.9 million pcs, whereof active cards accounted for 34.9 million (a 7.6% increase as compared with the beginning of 2017).

The number of active¹⁴ payment cards with a magnetic strip and a chip increased almost twice (by 91.1%), amounting to 7.4

¹⁴ Active cards are those with at least one debit operation over the last three months

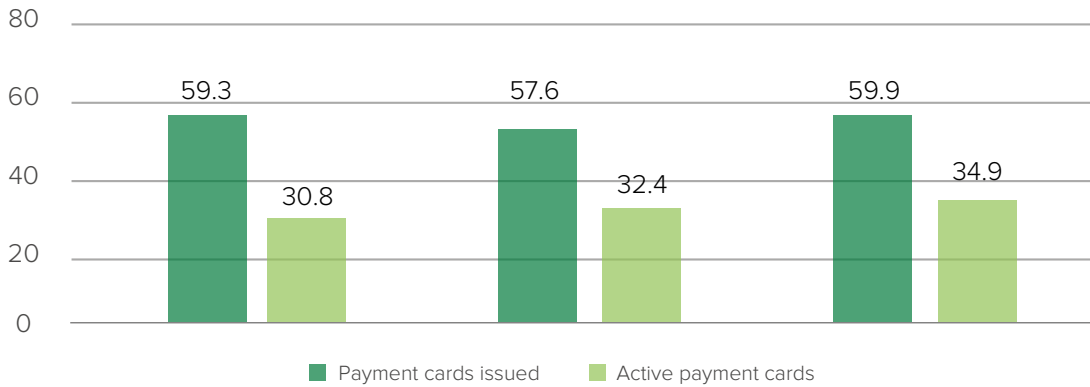




million pcs. At that, the number of payments cards exclusively with a magnetic strip shows a gradual decrease (down by 2.8%). The segment of contactless payment cards

also demonstrate an increase – by 37.8% over the year (from 2.0 million pcs to 2.7 million pcs).

Number of payment cards issued by Ukrainian banks, million pcs



2017 was likewise noted for the development of the payment infrastructure.

The number of trade and service businesses offering customers the option to make cashless payments via payment cards rose by 27.8 thousand (by 19.1% yoy), amounting to 173.8 thousand companies.

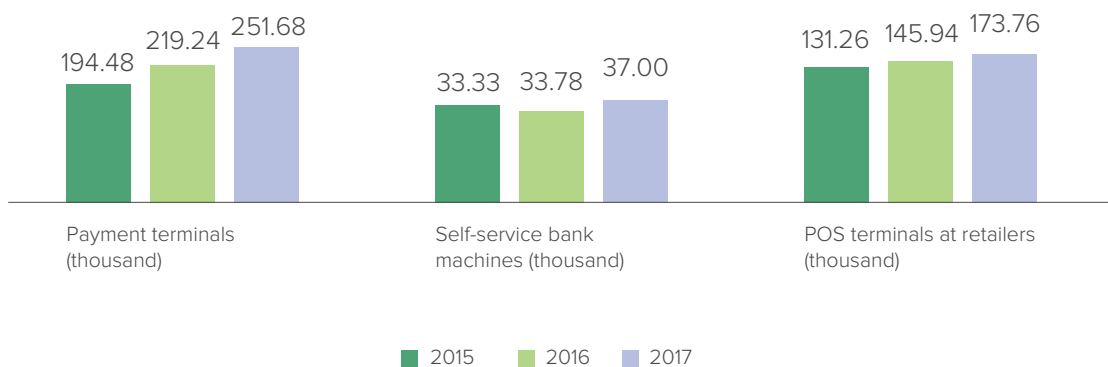
Despite the 2017 decrease in the number of banks, the POS terminal network added almost 15% over the year. As of 1 January 2018, their number was 251,700 (a 32,400 increase versus 1 January 2017). Almost all of this growth is attributable to trade POS terminals; however, in the second half of the year, their number began to decrease.

At the end of 2017, the total number of self-service bank machines was almost 37,000 (a 9.5% increase), whereof:

- 18,600 ATMs
- 1,400 ATMs accepting cash
- 17,100 self-service payment kiosks (SSKs).

Indicators of the payment card market in terms of regions remain unchanged. In terms of regions, the city of Kyiv, as well as Dnipropetrovsk and Kharkiv oblasts, registered the largest increase in the number of payment cards, ATMs and POS terminals.

Payment infrastructure





Chernivtsi and Ternopil oblasts have the poorest payment infrastructure and the lowest cards supply.

As of 1 January 2018, CB PrivatBank PJSC, Oschadbank JSC, and Raiffeisen Bank Aval JSC took the lead among the banks with respect to the number of payment cards issued and the extension of the network of card processing infrastructure.

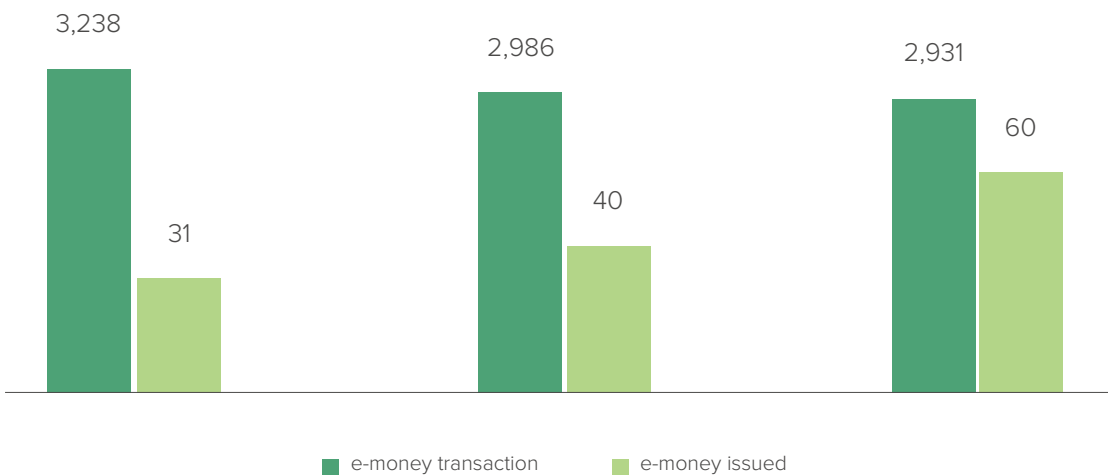
The steady growth of the volumes and number of cashless transactions, an increase in the share of active payment

cards and in the number of trading enterprises, and the expansion of the network of trade terminals over the last years demonstrate the rapid development of the payment market and the higher interest of users in cashless settlements.

Electronic Money

In 2017, issuing banks issued electronic money in circulation in the amount of almost UAH 60 million, 1.5 times as much as in 2016 (UAH 40.4 million). Meanwhile, the volume of transactions remained unchanged as compared with 2016.

Banks' transactions with e-money, UAH million



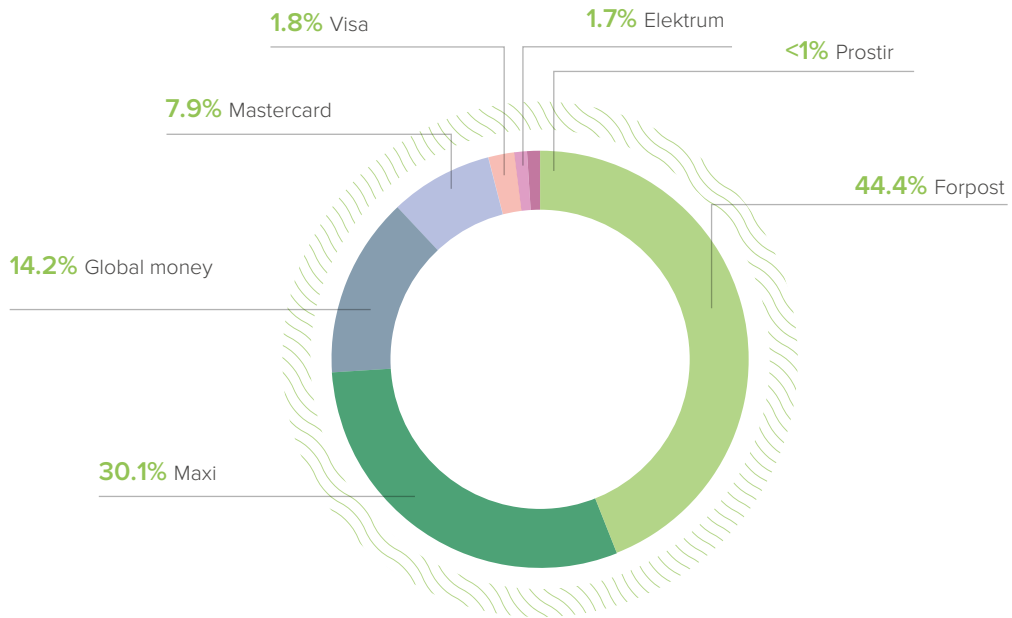
As of 1 January 2018, the NBU granted the right to issue the following e-money and carry out transactions with them:

- FFORPOST (Alfa-Bank PJSC)
- Maksi (TASCOMBANK JSC)
- GlobalMoney (CB Globus PJSC)
- MasterCard (Bank Vostok PJSC,
- Alfa-Bank PJSC, TASCOMBANK JSC, CB PrivatBank PJSC, FUIB PJSC)
- Visa (Ukrsotsbank PJSC, Oschadbank JSC, FUIB PJSC)
- Electrum (Ukrgezbank JSB, Unex Bank PJSC).
- PROSTIR (Ukrgezbank JSB, Unex Bank PJSC)





E-money issued as of 1 January 2018





System of Electronic Payments of the National Bank of Ukraine

In 2017, the NBU ensured a high level of reliability of interbank hryvnia transfers through this system and created the appropriate conditions for meeting the needs of its participants.

The NBU has settled making payments by banks that were not able to effect interbank SEP funds transfers in the normal course due the external cyberattack occurred in June 2017.

The NBU System of Electronic Payments (SEP) continued to fulfil its functions of the nationwide system of electronic interbank settlements.

In 2017, the state-owned banking payment system ensured 97% of interbank transfers in the domestic currency within Ukraine.

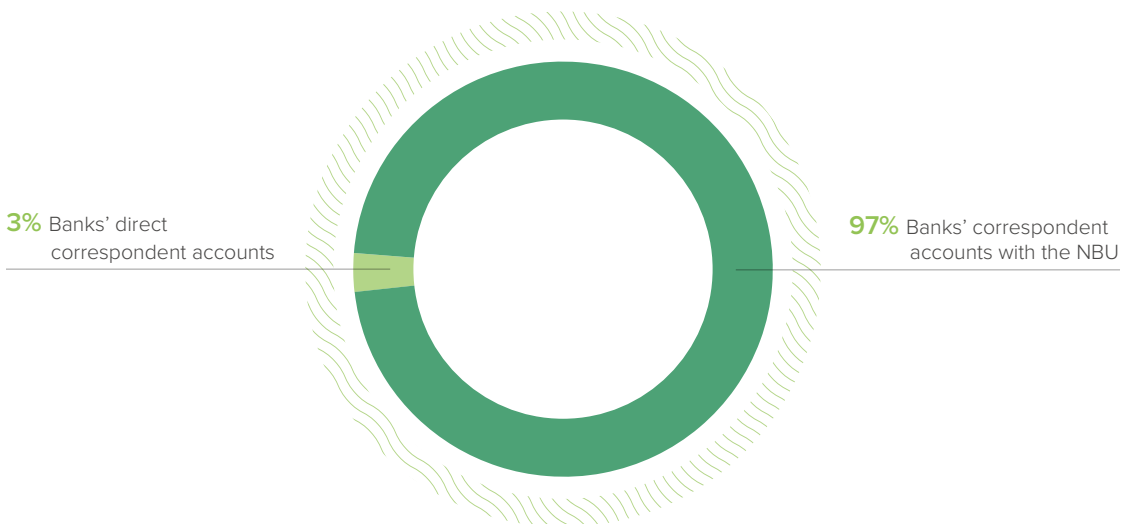
SEP is the only one systemically important payment system in Ukraine.

As of 1 January 2018, 178 entities were SEP participants, out of which:

- NBU – 1 participant
- Ukrainian banks – 85 participants
- Ukrainian banks' branches operating with SEP through correspondent accounts of the banks that are legal entities – 65 participants
- State Treasury Service of Ukraine operating with SEP through Single Fiscal Account – 27 participants.

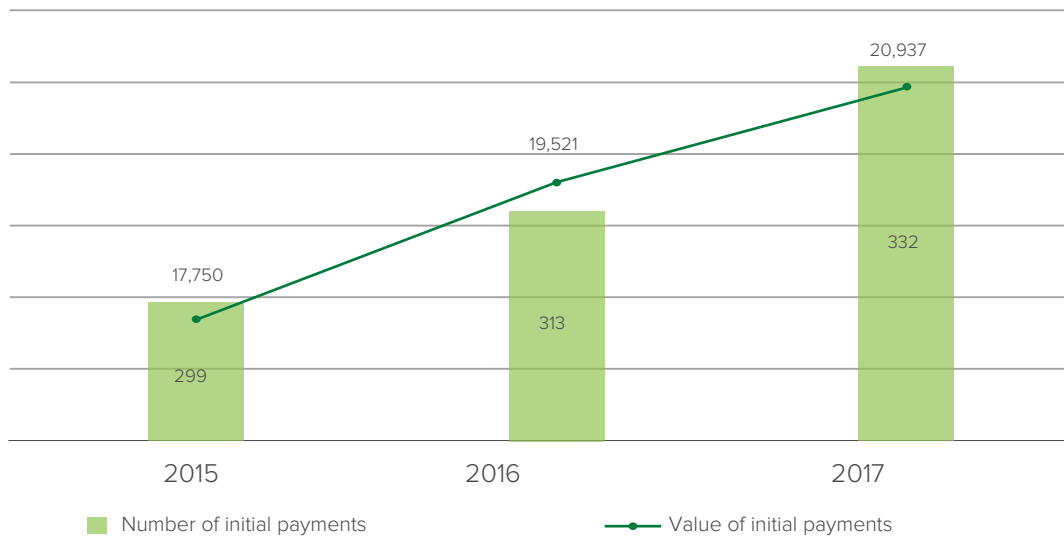
In 2017, 332 million initial payments in the amount of UAH 20,937 billion were processed.

Interbank hryvnia transfers through direct correspondent accounts and through SEP





Number and volumes of payments through SEP



The majority of initial payments, 309 million of initial payments, accounting for 93% of the total amount of transactions were transferred through the SEP by the banks of Ukraine and their branches.

The average daily balance of funds in accounts of SEP participants totaled UAH 89.6 billion (57% greater than in 2016).

Daily average ratio of cash circulation in the accounts of the system members was 0.94 (it exceeded 3 on some days).

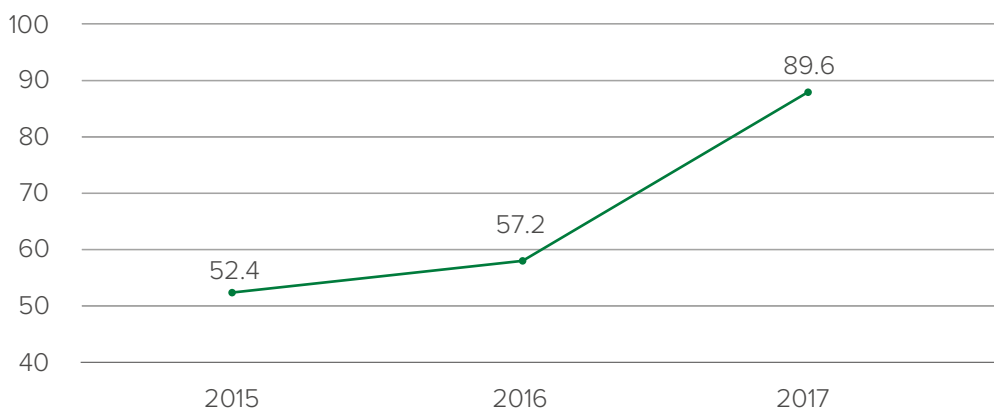
In 2017, the average daily number of initial payments processed through SEP was

1.3 million initial payments for the amount of UAH 84 billion.

In 2017, the NBU completed the Development of the Infrastructure for Processing Centers of Electronic Payments System and System for Monetary Policy Instruments Automation using the IBM Software project.

As part of this project, a new generation of SEP (with SEP-3 code) was put into operation on 1 November 2017, which significantly increased the speed of effecting interbank settlements, productivity and reliability of the system owing to implementing new information technologies.

Average daily balances on SEP participants' accounts, UAH billion





The National Payment System – Ukrainian Payment Area PROSTIR

During 2017, the NBU continued developing the National Payment System Ukrainian Payment Area PROSTIR (hereinafter – NPS PROSTIR), as it is one of the priorities of the Cashless Economy project aimed at expanding cashless settlements in Ukraine and strengthening its independence.

Participants, Issues, and Transactions with Payment Cards in NPS PROSTIR

At the end of 2017, 49 banks were NPS PROSTIR's participants, which was 60% of the total number of the banks of Ukraine (82 banks). A total of 25 banks participating in the NPS PROSTIR successfully carry out acquiring and issuing activities.

