

Consolidated Financial Statements and Consolidated Management Report

for the Year Ended
31 December 2021





National Bank
of Ukraine

Consolidated Management Report

for the Year Ended 31 December 2021



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Part 1. Nature of Operations

1.1. General Information about the National Bank of Ukraine

The National Bank of Ukraine (NBU) is Ukraine's central bank. Its operations are governed by Ukraine's Constitution, Ukraine's law *On the National Bank of Ukraine*, as well as other Ukrainian laws.

The central bank's main statutory function is safeguarding the stability of the Ukrainian unit of money. In performing its main function, the NBU must be guided by the priority of achieving and maintaining price stability in the country.

As of 31 December 2021 and 2020, the NBU's structure comprised the Head Office and the Banknote Printing and Minting Works, the central bank's standalone unit. These units operate within the scope of the NBU's tasks and functions, as defined by Ukraine's Law On the National Bank of Ukraine.

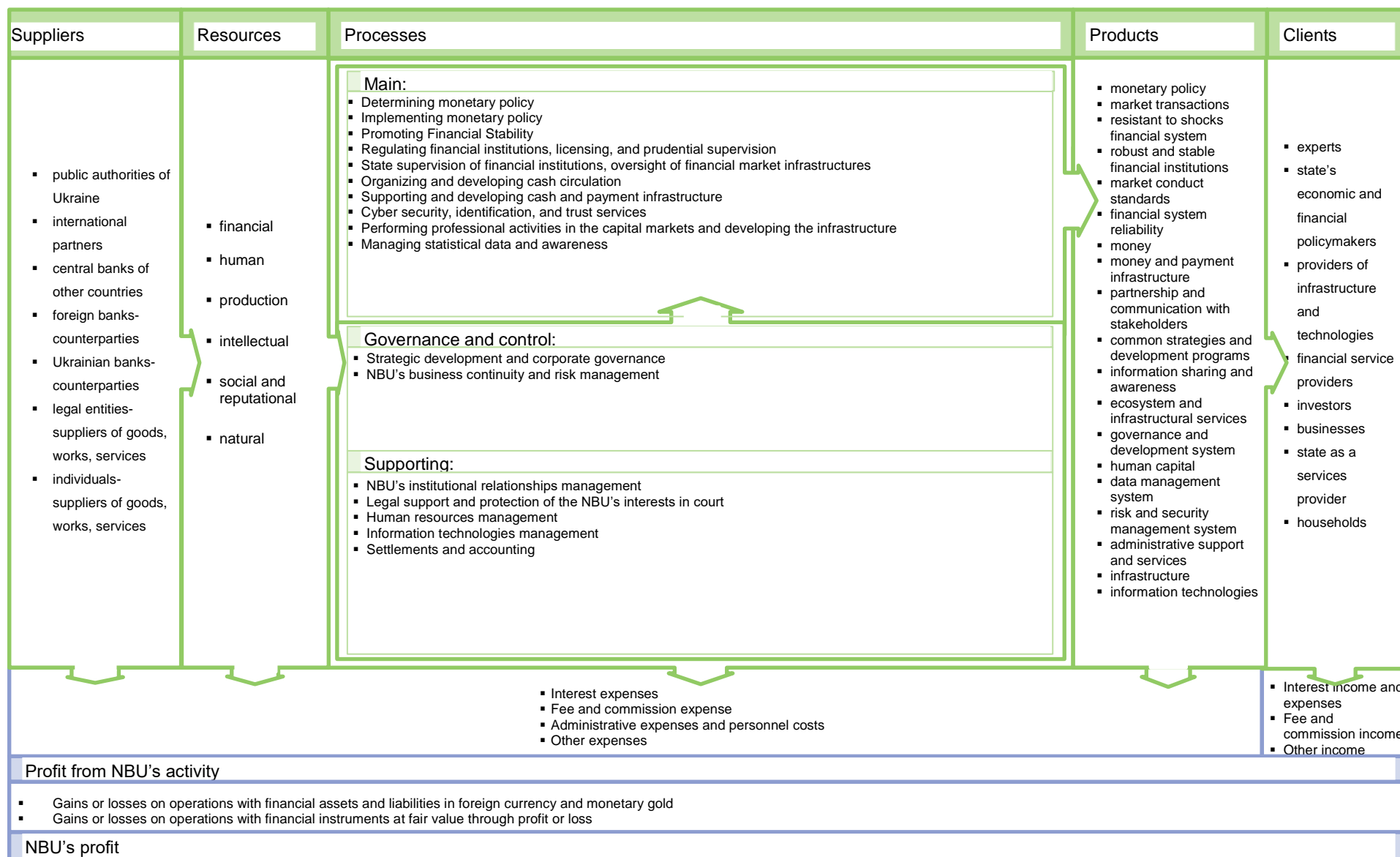
The NBU's subsidiary is the SETTLEMENT CENTER FOR SERVICING FINANCIAL MARKET AGREEMENTS PJSC (the Settlement Center).

Under Ukrainian legislation, the Settlement Center carries out professional activities in capital markets, clearing activities to identify liabilities, and clearing activities of a central counterparty.

As of 31 December 2021 and 2020, the NBU had investments in the National Depository of Ukraine PJSC (the National Depository of Ukraine).

More detailed information about the NBU's functions, operational purpose and the participating interest in its subsidiary and associated companies is provided in Note 1 to the Consolidated financial statements for the year ended 31 December 2021 (hereinafter - Consolidated Financial Statements).

Chart 1. Model of NBU activities



1.2. NBU Management

1.2.1. NBU Council

Under the Ukrainian Constitution, the main tasks of the NBU Council include developing Monetary Policy Guidelines and monitoring the conduct of monetary policy. Pursuant to the Law of Ukraine *On the National Bank of Ukraine*, the main task of the NBU Council is also exercising supervision over the NBU's internal control system, and is authorized to:

- develop and approve the Monetary Policy Guidelines and exercise control over its implementation submit recommendations to the Cabinet of Ministers of Ukraine on the impact of the public debt policy and tax policy on monetary conditions in Ukraine
- approve the administrative expenses budget and the progress report
- approve the auditors for auditing the annual financial statements, review the auditor's report and approve the NBU's annual financial statements; approve the distribution of profits for the reporting year
- make a decision on increasing the authorized capital, including at the expense of profit before distribution
- appoint and dismiss the First Deputy Governor and Deputy Governors of the NBU, approve, on the recommendation of the NBU Governor, the method of determining the salary of the NBU Governor and his deputies
- set the procedure and frequency of internal audit; approve the annual audit plan and the regulation on the internal audit function, supervise its activities, appoint and dismiss the head of the internal audit
- approve the decision of the NBU Board on the participation of the NBU in international financial organizations
- confirm presence or absence of indications of unstable financial standing of the banking system, deterioration of the balance of payments of Ukraine, and circumstances that threaten stability of the banking system and/or of the financial system of the country
- approve the NBU Council Rules of Procedure, the Regulations on the Audit Committee and other working bodies of the NBU Council, establish such bodies, determine their composition and appoint their heads.

In 2021, the Law of Ukraine *On the National Bank of Ukraine* was amended, including in the part related to NBU Council powers. Specifically, the amended and added authorities empower the NBU Council to

- make decision, in line with the set procedure, on informing the President of Ukraine or the Verkhovna Rada of Ukraine of the emergence of any grounds for the dismissal of a member of the NBU Council appointed by the President of Ukraine or the Verkhovna Rada of Ukraine (new power)
- approve the NBU Code of Conduct for NBU Employees submitted by the NBU Board (new power)

- approve the Annual Management Report of the NBU (new power)
- assess the state of implementation by the NBU Board of the NBU Council decisions in the areas where decisions are binding on the NBU Board (replacing the authority to assess NBU Board activities).

Besides, in 2021, the following authorities were removed from the scope of powers of NBU Council:

- to analyze the effects of the monetary policy of Ukraine on the social and economic development of the country and develop proposals on amending the policy
- to approve the methodology for determining remuneration of NBU Council members (the size of remuneration is set directly in the Law of Ukraine *On the National Bank of Ukraine*).

Four NBU Council members are appointed by parliament, with four other members being appointed by the president.

The NBU Governor, who is appointed by the Ukrainian parliament on the recommendation of the Ukrainian president, is a member of the Council by virtue of their position.

Sitting Council members that have been appointed by parliament:

Viktor Koziuk

Olena Scherbakova

Vitaliy Shapran (was appointed a member of the NBU Council for the term until 7 July 2021)

Vasyl Horbal

Sitting Council members that have been appointed by the President of Ukraine:

Bohdan Danylyshyn

Vasyl Furman

Mykola Kalenskyi

Oleksandr Petryk

Kyrylo Shevchenko, Governor of the National Bank of Ukraine, **member of NBU Council** by virtue of his position

1.2.2. NBU Board

The NBU Board is responsible for managing the central bank's activities, conducting monetary policy in line with Monetary Policy Guidelines through relevant instruments, and performing other functions, as set forth in Ukraine's Law *On the National Bank of Ukraine*.

Pursuant to the amendments introduced in the Law of Ukraine *On the National Bank of Ukraine* in 2021, the number of NBU Board members was increased from six to seven members: Actual governance of the NBU activities was performed by six NBU Board members: the NBU Governor, the First Deputy Governor, and four Deputy Governors. The

NBU Governor is appointed by the Ukrainian parliament at the suggestion of the Ukrainian President, and has a tenure of seven years. All NBU Deputy Governors are appointed and dismissed by the NBU Council at the suggestion of the NBU Governor. NBU Board decisions are taken on the principle of collegiality by a simple majority vote, with the Governor having the deciding vote.

NBU Board

Kyrylo Shevchenko, NBU Governor

Kateryna Rozhkova, NBU First Deputy Governor. Areas under her management include finance, management of property and procurement for the NBU, nonperforming assets management, Corporate Pension Fund operation, accounting and operations.

Yaroslav Matuzka, Deputy Governor. Yaroslav Matuzka is responsible for prudential supervision, in particular banking supervision, registration and licensing, and financial monitoring of the banking system and nonbank financial services markets.

Oleksii Shaban, Deputy Governor. His area of responsibility comprises issues of payments and cash circulation, regulation of cashless payments and payment systems, development of innovative information technologies and infrastructure, as well as strategic review, drafting NBU strategy, strategy programs and plans of development of the NBU and the financial sector.

Yuriy Heletiy, Deputy Governor. Yuriy Heletiy oversees open market operations, FX regulation, bank regulation methodology, NBU Depository, NBU foreign exchange and gold reserves management.

Sergiy Nikolaychuk, Deputy Governor, appointed on 13 July 2021. Sergiy Nikolaychuk oversees monetary policy, macroprudential policy to ensure financial stability, economic analysis, the collection and analysis of statistics and reporting, central bank research, nonbank financial services regulation framework, and development of international relations.

1.3. Organizational Structure. Organizational Changes at the NBU in 2021

More detailed information about the NBU's organization chart is available on the NBU official website <https://bank.gov.ua/en/about/structure#orgchart>.

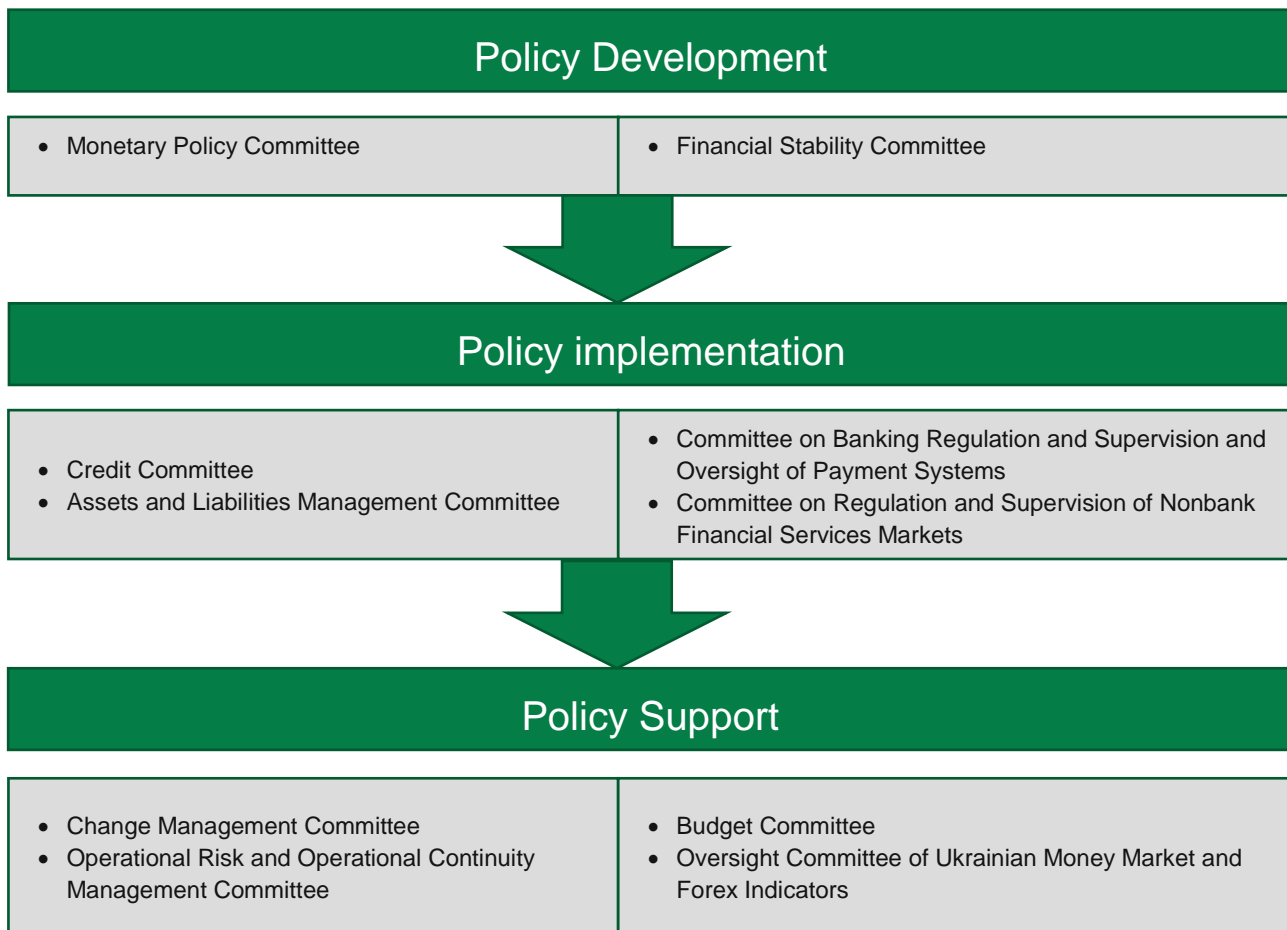
In 2021, the NBU's chart was modified to improve its organizational structure as follows:

- Onsite Bank Inspection Department was reorganized into Inspection Department, which took over all the functions earlier implemented by Onsite Inspection Department. The aim of reorganization was to improve the efficiency of planning, organizing, and implementing effective supervision in a form of inspections of banks and nonbank financial institutions.
- Procurement and Sales Department was reorganized into Procurement Department, which assumed all the functions of the former, except for the selling property and free transfer of own property (excluding real estate) and methodological support of those activities. The reorganization was made to optimize the distribution of functions on procurement, property selling, and free transfer of own property between the NBU structural units:
 - the functions on selling the NBU's own and acquired property and methodological support of those activities were transferred to Problem Assets Management Office
 - the functions on free transfer of own property (except real estate) and methodological support of those activities were transferred to Administrative Support Department.
- Office for Custodial Activity of the National Bank of Ukraine and Corporate Rights Division were reorganized into Office for Corporate Rights and NBU Depository Services, which assumed all functions performed by Office for Custodial Activity of the National Bank of Ukraine and Corporate Rights Division, except for the functions on ensuring the NBU representation in the Administrative Board of the Deposit Guarantee Fund. Those functions were transferred to the NBU Board Office. These structural changes were aimed at improvement of distribution of functions related to management and control over the NBU financial investment and its participation in the corporate governance of companies.

1.4. Structure and Composition of Management Bodies

As of 31 December 2021, the NBU Board has ten special committees. The structure of the committees covers all key activities of the NBU that require collective decisions. The committees fall into three main groups shown in Chart 2.

Chart 2. Structure and composition of corporate governance bodies



Mandate of NBU Board Committees

Monetary Policy Committee. An advisory body established to facilitate the exchange of information and opinions regarding the development and implementation of monetary policy. The main tasks of the Committee are:

- formulating the principles of, and conducting, monetary policy with the purpose of meeting the objectives and performing the tasks set forth in Ukrainian laws, Monetary Policy Strategy, and Monetary Policy Guidelines
- developing draft proposals on monetary policy objectives and benchmarks
- using monetary policy instruments.

Financial Stability Committee. A consultative and advisory collegial body that develops proposals and recommendations for the formulation of principles and implementation of macroprudential policy to ensure financial stability. The main tasks of the Committee are:

- identifying potential systemic risks threatening the financial stability, and preparing proposals on minimizing their adverse impact

- developing recommendations on use of macroprudential policy, their alignment with measures of monetary and macroprudential policy, and monitoring of their implementation
- ensuring interaction between the NBU units in developing recommendations on financial stability.

Credit Committee. A consultative and advisory collegial body established to consider/review the issues and provide recommendations to the NBU Board concerning:

- lending to banks for the liquidity support except for the operations with the use of standard tools for the banking system liquidity regulation, and to the Deposit Guarantee Fund
- provisioning (release) and use of reserves to cover financial risks related to the NBU assets impairment (including loans, securities), except for receivables
- debt workout of the banks classified as insolvent under loans issued by the NBU
- methodology and management of credit risk assessment (collateral appraisal) under NBU's transactions.

Assets and Liabilities Management Committee. A collegial body mandated by the NBU Board to make decisions concerning the management of assets and liabilities,

including Ukraine's gold and foreign exchange (international) reserves, to monitor risks, and to deliver financial results on operations with the NBU's assets and liabilities. The main tasks of the Committee are:

- formulation and implementation of the policy of efficient assets and liabilities management, including international reserves
- definition and implementation of the NBU investment strategy under transactions on international reserves allocation
- definition of actions on open markets
- definition and implementation of policy of management of the international reserves financial risks and the NBU market risks
- monitoring of market risks and financial performance under transactions with the NBU assets and liabilities.

Committee on Banking Regulation and Supervision and Oversight of Payment Systems. A collegial body mandated by the NBU Board special authorities on banking regulation and supervision, currency supervision, state regulation and supervision of financial monitoring, and oversight of payment systems. The main tasks of the Committee are:

- ensuring stability and reliability of the Ukrainian banking system and protection of interests of banks' depositors and other creditors
- solving priority issues of supervision over banks, their standalone units and branches of foreign banks, and activities of the Ukrainian banking sector
- defining development trends in banking system development and submission of respective proposals to the NBU Board (if needed)
- ensuring coordination of the NBU structural units work in banking supervision, including improvement of information flows, further development of procedures for prompt and efficient decision-making and response to the banks' activities
- imposing corrective measures/sanctions for violations of the banking, currency laws of Ukraine, Ukrainian laws on financial monitoring, NBU regulations, including the regulations setting the restrictions for transactions that violate/intend to violate the laws, assist or may assist to bypass/avoid the restrictions established by personal special economic and other restrictive measures (sanctions) (hereinafter referred to as the sanctions laws), NBU requirements set pursuant to Articles 66, 67 of the Law of Ukraine *On Banks and Banking*, Ukrainian laws on protection of consumer rights in financial services, including concerning the interaction with consumers when settling the outstanding debts (requirements on ethical conduct), or in the case of the banks' risky operations threatening to the interests of depositors or other bank's creditors, as well as in the case of applying by the foreign states or interstate associations, international organizations of sanctions to banks or qualifying holders in the banks that threaten the interests of depositors or other bank's creditors, and/or banking system stability

- application of corrective measures for violation of the laws of Ukraine on payment systems and funds transfer, NBU regulations
- implementing the measures for prevention of crimes and offences in the banking system
- assisting in improvement of the legal framework on banking regulation and supervision, currency supervision, state regulation and supervision of financial monitoring, supervision over compliance with the sanctions laws, oversight of payment systems by initiating new and amending the applicable laws of Ukraine, NBU regulations
- approval, rejection of appointment of the bank's CEO (except for the Chairman of the Board), chief risk officer, chief compliance officer, head of the internal audit unit (candidates for positions), employee in charge for financial monitoring; decision-making on fitness or unfitness of the bank's CEO (except for the Chairman of the Board), chief risk officer, chief compliance officer, head of the internal audit unit (candidates for positions), employee in charge for financial monitoring to the qualification requirements established in the laws of Ukraine, NBU regulations
- ensuring the NBU's functions on registration and licensing of banks, accreditation of branches, representative offices of foreign bank in the territory of Ukraine, and registration of payment systems.

Change Management Committee. A collegial consultative and advisory body of the NBU Board established to manage project activities at the NBU, with the purposes of implementing changes to build a modern, institutionally capable central bank and financial sector, including the Ukrainian banking system. The main tasks of the Committee are:

- management of the strategic initiatives implementation within the NBU Strategy, Financial Sector Strategy and functional strategies that meet the criteria and attributes of the project activities, or those implemented within the changes to the NBU processes without launching the project
- approval for introduction of new information systems and technologies, software complexes implemented within the project activities
- consideration of introduction of the innovative financial products/services in the NBU.

Budget Committee. A collegial consultative and advisory body set up to ensure the professional discussion of the issues related to the NBU's supporting activities, with the ultimate goal of improving the quality of managerial decisions. The main tasks of the Committee are:

- promoting formation and implementation of the NBU policy aimed at enhancing the efficiency of its financial resources management
- ensuring the cost management, including the budgeting process and its integration with the strategy planning

process for development of an integral system on the NBU's activities management

- promoting implementation of the NBU cost management process to enhance the economic feasibility assessment when making managerial decisions in the NBU's financial and economic activities.

Committee on Operational Risk Management and Business Continuity A collegial consultative and advisory body established to coordinate the operational risk management, organize the NBU's business continuity management system, and to establish the system of internal control and development of the culture of operational risk management at the NBU. The main tasks of the Committee are consideration and provision to the NBU Board of recommendations/proposals on operational risk management, business continuity management, organization of the NBU internal control system.

Committee on Regulation and Supervision of Nonbank Financial Services Markets. A collegial body to which the NBU Board delegated special authorities on supervision over nonbank financial services market participants and regulation of activities in the markets of nonbank financial services, in the sphere of protection of consumer rights in financial services, currency supervision, state regulation and supervision in financial monitoring. The main tasks of the Committee are:

- ensuring stability and reliability of nonbank financial markets of Ukraine
- protection of consumer rights in nonbank financial services
- solving issues of supervision and regulation of the Ukrainian markets of nonbank financial services, including in the area of consumer loans regarding the collection agencies
- defining development trends of nonbank financial services markets and submission of respective proposals to the NBU Board (if needed)
- ensuring coordination of the units work in supervision over the nonbank financial markets, improving information exchange, further development of the procedures for prompt and efficient decision-making and response to the operations in nonbank financial markets, including consumer lending as regards the collection agencies' activities
- applying corrective measures/penalties for violation of laws on nonbank financial services, protection of consumer rights in nonbank financial services, currency legislation, laws on financial monitoring, on applying and monitoring of efficiency of the applied special personal economic and other restrictive measures (sanctions), including the NBU regulations, by the following supervised entities:
 - legal entities/individuals providing one and more financial services, other services (transactions) related to provision of financial services, except for banks and subjects of payment systems oversight

- collection agencies, nonbank financial institutions that grant loans and are new creditors
- nonbank financial groups and institutions listed in the NBU regulations on organization and conducting supervision in the area of financial monitoring, currency supervision, supervision on the issues related to implementation and monitoring of personal special economic and other restrictive measures (sanctions)
- promoting improvement of the legal framework for regulation and supervision of nonbank financial markets, currency supervision, state regulation and supervision in the area of financial monitoring, protection of consumer rights in nonbank financial services, provision of recommendations on amending the NBU regulations
- ensuring exercising of the NBU functions in the area of registration and licensing of participants of nonbank financial services markets
- ensuring exercising of the NBU functions in the area of protection of consumer rights in nonbank financial services.

Oversight Committee of Ukrainian Money Market and Forex Indicators. A collegial advisory body established to share information and opinions on definition, calculation, and publication of the Ukrainian Money Market and Forex indicators the oversight of which is performed by the NBU. The Committee's task is to resolve and discuss issues related to the definition, calculation, and publication of indicators.

Committees that discontinued activities in 2021

- Committee on Cash Circulation and Payments
- Tender committee (reorganized into the NBU Procurement Commission)
- Committee for Strategic Planning of the NBU Banknote Printing and Minting Works Activities
- The NBU Investment Committee on Assets Management of the Corporate Nonstate Pension Fund was reorganized into the NBU Council on Assets Management of the Corporate Nonstate Pension Fund.

Mandates of the NBU Council Committees

The **Audit Committee** is an advisory body of the NBU Council established in accordance with statutory requirements. Its main tasks are: preparing and submitting for consideration of the NBU Council of materials within the authorities of the NBU Council regarding assessment of reliability and efficiency of the internal control system in the NBU, completeness and accuracy of its annual financial statements, review of the administrative costs estimates, supervision over activities of the internal audit unit, decision-making on capital management and other financial issues within the Council authorities.

Monetary Policy and Financial Stability Committee of the NBU Council is the NBU Council body acting to ensure the implementation of the Council's authorities according to the Constitution of Ukraine. Law of Ukraine On the National Bank of Ukraine and other laws. In particular, its main tasks are:

developing and submitting for consideration of the Council of draft decisions and other materials on drafting Monetary Guidelines, exercising control over monetary policy implementation, assessing the compliance by the NBU Board

with the Monetary Policy Guidelines, performing analysis of the problems in price and financial stability, and other issues of monetary policy within the Council's competence.

1.5. Process and Project Management

Assessing NBU's Process Management Maturity

The NBU conducts a process management maturity assessment as a maturity level is one of the key indicators of its performance and an important element of the strategic planning roadmap.

Understanding a level of process management maturity lets an organization identify a level for next changes, a level at which the process owners perform their functions, and a level for process performance controlling.

In 2020, it was decided that a new, more relevant model for a process management maturity assessment – the Business Process Maturity Model (BPMM) – should be introduced.

According to the updated Maturity Assessment Methodology, the evaluation takes place once in two years. Therefore, the assessment was not conducted in 2021.

A maturity assessment based on the BPMM framework is scheduled for 2022. The target interim value as for the end of 2022 is 3.0 (three) points: the expected reduction in the assessed value comparing to the previous reporting period was due to the introduction of the new, relevant maturity assessment model.

Developing Project Management

The NBU continues to deepen and improve the project management methodology and tools for the more efficient implementation of projects on financial sector development, including the introduction of the best global practices of central banking.

In 2021, the project management activities, besides the implementation of projects itself, were focused on improving the earlier introduced project management tools and increasing their usage.

Thus, monthly Steering Committee meetings ensure timely monitoring and a prompt response to project risks through necessary decision-making to prevent or manage them. It positively influences the general condition of a project portfolio: during the year, the number of the projects implemented in line with the schedule tripled and the share of the projects with small deviations from the plan or with risks materialized with a significant impact considerably decreased.

The new automated project management system (APMS) covers all the portfolio projects. Project participants took part in theoretical and practical training and the project office conducts ongoing consultations. The APMS insures thorough planning of projects and control of performance. Also, the system conducts resource planning for employees, so that unit managers can effectively plan participation of the unit in projects and current operations.

The NBU promotes accessible training: expanding the remote training course for project participants by adding modules on operation of the APMS, automated budget management and procurement. Thus, project managers, project teams, and other interested persons may at any time utilize the knowledge and hints on effective project management in said areas.

1.6. Impact of Economic Conditions on the NBU's Financial Position and Performance

Economic Developments

In 2021, real GDP grew by 3.4% (after falling by 3.8% in 2020 due to the COVID-19 crisis) (<http://ukrstat.gov.ua>).

Economic growth was driven by sustained consumer demand, increased investment by businesses after the crisis, and a record harvest of crops. The latter was driving high growth rates in agriculture and related sectors (such as food production, freight transportation, and wholesale trade) in late 2021. Private consumption, underpinned by rising household incomes, continued to surge. This was facilitated by significant wage growth due to higher minimum wages, price revisions in the public sector, surcharges for physicians, and increased demand for Ukrainian workers both domestically and abroad. Record remittances, pension increases, and

significant social benefits during the quarantine were also fueling consumption. The increase in investments reflected the modernization of facilities, infrastructure projects, and the revival of demand for housing. The solid financial performance of businesses and improved business expectations, as well as higher public capital expenditures, also supported investments.

However, the economy recovered more slowly than expected. This was in part due to a spike in energy prices and shortages, the high cost of inputs, the impact of weak 2020 harvests, a slower recovery in the services sector, the limited capacity of some manufacturing sectors, more significant losses from the pandemic amid longer quarantine restrictions and a slower vaccine rollout, and because of a faster fiscal consolidation. Specifically, industry recovered slowly during

the year, despite benign external conditions. This was largely due to the difficult situation in the energy sector, with prices for natural gas surging amid low reserves of power-generating coal.

The significant degree of depreciation of fixed assets due to underinvestment in previous years, higher costs of production inputs, including raw materials and energy, and the global push to tighten measures to combat emissions made it necessary to conduct repairs at many industrial plants. This reduced effective capacities and the potential for scaling up production. This was amplified by the weakening of external demand for metals-and-mining products in H2. The consequences of underinvestment and the wearing out of tangible assets were seen in other activities, including transport. The service sectors also recovered more moderately, both due to increased production costs and further quarantine restrictions.

In addition to the immediate impact, quarantine restrictions also had longer-term effects on the labor market. Labor force participation was slow to recover, and businesses had difficulty recruiting workers. Coupled with the increase in external demand for labor and the deepening of supply and demand mismatches, this led to unemployment remaining high as labor costs rose.

Rapid fiscal consolidation hampered the increase in gross value added in a number of budget sectors, primarily public administration, defense, and education. In 2021, the consolidated budget ran a deficit (of almost UAH 187 billion, or 3.4% of GDP), which was lower than in 2020, both in nominal and relative terms. The consolidated budget deficit arose from the dynamics of state budget expenditures and revenues. Consolidated budget revenues in 2021 surged (by 20.7% yoy), driven by economic factors: sustained domestic demand, significant imports, high commodity prices, and higher wages and corporate profits. At the same time, consolidated budget expenditures grew at a slower pace (15.6% yoy) than revenues, with health and infrastructure projects and social spending remaining the top priorities.

The state budget deficit was primarily financed by borrowing in both the domestic and foreign markets. Together with additional factors, in particular the issuing of domestic government debt securities to capitalize Ukrainian Financial Housing Company PrJSC, and the issuing of Eurobonds to repay debts to renewable electricity producers and provide state guarantees, this resulted in the public and publicly guaranteed debt increasing in absolute terms relative to the beginning of the year. At the same time, because of the growth in nominal GDP, debt as a share of GDP in 2021 fell sharply, to below 50%, providing greater stability and flexibility of public finances, as well as increasing the investment appeal of Ukraine. Meanwhile, significant external financing received at the end of the year, in particular from international partners, along with domestic government debt securities issued in significant volumes, helped maintain significant balances in government accounts in domestic and foreign currency. The availability of these funds will make it

possible to finance both current budget expenditures and debt repayments in early 2022.

As expected, the current account in 2021 returned to a deficit (USD 3.2 billion or 1.6% of GDP), which nonetheless remained below pre-crisis levels due to favorable trade conditions. In contrast to previous post-crisis periods, the deficit resulted from record dividend payments and reinvestment of income as the financial performance of businesses improved. On the other hand, the deficit in trade in goods did not change compared to the previous year. Exports of goods grew by 39.8% due to a significant increase in commodity prices (food, metals-and-mining products) and a record grain harvest in 2021. Imports of goods also grew at a high rate (34.3%) against the backdrop of last year's low comparison base, the recovery of domestic consumer and investment demand, and a significant rise in energy prices in the second half of the year. Despite a further increase in exports of IT services, the surplus in the trade in services narrowed as foreign travel gradually recovered. At the same time, the expansion of the current account deficit was expectedly constrained by an increase in remittances as borders reopened and the economies hosting labor migrants recovered.

The financial account recorded capital inflows (USD 3.7 billion). Significant FDI inflows, driven in part by high reinvested earnings, and the issuing of Eurobonds in both the public and real sectors, exceeded the capital outflows generated by the growth in cash outside banks. The resulting consolidated balance of payments surplus, along with proceeds from a Special Drawing Right (SDR) allocation, made it possible to increase international reserves to USD 30.9 billion.

In 2021, as expected, inflation was above its 5% ± 1 pp target range, primarily driven by external factors. The rapid recovery of economic activity across the globe was accompanied by disruptions to production and supply chains, and an abrupt shift of demand toward some groups of goods (e.g., natural gas as a more environmentally-friendly fuel compared to oil) led to shortages on some markets. This led to a sharp rise in prices for energy and raw materials. High global food prices were driven by poor harvests in some countries in both 2020 and 2021, as well as increased demand, including from livestock farming and biofuels. These factors accelerated consumer inflation around the globe, in particular in Ukraine's MTPs, which led to more expensive imports. Domestic factors also played a role. Specifically, wages grew more rapidly in Ukraine, fueling consumer demand and increasing production costs.

Having peaked in September 2021 (11% yoy), consumer inflation declined as expected, to 10% yoy in December. This was due to the easing of external pressure on the prices of certain food products (including sunflower oil) with the simultaneous impact of record harvests in Ukraine, the effects of the transfer from the strengthening of the hryvnia for most of the year, administrative decisions to introduce annual contracts with a fixed price for gas for households,

keeping unchanged, during the heating season, other prices for housing and utilities, regulation of the maximum trade markup on gasoline, exhaustion of the low base effect for prices for a number of goods and services, and a strengthening of the monetary policy.

With inflationary pressures growing and inflation expectations deteriorating, the NBU started tightening its monetary policy in March 2021, becoming one of the world's first central banks to switch to a cycle key policy rate hikes. In 2021, the NBU raised its key policy rate by a total of 3 pp, to 9% in December from 6% in January. To amplify the effect from the key policy rate hike, the NBU gradually rolled back its anti-crisis measures – long-term refinancing transactions and interest rate swaps. The operational design of monetary policy was also normalized. Despite its gradual tightening, monetary policy did not become an obstacle to economic growth. Specifically, the real key policy rate stayed below its neutral level over the course of the year, allowing the central bank to support the still weak economic recovery.

The banking system maintained a large liquidity surplus (defined as the amount in the banks' correspondent accounts and NBU certificates of deposit). The daily average liquidity surplus increased markedly in 2021, primarily due to the growth in the daily average value of certificates of deposit (the principal amount reached UAH 145.6 billion). The daily average balances of the banks' correspondent accounts remained almost unchanged at UAH 55.5 billion.

Changes in Ukraine's operating and political environment in 2021

In 2021, the global and Ukrainian economies recovered from the impact of COVID-19 as quarantine restrictions were eased and the vaccine rollout intensified. However, the recovery was uneven across countries due to the persistence of high morbidity and the spread of new variants of the virus, different rates of vaccination, and differences in the scale of government incentives. The global economy's recovery was

also hampered by a supply chain disruption associated in particular with the rapid recovery of demand amid slow production increases. Furthermore, energy costs increased significantly at the end of the year, also weighing on the pace of recovery.

In Ukraine, the vaccine rollout was relatively slow, with the government imposing additional quarantine restrictions as new waves of disease emerged, a strategy that stifled business activity. The energy crisis also had a significant impact.

In 2021, Ukraine remained affected by Russia's annexation of Crimea, the unresolved armed conflict in some areas of Luhansk and Donetsk oblasts, as well as by complicated political and economic relations with Russia. In late 2021, mounting geopolitical tensions over the buildup of Russia's military presence on the border with Ukraine affected the expectations of the various groups of business entities and fueled depreciation pressure on the hryvnia and as Ukrainian assets declined in value.

During 2021, global inflationary pressures increased materially, including in Ukraine's MTPs, due to the surge in energy and food prices and because of accommodative central bank policies aimed at easing the fallout from COVID-19. Going forward, global price movements will strongly depend on how quickly leading central banks respond to inflation challenges. Any delays will drive up external price pressures. Conversely, a quick tightening of monetary policies by leading central banks would pose the risk of emerging markets experiencing substantial capital outflows.

The further impact of these factors may have a mixed effect on the NBU's performance and financial standing. However, the degree of this effect cannot be gauged accurately at this point. The NBU's leadership is closely monitoring the current developments and is taking necessary action in order to mitigate the influence of adverse factors.

1.7. Impact of Global COVID-19 Pandemic on the NBU's Operation

In order to ensure the operational continuity, the NBU took the following preventive measures to prevent COVID-19 infection from being brought in and spread in the NBU's premises:

- created an emergency operations center based on NBU units in order to prevent COVID-19 infection from being brought in and spread in the NBU's premises
- regulated the use and provision of employees with personal protective equipment
- arranged procurement of personal protective equipment (protective masks, disinfectants and other necessary materials)
- organized thermometry of employees and visitors at the entrance to buildings
- optimized the program of public events (including business trips of NBU employees) in order to minimize the participation of NBU employees in these events as organizers or attendees (both in Ukraine and abroad)
- arranged premises for medical personnel at the sites of the NBU (in Kyiv)
- organized workplace vaccination for NBU employees and their families. In total, 3,711 employees received two vaccine doses.