During the reporting year, another six banks concluded agreements to join the system, and six banks resigned their membership of the system due to the termination of their activities in the banking services market. A total of 11 banks and one independent processing center (TAS Link PJSC) are connected to the Central Router and Settlement and Clearing Center of the NPS PROSTIR (hereinafter – the Central Router of the NPS PROSTIR).

The list of participants is available on the system's official website at www.prostir.gov.ua.

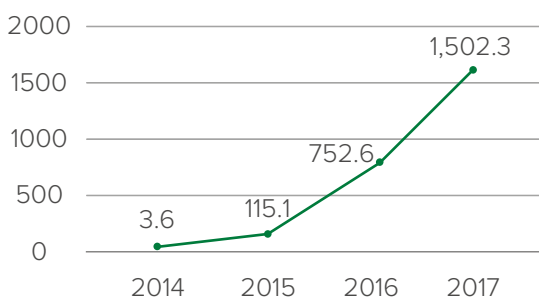
In 2017, the State-owned Enterprise Polygraph Combine "Ukraina" was licensed to issue and personalize the cards of the NPS PROSTIR with a magnetic strip and a chip.

At the end of 2017, the total number of payment cards under the brand PROSTIR was 645,900 pcs, whereof 435,900 pcs were active (a share of 67%).

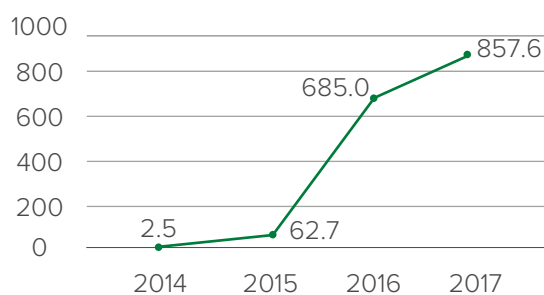
In 2017, a total of 10.7 million transactions in the amount of UAH 16.3 billion were carried out using the payment cards of the system. The number of such transactions was twice as much as in 2016, while their volumes increased 2.5 times.

In 2017, more than 1.5 million interbank transactions totaling UAH 857.6 million were processed by the Central Router of the NPS PROSTIR. As compared with 2016, the volume of interbank transactions increased by 25%, while the number of transactions was twice as much.

Dynamics of interbank transactions via the NPS PROSTIR



Number, thousand



Volume, UAH million





Payment Infrastructure of the NPS PROSTIR

In 2017, the payment infrastructure for servicing the cards of the NPS PROSTIR expanded.

As compared with the beginning of 2017, the number of payment terminals grew by 26% to 213,900 pcs, a share of 85% within the network of payment terminals in Ukraine.

The number of ATMs increased by 5% to 15,100 pcs versus the previous year (81% of the ATM network in Ukraine).

A total of 98% of self-service payment kiosks (SSKs) successfully accept payment cards of the system for processing.

Thus, a total of 85.5% of the Ukrainian payment infrastructure is ready to service payment cards PROSTIR.

Technological Development of the NPS PROSTIR

In 2017, the NBU rapidly developed the Central Router of the NPS PROSTIR, which ensured processing of interbank transactions, clearing and making settlements on transactions with the use of payment cards of the NPS PROSTIR, namely:

- Servicing of payment cards of the NPS PROSTIR with an EMV chip was realized within the payment infrastructure of participating banks. Payment cards with a chip can be serviced in both ATMs of participating banks and payment terminals, which considerably increases the level of security when conducting transactions via the cards
- Contactless technology for making payments via the NPS PROSTIR in the interbank mode was introduced. The banks that are connected to the system and employ services of Ukrainian Processing Center PrJSC can accept the cards of the NPS PROSTIR with the contactless technology
- The processing center of FUIB PJSC was integrated with the Central Router. Owing to this, the banks that employ the services provided by the processing center of FUIB PJSC have the technological possibility to start their work with NPS PROSTIR
- The owners of the payment cards of NPS PROSTIR have the possibility of buying tickets on the official website of Ukrzaliznytsia PJSC.



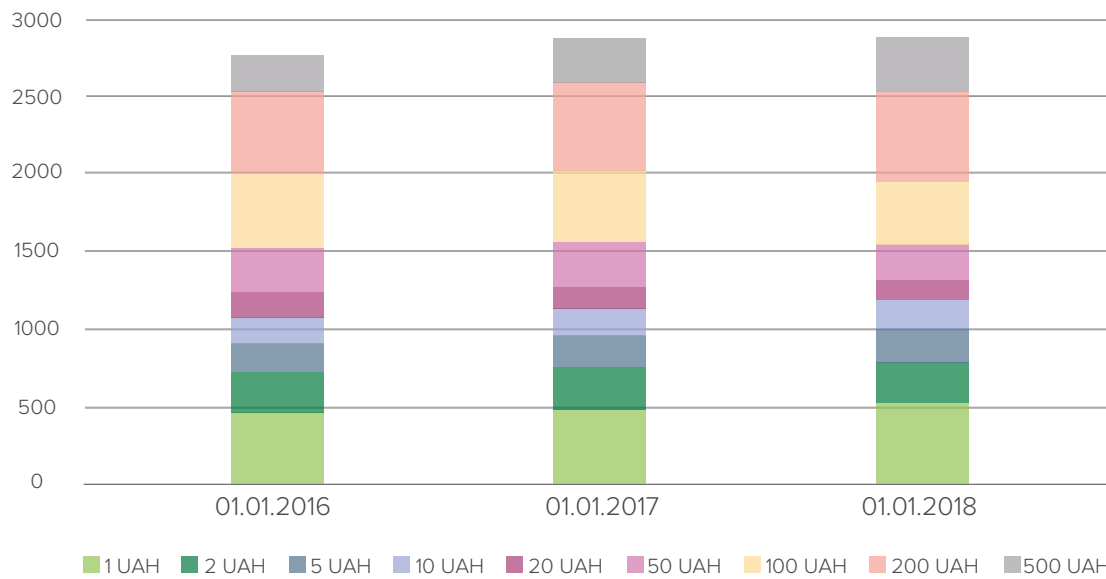


Banknotes and Coins

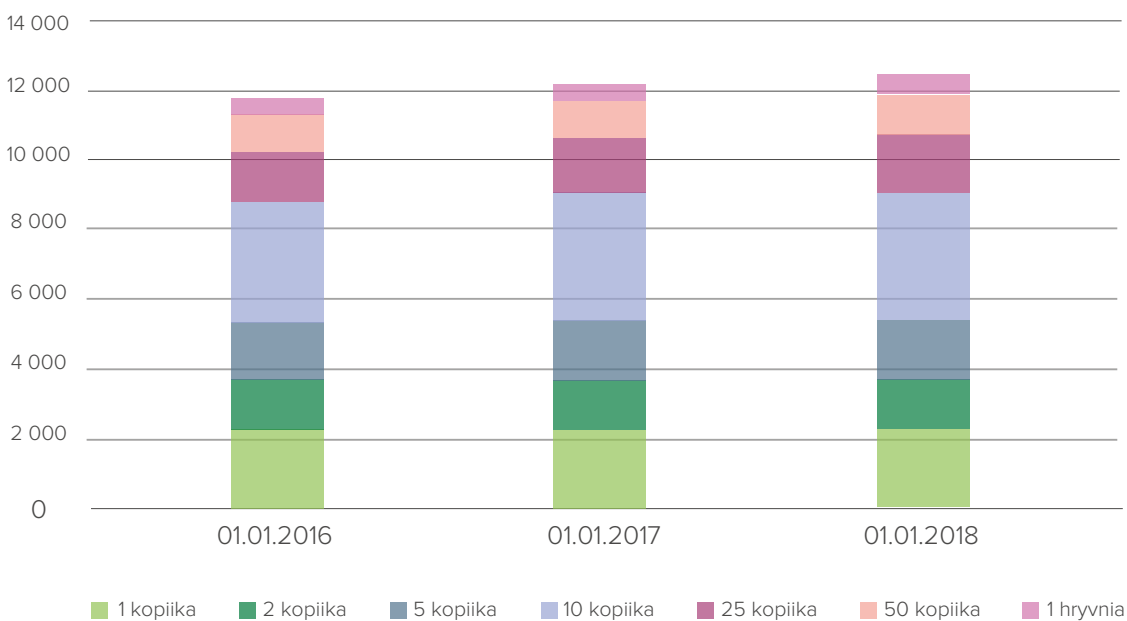
At the beginning of 2018, banknotes and coins worth UAH 361.5 billion were in circulation in Ukraine, which was UAH 20.5 billion or 6.0% more than at the beginning of 2017 (at the beginning of 2017, UAH 341.1 billion).

A total of 2.98 billion banknotes worth UAH 359.4 billion, 12.97 billion small and circulating coins worth almost UAH 2.1 billion, and 12.7 million commemorative and bullion coins worth UAH 63.7 million were in circulation.

Number of banknotes in circulation at the beginning of the year, million pieces



Number of coins in circulation at the beginning of the year, million pieces





In 2017, the number of the banknotes in circulation decreased by 4.3 million pcs (by 0.1%); on the contrary, the number of the coins increased by 315.7 million pcs (by 2.5%).

As of 1 January 2018, there were 70 pcs of banknotes and 293 pcs of small coins per capita in Ukraine.

In 2017, cash paid out in hryvnia banknotes (circulating coins) to banks totaled UAH 139,805 million, whereof UAH 62,372 million were paid out to pensioners through postal offices under reduced fares (45% of the total amount).

The amount of cash paid out at reduced fares came to UAH 94,513 million (nearly 68% of total paid out amount).

In 2017, income from cash services provided to banks totaled UAH 186.2 million, being 21% less than in 2016 (UAH 235.58 million).

Cash Outside Banks and at Bank's Cash Desks

During 2017, the volumes of cash receipts and withdrawals to/from the cash desks of the banks of Ukraine showed an increase.

In 2017, cash receipts to banks' cash desks grew by UAH 274.2 billion, or by 17.9% yoy, amounting to UAH 1,804.8 billion (in 2016, by UAH 127.5 billion, or by 9.1%, to UAH 1,530.6 billion, respectively).

In the reporting period versus the previous one, cash withdrawals from banks' cash desks grew by UAH 260.4 billion, or by 16.7%, amounting to UAH 1,822.9 billion (in 2016, by UAH 159.3 billion, or by 11.3%, to UAH 1,562.5 billion).

As of 1 January 2018, cash withdrawals from banks' cash desks grew by UAH 18.2 billion, or by 5.8%, amounting to UAH 332.5 billion (in 2016, they went up by UAH 31.7 billion, or by 11.2%, to UAH 314.4 billion, respectively). The increase in cash outside banks was caused by inflation and depreciation developments, rising energy prices and tariffs for public utilities, raised social standards, etc.

In 2017, within the money supply structure, the share of cash outside banks decreased by 1 pp to 27.5%.

At the beginning of 2017 versus the respective period of the previous year, the balance of cash at banks' cash desks increased by UAH 2.3 billion, or by 8.7%, totaling UAH 29.0 billion.

In 2017, the NBU, having performed its functions and tasks, faced the problem of supplying the banks in Donetsk and Luhansk oblasts with cash.

Particularly, the banks on the territory of Donetsk and Luhansk oblasts, which is under control of the Ukrainian government, were supplied with cash, primarily, for payment pensions, wages, and social benefits, through cash circulation units operating in Zaporizhzhia, Dnipropetrovsk, and Kharkiv oblasts. In 2017, the volume of cash totaled UAH 14,446.5 million (in 2016, UAH 9,409.1 million).

Cash Processing

In 2017, nearly 2.2 billion pcs of banknotes were received for processing by cash circulation units and the Central Vault, including 1.6 billion pcs from banks, 0.2 billion pcs less than in 2016 (2.4 billion pcs of banknotes).

A reduction in the volume of cash subject to processing was chiefly caused by the decrease in receipts from banks and termination of cash services provided to banks by cash circulation units in Vinnytsia, Zakarpattia, Ivano-Frankivsk, Kirovohrad, Mykolaiv, Rivne, Sumy, and Cherkasy oblasts.

In 2017, cash circulation units and the Central Vault processed 2.2 billion pcs of banknotes, including 2.0 billion pcs banknotes were processed using automated banknote processing systems, the rest being processed in a manual way (in 2016, the figures were the same).

A total of 482.0 million pcs of banknotes were destroyed using automated systems, and 313.6 million pcs – using KUSTERS systems.

Removal of Worn Out Banknotes From Circulation and Acceptance of Unsorted Banknotes

In 2017, 749.2 million pcs of worn out banknotes were withdrawn from circulation





in the amount of UAH 48,355.5 million, being 9% less than in 2016 (821.2 million pcs totaling UAH 41,602.3 million).

The withdrawals of the worn out banknotes of UAH 1, UAH 2, UAH 5, UAH 10, UAH 20, and UAH 50 denominations decreased by 5%–25%. At the same time, the withdrawals of the worn out banknotes of UAH 100, UAH 200, and UAH 500 increased by 2%, 30%, and 85%, respectively.

In 2017, 747,100 bundles of unsorted banknotes were accepted, which was 8% less than in 2016 (805,300 bundles); they made nearly 43.4% of all cash receipts (1,020,500 bundles) accepted for processing in 2017 by cash circulation units in the regional offices.

Withdrawals of Counterfeit Currency Units

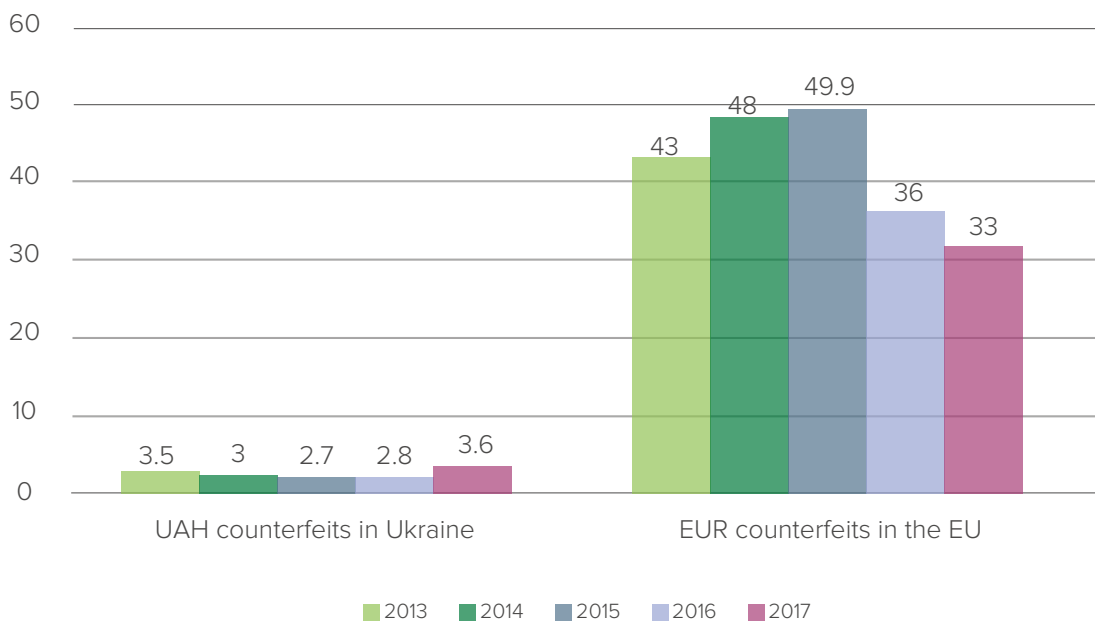
The NBU continually monitors the withdrawal of counterfeit currency units from circulation and confirms a relatively low level of hryvnia banknote counterfeiting in 2017.

In 2017, the number of counterfeit banknotes withdrawn from circulation within the banking system of Ukraine was 0.00036% of the total number of banknotes in cash circulation.

This means there is approximately 3.6 counterfeit banknotes for one million of authentic hryvnia banknotes (2.8 banknotes in 2016).

For comparison, in the EU countries, according to data published on the ECB's website, in 2017, this indicator was nearly 33 counterfeit euro banknotes (36 banknotes in 2016).

Number of counterfeit banknotes per one million of authentic hryvnia banknotes





In 2017, nearly 10,500 counterfeit hryvnia banknotes totaling UAH 3.6 million were withdrawn from circulation.