In 2020-2021, the following personal protective equipment was procured/used:

Item	Unit of measurement	2021	2020
Protective masks	pcs	804,043	396,275
Safety glasses	pair	-	794
Protective gloves	pair	30,500	47,200
Pyrometers	pcs	-	27
UV germicidal lamps	pcs	-	53
Door frames for disinfecting employees' clothes	pcs	-	14
Disinfectants	liters	4,689	2,579

NBU Measures Related to Fallout from Global COVID-19 Pandemic

In order to implement the national quarantine measures, labor laws, and other NBU's regulations and orders intended to prevent the spread of the COVID-19 infection in the workplace, the NBU introduced, as part of the COVID-19 preventive measures, the remote work mode.

2,597 employees switched to the remote work in 2021.

For those NBU employees, who are unable to work remotely due to the nature their job duties and whose work in the NBU's premises is suspended for the period of the imposed quarantine, the NBU introduced employment agreement suspension till the end of the quarantine imposed by the Cabinet of Ministers of Ukraine, paying to employees two-thirds of the monthly salary (tariff rate) in line with Article 113 part one of the Labor Code of Ukraine.

In order to provide NBU employees with the opportunity to work remotely during the quarantine imposed to fight the COVID-19 pandemic, the NBU purchased portable computers (laptops), computer equipment and software, which allowed NBU employees to work remotely during the quarantine and safely access the NBU's resources via the internet.

The NBU developed a training course for remote employees with the NBU's information resources.

In 2021, the NBU team extended a charity project, which was launched in April 2020, to help Ukrainian medical institutions fight COVID-19. The funds donated by employees are used to purchase the required equipment for medical institutions in Ukraine.

Handling Cash

In order to maintain domestic currency cash in proper condition and prevent the coronavirus from spreading, and implement recommendations of the Ministry of Health of Ukraine, the NBU reduced from 14 to 5 days the time of storing cash accepted by the NBU from banks/customers and kept in quarantine due to the COVID-19 pandemic before being handled.

After the end of the observation period for cash accepted from banks, hryvnia banknotes are treated in specialized high-speed machines in compliance with safety requirements and protection measures for cash desk employees.

The NBU provides additional treatment of cash center premises, vaults, and customer areas, and controls fulfillment of preventive measures.

1.8. Impact of russia's Invasion on the NBU's Operation

Due to the large-scale military aggression and imposition of martial law in Ukraine, the NBU's was forced to change its principles of the monetary policy implementation. Ensuring the reliable and stable operation of the banking and financial system, as well as maximizing Ukraine's defense needs, uninterrupted functioning of public finances and critical infrastructures are of paramount importance.

From the first hours of the war, the NBU promptly activated the anticrisis plan drafted in advance.

Thus, to prevent destabilization in the FX market, the NBU fixed the official hryvnia to U.S. dollar exchange rate as of 24 February 2022 and introduced a number of temporary administrative restrictions on FX transactions and cross-border capital flows.

Also, the NBU has adapted the operational design of its monetary policy and taken the anti-crisis measures to mitigate risks to financial stability. Specifically, the following decisions have been taken:

- introduction of tenders for provision of long-term refinancing to banks (including, partially, through unsecured mechanisms)
- suspension of tenders on placement of 14-day certificates of deposit
- cancellation of the decision to raise the required provisioning ratios that was made in early February.

This allowed to offset the initial adverse effects of hostilities on banks' performance indicators, protect interests of bank customers, primarily depositors, and maintain uninterrupted settlements in the country. Banking system has remained liquid.

On 15 April 2022, the NBU Council adopted its Monetary Policy Guidelines for the Duration of Martial Law. The document sets the key monetary policy priorities and principles, which will apply during martial law and until the Ukrainian economy and financial system return to their normal mode of operation.

In line with the amended legislation, the NBU for the period of martial law was given the opportunity to purchase government debt securities to ensure proper rebuff to Russia's large-scale military aggression. In line with the Monetary Policy Guidelines for the Duration of Martial Law, the NBU only provides limited amounts of funds so that the government can meet its critical expenditures. This will minimize the risks of high inflation and disruption of macrofinancial stability and facilitate a quick return to the market-driven operation of economy and financial markets after the war. In March-June 2022, the NBU purchased government bonds in the primary market for UAH 225 billion.

In order to reduce the need for monetization of the budget deficit, the NBU took the following effort to encourage market demand for domestic government debt securities:

- introduced new accounting models for nonresidents' securities and widened the application of the link with the international depository
- eased approaches to assessing the value of domestic government debt securities, which serve as a collateral for refinancing loans
- authorized foreign investors to transfer abroad the funds received from redemptions or interest payments on domestic government debt securities made after 1 April 2023. The implementation of this requirement will stimulate nonresidents' interest in purchasing domestic government debt securities, in particular using funds from scheduled redemptions and interest payments.

In February-May 2022, the NBU kept the key policy rate unchanged at 10%. Due to strong psychological pressure caused by the war, changing the key policy rate was unlikely

to stabilize expectations and encourage keeping hryvnia assets, in particular to support the fixed exchange rate.

The gradual adaptation of Ukraine's economy and the psychological shock giving way to the economic decision-making logics of businesses and households required returning to market-driven financial system management. On 2 June 2022, the NBU considerably raised the key policy rate to 25% to protect households' income and savings in the hryvnia, boost the attractiveness of hryvnia assets, and to ease pressures on the foreign exchange market. Such decision will enable the NBU to maintain the stability of the exchange rate and restrain inflation processes in wartime.

The NBU has also expanded the interest corridor for monetary transactions with banks (key policy rate ± 2 pp) to provide additional room for reviving the interbank market.

The NBU continues to revise the abovementioned restrictions in the FX market to raise their effectiveness and adapt them to the current changing conditions. In particular, the NBU has taken a number of measures to restrict unproductive capital outflows, narrow the range of exchange rate fluctuations in the market's cash segment, and maintain gold and FX reserves at sufficient levels.

The NBU remains committed to pursuing its inflation-targeting regime with a floating exchange rate and a ban for the NBU to finance the state budget. As the Ukrainian economy and financial system go back to normal, the NBU will resume, as soon as possible, the principles and instruments of the monetary policy set by the NBU's Monetary Policy Strategy and Monetary Policy Guidelines for 2022 and the medium term.

In view of the risks related to the escalation of the military threat near the state border, the NBU took preventive measures to ensure the safety of hryvnia cash and to minimize risks, including by decentralizing the storage of the NBU's reserves.

Pursuant to the Presidential Decree *On the Introduction of Martial Law in Ukraine*, the NBU Board passed a resolution *On Operation of Banking System Under Martial Law*, which defines the specifics of conducting banking transactions, including with cash. Specifically, the resolution stipulates:

- a UAH 100,000 per day limit on hryvnia cash withdrawals in Ukraine from client accounts
- a requirement that ATMs be refilled with cash without restrictions
- the right for banks to exceed the maximum volumes of cash and/or other valuables that are stored in a vault and safe deposit boxes that are used as a vault, which volumes are specified in the annex to the Rules for Securing Bank Premises in Ukraine
- unlimited cash lodgement by the NBU.

Along with the above, the NBU Board developed and adopted a resolution that establishes the requirement to give free cash

to involved banks so that they can issue it to military units, the Armed Forces of Ukraine, and other military formations and special-purpose state authorities, provided that these funds are debited from the correspondent accounts of such banks and that they provide information on the purpose of such cash withdrawals.

Taking into account the situation that developed in some regions of Ukraine and affected the state of cash circulation in the country, the NBU took a number of logistical measures, specifically steps to:

- improve the work with authorized banks regarding the redistribution of the limits of cash in vaults (by reducing them in the regions of active military operations)
- promote the effective storage of cash and optimal use of vaults of the NBU and authorized banks in regions located outside the zone of active military operations, as well as to open additional vaults if necessary
- ensure a prompt response to the need to reduce cash in vaults in regions of active hostilities to mitigate the risk of cash loss.

Given the large flow of displaced citizens of Ukraine to the EU member states and other countries and the availability of hryvnia cash in these individuals' possession, the NBU signed Agreements with the central banks of Poland, Germany, Belgium, and other countries to enable said persons to exchange their cash hryvnias (at a specified fixed rate).

With the introduction of martial law throughout Ukraine, reporting documents, starting 24 February 2022, are filed in accordance with the Rules for Submitting Statistical Reporting to the NBU during the Special Period, under which respondents provide a shortened list of reports before extended deadlines.

Providers of nonbank financial services also continue to report to the NBU and, where possible, should submit and publish reports within the time limits established by the Rules for the Compilation and Filing of Reports with the National Bank of Ukraine by Nonbank Financial Services Market Participants and other requirements of the laws. At the same time, in line with the Law of Ukraine *On Protecting the Interests of Entities Submitting Reports and Other Documents Under Martial Law or in Wartime*, all nonbank financial services providers that, for objective reasons, could not duly submit reports, should do so within three months after the martial law is suspended or lifted.

The NBU promptly provides information about changes in reporting requirements on NBU's webpage. At the same time, the NBU ensures the uninterrupted operation of the web portal designated for the filing of electronic reports.

The Russian military aggression has exacerbated the following risks in occupational health and safety, environment, and natural resources:

- the risk of accidents involving employees and the deterioration of working conditions
- the risk of damage to water supply and drainage networks, contamination of land plots, reservoirs, and groundwater
- the risk of accidents, fires, and other emergency situations that threaten the life and health of employees and the environment.

Russia's military actions violate all applicable norms of international law regarding nature protection, sustainable development, humanitarian law, and the fundamental moral norms and principles of human coexistence.

To provide additional motivation and financial support to the NBU employees, the NBU adopted a number of decisions, in particular:

- During martial law, wages are paid to employees every week.
- Additional incentive payments are made to those employees who ensure the uninterrupted work and performance of critical tasks.
- To support employees who have been laid off (those who cannot work remotely due to the specifics of their jobs), material assistance is provided for the duration of martial law in Ukraine.
- Material assistance is provided to employees so they can resolve their family problems, and those whose housing is partially or completely destroyed as a result of hostilities.

Financial assistance is also provided to NBU employees who joined the ranks of the Armed Forces of Ukraine and the Territorial Defense Forces, and additional support is provided to wounded fighters for their rehabilitation.

Financial assistance has been provided to members of the NBU Labor Union who:

- are raising at least three children
- have the large-family status or are rearing children with disabilities.

As part of the work with the NBU's impaired assets, the Ministry of Justice of Ukraine, due to Russian aggression, has shut down access to the state registers of Ukraine while under martial law, in particular to the State Register of Property Rights to Immovable Property, the State Register of Encumbrances of Movable Property, the State Land Cadastre, the Unified State Register of Court Decisions, and more.

Therefore:

- The Deposit Guarantee Fund (DGF) temporarily suspended the sale of assets (property) pledged as collateral by insolvent banks to the NBU.

- The NBU temporarily suspended the sale of the property it acquired to pay off the banks' debts on the refinancing loans.
- SETAM SE was temporarily suspended from auctions for the forced sale of property.
- Bodies of the state executive service do not fully perform executive actions in executive proceedings for the recovery in favor of the NBU of debts from the guarantors of insolvent banks (said authorities do not take inventories when deductions from debtors' incomes are suspended or when property valuation becomes impossible, etc.).

In addition, there is a significant risk of a decrease in the value of assets (property) pledged to the NBU or acquired by it, given the probability of their damage, destruction, or in connection with their location in the territories temporarily occupied by Russia and the loss of pledged items in connection with the illegal actions of the Russian military.

In the earliest days of martial law in Ukraine, the NBU took every step necessary to ensure the smooth operation of the information infrastructure of both the financial sector of Ukraine and the NBU itself. To that end, the backup Data Processing Center was commissioned as the main Data Processing Center of the National Bank. In this way, the NBU ensured the uninterrupted operation of all information systems classified as critical information infrastructure of the NBU and the banking system of Ukraine.

The NBU also ensured the organization of reserve workplaces, their technical support for appropriate security measures, making it possible to organize the continuous work of all critical services and units of the NBU from the first hours of the war. The experience gained while setting up work processes in remote mode under the COVID-19 quarantine, as well as the achievement of performance indicators for the first year of the functional strategy regarding the mobility of NBU workplaces, made it possible to ensure the ability of NBU employees to work remotely.

Part 2. Goals and Strategies

2.1. NBU's Vision, Mission, and Corporate Values

Vision

The National Bank of Ukraine is a modern, innovative, open, and independent central bank that is a leader in the development of the financial ecosystem, cares about financial services consumers, is integrated into the European community of national central banks, and enjoys trust of the public and international partners.

Mission

NBU mission is to ensure price and financial stability with the goal of contributing to Ukraine's sustainable economic development.

Corporate Values

The NBU's operation is guided by five values:

Patriotism: the NBU acts in the interests of the public and the state.

Professionalism: the NBU is focused on results, strives for excellence, and promotes an environment that inspires and supports innovation, development, and the spread of new ideas.

Transparency: the NBU is open, consistent and logical in decision making.

Integrity: the NBU is honest and principled, respects diverse ideas and opinions, and always complies with ethical business practices.

Partnership: the NBU supports dialogue and partnership, respects diverse ideas and opinions, has a shared vision and enjoys public trust, and its staff works together to implement the NBU's mission.

2.2. Current Trends and Challenges

In its analysis of the external environment, the NBU focused on political, economic, social, and technological trends that will play a decisive role in the development of Ukraine's economy and financial system in the coming years.

The main challenge will be to overcome not only the pandemic itself, but also the global economic crisis it has caused. In developing the NBU Strategy, the NBU identified and took into account the following factors:

Political context:

- Ukraine will continue to move towards European integration and approximation of Ukrainian legislation to EU law
- Ukraine continues structural reforms and development of institutions
- the biggest obstacle to a more active integration into the European community and attracting large-scale investment is the lack of proper judicial reform, which remains urgently needed by society
- risks of escalation of Russia's military aggression in the east of Ukraine persist, posing a significant obstacle to domestic and foreign investment

Economic context:

- in foreign economic policy, Ukraine is deepening its relations with the EU to gain EU membership one day, and special attention is paid to cooperation with the International Monetary Fund (IMF)
- green finance is being pursued, as are investments in environmental protection and rational use of natural resources
- transparency of financial transactions and the level of social responsibility are increasing
- promotion and dissemination of cryptocurrencies encourage countries to develop optimal regulatory frameworks
- labor migration and population aging will continue

Social context:

- the spread of COVID-19 in Ukraine and social tensions due to quarantine restrictions will determine the level of trust in public and financial institutions
- digitalization and further development of technologies will promote financial services, in particular by increasing financial inclusion, use of online financial services, and demand for cashless transactions
- demand for talent by IT companies makes it difficult to attract professionals to the banking sector

Technological context:

- the development of digitalization and AI technology will increase the demand for automation, robotics, ready-made fast technologies, and solutions aimed at ensuring security
- financial services are being personalized to maintain customer loyalty: banks and insurance companies compete for customers by tailoring their mobile apps to specific needs through the use of data on customers and their consumer preferences
- central banks focus on regulating technology companies that provide financial services

Current challenges of the external environment require timely and effective methods of responding to them, relevant

internal changes aimed at developing management tools and a strategic vision, improving operational efficiency, optimizing processes, increasing staff involvement, and improving communications and professional and personal skills.

The NBU keeps on transforming the internal structure and has already made many quality changes in each of these areas.

For effective internal transformation in response to external challenges and customer needs, the NBU as an organization should understand its strengths and weaknesses:

Strengths:

- institutional maturity
- financial, institutional, and operational independence of the NBU, which is ensured by Ukrainian law
- a transformed modern institution with the strong basis for development
- expertise, analytics, high professional level of employees
- capacity for originating and implementing complex projects
- NBU values and an unflinching leadership
- good reputation of the NBU as an employer
- human Resources policy in line with market requirements: transparent recruiting process and competitive terms of employment
- project-based management
- collegial decision making, system of committees
- effective system of external communications
- strategic vision, understanding of landmarks and areas of development for the financial ecosystem
- understanding the needs and values of client groups

Weaknesses:

- difficulties with involving highly qualified staff
- cumbersome processes and red tape
- lacking internal drivers of innovation and technology
- different pace of units' development
- partially mismatched actions of units
- need for digital transformation
- major political risks
- different paces for implementing adopted important and complex institutional decisions

Green Finance

The National Bank of Ukraine has presented its Sustainable Finance Development Policy 2025, which provides a comprehensive view on creation and further development of the sustainable finance sector in Ukraine. <https://bank.gov.ua/en/news/all/politika-natsionalnogo-banku-ukrayini-schodo-rozvitku-stalogo-finansuvannya-na-period-do-2025-roku>

The document drafted in cooperation with the International Finance Corporation aims to shape the future landscape of sustainable finance in Ukraine. It contains a detailed

description of tasks and new instruments to bring practices applied by Ukrainian financial institutions closer to the best global standards of integrating environmental, social, and governance (ESG) criteria into financial services.

The NBU has also drawn up amendments to the Methodological Recommendations on Corporate Governance in Ukrainian Banks to incorporate ESG aspects.

2.3. NBU Strategic Goals 2025

NBU Strategy comprises three strategic pillars, which are based on twelve strategic goals and address the evolution of the role the NBU plays in the Ukrainian economy, the central bank's impact on the financial eco-system, and internal transformations in the institution.

Pillar 1. Promotion to economy recovery and development

- Goal 1. Maintaining macroeconomic stability
- Goal 2. Resuming lending in the economy
- Goal 3. Developing the financial services market
- Goal 4. Developing the capital markets' infrastructure.

Pillar 2. Digital finance as a driver for digitalization of the economy

- Goal 5. Development of cashless economy
- Goal 6. Improving the level of financial inclusion
- Goal 7. Developing innovations in the financial sector
- Goal 8. Cybersecurity of the financial sector.

Pillar 3. Institutional development and operational excellence of the NBU

- Goal 9. Improving the operational efficiency of the NBU
- Goal 10. Partnership and communication with stakeholders of the NBU
- Goal 11. Digital transformation of the NBU
- Goal 12. NBU the best employer

In response to the global economic crisis and local economic problems in Ukraine, the first strategic pillar – Promoting Economic Recovery and Growth – aims to use a flexible and well-thought policy to help the country overcome the effects of the coronavirus crisis, which caused the deepest global economic recession in a century, threatening public health and well-being and disrupting economic activity. Clear answers to macroeconomic, monetary and financial policy issues will support eco-system participants and maintain the pace of financial services development, while also minimizing economic losses.

Digitalization is rapidly changing and reshaping the economy and society, stimulating entrepreneurial innovations, productivity and economic growth. The NBU is also involved in digital transformational processes in the financial sector. In response to challenges related to the digitalization of everyday activities, the economy, and finance, the second strategic pillar – Digital Finance as a Driver of a Digitalized

Economy – aims to stimulate productivity and employment and boost the competitiveness of economic sectors, laying the foundations for Industry 4.0. in Ukraine.

Given the rapid development of the financial eco-system and the extension of the NBU’s mandate, we need to continue our efforts to develop the institutional capacity and independence of the organization, increase its achievements, act proactively

among policymakers and market players, retain talented staff, and attract the most talented people to the central bank’s team. This requires ongoing internal transformation at the NBU. That is why the third strategic area – the NBU’s Institutional Development and Operational Excellence – aims to improve the carrying out of the central bank’s Mission and the implementation of its Vision through internal changes.

NBU’s Strategic Pillars and Goals towards 2025



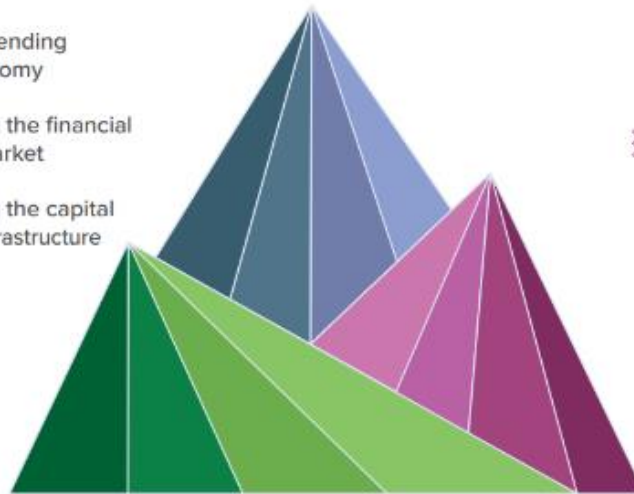
Promoting Economic Recovery and Growth

- 01 Maintaining macroeconomic stability
- 02 Resuming lending to the economy
- 03 Developing the financial services market
- 04 Developing the capital markets' infrastructure



Digital Finance as a Driver for Digitalization of the Economy

- 05 Developing cashless economy
- 06 Improving the level of financial inclusion
- 07 Developing innovations in the financial sector
- 08 Cybersecurity of the financial sector



Institutional Development and Operational excellence of the NBU

- 09 Improving the operational efficiency
- 10 Partnership and communication with stakeholders
- 11 Digital transformation
- 12 Best employer

Part 3. Resources, Risks and Relations

Resources

The NBU uses the following types of resources in order to create products/value proposition for its customers and attain the goals set forth in its mandate:

- financial resources
- human resources
- production resources
- intellectual resources
- social and reputational resources
- natural.

3.1. Financial Resources

Financial resources include available means which the NBU receives as financing or from transactions or investment and which it uses to fulfill its functions and provide services.

The NBU employs the following types of financial resources: debt and equity, namely paid-in capital and earned capital.

The NBU's debt includes funds the central bank raises from foreign and international organizations in order to implement its policy. These are

- loans received from foreign banks and organizations
- funds received from the IMF, including liabilities arising from quota contributions, SDR purchases (received loans), and SDR allocations.

Debt is shown in the NBU's consolidated statement of financial position as liabilities and gives rise to expenses recorded in the consolidated statement of profit or loss and other comprehensive income.

The paid-in capital refers to the authorized capital of UAH 100 million, which is owned by the state. A part of the NBU's distributable profit and, if required, the state budget of Ukraine, are the sources of the central bank's authorized capital.

The earned capital consists of retained profits and provisions created from profits. The NBU creates:

- general reserves to cover its losses; these provisions are made annually by distributing a portion of the profits earned during the year
- revaluation reserves to cover unrealized costs from the revaluation of financial instruments, monetary gold, and investment metals.

The NBU's equity is presented in the respective section of the NBU's consolidated statement of financial position.

General reserves are created from a portion of the profits earned in the current year. Revaluation reserves are made by accumulating gains from financial instrument revaluations carried out during the year. These revaluations are presented

in the NBU's consolidated statement of profit or loss and other comprehensive income.

For more details on the management of NBU capital, see Note 28 to the NBU's Consolidated Financial Statements.

3.1.1. Distributable Profit Forecast

The NBU determines distributable profit in accordance with the Law of Ukraine On the National Bank of Ukraine and distributes it between its equity and the state budget, as set forth in the law. Therefore, forecasting distributable profit is important for assessing the central bank's future financial position and equity and for medium-term budget planning.

The NBU makes financial forecasts within a framework of a specific process. These forecasts include projections of the NBU's financial position (assets, liabilities and equity) and income and expenses, which in turn allows the central bank to forecast distributable profit and its distribution. The forecasts can cover the following periods:

- the medium term (i.e. three years) – specifically, for informing state authorities about projected transfers from the NBU to the budget
- the current year – for obtaining more up-to-date information about the NBU's financial position and distributable profit as of the end of the year.

A macroeconomic forecast that is approved by the NBU Board as part of the monetary policy decision-making process is the basis for a distributable profit forecast. Macroeconomic forecasts contain information about the NBU's projections of the monetary base, international reserves and transactions with the reserves, the hryvnia exchange rate, the key policy rate, and the consumer price index. In addition, a forecast of open market operations provides inputs for a distributable profit forecast. These inputs include yields on foreign currency instruments, projected fee and commission and other income and expenses, including administrative expenses, projected repayments of past due debt on bank loans and making/cancelling provisions for such loans, and so on.

All inputs are integrated into a financial forecast model, which processes the inputs. What is more, a number of indicators are calculated in line with the algorithms set in the model. Expert assumptions are an important element of forecasting, as they allow for forecasting future indicators under conditions of uncertainty. Scenario modelling may also be used in order to construct various scenarios, depending on the variations in inputs and expert assumptions.

3.1.2. Planning and Controlling Administrative Expenses

With a view to ensuring its operation, the NBU draws up an administrative budget for one year ahead; the NBU Council approves the budget by 15 November of the current year.

The administrative budget includes:

- staff costs
- administrative and other expenses
- depreciation and amortization
- provisions for assets and other deductions
- investment in NBU activities.

Financial resources are planned to meet the needs of NBU subdivisions and the NBU Council for the year ahead and thus enable the NBU to fulfill its tasks and attain its strategic goals.

In line with the principles of transparency and efficiency of the NBU's expenses, control over the central bank's expenses is established by law:

- The NBU's expenses are disclosed in its annual financial statements in accordance with the Law of Ukraine *On the National Bank of Ukraine*.
- The financial statements are audited by an audit company selected through a procurement procedure in accordance with the Law of Ukraine *On Public Procurement*.
- The NBU Council, an independent body to which the NBU reports, approves the administrative budget, which includes the NBU's operating expenses, and controls the implementation of the budget during the year.
- Every year, the Accounting Chamber monitors the implementation of the NBU's administrative budget and its obligation to transfer funds to the state budget of Ukraine. The Accounting Chamber reports audit results

3.2. Human Resources

Human resources include employees of the NBU, their competencies, abilities, experience, and motivation to fulfill the functions, provide the services, and attain the goals of the NBU.

In its activities, the NBU uses human resources represented by its staff, namely:

to the Ukrainian parliament, the Cabinet of Ministers, and the President of Ukraine.

Reports on the NBU's planned and actual expenses for the reporting period are submitted on a monthly basis to the Budget Committee and on a quarterly basis to the NBU Board and the NBU Council.

The approval and implementation of the NBU's administrative budget is controlled in line with requirements specified in regulations and internal control procedures of the NBU. The procurement procedure is public and competitive.

The NBU has a system of internal control of expenses. The controls ensure that expenses are justified and economically sound and that goods, works, and services of proper quality are purchased at reasonable prices.

The NBU has a cost management system, which, among other things, serves to determine general expenses incurred by NBU units as they work on reaching the strategic goals, record and analyze the expenses, assess the efficiency of resource usage, and search for cost cutting opportunities.

One of the cost management tools used by the NBU is cost allocation, which the central bank implemented in 2019.

Cost allocation implies distributing expenses from the administrative budget of the NBU head office (excluding expenses on provisioning for assets and other costs that are not subject to distribution) among three cost allocation targets: NBU structural units, level two processes, and the NBU's functions.

Cost allocation results are reflected in regular reports that contain information (data as of a certain date and historical data) about the costs of structural units, level two processes, and the NBU's functions. These reports are used to assess the efficiency of NBU units and level two processes as well as to find ways to optimize costs, and make decisions on the management of costs and NBU activities.

The NBU has established and maintains a corporate culture of resource saving by its units. In particular, the staff incentive system envisages a dependence of bonuses paid to heads of units on cost saving results.

- specialists who work to fulfill the NBU's central bank functions
- workers who are support staff carrying out maintenance functions (drivers, cleaners, catering staff, and so on).

Human resources do not appear in the NBU's Consolidated Statement of Financial Position, as this type of the resources does not meet the recognition criteria – the NBU has no control. However, the Consolidated Statement of Profit or

Loss and Other Comprehensive Income reflects expenses on these resources: staff costs and other expenses, provisions, and other expenses.

HR Policy

The NBU ensured the implementation of the main tasks and functions of personnel management and administration in accordance with the Labor Code of Ukraine and NBU administrative acts. In 2021, the NBU hired 329 employees and dismissed 365. It was engaged in document-related formalities and registration of relevant HR documents, tracked employee absences from work (by issuing orders to formalize all kinds of leave, other absence types, namely military leave of absence, quarantine-related inactivity, accounting travel hours of work, processing sick leave documentation).

Remuneration Policy

The NBU aims to create modern conditions for retaining the best employees and attracting professionals. In view of high competition in the labor market, the system of remuneration of employees is focused on their individual needs and designed to ensure their satisfaction and motivation for the effective performance of their functions and achievement of their goals.

The NBU uses the following elements of aggregate remuneration: compensation payments, benefits, performance management, development and recognition, work-life balance. The system is based on position grading, which, among other things, serves to analyze the value of positions, processes, and functions.

3.3. Production Resources

The NBU's production resources include man-made (rather than natural) physical assets that it uses to perform its functions and provide services.

The NBU's production resources include:

- property and equipment (buildings, facilities, vehicles, machinery, equipment, tools, appliances, gear, capital investment in property and equipment, etc.)
- investment property
- inventories of tangible assets
- other similar assets.

Production resources are presented in the NBU's Consolidated Statement of Financial Position as assets. Production resources give rise to expenses that are recognized in the Consolidated Statement of Profit or Loss and Other Comprehensive Income.

Compensation payments are a set of cash benefits that form an employee's income. These include the NBU's base pay (base component), which is the official salary set within the minimum and maximum ranges for each position grade, and extra salary (a variable component of remuneration), which is set in the form of salary supplements, bonuses, and extra pay.

Benefits are monetary rewards or services provided in addition to compensation payments to cover certain needs of employees.

Understanding the risks of the external environment and striving to ensure security, the NBU offers employees the payment of financial aid for the medical treatment of employees and their family members; payments for the burial of deceased NBU employees; severance pay to NBU employees upon termination of employment; other remunerations (contributions), such as the pension contributions the NBU makes for its employees to the NBU Corporate Nonstate Pension Fund, insurance premiums under voluntary health insurance agreements, contributions to the NBU primary labor union organization, and contributions related to cultural events and health improvement.

The NBU complies with the requirements of legislation, while monitoring remuneration-related statistics on the wage market, trends; maintains and improves its own best practices and policies, takes care of the level of the internal service, in particular, by automating processes.

Management of State-Owned Real Assets

Under the Law of Ukraine *On the National Bank of Ukraine*, the NBU's assets are owned by the state and are under the central bank's operating control.

The NBU manages the following assets:

- the central bank's own real assets
- real assets the NBU has acquired by recovering the property (collateral) pledged as security against refinancing loans.

A list of the NBU's real estate was approved as part of implementing the *NBU's Functional Strategy for Developing Infrastructure and Corporate Administration in 2021-2024*, ensuring effective real estate management, optimizing the NBU's real estate portfolio, determining the efficient and sustainable use of the existing administrative and economic space, as well as developing measures to maximize their usage, analyze and determine the feasibility of projects designed in previous years.

As of 31 December 2021, the NBU managed 346 own real assets, which were listed in the Unified Registry of State Property Objects. They included: 47 plots of land and 299 buildings and engineering structures. As many as 150 buildings were listed according to the real estate classifier; of them, there were four residential buildings, 126 nonresidential buildings, 20 other facilities, as well as 149 engineering structures.

Collateral Management Policy

The NBU issues loans backed by securities, real estate and movable property, property rights under loan agreements, and other types of collateral.

For more information on types of collateral and the extent of coverage of loans issued to banks, refer to Note 10 of the NBU Consolidated Financial Statements.

Under collateralized loan agreements, property put up as collateral shall be managed and kept by a collateral provider until enforcement is required to repay a debt under a loan agreement if there is a breach of the obligation.

Nonperforming loans issued to banks were repaid using proceeds including from the sale of property put up as collateral, as well as by the NBU's appropriation of collateral.

3.4. Intellectual Resources

Intellectual resources include intangible, knowledge-based assets.

The NBU uses the following types of intellectual resources:

- intangible assets (software, both purchased and own, licenses, websites, information, databases, copyright, rights of enjoyment, etc.)
- organizational resources – knowledge, research, and knowledge bases accumulated in the NBU, systems, processes, and procedures.

The NBU's intangible assets, recognized and presented in the Consolidated Statement of Financial Position as assets, primarily include third-party software and licenses to use software that eventually expire, resulting in expenses that are recognized in the Consolidated Statement of Profit or Loss

3.5. Social and Reputational Resources

Social and reputational resources include institutions and relationships within communities, as well as between stakeholders and other groups, and the ability to share information to increase individual and collective wealth.

The NBU uses the following types of social and reputational resources:

Under the Law of Ukraine *On the National Bank of Ukraine*, the NBU acquires, in order to cover the debts owed to the NBU, any rights and assets, provided that they are further alienated within the shortest possible time.

Under Article 73 part two of the Law of Ukraine *On the National Bank of Ukraine*, the NBU may sell through the established procedure the property that it acquired from banks to recover the money it loaned to the banks with the purpose of supporting liquidity, without obtaining approval from other government agencies.

The NBU's balance sheet as of 31 December 2021 included four real estate facilities with a total area of 17,200 square meters; one property complex consisting of 65 buildings and facilities with a total area of 27,800 square meters; and 135 plots of land covering 563.8 hectares with a total book value of UAH 576.3 million (excluding VAT). They passed into NBU ownership as a result of partial repayment of debt on refinancing loans to be put up for further sale for the best bid in the shortest possible time.

In 2021, the NBU sold 27 assets at a total price of UAH 161 million (excluding VAT).

Part 4 hereof describes how the NBU forecloses and acquires the assets of this type to recover outstanding loans.

and Other Comprehensive Income mainly as administrative and other expenses.

Proprietary software, the official website built by the NBU's software developers, databases, and the right to use state-owned land do not meet the criteria for being recognized as assets, and are thus not recognized as such in the Consolidated Statement of Financial Position. However, the NBU bears the costs of developing and maintaining these assets, and these costs are recognized in the Consolidated Statement of Profit or Loss and Other Comprehensive Income.

For more information on further research at the NBU, the modernization of reporting systems, the development of open data, IT, information security, and bank cyber security, see Part 4 hereof.

- the NBU values, the Code of Conduct for NBU Employees and the rules of conduct, including anticorruption ones
- relationships with stakeholders
- reputation- and brand-related intangible assets
- social licenses to operate: NBU's rights to perform its main functions as set forth in the legislation.

The NBU's consolidated statement of financial position does not recognize social and reputational resources since they do not meet the criteria of financial statement items. However, the NBU bears the costs of developing and maintaining these assets, and these costs are recognized in the Consolidated Statement of Profit/Loss and Other Comprehensive Income mainly as administrative and other costs.

Code of Conduct

The NBU Code of Conduct (the Code) was approved to strengthen the NBU's institutional capacity.

The Code's provisions apply not only to employees but also to suppliers, consultants, trainees, and other persons cooperating with the NBU.

The Code together with the NBU values are the fundamental pillars of the NBU corporate culture, necessary to fulfill the mission and achieve the vision of the NBU.

In 2021, took steps to increase awareness of its employees of the NBU values updated according to the approved NBU Strategy 2025. The process of the Code amendment has started in order to bring the Code in line with the NBU Strategy 2025, applicable laws of Ukraine and NBU regulations. The NBU employees that act as coaches received training on the Code using cases to find out about the acceptable models of ethical behavior.

Anticorruption Policy

The NBU's policy on preventing and counteracting corruption bases on the principles of good faith, "zero tolerance" to any form of corruption, inevitability of punishment for corruption or related to corruption offenses, transparency and openness of activity.

In 2021, the corruption prevention was carried out in accordance with the requirements of the anti-corruption legislation and the NBU's Anticorruption Program for 2020–2021, approved by the decision of the NBU Board.

With a view of preventing, detecting, eliminating, and combating corruption, the NBU regularly implements the following measures:

- application of the collegiality principle when making important decisions
- regulation of processes of NBU units' operation
- control over compliance of NBU employees with anticorruption restrictions, requirements regarding prevention and resolution of conflict of interest, other requirements of anti-corruption legislation
- periodic assessment of corruption risks inherent in the NBU's activities and implementation of measures to eliminate (minimize) the identified corruption risks
- anticorruption evaluation of NBU draft regulations

- control over timely submission of declarations by NBU officials as the persons authorized to perform functions of the state or local authorities
- building awareness of the anti-corruption legislation among NBU employees, methodological and consultation support on compliance with the laws on corruption prevention
- developing the culture of whistle-blowing within the NBU of possible facts of corruption or corruption-related offences, methodological and consultation support
- implementation of other measures provided for by the current anti-corruption law.

Labor Safety

The NBU's key priority in labor safety is to create in each of its structural units the working conditions as prescribed by the regulations and ensure compliance with the laws regulating the employees' rights in this field, namely:

- creating and maintaining safe working conditions at each workplace
- training and briefing the employees on occupational health and safety, first aid to the injured and the rules to be followed in case of emergency
- applying effective measures to reduce the impact of the employees' health at the workplaces where hazardous or dangerous factors have been identified as higher than standard
- guaranteeing and granting the employees benefits and compensations for difficult and dangerous labor conditions
- providing the employees with special clothing, special footwear and other personal protection means
- ensuring uninterrupted and effective functioning of the labor protection management system, organizing and exercising control over labor conditions to meet the requirements of state regulations on labor protection
- ensuring proper maintenance of buildings and facilities, production equipment and machinery, monitoring of their technical condition
- ensuring availability of fire protection means in the premises and transport vehicles
- ensuring 24/7 operation of the fire protection systems and fire alarm announcement system
- eliminating the reasons causing accidents and professional diseases, introducing preventive measures recommended by the commissions investigating these reasons
- introducing risk-based management in labor organization at the NBU in order to prevent potential threats and their ranking
- introducing modern technologies, scientific achievements, means of production automation, ergonomic requirements, positive experiences in occupational safety
- organizing the process so that works are conducted and services are provided safely
- organizing lab study of the labor conditions, assessment of technical condition of the production equipment and

machinery, certification of workplace compliance with the labor safety requirements

- developing and approving regulations, guidelines and other internal documents for occupational safety
- taking measures related to global pandemic caused by COVID-19.

The NBU has developed, approved and implements the following:

- internal special training in occupational safety under nine thematic programs and the basic fire prevention program for NBU head office employees, performing high risk (including high fire risk) work
- labor and fire safety briefings (introductory and on-the-job) for NBU head office employees, trainees, interns and contractors
- special training for managers and employees and testing their knowledge of respective labor safety regulations. Special trainings are organized at the NBU and in training centers
- internal policies, guidelines and other regulations on labor safety that apply to the NBU and set occupational and behavioral rules for the NBU employees and visitors in the NBU territory, production facilities, constructions sites and workplaces; employees have been provided free of charge with the texts of regulations and NBU rules on labor safety
- labor safety instructions
- procedure for organization of high-hazard works and system of safety permits
- allowance for issuance free of charge of special clothing, special footwear, and other personal protective means
- collective protective means, safety signs and control systems
- cleaning and disinfection of premises, supply of medical masks, control of employees health status, vaccination of employees and their family members
- identification of potentially unsafe situations, objects and means, preventive measures, including development and implementation of hazard management methods
- control of adherence by the employees to the technological processes, operation safety rules for machinery, mechanisms, equipment and other production means, rules for use of collective and personal protective means, conducting works in line with labor safety requirements
- promoting safe methods of work and cooperation with employees in the field of labor safety
- financing preventive measures for labor safety, compliance with the state-wide, industrial and regional programs of safety, hygiene and production environment improvement, other state programs aimed to prevent accidents and professional diseases
- regulating issues of labor safety in collective agreement, including social guarantees in the area of labor safety for the employees at the level that is at least as provided in the legislation, their duties and comprehensive measures to maintain standards for safety hygiene and production environment, improvement of labor safety

level, preventing trauma at production sites, professional diseases, accidents and fires

- public control conducted by Primary Labor Union Organization of the NBU employees over compliance with labor safety laws and regulations, creating safe and nonhazardous labor conditions, adequate production and sanitary conditions, supply of employees with special clothing, footwear and means of personal and collective protection.

NBU Corporate Nonstate Pension Fund (CNPf)

The CNPF's purpose is to attract highly qualified specialists to the NBU, reduce labor turnover, and create decent support for the participants after their retirement. Its activity is aimed solely at accumulating pension contributions with further assets management and pension payments to CNPF participants.

The NBU, being a socially responsible employer, provides its employees of retirement age with stable benefits.

More detailed information about the NBU's relationships with the CNPF is provided in Note 1 to the consolidated financial statements for the year ended 31 December 2021.

Voluntary Health Insurance System

The NBU has procured voluntary health insurance services for its employees in order to further motivate the staff, protect its employee's health and preserve working efficiency.

Additionally, with assistance from the insurance company within the Total Rewards system the insured NBU's staff received the opportunity to use a new benefit (aimed to satisfy the need for safety, protection and self-fulfillment): to watch video of recommendations from experts and to make an appointment for free individual consultations.

The program was launched in July 2020. During 2021, 142 individual consultations were provided (53 employees).

For information on indicators related to employees' health concerns, see Section 4

Primary Labor Union Organization of the National Bank of Ukraine (hereinafter – Labor Union)

Social initiatives of the Labor Union are:

- employees' health care, notably because of COVID-19
- protection of rights and interests of the members, accident prevention. The Collective Agreement for 2018-2023 has been amended.
- cooperation with the NBU administration to mitigate adverse effects of dismissals.

The Labor Union focused its activities on the following areas during 2021:

1. Promoting a healthy lifestyle:

- partial reimbursement of admittance to health resorts for the Labor Union members and their children (16 years and under)
- partial reimbursement of sports club membership for the Labor Union members and their children (18 year-old or younger) and special prices for close relatives
- support of the NBU teams in football, basketball, and marathon running

2. Reviewing information on planned dismissals of employees

- reviewing petitions, filed by the NBU administration, for dismissal of the Labor Union members
- consulting in collaboration with the NBU administration on preventing dismissals, minimizing their number, and mitigating their adverse effects
- developing measures to minimize the negative impact of dismissals on Labor Union members.

NBU Employer Brand

The National Bank of Ukraine searched for intellectually and creatively gifted youth for effective work in the NBU by organizing and supporting the internships of students, participation in job fairs, and engagement in other projects in order to ensure the development of the employer brand of the National Bank of Ukraine.

We engaged 67 trainees and 14 interns from the universities students. Information about the traineeship opportunities at the NBU was published in social networks and the NBU web site, as well as disseminated at the job fairs, educational institutions, the NBU University Challenge and other events.

Eight trainees were offered jobs at the National Bank of Ukraine after successfully completing their traineeship programs.

In 2021, to promote its traineeships and internships programs, the NBU took part in job fairs, STUDENT FESTIVAL "IMPULSE", HR-Point (TOP-25), KNU Career Shoot, Career Day ECONOMICS, Kyiv Post Employment Fair 2021.

Students were invited to the lectures on *The National Bank of Ukraine: Past, Present and Future, How to Use Cashless Outside Hogwarts, Life Hacks from Payment System, Kahoot! Party, Communication Superpower* and soft-skill development training *The Art of Public Speaking*.

The NBU organized online competitions for students. In June 2021, there was finals of case-championship *Requirements to Insurers Taking Part in Agricultural Insurance with State Support*. In August, students were invited to visit the open-air exhibition of the Money Museum of the NBU dedicated to the 25th anniversary of domestic currency.

3.6. Natural Resources

The NBU is making every effort to minimize the use of natural resources and uses natural resources of both national importance (atmospheric air, groundwater) and local significance (land). Other natural resources are used indirectly.

The NBU uses natural resources in compliance with mandatory environmental requirements, i.e. pays resource taxes and mandatory charges for land, water, air emissions, etc. The NBU implements the environment protection policy. The NBU recognizes expenses related to paying taxes and environmental protection activities mainly as administrative and other expenses in the consolidated statement of profit or loss and other comprehensive income.

The NBU produces a minor effect on the environment. However, the structure of the National Bank of Ukraine includes a separated unit — NBU Banknote Printing and Minting Works production facility, for which the issue of environmental protection raises higher concern.

The NBU Banknote Printing and Minting Works adheres to and complies with the requirements and regulations of the Labor and Environmental Protection Policy of the NBU Banknote Printing and Minting Works (hereinafter – Policy).

The current system of ecological protection of the NBU Banknote Printing and Minting Works complies with the DSTU ISO 14001:2015 standard and is developed, implemented, and honed under risk-oriented thinking as a set of interrelated processes, aimed at increase in the production performance, rational use of natural resources, reduction of environmental load within the area of facility's possible impact.

The Policy is focused on activity of the NBU Banknote Printing and Minting Works – manufacturing of competitive production – banknotes, coins, state awards, securities, and other production that satisfies the demand of customers and partners of the NBU Banknote Printing and Minting Works with stable quality which meets the state and international standards.

Such possible ways to achieve goals regarding the boost of the facility's energy efficiency and provision of minimal negative impact on the environment are envisaged by the Policy:

- technical re-equipment of the production facility by implementation of advanced technology, high-performance equipment, innovative materials, energy

- efficiency and resource saving technology, low-waste, no waste and eco friendly technological processes that ensure reduction of negative impact on the environment, human health, and guarantees safe working conditions
- management of significant ecological aspects that impact or may impact the state of environment
- constant analysis and enhancement of current eco management systems
- training, professional development, consultations, and involvement of employees into advancement, implementation and enhancement of environmental protection system.

3.7. National Bank of Ukraine and Its Stakeholders

NBU Clients and Value Accumulation Chain

In pursuing its Mission, the NBU works to create maximum value for the clients.

NBU clients are participants of the financial ecosystem classified into eight groups by the NBU according to the nature of their needs and operations, interests, role of the group in the financial ecosystem, and current changes influenced by global and local trends:

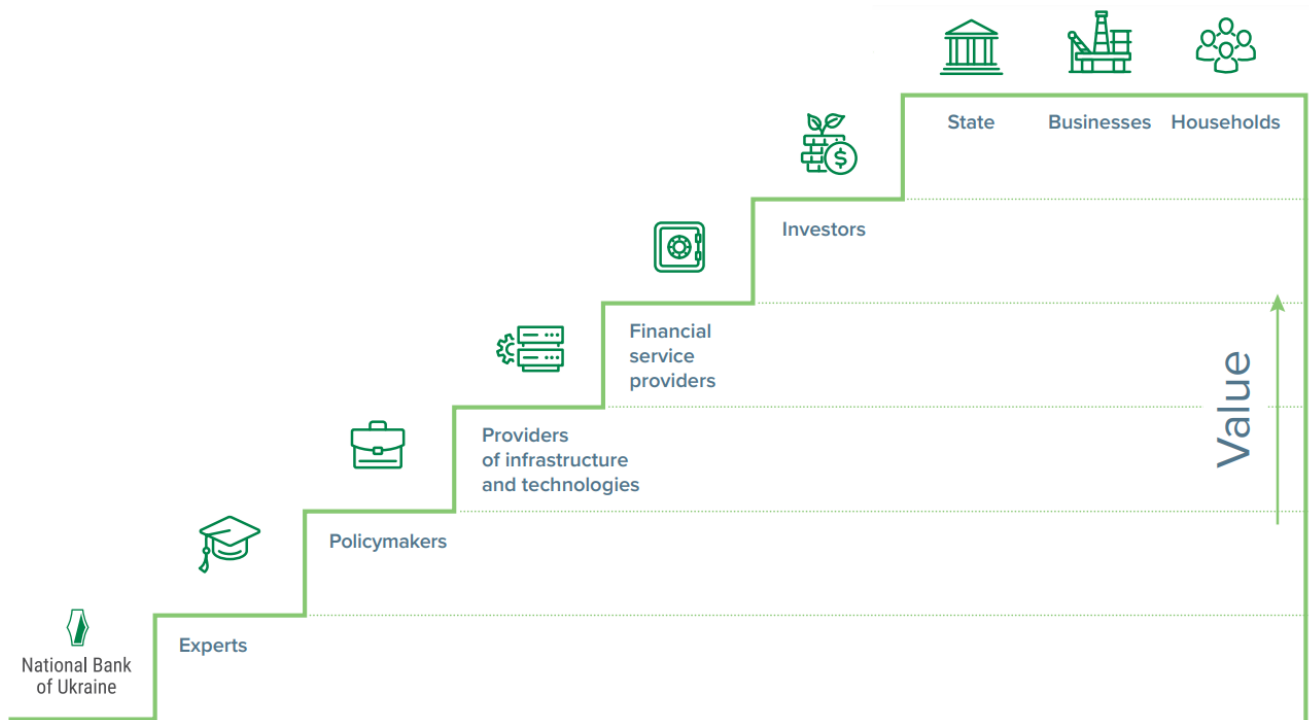
- experts
- policymakers in charge of economic and financial policy
- providers of infrastructure and technologies
- financial service providers
- investors

- businesses
- state as services provider
- households.

Every participant of the ecosystem acting within their role boundaries performs certain functions, in this way offering other participants certain value that is created by them, independently or jointly with the NBU or other ecosystem participants. The logic behind the client grouping follows the value accumulation chain: each client creates value that is accumulated, and simultaneously the final consumers (state, businesses, and households) receive the maximum value.

Value accumulation chain of NBU clients is presented in Chart 3.

Chart 3. Value accumulation chain of NBU clients



Having an insight into the needs of its clients, the NBU creates an adequate value for them, providing updated modern products and services aligned with their expectations and requests.

Well-balanced mix of products, factoring in the needs of all the client groups, created and supplied to the financial system, is the key to fulfilling the NBU's Vision and Mission on daily basis.

Experts

This client group includes international financial institutions, diplomatic corps, central banks, financial regulators and supervisors of other countries, professional associations of the financial sector, academics and researchers, educational institutions, rating agencies, journalists from the expert mass media, media, opinion leaders and influencers, industry associations, business associations and consulting companies.

Since the *Experts* client group majorly relies opinions, forecasts, statistics, and analytics from the NBU, the priorities of this group are increased access to open current data, reasoned high-quality forecasts, clear expert opinions, granulated and identifiable information, new technological solution, forecasting instruments, and approaches.

Other important factors for this group are transparency, professionalism, consistent, and predictable actions of the regulator, as well as opportunity for experts to contribute to discussion of the draft decisions before their approval, and sharing expertise with international partners.

Policy makers in charge of economic and financial policy

This group includes representatives of legislative, executive and judicial branches of government that create a robust legal framework for all participants of the financial market.

Main expectations of policymakers from the NBU are coordinated actions: constructive and active interaction between the regulators, more joint efforts and solutions, quality and secure information sharing, joint long-term development plans, joint counteraction to cyber threats, and advancing cooperation with international partners. Also, policymakers require predictable decisions on monetary and macroprudential policies of the NBU, analytical support and recommendations, initiatives for business development and ideas for streamlining regulations and laws, improving financial awareness of the public and promoting accessibility of financial services.

Providers of Infrastructure and Technologies

The representatives of this client group are payment systems, payment service providers, cash collection, processing, and storing companies, IT developers, merchants, telecommunication operators, postal service providers, central depositories, settlement center, stock exchanges,

clearing participants, depository institution, fintech companies, virtual asset market players, and DLT providers.

Providers of infrastructure and technologies primarily expect from the NBU clear regulation (in line with new laws and regulations), promoting and supporting innovations at the state level, a regulatory field for financial innovations in place, strong analytics (for innovations), prompt response of the regulator, technology-intensive operations from the NBU, and introduction of international standards and EU regulations.

Also, other important points are constructive methods, platforms for cooperation with other players, new effective communication forms, and promoting digital awareness of consumers.

Financial Service Providers

The client group covers banks and nonbank financial institutions that provide financial services of lending.

Main expectations of financial service providers from the NBU are quality, transparent, clear regulatory field, predictable stimulating regulation, equal approach to all market participants, adequate right protection of creditors, liquidity assistance in crisis, comprehensive currency liberalization, providing information for decision-making and transparent partner communication.

Also, important factors are predictability of the macroeconomic situation, adequate and balanced response to deteriorating economic situation, development of infrastructure options (establishing new technology platform, electronic workflow), and quality security technologies for digital solutions.

Investors

This group includes international and national investors into domestic financial sector and economy.

Primary needs of investors the NBU seeks to meet are long-term price and financial stability, reliability of the financial system, predictability of economic development, transparency of decisions and data, consistency, predictability and stability of the regulator's policy and course, continued structural reforms, separation of political and business interests, and independence of the regulator.

Other important needs are development of instruments and directions for investment in domestic currency, development of the hedging market of the exchange rate, free flow of capital, comprehensive currency liberalization, legal guarantees, financial stimuli for new direct investors and performance of arbitrator functions in financial relations.

Businesses

This group includes large, medium, and small business, microenterprises and sole proprietors.

Key needs of businesses are predictability of macroeconomic situation, consistency and stability of the regulator's policy, low inflation, high-quality macroeconomic analytics, business support programs, resumption of lending, and financial inclusion.

Also, the businesses expect a variety of alternative financial services, new user-friendly digital products, high-quality financial services (expediency, authentication etc.), security of settlements, access to global financial markets, and effective development of capital markets.

State as Services Provider

The members of this client group ensure the well-being of the country and the free access to public services essential for a healthy living and effective economic activity. This client group covers public authorities that provide social security, manage education, healthcare, etc.

This client group needs facilitating economic development, financial stability, price stability, support of the economic policy of the Ukrainian government, advancing employment in the financial sector, favoring innovative development, countering cyber threats, quick access to financial services, transaction and personal data security, remote channels for providing services, cutting costs on financial services.

Households

The Ukrainian public is the most important client group of the NBU. Households make decisions concerning consumption and savings to maximize their welfare.

Households are currently expecting from the NBU stability of the financial system, low inflation, transparent and credible economic information, clarifications to the change of economic indicators, receipt of forecasts from NBU experts, quality supervision of current and new players in the financial sector, accessible payment infrastructure, transaction and personal data security, and advanced security against fraud.

The most important factors for households are enhancing consumer rights protection, improving financial awareness, cost-cutting of financial services, advancing financial service in remote regions, improving availability of online services, streamlining access to loans, clarifying laws on complicated issues, active disclosure to the public of NBU operation.

As time goes by and under global environmental changes the needs of the clients change as well. The NBU should remain the leader for each client group, and so should comprehend and adequately respond to the needs of each client group.

Cooperation with International Partners

In 2021, the NBU continued to advance its international operation making active use of online and offline cooperation with global partners.

The traditional direction last year remained a bilateral cooperation with central banks and financial supervisors of Lithuania, Hungary, the UK, Georgia, Croatia, Armenia, Poland, Sweden and others. Burning issues of the bilateral dialogue covered contraction of the COVID-19 crisis effects, regulation of nonbank financial market, digitalization and development of digital currencies of central banks, and sustainable and green finance.

Development of cooperation with international partners in line with the defined directions resulted in signing new agreements on international cooperation. memorandums of understanding, cooperation and exchange of information on insurance supervision with the Bank of Lithuania, the Polish Financial Supervision Authority, and the Central Bank of Armenia.

Also, during 2021 the NBU strongly promoted sustainable finance in Ukraine, in line with the global concept of sustainable development and our country's European integration vector. The bank also continued active cooperation with its international partners in this area, in particular developing the Sustainable Finance Development Policy 2025, which was prepared with the help of the International Finance Corporation.

Implementing its goals to green the financial system, in 2021, the NBU joined the Network for Greening the Financial System (NGFS) – a community that aims to provide a platform for sharing experience of central banks and supervisory authorities advocating a more sustainable financial system.

In addition, the NBU cooperated in the area of green financing with the following international partners:

- the International Finance Corporation, the World Bank, and the European Bank for Reconstruction and Development to develop sustainable finance policy for banking institutions
- the United Nations Development Programme to develop sustainable finance policy for nonbank financial institutions.

The greening of financial system was high on the agenda of numerous events attended by the NBU representatives in 2021. Said issues dominated the agenda during the meetings between the central bank's top managers and other international partners at the Bank of America Small Talks Symposium, the Emerging Markets Credit Conference, the Annual Ukrainian Investment Roadshow, the UK-Ukraine Fintech summit, and the Ukraine Reform Conference 2021.

At the meetings with foreign diplomats, the NBU Board members discussed the NBU's aspirations to bring practices applied by Ukrainian financial institutions closer to the best global standards of integrating environmental, social, and governance (ESG) criteria in financial services.

The Global Financial Innovation Network (GFIN) has become another NBU's partner in 2021. The aim of joining this organization was to get access to the best practices and attract the expert support in creating regulatory sandboxes.

With the trend to hold events in an online format during global pandemic, the NBU was able to expand its international technical assistance. The number of such events grew by almost 60%, engaging 16% more international partners.

This year, NBU experts were interested in studying the best practices and international experience in the following areas: monetary policy implementation, financial stability, banking supervision and regulation, payment system operation and the introduction of innovations, consumer rights protection for financial services, efficient communications, NBF supervision and regulation, and so on.

The International Monetary Fund, World Bank Group, European Union, European Bank for Reconstruction and Development, as well as other central banks and financial regulators, remained key international development partners of the NBU in 2021. The NBU also continued to cooperate with the U.S. Agency for International Development (USAID), the European Bank for Reconstruction and Development, and the International Finance Corporation.

In 2021, the NBU continued to be a platform for expertise sharing. The NBU held 14 roundtables to share its experience with the financial community. Among the international partners that joined these events were central banks and financial regulators from more than 60 countries, as well as experts from international organizations and research institutions from other countries.

The increasing demand for the NBU's expertise regarding various aspects of banking sector operation was an important achievement last year in the field of technical cooperation. In 2021, the number of requests for TA from the NBU reached 15. The central bank held both bilateral and multilateral events. The most requests came from the following countries: Armenia, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Greece, Israel, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Luxembourg, Moldova, Spain, Tunisia, Turkey, and Uzbekistan. The NBU extended its geographical reach and covered a wider array of topics: strategic development and change management, banking supervision, macroeconomic analysis, statistics and reporting, FX reserve management, central bank international cooperation, and so on.

The program of cooperation with the IMF remained the central bank's priority. During the year, the NBU actively worked on the first review of the current Stand-By Arrangement. Joint work by the NBU, the Ukrainian government, and our partners from the IMF resulted in the approval by the IMF Executive Board on 22 November 2021 of the first review of the Stand-By Arrangement. The IMF also decided to grant Ukraine another tranche of approximately

USD 700 million (in equivalent) in funds under the program, and to prolong the program until June 2022.

At the beginning of 2020, the NBU also took an active part in the preparation of a joint project with the World Bank (the Economic Recovery Development Policy Loan – ER DPL) worth USD 700 million. The ER DPL project was approved by the World Bank's Board of Executive Directors on 26 June 2020. In 2021, Ukraine received financing under the ER DPL in two tranches, which were used to finance the general fund of the state budget.

2021 was marked by successful organization of planned events to implement the EU-Ukraine Association Agreement. The key laws of Ukraine aimed to implement EU acquis and best international practices, in particular the Law of Ukraine *On Amending Certain Laws of Ukraine on Improving Corporate Governance in Banks and Other Operational Issues of the Banking System*, the Law of Ukraine *On Payment Services*, the Law of Ukraine *On Insurance*, and the Law of Ukraine *On Financial Services and Financial Companies* were adopted.

In 2021, the NBU took steps to ensure the disbursement of the second EUR 600 million tranche of macrofinancial assistance under the 5th EU macrofinancial assistance program.

For the purpose of bringing the regulation and supervision of financial institutions in Ukraine into line with European practices and standards, in 2021 the NBU continued fruitful cooperation under technical assistance projects with the EU.

The long-standing dynamic and productive cooperation with the TA project on Strengthening the Regulation and Supervision of the Non-Bank Financial Market (EU-FINREG) resulted in self-assessments by financial service market participants of their compliance with sound market conduct practices, and the implementation the All-Ukrainian campaign on consumer rights protection, Know Your Rights.

In cooperation with the EU Project: Introduction of EU Practices on Accounting, Financial Reporting and Audit in Ukraine (EU-FAAR Project) the NBU finalized the Ukrainian XBRL IFRS taxonomy for 2020 and continued to develop the Ukrainian XBRL IFRS taxonomy for 2021.

Together with the Consortium of Polish and Lithuanian national banks, in 2021 the NBU implemented the EU Twinning project on Strengthening the Institutional and Regulatory Capacity of the National Bank of Ukraine to Implement the EU-Ukraine Association Agreement.

Cooperation with Government Authorities

The NBU interacts with such Ukrainian government authorities as the Verkhovna Rada of Ukraine, Cabinet of Ministers of Ukraine, and area-specific ministries, other government agencies.

To maintain its active position regarding improvement of the Ukrainian legislation, the NBU:

- interacts with the Verkhovna Rada of Ukraine and its committees and members of parliament and their assistants on issues that fall within the central bank mandate
- provides comments and suggestions for draft laws
- presents the NBU's viewpoint to parliamentary committees during the process of finalizing draft laws.

As usual, an important area of cooperation of the NBU with other state authorities is the NBU's contribution to law-making – an integral part of the central bank's activities – that sought to introduce global best practices in the national laws that govern the financial sector. This was evidenced by the involvement of top NBU officials in area-specific committees of the Ukrainian parliament. Overall in 2021, NBU representatives attended:

- 19 meetings of the Verkhovna Rada Committee on Finance, Tax, and Customs Policy
- 2 meetings in which the NBU Governor participated
- 12 meetings in which NBU deputy governors participated
- 12 meetings in which directors of NBU departments participated.

3.8. Main Risks

NBU Risk Profile

The NBU's risk profile comprises both financial and nonfinancial risks.

Financial risks constitute the risks that arise in connection with financial instruments. The NBU's financial risks are grouped as follows:

- financial risks related to the policies determined and conducted by the NBU (hereinafter referred to as NBY policy financial risks). These risks arise from financial instruments, when their recognition on the NBU's balance sheet or off balance is related to the central bank's performance of its main function and other functions, as set forth in Articles 6–7 of the Law of Ukraine *On the National Bank of Ukraine*, with the exception of Article 7 paragraph 15 thereof. This category includes, in particular, financial risks that relate to the use of standard instruments by the NBU for regulating the banking system liquidity, FX purchase and sale swaps, FX interventions, emergency liquidity assistance, and redemption of domestic government bonds
- financial risks arising from Ukraine's international (foreign exchange and gold) reserves
- financial risks arising from the management of the pension assets of the NBU Corporate Nonstate Pension Fund

What is more, NBU deputy governors, department directors, and subject matter experts attended meetings of other committees of the Ukrainian parliament. These committees were:

- Economic Development Committee - 1
- Committee on Ukraine-EU integration - 4
- Committee on Organization of State Power, Local Self-Government, Regional Development, and Urban Development - 2
- Committee on Social Policy and Protection of Veterans' Rights - 7
- Anti-Corruption Policy Committee - 4
- Agricultural and Land Policy Committee - 1
- Digital Transformation Committee - 1
- Budget Committee - 1
- Committee on National Security, Defense and Intelligence - 1.

In addition, following a substantial extension of the NBU's mandate in 2020, in 2021, NBU representatives together with other state authorities actively participated in developing several cross-institutional packages of law amendments.

- other financial risks.

Each financial risk category includes several risk types defined by the factors that cause the respective risks. In particular, the NBU distinguishes between liquidity, credit and market risks.

Nonfinancial risks include the risks of the NBU that arise in connection with nonfinancial factors.

The NBU's nonfinancial risks are as follows:

- operational risk is the potential threat of direct or indirect losses stemming from improper or failed processes, incorrect actions by NBU employees, failures of internal systems, or external events
- compliance risk is the risk of sanctions against the NBU, financial or reputational losses due to noncompliance by the NBU or its employees with the laws of Ukraine, NBU regulations and orders, including the code of ethics and the rules for the prevention and resolution of conflicts of interest
- strategic risk is the probability that the NBU does not achieve its strategic goals or performs its functions inefficiently due to incorrect strategic management decisions and inadequate responses to changes in the external environment.

When managing financial and nonfinancial risks, the NBU takes into account the potential impact of their materialization on its reputation, but does not separately distinguish a reputation risk.

NBU orders on risk management set out the management policy for certain types of NBU risks, its risk tolerance level, and its risk appetite. The activities of the NBU units are carried out within the established risk appetite.

The NBU's risk profile saw no major change in 2021.

Risk Management Process

The NBU Board organizes the risk management process and system in such a way that they correspond to the functions, specifics, and role of the NBU as Ukraine's central bank and special central body of public administration determining Ukraine's monetary policy.

The NBU's risk management system aims to support its institutional capacity and independence by protecting its assets, capital, and reputation, as well as maintaining the level of trust in the central bank and the policy that the NBU develops and implements.

The NBU's risk management system is based on holistic risk management as a systematic and continuous process. It is run by the NBU Board and NBU employees, starting from the NBU's strategy development and throughout its whole activity.

The NBU's risk management process is a continuous process incorporated in the management of the NBU at all organizational levels, and embedded in the corporate culture and daily activities of the NBU. This process is aimed at detecting events that may adversely affect the NBU's activities, and the management of risks related to such events within the set level of risk appetite, in order to ensure that the NBU performs its functions and achieves its goals.

The NBU's risk management process comprises the following interconnected components:

- internal environment and risk management culture
- risk management circumstances (context)
- detection of events that can have an adverse impact on the NBU's operation
- risk assessment
- measures in response to risks (counterreaction to risks)
- control function
- information, communications, and reporting
- monitoring and review of the risk management system.

The NBU's **financial risk management policy** covers all of the central bank's assets and liabilities (both on- and off-balance-sheet items).

Notes 22–27 of the NBU's Consolidated Financial Statements contain information on the stages of the financial

risk management process, the measures taken by the NBU in response to financial risks, and a detailed evaluation of the risks.

The NBU's **operational risk management policy** covers all processes and projects of the NBU.

The operational risk management process has the following stages:

- prevention of operational risks
- identification of operational risks
- assessment (measurement) and analysis of operational risks
- monitoring of operational risks and reporting
- development of measures for operational risk management
- implementation of measures for operational risk management
- evaluation and monitoring of the results of the implementation of measures for operational risk management.

The NBU is conducting regular training events in order to enhance its operational risk management culture and raise awareness of these risks among top managers and employees.

Internal Control System

The NBU has introduced a uniform and structured approach and requirements to ensure internal control of proper performance of assignments and functions of the NBU both now and in the future, credible reporting, and the NBU's compliance with laws.

Controls are launched in testing mode to monitor effectiveness of the internal control system.

The NBU's internal controls and risk management are interrelated and complementary systems with aligned goals and based on the **three lines of defense policy**.

The NBU units that are the **first line of defense** own all of the risks that fall under their mandate and are responsible for drawing up, introducing, compliance and improving control procedures when performing functions/assignments.

Units of the **second line of defense** support risk management and control procedures within the remit and have the mandate to propose/recommend improvements of business control to other units according to control procedure performance findings.

The Internal Audit Department performs the functions of the **third line of defense**.

Business Continuity Management

The NBU performs the following to ensure the business continuity:

- testing and configuring backup workplaces as part of implementing the NBU's *General Business Continuity*

Plan and Plan for the Recovery of IT Resources After Failures

- conducting a periodic analysis of the impact of adverse factors on the NBU's processes and the operational continuity of its units
- updating the NBU's business continuity plans
- offering training in the area of business continuity.

Part 4. Overview of Key Indicators

4.1. Overview of Key Indicators

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

NBU financial statements cover the consolidated financial statements prepared according to the IFRS, the Laws of Ukraine *On the National Bank of Ukraine* and *On Accounting and Financial Reporting in Ukraine*.

As of the end of 2021, the NBU's balance-sheet total increased by 3.4%, to UAH 1,377 billion.

In 2021, the central bank continued to execute its functions, forming the corresponding profile of its assets, liabilities, and equity.

The NBU's assets mainly consist of:

- foreign securities
- domestic securities
- funds and deposits in foreign currency and investment metals.

The NBU's liabilities mainly include:

- banknotes and coins in circulation
- certificates of deposit issued by the NBU
- liabilities to the IMF.

Figure 1. NBU's assets and liabilities in 2020–2021, UAH millions



The following changes occurred in the NBU's assets and liabilities in 2021.

International reserves increased as a result of the central bank's policy of accumulating reserves.

Overall, international reserves rose by 6%, to USD 30.9 billion as of year-end 2021, up from USD 29.1 billion at the end of 2020.

This increase was caused by proceeds of UAS 11.2 billion in favor of Government, including from placement of domestic government bonds in USD 4.0 billion, placement of Eurobonds in USD 1.8 billion, and a loan tranche from IMF by SBA program in USD 3.4 billion, and other international creditors in USD 2.0 billion.

The positive balance of NBU interventions of USD 2.4 billion along with the changes in market value of financial instruments also helped the international reserves grow.

The decrease of the international reserves resulted from the governmental payments under external and internal liabilities and repayment of debt to IMF, as well as changes in the hryvnia exchange rate.

The main tools in the process of managing International Reserves were securities of nonresidents and short-term deposits with nonresident banks.

The NBU's hryvnia assets are mainly comprised of domestic securities, the value of which decreased by UAH 11.5 billion or 3.4% in 2021, to UAH 324 billion. This, together with the rise in assets that form international reserves, reduced the percentage of domestic securities in the NBU's balance-sheet total to 23.5% in 2021, down from 25.2% in 2020. Of the domestic securities, 99.7% are securities held to generate

cash flows in line with the terms of issue, and are accounted at their amortized cost.

The NBU's loan portfolio grew 1.5 times, mostly due to loans issued to banks via the NBU's tendering procedure. The main share of increase was related to introduction of long-term lending instruments. Thus, the gross book value of loans (outstanding debts) increased by almost UAH 31 billion, to UAH 135 billion, UAH 90 billion of those are long-term loans. 28.9% of debts outstanding as of the end of 2021 consisted of the problem debts of banks that were being wound up. However, the gradual repayment of debt on such loans continues - in particular, during 2021, UAH 2.5 billion were repaid, and the amount of expected loan losses (reserves provisioned) decreased by UAH 1.8 billion.

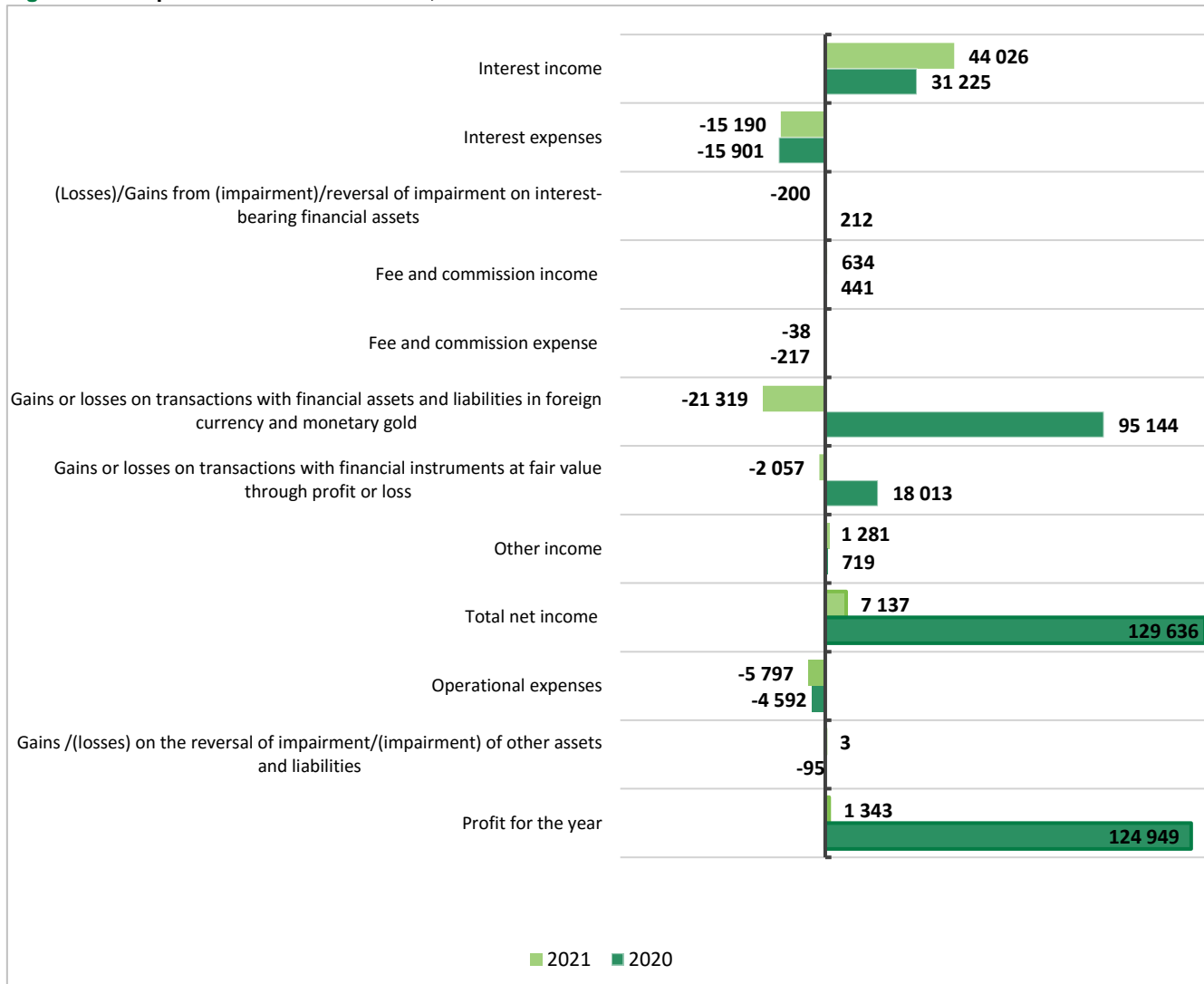
Separate from its liabilities to the IMF, the NBU's liabilities changed as follows:

- Banknotes and coins in circulation grew by 12.4%.
- Certificates of deposit issued by the NBU increased by 30.2%.
- Accounts of banks on demand increased by 14.2%.
- Funds due to state institutions and other institutions declined by 22%.
- Liabilities to transfer profits to the state budget decreased by 23.1%.

Profit or Loss

The main driver of the NBU's profit is traditionally the interest income.

Compared with 2020, interest income, mainly from domestic securities and loans to banks, increased and reached UAH 44 billion, while domestic securities volumes declined and average weighted interest rates grew.