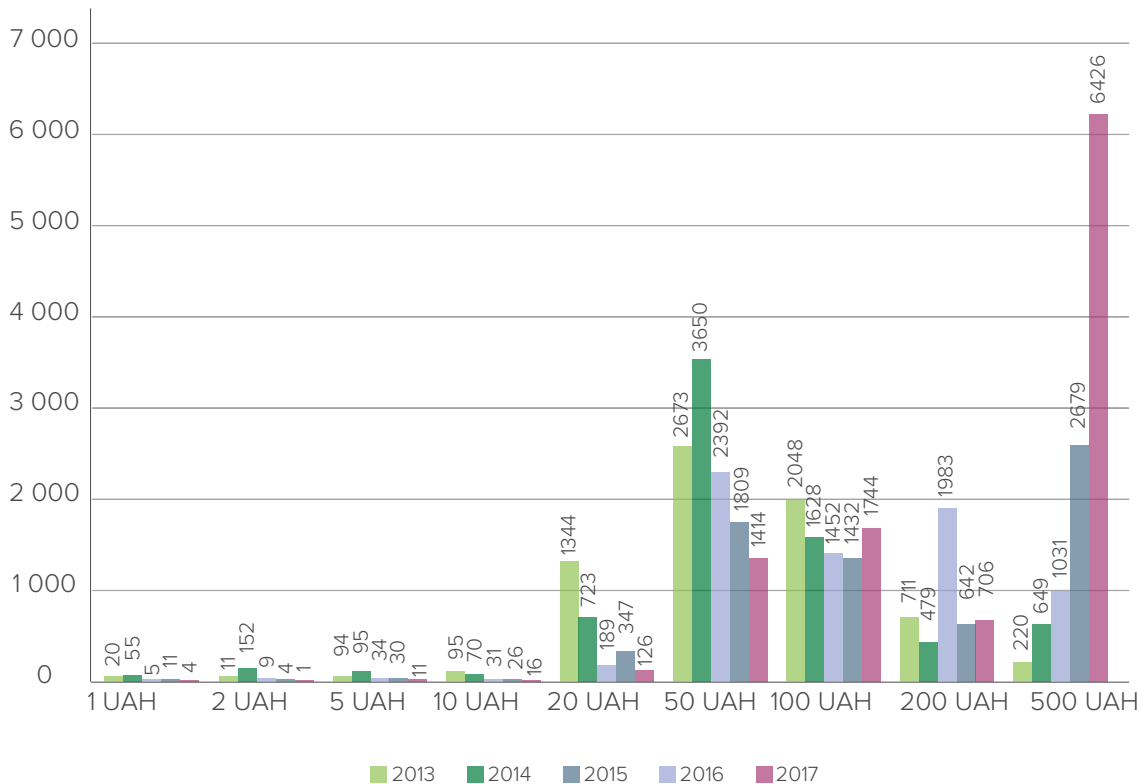
The 2017 results showed an increased number of cases when counterfeit banknotes of UAH 500 denomination (2016 design) were detected. Their number amounted to 61% of the total number of the withdrawn counterfeit hryvnia banknotes.

Moreover, counterfeit banknotes of other hryvnia denominations have also been withdrawn, namely:

- UAH 200 (7% of the total number of the withdrawn counterfeit banknotes)
- UAH 100 (17%)
- UAH 50 (13%).

Other counterfeit banknotes of UAH 1, UAH 2, UAH 5, UAH 10, and UAH 20 denominations amounted to 1.5%. Currently, the situation with the counterfeit banknotes is under NBU's control and is not critical.

Number of withdrawn counterfeit UAH banknotes by denomination (number of banknotes)



Among the counterfeit banknotes of other currencies, US dollar and euro prevailed (77.6% and 16.5% of the total number of counterfeit foreign currency banknotes withdrawn from circulation).

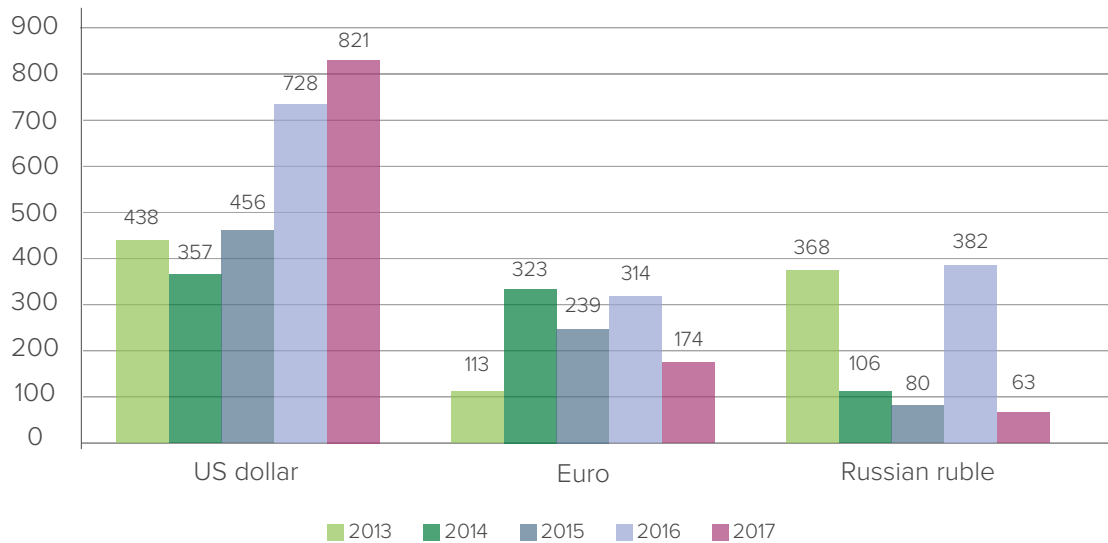
A share of counterfeit banknotes of USD 100 denomination made 94% of the total number

of the withdrawn US dollars, and within the total number of the withdrawn euros, counterfeit banknotes of EUR 200, EUR 100, and EUR 50 accounted for 40%, 21%, and 29%, respectively.





Number of withdrawn counterfeit foreign currency banknotes (number of banknotes)



Issues and Sales of Commemorative and Bullion Coins of Ukraine

In 2017, 47 commemorative coins (whereof 11 silver coins, 9 bimetallic coins, and 27 nickel silver coins) and 4 commemorative medals with the total mintage of 1,412,500 pcs were issued in circulation.

In 2017, the NBU sold nearly 1.2 million commemorative coins worth a total of UAH 106.2 million, including 830 gold coins, 47,300 silver coins, and 1.2 million nickel silver coins.

Nearly 15,900 bullion coins worth UAH 82.6 million were sold, whereof 5,200 gold coins and 10,700 silver coins.

In 2017, the NBU purchased 313 bullion coins of Ukraine from the population.

In 2017, income from sales of commemorative coins and souvenirs showed overperformance of 40% against the plan, amounting to UAH 196.4 million.

The coins were sold by the Operational Department and divisions (offices) of the NBU

Cash Circulation Department as well as by distributing banks selling commemorative coins, in particular, by CB Ukrgazbank PJSC and State Savings Bank of Ukraine (Oschadbank) PJSC.

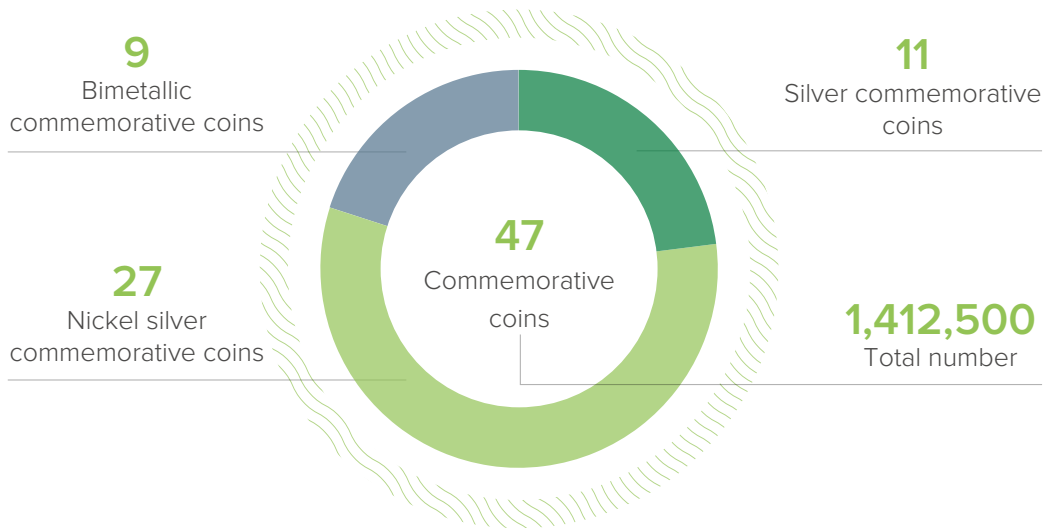
From 6 September 2016, the NBU launched selling commemorative coins of Ukraine through online pre-ordering at the official NBU website. In 2017, 48 commemorative coins of new issues were sold via the online pre-ordering system. There were also ordered 547,545 coins, of which 472,075 coins were sold (86% of the total quantity of the ordered coins), which confirms the success and effectiveness of the project related to selling the commemorative coins by the NBU using online ordering.

According to the agreements concluded between the NBU and nonresident companies from Germany, Poland, Hong Kong, and the USA, there were sold 28,740 coins (including 22,140 bullion coins and 6,600 commemorative coins) totaling nearly UAH 20 million (USD 716,451.8 in the equivalent).





Commemorative coins of Ukraine issued in 2017



Sale of commemorative and investment coins in 2017





Policy on Cash Circulation in Ukraine

In 2017, the NBU continued the work on implementing the Policy on Cash Circulation in Ukraine approved by NBU Board Decision No. 207-D dated 11 August 2016 (hereinafter – the Policy).

The Policy provides for a gradual transfer from the partially controlled model of cash circulation to the outsourcing model.

The authorized banks and third parties (CIT companies) will perform cash handling functions throughout the regions of Ukraine in compliance with the rules set by the NBU and under its control. In 2017, the NBU issued four licenses on providing cash collection services to the banks and involved the following companies to cash transportation: CIT Security LLC, Ukrainyskyi Servis Inkasatsii LLC, Persha Inkasatorska Kompaniia LLC, O-Mega LLC, and Security Firm Ahenstvo Kompleksnoi Bezbeky LLC.

The Policy also implies that the NBU will transfer cash for secured custody to the authorized banks that meet the criteria set forth in the Regulation *On the Selection Procedure and Eligibility Criteria to be Met by Banks to Qualify as Custodians of NBU Cash Reserves* approved by NBU Board Resolution No. 389 dated 28 September 2016.

Currently, Oschadbank JSC, PrivatBank PJSC, and Raiffeisen Bank Aval PJSC have the status of the authorized banks eligible to provide custodial services pertaining to NBU cash reserves.

To provide rapid, reliable, and efficient cash handling, a software and technological support on Carrying out Transactions on Transferring Cash Reserves of the National Bank of Ukraine for Custody to the Authorized Banks was put into operation in 2017 as part of the centralized cash circulation automation system.

Pursuant to the Policy, the NBU organized and began to transfer its cash reserves for custody to the authorized banks according to the terms and conditions concluded with Oschadbank JSC, CB PrivatBank PJSC, and Raiffeisen Bank Aval PJSC, having set the limits of NBU cash reserves for custody.

From 13 November 2017 through the end of the year, cash worth UAH 4.5 billion was

accepted by the authorized banks and nearly a full amount was used by the banks to replenish cash in their cash offices.

Taking into account ongoing processes of NBU transformation, in 2017, there was taken a decision on optimization of supplying the following oblasts with cash: Kirovohrad, Rivne, Zakarpattia, Ivano-Frankivsk, Mykolaiv, Vinnytsia, Sumy, Cherkasy, Poltava, and Chernihiv oblasts.

There was no failure in operation when implementing the outsourcing model for the supply of the regions with cash.

Achievements

In general, in 2017, there were the following achievements in the cash circulation area:

- Two innovative interactive mobile applications were created and launched, namely, *Ukrainian Hryvnia* that provides clear and accessible illustration of all the security features of hryvnia banknotes, and *Coins of Ukraine*, the comprehensive reference on the coins of Ukraine, which are available for free download
- Transition was made to the outsourcing model for cash circulation according to a new policy, which provides for the infrastructure of authorized banks and involved CIT companies to ensure cash circulation in the regions. Three banks have been granted the status of authorized banks eligible to provide custodial services pertaining to NBU cash reserves, and four CIT companies have been granted licenses on providing cash collection services to the banks
- A public discussion on implementation in Ukraine of the mechanism for rounding off total receipt amounts when paying for goods (services, work) entailed the process of optimizing the circulation of low-denominated coins. This decision will be useful for the state, as it will make it possible to save more than UAH 90 million per year, which would have been spent on issuing cash and ensuring its circulation. Trading networks and banks also will not spend money on transportation and processing of low-denominated coins





- From 4 January 2017, the upper threshold for settlements in cash for individuals was lowered from UAH 150 thousand to UAH 50 thousand. This did not cause inconvenience to the citizens and did not affect their daily purchases. At the same time, this decision made it possible to ensure stable cash receipts to the banking system and speed up their circulation, narrow the scope of the cash use, and accelerate development of the cashless segment
- The issue on the use of electronic signatures to cash documents used in the banking system of Ukraine as well as outside banks have been addressed, and the single approach to its application has been defined.





Reforms and Effectiveness

Comprehensive Program of Ukrainian
Financial Sector Development Until 2020:
Key Achievements in 2017

Cooperation with Government Authorities

National Bank of Ukraine on the Global Stage

Transparency in Communication Strategy

Transforming and Re-Engineering the NBU
Processes

Towards People Management

Development of Research in the National Bank
of Ukraine

National Bank of Ukraine Fosters Financial
literacy of Ukrainians

Provision of Information Security

Internal Control System and Risk Management





Comprehensive Program of Ukrainian Financial Sector Development Until 2020: Key Achievements in 2017

The Comprehensive Program of Ukrainian Financial Sector Development Until 2020 (hereinafter referred to as the “Comprehensive Program”) has already been the road map for reforming the financial sector for three years.

The program’s main purpose is to develop in Ukraine an effective financial market, with well-developed infrastructure and financial instruments, and with harmonized development in all of its segments.

Comprehensive Program Measures





The Comprehensive Program is being implemented via actions in three main areas:

- A. Ensuring the financial stability and dynamic development of the financial sector
- B. Enhancing the institutional capacity of financial market regulators
- C. Protecting the rights of financial sector consumers and investors

In 2017, the Comprehensive Program included 66 projects. An external project office, made up of 17 project managers and analysts and created with the support of the European Bank for Reconstruction and Development, joined the team of project managers from the financial regulators. They were engaged in implementing multiagency projects, including ones on:

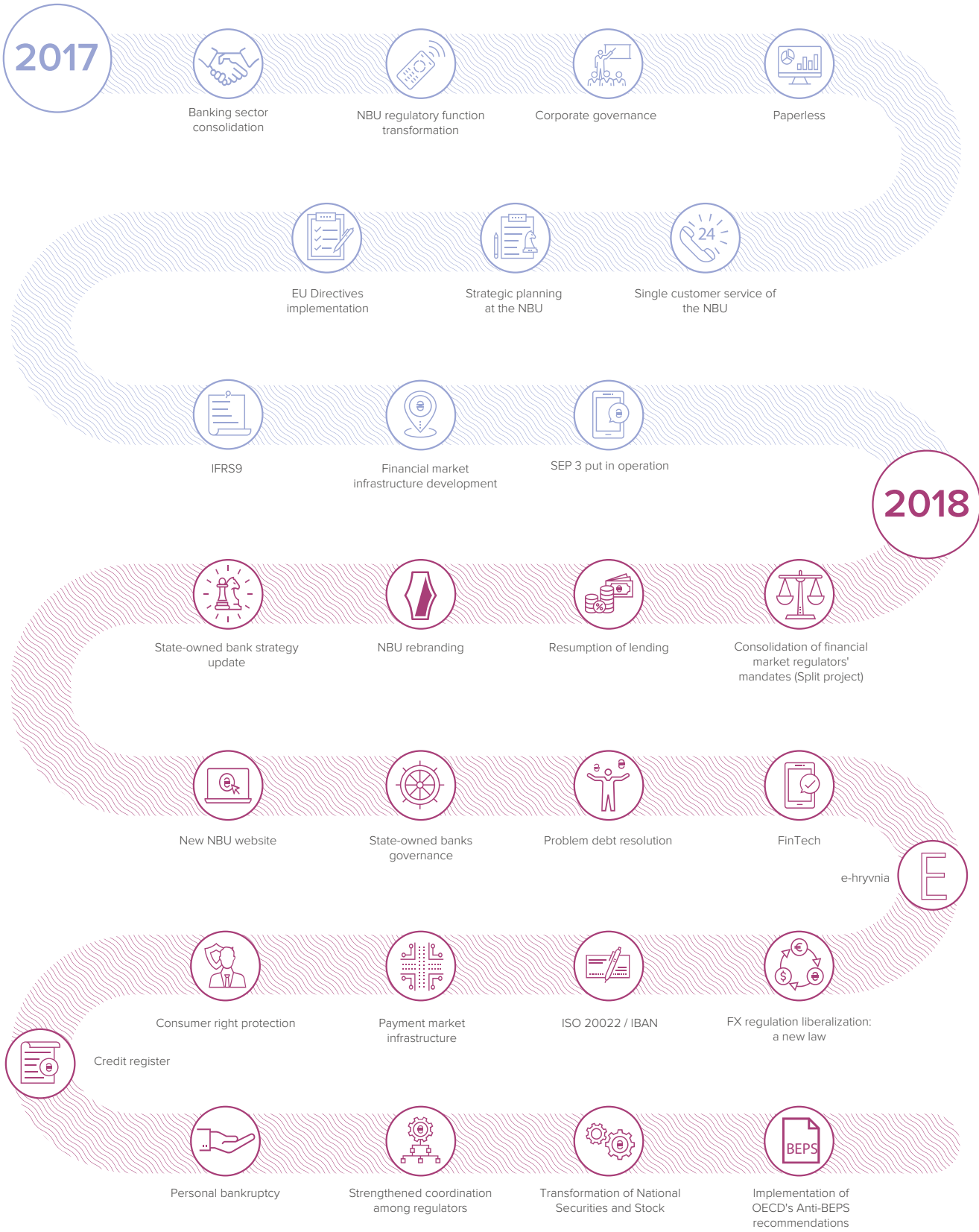
- strategic planning as part of the transformation of the financial sector regulators

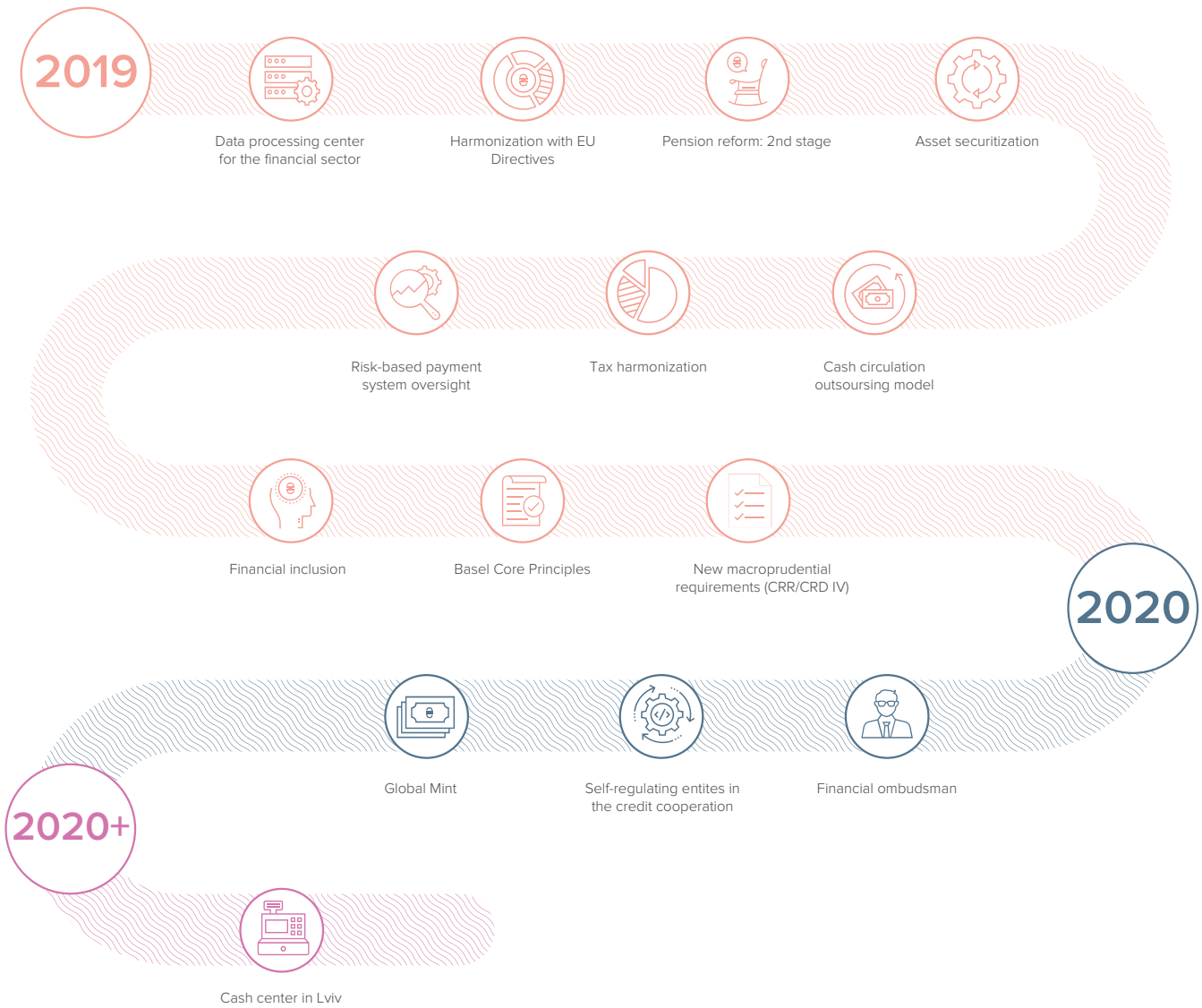
- the resumption of lending, as well as the introduction of effective mechanisms for protecting creditors' rights and managing distressed assets
- the development of the FinTech market
- improving the financial literacy of the Ukrainian general public
- improving corporate governance among financial sector players
- developing financial market infrastructure
- promoting coordination between financial sector regulators.

International donors are assisting in the implementation of 37 of 42 projects under the Comprehensive Program. The financial sector is being reformed in stages according to set deadlines.



2017-202 Banking Sector Reforms







In view of the transition to the second stage of the financial sector reform, i.e. the development of the financial market, the NBU has focused on the following tasks:

- restoring trust in the banking system
- the resumption of lending
- open data
- improving interaction with financial market players
- enhancing the protection of the rights of financial services consumers.

Project on Harmonizing and Simplifying Reporting

In 2017, the NBU's efforts in the area of developing statistics and reporting were targeted at:

- centralization
- harmonizing processes for collecting statistical information, and monitoring its quality
- introducing new approaches to collecting and disseminating financial reports and other information.

A new approach to compiling and submitting statistical reports has been successfully operating since 2017 for non-banking financial institutions and companies that are required to submit reports to the NBU. This approach applies to entities that have already begun to prepare statistical reports in line with the NBU's register of indicators, and that file them in XML format in test mode via the NBU's web portal. The statistical reports are signed using electronic signatures issued by accredited key certification centers. The NBU, with the assistance of the European Union's EU-FINSTAR Project, has joined efforts with other financial market regulators to launch the FINREP system in Ukraine in order to comply with supervisory prudential requirements (EU CRR/CRD IV) and the COREP system, covering capital adequacy and large exposures according to Basel III (as part of EU CRR/CRD IV). The FINREP and COREP reporting systems are obligatory standards for transferring data to the EBA.

Project on Streamlining Bank Merger Mechanisms

The National Bank of Ukraine has completed an important project of the Comprehensive Program, which provides banks with additional opportunities to meet the requirements of the recapitalization schedule. The Law of Ukraine *On Simplifying Reorganization and Capitalization Procedures for Banks* entered into effect on 29 April 2017.

This law improves the procedure for merging banks. The amendments introduced provide a realistic and effective alternative to recapitalization through additional injections of shareholder capital. Furthermore, the law significantly streamlines the procedure for banks that wish to increase capital via the injection of additional shareholder capital, without loss of quality of control over the sources of the funds that are paid in. The law is also the first to introduce a mechanism for ceasing banking activities that gives a legal entity the option to continue to engage in business as a financial institution.

Project on Adopting International Financial Reporting Standards (IFRS) 9: Financial Instruments

To enhance the operational and reporting transparency of financial sector parties, throughout 2017 the NBU made efforts to prepare the banking system for conversion to IFRS 9, commencing in 2018, as follows:

- approved documents detailing management models for NBU financial assets and an SPPI test for NBU financial assets
- determined the assessment methodology for expected losses on NBU loans and securities
- banks in Ukraine converted to the new chart of accounts so as to conduct accounting in accordance with IFRS 9
- completed the revision of statistical report parameters in accordance with the new chart of accounts for IFRS 9





- completed the drafting and approval of the methodology for calculating economic norms for banks in Ukraine in line with IFRS 9. Since January, the NBU and banks in Ukraine have commenced implementation of regulations approved in compliance with IFRS 9.

Project on the Protection of Creditors' Rights

This project is intended to stimulate lending in Ukraine. The success of the project depends on legislative support from Ukraine's parliament, the Verkhovna Rada.

Project on Distressed Asset Management Infrastructure

In 2016-2017 representatives of the European Bank for Reconstruction and Development joined the NBU in developing a Draft Law On Debt Management Activities.

The purpose of the draft law is to form a market for distressed assets, ensure there is a transparent legal framework for debt recovery companies in Ukraine, and improve regulation of the assignment of rights to debts (as well as non-performing bank loans).

Project on Management of the NBU Banknote Printing and Minting Works

The NBU Board approved a Performance Strategy for the Banknote Printing and Minting Works for 2017-2020 in order to make the Banknote Printing and Minting Works a self-sufficient and competitive player on the world market of banknote paper, and banknotes, and on the Ukrainian market for commemorative coins, investment coins and souvenirs.

The main areas for the implementation of the strategy are:

- financial i.e. ensuring profitable operations, and minimizing expenses
- production i.e. the efficient utilization of the capacities of the Banknote Printing and Minting Works

- technology i.e. investing in equipment, infrastructure and production to ensure competitiveness
- personnel i.e. increasing staff productivity, and optimizing personnel numbers in accordance with production volumes.

Project on Electronic Document Flow

In August 2017, the NBU Board standardized the procedures for the use of electronic signatures in the banking system of Ukraine. The approval of the respective resolution added two points to the Index for Monitoring Reforms (iMoRe) in the area of the Monetary System¹⁵ in August-September 2017.

These changes enable the compilation of electronic legal and credit files for customers, as well as the conversion of cash documents from paper to electronic files. This will cut down on banks' expenses and streamline customer operations, including through the development of remote services.

Project on the BankID System

In 2017, the NBU developed a model for the use of the BankID System to provide users with banking and commercial services. In the same year, six administrative services platforms joined the system, eleven banks applied to join, and the General Bank's Service Agreement in terms of BankID, and the Instruction On the Procedure for Opening, Using and Closing Accounts in Domestic and Foreign Currencies were amended. The NBU has updated the requirements for the system's security.

Project on Data Openness of the National Bank of Ukraine (OpenData)¹⁶

The NBU ranked in the top three government authorities according to the OpenData Forum jury in the category of Highest Standards of Publishing of Open Data by Central Government Authorities. Implementation of the OpenData Project contributed to a 20-fold yoy increase in the volume of data released by the NBU on its official site. As part

¹⁵ VoxUkraine's Index for Monitoring Reforms (iMoRe) aims to provide a comprehensive assessment of reform efforts by Ukraine's authorities

¹⁶ OpenData refers to data open for public use and distribution without any restrictions





of this project, the NBU released 26 sets of data in machine-readable format (XML, JSON) available through an API.

Project on the Redistribution of Regulators' Functions

In 2017, the NBU developed a comprehensive action plan for delegating functions from the National Commission for the State Regulation of the Financial Services Markets to the NBU and the National Commission on Securities and the Stock Market within a year of the adoption of Draft Law No. 2413a *On Consolidation of the State Regulation of Financial Markets Functions*. The NBU has analyzed inconsistencies between Ukrainian and EU law regarding the regulation of the markets of non-bank financial institutions.

The NBU intends:

- to agree its action plan with the National Commission on Securities and the Stock Market and the National Commission for the State Regulation of the Financial Services Markets, and to implement the action plan within six months of the adoption of Draft Law No. 2413a
- to develop and introduce, with the assistance of foreign experts, new regulatory models for non-bank financial institutions in various segments
- to draft amendments to the basic legislation of Ukraine
- by 2020 to harmonize regulations, internal procedures, and instructions of regulators following the redistribution of functions between regulators.





Cooperation with Government Authorities

In 2017, the National Bank of Ukraine continued meaningful dialogue with the financial market regulators, the Cabinet of Ministers of Ukraine, the Verkhovna Rada of Ukraine, and the market community and experts.

The task force for implementing reforms in the financial sector of Ukraine (hereinafter referred to as the “Reform Task Force”) continues its efforts. This professional platform connects 10 institutions i.e. stakeholders of the financial sector reform in order to coordinate their actions, provide assistance for resolving complicated issues in the process of implementing projects of the Comprehensive Program of Ukrainian Financial Sector Development Until 2020. Active members of the Reform Task Force are representatives of NGOs and the expert community, field experts, representatives of ministries and government agencies, and international organizations.

During 2017, the Reform Task Force held 12 meetings, where the members considered 40 issues on liberalizing FX regulation, development strategies for state-owned banks, resolving the issue of non-performing loans in the banking system of Ukraine, redistribution of regulators’ functions, consumers rights protection in the financial sector, including establishing the financial ombudsman institution, creditor rights protection and resumption of lending in Ukraine, and developing a defined-contribution pension plan etc.

According to the outcomes of the first strategic session of the Reform Task Force, a plan was

drafted for the future development and enhancement of effectiveness of the Reform Task Force, in particular, the number of members was increased, the meeting procedure was changed, and a monthly review of project performance status of the Comprehensive Program was introduced. A practice of drawing up expert judgements on financial draft laws was initiated.

As part of its cooperation with the Verkhovna Rada, the NBU continued to work actively to streamline laws as follows:

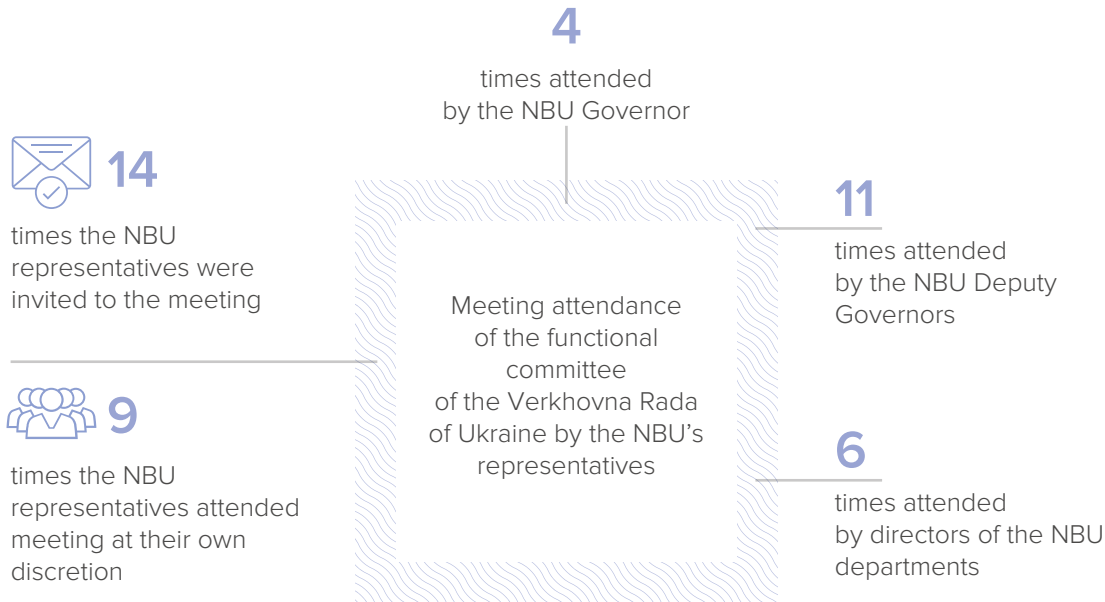
- worked with the Verkhovna Rada of Ukraine and its committees on issues that fall within the regulator’s remit
- provided comments and suggestions for Ukrainian draft laws
- presented the NBU’s position on the process of drafting laws in parliamentary committees
- drew up documents for the presentation and deliberation of draft laws and other matters at meetings of Verkhovna Rada committees and at plenary sessions of the Verkhovna Rada.

In 2017, the NBU representatives, including members of the Board and directors of departments, attended 23 meetings of the Verkhovna Rada Committee on Financial Policy and Banking. Specifically, the NBU representatives were invited 14 times to a meeting of the Verkhovna Rada field committee, and nine times they attended meetings at their own discretion.





Participation of the NBU top management in the activity of the field committee of the Verkhovna Rada of Ukraine



Furthermore, the NBU representatives at the level of department directors and field specialists attended meetings of other committees of the Verkhovna Rada:

- The Committee on Taxation and Customs Policy – attended 5 times
- The Committee on State Building, Regional Policy and Local Self-Government – attended 4 times
- The Committee for Informatization and Communications – attended 3 times
- The Committee on Economic Policy – attended twice
- The Committee on Fuel and Energy Complex, Nuclear Policy and Nuclear Safety – attended twice

- The Committee on Science and Education – attended once
- The Committee on Industrial Policy and Entrepreneurship – attended once
- The Committee on Foreign Affairs – attended once
- The Committee on Human Rights, National Minorities and Interethnic Relations – attended once.

2017 Outcomes Associated with Financial Draft Laws

As far as the legislative support of the financial sector reform in 2017, all in all seven draft laws were passed as a whole, as well as one draft law was passed in the first reading.





Draft laws passed as a whole on:

- the state budget of Ukraine for 2018
- simplifying bank reorganization and capitalization procedures
- corporate agreements
- enhancing corporate governance in joint-stock companies
- introducing the automated fare collection system on the city public transport
- electronic trust services
- ensuring balanced budget revenues in 2018
- facilitating business and attracting investments by securities issuers.