Figure 2. NBU profit or loss in 2020–2021, UAH millions

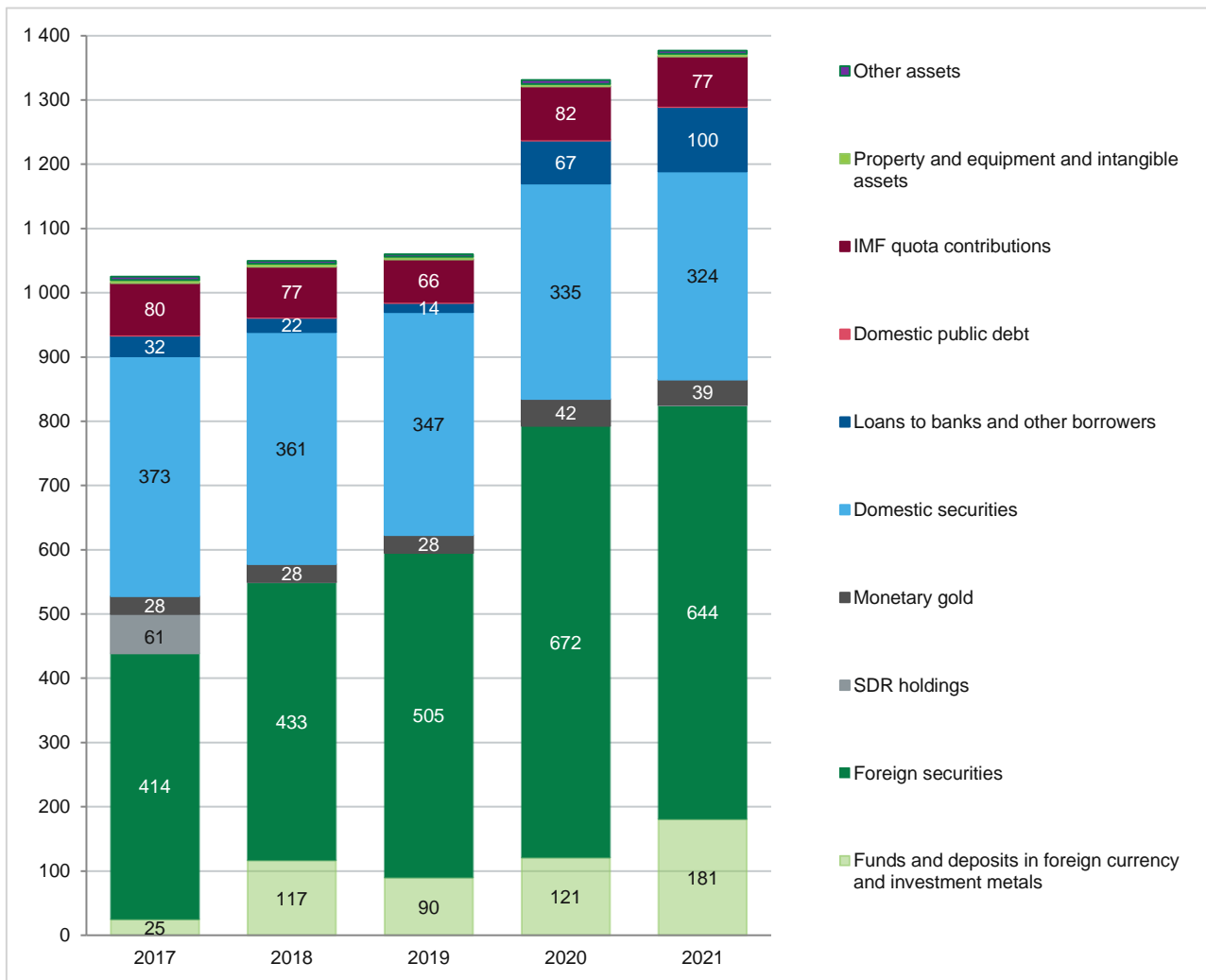
In 2021, interest expenses reduced by 4%, to UAH 15.2 billion, which was mostly due to reduction of expenses for liabilities to IMF under which the interest is paid. At the same time, higher expenses on NBU certificates of deposit associated with the volume increase were observed as weighted average interest rates reduced to 8.47% as of year-end 2021 from 5.68% as of year-end 2020.

In 2021, the NBU's impairment provisions for loans issued to banks increased. Overall, due to impairment of interest-bearing financial assets, expenses (negative result) were UAH 200 million, unlike in 2020, when positive result of UAH 212 million was registered, owing to reversal of the impairment or repayments of main interest-bearing financial assets.

Net interest income (including the reversal of impairment) totaled UAH 28.6 billion in 2021, which was 84% higher than in 2020.

Due to a floating exchange rate regime, exchange rate fluctuations have exerted a significant influence on the NBU's performance and cause high volatility of both the relevant item and the NBU's financial result. In particular, in 2021, the result of exchange rate fluctuations was negative at UAH 21.3 billion (while in 2020 it was positive at UAH 95.1 billion).

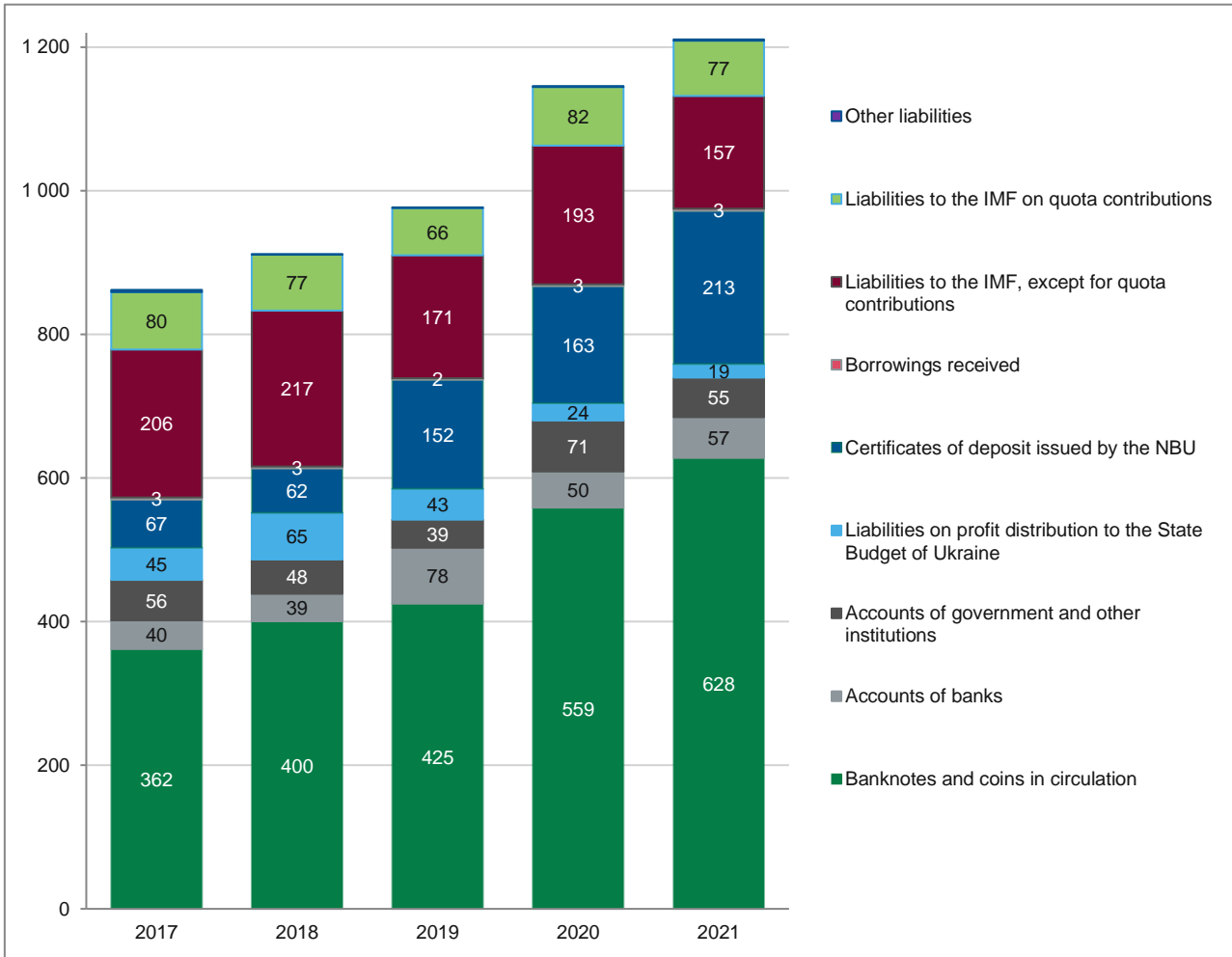
NBU administrative and other expenses increased by 26% from UAH 4,592 million in 2020 to UAH 5,797 million in 2021. In 2021, unlike before, provisions for court complaints were not formed (in 2020 they were UAH 92 million).

Figure 3. NBU assets in 2017–2021, UAH billions

Over the past five years, the main changes in the NBU's asset structure came from increases in components of international reserves (save for foreign securities, whose book value declined for the first time in five years) and loans to banks.

On the other hand, the share of domestic securities, represented primarily by government debt securities, is gradually shrinking.

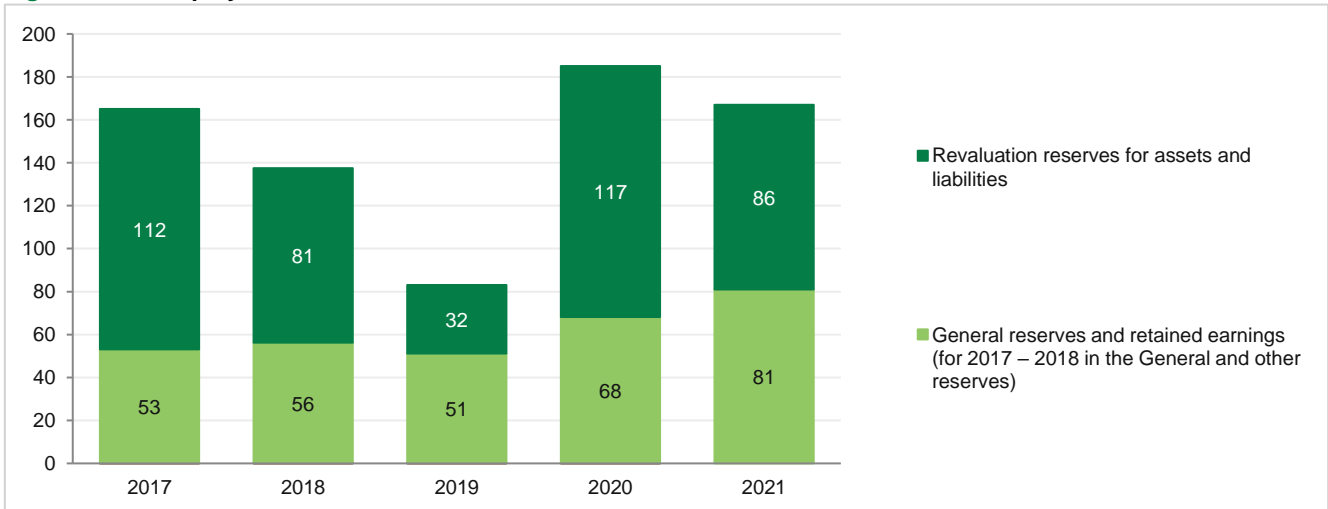
Figure 4. NBU liabilities in 2017–2021, UAH billions



In general, the liabilities structure has hardly changed over the past five years.

A large portion of the NBU’s liabilities consists of banknotes and coins in circulation, liabilities to IMF, and NBU certificates of deposit.

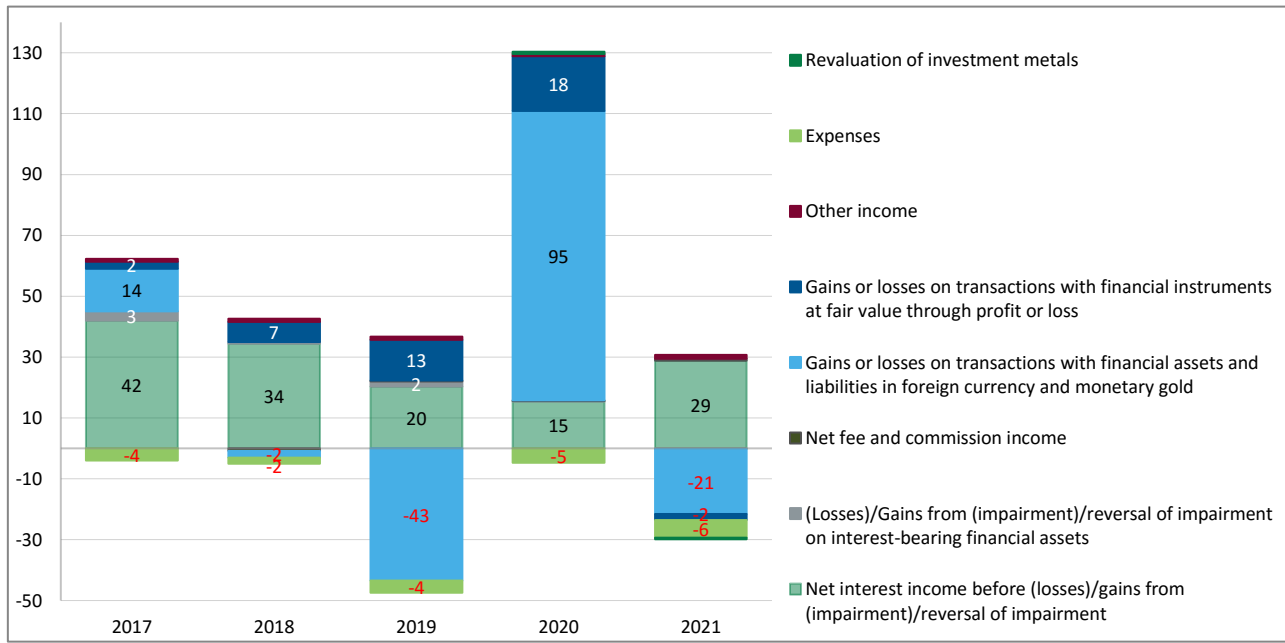
Figure 5. NBU equity in 2017–2021, UAH billions



The NBU's equity, which is the residual value of assets after deducting liabilities, was mainly formed from sources other than government contributions. The NBU's equity consisted of the deferred unrealized revaluation of the NBU's assets

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

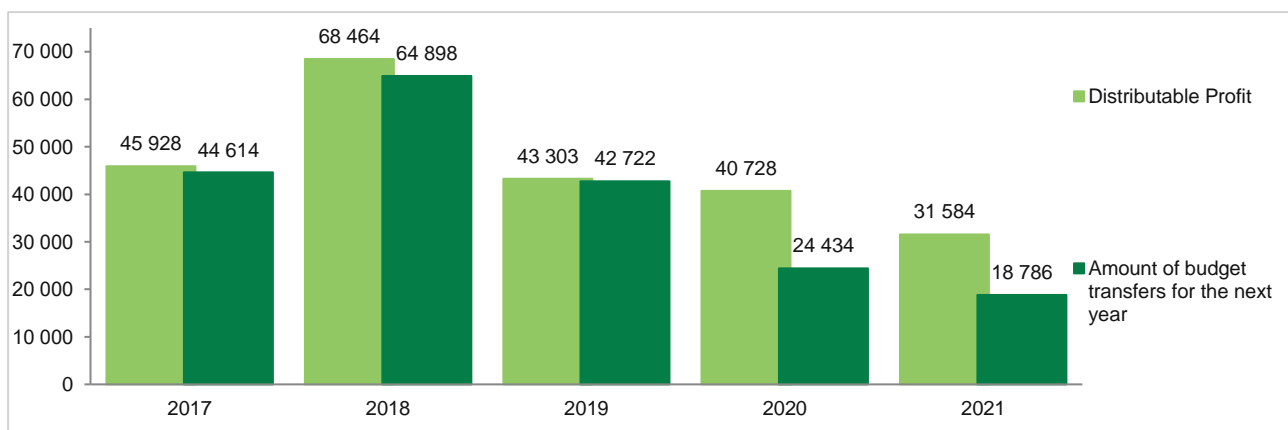
Figure 6. NBU income and expenses in 2017–2021, UAH billions



Net interest income as usual was the main contributor to the NBU's financial result. The central bank's financial performance is also influenced by changes in the exchange

rate due to the floating exchange rate regime and a large share of FX items being on the NBU's balance sheet.

Figure 7. Transfers by the NBU to the State Budget of Ukraine in 2017–2021, UAH millions



Payments to the State Budget of Ukraine

In 2021, the NBU transferred UAH 24.4 billion to the State Budget of Ukraine. As of 31 December 2021, the central bank

recognized its obligation to pay UAH 18.8 billion of its profit to the state budget.

The NBU's remaining distributable profit of UAH 12.8 billion will be set aside to create general reserves of the NBU.

Read more about the changes in accounting policy in Section II.1. Financial Instruments, Note 4 to the NBU's Consolidated

Financial Statements. Read more about identifying the distributable profit, liabilities to transfer the distributable profit to the State Budget of Ukraine, and creating general reserves of the NBU in note 29 thereto.

4.2. Overview of Other Indicators

4.2.1. Financial Resources

NBU's Administrative Expenses

The NBU operates under the administrative budget, which is drafted for the year ahead and approved by the NBU Council.

The below table provides data on key items in the administrative budget for 2021 and planned data for 2022. In addition, based on results of Q1 2022 the Plan for 2022 was

amended as regards the expenses and investments. Thus, the NBU's expenses for performing functions and tasks to ensure the business continuity under martial law were increased by UAH 47.2 million. The investments were reduced by UAH 202 million due to cancelling certain projects and investment events aimed at development and modernization. The investments to ensure the NBU's business continuity mainly remained unchanged.

NBU's administrative expenses (including expenses of the Settlement Center) for 2021–2022

	Planned for 2021 (revised)	Actual performance in 2021	Progress in 2021, %	Planned for 2022
	(UAH million)			
Staff costs	2,612	2,563	98%	3,345
Administrative and other expenses	656	472	72%	701
Depreciation and amortization	225	221	98%	267
Total administrative expenses	3,493	3,256	93%	4,313
Provisioning on assets and other provisioning	10	198	1,980%	0
Investment costs for creating and developing facilities and equipment required for the NBU's operation	766	634	83%	668

Since 2022, provisioning on assets and other provisioning are not included into the administrative expenses estimate.

The data presented show that the NBU is complying with its planned administrative expenses and is managing to save resources. This is in line with the NBU's goal of using public resources efficiently and effectively.

According to the results for 2021, administrative expenses were lower than planned by 7% on average.

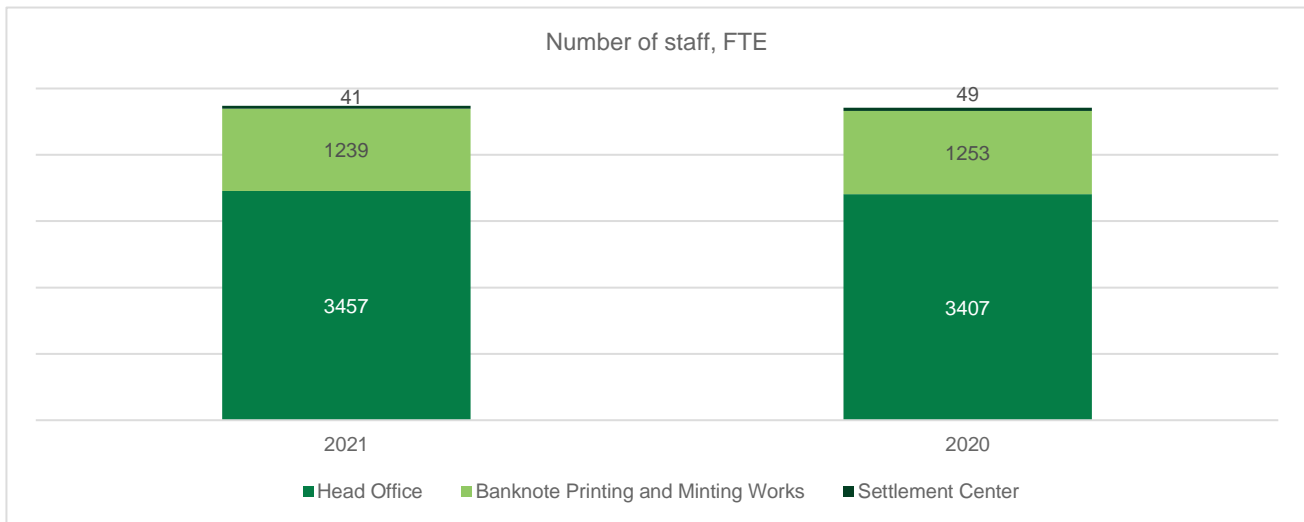
In 2021, the planned indicators of administrative expenses for 2021 were amended according to the current NBU procedure

and the planned administrative expenses and investments into creation and development of the bank's material and technical base to support its operation were increased.

Also, in 2021 a part of funds planned for expanding the NBU's material and technical base remained unused (about 17% of the planned amount). It was mainly related to quarantine restrictions and postponing/cancelling certain projects and events.

4.2.2. Human Resources

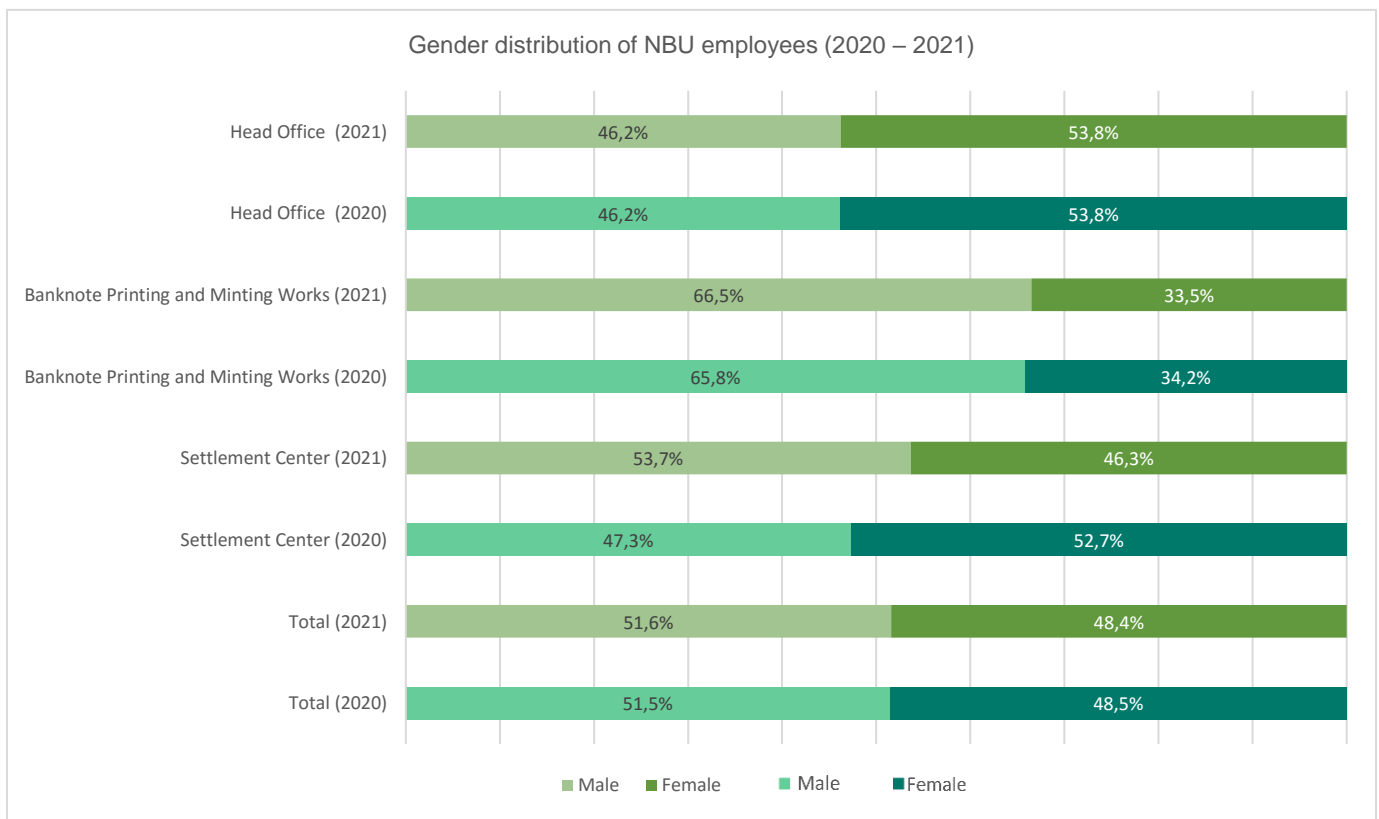
As of 31 December 2021, the NBU staff number increased by 0.61% compared with the previous year and was 4,737 FTEs (staff at work); as of 31 December 2020, it was 4,708 FTE.



As at 31 December 2021, the average age of an NBU employee was 46 years, and the average employee tenure for the NBU was 12 years. NBU employee gender distribution is as follows: the NBU's Head Office employs 53.8% females

and 46.2% males, the Banknote Printing and Minting Works – 33.5% females and 66.5% males, Settlement Center - 46.3% females and 53.7% males.

The NBU staff structure by gender as of 31 December 2020 and 31 December 2021 was as follows:



The NBU staff structure by occupational classification as of 31 December 2020 and 31 December 2021 was as follows:



For more information on the NBU labor costs in 2021 refer to Note 34 of the NBU Consolidated Financial Statements.

In 2021, the average base pay (or the base component of remuneration) was UAH 33,734 at the NBU Head Office; UAH 17,314 at the Banknote Printing and Minting Works; UAH 34,300 at the Settlement Center.

The average salary including additional payments (salary supplements, bonuses, extra pay, etc.) was UAH 48,574 at the NBU Head Office; UAH 27,177 at the Banknote Printing and Minting Works; and UAH 42,683 at the Settlement Center.

During the reporting year, the NBU worked under quarantine restrictions. Almost all training events were held in online format. In 2021 the number of training events increased substantially, and more employees took part in them.

In particular, the total number of the training events held in 2021 was 770, which was nearly 40% more than in 2020. The number of participants exceeded 10,000 attendees.

This year the trend for prevalence of hard skills trainings preserved, in particular, those involving international providers, comparative to the soft skills training, 459 vs 240 events in 2021, respectively. Most soft skills trainings were conducted by the NBU internal trainers.

In 2021 the NBU improved the training formats. The peer-to-peer trainings were launched and supported where the

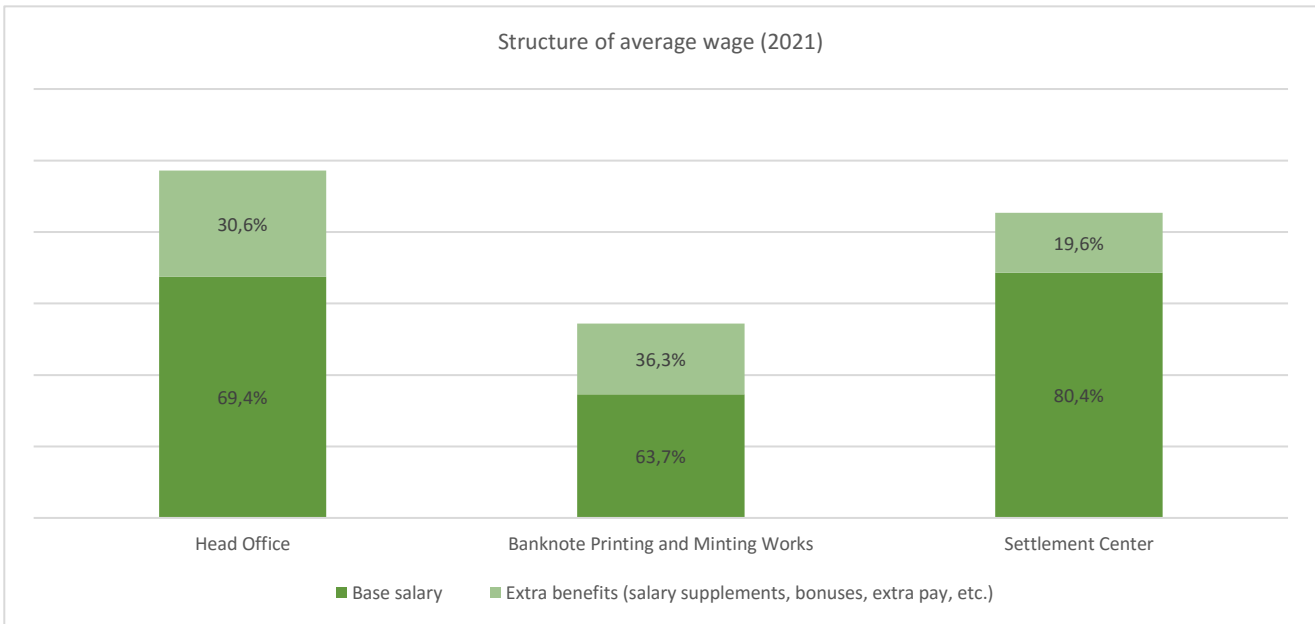
employees of various units share their professional knowledge. The colleagues from various NBU units held 33 training events that were attended by 4,057 employees.

Training in a format of club events (Public Speaking Club, Communications Club) has become the largest change in educational formats. The information on those is available at the Remote Training System (hereinafter referred to as the RTS).

The RTS online courses were especially popular and covered almost all NBU employees. In addition, knowledge sharing platforms were established within the RTS.

In 2021, training courses on organization of remote work mode were developed and conducted, covering also the information protection issues. The employees were granted access to all materials, necessary for a continuous remote work.

Within the year, the NBU has held all planned events of the employees' development program. 53 managers of different management levels took part in educational events. Within the succession program the employees took part in various events aimed at developing competences, managing conflicts, resolving difficult problems and situations. The mentors acquired new skills of coaching and behaving in nonconventional communications. They learned how to organize the mentorship process correctly and efficiently, what is the role of a mentor in the NBU's corporate culture.



4.2.3. Production Resources

State Property Management

In order to implement the Strategy of Infrastructure Development and Corporate Operation Support in 2021-2024, a list of the NBU's real estate was approved. It was classified into four basic segments, including the property planned to be transferred for free (43 items) and disposed through termination of the right to use land plots (8 objects). In 2021, 25 items were withdrawn from the state property (5 by writing-off, 11 by transfer to another public authority, the rights to use 9 land plots were terminated).

The detailed information on the NBU buildings and facilities is given in Note 30 to the NBU's Consolidated Financial Statements.

Foreclosed Collateral Management

In 2021, the NBU received UAH 1.4 billion in repayment of debt on refinancing loans of insolvent banks (in 2020: UAH 2.2 billion).

Most funds were received from the NBU's foreclosure on encumbered real estate though its acquiring into ownership: UAH 441.5 million.

	2021			2020		
	Through DGF	Through third parties	Total	Through DGF	Through third parties	Total
Repayments from sale of collateral:						
real estate	210	227	437	229	73	302
securities and investment metals	161	–	161	–	–	–
property rights under pledged loans	175	–	175	1,018	–	1,018
Total repayments from sale of collateral	546	227	773	1,247	73	1,320
Repayments through NBU's acquisition of title to:						
real estate	441	–	441	118	240	358
securities	–	–	–	–	–	–
from other sources	193	–	193	252	248	500
Total	1,180	227	1,407	1,617	561	2,178

In the domestic jurisdiction courts, the NBU within economic and civil proceedings on refinancing loans repayment by insolvent banks withdrawn from the market by the DGF, has filed 107 suits to property surety providers and 10 suits to financial guarantee providers, as well as 3 suits to 4 individuals within criminal proceedings.

As of the end of 2021, under the NBU suits, the courts of different instances considered 20 claims to property surety providers on foreclosure of property, 12 cases on bankruptcy

4.2.4. Intellectual Resources

The intellectual resources of the National Bank of Ukraine being intangible assets comprise mainly of software and licenses for its use.

Improvement of Reporting System

In 2021, the NBU continued to improve the reports to be submitted to the NBU by market participants.

The detailed information on improvement of reporting system can be found in section Improvement of the Reporting Collection System for Annual Report of the National Bank of Ukraine for 2021.

Research and Development

In order to explain and support economic policy decisions aimed at maintaining macroeconomic stability and improving the effectiveness of monetary policy, the NBU in 2021 continued the majority of its research projects in monetary policy, financial stability, and macroeconomic modelling and forecasting. New important topics have also appeared for the central bank to research.

Out of more than 30 ongoing projects carried out in 2021, those are worth noting that had the most important results and that were published in peer-reviewed journals or other reputable publications. They related to:

- the impact of monetary policy shocks on aggregate consumption (<https://doi.org/10.1016/j.jmoneco.2021.02.002>)
- the relation between wages and unemployment at the micro level based on online vacancies data (<https://doi.org/10.1016/j.jce.2021.05.003>)
- GDP gap decomposition (<https://doi.org/10.1016/j.econmod.2021.105505>)
- price-setting factors on the lending market of Ukraine (<https://doi.org/10.26531/vnbu2021.251.01>)
- calculating the financial stress index (<https://doi.org/10.26531/vnbu2021.251.03>)
- inflation and GDP forecasting (<https://doi.org/10.26531/vnbu2021.251.02>)
- real neutral interest rate estimate (<https://voxukraine.org/en/neutral-price-of-money-the->

of property surety providers, 8 claims to financial guarantee providers, and 3 civil actions within criminal cases.

All court rulings involving financial surety providers and property surety providers that had taken effect were in favor of the NBU and are being enforced. In two bankruptcy cases the NBU's creditor claims were satisfied in full at the expense of pledged property.

[way-the-national-bank-evaluates-how-tight-its-monetary-policies-are/](#).

A number of research events organized in 2021 by the NBU have also helped raise trust in the monetary policy, including:

- The Policy Toolkit for a World in Flux, annual research conference (10–11 June 2021) Keynote speakers: Alan Blinder (Princeton University) and Mikhail Golosov (University of Chicago)
- the research workshops, *Big Data in Macroeconomic Analysis: Collection to Visualization* (23–24 February 2021) and *Inflation Targeting in Emerging Markets* (26 November 2021)
- open research seminars (15 seminars)
- a conference for students and young scientists, Banking Sector and Monetary Policy: Development Prospects (21 May 2021)
- the contest, *Monetary Policy: NBU University Challenge* (3 December 2021).

Responding to new challenges, the NBU in 2021 updated its research priorities for the period until 2025. The NBU will focus its research on:

- raising the effectiveness of its monetary policy
- maintaining financial stability
- long-term challenges in the real sector
- developing digital markets, products, and their regulation.

Information Technologies

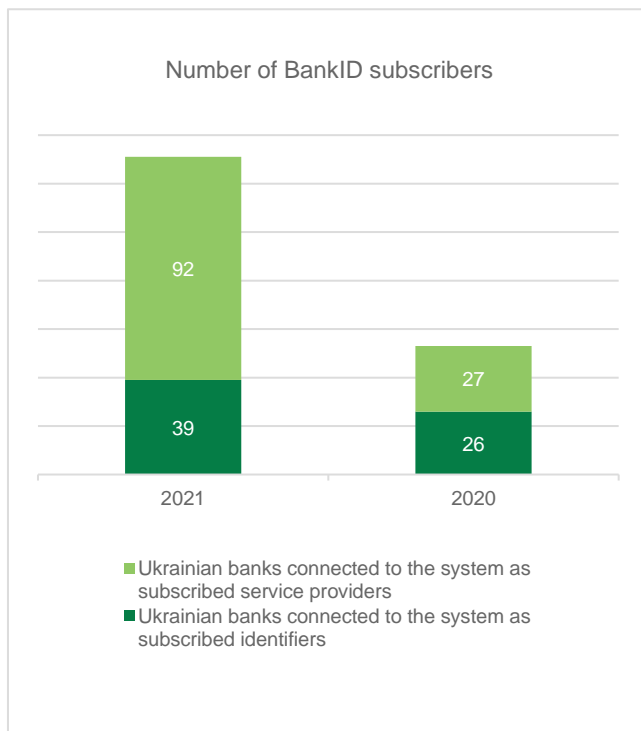
The NBU information technologies have been developing continually, the best global practices in creating secure and reliable IT infrastructures are used for their improvement.

Under the Ukraine's Payment Infrastructure Development Based on ISO 20022 Standard project, the NBU has been preparing to implement the NBU's new-generation system of electronic payments (SEP 4.0) based on ISO 20022 international standard to be operated in 24/7 mode.

The national system of electronic remote identification of individuals (hereinafter referred to the "NBU BankID System") put into operation in December 2016, has been further developed.

As of the end of 2021, the NBU **BankID System** had 131 subscribers (as of the end of 2020 – 53 subscribers), including:

- 39 banks of Ukraine working in the system as identifying subscribers, 13 of which joined in 2021
- 92 legal entities (including 83 legal entities) connected to the system as subscribed service providers, including Ministry of Digital Transformation of Ukraine with DIIA application and ID.GOV.UA Integrated Electronic Identification System. In 2021, 54 commercial subscribed service providers joined the system.



In Q4 2021, over 13.7 million successful electronic remote identifications were performed using the NBU BankID System. In 2021, over 30.1 million successful electronic remote identifications were performed (in 2020 - 7.6 million).

In 2018, the **NBU Credit Register** (Credit Register) based on the reporting form *Banks' Exposures* was introduced to analyze financial system conditions and ensure financial stability. Since 2019, the Credit Register has also been used for the information support of the credit risk assessment by banks.

Since the start of its operation, the software on receipt of information on banks' exposures processed the information on more than 12.1 million credit agreements (including 0.8 million in the Credit Register) that were concluded with appr. 3.8 million individuals (including over 0.1 million in the Credit Register) and almost 0.3 million of legal entities (including over 0.73 million in the Credit Register).

As of the end of 2021 the information on over 196,000 effective credit agreements concluded with over 106,000

customers is stored in the Credit Register data base (including 41,343 legal entities and 65,015 individuals).

Thus, in 2021 the Decentralized Register of Nonresident Accounts was established using the BlockChain technology and put into operation.

To ensure the regulator's openness and transparency, a system for publication on information in a form of open data (**OpenData**) was developed and introduced for unrestricted and free access to the qualitative, prompt, and complete statistical information through API OpenData of the NBU. The open data are allowed for further free use and dissemination according to Article 101 of the Law of Ukraine *On Access to Public Information*.

The NBU's system of banking and financial transactions automation (**NBU SAP**) is continually developed and improved.

In recent years, the NBU SAP system based on SAP systems, was transferred to a new technology platform, S/4HANA. Thus, in 2021 in addition to the tasks related to the NBU internal operation, NBU SAP also ensured as follows:

- improving the processes on management of refinancing loans of Ukrainian banks
- finalizing the functionality of electronic sick leaves processing
- signing the certificates on the services provided by the NBU in electronic form and sending them to the customers' emails
- settlement for the services provided by the NBU, including certain payments in accordance with the Procedure for Assistance Provision to Insured Persons During Period of Anti-Pandemic Restrictions to Prevent COVID-19 Spreading.

In 2021, almost 2,000 amendments to the indicators' algorithms were made in data warehouse, including new indicators. More than 800 changes to reports (including new ones) were introduced in the *Reporting Analytical System*, more than 140 requests to control change of reporting files processed at the portal for the reporting submission. NoCode-Validation system was launched that enables introduction of reporting control without the IT specialist participation.

In particular, the following changes were implemented: to economic ratios calculations, mandatory provisions, indicators for the IMF, early warning system (EWS), payment systems and settlement systems, system of control of violations of currency legislation, sanctions and financial monitoring laws, assessment by banks of credit risk, indicators of risky activities, control of special personal economic and other restrictive measures (sanctions), nonbank institutions reporting, direct investments to/from Ukraine, forms of state statistical observations, monitoring of shares of the authorized banks in general cash proceeds and withdrawals, publications in the OpenData form, etc.

A report on disclosure of the ownership structure of banks and other financial service providers was introduced. The structure's transparency helps the regulator to understand exactly the entity that stands behind the institution, controls it, or has decisive influence. The aim of this innovation is to protect the interests of customers and society, to provide the opportunity for reviewing at the NBU website the real controllers of any institution.

A report on calculation of liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) pursuant to Basel III and EU Directives/Regulations requirements was implemented. It is aimed at introduction of the global practices on information disclosure based on COREP reporting to ensure the transparency of operations of the financial sector participants.

A report on risks concentration of banking group and major intra-group transactions was also introduced for conducting analysis of the banking group's activities.

To optimize the processes of information exchange between the NBU information systems in the Automated Banking System BARS Millenium (ABS BARS) new exchange interfaces for data exchange were implemented based on web-services architecture and via IBM Integration Bus in replacement of the outdated file-sharing mechanism.

New interfaces were developed and implemented for the following systems:

- SWIFT Alliance system
- NBU's System for Automated Transactions with Foreign Exchange Reserves (SAT RM) to exchange SWIFT messages and synchronize the securities reference books
- NBU SAP for transfer of documents into Cost Estimate automated system and payments for services received via SEP
- NBU information systems for acceptance and processing of payment documents (via payment service platform)
- from SwapLine to exchange data on swap agreements to automate the accounting of interest rate swap transactions.

Pursuant to the NBU functional strategies the system Customer Bank ABS BARS was upgraded: the unified interface ABS BARS for the Customer Bank system users was introduced, which implements the function of processing electronic payment documents in foreign currency.

In order to implement the qualified electronic signature for the accounting documents and registers in ABS BARS the algorithm of the electronic signature generation and verification for accounting documents was changed for a new one using the software and hardware package of a qualified electronic signature.

The integration with the NBU new-generation system of electronic payments SEP 4 that meets ISO 20022 standard requirements, is being finalized and tested.

The NBU implements a continual work on efficient management of the information technologies business continuity. The NBU continues the efforts on building a modern Data Processing Center.

The bank developed the regulations on business continuity planning, updating and testing of disaster recovery plans (DRP). The measures on mitigation of the operational risks impact on information resources and improvement of the internal control systems are continually implemented.

The NBU information systems continuity is also maintained due to continual user support by Omnitracker system which is developed and improved by covering more aspects of assisting the NBU employees' activities. The NBU ensures timely (prompt) and qualitative servicing of its employees in cases requiring the interference of IT specialists in all premises of the NBU, including different regions of Ukraine.

The detailed information on information technologies development system can be found in Goal 11. Digital Transformation of the Annual Report of the National Bank of Ukraine for 2021.

Information Security and Cyber Defense

In 2021, the NBU implemented the tasks laid in the Law of Ukraine *On the Basic Principles of Cybersecurity of Ukraine* and its powers as a subject of the national system of cybersecurity. The NBU's employees within its competence and powers continued their activities in working groups of the Ukrainian parliament committees, National Coordination Center for Cybersecurity to the National Security and Defense Council of Ukraine on formation of the domestic laws on ensuring the cybersecurity of Ukraine and protection of its critical infrastructure.

The Cyber Security Center of the National Bank of Ukraine continued increasing its potential in ensuring cyber security. The NBU in 2021 worked on advancing the abilities of the Cyber Security Incidents Response Team of the National Bank of Ukraine (CSIRT-NBU) of the NBU Cyber Security Center to detect, respond, and neutralize cyber attacks and incidents, as well as increase a range of sources of information on current cyber threats. In 2021, CSIRT-NBU examined 2,000 samples of malware, and informed Ukrainian banks on detected cybersecurity incidents and reported attempted cyberattacks.

The experts of Deloitte & Touche LLP conducted the independent audit of SWIFT infrastructure and NBU's information security measures and concluded that the applied measures ensured a sufficient data protection.

The detailed information on cybersecurity and information security can be found in Goal 8. Cybersecurity of the Financial Sector of the Annual Report of the National Bank of Ukraine for 2021.

4.2.5. Social and Reputational Resources

In 2021, the NBU adopted a series of measures to create and maintain safe working conditions.

Labor Safety

Expenses on labor safety of the NBU

	2021	2020
	(UAH thousands)	
Labor safety measures	455	394
Work clothes, footwear	545	378
Mandatory and periodic medical examination	513	316
Compulsory traffic accident insurance	4	5
Purchase of medical products for first aid kits	63	2,135

In 2020–2021, a number of trainings in occupational health and safety were conducted:

	2021		2020	
	Number of events	Number of participants	Number of events	Number of participants
Labor safety	9	218	9	126
Fire safety	8	423	1	4
Remote training in labor safety (internal)	6	1,334	10	1,459
Total	23	1,975	20	1,589

Activities of the NBU Corporate Nonstate Pension Fund

As of 31 December 2021, the Fund has 12,720 participants (12,694 as of 31 December 2020), including 3,430 persons that receive pension benefits for a definite period (3,579 as of 31 December 2020). Book value of Fund's assets reached UAH 1,680 million on 31 December 2021 (on 31 December 2020, it amounted to UAH 1,606 million). In 2021 the founder contributed UAH 60 million to the Fund (UAH 44 million in 2020).

Voluntary Health Insurance

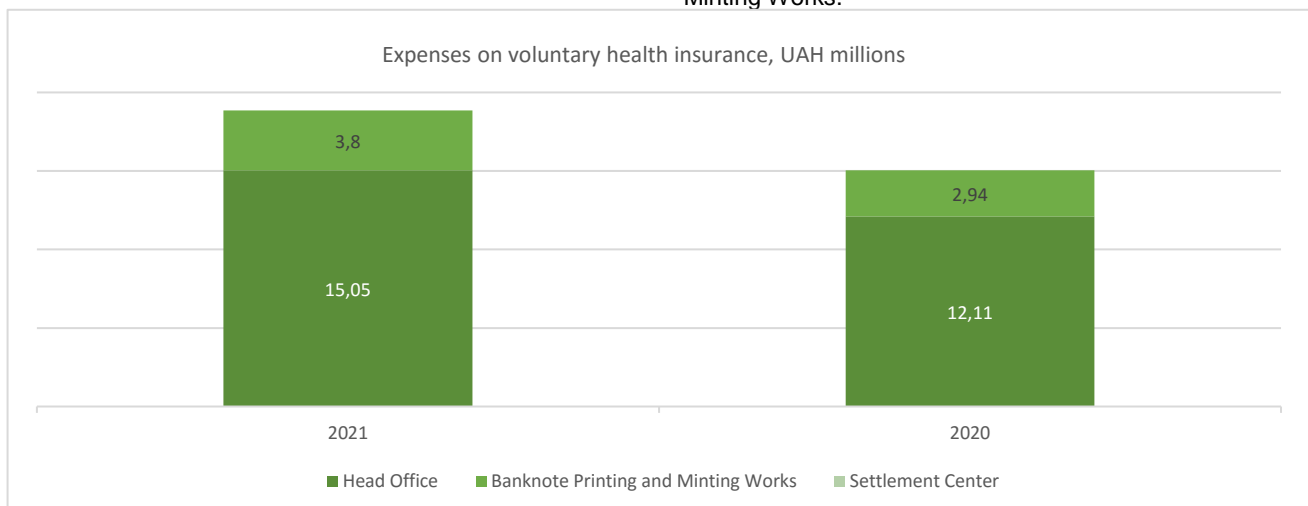
The number of insured persons amounted to 3,678 in 2021, including 2,939 employees of the NBU Head Office and 739 employees of the Banknote Printing and Minting Works. In 2020, the number of insured persons was 3,544, including

2,850 employees of the NBU Head Office and 694 employees of the Banknote Printing and Minting Works.

In 2021, the expenses for voluntary health insurance totaled UAH 18.85 million, including UAH 15.05 million on the NBU Head Office and UAH 3.8 million on the Banknote Printing and Minting Works (in 2020, the respective figures were UAH 15.05 million, UAH 12.11 million and UAH 2.94 million).

The NBU's Settlement Center is not covered by the voluntary health insurance program.

NBU's total expenses for financial assistance and other compensations amounted to UAH 11.56 million in 2021, including UAH 9.77 million to the employees of the NBU Head Office (UAH 9.54 million for healthcare and UAH 0.23 million for funerals), UAH 1.79 million to the Banknote Printing and Minting Works.



Operation of the Primary Labor Union Organization of the NBU

In 2021, the NBU's Labor Union supported the following activities:

- summer rest and recreation (including abroad) by union members with families
- trips with families within Ukraine
- weekend tours abroad for employees with families
- nonrepayable financial aid
- stay in children summer camps
- fitness club membership
- cultural events and entertainment for NBU staff
- gift certificates for the Labor Union members.

Number of employees that joined the Labor Union during the year was 210 persons (177 persons in 2020).

Financial Literacy

The NBU's efforts in enhancing the financial literacy this year were aimed at improvement of remote work with the audience and development of new channels of communications, due to COVID-19 outbreak. It enabled the NBU to enlarge the

4.2.6. Natural Resources

The NBU and its employees care about preserving the environment.

Thus, the collection and handing over of recyclables was organized at the NBU premises. The hazardous waste, such

as fluorescent lamps, are transferred to the organizations licensed to handle the hazardous materials. The waste containing valuable resources is sold for recycling.

The detailed information on financial literacy is available in section Boosting the Public's Financial Literacy of the Annual Report of the National Bank of Ukraine for 2021.

Volunteer Initiatives of the Staff

In 2021, the corporate culture implementation measures were focused on enhancing the employees' involvement using new formats of interaction through the projects of corporate volunteerism, communities development, new initiatives launching.

The detailed information on volunteer initiatives of the staff is available in section Training, Personnel Development, and Corporate Culture of Annual Report of the National Bank of Ukraine for 2021.

	2021		2020	
	Weight, kg	Amount, UAH thousand	Weight, kg	Amount, UAH thousand
Waste paper for recycling	84,071	203.49	114,620	171.93
PET containers (plastic bottles)	-	-	390	2.33
Mixed polyethylene waste (unsorted)	2,120	7.34	6,300	12.6
Plastic cassettes (plastic containers)	29,599	72	-	-
Lead batteries, damaged or exhausted	5,454	136.4	-	-
Coin scrap	45,770	1,262.22	40,185	651
Total		1,681.45		837.86

Each month the data on consumed energy resources, generated and removed waste from the NBU premises, are collected and summarized. Based on data on energy consumption, the emissions are calculated, and analysis on gas and water consumption is made. The monitoring of compliance with the environmental laws and standards in the NBU units is performed.

Water Consumption

The NBU's water resources management is based on efficient and rational use. To ensure the optimal water consumption by the institution both recirculating water systems and water reuse are used.

The NBU arranges quarterly monitoring of waste water quality and takes measures to reduce the concentration of detergents and hazardous substances in waste water. The

NBU's industrial sites are equipped with own treatment facilities and sanitary laboratories.

The water withdrawal by the NBU in 2021 and 2020 was as follows:

	2021				2020			
	Head Office	Banknote Printing and Minting Works	Settlement Center	Total	Head Office	Banknote Printing and Minting Works	Settlement Center	Total
Surface waters	-	411,878	-	411,878	-	224,046	-	224,046
Other sources	-	-	-	-	-	18,781	-	18,781
Municipal water supply	29.8	37.965	1.082	68.847	24.3	51.24	1.195	76.735
Underground waters	-	66,218	-	66,218	-	63,485	-	63,485
Total, thousand cub. m	29.8	516.061	1.082	546.943	24.3	357.552	1.195	383.047
Number of staff, persons (FTE)	3,457	1,239	40.82	4,736.82	3,406.5	1,253	48.75	4,708.25
Use of water per 1 person, cub. m	8.62	416.51	26.51	115.47	7.13	285.36	24.51	81.36

Responsible Consumption

Electric energy and natural gas consumption by the NBU in 2020–2021 was as follows:

	2021			2020		
	Volume, thousand units	Number of staff, persons (FTE)	Consumption per 1 person, thousand units	Volume, thousand units	Number of staff, persons (FTE)	Consumption per 1 person, thousand units
Electric energy consumption by the NBU for year, thousand kWh						
Head Office of the National Bank of Ukraine	8,758.682	3,457	2.534	8,241.663	3,406.5	2.419
Banknote Printing and Minting Works	33,841.395	1,239	27.313	28,488.000	1,253	22.736
Settlement Center	334.191	40.82	8.187	309.444	48.75	6.348
Total	42,934.268	4,736.82	9.064	37,039.107	4,708.25	7.867
Natural gas consumption by the NBU for year, thousand cub. m						
Head Office of the National Bank of Ukraine	388.333	3,457	0.112	378.958	3,406.5	0.111
Banknote Printing and Minting Works	4,238.392	1,239	3.421	3,624.330	1,253	2.893
Settlement Center	25.818	40.82	0.632	22.802	48.75	0.468
Total	4,652.543	4,736.82	0.982	4,026.09	4,708.25	0.855

Activities aimed at reducing energy consumption in the NBU administrative buildings continued throughout 2021.

Contaminating Agents Emissions

According to the requirements of environmental laws the NBU performs monitoring of environmental impact. A control system was established covering the entire manufacturing cycle:

- emissions and dumping from facilities undergo laboratory surveillance
- disposal sites are assessed for their impact on soil, ground waters and air
- air and underground waters at borders of the facility sanitary protection zones are sampled for quality control
- technical condition of environmental facilities and cleaning equipment is checked.

	2021			2020		
	Carbon dioxide (CO ₂) emissions related to natural gas consumption, tonnes	Natural gas consumption by the NBU for year, thousand cub. m	Emissions per 1 thousand cub. m of gas, tonnes	Carbon dioxide (CO ₂) emissions related to natural gas consumption, tonnes	Natural gas consumption by the NBU for year, thousand cub. m	Emissions per 1 thousand cub. m of gas, tonnes
Head Office of the National Bank of Ukraine	245.114	388.333	0.631	246.232	378.958	0.650
Banknote Printing and Minting Works	7,883.792	4,238.392	1.860	7,116.943	3,624.330	1.964
Settlement Center	55.742	25.818	2.159	49.045	22.802	2.151
Total	8,184.648	4,652.543	1.759	7,412.220	4,026.090	1.841

The data of monitoring allow to define the level of production impact to environment and to take prompt managerial decisions aimed at prevention and mitigation of environmental impact.

Part 5. Development Prospects

5.1. Key Accomplishments under Strategic Goals in 2021

To assess the progress made in implementing the Strategy, the NBU monitors target indicators of its strategic goals. By monitoring progress, the NBU's management obtains data to make informed and justified management decisions, including decisions on adjusting the lines of development, changing the methods of achieving the NBU Strategy's goals, or amending the functional strategies of the NBU and the operational plans of its subdivisions.

Achievement of the strategy's goals will be evidenced by the following:

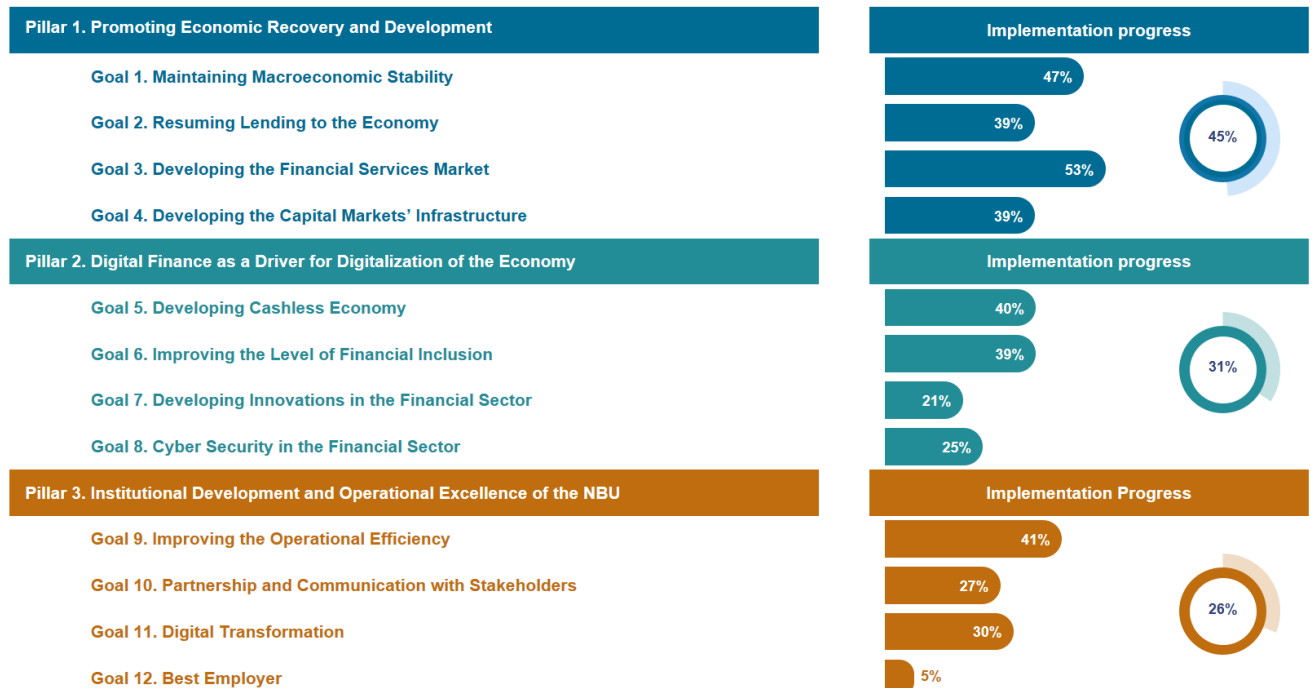
- The central bank remains committed to a prudent monetary policy, inflation targeting, and a flexible exchange rate.
- Supervision over banks and nonbank financial institutions is effective and in line with EU standards.
- Lending is resumed at a level that supports economic growth.
- The remaining restrictions on the free movement of capital are lifted.
- Individuals become more involved in using financial services.

- Legislation for the payment market is in place and promotes innovations in the market.
- The financial sector is resilient to cyber threats.
- The NBU has decided to launch e-hryvnias.
- The NBU enhances its operating performance and embarks on digital transformation.

Transparency of the Strategy is essential for our activities to be understood and trusted by society. The NBU is sure that this openness will unite all market participants around constructive joint efforts.

In 2021, the NBU achieved impressive progress in implementing Strategy 2021-2024. In the first year of the Strategy implementation, the progress was at 34%. Specifically, progress in implementing Pillar I. Promoting Economic Recovery and Growth was 45%, Pillar II. Digital Finance as a Driver of a Digitalized Economy – 31%, and Pillar III. Institutional development and operational excellence of the NBU - 26%.

Progress in implementing strategic goals:



5.2. Main achievements of the NBU in 2021 as part of implementing the Strategy of Ukrainian Financial Sector Development until 2025

The National Bank of Ukraine, the National Securities and Stock Market Commission, the Ministry of Finance of Ukraine, and the Deposit Guarantee Fund are jointly implementing the Strategy of Ukrainian Financial Sector Development until 2025. This strategy aims to ensure that financial sector regulators consolidate their efforts in order to further reform and develop Ukraine's financial sector in line with best international practices, and through implementing the measures envisaged by the EU-Ukraine Association Agreement and other international agreements to which Ukraine is a party.

NBU Strategy is closely related to interdepartmental strategies and the National Economic Strategy of Ukraine 2030. The interagency strategy measures for which the National Bank is responsible are included in the central bank's strategy.

On 31 March 2021, the NBU published a revised Strategy of Ukrainian Financial Sector Development until 2025, together with a report on the strategy's implementation in 2020.

In 2021, the NBU and other financial sector regulators collected and analyzed proposals regarding the strategy of financial sector development from those who are implementing it, field experts, and from financial market representatives. These proposals, which were approved by stakeholders, in Q1 2022 were to be submitted for consideration to the Financial Development Committee, followed by approval and publishing of the updated document. However, Russia's full-scale aggression against Ukraine caused certain adjustments to the plans.

The Fintech Strategy draws from the key areas set forth in the Strategy for Ukrainian Financial Sector Development until

2025. This is our plan for creating in Ukraine a full-fledged FinTech ecosystem that will offer cutting-edge financial solutions and accessible digital services. In September 2021, the NBU conducted a meeting with stakeholders and fintech company representatives to discuss proposals and groundwork in relation to the Fintech Strategy.

2021 also saw the first graduation of students who completed a mini MBA program "Digital Finance 4.0." This is an important element for the Fintech Strategy. The program mainly aims to provide all financial market participants with an inclusive academic education in the run-up to the implementation of open banking standards, and as set forth in the relevant Split Law. This will enable anyone who wishes to regularly obtain knowledge about digitalization trends in the financial sector, regulation standards, international standards and best practices in IT management. They will also be able to acquire skills in implementing cutting-edge technologies and practices.

In 2021, the NBU together with other stakeholders worked on drafting the National Strategy for the Development of Financial Literacy 2025; the presentation of the document was scheduled for February 2022. Given the new realities, the NBU plans to finalize and approve this strategy as soon as possible after the end of martial law, and to start its practical implementation.

The strategic documents of the NBU and the financial sector need to be revised, taking into account the impact of the war on the economy and the financial sector of Ukraine, as well as on the NBU's operation. The revision factor in the provisions of the Action Plan for Postwar Reconstruction and Development of Ukraine drawn up with active participation of the NBU.

Approved for issue and signed on behalf of the Board of the National Bank of Ukraine on 15 July 2022.

Governor

Kyrylo SHEVCHENKO

Chief Accountant, Director
Director of Accounting Department



Bohdan LUKASEVYCH



National Bank
of Ukraine

Consolidated Financial Statements

for the Year Ended 31 December 2021



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Translation from Ukrainian original

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Independent auditor's report

To the Council and the Board of the National Bank of Ukraine

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of the National Bank of Ukraine and its subsidiary (further - the National Bank of Ukraine), which are presented on pages 1 to 77 and comprise the consolidated statement of financial position as at 31 December 2021, and the consolidated statement of profit or loss and other comprehensive income, and consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the National Bank of Ukraine as at 31 December 2021 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs), and comply with the requirements for the preparation of financial statements established by Law of Ukraine "On accounting and financial statements in Ukraine" No. 996-XIV.

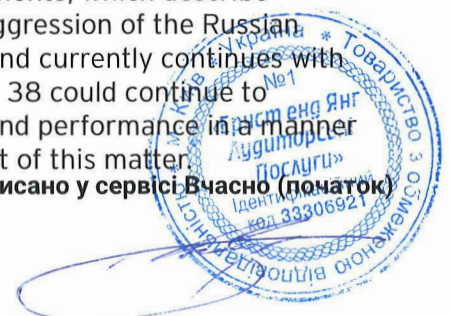
Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the National Bank of Ukraine in accordance with the International Ethics Standards Board for Accountants' (IESBA) International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in Ukraine, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter

We draw attention to Note 38 to the consolidated financial statements, which describe the current situation in Ukraine in connection with the military aggression of the Russian Federation against Ukraine which started on 24 February 2022 and currently continues with unpredictable consequences. The circumstances referred in Note 38 could continue to adversely affect the National Bank of Ukraine financial position and performance in a manner not currently determinable. Our opinion is not qualified in respect of this matter.

(i) **Документ підписано у сервісі Вчасно (понаток)**



Key audit matters incorporating the most significant risks of material misstatements, including assessed risk of material misstatements due to fraud

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter
------------------	--

Valuation of debt securities at fair value through profit or loss

As at 31 December 2021, the foreign securities portfolio of the National Bank of Ukraine included debt securities with a total carrying value of UAH 644,288 million, which were measured at fair value through profit or loss and represented 47% of consolidated total assets (Note 7). These securities were classified under Level 1, 2 and 3 of the fair value hierarchy.

The debt securities classified as at fair value through profit or loss are valued based on quotes on an active market (Level 1 inputs) or, in case of adjustments, based on adjusted quoted prices (Level 2 inputs), or in absence of quotes on an active market, based on valuation models (Level 3) (Note 21). Judgements applied in respect of inputs may result in different classification within fair value hierarchy and fair value amounts.

We identified valuation of debt securities at fair value through profit or loss as a key audit matter because of judgments applied in fair value measurements as well as due to

The audit procedures we performed to address valuation of debt securities at fair value through profit or loss as a key audit matter among others included:

- (a) Obtaining understanding of the process of fair value assessments, key sources of inputs and assumptions used by the National Bank of Ukraine to value debt securities;
- (b) Using our valuation specialists to assess the appropriateness of the methodology and the key underlying assumptions used by Management in fair value measurements of debt securities;
- (c) Valuing the debt securities of the National Bank of Ukraine independently, using our internal valuation specialists, based on publicly available market data and comparing their valuation to the valuation of the National Bank of Ukraine;
- (d) Testing of key inputs (discount rates, cash flows) and recalculating fair value amounts for a sample of Level 3 debt securities;

(ii)



Key audit matter

the significance of the assets to the consolidated financial statements and the impact of changes in valuation on the profit and loss.

Assessment of expected credit loss on debt securities at amortised cost

As at 31 December 2021, the domestic securities portfolio of the National Bank of Ukraine included debt securities at amortised cost with a total carrying value of UAH 322,861 million, which represented 23% of consolidated total assets (Note 9).

Assessment of expected credit losses on debt securities at amortised cost involves the use of judgments by Management (as disclosed Note 4 and Note 5) as to the assessment of probability of default and loss given default under a range of weighted macroeconomic scenarios; as well as identification of significant increase in credit risk since initial recognition or/and impairment of such debt securities.

Due to the significance of the balance of debt securities at amortised cost to the consolidated financial statements and judgmental nature of expected credit loss assessment, this matter was identified by us as a key audit matter.

How our audit addressed the key audit matter

e) Analysing disclosures in respect of debt securities at fair value through profit or loss included in the notes to the consolidated financial statements.

Among other, our audit procedures included obtaining an understanding and performing analysis of judgements applied by Management in measurement of expected credit losses on debt securities at amortised cost.

We assessed whether significant increase in credit risk or impairment in respect of such debt securities are present at the reporting date.

We also independently assessed under a range of probability weighted scenarios, with the help of our internal valuation specialists, amounts of expected credit losses on debt securities at amortised cost and compared to the assessment of the National Bank of Ukraine.

In addition, we analysed disclosures in respect of expected credit loss on debt securities at amortised cost included in the notes to the consolidated financial statements.



Other information included in the National Bank of Ukraine Management Report and National Bank of Ukraine Annual Report for 2021

Other information comprises the information included in the National Bank of Ukraine Management Report and in National Bank of Ukraine Annual Report for 2021, but does not include the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

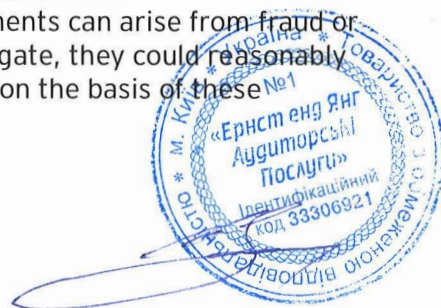
In preparing the consolidated financial statements, management is responsible for assessing the National Bank of Ukraine ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless those charge with governance either intends to liquidate the National Bank of Ukraine or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the National Bank of Ukraine financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

(iv)



As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- ▶ Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the National Bank of Ukraine internal control.
- ▶ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- ▶ Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the National Bank of Ukraine to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the National Bank of Ukraine to cease to continue as a going concern.
- ▶ Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- ▶ Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities of the National Bank of Ukraine and its subsidiary to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the National Bank of Ukraine and its subsidiary audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee of the National Bank of Ukraine's Council regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



We also provide the Audit Committee of the National Bank of Ukraine's Council with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit Committee of the National Bank of Ukraine's Council, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters.

Report on other legal and regulatory requirements

Pursuant to the requirements of Article 14 paragraph 4 of Law of Ukraine "On audit of financial statements and auditing activity" No. 2258-VIII (the "Law No. 2258-VIII") we provide the following information in our Independent Auditor's Report, which is required in addition to the requirements of International Standards on Auditing.

Appointment of the auditor and period of engagement

We were first appointed as independent auditors to perform a statutory audit of the National Bank of Ukraine consolidated financial statements on 22 October 2019 by the Council of the National Bank of Ukraine for five years term. The period of total uninterrupted engagement for performing the statutory audit of the National Bank of Ukraine is three years.

Consistency of the independent auditor's report with the additional report to the audit committee

We confirm that our independent auditor's report is consistent with the additional report to the Audit Committee of the National Bank of Ukraine Council, which we issued on 12 July 2022 in accordance with Article 35 of Law No. 2258-VIII.



Provision of non-audit services

We declare that no prohibited non-audit services referred to in Article 6 paragraph 4 of Law No. 2258-VIII were provided. In addition, there are no non-audit services which were provided by us to the National Bank of Ukraine and which have not been disclosed in the consolidated financial statements or the consolidated management report.

The partner in charge of the audit resulting in this independent auditor's report is Studynska Y.S.

For and on behalf Ernst & Young Audit Services LLC

Svistich O.M.
General Director

Studynska Y.S.
Partner

Registration number in the Register of auditors
and audit firms: 101250

Registration number in the Register of
auditors and audit firms: 101256

Kyiv, Ukraine

15 July 2022

Ernst & Young Audit Services LLC is included in
the Register of auditors and audit firms,
registration number: 3516.



According to the original
General Director
Svistich O.M.
15 July 2022



М. Київ * Україна * Товариство з обмеженою відповідальністю
«Ернст Енд Янг Аудиторські Послуги»
ЄДРПОУ/ІПН 33306921

Consolidated Statement of Financial Position

as of 31 December 2021

	Notes	2021	2020
(UAH millions)			
Assets			
Funds and deposits in foreign currency and investment metals	6	181,279	121,112
Foreign securities	7	644,288	671,778
SDR holdings	8.1	510	128
Monetary gold		38,800	42,014
Domestic securities	9	323,943	335,401
Loans to banks and other borrowers	10	99,861	66,930
Domestic public debt		1,541	1,635
IMF quota contributions	8.2	76,807	81,927
Property and equipment, and intangible assets	30	4,343	4,190
Other assets	11, 31	5,525	6,459
Total assets		1,376,897	1,331,574
Liabilities			
Banknotes and coins in circulation		627,819	558,694
Accounts of banks	12	57,136	50,017
Accounts of government and other institutions	13	55,133	70,664
Liabilities to transfer distributable profit to the State Budget of Ukraine	29	18,786	24,434
Certificates of deposit issued by the NBU	14	212,926	163,485
Borrowings received		2,728	2,827
Liabilities to the IMF, apart from IMF quota contributions	8.3	156,570	193,471
Liabilities to the IMF with respect to quota contributions	8.3	76,798	81,917
Other liabilities	15, 32	2,080	1,095
Total liabilities		1,209,976	1,146,604
Equity			
Statutory capital	28	100	100
General reserves and retained earnings	28	80,530	67,734
Revaluation reserves for assets and liabilities	28	86,247	117,092
Total equity		166,877	184,926
Noncontrolling interest		44	44
Total capital		166,921	184,970
Total equity and liabilities		1,376,897	1,331,574

Approved for issue and signed on behalf of the Board of the National Bank of Ukraine on 15 July 2022.

Governor

Kyrylo SHEVCHENKO

Chief Accountant,
Director of Accounting Department



Bohdan LUKASEVYCH

Notes on pages 5 through 77 are an integral part of these consolidated financial statements.

Consolidated Statement of Profit or Loss and Other Comprehensive Income for 2021

	Note	2021	2020
(UAH millions)			
Interest income	17	44,026	31,225
Interest expenses	17	(15,190)	(15,901)
Net interest income before (losses)/gains from (impairment)/reversal of impairment		28,836	15,324
(Losses)/Gains from (impairment)/reversal of impairment on interest-bearing financial assets	20	(200)	212
Net interest income after (losses)/gains from (impairment)/reversal of impairment		28,636	15,536
Fee and commission income		634	441
Fee and commission expense		(38)	(217)
Net fee and commission income		596	224
Gains or losses on transactions with financial assets and liabilities in foreign currency and monetary gold	18	(21,319)	95,144
Gains or losses on transactions with financial instruments at fair value through profit or loss	19	(2,057)	18,013
Other income	33	1,281	719
Total net income		7,137	129,636
Staff costs	34	(2,563)	(2,049)
Costs related to the production of banknotes, coins, souvenirs, and other products		(1,990)	(1,167)
Administrative and other expenses	35	(1,244)	(1,375)
Expenses on allowances for contingent and other liabilities		–	(92)
Gains/(losses) on the reversal of impairment/(impairment) of other assets	20	3	(3)
Profit before income tax		1,343	124,950
Income tax expense of subsidiary		–	(1)
Profit for the year		1,343	124,949
Other comprehensive income not to be reclassified subsequently to profit or loss:			
Revaluation of investment metals		(521)	1,088
Other comprehensive income for the year		(521)	1,088
Total comprehensive income for the year		822	126,037
Profit for the year attributable to:			
the National Bank of Ukraine		1,343	124,949
Noncontrolling interest		–	–
		1,343	124,949
Comprehensive income attributable to:			
the National Bank of Ukraine		822	126,037
Noncontrolling interest		–	–
		822	126,037

Approved for issue and signed on behalf of the Board of the National Bank of Ukraine on 15 July 2022.