Rejected draft laws on:

- regulating money transfers
- prevention and counteraction to legalization (laundering) of the proceeds from crime.

Thus, the legislative support of reforms has advanced, but the Verkhovna Rada is still considering 35 draft laws required to move forward with the financial sector reform.

In addition to cooperation with the legislature, the NBU exchanges information on an ongoing basis with the Verkhovna Rada and the Ministry of Finance. The Legal Department provides with weekly information on regulations adopted and certified copies of resolutions of the Board of the NBU to be published in the legal framework section on the official website of the Verkhovna Rada (Letter of the Verkhovna Rada No. 19/6-161 dated 11 July 2014).



Registered draft laws on:

- specifies of state-owned banks governance
- resumption of lending
- capital markets and regulated markets
- protection of investors against abuses on capital markets
- special practices for handling bank liquidation.



Draft laws adopted in the first reading on:

- establishing and maintaining of the Credit Register of the National Bank of Ukraine and improving credit risk management of banks.

The NBU's resolutions are recorded in the Single Regulatory Registry and published in the Official Gazette of Ukraine (According to Decree of the President of Ukraine No. 468/96 dated 27 June 1996 *On the Single State Regulatory Registry*).

In 2017, the NBU submitted to the Ministry of Justice and the Verkhovna Rada information on 149 NBU's resolutions.

To coordinate its actions with the Ukrainian government, the NBU ensured a regular dialogue via weekly meetings and function committees of the Cabinet of Ministers of Ukraine.



National Bank of Ukraine on the Global Stage

In 2017, the NBU continued active cooperation with leading international financial institutions: International Monetary Fund, World Bank Group, Black Sea Trade and Development Bank, European Bank for Reconstruction and Development. Cooperation took place both within the framework of Ukraine's membership in these organizations, and as a part of the preparation and implementation of joint programs and projects that contributed to the financial sector reforming and financial stability.

These joint projects include:

- the successful performance by the NBU of the terms of the IMF Credit Facility Program under the EFF and achievement of the required criteria and targets when reforming the banking sector and other sectors of the country's economy ensured the receipt of the next tranche to Ukraine in the amount of SDR 0.7 billion
- a draft White Paper prepared with the World Bank on measures to further bringing the Ukrainian regulatory and legal framework on bank insolvency recovery and resolution in compliance with modern international practice
- launched Support to Financial Sector Reforms in Ukraine, a new project in cooperation with the EBRD (external project office to initiate and monitor the implementation of the projects on reforming of the financial sector).

In 2017, as part of membership in international financial institutions, NBU management traditionally represented Ukraine in:

- Spring (April 2017, Washington, D.C.) and Annual (October 2017, Washington, D.C.) Meetings of International Monetary Fund and World Bank
- Annual Meetings of the European Bank for Reconstruction and Development (May 2017, Nicosia, Cyprus)
- IMF and World Bank Constituency Meeting (June 2017, Yerevan, Armenia)
- BSTDB Annual Meeting (July 2017, Chisinau, Moldova).

The NBU also participated in the following international events:

- World Economic Forum Annual Meeting (January 2017, Davos, Switzerland)
- international roundtable devoted to reforms of the Ukrainian banking sector (March 2017, Berlin, Germany)
- international Conference on Restructuring of Banks (February 2017, Brussels, Belgium)
- Second Vienna Initiative Full Forum Meeting (March 2017, Luxemburg, Kingdom of Luxembourg)
- an investment event with business representatives and members of the Parliament of the Republic of Austria (September 2017, Vienna, Austria)
- 87th Annual General Meeting of the Bank for International Settlements (June 2017, Basel, Switzerland).

In the reporting year the NBU increased cooperation with the Bank for International Settlements, and acquired membership in the Consultative Group of the Basel Committee on Banking Supervision.

In 2017, the NBU strengthened cooperation with central banks that are already reliable partners, in particular with Narodowy Bank Polski, the Bank of Sweden, Italy, the Netherlands, England, the Swiss National Bank, the Central Bank of the Republic of Turkey, the National Bank of the Republic of Belarus. In May 2017, the NBU and the National Bank of the Republic of Belarus held the 12th meeting of the Advisory Council of the central banks of Ukraine and the Republic of Belarus (Kyiv, Ukraine).

In addition, the NBU signed a Memorandum of Understanding on cooperation with the Central Bank of the Republic of Turkey and began a closer dialogue and exchange of experience on central banking key areas.

As a part of interstate bilateral cooperation (in particular, with Saudi Arabia, the People's Republic of China, Austria, Belarus, etc.), the NBU participated in the joint





intergovernmental commissions, committees, working groups.

On the path towards implementation of the Association Agreement between Ukraine and the EU and approaching of Ukraine's banking sector to EU regulation practices, the NBU:

- developed and approved the plans for the implementation of the main EU acts on banking, in particular on banking supervision, payment systems, electronic money
- tightened the requirements for carrying out analysis and appraisal of NBU regulatory initiatives with respect of their compliance with EU laws and international obligations in the area of European integration
- stepped up cooperation with international experts on European laws and advanced a dialog with the EU concerning regulation and development of the Ukrainian financial sector
- together with the GIZ Project, Consultative Fund for Reforms Implementation, conducted a training program on European integration for regulators of financial services markets.

The NBU continued to expand its technical cooperation with international partners to increase the efficiency of joint initiatives and projects. International technical and expert assistance for the NBU to achieve the objectives of strategic documents of Ukraine and the NBU, including:

- Association Agreement between Ukraine and the European Union
- Comprehensive Program of Ukrainian Financial Sector Development Until 2020
- Monetary Policy Guidelines
- Memorandums of Economic and Financial Policies under the IMF programs.

The NBU coordinated the international technical assistance from international donors, provided to reform the financial sector of Ukraine. During working meetings and high-level meetings held at the NBU the major donors and financial market regulators discussed the status of all current technical assistance projects and defined future priorities for cooperation.

One such project is the EU technical assistance project on Strengthening Regulation and Supervision of the Non-Banking Financial Market launched in 2017. The objective of the project is to create a strong legal and regulatory framework for non-bank financial services.

The following international events promoted the dialogue between the NBU and the European and international partners:

- International Scientific and Practical Conference on Theory and Practice of Adaptation of Banking Legislation of Ukraine to the Requirements of the European Union (November 2017) held jointly with Taras Shevchenko National University of Kyiv
- International Round Table on Issues and Opportunities of IFRS 9: Transparency, Openness, Accountability (September 2017). This event was sponsored by the Canada-IMF Project for the NBU institutional capacity building. Among participants there were the representatives of eight central banks of Central and Eastern Europe
- annual international research conference on *the Role of the Central Bank in Economic Development* (May 2017). The event is held jointly with Narodowy Bank Polski and with the assistance of Canadian Government and the Kyiv School of Economics. This is the second event of a series of NBU research conferences. World-renowned monetary policy experts, practitioners, central bankers and international financial organizations representatives, scholars and experts from universities traditionally gathered together to discuss topical economic and central banking issues. The conference participants discussed the role of the state in supporting economic growth, the response of central banks to the slow pace of economic growth, the going beyond central bank restricted powers in terms of price stability, and other issues
- regular joint events with the European Central Bank on macroeconomic forecasting for monetary policy (July 2017) and the implementation of the SREP methodology (November 2017).





Transparency in Communication Strategy

Strategic Communications

The Board of the NBU and top managers participated in panel discussions and provided expert opinions, offering explanations of NBU policy.

Members of the Board and top management of the National Bank of Ukraine participated in 219 public events. Taking their cues from the best and most progressive central banks around the world, the NBU's top management increased their interaction with regional business and bank representatives.

An effective communications policy is a key tool in the NBU's mission to ensure price stability and financial stability. The management of inflation expectations, which can be guided through effective communication, is an instrument that helps the central bank implement its mandate. Each key report (Inflation Report, Financial Stability Report, and Banking Sector Report) is now traditionally published based on a schedule and accompanied by public communications: press releases and meetings with media and experts.

The National Bank of Ukraine took another step towards its stakeholders in terms of transparency and predictability of monetary policy: in February 2018, the regulator published for the first time the *Summary of the Discussion on the Key Policy Rate at the NBU Monetary Policy Committee*. This document is a description of a discussion between Monetary Policy Committee taking place before every NBU Board decision on the key policy rate.

Compared to press releases that reflect the consensus position of the Board, the *Results of the Discussion* include the impersonalized position of all members of the Monetary Policy Committee on the monetary decision and the corresponding argumentation. Not only the position of majority, but also alternative thoughts. Central banks of Poland, the Czech Republic, Chile, Hungary, Brazil, the United Kingdom, Norway, Turkey, Iceland, Israel, Colombia, and Romania publish their discussions of key policy rate.

In May last year, the NBU held the second international research conference.

The development of a visual identity, supporting PR, and special events related to the conference were aimed at fostering a positive image for the NBU on the global stage as a major center of economic thought among the central banks.

NBU's Communications with Media

In 2017, NBU representatives gave 75 interviews for TV, radio, web-based media, and printed publications, responded to 1,117 requests for information from the media, and held 57 conferences and briefings. The NBU also published 234 press releases.

Also, the NBU started publishing specialist long reads and landing pages on: banking system clean-up and PrivatBank nationalization, Global Money Week in March, Financial Awareness Days in four Ukrainian cities in fall, monetary policy debates, and landing page dedicated to Annual Research Conference.

NBU Rebranding

The NBU drives the financial sector reform in Ukraine and enjoys global recognition and respect. The need for visual representation to keep up with changes within the NBU and the financial market became evident. And so in 2017, the NBU underwent a rebranding.

The new style is the embodiment of the NBU's transformation and rests on the best traditions, cotemporary trends, innovativeness and ongoing development. The new identity of the regulator is designed to reinforce perception of the NBU as the reform driver and create a cohesive brand. Today we are creating an user-friendly, life-oriented, state-of-the-art and clear brand.

The history of our brand goes back to the times of the Kyiv Rus, when a first silver hryvnia appeared. The symbolic representation of the rebranded hryvnia being the centerpiece of the logo encompasses both the present-day and the historical period



of the statehood. The current interpretation of the hryvnia symbol embraces clarity, symbolism and development ensuring better perceptibility and recognizability.

Strength, sustainability and life are engraved in the color scheme of the logo. The new logo inherited the green color that stands for growth, sustainability, reliability and trust. The transparent part of the symbol manifests the regulator's actions, the colored part – professionalism and reasoned judgments. The amalgamation of both parts signifies partnership, progression and development.

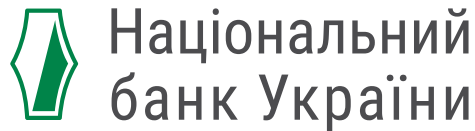
The new NBU's identity was designed so that the staff, partners and the public would have a clear understanding of the mission, vision and values of the regulator.

New positioning of the brand mirrors internal transformations, independence and significance as parts of making Ukraine a most advanced state.

The NBU is a modern independent public institution designed to ensure price and financial stability in the country and foster the economic growth of Ukraine. We integrate to the international community of central banks and for that purpose create an effective and sustainable financial ecosystem, enhance the development of innovations in financial technologies, and improve financial awareness and inclusion of the public. We are a cutting-edge central bank with public trust and operating for the good of the people and the state.



Old logo



New logo

New NBU Web-Site Project

The NBU has been working on the development of a new modern web-site. The project objective is to develop an instrument that will meet the information needs of the NBU's audience and promote NBU's communication policy.

NBU's web-site is the main communication source accessible 24/7 from all over the world. This is a holistic digital communications ecosystem aimed at supporting the NBU's Vision, Mission and Values. We update not only the design, but also radically change the content. We make a step forward in usability, security and reliability.

Key feature is a new site content where complex economic notions are in plain language. The structure of the information presentation is fundamentally different. We switched from the concept of the "big complex

encyclopedia" to a site with structured and clear content and friendly interface. Large blocks of text are replaced by short articles, and infographics, video files, links to documents and data are easy to use.

We have created a modern design, adapted to smartphones, tablets, laptops and desktops.

We have taken into account the needs of all audiences. Under modern interface there are powerful tools for data processing needed by financial experts and businesses: updates, guidebooks, publications, regulatory documents.

A beta version of the new website was presented in March 2018.

The current version of the NBU's website remains a reliable and primary source of information: 2.9 million users visited the NBU's website in 2017.



Social Media: New Channels to Communicate with the Public

Central bank responds to new information challenges, actively using Facebook, YouTube, Instagram, Flickr, Twitter in external communications.

In 2017, a separate NBU page in English was launched on Twitter to inform foreign stakeholders, in particular, foreign media, experts, investors, international institutions representatives and numismatists. The feeds of the official NBU Twitter pages in English and in Ukrainian are not the same: only the information which is important,

interesting, and useful for foreign users is published on the English page.

Direct communication with consumers of information can build confidence and increase understanding of the NBU policy. For that purpose the NBU added videos in its communication content. Since last year, the NBU press-events are broadcasted on-line, and separate videos with the key points of the speakers are published. In addition, the central bank created information and education videos, telling about its activities and explaining its policies. In 2017, around 200 videos were created and 33 on-line broadcasts of the NBU's activities were carried out.

Recognition of the NBU in the Area of External Communications

By the annual award PressZNANNIA the NBU Press Service was recognized as the best communicator among state authorities in 2016.

In this nomination, external communication services of 264 leading Ukrainian companies from all areas of the economy, as well as state agencies, were evaluated. In general, the NBU

press office ranked 11th. 28 journalists and editors of the Ukrainian business and social and political media were PressZNANNIA judges.

The annual report of the National Bank of Ukraine took 3rd place in the international ARC Awards in the Design and Graphics nomination. In 2017, there were 33 participants in this nomination; 1st and 2nd place were not awarded.





The Money Museum of the National Bank of Ukraine

The transformation of the NBU Money Museum into a modern Information and Communications Center is an important component of the NBU's general communications strategy.

The NBU Change Management Committee adopted a decision to transform the Money Museum. In 2021, for the 30th anniversary of Independence of Ukraine and the 25th anniversary of Currency reform a new Information and Communications Center with a total area of 1,754.55 sq. meters will open. The center will combine a large museum section with state-of-the-art technological novelties and will have the following areas:

- History of Money in Ukraine
- History of Banking
- Role of the Central Bank interactive area
- Hryvnia is Our Symbol! area telling about modern security features of our national currency and historical background of its graphic elements

- Sashless and Fintech areas
- hall for events, exhibitions and press conferences
- Fin Hub (several interactive training classes)
- commemorative coins shop.

Alongside the development of the Information and Communications Center of a new level, the Museum of Money continued to work actively in the format Open Museum – Open National Bank of Ukraine.

Both the museum's permanent exhibit and the ability to get a behind-the-scenes look at the central bank continued to attract visitors. In 2017, the number of tour group visitors increased by 1,5 times: 8,869 visitors in 354 tours. The number of the Museum of Money Facebook page subscribers increased almost three times in a year and reached 1,108 users.





Transforming and Re-Engineering the NBU Processes

The NBU introduces process-based management principles for its operating. The purpose is to improve quality and effectiveness of both in-house processes of the central bank and external customer-oriented processes. The process-based approach to governance ensures transparency and better performance of the central bank processes. This approach is intended for as follows:

- creating a product that is of value for the NBU's customers in line with its strategy
- independence of decision-makers
- reducing time expenditure on management
- gaining experience and personal development
- effective synergy of functions, horizontal links
- assigning one responsible employee for the entire process
- standardizing processes for managing the same entity
- efficient use of resources
- process performance assessment (KPIs).

What is the NBU process management system?

- 🔹 Determining the list of processes
- 🔹 Outlining approaches to process management
- 🔹 Setting requirements to recordkeeping
- 🔹 Formalization of workflow
- 🌿 Determining customers and added value
- 🌿 Process performance assessment and managerial decision-making
- 🌿 Avoiding overlapping functions, losses and inefficient resource use
- 🌿 Cooperation of units for process management

Securing institutional memory of the NBU



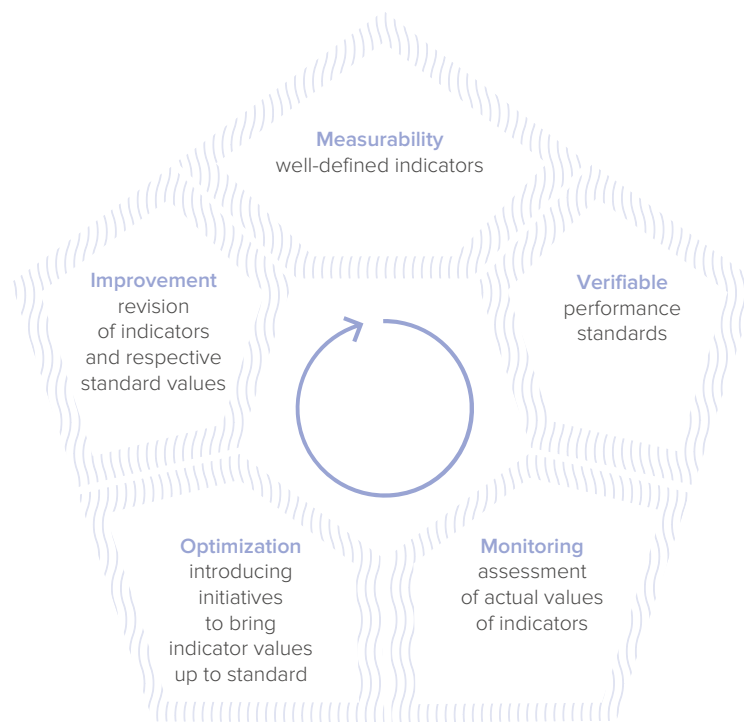
Structured and clear cooperation algorithms will provide high staff performance and motivation



In 2017, the NBU implemented a number of projects that contributed to process optimization. Thus, the central bank has optimized the internal process of drafting and implementing the NBU regulations. More detailed and comprehensive analysis of issues subject to the NBU's regulation

improved quality and predictability of regulatory decisions. As a result, important decisions of the NBU are discussed at the stage of conceptual design contributing to relationships with the banking community and experts.

Process management using KPIs



In 2017, the NBU continued to engage employees to spread the culture of the process management, namely for the first time a team of architects was assembled from representatives of different functional departments that will:

- be visionaries
- assist in analyzes and design efficient and most effective processes
- apply cutting-edge instruments for process management, for example, key performance indicators (KPIs) and service level agreement (SLA) principles.

The architects team will be the embodiment of the culture intended for processes effectiveness in the NBU.

One of the measures for popularizing the process management culture and optimizing internal processes was the Japanese management style 'Gemba' applied to the processes of the NBU financial and administrative block, that is employees changed places during routine processes to detect each other's failings and suggest methods of improvement. This instrument provided the management block with a better understanding of the real picture





of how on-site processes are performed and to make corresponding managerial decisions. Same-level employees gained experience and strategic perspective generating additional motivation for implementing this culture. And most importantly, the NBU has improved a number of managerial processes within the merit of the financial and administrative block such as budget, procurement, personnel recruiting, support and administration etc.

The NBU engaged in reengineering, transformation and integrated automation of processes. In November 2017, the NBU launched the process automation project based on enterprise software SAP for different operating functions. Converting to S4 HANA and using its settings to customize processes translates into:

- optimization of business processes employing the best business practices
- expanding system options in contrast to the current system version
- streamlining function performance in the system
- utilizing management capabilities based on key performance indicators of processes and embedded intelligence
- real-time financial reports submission.

In December, a pilot project was initiated for internal methodology function. The purpose of these efforts is to structure regulatory instruments on the NBU internal operation for the most effective delegation of powers for reviewing documents and downsize the approval levels. The project goal is to speed up document flow and improve quality of recordkeeping.

One of the highest priority projects for the NBU internal transformation remains the electronic document flow project. Presently, the NBU is already applying the fully-fledged electronic document flow (incoming/outgoing) with the executive authorities, and registration and delivery does not involve an assigned clerk in the NBU units.





Towards People Management

In 2017, the NBU continued to shift towards openness and consistency in staff management. The adaptive corporate culture continued to develop based on human resources, flexible approaches and acknowledged diversity. Process automation and streamlining, as well as introduction of cutting-edge staff training instruments carried on.

While developing the state-of-the-art HR-system, the NBU put efforts to improve culture, motivation system and leadership building to create a friendly working environment helping everyone to achieve high results.

Adaptive Corporate Culture

The NBU continued to develop the adaptive and open model of the corporate culture. The new culture is founded on the principles of equilibrium, cost-effectiveness, innovation, mobility and flexibility. The selected approach allows the institution to be sustainable and respond quickly to external challenges and attract creative young specialists that generate new approaches and solutions.

The development of the corporate culture is strongly linked to the further internal transformation including introduction of process management, improving effectiveness and enhancing institutional capacity of the central bank. In 2017, strategic and managerial sessions were held on all organization levels during which the NBU team generated the common vision of goals and targets. Leadership and mentorship, the internal communication systems and the new formal and informal staff communication format continued to evolve. The Objectives Tree was designed in line with the strategic objectives of the organization, the adaptive system was introduced for new employees, students and young professionals are employed on regular basis. These steps as a part of the plan to achieve the target corporate culture model, were developed by the staff and fostered the introduction of new cooperation value standards.

For the purpose of system management of the corporate culture and monitoring the current situation, in July – August 2017 the second organization survey *NBU Means Us: Cooperation Culture* targeted the development trends of leadership and the quality of internal relationships in the central bank. The survey was conducted using electronic and hard media. Findings have shown that the impact of middle managers on the culture and effectiveness of the central bank operating in general was particularly important, and also have proven the selected strategy of the corporate culture development to be appropriate. In 2018, the survey will focus on staff motivation.

Internal Communications

In 2017, the NBU standardized internal communication channels, with conventional and electronic means of staff notification combining interactive and gamification elements.

Meetings and joint actions for individual units and functional blocks, as well as for the organization as a whole became common. Specifically, the large meeting of management and staff has already become common place. The NBU held themed weeks on central bank values, initiated a project to present the units' operations "Get to Know Each Other Better" and other events.

Volunteer Initiatives of the Staff

The NBU has introduced new volunteer initiatives including:

- aid to children raised in foster homes, large families and low-income families
- supporting the elderly
- assisting animal shelters
- environmental awareness.

Employees have supported colleagues that serve in the army as part of the Anti-Terrorist Operation, provided aid for purchasing medicinal drugs for wounded soldiers treated in Ukrainian medical facilities.





The initiatives are implemented with efforts and at the expense of the staff that aspire to evolve the country by raising issues of public importance and finding solutions.

Development of the Performance Management System

In 2017, the transformation of the model of competencies was initiated that was predetermined already in 2015. In 2017, the model of managerial competencies was developed based on the NBU values and the management profile. The new model includes two managerial competencies i.e. manager conduct standard “Responsible Leadership” and “Effective Management”, as well as three corporate competencies i.e. standard of the values-compliant conduct of the NBU staff: “Cooperation”, “Efficiency”, “Proactivity”.

The new model of competencies became a criterion for the Annual Activity Appraisal of managers’ performance for 2017.

The development of the model of functional competencies is perceived as part of the further transformation for different business lines of the central bank.

In 2017, the approach to the NBU’s Objectives Tree changed. For the first time it was based on the objectives in line with the NBU’s mid-term strategy. The objectives are cascaded from managers down to employees and bring out the direct impact of every employee on the general performance of the organization.

Transformation of the logic behind objectives and planning key performance indicators will continue, specifically the introduction of key performance indicators for processes and in-house Service-Level Agreement as part of process management.

Grading as Foundation for the New Fair Remuneration Policy

The NBU has launched an initiative on the new policy of basic remuneration based on the grading.

Grading comprises three main phases:

- positions’ classification and profiling
- position appraisal

- definition and approval of grades.

During positions’ classification an in-depth analysis of types and lines of business was conducted: positions’ clusters, individual and group managerial and non-managerial positions were determined. A profile was developed for each individual position or position group intended to be used in the future for recruiting staff, development and job rotation of employees. Position appraisal included an on-line survey for the preliminary definition of the position grade and estimation of the grade by the grading commissions according to uniform set groups of criteria.

In 2018, a new staff remuneration policy was developed and introduced based on the grading that will lay down the principles of setting and reviewing salary market levels of the central bank employees. Grading will also become the foundation for the development of the revised system of financial and non-financial incentives.

Promoting Successors and Talents

Developing skills and promoting mentorship plays a special role in designing the new model of the NBU’s corporate culture. In 2017, a training program was launched for the talent pool i.e. high-performance employees of different managerial levels that have a lot of potential for development and career growth. Different module programs were drafted for 22 successors for key and managerial positions and 30 talents developing within projects and horizontal rotations.

Besides improving leadership skills and managerial potential during the corporate development program, the successors selected to the talent pool in 2016 were also trained in change management, organization development and strategic planning. The talent pool employees managed their own cases pertaining to the central bank operations and by completing the module presented their projects to the NBU Board. The talent pool employees completed the program for development of leadership and communication skills. In 2018, the individual development plans for successors for 1.5 years will continue, as well as corporate development of the talent pool.





Another important aspect for the systemic knowledge sharing, development of individual expertise and leadership in the NBU is the mentorship program. Hence, 76 permanent participants create a culture of self-improvement and assist less experienced colleagues, contribute to adjusting new employees and interns. In 2017, the very first meeting of the NBU's Mentor Club was held to foster implementation of mentorship principles in daily work.

Also in-house trainers were engaged in the process of the staff development in 2017. Employees of different levels and functions that were selected and completed a three-module course

“Training for Trainers”, in addition to their job responsibilities held in-house training for their colleagues. For further development of in-house trainers, in 2017 an annual training conference was established.

In-house trainers, talent pool employees and mentors that bring about the new cooperation culture based on principles of flexibility and adaptability.

In 2017, Headhunter Ukraine ranked the NBU among the top 10 employers of the banking and financial sector of Ukraine. Opinions of both applicants and HR managers were considered in the survey.

Culture of Thinking Project

For the second time in a row, the NBU became a prize-winner of the HR-brand, an independent annual award for the most successful efforts in creating the best employer image of a company. In 2017, the regulator's *Culture of Thinking* project was ranked third in the *Ukraine* nomination.

This project sets new benchmarks for organizational development, including improving internal processes and interaction, developing a new management culture and leadership in relation to the NBU's strategy.

The objective of the *Culture of Thinking* project – was to shift to a new format of the NBU management and organizational design through introduction of process management principles and development of a flexible corporate culture of the regulator.

Project implementation lines are as follows:

- introducing a process management culture and transition to process management
- developing the corporate culture in line with the vision of the future NBU and its corporate culture strategy in the 10-year perspective in the context of the NBU Strategy.





Development of Research in the National Bank of Ukraine

In 2017 the NBU continued its integration with the world research community, undertaking important steps aimed at strengthening its research potential, and gaining credibility in the world of research.

In this respect, the most significant event of the past year was the holding of an international annual research conference on *The Role of the Central Bank in Economic Development* (18-19 May 2017), which was organized jointly with the Narodowy Bank Polski and with the support of the Canadian government and the Kyiv School of Economics. Organizing conferences on this scale has become traditional. Some 400 participants took part in the conference, coming from 18 different countries and 108 international financial, academic, state establishments and institutions. The participants discussed a number of topics, ranging from national economic development to the monetary policy of central banks. Particular attention was paid to the role of the state in ensuring economic development, the challenges faced by the post-Soviet countries, as well as the powers of central banks.

The conference speakers and contributors were world-famous scholars and researchers, including David Archer, the head of the Central Banking Studies unit at the Bank for International Settlements (BIS), Professor Gianluca Benigno of the London School of Economics, Erik Berglof, the director of the Institute of Global Affairs (IGA) at the London School of Economics and Political Science, Laurence Ball, Professor of Economics at Johns Hopkins University, Kerstin af Jochnick, the First Deputy Governor of the Swedish Central Bank, Satu Kahkonen, World Bank Country Director for Belarus, Moldova, and Ukraine, Professor Enrique Mendoza, the Presidential Professor of Economics and Director of the Penn Institute for Economic Research, Gerard

Roland, Professor of Economics and Political Science at the University of California (Berkeley), Frank Smets, the ECB's Director General for Economics, and other well-known economists. The keynote speaker of the conference was John B. Taylor, Professor of Economics at Stanford University and the author of the well-known Taylor rule, which is used by most central banks in advanced and developing economies when making interest rate decisions.

A series of educational events were held as part of the conference. First, conference speakers gave open lectures at the leading universities of Ukraine. Second, Dr Laurence Ball conducted an open research seminar on *Understanding Inflation in India* at the NBU. Third, the NBU held a two-day seminar on monetary policy for lecturers of higher educational institutions from Kyiv and oblasts of Ukraine. In addition, together with the Kyiv School of Economics and the independent analytical platform VoxUkraine, a series of public discussions within the framework of Ukraine Economy Week, were held on relevant issues concerning Ukraine's economic development.

The younger generation of academics exhibited a great deal of interest in the first scientific conference for students and young researchers on *Banking Sector and Monetary Policy: Development Perspectives* (21 April 2017), which was held jointly with Kyiv School of Economics. Representatives from more than 20 universities and research institutions in Ukraine, the UK and Germany submitted research papers for presentation at the conference. Most of the research was devoted to analyzing monetary policy and the transmission mechanism, as well as risk assessment and the effectiveness of bank operations. A lot of focus was placed on discussing ways to find stimuli to revive lending.





In particular, one of the main pieces of research by the young academics was a paper looking into the consequences of the doubling of the minimum wage in Ukraine in early 2017 and questions of reconciling fiscal and monetary policies. The students' interest focused in particular on a study that expands the modeling mechanism for assessing the level of systemic risk in Ukraine's banking system.

The international conference prompted fruitful discussions and strengthened mutual ties between academics, laying the groundwork for the implementation of two new international cooperation programs in the field of research: Secondment and Visiting Scholar Programs.

In particular, as part of the Secondment program in 2017, an economist from Sweden's central bank, Magnus Jonsson, joined the NBU research team for six months. Jointly with NBU representatives, Mr Jonsson initiated and participated in a number of research projects studying pressing issues of monetary and macroprudential policy on the basis of dynamic stochastic general equilibrium modeling.

The implementation of the Visiting Scholar Program was carried out as part of the Canada-IMF project to build up the NBU's institutional capacity. As part of this program, Oleksandr Talavera from Swansea University in the UK and Professor Vadym Volosovych from Erasmus University in Rotterdam in the Netherlands

launched research projects in 2017: the visiting scientists were involved in some of the NBU's research projects and participated in developing the central bank's own research functions.

As a result of intensive international cooperation in the field of research, the NBU increased the number of open research seminars it held (13 in 2017, compared to four a year earlier). The focus of the discussions was on macroprudential policy, the choice of monetary policy regimes, the role of fiscal policy during recessions, the analysis of the nature of inflationary processes, and econometric analysis methods. Of other countries' central banks, the central banks of Sweden, Poland and Austria were the most active in sharing their research results.

The results of the research carried out by NBU experts were used in the preparation and publication of working materials, articles and analytical reports, allowing the effective dissemination of new knowledge and facilitating the establishment of fruitful discussion of issues that are relevant and important to the central bank. Accordingly, in 2017, the scientific e-journal – The Visnyk of the National Bank of Ukraine – was included in IDEAS/RePEc, the largest bibliographic database devoted to economics, as well as the Index Copernicus International, an important platform for the dissemination of scientific achievements among domestic and international experts.





The National Bank of Ukraine supports financial literacy of Ukrainians

Global Money Week in Ukraine

The National Bank of Ukraine traditionally joined the events on youth financial education, as financial literacy is today's natural vital need. Financial literacy strengthens confidence in the financial system, and every central bank has to use the opportunities for financial education and educate a financially competent consumer to build a successful country.

In 2017, the NBU presented educational events in Kyiv as part of Global Money Week. Apart from lectures and tours to the travelling exhibition of the NBU Money Museum, the NBU launched the first information campaign *Hryvnia is Our Symbol* and presented the commemorative coin *100th Anniversary of the Ukrainian Revolution of 1917–1921*.

The said campaign became possible due to the support of the United States Agency for International Development (USAID Ukraine). As part of the project the title trailer *Hryvnia is Our Symbol* was created as well as 9 other graphic mini stories about each banknote denomination of the Ukrainian currency. The campaign was aimed at raising the awareness of Ukraine's place in history and promotion of respect to the national currency of Ukraine - hryvnia. The goal of the NBU is to present hryvnia as an integral part of Ukraine's history and culture, its struggle for independence, and one of the most important symbols of Ukraine's established independence.

It was the first time when the NBU received an international award for an event aimed at raising financial awareness. The reward ceremony for the best projects recognition took place on 3 May 2017 in Berlin, Germany, where the NBU's project was awarded. It got to the final in the Global Money Week Awards nomination as part of Global Inclusion Awards in Europe and Central Asia region.

Ukraine's becoming a finalist at the Global Money Week Awards proves the importance

of promoting financial awareness among children and young people, and, above all, coordination of Global Money Week events and the joint efforts of all organizations to achieve this goal. The NBU's contribution was accoladed by the event's organizer – the NGO Child & Youth Finance International.

Global Money Week is an annual global initiative comprising both global and regional activities and events aimed at inspiring children and young people to learn more about money and savings, livelihoods and entrepreneurship, etc. This global event takes place annually in over 130 countries. The NBU has been participating in this large scale educational initiative for five years.

Financial Awareness Days

Financial Awareness Days are a series of educational activities aimed at encouraging people to pay more attention to their finances and budget, preparing young people to taking confident and reasonable financial decisions. The activities were held under the motto *Manage Your Money Wisely*. The project consisted of four waves in the largest cities in Ukraine – Odesa, Lviv, Kharkiv, Dnipro.

The thematic travelling exhibition of the NBU Money Museum enjoyed an unceasing success with visitors. It consisted of two parts: a display in the historical context and a unique collection of commemorative coins devoted to a respective region where the event was taking place.