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Bohdan LUKASEVYCH

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Consolidated Statement of Changes in Equity for 2021

	Notes	Statutory capital	General reserves and retained earnings	Revaluation reserve for assets and liabilities	Total equity	Noncontrolling interest	Total capital
(UAH millions)							
Balance as of 1 January 2020		100	51,439	31,790	83,329	44	83,373
Total comprehensive income for 2020		–	124,949	1,088	126,037	–	126,037
Gain/(loss) on transfer of assets	30	–	(6)	–	(6)	–	(6)
Realized gain/(loss) on revaluation of investment metals sold	29	–	364	(364)	–	–	–
Realized gain/(loss) on revaluation of disposed securities and derivatives	29	–	2,789	(2,789)	–	–	–
Allocation of unrealized gain/(loss) on revaluation of securities and derivatives to revaluation reserve	19, 29	–	(7,535)	7,535	–	–	–
Allocation of unrealized gain from revaluation of assets and liabilities in foreign currency and monetary gold to revaluation reserve	18, 29	–	(79,832)	79,832	–	–	–
Portion of 2020 profit subject to distribution and transfer to the State Budget of Ukraine	29	–	(24,434)	–	(24,434)	–	(24,434)
Balance as of 31 December 2020		100	67,734	117,092	184,926	44	184,970
Total comprehensive income for 2021		–	1,343	(521)	822	–	822
Gain/(loss) on transfer of assets	30	–	(85)	–	(85)	–	(85)
Realized gain/(loss) on revaluation of investment metals sold	29	–	186	(186)	–	–	–
Realized gain/(loss) on revaluation of disposed securities and derivatives	29	–	7,955	(7,955)	–	–	–
Compensation of unrealized losses on revaluation of financial instruments from revaluation reserve	19, 29	–	721	(721)	–	–	–
Compensation of unrealized losses on revaluation of financial assets and liabilities in foreign currency and monetary gold from revaluation reserve	18, 29	–	21,462	(21,462)	–	–	–
Portion of 2021 profit subject to distribution and transfer to the State Budget of Ukraine	29	–	(18,786)	–	(18,786)	–	(18,786)
Balance as of 31 December 2021		100	80,530	86,247	166,877	44	166,921

Approved for issue and signed on behalf of the Board of the National Bank of Ukraine on 15 July 2022.

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Notes on pages 5 through 77 are an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows for 2021

	Note	2021	2020
(UAH millions)			
Operating activities			
Interest received		42,635	29,141
Fees and commissions received		633	441
Other income		1,265	852
Interest paid		(15,125)	(16,152)
Fees and commissions paid		(37)	(217)
Other expenses		(5,255)	(3,833)
Taxes, duties, and charges paid		(991)	(501)
Transfers to the State Budget of Ukraine	29	(24,434)	(42,722)
Increase in loans to banks and other borrowers		(32,810)	(52,489)
Domestic public debt repaid		132	132
Increase/(decrease) in accounts of banks on demand		8,293	(29,557)
(Decrease)/increase in accounts of government and other institutions		(13,711)	26,344
(Increase)/decrease in other assets		(253)	1,869
Increase/(decrease) in other liabilities		1,093	(77)
Other cash flows		(127)	83
Net cash flows from operating activities		(38,692)	(86,686)
Investing activities			
Increase in term deposits placed		(993)	(2,703)
Net increase in foreign securities		(1,110)	(39,972)
Purchase of monetary gold		(13)	(57)
Net decrease in domestic securities		12,891	12,500
Investments in associated company		2	–
Acquisition of property and equipment, and intangible assets		(516)	(249)
Sale of property and equipment, and intangible assets		5	10
Net cash flows from investing activities		10,266	(30,471)
Financing activities			
Banknotes and coins issue in circulation	16	69,125	133,438
Repayment of liabilities to the IMF	16	(25,227)	(17,456)
Certificates of deposit issued by the NBU	16	49,358	11,636
Net cash flows from financing activities		93,256	127,618
Effect of changes in exchange rate		(5,153)	18,330
Net change in cash and cash equivalents		59,677	28,791
Cash and cash equivalents at the beginning of the reporting year		118,410	89,619
Cash and cash equivalents at the end of the reporting year	16	178,087	118,410

Approved for issue and signed on behalf of the Board of the National Bank of Ukraine on 15 July 2022.

Governor

Kyrylo SHEVCHENKO

Chief Accountant,
Director of Accounting Department



Bohdan LUKASEVYCH

Notes on pages 5 through 77 are an integral part of these consolidated financial statements.

Notes to Consolidated Financial Statements

Section I. Basis for Preparing Financial Statements

1. Principal Activities

The National Bank of Ukraine (NBU) is Ukraine's central bank. Its operations are governed by Ukraine's Constitution, Ukraine's law *On the National Bank of Ukraine*, as well as other Ukrainian laws. In accordance with Ukrainian legislation, the main function of the NBU is safeguarding the stability of the Ukrainian national currency. In performing its main function, the NBU is guided by the priority of achieving and maintaining price stability in the country. The NBU facilitates the stability of the banking system and sustainable economic growth, and supports the economic policies of the Cabinet of Ministers of Ukraine, provided that these do not prevent the NBU from carrying out its primary function of maintaining price stability.

The NBU does not aim to earn profits. The NBU's financial performance and the structure of its assets, liabilities, and capital are determined by the NBU's mandate as a special central authority.

Under the Law of Ukraine *On the National Bank of Ukraine*, the NBU performs the following main functions:

identifies and pursues a monetary policy in accordance with the Monetary Policy Guidelines developed by the NBU Council

solely issues the domestic currency of Ukraine and organizing its circulation

ensures the accumulation and storage of international (gold and FX) reserves of Ukraine and makes transactions with these reserves and investment metals

is the lender of last resort for banks and organizes the refinancing system

conducts banking regulation and supervision on individual and consolidated basis

conducts state regulation and supervision on individual and consolidated basis in the nonbank financial services markets over activities of nonbank financial institutions and other entities other than financial institutions but entitled to provide certain financial services within the limits set by the Law of Ukraine *On Financial Services and State Regulation of Financial Services Markets* and other laws of Ukraine

represents Ukraine's interests in the central banks of other states, international banks and other credit institutions where the cooperation takes place at the level of central banks

carries out currency regulation as per the mandate specified by a special law, determines the procedure for making FX

transactions, organizes and carries out currency supervision of banks and other financial institutions that have been licensed by the NBU to make FX transactions

arranging and carrying out collection of funds and transportation of currency valuables; issuing licenses to legal entities to provide cash collection services to banks, suspending, part one updating and revoking them, as prescribed by the NBU

determines the procedure for the functioning of the banking system of Ukraine in the event of martial law or a special period, carries out the mobilization training of the NBU system

protecting the rights of consumers of financial services provided by banks and other financial institutions as well as by entities other than financial institutions but entitled to provide certain financial services, which are regulated and supervised by the National Bank of Ukraine

organizes work and implements measures to increase the level of financial literacy of the public

performs other functions in finance within the mandate defined by the Law of Ukraine *On the National Bank of Ukraine*.

Under the Law of Ukraine *On the National Bank of Ukraine*, the NBU issues loans to banks to maintain liquidity, buys and sells securities, currency assets, and precious metals in the open market, sells commemorative coins made out of precious and nonprecious metals in the domestic and foreign markets, performs public debt servicing transactions related to the placement of, redemption of, and payment of income on government securities, maintains accounts of the State Treasury Service of Ukraine and those of international organizations, and performs other transactions necessary to ensure the pursuit of its mandate.

The NBU also acts as a depository of government securities of Ukraine.

The NBU's authorized capital is the property of the state.

As of 31 December 2021 and 2020, the NBU's structure comprised the Head Office and the Banknote Printing and Minting Works, the NBU's standalone unit. These units operate exclusively within the scope of the NBU's tasks and functions, as defined by Ukraine's Law *On the National Bank of Ukraine*.

The NBU's subsidiary is the SETTLEMENT CENTER FOR SERVICING FINANCIAL MARKET AGREEMENTS PJSC (hereinafter the Settlement Center).

Under Section XII *Final and Transitional Provisions* paragraph 14 of the Law of Ukraine *On Capital Markets and Organized Commodity Markets*, the transformation of the Settlement Center from a banking institution that carried out clearing activities into a nonbank financial institution that carries out clearing activities was completed as of 1 July 2021.

The NBU's shareholding in the authorized capital of the Settlement Center was 83.55% as of 31 December 2021 (31 December 2020 – 83.55%).

As of 31 December 2021 and 2020, the authorized capital of the Settlement Center totaled UAH 206.7 million of ordinary registered shares with a face value of UAH 1,000 each.

Under Ukrainian legislation, the Settlement Center carries out professional activities in capital markets, clearing activities to identify liabilities, and clearing activities of a central counterparty.

The Settlement Center, in particular:

- makes/ensures cash settlements under concluded derivative contracts and transactions with money market instruments and assets admitted for trading in the organized commodity market, subject to settlements based on the delivery-versus-payment principle, and under transactions with securities subject to settlements based on the delivery-of-securities-versus-payment principle
- ensures the exercise of rights (including rights to receive income) with regard to assets deposited in the relevant accounts of the Settlement Center for making/ensuring settlements under derivative contracts and transactions with financial instruments and other assets, and facilitates the filing of claims under bank guarantees

- makes transactions with derivative contracts, financial instruments, and other assets to ensure the fulfillment of obligations.

The NBU is the founder of the Corporate Nonstate Pension Fund (CNPF).

The NBU manages and stores the CNPF's assets.

The NBU has analyzed the availability of controls required for consolidation in accordance with International Financial Reporting Standard (IFRS) 10 "Consolidated Financial Statements" with regard to the CNPF. The NBU is the founder of the CNPF, but it does not bear this fund's risks and is not entitled to the variable results of its activities. Under IFRS 10 "Consolidated Financial Statements," the NBU does not control the CNPF, and CNPF data has not been consolidated for the purpose of these consolidated financial statements.

The NBU's investments in the associated company as of 31 December 2021 and 2020 were represented by investments in the authorized capital of the National Depository of Ukraine Public Joint Stock Company (hereinafter the National Depository).

The NBU, the National Securities and Stock Market Commission, and other stock market practitioners are shareholders of the National Depository. Under its charter, the National Depository conducts depository record-keeping, and maintains records of securities and issuers' corporate transactions on clients' securities accounts.

As of 31 December 2021 and 2020, the NBU owned 2,580 ordinary registered shares of the National Depository with a face value of UAH 10,000 each and UAH 25.8 million in total. As of 31 December 2021, the NBU's shareholding in the authorized capital of the National Depository was 25% (31 December 2020 – 25%).

Approval of the consolidated financial statements is within the responsibilities of the NBU Council.

2. Basis of Accounting Policies and Reporting Presentation

This section contains the NBU's accounting policy that relates to financial statements as a whole. If an accounting policy can be applied to a particular note in these financial statements, the accounting policy and related disclosures are provided in the appropriate note.

The NBU's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (hereinafter IFRS) approved by the International Accounting Standards Board, and the Laws of Ukraine *On the National Bank of Ukraine* and *On Accounting and Financial Reporting in Ukraine*.

These consolidated financial statements have been prepared on the basis of the assumption that the NBU is a going concern and that it will continue to operate as going concern in the foreseeable future.

These consolidated financial statements have been prepared under the historical cost convention, except for financial assets measured at fair value through profit or loss and derivative financial instruments. The consolidated financial statements are presented in the national currency of Ukraine – the hryvnia – which is the functional currency and the presentation currency of the consolidated financial statements. The NBU's consolidated financial statements are prepared in millions of hryvnias.

Basis of Consolidation

The consolidated financial statements comprise the financial statements of the NBU and its subsidiary as of 31 December 2021.

A subsidiary is a company controlled by the NBU. A company is considered to be under control if all of the following conditions are met:

- existing of rights to govern the relevant activities of the investee;
- exposure, or rights, to variable returns and risks from its involvement with the investee;
- ability to use its power over the investee to affect the NBU's results.

A subsidiary is fully consolidated starting from the date the NBU takes control over it (usually the date of acquisition), and consolidation is discontinued on the date that control is lost.

A change in the NBU's stake in a subsidiary without loss of control is recorded as an equity transaction. A subsidiary's losses are attributed to the noncontrolling interest, even if this results in the noncontrolling interest balance being negative.

If the NBU loses control of a subsidiary, it discontinues the recognition of the subsidiary's assets and liabilities (including related goodwill) and the carrying amount of the noncontrolling interest, recognizes the fair value of the consideration received, the fair value of the remaining

investment, and the profit or loss from the transaction, and reclassifies to profit or loss the share in the components previously recognized within other comprehensive income. In case of disposal of a subsidiary by transferring control to the state as represented by the Cabinet of Ministers of Ukraine or other authorities, the result of this transaction is reflected in equity.

The consolidation of a subsidiary's financial statements excludes all intragroup transactions balances, including the amount of income and expenses pertaining to transactions between a subsidiary and the NBU. The NBU and its subsidiary apply a unified accounting policy in the preparation of consolidated financial statements. The financial statements of the subsidiary cover the same reporting period as the consolidated financial statements of the NBU itself.

Investments in Associated Company

An associated company is a company over which the NBU has significant influence. Significant influence means the power to participate in the making of financial and operating policy decisions of a company, but it does not mean control or joint control over those policies.

Investments in associated companies are accounted for using the equity method, taking into account recognized impairment, and are recorded as other assets. Subsequent changes in the carrying amount reflect changes in the NBU's share in the associate company's net assets since the acquisition. The NBU's share of the associated company's profit or loss since the date of investment, and the amount of recognized impairment of the investment are recognized in other income or expenses in the consolidated statement of profit or losses and other comprehensive income. The share of the NBU in other changes in the associated company's equity that have occurred since the investment was made is recognized in the consolidated statements of profit or loss and other comprehensive income and changes in equity. However, if the NBU's share in the losses of the associated company equals or exceeds share in the associated company, the NBU does not recognize further losses, except where it has an obligation to make payments to or on behalf of the associated company. Under the equity method, investments in associated companies are recorded until the last day of the month in which the investee does not meet the criteria of the associated company.

Information on introducing new and amended standards and interpretations of financial statements is provided in Note 39.

Change in Presentation

In preparing its consolidated financial statements, the NBU changed the format of its presentation in order to increase the relevance, clarity, and interconnectedness of information, specifically:

- The title of the item "General reserves" of the Consolidated Statement of Financial Position was

changed to “General reserves and retained earnings,” while the content of this item remained unchanged.

- a new note “Current and noncurrent assets and liabilities” was added in line with the IAS 1 requirements for submitting information about current and noncurrent assets and liabilities for each item of assets and liabilities of the Consolidated Statement of Financial Position (Note 37).

Presentation of comparative information for 2020 was changed in line with the presentation of 2021.

Basic Estimates and Judgments in Applying Accounting Principles

The NBU uses estimates, assumptions, and professional judgment that affect the amounts of assets and liabilities reported in its consolidated financial statements. Estimates and judgements are regularly revised and are based on NBU management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Major estimates and judgements are given in Notes 5, 30, 32, and 36.

3. Impact of Economic Conditions on the NBU's Financial Position and Performance

Economic Developments

In 2021, real GDP grew by 3.4% (after falling by 3.8% in 2020 due to the COVID-19 crisis).

Economic growth was driven by sustained consumer demand as household incomes rose, higher investments by businesses after the crisis due to their improved financial performance, and a record harvest of crops. However, the economy recovered more slowly than expected. This was in part due to a spike in energy prices and shortages, the high cost of inputs, the impact of weaker 2020 harvests, a slower recovery in the services sector, the limited capacity of some manufacturing sectors, more significant losses from the pandemic amid longer quarantine restrictions and a slower vaccine rollout, and because of a faster fiscal consolidation.

The pandemic also had longer-term effects on the labor market: labor force participation recovered slowly, and mismatches between labor supply and demand deepened. Coupled with the increase in external demand for Ukrainian workers, this led to unemployment staying high as labor costs rose.

In 2021, the consolidated budget ran a deficit (of almost UAH 187 billion, or 3.4% of GDP), which was narrower than in 2020, both in nominal and relative terms. The consolidated budget deficit arose from the dynamics of state budget expenditures and revenues. The state budget deficit was primarily financed by borrowing in both the domestic and foreign markets. Because of the growth in nominal GDP, debt as a share of GDP in 2021 fell sharply, to below 50%, providing greater stability and flexibility of public finances, as well as increasing Ukraine's investment appeal.

As expected, the current account in 2021 returned to a deficit (USD 3.2 billion or 1.6% of GDP), which nonetheless remained below pre-crisis levels due to favorable trade conditions. In contrast to previous post-crisis periods, the deficit resulted from record dividend payments and the reinvestment of income as the financial performance of businesses improved. On the other hand, the deficit in trade in goods did not change compared to the previous year. The expansion of the current account deficit was expectedly constrained by an increase in remittances as borders reopened and the economies hosting labor migrants recovered.

The financial account recorded capital inflows (USD 3.7 billion). Significant FDI inflows, driven in part by high reinvested earnings, and the issuing of Eurobonds in both the public and real sectors, exceeded the capital outflows generated by the growth in cash outside banks. The resulting consolidated balance of payments surplus, along with proceeds from an SDR allocation, made it possible to increase international reserves to USD 30.9 billion.

In 2021, as expected, inflation was above its 5% ± 1 pp target range, primarily driven by external factors. The rapid recovery

in economic activity across the globe was accompanied by disruptions to production and supply chains, while an abrupt shift of demand toward certain groups of goods caused shortages in some markets. This led to a sharp rise in prices for energy and raw materials. High global food prices were driven by poor harvests in some countries in both 2020 and 2021, as well as increased demand. These factors accelerated consumer inflation around the globe, in particular in Ukraine's MTPs, making imports more expensive. Domestic factors also played a role. Wages grew more rapidly in Ukraine, fueling consumer demand and driving up the costs of production.

Consumer inflation peaked in September 2021 (at 11%yoy) and fell to 10% yoy in December due to the easing of external pressure on the prices of certain food products (including sunflower oil), record harvests in Ukraine, and the pass-through effects from the strengthening of the hryvnia for most of the year. Inflation was also restrained by the introduction of annual contracts with a fixed price for gas for households, by the constancy of other prices for housing and utilities during the heating season, by the regulation of the maximum trade markup on gasoline, by the exhaustion of the low base effect for prices for a number of goods and services, and by a strengthening of the monetary policy.

The NBU was one of the first central banks to launch a tightening of monetary policy in March 2021. Over the course of 2021, the key policy rate was increased by a total of 3 pp, to 9% in December from 6% in January. To amplify the effect from the key policy rate hike, the NBU gradually rolled back its anti-crisis measures – long-term refinancing loans and interest rate swaps. The operational design of monetary policy was also normalized. However, monetary policy did not get in the way of economic growth. Specifically, the real key policy rate stayed below its neutral level during the year, allowing the central bank to support the economic recovery.

The banking system maintained a large liquidity surplus (defined as the amount in the banks' correspondent accounts and NBU certificates of deposit). The daily average liquidity surplus increased markedly in 2021, primarily due to the growth in the daily average value of certificates of deposit (the principal amount reached UAH 145.6 billion). The daily average balances of the banks' correspondent accounts remained almost unchanged at UAH 55.5 billion.

In June 2020, Moody's upgraded Ukraine's credit rating from "Caa1" to "B3", with a stable outlook. In August 2021, Fitch Ratings improved Ukraine's long-term foreign-currency issuer default rating from stable to positive, confirming the rating at the "B" level. In September 2021, Standard & Poor's also reaffirmed Ukraine's long-term rating at "B" with a stable outlook.

In 2021, the global and Ukrainian economies recovered from the impact of COVID-19 as quarantine restrictions were eased and the vaccine rollout intensified. However, the

recovery was uneven across countries due to the persistence of high morbidity and the spread of new variants of the virus, different rates of vaccination, and differences in the scale of government incentives. In Ukraine, the vaccine rollout was relatively slow, with Ukraine's government imposing additional quarantine restrictions as new waves of disease emerged, a strategy that stifled business activity. The energy crisis also had a significant impact.

In 2021, Ukraine remained affected by Russia's annexation of Crimea, the unresolved armed conflict in some areas of Luhansk and Donetsk oblasts, as well as by complicated political and economic relations with Russia. In late 2021, mounting geopolitical tensions over the buildup of Russia's military presence on the border with Ukraine affected the expectations of the various groups of business entities and fueled depreciation pressure on the hryvnia as Ukrainian assets declined in value.

During 2021, global inflationary pressures increased materially, including in Ukraine's MTPs. Going forward, global price movements will strongly depend on how quickly the leading central banks respond to inflation challenges. Any delays will drive up external price pressures. Conversely, a quick tightening of monetary policies by leading central banks would put emerging markets at risk of experiencing substantial capital outflows.

The further impact of these factors may have a mixed effect on the NBU's performance and financial standing. However, the degree of the effect cannot be estimated reliably at this point. The NBU's leadership is closely monitoring the current developments and is taking all necessary action to mitigate the influence of adverse factors.

Section II.I. Financial Instruments

4. Accounting Policy. Presentation of Financial Instruments by Measurement Categories

Transactions with Financial Instruments

The NBU classifies all financial assets into the categories that are at fair value through profit or loss and amortized cost depending on the models determined to manage financial assets and cash flow characteristics. The NBU does not classify any assets into the category at fair value through profit or loss in order to remove or reduce significantly accounting discrepancies.

Financial assets of the NBU are classified as follows:

Funds and Deposits in Foreign Currency at Amortized Cost

Funds and deposits in foreign currency are recorded when the NBU advances foreign currency funds to counterparty banks within a model for management of financial assets with objective is to collect contractual cash flows. Those funds are not related to derivative financial instruments, not quoted in the market, and repayable on fixed or determinable dates.

Debt securities at amortized cost

This category includes the securities in respect of which both of the following conditions are met:

- Securities are held within the model for management of financial assets under which securities are held to collect contractual cash flows.
- Contractual terms prescribe cash flows on specified dates that are solely payments of securities' principal and interest on the principal amount outstanding.

Such securities include domestic government debt securities with fixed coupons and domestic government debt securities with coupon calculated as inflation index for the last 12 month plus a set margin (hereinafter referred to as "inflation indexed government bonds").

Debt Securities Measured at Fair Value through Profit or Loss

The NBU manages a group of such financial instruments in accordance with a documented model for management of financial assets relates to other types of models than a model for management of financial assets with objective to collect cash flows and a model of management of financial assets with objective both to collect cash flows according to contractual (issue) terms and to sell those assets.

Also, this category includes the securities that do not meet the criteria of measurement at amortized cost or at fair value through other comprehensive income based on the analysis of contractual cash flows in respect of the financial assets which are not solely payments of principal and interest on the principal amount outstanding.

The fair value of these securities is determined by reference to market quotations in the principal or most beneficial markets, if no quotations are available, based on the assessment model (Note 21).

Loans to Banks and Other Borrowers at Amortized Cost

Loans to banks and other borrowers are recorded when the NBU lends money to counterparty banks or other borrowers of the model for financial assets management, whose objective is to collect contractual cash flows and the contractual cash flows represent solely payments of principal and interest on the principal amount outstanding.

Domestic Public Debt

Domestic public debt means loans granted to the Government. Domestic public debt is reported under the model for management of financial assets with objective to collect contractual cash flows and which are solely the principal amount and interest on the principle amount outstanding. Domestic public debt is not secured and is recognized at amortized cost.

Cash and Cash Equivalents

For the purposes of reporting cash flows, cash and cash equivalents include cash in foreign currencies, SDR holdings, funds on demand, and deposits in foreign currencies maturing within three months from the origination date and which are available for use at short notice and are subject to insignificant risk of value fluctuations.

Financial Liabilities of the NBU are classified as follows:

- banknotes and coins in circulation. The amount of banknotes and coins in circulation is the nominal value of banknotes and coins (small change, circulating, commemorative, and bullion coins) that are legal tender issued to circulation by the NBU after introducing hryvnia in September 1996. Cash in domestic currency stored in the NBU's vaults and cash desks or transferred by the NBU to custody at authorized banks, is excluded from the amount of banknotes and coins in circulation
- accounts of banks. These liabilities are not derivative instruments
- accounts of government and other institutions are nonderivative liabilities to the government and other customers
- certificates of deposit issued by the NBU
- borrowings received.

Derivative Financial Instruments

Derivative financial instruments are represented by derivative securities, swaps, forwards, and futures contracts. Derivative financial instruments are measured at fair value through profit or loss. All derivatives are recorded as assets if their fair value is positive and as liabilities if the fair value is negative.

Key Measurement Methods

Financial assets and financial liabilities are initially recognized at fair value or at fair value including transaction costs, and are subsequently measured at fair value or amortized cost depending on their classification.

Recognition and Measurement of Financial Instruments

Financial instruments are recognized as follows:

transactions with financial instruments are recorded in the consolidated statement of financial position at a settlement date, which is the date when the title to these assets is transferred to (from) the NBU, other than derivative financial instruments

debt securities, equity instruments, and other financial instruments measured at fair value through profit or loss are initially recorded at fair value as of the settlement date

foreign currency funds and deposits, debt securities at amortized cost, loans to banks and other borrowers, and all financial liabilities (safe for derivative financial instruments) are initially recorded at fair value as of transaction date plus transaction related costs

banknotes and coins in circulation are recognized as liabilities at nominal value after their disbursement to banks and NBU clients.

The best evidence of the fair value of a financial instrument at initial recognition is normally the transaction price (i.e. the fair value of the consideration given or received). If the NBU determines that the fair value at the transaction date differs from the transaction price, the instrument is accounted at the date of initial recognition as follows:

at the estimated value, which is required at initial recognition, if the fair value is evidenced by a quoted price in an active market for an identical asset or liability (i.e. a Level 1 input) or

based on a valuation technique that uses only data from observable markets. The NBU recognizes the difference between the fair value as of the transaction date and the transaction price as profit or loss (except for transactions with the owner which are recognized within the NBU's equity)

in all other cases, at the estimated value, adjusted to defer the difference between the fair value as of the transaction date and the transaction price. After initial recognition, the NBU recognizes that deferred difference as a profit or loss only to the extent that it arises from a change in a factor (including time) that market participants would take into account when pricing the asset or liability.

Subsequent measurement of the NBU's financial instruments is as follows:

debt securities, equity instruments, other financial instruments measured at fair value through profit or loss, and derivative financial instruments are revalued after each change in their fair value, but at least as of the reporting date. Gains or losses from changes in fair value are recognized in financial results of the consolidated statement of profit or loss and other comprehensive income in the period in which they arise

foreign currency cash and deposits, debt securities at amortized cost, loans to banks and other borrowers, as well as the domestic public debt and other financial liabilities, other than derivatives, are measured at amortized cost using the effective interest rate method

banknotes and coins in circulation are accounted at nominal value and are not revalued subsequently.

The NBU's financial liabilities other than financial derivative instruments are estimated at amortized cost.

As of 31 December 2021, financial assets were broken down into measurement categories as follows:

	Assets at fair value through profit or loss	Assets at amortized cost	Total
(UAH millions)			
Financial assets			
Funds and deposits in foreign currency	33	177,552	177,585
Foreign securities	644,288	–	644,288
SDR holdings	–	510	510
Domestic securities	1,082	322,861	323,943
Loans to banks and other borrowers	–	99,861	99,861
Domestic public debt	–	1,541	1,541
IMF quota contributions	–	76,807	76,807
Other financial assets	278	300	578
Total financial assets	645,681	679,432	1,325,113

As of 31 December 2020, financial assets were broken down into measurement categories as follows:

	Assets at fair value through profit or loss	Assets at amortized cost	Total
			(UAH millions)
Financial assets			
Funds and deposits in foreign currency	8	118,331	118,339
Foreign securities	671,778	–	671,778
SDR holdings	–	128	128
Domestic securities	1,273	334,128	335,401
Loans to banks and other borrowers	–	66,930	66,930
Domestic public debt	–	1,635	1,635
IMF quota contributions	–	81,927	81,927
Other financial assets	46	1,269	1,315
Total financial assets	673,105	604,348	1,277,453

Financial Assets Impairment Policy and Allowances for Expected Credit Losses Recognition

During estimation of impairment and assessment of expected credit losses for financial assets, the NBU is guided by requirements of IFRS 9: Financial Instruments.

The NBU defines credit loss as the difference between total cash flows payable by a counterparty/issuer/borrower under the agreement and total cash flows expected to be received by the NBU discounted by the effective interest rate. When determining future cash flows in order to calculate expected credit losses, all conditions of a financial instrument are taken into account during its life (e.g., options of early redemption, extension, early loan repayment, and other similar options). Cash flows that are taken into account include cash flows from selling collateral or other credit enhancements of a financial instrument which are the integral part of the agreement. Professional judgement/assumption is used to assess feasibility of making a reliable assessment of the expected life of a financial instrument.

Allowance for expected credit losses is made by allocation of the respective amount of changes in the allowance to expenses (as part of items “(Losses)/Gains from (impairment)/reversal of impairment on interest-bearing financial assets” and “Gains/(losses) on the reversal of impairment/(impairment) of other assets”).

Allowances for expected credit losses are made and released pursuant to decisions of the NBU Board at least once a month (at least once a quarter for accounts receivable and contract assets) as of the end of the last business day of the month/quarter. The NBU recognizes allowances for expected credit losses on financial assets (deposits granted, loans at amortized cost, debt securities at amortized cost, accounts receivable) and allowances for credit-related commitments.

The NBU reports its financial instruments as one of the following impairment stages:

Impairment Stage One (Stage 1): financial instruments with no significant increase in credit risk as of the reporting date since initial recognition

Impairment Stage Two (Stage 2): financial instruments with a significant increase of credit risk at the reporting since initial recognition, but no objective evidence of impairment

Impairment Stage Three (Stage 3): financial instruments with the objective evidence of impairment as of the reporting date

Purchased or originated credit-impaired financial assets: financial assets with the objective evidence of impairment as of date of initial recognition.

As of the transaction date of financial assets, other than purchased or originated credit-impaired financial assets, are included to Impairment Stage One.

Depending on the impairment stage for financial assets, allowances for expected credit losses are created at an amount equal to expected credit losses:

- 12-month ECLs – for the financial assets at Impairment Stage One
- full lifetime ECLs – for the financial assets at Impairment Stages Two or Three.

Expected credit losses for 12 months are a part of lifetime credit losses which may arise if the borrower defaults within 12 months after the reporting date (or within a shorter period if expected lifetime of the financial instrument is less than 12 months).

Expected credit losses for 12 months reflect expected amounts of expected cash shortfalls over the full lifetime which may arise in case of a default within 12 months after the reporting date weighted by the probability of default (or the probability of a range of possible loan repayment scenarios) measured based on the borrower’s cumulative probability of default within 12 months after the reporting date (or within the remaining lifetime).

Expected credit losses for the full lifetime of a financial instrument are expected credit losses for the full lifetime which may arise if the borrower defaults during the lifetime of a financial instrument.

Expected credit losses for the full lifetime reflect expected amounts of expected cash shortfalls over the full lifetime which may arise in case of a default over the full lifetime after the reporting date weighted by the probability of default (or the probability of a range of possible loan repayment scenarios) measured based on the borrower's cumulative probability of default over the full lifetime of a financial instrument that remains after the reporting date.

Purchased or originated credit-impaired financial assets are estimated at fair value with the subsequent recognition of interest income based on credit-adjusted effective interest rate.

After initial recognition, allowances for expected credit losses of purchased or originated credit-impaired financial assets are recognized or released only within the amount of changes in expected credit losses and recognized within profits or losses as gain or loss from impairment.

To determine the impairment stage at each reporting date for financial assets by individual instruments, credit risk is assessed on an individual basis in order to establish:

- a significant increase in credit risk since initial recognition
- objective evidence of impairment.

Significant increases in credit risk are assessed based on quantitative and qualitative factors, taking into account, among other things, categories of borrower's internal borrower credit rating that takes account of the change in the level of credit risk as of the reporting date.

Objective evidence of impairment for financial assets includes information about the following loss events:

significant financial difficulties experienced by the borrower or the issuer

breach of contract by the borrower or breach of the issuance conditions by the securities issuer

possibility of bankruptcy or other financial reorganization of the borrower or the issuer

granting to the borrower or issuer concessions associated with financial difficulties of the borrower that the lender would not otherwise consider (such as a change in the interest rate or extension)

observable data indicating that there is a measurable decrease in the estimated future returns from a group of financial assets since the initial recognition of those assets.

Objective evidence of impairment is recognized at the level of the financial instrument. The financial-instrument-level approach envisages that if there is at least one attribute of an objective evidence of impairment at the level of the financial instrument, the financial instrument and all financial instruments of this borrower are deemed to have objective

evidence of impairment. An event of default is one of the attributes of the objective evidence of impairment.

For all asset groups the NBU defines a default as incapability or unwillingness of a counterparty/issuer/borrower to fulfill their financial obligations towards the NBU which leads to direct financial losses from materialization of credit risk. An event of default on obligations towards the NBU is recognized, in particular, for other past due financial assets with at least one payment past due for more than 90 calendar days as of the reporting date.

If no own historical data are available or historical data on losses are insufficient, other institutions' historical data on similar asset groups may be used. Professional judgement of the NBU's employees may also be used.

Own loss experience is adjusted on the basis of current information and forecast of the future economic situation in order to reflect the impact of current and forecast economic conditions that did not apply in the period of the available historical loss data and to exclude the impact of conditions of this historical period which were absent as of the reporting date.

When using own historical loss statistics to estimate future cash flows, such historical data are applied only to those groups of assets that are determined on the basis of principles similar to those used for the groups on which these historical loss data are based.

Information on the actual and forecast values of future economic conditions (macroeconomic indicators) is used to determine the probability of default taking into account the impact of future economic conditions, and when choosing discounts to be applied to the value of collateral depending on the stage of the economic cycle.

Therefore, the applied methods allow to use historical data on losses for a group of assets with similar credit risk characteristics and current data that reflect current conditions and forecasts of the future economic situation.

The NBU estimates its impairment losses on individual and collective basis.

Assessment on individual basis is conducted for financial assets that were found to show objective evidence of impairment, and assets that make up public and publicly guaranteed debt, or liabilities of state-owned enterprises and organizations (including state-owned banks and the Deposit Guarantee Fund).

Assessment on collective basis is conducted for financial instruments with common credit risk features (for example, deposits in foreign banks are grouped by credit ratings set by international rating companies like Fitch Ratings, Moody's, and Standard & Poor's; and loans issued to Ukrainian banks to support liquidity – according to ratings according to the NBU's internal methodology).

The NBU uses the following three approaches to calculate expected credit losses:

1) assessment on a collective basis (credit risk parameters), according to which the expected credit loss is the product of exposure at risk of default, the probability of default, and the level of losses in case of default, taking into account the forecast scenarios weighted by the probability

2) assessment on a collective basis (repayment scenarios) taking into account the unconditional probability of their occurrence, according to which the expected credit loss is the present value of the difference between the envisaged contractual cash flows payable to the NBU under loan agreements, discounted at the effective interest rate, and total cash flows that the NBU expects to receive under probable loan repayment scenarios, discounted at the effective interest rate

3) assessment on an individual basis (customized repayment scenario), according to which the expected credit loss is the present value of the difference between the envisaged contractual cash flows payable to the NBU under a loan agreement, discounted at the effective interest rate, and total cash flows that the NBU expects to receive under the customized loan repayment scenario, discounted at the effective interest rate.

Credit losses on insignificant accounts receivable and contract assets are assessed by a simplified method.

In the event the amount of expected credit losses decreases as a result of the events that evidence on the decrease in credit risk on the financial instrument, the amount of such allowance for financial instrument is reversed. The amount of decrease in expected credit losses is reported as profit or loss in the consolidated statement of profit or loss and other comprehensive income.

For banknotes and coins in cash stocks, cash handling offices, and ATMs the presence of which is unconfirmed and over which control is lost, are provisioned against cash losses. Such provisioning is recognized in profit or loss in the consolidated statement of profit or loss and other comprehensive income.

Written off Financial Assets

Irrecoverable financial assets are written off partially or completely against the created allowance for expected credit losses upon completion of all required procedures on the asset recoverable amount, when there are no reasonable expectations of recovering contractual cash flows.

Change in Classification

Securities may be reclassified – as an exception between categories (at amortized cost, at fair value through profit or loss, or at fair value through other comprehensive income) – if the model of financial assets management changes. Classification and measurement requirements related to the new category applied prospectively from the first day of the

reporting period after the changes to the model for financial asset management that led to reclassification were recognized.

Changes (Modification) of Financial Assets' Terms and Conditions

If terms and conditions under a financial asset change significantly, the NBU derecognizes such an asset and recognizes a new financial asset at fair value in profit or loss in the consolidated statement of profit or loss and other comprehensive income.

If the change in terms and conditions is not significant, then the gross carrying amount of those assets are adjusted. The adjustment amount is determined as a difference between the present value of new cash flows at the revised terms discounted at the original effective interest rate (or the current effective interest rate, if loans are granted at floating rates), and the gross carrying amount of the financial asset at the date of the terms' change and is recognized as income/expenses on the change (modification) of financial assets' terms and conditions in the consolidated statement of profit or loss and other comprehensive income.

Repo Transactions

Funds paid under the agreements for purchase and sale of securities with counterparty banks with a subsequent repurchase obligation (reverse repo) are recorded as loans to banks. The difference between the purchase and resale prices is treated as interest income recognized over the life of the repo agreements using the effective interest rate method.

Funds received under repo agreements are included in accounts of banks in the consolidated statement of financial position. The securities sold under repo agreements are retained as the assets of the NBU. The difference between the sale and repurchase prices is treated as interest expense and accrued over the life of the repo agreement using the effective interest rate method.

Transactions in Foreign Currency and Monetary Gold

Monetary assets and liabilities in foreign currency and monetary gold are estimated according to the official hryvnia exchange rate to foreign currencies/accounting prices of investment metals on whichever date comes earlier: settlement date or accrual date of monetary assets and liabilities and later on reassessed each time the official exchange rate/accounting price changes.

As of 31 December 2021 and 2020, the calculation of the official hryvnia exchange rate against the U.S. dollar takes into account the information about all TOD, TOM, and SPOT transactions to buy/sell U.S. dollars that were conducted in the FX market by banks with other banks and with the NBU on the day of the calculation of the official exchange rate and that were reported to the NBU by trading information systems via relevant information exchange channels. As of 31 December 2021 and 2020, the official hryvnia exchange rate to other currencies was set based on the information on

the official hryvnia exchange rate to the U.S. dollar and on BFIX quotes (value of weighted average exchange rate/price quotes Bloomberg Generic Price for foreign currencies on the SPOT market against the U.S. dollar/the U.S. dollar to foreign currencies according to TIC BLOOMBERG) for currencies for which TIS BLOOMBERG publishes the BFIX quotation on the day the official hryvnia exchange rate is calculated.

In 2020-2021, the official hryvnia-to-U.S. dollar exchange rate was set each business day.

Monetary assets and liabilities in foreign currency and monetary gold are reported in the consolidated financial statements according to the official hryvnia exchange rate to foreign currencies/accounting prices of investment metals set/estimated by the NBU as of the date of the consolidated statement of financial position.

Monetary gold stands for gold reserves in bullions of global standard and coins not less than 995 fineness that belong to the NBU and make up international reserves. Monetary gold transactions can only be transacted between monetary regulators of different states or between those regulators and international lending institutions.

The gold owned by the NBU but included in reserve assets is not recognized as monetary gold.

Monetary gold is reported by weight in Troy ounces and its value in hryvnia according to accounting price of investment metals. Accounting price of investment metals is estimated based on BFIX price quotations in U.S. dollars against investment metals released by TIS BLOOMBERG (or information on the last available price of investment metals received from the website of the London Bullion Market Association or TIC) and the official hryvnia exchange rate against the U.S. dollar.

Gold in foreign banks generating interest is reported as funds and deposits in foreign currency and investment metals (nonfinancial assets) and recognized in the consolidated financial statements at the accounting price of investment metals as of the date of the consolidated statement of financial position.

The main official exchange rates of hryvnia against foreign currencies/accounting price of investment metals used for reporting the monetary items of the consolidated statement of financial position and monetary gold, were as follows:

	31 December 2021 (in hryvnias)	31 December 2020 (in hryvnias)
USD 1	27.2782	28.2746
SDR 1	38.178401	40.723015
EUR 1	30.9226	34.7396
GBP 1	36.8392	38.4393
1 Troy ounce of gold	49,115.22	53,200.92

Revaluation of monetary assets and liabilities in foreign currency and monetary gold, as well as gold held in foreign banks, due to changes in the official hryvnia exchange rate against foreign currencies/accounting price of investment metals are reported as financial results in the consolidated statement of profit or loss and other comprehensive income in the period in which they occurred.

Offsetting

Offsetting of financial assets and liabilities (with only the net amount being included in the consolidated statement of financial position) may be carried out only based on a legally defined right to offset the recognized amounts in case of an intention to simultaneously sell an asset and settle liabilities or make settlements on the basis of a net amount.

Approach to Disclosing Changes in Financial Instruments Value

In these consolidated statements, the following disclosure approach is applied:

to financial assets measured at amortized cost: changes in the gross carrying amount and allowances for expected loan losses are reflected only for those financial assets, on which there were outstanding debts at the start and/or end of the reporting period (Note 10)

to financial liabilities measured at amortized cost: changes in the gross carrying amount are reflected only for those instruments, on which there were outstanding debts at the end of the reporting period (Note 14)

changes in the fair value are reflected only for those financial assets at fair value through profit or loss, on which there were outstanding debts at the start and/or end of the reporting period (Note 21).

5. Basic Estimates and Judgments in Applying Principles of Financial Instruments Accounting

A professional judgment/assumption is a documented reasoned decision of the NBU's employees, which is based on:

compliance of actual actions to determine each component of the expected credit loss assessment with the NBU's methodology on assessing expected credit losses from financial instruments

comprehensive and unbiased analysis of all information that influences the determination of the size of components and factors (events, attributes) of assessing credit risk and expected credit losses

the NBU's own experience which is based on reliable, uninterrupted, complete, and integral statistical data accumulated over at least previous three consecutive years

ensuring a comprehensive, timely, and objective assessment of credit risk and expected credit losses in compliance with the principles set out in the NBU's methodology on assessing expected credit losses from financial instruments.

Measurement of Allowances for Expected Credit Losses on Demand Deposits and Time Deposits in Foreign Currency and Monetary Gold

The NBU regularly revises demand deposits and term deposits in foreign currency and monetary gold at amortized cost for impairment.

The NBU's management uses consolidated statistics from international rating agencies Fitch Ratings, Moody's and Standard & Poor's for a period allowing to consider the impact of the economic cycle (at least 10 years) to estimate the probability of default (PD) and loss given default (LGD) in order to determine a need for recognizing expenses on allowances for expected credit losses.

Demand deposits and term deposits in foreign currency are considered to have low credit risk, if the long-term credit rating of the counterparty under the relevant financial instrument on the reporting date is not lower than BBB-, that is, belongs to an investment class confirming the counterparty's high ability to fulfill all its contractual obligations in near future (its high current creditworthiness), even if adverse changes in the economic environment and long-term business activity may, but not necessarily, reduce creditworthiness of such counterparty.

Demand and term deposits in foreign currency and monetary gold are considered to be conditionally devoid of credit risk, if they are direct liabilities of:

- The International Monetary Fund (IMF) or the Bank of International Settlements, denominated in any currency
- the country, denominated in the currency of this country, except for liabilities in euro

- a foreign central bank, denominated in the currency of the central bank's home country, except for liabilities in euro
- the European Central Bank, government of the Federal Republic of Germany and Deutsche Bundesbank denominated in euro.

As at 31 December 2021 and 2020 all demand funds and term deposits in foreign currency and monetary gold had a low level of credit risk or were conditionally devoid of credit risk.

Measurement of Allowances for Expected Credit Losses on Securities at Amortized Cost

The NBU regularly revises its securities portfolio measured at amortized cost for impairment.

The NBU's management applies their professional judgment about attributes of significant increase of credit risk and cash shortfalls under securities portfolio in order to determine a need for recognizing the expenses on allowances for expected credit losses. Such attributes may include data, which denote a negative change in the issuer's solvency.

Government debt securities denominated in domestic currency of the issuing country, except for euro obligations, are considered to be conditionally devoid of credit risk. For debt securities that are considered to be conditionally devoid of credit risk, probability of default for a period of 12 months and for the maturity of the financial instrument is deemed insignificant, i.e. close to zero.

The NBU's management believes that as of 31 December 2021 and 31 December 2020 there were no other signs of impairment of securities measured at amortized cost (Note 9).

Measurement of Allowances for Expected Credit Losses on Loans Granted to Banks and Other Borrowers

The NBU regularly revises its loan portfolio for impairment.

A majority of loans to banks and other borrowers are assessed on a group basis against redemption scenarios. Repayment scenarios and their probability are estimated based on NBU statistics on repayment of loans issued by Ukrainian banks, taking into account the possible impact of the future economic conditions, and are subject to regular revision of the NBU Board.

Loans to the banks under liquidation, declared insolvent or having significant financial difficulties (stage 3) are evaluated on individual basis. While estimating expected credit losses under said loans, the NBU's management applies judgment and estimates future cash flows primarily from sale of collateral.

The NBU measures the cost of real estate pledged as collateral for loans at fair value. Estimated value of collateral impacts the allowances for expected credit losses, which requires professional judgment. Accounting estimates related

to the valuation of real estate, when there are no market prices formed in an active market, are a main source for uncertainty in valuation, as (i) it is characterized by high variability from period to period and (ii) the recognition of changes in estimates could potentially have a significant impact. The methodology and assumptions used to estimate the amounts and timing of future cash flows are constantly reviewed to avoid any discrepancies between the estimated and actual costs.

A 10% decrease or increase in future discounted cash flows under the loans that are at stage 3 and assessed on an individual basis, which is possible due to differences in the amounts and maturities of cash flows, will lead to an increase in the expected credit losses by UAH 427 million or a decrease by UAH 427 million, respectively, as of 31 December 2021 (as of 31 December 2020 this would have led to an increase in the allowances for expected credit losses by UAH 508 million or decrease by UAH 508 million, respectively).

Section II.II. Financial Assets and Liabilities

6. Funds and Deposits in Foreign Currency and Investment Metals

	2021	2020
	(in UAH millions)	
Financial assets at amortized cost		
Foreign currency cash	20,677	22,164
Demand deposits	58,631	70,305
Term deposits in foreign currency	98,249	25,863
Allowances for expected credit losses on deposits in foreign currency at amortized cost	(5)	(1)
Total financial assets at amortized cost	177,552	118,331
Financial assets at fair value through profit or loss		
Demand deposits for settling futures transactions	33	8
Total financial assets	177,585	118,339
Nonfinancial assets		
Term deposit in gold	3,694	2,773
Total nonfinancial assets	3,694	2,773
Total funds and deposits in foreign currency and investment metals	181,279	121,112

For the purposes of the consolidated statement of cash flows, the cash flows on term deposits in gold are classified as investment activities.

As of 31 December 2021 and 2020, all funds and deposits in foreign currency are not secured.

Funds and deposits in foreign currency are analyzed by geographical concentration risk in Note 23, by credit risk – in Note 24, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

The NBU's accounting policy on classification and assessment of funds and deposits in foreign currency are given in Note 4.

As of 31 December 2021, the gross carrying value of demand deposits was UAH 58,631 million and it changed mostly due to the decrease in balances of correspondent accounts with nonresident banks (as of 31 December 2020, it was UAH 70,305 million and it changed mostly due to increase in balances of correspondent accounts with nonresident banks). During 2021 and 2020, all demand deposits were at stage 1 for assessing expected credit losses. In 2021 and 2020, the NBU did not recognize any allowances for expected credit losses on the on demand accounts.

As of 31 December 2021, the gross carrying value of term deposits in foreign currency was UAH 98,249 million, allowances for expected credit losses were UAH 5 million (as of 31 December 2020, the gross carrying value of term deposits was UAH 25,863 million, and allowances for

expected credit losses were UAH 1 million). During 2021 and 2020, all term deposits in foreign currency were at stage 1 for assessing expected loan losses. The change of gross carrying amount was caused by return of the deposits, and changes in allowances were due to recognition of new allowances against placed deposits.

The sum of demand deposits at fair value through profit or loss as of 31 December 2021 includes funds of UAH 33 million (UAH 8 million in 2020) for settling futures transactions under agreements on investment management and the provision of advisory services between the IBRD and the NBU, which were estimated at fair value and included in FX funds and deposits.

Since October 2013 the NBU has carried out transactions with futures for the purposes of regulating the interest rate risk under an Investment Management and Consulting Services Agreement between the NBU and the International Bank for Reconstruction and Development.

As of 31 December 2021, the NBU had 38 long stock-exchange interest futures contracts of UAH 258 million or USD 9 million in face value, maturing in March 2022, and 1,593 short stock-exchange interest futures contracts of UAH 10,714 million or USD 393 million in face value, maturing between June 2022 and September 2026 (as of 31 December 2020, the NBU had 274 long stock-exchange interest futures contracts of UAH 1,031 million or USD 36 million in face value, maturing in March 2021).

7. Foreign Securities

As of 31 December 2021, foreign securities were comprised of the following:

	Government bonds	Securities issued by international agencies, banks and other issuers	Total
(in UAH millions)			
Foreign securities at fair value through profit or loss:			
Debt securities by issuers:			
securities issued by U.S. issuers:			
denominated in USD	462,574	299	462,873
denominated in GBP	–	844	844
securities issued by EU issuers:			
denominated in USD	2,337	21,679	24,016
denominated in EUR	–	10,218	10,218
denominated in GBP	–	2,029	2,029
securities issued by other issuers:			
denominated in USD	3,178	85,487	88,665
denominated in EUR	1,546	21,877	23,423
denominated in AUD	665	297	962
denominated in GBP	3,555	2,830	6,385
denominated in Chinese renminbi	–	14,687	14,687
denominated in JPY	355	9,710	10,065
Total debt securities	474,210	169,957	644,167
Equity instruments:			
shares of the Black Sea Trade and Development Bank	–	120	120
investment in the Interstate Bank	–	1	1
Total equity instruments	–	121	121
Total foreign securities at fair value through profit or loss	474,210	170,078	644,288

Securities issued by international agencies, banks and other issuers include debt securities issued by foreign central and investment banks, international agencies and other issuers.

Foreign securities are analyzed by geographical concentration risk in Note 23, by credit risk – in Note 24, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

As of 31 December 2020, foreign securities were comprised of the following:

	Government bonds	Securities issued by international agencies, banks and other issuers	Total
(UAH millions)			
Foreign securities at fair value through profit or loss:			
Debt securities by issuers:			
securities issued by U.S. issuers:			
denominated in USD	404,704	6,013	410,717
denominated in GBP	–	921	921
securities issued by EU issuers:			
denominated in USD	7,119	46,142	53,261
denominated in EUR	–	9,592	9,592
denominated in GBP	1,345	2,855	4,200
securities issued by other issuers:			
denominated in USD	10,137	103,063	113,200
denominated in EUR	1,747	37,511	39,258
denominated in AUD	736	328	1,064
denominated in GBP	5,886	2,975	8,861
denominated in Chinese renminbi	345	16,120	16,465
denominated in JPY	412	13,706	14,118
Total debt securities	432,431	239,226	671,657
Equity instruments:			
shares of the Black Sea Trade and Development Bank	–	120	120
investment in the Interstate Bank	–	1	1
Total equity instruments	–	121	121
Total foreign securities at fair value through profit or loss	432,431	239,347	671,778

Information about the nominal value, coupon rate and maturities of foreign debt securities as of 31 December 2021 is presented in the table below:

	Total nominal value in foreign currency, in millions	Total nominal value in hryvnia equivalent, in UAH millions	Coupon rate, % p.a.	Frequency of coupon payments	Maturity
Debt securities at fair value through profit or loss by issuers:					
Government bonds					
securities issued by U.S. issuers:					
denominated in USD	16,800	458,264	0–2.5	Every 6 months, without coupon payments	From 15 days to 1.1 years
securities issued by EU issuers:					
denominated in USD	85	2,319	0.125–1.875	Every 6 months, once a year	From 6.9 months to 9.6 month
securities issued by other issuers:					
denominated in USD	115	3,137	2.125–2.625	Every 6 months	From 25 days to 10.2 months
denominated in EUR	50	1,546	0.125	Once a year	4.9 years
denominated in AUD	33	650	0.25–5.75	Every 6 months	From 6.5 months to 2.9 years
denominated in GBP	97	3,581	0.125–0.75	Every 6 months	From 6.8 months to 2.1 years
denominated in JPY	1,500	355	0.02	Every 6 months	3.5 years
Bonds issued by international agencies, banks and other issuers:					
securities issued by U.S. issuers:					
denominated in USD	11	303	0.625–0.75	Once a year	From 4.1 months to 4.1 years
denominated in GBP	24	884	0.25	Once a year	5.7 years
securities issued by EU issuers:					
denominated in USD	792	21,600	0–2.75	Quarterly, every 6 months, once a year, without coupon payments	From 18 days to 4.8 years
denominated in EUR	330	10,204	0–0.5	Quarterly, once a year, without coupon payments	From 2.4 months to 6.9 years
denominated in GBP	55	2,026	0–1	Once a year, without coupon payments	From 1.2 months to 11.6 months
securities issued by other issuers:					
denominated in USD	3,133	85,460	0–3.25	Quarterly, every 6 months, once a year, without coupon payments	From 11 days to 4.8 years
denominated in EUR	704	21,770	0–0.75	Quarterly, once a year	From 24 days to 6.7 years
denominated in AUD	15	297	0	Without coupon payments	5 months
denominated in GBP	77	2,837	0–0.375	Once a year, without coupon payments	From 12 days to 1.6 years
denominated in Chinese renminbi	3,459	14,804	0–3.4	Every 6 months, once a year, without coupon payments	From 1.5 months to 3.6 years
denominated in JPY	41,000	9,713	0–0.295	Every 6 months, without coupon payments	From 4.8 months to 2.8 years

Information about the nominal value, coupon rate and maturities of foreign debt securities as of 31 December 2020 is presented in the table below:

	Total nominal value in foreign currency, millions	Total nominal value in the hryvnia equivalent, UAH million	Coupon rate, % p.a.	Frequency of coupon payments	Maturity
Debt securities at fair value through profit or loss by issuers:					
Government bonds					
securities issued by U.S. issuers:					
denominated in USD	13,838	391,256	0–2.875	Every 6 months, without coupon payments	From 15 days to 4.9 years
securities issued by EU issuers:					
denominated in USD	247	6,995	0.125–1.875	Quarterly, every 6 months, once a year	From 29 days to 2.3 years
denominated in GBP	35	1,345	0.10875	Quarterly	10.1 months
securities issued by other issuers:					
denominated in USD	351	9,924	0.4–2.625	Every 6 months	From 1.4 months to 4.8 years
denominated in EUR	50	1,737	0.125	Once a year	5.9 years
denominated in AUD	30	657	2.25–5.5	Every 6 months	From 1.9 years to 2.3 years
denominated in GBP	151	5,797	0.5–1.5	Every 6 months	From 22 days to 2.6 years
denominated in Chinese renminbi	80	345	2.95	Every 6 months	5.8 months
denominated in JPY	1,500	412	0.02	Every 6 months	4.5 years
Bonds issued by international agencies, banks and other issuers:					
securities issued by U.S. issuers:					
denominated in USD	211	5,977	0.3965–0.75	Quarterly, every 6 months, once a year	From 11.6 months to 4.8 years
denominated in GBP	24	923	0.25	Once a year	6.7 years
securities issued by EU issuers:					
denominated in USD	1,612	45,566	0–3.125	Quarterly, every 6 months, once a year, without coupon payment	From 1.6 months to 6 years
denominated in EUR	273	9,484	0–4	Quarterly, once a year, without coupon payment	From 3.6 months to 6.2 years
denominated in GBP	74	2,845	0–1	Once a year, without coupon payments	From 6.1 months to 2 years
securities issued by other issuers:					
denominated in USD	3,625	102,495	0–3.35	Quarterly, every 6 months, once a year, without coupon payments	From 29 days to 4.9 years
denominated in EUR	1,071	37,206	0–0.75	Quarterly, once a year, without coupon payments	From 12 days to 4.8 years
denominated in AUD	15	325	0.869	Quarterly	10.7 months
denominated in GBP	77	2,960	0.375–0.40538	Quarterly, once a year	From 9.1 months to 2.6 years
denominated in Chinese renminbi	3,754	16,267	0–4.8	Every 6 months, once a year, without coupon payments	From 1.9 months to 4.6 years
denominated in JPY	50,000	13,722	0–0.42	Every 6 months, without coupon payments	From 1.9 months to 3.8 years

8. Transactions with the IMF

Accounting Policy

The NBU acts as a depository bank for the IMF.

NBU consolidated financial statements show all fund claims of Ukraine to the IMF and liabilities to the IMF for the funds received by the NBU.

The respective assets include

- SDR holdings
- IMF quota contributions (including the reserve position of the IMF).

The respective liabilities include:

- the value of securities issued to the IMF by the NBU from IMF quota contributions and for borrowings
- funds on IMF accounts No. 1 and No. 2. The IMF's account No. 1 is used for IMF transactions, including quota subscription payments, purchase and repurchase of funds. Account No. 2 is used for settlements with the IMF in the Ukrainian currency.

Assets and liabilities denominated in SDR, including the IMF quota contributions, are translated into UAH at the NBU's official exchange rate of hryvnia against SDR at the date of the consolidated statement of financial position. The official exchange rate of UAH against SDR is calculated based on the information about the exchange rate of SDR against USD set by the IMF and the NBU's official hryvnia against the U.S. dollar exchange rate. The NBU classifies SDR holdings and IMF quota contributions according to amortized cost.

Return on SDR holdings is recognized as interest income, and charges paid in respect of the use of the IMF's funds are recognized as interest expenses and fees and commissions in the consolidated statement of profit or loss and other comprehensive income. Nonreimbursable fees under arrangements of SDR purchases are recorded as fees and commissions. Expenses related to operations with the IMF are amortized using the effective interest rate method and recorded as interest expense.

8.1. SDR Holdings

SDR holdings are demand deposits denominated in SDR on the account opened at the IMF for Ukraine.

Movements in the SDR holding accounts in 2021 and 2020 were as follows:

	2021	2020
	(in UAH millions)	
Balance of SDR holdings as of 1 January	128	234
Proceeds from the IMF:		
in favor of the government	18,756	55,259
Proceeds from the SDR allocation	72,817	–
Purchase of SDRs	44,805	37,099
Other proceeds and payments	540	83
Loan repayment:		
on behalf of the NBU (Note 8.3)	(25,227)	(17,456)
on behalf of the government	(12,409)	(11,990)
Payment of loan-related fees and commissions	(215)	(469)
Conversion of SDRs to other foreign currencies:		
in favor of the government	(92,188)	(55,259)
Payment of interest for the use of IMF loans:		
on behalf of the NBU	(4,278)	(5,019)
on behalf of the government	(2,729)	(2,281)
Payment of interest for the use of funds received under SDR allocation:		
on behalf of the NBU	(6)	(9)
on behalf of the government	(32)	(135)
Other payments	(1)	(1)
Income on SDR holdings	7	1
Exchange rate differences	542	71
Balance of SDR holdings as of 31 December	510	128

In 2021 and 2020, there were no proceeds from the IMF to the NBU under lending programs.

In June 2021, SDR 12.53 million, or UAH 486 million, were credited to the SDR holding account at the official UAH/SDR exchange rate on the transaction date, based on a decision by the IMF Board of Governors. The proceeds were recognized as the NBU's income and included into the item "Other income" of the Consolidated Statement of Profit or Loss and Other Comprehensive Income.

The IMF, pursuant to the decision of the IMF's Board of Governors, approved the general SDR allocation to support

liquidity in the global economic system by replenishing the currency reserves of IMF member states. In August 2021, funds were credited to the SDR holding account in the amount of SDR 1,928 million (UAH 72,817 million at the official exchange rate at the transaction date) under the general SDR allocation, converted in U.S. dollars and euro and credited to the accounts of the State Treasury Service of Ukraine in September and December.

SDR holdings are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

8.2. IMF Quota Contributions

The quota balance is a special type of asset that represents Ukraine's contribution as an IMF member. Quotas vary based on the economic size of each country and are determined by the IMF Board of Governors. The quota determines a member's voting power in the IMF, the limits of its access to the financial resources of the fund, and a participant's share in the allocation of SDRs, the fund's unit of accounting. The major part of Ukraine's quota was paid in the form of non-interest-bearing debt instrument issued by the NBU to the IMF, with the remainder being credited to the IMF accounts No. 1 and No. 2 (Note 8.3).

As of 31 December 2021, Ukraine's total quota in the IMF amounted to SDR 2,012 million (UAH 76,807 million at the year-end official UAH/SDR exchange rate) (31 December 2020: SDR 2,012 million, or UAH 81,927 million at the year-

end official UAH/SDR exchange rate). The quota does not earn interest.

The reserve position in the IMF is a specific type of asset that is created by converting a part of the contribution of a member country to the IMF liquidity quota. The reserve position is part of a country's currency reserves.

As of 31 December 2021, the reserve position of Ukraine in the IMF amounted to SDR 241,031 or UAH 9 million at the official UAH/SDR exchange rate at the year-end (31 December 2020: SDR 241,031 or UAH 10 million at the official UAH/SDR rate at the year-end).

IMF quota contributions are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, and by liquidity risk – in Note 27.

8.3. Liabilities to the IMF

	2021	2020
		(in UAH millions)
Liabilities to the IMF for SDR purchases	153,455	190,151
Liabilities to the IMF for SDR allocations	3,112	3,317
IMF account No. 2	3	3
Liabilities to the IMF apart from quota contributions	156,570	193,471
Liabilities to the IMF with respect to quota contributions	76,605	81,711
IMF account No. 1	193	206
Liabilities to the IMF to pay quota contributions	76,798	81,917
Total liabilities to the IMF	233,368	275,388

Liabilities to the IMF for SDR allocation represent funds received by the NBU as a result of the special SDR allocation.

Liabilities to the IMF for purchases of SDRs represent loans received from the IMF to accounts with the NBU. In 2021 and 2020, there were no proceeds from the IMF to the NBU (Note 8.1).

IMF account No. 1 is the IMF account with the NBU in domestic currency that is used for transactions with the IMF related to the servicing and repayment of IMF loans. IMF account No. 2 is the IMF account with the NBU in the domestic currency that is used by the IMF for receipts and administrative disbursements in UAH in Ukraine.

Liabilities to the IMF to pay quota contributions represent liabilities for quota settlement. In 2021 and 2020, there were no changes in liabilities on quota contributions related to the IMF's administrative disbursements in the hryvnia.

In 2021 and 2020, no changes occurred in the size of the quota (Note 8.2).

In 2021, liabilities worth SDR 649 million (UAH 25,227 million at the official exchange rate at the transaction date, or UAH 24,996 million at the annual exchange rate of the IMF) were repaid to the IMF [in 2020, repayments of liabilities to the IMF worth SDR 469 million (UAH 17,456 million at the official exchange rate at the transaction date, or UAH 17,288 million at the annual exchange rate of the IMF were repaid)] (Note 8.1).

Liabilities to the IMF are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

9. Domestic Securities

	2021	2020
		(in UAH millions)
Securities measured at fair value through profit or loss:		
in foreign currencies:		
government derivatives denominated in US dollars	1,082	1,273
Total securities at fair value through profit or loss	1,082	1,273
Debt securities at amortized cost:		
in domestic currency:		
domestic government debt securities	322,861	334,128
Total debt securities at amortized cost	322,861	334,128
Total domestic securities	323,943	335,401

Under the Law of Ukraine *On the National Bank of Ukraine*, the NBU performs transactions with domestic securities only on the secondary market.

Domestic government debt securities are issued by the Ministry of Finance of Ukraine and have the nominal value of UAH 1,000 each.

In 2021 and 2020, the NBU did not purchase domestic government debt securities.

The NBU claims on the bonds with repayment pending as of 31 December 2020 are included in other financial assets, as they were not repaid as of that day (Note 11).

Each government derivative has a notional value of USD 1,000 or such aggregate value that is an integer multiple equal to USD 1,000 (hereinafter the notional value). Payments on government derivatives depend on reaching certain GDP indicators and the indicator of real GDP growth for 2019–2038.

Domestic securities are analyzed by credit risk in Note 24, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27. Estimated fair value of domestic securities is given in Note 21.

Information on the nominal value, yield to maturity, coupon income, and maturities of domestic securities as of 31 December 2021 is presented in the table below:

	Total nominal value and notional value in the hryvnia equivalent in UAH millions	Total nominal value in foreign currency, in millions	Yield to maturity, % p.a.	Coupon rate, % p.a.	Frequency of coupon payments	Maturity
Securities measured at fair value through profit or loss:						
in foreign currencies:						
government derivatives	1,196	44	–	–	–	to 18.4 years
Debt securities at amortized cost:						
in domestic currency:						
domestic government debt securities	312,752	–	6.97–13.10	8.12–17.25	Once a year, every 6 months	From 0.2 months to 25.9 years

Information on the nominal value, yield to maturity, coupon income, and maturities of domestic securities as of 31 December 2020 is presented in the table below:

	Total nominal value and contingent amount in hryvnia equivalent in UAH millions	Total nominal value and notional value in foreign currency, in millions	Yield to maturity, % p.a.	Coupon rate, % p.a.	Frequency of coupon payments	Maturity
Securities measured at fair value through profit or loss:						
in foreign currencies:						
government derivatives	1,240	44	–	–	–	Up to 19.4 years
Debt securities at amortized cost:						
in domestic currency:						
domestic government bonds and bills	324,577	–	7.45–15.43	6.6–14.3	Once a year, every 6 months	From 1.3 months to 26.9 years

As of 31 December 2021, the gross carrying value of domestic government securities was UAH 322,861 million (as of 31 December 2020, it was UAH 334,128 million). During 2021 and 2020, all government securities were at stage 1.

Changes in gross carrying value in 2021 and 2020 were primarily due to securities repayments. In 2021 and 2020, the NBU did not make provisions for expected credit losses on government securities.

10. Loans to Banks and Other Borrowers

Loans to banks and other borrowers by their designated purpose are classified as follows:

	2021	2020
	(UAH millions)	
Loans granted to banks to support their liquidity:		
for stabilizing banking activities	38,955	41,434
through tenders conducted by the NBU:		
long-term	88,852	48,381
short-term	6,578	13,916
overnight	470	–
other	10	10
Loans granted under credit lines to support small and medium businesses using funds received from the European Bank for Reconstruction and Development (the EBRD)	36	36
Other	2	2
Allowance for expected credit losses on loans to banks and other borrowers	(35,042)	(36,849)
Total loans to banks and other borrowers	99,861	66,930

In 2021 and 2020, the NBU supported the liquidity of banks through establishing a standing refinancing line (overnight loans), refinancing banks for the periods from 14 to 90 days and from one to five years by holding tenders.

The NBU performs banks refinancing by providing the banks with overnight loans and refinancing loans and has the outstanding debts under those loans as of 31 December 2021 and 2020. The NBU grants to banks the overnight and refinancing loans secured by a pool that may consist of the following asset (property) types: Ukrainian government bonds, NBU certificates of deposit, bonds of international financial institutions (issued in accordance with the Ukrainian law), corporate bonds placed against the CMU's guarantees,

domestic municipal bonds, and foreign currency (US dollars, Euros, GB pounds, Swiss francs, Japanese yens).

The securities (Ukraine's government bonds, corporate bonds, including those placed under the CMU's guarantees), foreign currency, shares of the owners of a bank's qualifying holding, real estate, and property rights under loan agreements were accepted as collateral against stabilization loans issued to banks to support their liquidity before 2017 and which remained outstanding as of 31 December 2021 and 2020. Since 2017, the NBU has not granted the stabilization loans. Instead of stabilization loans, the NBU may issue to banks loans for emergency liquidity assistance, but no such loans have been issued yet.

In 2021, the movements in gross carrying value of loans for stabilizing banking activities were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
	(UAH millions)				
Gross carrying value of loans for stabilizing banking activities as of 1 January 2021	–	–	41,434	–	41,434
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	(5)	–	(5)
Assets written off and otherwise derecognized loans against allowances	–	–	(1,233)	–	(1,233)
Other changes (including partial repayment)	–	–	(1,241)	–	(1,241)
Gross carrying value of loans for stabilizing banking activities as of 31 December 2021	–	–	38,955	–	38,955

Allowance for expected credit losses on loans for stabilizing banking activities in 2021 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Allowance for expected credit losses on loans for stabilizing banking activities, as of 1 January 2021	–	–	36,470	–	36,470
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	(5)	–	(5)
Assets written off and otherwise derecognized loans against allowances	–	–	(1,233)	–	(1,233)
Amortization of discount	–	–	(779)	–	(779)
Change in parameters/models used for calculating allowances	–	–	235	–	235
Allowance for expected credit losses on loans for stabilizing banking activities, as of 31 December 2021	–	–	34,688	–	34,688

In 2020, the movements in gross carrying value of loans for stabilizing banking activities were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Gross carrying value of loans for stabilizing banking activities as of 1 January 2020	–	–	51,324	–	51,324
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	(7,759)	–	(7,759)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Other changes (including partial repayment)	–	–	(2,131)	–	(2,131)
Gross carrying value of loans for stabilizing banking activities as of 31 December 2020	–	–	41,434	–	41,434

Allowance for expected credit losses on loans for stabilizing banking activities in 2020 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Allowance for expected credit losses on loans for stabilizing banking activities, as of 1 January 2020	–	–	37,585	–	37,585
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	(219)	–	(219)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Amortization of discount	–	–	(969)	–	(969)
Change in parameters/models used for calculating allowances	–	–	73	–	73
Allowance for expected credit losses on loans for stabilizing banking activities, as of 31 December 2020	–	–	36,470	–	36,470

In 2021, the movements in gross carrying value of long-term loans issued to banks by holding tenders were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
	(UAH millions)				
Gross carrying value of long-term loans issued to banks by holding tenders as of 1 January 2021	48,381	–	–	–	48,381
Purchased/originated loans	42,954	–	–	–	42,954
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	(1,663)	–	–	–	(1,663)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Other changes (including partial repayment)	(820)	–	–	–	(820)
Gross carrying value of long-term loans issued to banks by holding tenders as of 31 December 2021	88,852	–	–	–	88,852

Allowance for expected credit losses on long-term loans issued to banks by holding tenders in 2021 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
	(UAH millions)				
Allowance for expected credit losses on long-term loans issued to banks by holding tenders as of 1 January 2021	5	–	–	–	5
Purchased/originated loans	16	–	–	–	16
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	–	–	–
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Amortization of discount	–	–	–	–	–
Change in parameters/models used for calculating allowances and their partial repayment	3	–	–	–	3
Allowance for expected credit losses on long-term loans issued to banks by holding tenders as of 31 December 2021	24	–	–	–	24

In 2020, the movements in gross carrying value of long-term loans issued to banks by holding tenders were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
	(UAH millions)				
Gross carrying value of long-term loans issued to banks by holding tenders as of 1 January 2020	–	–	–	–	–
Purchased/originated loans	48,381	–	–	–	48,381
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	–	–	–
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Other changes (including partial repayment)	–	–	–	–	–
Gross carrying value of long-term loans issued to banks by holding tenders as of 31 December 2020	48,381	–	–	–	48,381

Allowance for expected credit losses on long-term loans issued to banks by holding tenders in 2020 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Allowance for expected credit losses on long-term loans issued to banks by holding tenders as of 1 January 2020	–	–	–	–	–
Purchased/originated loans	5	–	–	–	5
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	–	–	–
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Amortization of discount	–	–	–	–	–
Change in parameters/models used for calculating allowances and their partial repayment	–	–	–	–	–
Allowance for expected credit losses on long-term loans issued to banks by holding tenders as of 31 December 2020	5	–	–	–	5

In 2021, the movements in gross carrying value of short-term loans issued to banks by holding tenders were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Gross carrying value of short-term loans issued to banks by holding tenders as of 1 January 2021	13,473	–	443	–	13,916
Purchased/originated loans	6,296	–	–	–	6,296
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	(13,473)	–	(161)	–	(13,634)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Other changes (including partial repayment)	–	–	–	–	–
Gross carrying value of short-term loans issued to banks by holding tenders as of 31 December 2021	6,296	–	282	–	6,578

Allowance for expected credit losses on short-term loans issued to banks by holding tenders in 2021 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Allowance for expected credit losses on short-term loans issued to banks by holding tenders as of 1 January 2021	–	–	326	–	326
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	(44)	–	(44)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Amortization of discount	–	–	–	–	–
Change in parameters/models used for calculating allowances and their partial repayment	–	–	–	–	–
Allowance for expected credit losses on short-term loans issued to banks by holding tenders as of 31 December 2021	–	–	282	–	282

In 2020, the movements in gross carrying value of short-term loans issued to banks by holding tenders were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Gross carrying value of short-term loans issued to banks by holding tenders as of 1 January 2020	104	–	282	–	386
Purchased/originated loans	13,634	–	–	–	13,634
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	(161)	–	161	–	–
Derecognized or repaid loans	(104)	–	–	–	(104)
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Other changes (including partial repayment)	–	–	–	–	–
Gross carrying value of short-term loans issued to banks by holding tenders as of 31 December 2020	13,473	–	443	–	13,916

Allowance for expected credit losses on short-term loans issued to banks by holding tenders in 2020 were as follows:

	Stage 1	Stage 2	Stage 3	Initially impaired assets	Total
					(UAH millions)
Allowance for expected credit losses on short-term loans issued to banks by holding tenders as of 1 January 2020	–	–	282	–	282
Purchased/originated loans	–	–	–	–	–
Transfer to Stage 1	–	–	–	–	–
Transfer to Stage 2	–	–	–	–	–
Transfer to Stage 3	–	–	–	–	–
Derecognized or repaid loans	–	–	–	–	–
Assets written off and otherwise derecognized loans against allowances	–	–	–	–	–
Amortization of discount	–	–	–	–	–
Change in parameters/models used for calculating allowances and their partial repayment	–	–	44	–	44
Allowance for expected credit losses on short-term loans issued to banks by holding tenders as of 31 December 2020	–	–	326	–	326

As of 31 December 2021 and 2020, other loans were at stage 3, gross carrying value was UAH 10 million, allowance for expected credit losses was UAH 10 million.

As of 31 December 2021 and 2020, loans granted under credit lines to support small and medium entities from funds received from the EBRD and other loans remained at stage 3, gross carrying value was UAH 38 million, allowance for expected credit losses was UAH 38 million.