The display included the banknotes and coins exhibition *Ways of the Ukrainian Hryvnia History* focused on the history of the Ukrainian currency, and a special photo project *Inspired by the Ukrainian People Republic Age*. The commemorative coins collection *Pages of Ukraine's History* encompasses several series and underlines the most important events and symbols in the history of Ukraine. This was the first time when temporary exhibitions were created and devoted specifically to the oblast





where the educational project was held. The *Signs of the Zodiac*, *Children's Zodiac*, and *Oriental Calendar*, the most popular series of the NBU commemorative coins, were also exhibited.

Financial Awareness Days is a project of the National Bank of Ukraine in cooperation with the US Agency for International Development (USAID) team implementing the Financial Sector Transformation Project

and also with the support of Visa international payment system. The project has been implemented in partnership with the State Higher Educational Institution Banking University, the Deposit Guarantee Fund, and the Independent Association of the Banks of Ukraine. In total the educational project has united nearly 7,500 visitors from Ukraine and neighboring countries.

Financial Awareness Days in 2017:



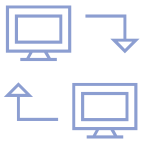
5 meetings of the NBU's top management with representatives of the banking



3 briefings for mass media



20 speakers – representatives of the financial sector



86 interactive workshops for school and university students



199 tours to the travelling exhibition of the NBU Money Museum and Visa Cashless Area



94 training events and lectures devoted to consumer lending, reforms in the banking sector, financial ombudsman service for consumers of financial services, operation of the deposit guarantee system in Ukraine, etc



Provision of Information Security

The NBU pays special attention to protection of the banking infrastructure from cyberattacks and adheres to high standards of information protection. In 2017, the regulator began a new stage of development and improvement of information security and cybersecurity of the banking system in Ukraine.

The NBU motions regarding organization and provision of cybersecurity of the banking system were implemented in the Law of Ukraine *On the Basic Principles of Cybersecurity* in Ukraine adopted by the Verkhovna Rada of Ukraine in 2017.

The NBU has amended the Information Security Strategic Development Program for the period up to 2020 that covers a specific objective of ensuring cybersecurity in the banking system of Ukraine and deciding on directions and means for achieving set targets.

The NBU has initiated the establishment of the Computer Security Incident Response Team of the National Bank of Ukraine (CSIRT-NBU). The CSIRT-NBU is to become the foundation for cybersecurity of the banking system of Ukraine and a platform for application of state-of-the-art technologies for detecting and responding to cyberattacks. This center along with the cooperation with the banking community is expected to accumulate expertise and resources of the banking system of Ukraine and join efforts in resolving issues on combating current cyberthreats.

Also the NBU launched efforts on formalizing requirements to cybersecurity of the critical information infrastructure of the Ukrainian banking system. For this purpose, national analytical materials and recommendations, global and European experience in this field were studied and an approach was formed for providing the security of critical information infrastructure of the banking system in Ukraine.

The NBU Board has adopted Regulation No. 95 *On the Approval of the Regulation*

of Measures to Ensure Information Security in the Banking System of Ukraine dated 28 September 2017 that for the first time prescribes the NBU's regulation of information security and cybersecurity of the banking system in Ukraine by defining mandatory requirements to the provision of information security measures.

Specifically, information security measures include protection from a malicious code, security procedures for emailing, access control to bank informational systems, security measures for the bank network, and cryptographic information security etc. General principles for providing and managing information security in banks set out in this documents are based on effective national standards of Ukraine on information security as follows:

- DSTU ISO/IEC 27001:2015 Information technologies. Security methods. Managing the information security system. Requirements
- DSTU ISO/IEC 27002:2015 Information technologies. Security methods. Code of information security practices.

This instrument corresponds the EU legal principles and Ukrainian commitments with regards to European integration, as well as international legal principles and in line with generally accepted international practices in information security and cybersecurity.

In compliance with the best global practices in information security, a bidding standard was imposed on banks as to appointing an employee responsible for information security (Chief Information Security Officer, CISO) and delegating authority to such person sufficient enough to make managerial decisions, it is also stipulated that each Ukrainian bank should establish a separate unit for information security and appoint hereto on-staff bank employees with the CISO as their line manager.

By implementing the abovementioned provisions, the Ukrainian banks will improve





information security, decrease losses from real and potential threats to information security in the financial sector, foster the recognition of importance of information security and cybersecurity in the banking community.

The NBU has provided regulation for the use of the electronic signature in the banking system of Ukraine as part of the Paperless project on banks' conversion to paperless technologies and creating opportunities for remote provision of a wide range of banking services to customers by means of electronic documents. Respective provisions are set out in NBU Board Resolution No. 78 *On Approval of the Regulation on the Electronic Signature in the Banking System of Ukraine* dated 14 August 2017 that:

- prescribes types of electronic signatures applied in the banking system of Ukraine
- sets requirements to:
 - application of each type of electronic signatures
 - compiling and storing electronic documents in the banking system
 - distribution of liabilities of the parties of an electronic interaction in the course of applying different types of electronic signatures.

The NBU took active part in drafting the Law of Ukraine *On Electronic Trust Services* that sets out the NBU authority in the field of electronic trust services and electronic identification:

- establishing the Certification Authority to record certified electronic trust service providers in the banking system of Ukraine and qualified electronic trust service

providers for fund transfers (parties of payment systems) on the Trust List

- setting requirements for certified electronic trust service providers recorded on the Trust List by the endorsement of the Certification Authority
- prescribing the procedure for providing and using electronic trust services in the banking system of Ukraine and for fund transfers
- prescribing the procedure for rendering services of transmitting the standard time signal from the Certification Authority to electronic trust service providers
- keeping records of the Trust List by the endorsement of the Certification Authority and identifying time synchronization sources
- public regulation of electronic identification issues in the banking system of Ukraine. The NBU established in 2017 the Accredited Center for Keys Certification that provides digital signature services in order:
 - to operate systems of electronic document flow
 - to operate the systems of electronic interaction of executive agencies
 - to obtain access to state registers managed by the Ministry of Justice of Ukraine
 - to submit additional financial statements to the State Fiscal Service
 - to obtain access to individual electronic profiles managed by the State Fiscal Service.





Internal Control System and Risk Management

Risk Management

In 2017, the NBU worked on improvement of its risk management system in accordance with recommendations of the IMF mission, as well as international standards and world best practices.

The work focused on improving risk management procedures, tools and techniques in the areas outlined below.

Credit Risk Management

In 2017, the NBU focused on the project of introduction of International Financial Reporting Standard 9: Financial Instruments (IFRS 9). In particular, the approach to provisioning for impairment of financial assets under the incurred losses model used in International Accounting Standard 39 Financial Instruments: Recognition and Measurement was replaced with the expected losses model used in IFRS 9.

In order to set a single approach to defining impairment and assessment of expected credit losses on the NBU financial instruments in compliance with IFRS 9, the following has been designed and prepared for implementation from 1 January 2018:

- assessment methods for expected credit losses on the NBU financial instruments
- methods for identifying probability of default in resident borrowing banks considering the impact of future economic conditions applying the forward-looking approach
- a procedure for defining impairment for reserve assets and non-reserve debt securities owned by the NBU
- updated wording of the Regulation on the procedures for financial risks assessment, provisioning and use of the NBU reserves to cover financial risks related to assets impairment.

Market Risk Management

In 2017, the NBU moved to increase the efficiency of market risk management,

in particular through the following:

- improved the procedure for measurement at fair value of residents' securities owned by the NBU or accepted by it as a collateral under obligations regarding the methodology of defining the fair value of indexed domestic government bonds
- designed and implemented a new methodology and a procedure for fair value measurement of derivative financial instruments used by the NBU in transactions
- improved the procedure for calculation of net open foreign exchange position of the NBU taking into consideration foreign exchange position of the derivative financial instruments
- improved the procedure for international reserves management and the management reporting on risks and results of international reserves management to further implement the concept of asset and liability management at the NBU, which involves managing activities and financial risks by comparing the financial characteristics of assets and liabilities (both on- and off-balance sheet items).

Policy for international reserves management has been further improved. The NBU started the transformation of financial risks management process applying the best practices of the European Central Bank and national central banks (particularly, of Sweden, France, and Italy).

Operational Risk Management

In 2017, operational risk management at the NBU was focused on the following areas:

- bidentification and assessment of operational risks through application of respective instruments
- improvement of the internal control system considering the risks inherent to the NBU activities
- business continuity management at the NBU.





Asset Resolution

The NBU continued building an effective process for resolving the regulator's problem assets.

From the beginning of 2017 the Deposit Guarantee Fund (hereinafter - the DGF) with the support of the NBU started sales of the NBU's collateral assets exclusively through ProZorro.Sale system. It provides a transparent and efficient facility for selling such assets. The amount gained by the NBU from sale of the collateral assets by the DGF grew by 13% in 2017 compared with 2016.

The regulator supported the DGF's initiative on implementation of the Dutch auction model for sale of rights of claim on collateralized loans from the NBU by consolidating them into pools.

The DGF and the NBU continue to work on the joint pilot project on attracting leading foreign advisors to the pool sales of collateralized loans, particularly, of Debtex Ukraine Ltd. (The Debt Exchange subsidiary) and The First Financial Network Ukraine Ltd. (The First Financial Network subsidiary). The said foreign advisors provide a set of services on loan sales that includes loan due diligence, preparation of marketing materials, attraction of potential buyers, creation of virtual data rooms, and organization of open sales.

Overall in 2017, the NBU brought in more than UAH 2 billion for repayment of loans of insolvent banks. The refinancing loans issued to Platinum Bank PJSC and JSB Porto-Franco PJSC were repaid in full.

Internal Audit

In 2017, the NBU's internal audit assessed the corporate governance processes

and assisted with their improvement, and also audited risk management and internal control processes. Such audits were targeted at the key processes of the NBU.

In 2017, 27 audits were carried out to assess the effectiveness of risk management and internal controls over the core activities of the NBU's operating units. They included audits of implementation of the IMF recommendations based on the assessment results of safeguards and pursuant to the Memorandum of Economic and Financial Policies with the IMF.

The audits were conducted in 2017 in accordance with the Plan for Internal Auditing at the NBU's operating units, which was developed on the basis of risk-based approaches to the selection of auditees and approved by the NBU Council. The planned audits covered all functional areas of the NBU activity and were conducted on the process-based approach.

During 2017, the NBU's internal audit function enhanced its independence and took measures to increase the quality of the internal auditing, particularly:

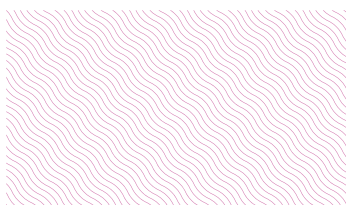
- The NBU Council approved the documents that regulate the activity of the Internal Audit Department
- New approaches to auditing at the NBU were implemented based on the world best practices of implementing the International Standards for the Professional Practice of Internal Auditing
- A program for ongoing professional development of auditors was introduced as part of the internal Audit School.





Consolidated Financial Statements for 2017

Key Financials of the National Bank of Ukraine
Consolidated Financial Statements for the Year
Ended 31 December 2017





Key Financials of the National Bank of Ukraine

The NBU introduced International Financial Reporting Standards (IFRS) in the preparation of financial statements in 1998, and has been fully compliant with the standards since 2012.

The NBU's consolidated financial statements comprise the assets, liabilities, and profits or losses of the central bank and its subsidiaries and associated companies.

The central bank's total assets had increased by about 9%, to UAH 1,027 billion, by late 2017.

In 2017, the NBU continued to execute its functions as a central bank, which similar to other central banks has certain assets, liabilities and equity capital items.

The NBU's assets are mainly comprised of:

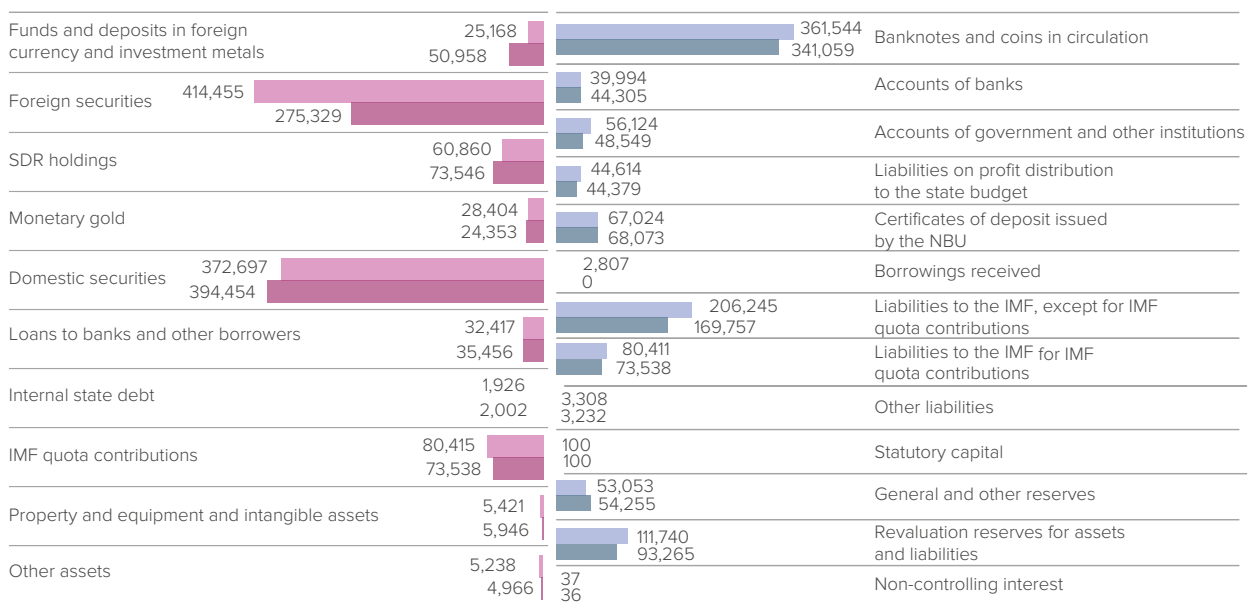
- foreign securities

- domestic securities
- SDR holdings
- funds and deposits in foreign currency and investment metals
- loans to banks and other borrowers.

The NBU's liabilities mainly include:

- banknotes and coins in circulation
- liabilities to the IMF, except for IMF quota contributions
- accounts of banks, government and other institutions
- certificates of deposit issued by the NBU
- Liabilities on profit distribution to the state budget.

NBU assets and liabilities in 2016-2017, UAH million



■ 2017 ■ 2016

■ 2017 ■ 2016





The NBU's assets and liabilities changed in 2017. International reserves rose as a result of the active NBU policy aimed at building-up reserves, in particular:

- international reserves rose from USD 15.5 billion in late 2016 to USD 18.8 billion in late 2017
- foreign securities were up by about 51% to UAH 414.5 billion or USD 14.8 billion in the equivalent.

The change in international reserves is due both to an absolute increase in volumes and to a change in the hryvnia exchange rate against foreign currencies. In particular, the increase is due to growth in the volume of foreign securities portfolio by 94% and only 6% is due to the decrease of the hryvnia exchange rate against foreign currencies. Funds and deposits in foreign currency and investment metals fell two times, primarily due to reduction of volumes.

Changes in international reserves and liabilities



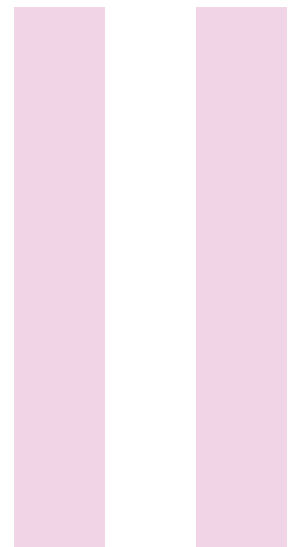
The rise in international reserves resulted in an increase in the NBU's liabilities – in particular, financing received under the IMF Extended Fund Facility drove up NBU's liabilities to the IMF under SDR purchase (loans received from IMF) by 21.7% to UAH 203 billion (USD 7 billion).

The NBU's national currency assets are mainly comprised of domestic securities, which decreased by UAH 21.8 billion or 5.5% in 2017, to UAH 372.7 billion. This, together with the rise in international reserves, reduced the percentage of domestic securities in the central bank's total assets to 36% in 2017, down from 42% in 2016. Of the domestic securities, 99.5% are government securities held to generate cash flows. These are accounted at their amortized cost.

The NBU's loan portfolio shrank by 9%, driven by two main factors. The value of loans excluding provisions (loan debts) dropped by almost UAH 9 billion, to UAH 75 billion. The quality of the loan portfolio improved, in particular, the share of impaired loans decreased to 61% of the book value of the portfolio (2016 – 65%), while the percentage of bookings on impaired loans remained practically unchanged compared to the previous year being 68%.

Apart from liabilities to the IMF, the following liability items changed materially:

- accounts of government and other institutions (16% increase)
- foreign currency loans from other central banks (UAH 2.8 billion received)
- accounts of banks (10% decline).



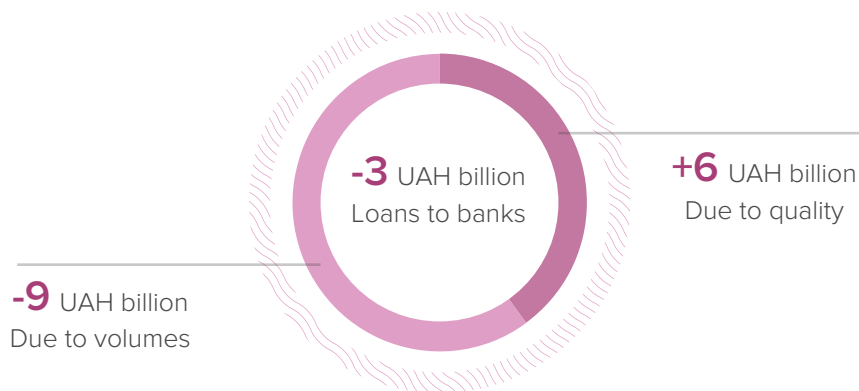


Profits or Losses

Interest income and foreign exchange differences – profit from the revaluation of monetary assets and liabilities due to changes in the official exchange rate – are the NBU's main sources of income.

Interest income, mainly from domestic securities and loans to banks, decreased compared to 2016 to UAH 53.7 billion along with a drop in the volume of the respective assets.

The NBU's loan portfolio



The NBU's profits or losses in 2016 through 2017, in UAH million

Interest income		53,717	60,050
Interest expenses	-11,631	-13,344	
Net growth of reserves under loans to banks and other borrowers		3,151	875
Commission income		429	383
Commission expenses	-41	-65	
Transactions in foreign currency and monetary gold		14,344	23,545
Transactions with debit securities at fair value		2,657	2,323
Transactions with financial instruments at amortised cost		2,035	
Other income		1,252	732
Total net income		65,913	74,432
Expenses	-3,622	-5,979	
Profit for the year		62,291	68,453

■ 2017 ■ 2016





In 2017, interest expense decreased by 12.8% to UAH 11.6 billion, mostly due to:

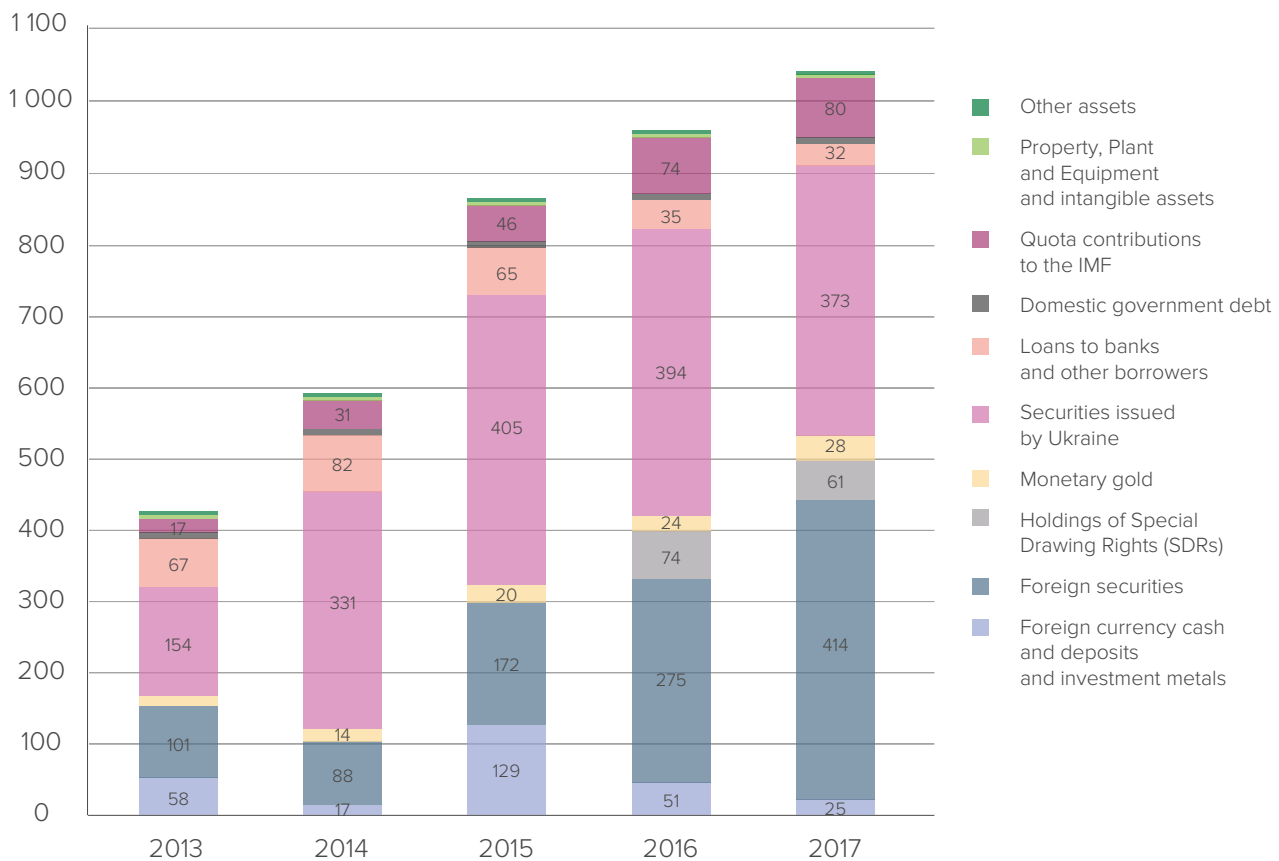
- reduction of expenses on NBU certificates of deposit, which is due to reduction of volumes of certificates of deposit placement during the year;
- increase of debt to the IMF for which interest is paid.

In 2017, the NBU released UAH 3.2 billion of loan impairment provisions. Net interest

income (including the released impairment provisions) totaled UAH 45.2 billion last year, 5% lower yoy.

The NBU's results were significantly affected by FX fluctuations after switching to a floating exchange rate regime. In 2017, the FX income decreased 1.6 times to almost UAH 14.3 billion (on total annual earnings of UAH 62.3 billion), driven by a slower depreciation of the hryvnia against foreign currencies.

The composition and growth of NBU assets over 2013-2017, UAH billion



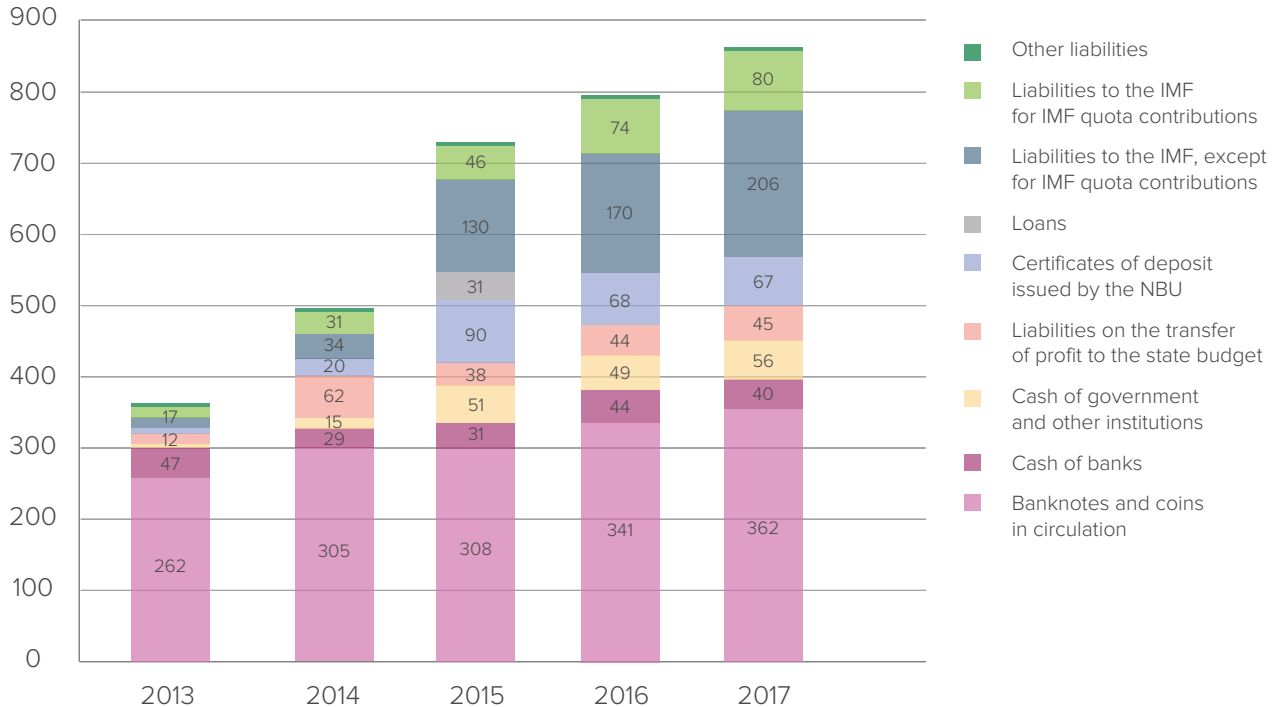
Overall, the structure of assets has changed over the past five years, with growth in Ukrainian-issued securities, mainly

in domestic sovereign bonds, as well as growth in international reserves.





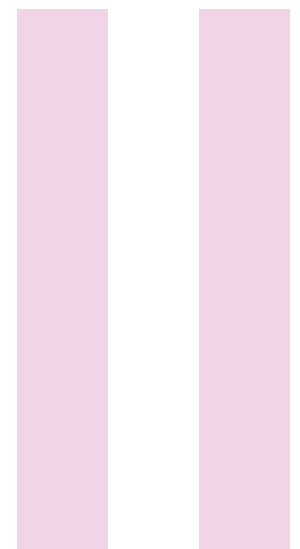
The composition and growth of NBU liabilities over 2013-2017, UAH billion



The NBU's liabilities are becoming more diversified, even as banknotes and coins in circulation still account for the lion's share (as the major liability for any central bank acting as the issuer of national currency). That item's share has decreased significantly in recent years to less than half of the currency

on the balance sheet in 2016-2017.

In recent years, external borrowings have grown significantly, especially liabilities to the IMF. A large part of the NBU's liabilities includes transfers of its profit to the state budget.



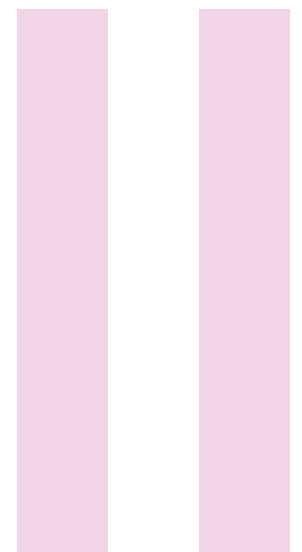


The composition and growth of NBU equity over 2013-2017, UAH billion



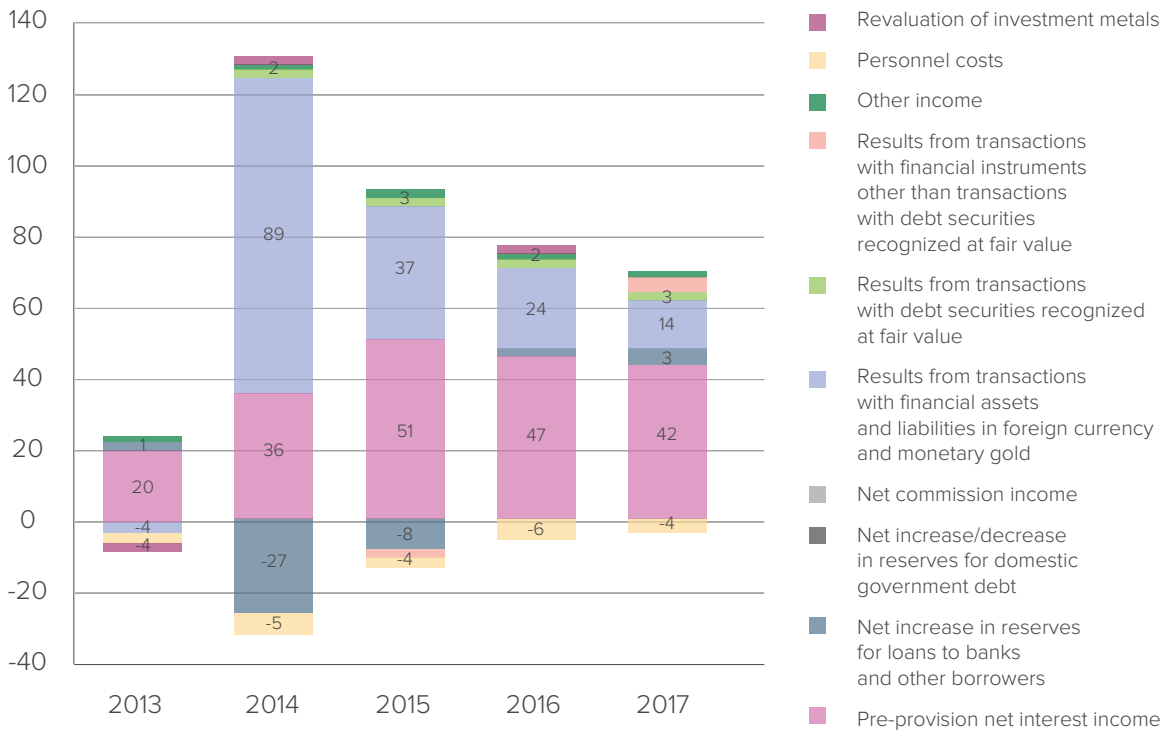
The NBU's equity, which is the residual value of assets after deducting liabilities, is formed both through government contributions in the form of deferred unrealized revaluation

of assets and liabilities of the NBU, including as a result of exchange rate fluctuations, and part of profits retained by the NBU as reserves as required by law.



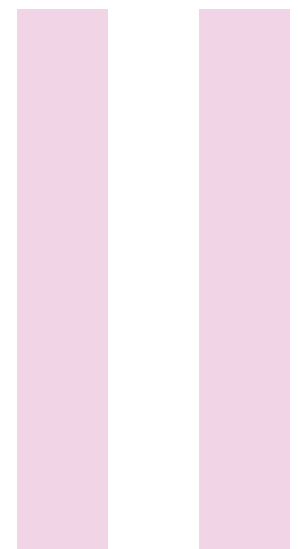


The composition and growth of NBU income and expenses over 2013-2017, UAH billion



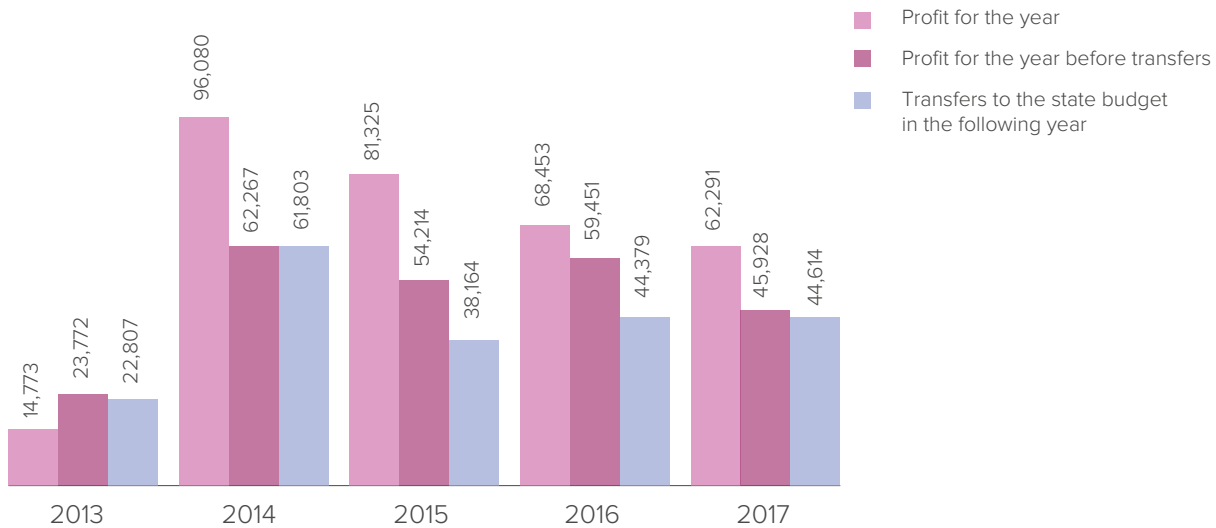
The structure of the NBU’s financial results changed significantly over the past three years, particularly due to the greater impact of FX differences after switching to a floating exchange rate. However, the share

of the financial result formed by the exchange rate fluctuations within total earnings has been declining, with net interest income – typically the largest income item for a bank – taking over.





Transfers by the NBU to the State Budget of Ukraine over 2013-2017, UAH million



Payments to the State Budget

In 2017, the NBU transferred UAH 44.4 billion to the state budget. The NBU also recognized its liability to transfer UAH 44.6 billion in earnings to the budget in 2018. The NBU's

remaining distributable profit of UAH 1.3 billion will be set aside to create general reserves after the central bank's financial statements are approved by the NBU Council.