The information on gross carrying value of loans by collateral types as of 31 December 2021 is given below:

	Loans granted to banks to support their liquidity	Loans granted to support small and medium enterprises based on funds received from the European Bank for Reconstruction and Development (EBRD)	Loans granted to the Deposit Guarantee Fund, and others	Domestic public debt	Total
(UAH millions)					
Loans secured by:					
real assets	5,434	–	–	–	5,434
securities	81,509	–	–	–	81,509
property rights under credit agreements	590	–	–	–	590
other collateral types	14,662	–	–	–	14,662
other collateral types	300	–	–	–	300
Unsecured loans	32,370	36	2	1,541	33,949
Total loans to banks and other borrowers	134,865	36	2	1,541	136,444

The information on gross carrying value of loans by collateral types as of 31 December 2020 is given below:

	Loans granted to banks to support their liquidity	Loans granted to support small and medium enterprises based on funds received from the European Bank for Reconstruction and Development (EBRD)	Loans granted to the Deposit Guarantee Fund, and others	Domestic public debt	Total
(UAH millions)					
Loans secured by:					
immovable property	6,618	–	–	–	6,618
securities	53,209	–	–	–	53,209
property rights under credit agreements	694	–	–	–	694
other collateral	9,453	–	–	–	9,453
Unsecured loans	33,767	36	2	1,635	35,440
Total loans to banks and other borrowers	103,741	36	2	1,635	105,414

Loans to banks and other borrowers are analyzed by geographical concentration risk in Note 23, by credit risk – in Note 24, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27. Estimated fair value of loans to banks and other borrowers is presented in Note 21.

Loan Commitments

As of 31 December 2021, the NBU had no commitments for granting loans (as of 31 December 2020, the NBU had commitments for granting loans to the Deposit Guarantee Fund under an open revolving credit line totaling UAH 2,000 million).

11. Others Financial Asset

	2021	2020
	(UAH millions)	
Other financial assets at amortized cost:		
NBU loans due from employees	46	60
allowance for expected credit losses on loans to employees	(5)	(6)
claims under bonds of other government institutions	37	983
allowances for expected credit losses on claims under bonds of other government institutions	(37)	(76)
receivables	228	154
allowance for expected credit losses on receivables	(13)	(15)
other	44	169
Total financial assets at amortized cost	300	1,269
Other financial assets at fair value through profit or loss		
derivative financial assets (currency swap, and interest rate swap agreement)	273	41
rights of claim under credit agreements transferred to the NBU	5	5
Total other financial assets	578	1,315

Other financial assets are unsecured.

As of 31 December 2021 and 2020, loans to employees were at stages 1, 2, and 3. During a year ended 31 December 2021, no transition between stages, nor other substantial changes occurred (during a year ended 31 December 2020, no transition between stages, nor other changes occurred).

As of 31 December 2020, claims on bonds of other government institutions included claims on bonds of the State Mortgage Institution with additional collateral in the form of state guarantee on issuer's obligations provided by the Cabinet of Ministers of Ukraine (SMI bonds) with the face value of UAH 946 million and carrying value – UAH 907 million.

The SMI bonds payable in November 2020 according to the bond prospectus were submitted for repayment by the NBU and transferred to the State Mortgage Institution for finalizing the repayment procedure, as specified in the prospectus.

In 2020, all bonds of other government institutions were at stage 3. As of 31 December 2020, bonds of other government institutions were included in other financial assets.

In March 2021, the State Treasury Service of Ukraine, pursuant to the instruction of the Ministry of Finance of Ukraine by order of the Cabinet of Ministers of Ukraine, transferred to the NBU UAH 946 million as requested by the NBU to meet the commitments under the state guaranty of the SMI bonds.

As of 31 December 2021, other financial assets include derivative financial assets on currency swap transactions. Interest rate swap transactions, as of 31 December 2021, generated no derivative financial assets at fair value (31 December 2020, other financial assets include derivative financial assets on interest rate swap transactions. No

financial assets were generated on currency swaps). Derivative financial liabilities on currency swaps and interest rate swaps with the description of transactions are presented in other financial liabilities (Note 15).

For the purpose of managing international reserves, in 2021 and 2020, the NBU performed foreign currency swaps with foreign banks with the maturity up to three months.

As of 31 December 2021, the NBU had 15 foreign currency swap deals on assets amounting to USD 770 million (UAH 21,004 million according to the official exchange rate as of the end of the year) and UAH 2,684 million, and amounts of liabilities payable amount to JPY 87,564 million (UAH 20,745 million according to the official exchange rate as of the end of the year), and USD 100 million (UAH 2,728 million according to the official exchange rate as of the end of the year).

As of 31 December 2020, the NBU had 11 foreign currency swap deals on assets amounting to USD 800 million (UAH 22,620 million according to the official exchange rate as of the end of the year) and UAH 2,280 million, and amounts of liabilities payable amount to JPY 62,208 million (UAH 17,072 million according to the official exchange rate as of the end of the year), EUR 163 million (UAH 5,672 million according to the official exchange rate as of the end of the year), and USD 80 million (UAH 2,262 million according to the official exchange rate as of the end of the year).

Other financial assets are analyzed by geographical concentration risk in Note 23, by credit risk – in Note 24, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

12. Accounts of Banks

	2021	2020
		(UAH millions)
Correspondent accounts:		
in domestic currency	34,843	37,501
Accounts of banks on special use terms:		
in domestic currency	1,644	1,370
in foreign currency	148	165
Funds placed to ensure the repayment of bank debts to the NBU:		
in foreign currency	20,501	10,981
Total accounts of banks	57,136	50,017

As of 31 December 2021 and 2020, interest on the balances in the correspondent account was not accrued.

Accounts of banks on special-use terms as of 31 December 2021 and 2020 included funds placed for the purposes of liquidation committees of banks to make settlements in the

process of a bank's liquidation, as well as in other cases specified by the laws of Ukraine and the NBU's regulations.

Accounts of banks are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

13. Accounts of Government and Other Institutions

	2021	2020
		(UAH millions)
Funds of budgets and budget entities:		
in domestic currency	15,672	12,013
in foreign currency	38,638	57,080
Deposit Guarantee Fund:		
in domestic currency	675	1,414
Other:		
in domestic currency	54	110
in foreign currency	94	47
Total accounts of government and other institutions	55,133	70,664

The NBU services the accounts of the State Budget of Ukraine (hereinafter – the State Budget) and local budgets, which are consolidated on the single treasury account.

In accordance with the Law of Ukraine On the National Bank of Ukraine, all budget accounts are non-interest-bearing, except for the accounts of the Deposit Guarantee Fund, which bore interest of 4.80% as of 31 December 2021 (31 December 2020: 5.68%).

Accounts of government and other institutions are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

14. Certificates of Deposit Issued by the NBU

The certificates of deposit issued by the NBU are one of its monetary policy instruments. They are liabilities of the NBU in nondocumentary form that confirm the placement of banks' funds with the NBU and the right of banks to receive at their

maturity the funds they placed, together with the interest accrued. The cost of on the certificates of deposit is set based on the NBU's interest rate policy framework, taking into account its current objectives.

	2021	2020
		(UAH millions)
Certificates of deposit at amortized cost:		
Overnight certificates of deposit	112,147	52,494
Certificates of deposit with maturities up to 100 days	100,779	110,991
Total amount of certificates of deposit at amortized cost	212,926	163,485

As of 31 December 2021 and 2020, the nominal value of the certificates of deposit issued by the NBU was UAH 1 million each.

During 2021 and 2020, the movements in book value of certificates of deposit were as follows:

	2021	2020
		(in UAH millions)
Certificates of deposit (book value) as of 1 January	163,485	151,932
placement of certificates of deposit	212,799	163,602
repayment of certificates of deposit	(163,441)	(151,686)
other movements (accrual and payment of interest)	83	(363)
Certificates of deposit (book value) as of 31 December	212,926	163,485

Information on the nominal value, weighted average cost, interest rate, and period of placement as of 31 December 2021 is presented in the table below:

	Total nominal value of certificates of deposit, in UAH millions	Weighted average cost, % p.a.	Interest rate, % p.a.	Period of placement, calendar days	Frequency of interest payments
Certificate of deposit at amortized cost:					
overnight certificates of deposit	112,122	8.00	8.00	4	one time during repayment
certificates of deposit up to 100 days	100,677	9.00	9.00	15	one time during repayment

Information on the nominal value, weighted average cost, interest rate, and period of placement as of 31 December 2020 is presented in the table below:

	Total nominal value of certificates of deposit, in UAH millions	Weighted average cost, % p.a.	Interest rate, % p.a.	Period of placement, calendar days	Frequency of interest payments
Certificate of deposit at amortized cost:					
overnight certificates of deposit	52,487	5.00	5.00	4	one time during repayment
certificates of deposit up to 100 days	110,954	6.00	6.00	7	one time during repayment

Certificates of deposit are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

15. Other Financial Liabilities

	2021	2020
		(in UAH millions)
Other financial liabilities at amortized cost:		
employee benefits liabilities	531	445
accounts payable	154	96
other	49	19
Total other financial liabilities at amortized cost	734	560
Other financial liabilities at fair value through profit or loss:		
derivative financial liabilities	1,105	300
Total other financial liabilities	1,839	860

As of 31 December 2021, other financial liabilities include derivative financial liabilities for interest rate swap transactions in the amount of UAH 1,105 million (as of 31 December 2020 – UAH 206 million for interest rate swap transactions and currency swaps in the amount of UAH 94 million). Derivative financial assets under currency swap transactions and their terms are presented in Note 11.

Derivative financial assets under interest rate swap transactions are presented in Note 11.

As of 31 December 2021, the NBU had 72 interest rate swap agreements for the total face value amount of UAH 19,411 million with maturity terms from 2 to 5 years (including: face value of transactions maturing in 2 years was UAH 2,980 million, maturing in 3 years – UAH 8,961 million, maturing in 4 years – UAH 4,470 million, maturing in 5 years – UAH 3,000

million). From 1 October 2021, performance of these transactions was suspended due to rolling back of emergency monetary measures.

As of 31 December 2020, the NBU had 31 interest rate swap agreements for the face value total amount of UAH 15,391 million with maturity terms from 2 to 5 years (including: face value of transactions maturing in 2 years was UAH 2,430 million, maturing in 3 years – UAH 7,461 million, maturing in 4 years – UAH 3,500 million, maturing in 5 years – UAH 2,000 million).

Other financial liabilities are analyzed by geographical concentration risk in Note 23, by foreign currency risk – in Note 25, by interest rate risk – in Note 26, and by liquidity risk – in Note 27.

16. Cash and Cash Equivalents

	Note	2021	2020
(UAH millions)			
Foreign currency cash	6	20,677	22,164
Demand deposits (other than restricted funds)	6	58,661	70,258
Short-term deposits with maturities of up to three months (other than deposits in gold)	6	98,241	25,860
SDR holdings	8.1	508	128
Total cash and cash equivalents		178,087	118,410

Changes in liabilities that resulted from financial activities in 2021:

	Note	As of 1 January 2021	Issued/ raised/ (repaid) liabilities	Interest expenses accrued	Changes in exchange rates	Interest expenses accrued	Other	As of 31 December 2021
(UAH millions)								
Banknotes and coins issued in circulation		558,694	69,125	–	–	–	–	627,819
Liabilities to the IMF	8.3	275,388	(25,227)	(4,284)	(16,795)	4,127	159	233,368
Certificates of deposit issued by the NBU	14	163,485	49,358	(10,573)	–	10,656	–	212,926

The NBU classifies interests paid as cash flows from operating activity in the consolidated statement of cash flows.

Changes in liabilities that resulted from financial activities in 2020:

	Note	As of 1 January 2020	Issued/ raised/ (repaid) liabilities	Interest expenses paid	Changes in exchange rates	Interest expenses accrued	Other	As of 31 December 2020
(UAH millions)								
Banknotes and coins issued in circulation		425,256	133,438	–	–	–	–	558,694
Liabilities to the IMF	8.3	236,945	(17,456)	(5,027)	55,881	4,993	52	275,388
Certificates of deposit issued by the NBU	14	151,932	11,636	(10,741)	–	10,539	119	163,485

Section II.III. Financial Performance by Financial Instruments

Accounting Policy

Recognition of Income and Expenses

Interest Income and Expenses

Interest income and expenses are recognized in the consolidated statement of profit or loss and other comprehensive income for all debt instruments (other than financial assets measured at fair value through profit or loss) on accrual basis using the effective interest rate method:

for financial assets in the first and second stages of impairment – based on gross carrying amount

for financial assets in the third stage of impairment and for financial liabilities – based on amortized cost

for purchased or originated credit-impaired financial assets – based on the effective interest rate, adjusted for credit risk, that is applied to amortized cost.

The NBU records inflation indexed government bonds as floating-rate debt instruments and recognizes interest income using an effective interest rate that is revised monthly on the basis of actual inflation rates for the reporting period and not on the basis of inflation expectations or projections.

Interest income on debt securities measured at fair value through profit or loss is determined based on the nominal interest rate and is recognized in the consolidated statement of profit or loss and other comprehensive income within results on transactions with debt securities at fair value.

Fee and Commission Income and Expenses

Other commission income and expenses are recognized on an accrual basis in the reporting period in which the respective services are provided or received.

Gains/losses from Revaluation of Assets and Liabilities

Unrealized gains/losses from revaluation of assets and liabilities denominated in foreign currencies (investment metals) and monetary gold are recognized in connection with changes in the exchange rate of the hryvnia against foreign currencies, the book value of investment metals during the reporting year, and in relation to revaluation of securities, derivatives, and other financial instruments to their current fair value.

Gains/losses from revaluation of assets and liabilities are recognized as realized on disposal or redemption of the relevant revalued assets and liabilities. The amount so recognized equals the cumulative unrealized revaluations as of the date of said disposal or redemption.

Gains/losses from revaluation of foreign currency, monetary gold, and investment metals are recognized as realized at the end of the reporting month in case of decrease of the total open position in foreign currency, monetary gold, and investment metals. The amount so recognized is proportional to the amount of said decrease.

Revaluation of monetary assets and liabilities in foreign currency and monetary gold, as well as gold held in foreign banks, due to changes in the official hryvnia exchange rate against foreign currencies/accounting price of investment metals are reported as financial results in the consolidated statement of profit or loss and other comprehensive income in the period in which they occurred.

17. Interest Income and Expenses

	2021	2020
		(UAH millions)
Interest income		
Income on domestic securities at amortized cost	36,850	28,506
Income on loans to banks	6,922	2,277
Income on accounts and deposits in foreign currencies	97	282
Income on SDR holdings	7	1
Income on domestic state debt	134	144
Other	16	15
Total interest income at the effective interest rate	44,026	31,225
Interest expenses		
Expenses on certificates of deposit issued by the NBU	(10,656)	(10,525)
Expenses on operations with the IMF	(4,266)	(4,994)
Expenses on Deposit Guarantee Fund accounts	(70)	(192)
Expenses on borrowings received	(85)	(96)
Total interest expenses at the effective interest rate	(15,077)	(15,807)
Interest expenses on demand deposits and term deposits with a negative interest rate	(113)	(94)
Net interest income	28,836	15,324

Other interest income includes interest income on loans to employees.

In 2021, income on domestic securities at amortized cost included income on inflation indexed domestic government debt securities worth UAH 18,233 million (in 2020 – UAH 8,561 million).

18. Gains or Losses on Transactions with Financial Assets and Liabilities in Foreign Currency and Monetary Gold

	2021	2020
		(UAH millions)
Unrealized gains or losses on operations with financial assets and liabilities in foreign currency and monetary gold	(21,462)	79,832
Realized result on transactions with financial assets and liabilities in foreign currency and monetary gold	143	15,312
Total results on operations with financial assets and liabilities in foreign currency and monetary gold	(21,319)	95,144

19. Gains or Losses on Transactions with Financial Instruments at Fair Value through Profit or Loss

	2021	2020
	(UAH millions)	
Foreign securities at fair value through profit or loss		
Interest income	7,549	8,708
Unrealized gains allocated to revaluation reserve for financial instruments at fair value	268	7,517
Unrealized losses covered by revaluation reserve for financial instruments at fair value	(965)	(166)
Unrealized losses not compensated by revaluation reserves of financial instruments to their fair value	(2,051)	(358)
Total unrealized results on foreign securities at fair value through profit or loss	(2,748)	6,993
Realized results on foreign securities at fair value through profit or loss (previously unrealized results of the current year that were realized)	(6,101)	2,182
Total gains or losses from foreign securities at fair value through profit or loss	(1,300)	17,883
Derivative financial instruments		
Unrealized gains allocated to revaluation reserve for financial instruments at fair value	157	184
Unrealized losses covered by revaluation reserve for financial instruments at fair value	(181)	–
Unrealized losses not compensated by revaluation reserves of financial instruments to their fair value	(922)	(207)
Total amount of unrealized results on derivative financial instruments	(946)	(23)
Realized result on derivative financial instruments (previously unrealized results of the current year that were realized)	189	155
Total amount of gains or losses from derivative financial instruments	(757)	132
Property rights on loan agreements repossessed by the NBU		
Realized results (previously unrealized results of the current year that were realized)	–	(2)
Total gains or losses from rights of claim under credit agreements repossessed by the NBU	–	(2)
Total results on transactions with financial instruments at fair value through profit or loss	(2,057)	18,013

In 2021, interests received on foreign securities included in the net increase of foreign securities in the Consolidated Cash Flow Statement amounted to UAH 6,956 million (in 2020 – UAH 8,436 million).

20. Gains/(Losses) on the Reversal of Impairment/(Impairment) of Financial and Nonfinancial Assets

Gains/(losses) on reversal of impairment/(impairment) of financial and nonfinancial assets:

	2021	2020
	(UAH millions)	
Gains/(losses) on the (impairment)/reversal of impairment on deposits in foreign currency at amortized cost	(5)	9
Gains on the reversal of impairment on debt securities of other government institutions at amortized cost	14	112
(Losses)/gains from the reversal of impairment on loans to banks and other borrowers	(210)	91
Gains on reversal of impairment on loans to employees	1	–
(Losses)/gains from (impairment)/reversal of impairment on interest bearing financial assets	(200)	212
Gains/(losses) on the reversal of impairment/(impairment) of receivables	3	(3)
Gains/(losses) on the reversal of impairment/(impairment) of other assets	3	(3)

Section II.IV. Fair Value of Financial Assets and Liabilities

21. Fair Value of Financial Assets and Liabilities

The market where the NBU usually performs transactions to sell an asset or transfer a liability is deemed to be the principal market or, in the absence of a principal market, the most advantageous one for the asset or liability. The NBU should have access to the principal or the most advantageous market as of the measurement date. The NBU measures the fair value of an asset or liability using the same assumptions used by market participants for forming a price for the asset or liability, and assuming that the market participants act in their economic interests.

If the principal market for an asset or liability exists, fair value measurement represents a price on this market (irrespective of the fact whether the price is publicly available, or it was calculated using a different measurement method), even if the price on other market is potentially more advantageous at the measurement date.

To establish the fair value of financial instruments regarding which no information on market prices is available from external sources, such valuation methods are used as discounted cash flow and analysis of financial information on investment objects. The use of the valuation methods may require the assumptions not supported with market data. In these consolidated financial statements, the information on assumptions is disclosed in the cases when the replacement of such assumption with a possible alternative option may lead to substantial change in amounts of profits, income, losses, the total amount of assets or liabilities.

The NBU uses the valuation methods in conformity with the circumstances and for which the data are sufficient to evaluate fair value, using at maximum the proper, publicly available inputs and minimizing the use of unobservable inputs.

All assets and liabilities whose fair value is measured or disclosed in consolidated financial statements are classified according to the hierarchy of fair value levels specified below, on the basis of the lowest level inputs which are substantial for fair value measurement in general:

- Level 1 – quoted prices of the identical assets or liabilities on active markets (without any adjustment)
- Level 2 - evaluation models in which the inputs substantial for fair valuation in general and belonging to the lowest hierarchical level are directly or indirectly observable in the market
- Level 3 - evaluation models in which the inputs substantial for fair valuation in general and belonging to the lowest hierarchical level are not observable in the market.

The NBU determines the estimated fair value of financial assets and liabilities using available market information, where it exists, and the appropriate evaluation methodologies. However, professional judgment is required to interpret market data to measure fair value. Given the low

activity in the financial market of Ukraine, the measured fair value may not be fully reflective of the value that could be realized by the NBU in the current circumstances.

Financial Assets and Liabilities at Fair Value

Financial instruments carried at fair value include foreign securities and derivative financial instruments.

The fair value of these securities is defined on quoted prices on the active market (Level 1 inputs), other quotations from trading information systems (Level 2 inputs), or in the absence of information on quoted prices on the active market, the fair value is based on an income approach and Level 3 inputs (the yield of the securities during their initial placement by the issuer and the assumption that the yield will remain unchanged until the maturity date of the relevant securities, taking into account their short maturities).

The fair value of derivative financial instruments (futures, government derivatives) is determined on the basis of quoted prices on an active market (Level 1 inputs).

When determining the fair value of derivative financial instruments such as interest rate and currency swaps, a valuation method is used for data that is openly observed on the market (Level 2). Fair value is determined with valuation models based on the current market-oriented and agreed value of the underlying instruments and other factors. The models include various data, namely forward and spot exchange rates, exchange rate volatility, interest rate indices on interbank markets, yield curves, and so on.

Financial Assets and Liabilities at Amortized Cost

The NBU has determined that the fair value of certain financial assets and liabilities carried at amortized cost does not materially differ from their carrying value for the purposes of disclosing the fair value. These financial assets and liabilities include funds and deposits in foreign currencies, SDR holdings and IMF quota contributions, other financial assets, banknotes and coins in circulation, accounts of banks, accounts of state and other institutions, NBU certificates of deposit, loans received, liabilities to the IMF, and other financial liabilities.

Financial instruments carried at amortized cost, the fair value of which may differ significantly from their carrying values, include domestic securities, domestic public debt in domestic currency, and loans to banks and other borrowers. None of these financial instruments have an active market.

For the purposes of disclosing in its consolidated financial statements the fair values of financial assets and liabilities for which no active market exists, the NBU estimates the fair values of such assets and liabilities using the discounted cash flow method (the income approach). The said model

takes into account future interest payments and principal repayments, the repayment period, and the discount rate.

The NBU estimates the fair value of domestic securities on the basis of the income approach and the following information:

for long-term inflation-indexed government bonds – Level 2 inputs (spot rates calculated on the basis of the zero-coupon yield curve built using data from actually concluded and executed agreements on domestic government debt securities, using the Svensson parametric model, and the actual consumer price index calculated month-on-month over the period from March to November 2021), and Level 3 inputs (the December 2021 FOCUSECONOMICS consensus forecast of consumer price indices for 2021-2026 and target consumer price indices established by the NBU for the period from 2017 to 2047)

for other Ukrainian government bonds – Level 2 inputs (spot rates calculated on the basis of the zero-coupon yield curve built using data from actually concluded and executed agreements on domestic government debt securities, using the Svensson parametric model).

To measure the fair value of domestic government debt in the national currency, the NBU's weighted average rate on all refinancing instruments (Level 3 inputs) is used as the discount rate.

As of 31 December 2021, the NBU applied the market rate (the NBU's key policy rate plus 1% for overnight loans and the NBU's key policy rate for other refinancing loans) at the measurement date (Level 3 inputs) as the discount rate used to measure the fair value of loans to banks and other borrowers. As of 31 December 2020, the NBU applied the market rate (the NBU's key policy rate) at the measurement date (Level 3 inputs) as the discount rate used to measure the fair value of loans to banks and other borrowers.

The discount rates used were as follows:

	2021	2020
	Discount rate, in % per annum	Discount rate, in % per annum
Domestic securities in domestic currency:		
domestic government bonds	6.97–13.10	7.45–11.59
Domestic public debt in domestic currency (1994–1996)	9.92	6.08
Loans to banks and other borrowers in domestic currency	9.00–10.00	6.00
Claims under bonds of other government institutions	–	10.32

The following table summarizes the carrying amounts and measured fair values of the financial assets that do not appear in the NBU's consolidated statement of financial position at their fair value:

	2021		2020	
	Carrying value	Fair value	Carrying value	Fair value
(in UAH millions)				
Domestic securities in domestic currency:				
domestic government bonds	322,861	296,271	334,128	315,282
Domestic state debt	1,541	1,451	1,635	1,876
Loans to banks and other borrowers	99,861	100,987	66,930	67,229
Claims under bonds of other government institutions	–	–	907	920

Taking into account that fair value estimates are based on certain assumptions, it should be noted that the information provided above may not be fully reflective of the value that could be realized.

The fair value of financial instruments was categorized as follows:

	2021			2020		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
	(in UAH millions)					
Assets measured at fair value:						
Funds and deposits in foreign currency (futures)	33	–	–	8	–	–
Foreign securities carried at fair value	498,539	128,800	16,949	521,245	125,534	24,999
Domestic securities carried at fair value:						
government derivatives	1,082	–	–	1,273	–	–
Other financial assets at fair value:						
interest rate swap	–	–	–	–	41	–
currency swap	–	273	–	–	–	–
Assets for which fair value is disclosed:						
Domestic securities in domestic currency:						
domestic government debt securities	–	161,952	134,319	–	184,466	130,816
Domestic public debt	–	–	1,451	–	–	1,876
Loans to banks and other borrowers	–	–	100,987	–	–	67,229
Claims under bonds of other government institutions	–	–	–	–	–	920
Liabilities measured at fair value:						
Other financial liabilities at fair value:						
interest rate swap	–	1,105	–	–	206	–
currency swap	–	–	–	–	94	–

In 2021, there were no material transfers of financial instruments between Levels 1 and 2 of the fair value hierarchy. In 2021, there were no transfers of financial instruments to or from Level 3 of the fair value hierarchy.

Long-term inflationary domestic bonds – the fair values of which are disclosed – are included in Level 3 of the fair value hierarchy.

The change in the fair value of foreign securities that are measured at the reporting date at fair value, and are included in Level 3 of the fair value hierarchy, is presented as follows:

Fair value of foreign securities that are measured at fair value through profit or loss and are attributed to Level 3 of the fair value hierarchy	
(in UAH millions)	
Foreign securities as of 1 January 2020	33,400
Income/(expense) recognized during the reporting period as part of profit or loss, including:	6,003
unrealized gain/(loss) from revaluation of financial instruments to their fair value	52
unrealized gain/(loss) from revaluation due to change in the official exchange rate of the hryvnia against foreign currencies	2,101
Purchases of foreign securities	22,777
Redemptions of foreign securities	(37,181)
Foreign securities as of 31 December 2020	24,999
Income/(expense) recognized during the reporting period as part of profit or loss, including:	(1,599)
unrealized gain/(loss) from revaluation financial instruments to their fair value	16
unrealized gain/(loss) from revaluation due to change in the official exchange rate of the hryvnia against foreign currencies	(171)
Purchases of foreign securities	16,999
Redemptions of foreign securities	(23,450)
Foreign securities as of 31 December 2021	16,949

Income and expenses from change in the fair value of foreign securities measured as of the reporting date and assigned to Level 3 of the fair value hierarchy are included in profits or losses from transactions with financial assets and liabilities in foreign currencies and monetary gold, and profits or losses from transactions with financial instruments at fair value through profit or loss of the consolidated statement of profit or loss and other comprehensive income (Note 18 and 19, respectively).

The average weighted modified duration under financial assets at fair value that are included in Level 3 of the fair

value hierarchy (except for equity instruments at fair value through profit or loss) was 0.45 as of 31 December 2021 (0.48 as of 31 December 2020). An increase in the yield rates used to determine the fair value of these financial assets as of 31 December 2021 (Level 3 inputs) by 1 basis point would decrease the fair value of the relevant assets by UAH 76 million (by UAH 120 million as of 31 December 2020), while a decrease in these yield rates by 1 basis point would increase the fair value of these assets by UAH 76 million (UAH 120 million as of 31 December 2020).

Section III. Risk Management

22. Financial Risk Management

The NBU manages its financial risks in order to limit potential losses of the NBU's financial assets, fulfill its financial obligations in due time, and protect its capital to achieve its strategic goals and effectively perform its functions, as set forth in the Ukrainian Law *On the National Bank of Ukraine*, as well as supporting its institutional capacity and independence.

Financial risk management processes are broken down into the following stages:

- 1) setting up a system of financial risk management
- 2) identifying adverse events/financial risks in the NBU's processes/products
- 3) measuring financial risks
- 4) deciding on and taking measures in response to financial risks (addressing financial risks)
- 5) controlling risks
- 6) communicating and reporting risks
- 7) monitoring the system of financial risk management.

The NBU detailed the stages of financial risk management processes in its process procedures and other executive orders related to financial risk management.

The NBU Board is responsible for implementing the risk management system and ensuring that NBU risks are managed.

In accordance with the Ukrainian Law *On the National Bank of Ukraine*, the NBU Board established an asset and liability management committee, and charged it with managing the central bank's assets and liabilities, including Ukraine's foreign exchange reserves, as well as with monitoring risks arising from, and profits or losses incurred from, transactions with NBU assets and liabilities.

The NBU Board or the Asset and Liability Management Committee, within the powers delegated to it by the NBU Board, choose and approve measures in response to financial risks (address financial risks) based on proposals submitted by the NBU units that carry out transactions with financial instruments and by the Risk Management Department. These measures are chosen and approved through taking decisions on financial risk management and/or through outlining such measures in the central bank's regulations and/or executive orders.

The NBU units that are responsible for carrying out and/or carry out transactions with financial instruments are the first

line of defense in financial risk management processes. These units have been charged with identifying and measuring financial risks, deciding on and taking measures in response to financial risks, and reporting financial risks that arise from the operations that fall under their mandate.

The Risk Management Department is the second line of defense in financial risk management processes is responsible for:

- 1) providing methodological, coordinative and logistical support for the central bank's financial risk management processes, among other things, through updating financial risk management policies
- 2) developing and supporting procedures and methodologies for measuring financial risks
- 3) overseeing, monitoring, and conducting an independent analysis of financial risks at the level of the central bank's second line of defense
- 4) analyzing, on request, new operations with financial instruments, new financial instruments, and changes to operations involving financial instruments so as to see how they could affect the NBU's financial risks, and making recommendations on responses to identified financial risks (addressing risks)
- 5) assessing the NBU's financial risk profile
- 6) reporting the NBU's financial risks to the central bank's Asset and Liability Management Committee.

The NBU's financial risks are grouped as follows:

- financial risks related to the policies determined and conducted by the NBU. These risks arise from financial instruments and are related to the central bank's performance of its main function and other functions, as set forth in Articles 6 and 7 of the Ukrainian Law *On the National Bank of Ukraine*, with the exception of Article 7 paragraph 15 of the Ukrainian Law *On the National Bank of Ukraine*
- financial risks arising from Ukraine's international reserves
- financial risks arising from the management of the pension assets of the NBU Corporate Nonstate Pension Fund
- other financial risks of the NBU.

The measures the NBU takes in response to financial risks depend on the central bank's tolerance to certain risk groups.

The main measures the NBU relies on to address financial risks are as follows:

1) avoiding or preventing a financial risk by taking a conscious decision not to carry out operations or use financial instruments that pose risks to the central bank, where such risks exceed the level of the NBU's tolerance towards the group of risks in question

2) mitigating or decreasing financial risks through:

- diversification
- setting limits on the quantitative indicators of risks
- establishing the conditions and rules for the qualitative indicators of risks
- using various types of collateral to make sure that borrowers or counterparties discharge their obligations, and adjusting the fair value of such collateral, taking into account risk discounts or adjusting factors

3) using hedges to transfer financial risks

4) accepting financial risks through making provisions and covering financial risks with the NBU's own funds.

The NBU distinguishes between credit, market and liquidity risks based on the factors that generate the respective financial risks.

Credit Risk

Credit risk is the possibility of incurring losses, additional expenses or receiving less income due to the failure of a borrowing bank, or the failure of any other borrower or counterparty to discharge their obligations to the NBU in accordance with the terms and conditions agreed. Credit risk can manifest itself through:

default risk, arising from the failure of a counterparty/issuer/borrower to discharge their obligations to the NBU. This includes pre-settlement risk (the possibility that a counterparty will fail to meet their obligations to the NBU, resulting in default before the settlement date), and settlement risk (the possibility that, once the NBU has discharged its obligations to a counterparty, the counterparty will fail to meet their obligations to the NBU, resulting in default on the settlement date)

the risk of a counterparty/issuer credit rating downgrading below the minimum acceptable credit rating that allows to include the assets in its international reserves.

Market Risk

Market risk is defined as the possibility of incurring losses, additional expenses or receiving less income due to unfavorable movements in market prices, such as exchange rates, interest rates, and prices for financial instruments and goods. Market risks can manifest themselves through:

currency risk, which is defined as a market risk arising from unfavorable fluctuations in exchange rates

interest rate risk is a market risk arising from unfavorable changes in market interest rates that adversely affect the value of debt securities or other fixed-income instruments, as well as the value of derivative financial instruments (derivatives)

credit spread risk is a market risk arising from a widening (increase) in credit spreads between the yield to maturity of a fixed-income security or another financial instrument and risk free yields to maturity with a similar duration, which has an adverse impact on the market value of such instruments. A widening in a credit spread can result from a downgrading in the credit rating or a decrease in the credit quality of the issuer of a financial instrument, or from overall changes in market conditions

equity risk, a market risk arising from unfavorable changes in the market value of non-fixed-income shares and other securities

commodity risk, a market risk arising from unfavorable changes in the market value of commodities, including precious metals (such as gold)

volatility risk, a market risk arising from unfavorable changes in the volatility of market prices, interest rates, market indices, and exchange rates, which decrease the value of options, including those that have been embedded in other financial instruments.

Among the market risks, the foreign exchange and interest rate risks influence the NBU most.

The table below shows an analysis of the sensitivity of the NBU's positions to currency risk, based on the assumption of a 20% increase/decrease in the exchange rates of the U.S. dollar, Euro, SDR and other currencies against the hryvnia in 2021 and 2020. The analysis factors in only the foreign

currency amounts (apart from nonmonetary assets) that were available at the end of the period. Exchange rates adjusted by 20% in relation to those that were in effect in late 2021 and 2020 were used to translate those amounts into hryvnias.

The effect of exchange rate changes on profit or loss and the profit for year is presented as follows:

	31 December 2021		31 December 2020	
	+20%	-20%	+20%	-20%
	(UAH millions)			
USD	133,310	(133,310)	120,227	(120,227)
Euro	9,725	(9,725)	12,720	(12,720)
SDR	(31,174)	31,174	(38,642)	38,642
GBP	2,570	(2,570)	3,130	(3,130)
Other currencies	6,039	(6,039)	7,481	(7,481)

The following table summarizes sensitivity analysis of NBU positions to interest rate risk. Impact on profit or loss and the profit for the year is presented as follows:

	31 December 2021		31 December 2020	
	+100 bp	-100 bp	+100 bp	-100 bp
	(UAH millions)			
Sensitivity of interest-bearing financial assets	4,715	(4,715)	3,044	(3,044)
Sensitivity of interest-bearing financial liabilities	(3,730)	3,730	(3,597)	3,597
Net impact on profit or loss and the distributable profit	985	(985)	(553)	553

Sources of interest rate risk are identified through analyzing the existing composition of interest-bearing assets and liabilities. The NBU assesses interest rate risk using an analysis of its sensitivity to interest rate movements, i.e. changes in the market value of instruments and portfolios as a result of movements in the yield curve by a certain number of basis points. In accordance with the relevant methodology, the scenarios used included a parallel shift in the entire curve by 1 percentage point (+/-100 basis points). Sensitivity to interest rate risk is estimated on the basis of a scenario according to which all interest rate curves are believed to change in the same manner for all financial instruments and currencies. The assessments take into account interest rate risk arising from all of the NBU's positions in instruments with fixed and floating interest rates, as defined by the respective model.

Liquidity Risk

The NBU breaks liquidity risk down into:

the liquidity risk of international reserves. This risk can arise when the NBU has difficulties in quickly selling or recalling a large amount of assets in which international reserves are held. Sometimes unfavorable market conditions can also decrease the prices of such assets

FX liquidity risk, which can arise when the NBU is unable to meet its foreign currency obligations as they fall due.

Due to the fact that according to paragraph 2, Article 7 of the Ukrainian Law *On the National Bank of Ukraine*, the NBU has a monopoly on issuing Ukraine's national currency and is responsible for arranging cash circulation, the NBU is not exposed to national currency liquidity risk. This risk is defined as the central bank's possible failure to meet its national currency obligations as they fall due.

The NBU manages its liquidity risk through:

- maintaining certain amounts of cash, as required by the relevant regulations, on its correspondent accounts
- holding sufficient amounts of highly liquid financial instruments that can be easily monetized
- setting requirements on the liquidity of the assets in which international reserves are held.

For a detailed assessment of financial risks, see Notes 23 to 27.

23. Analysis of Financial Assets and Liabilities by Geographical Concentration Risk

As of 31 December 2021, the geographical concentration risk of the NBU's financial assets and liabilities was presented as follows:

	Ukraine	OECD	IMF	Other	Total
					(UAH millions)
Financial assets					
Funds and deposits in foreign currency	20,677	156,903	–	5	177,585
Foreign securities	–	577,242	–	67,046	644,288
SDR holdings	–	–	510	–	510
Domestic securities	323,943	–	–	–	323,943
Loans to banks and other borrowers	99,861	–	–	–	99,861
Domestic public debt	1,541	–	–	–	1,541
IMF quota contributions	–	–	76,807	–	76,807
Other financial assets	103	296	179	–	578
Total financial assets	446,125	734,441	77,496	67,051	1,325,113
Financial liabilities					
Banknotes and coins in circulation	627,819	–	–	–	627,819
Accounts of banks	57,136	–	–	–	57,136
Accounts of government and other institutions	55,132	1	–	–	55,133
Certificates of deposit issued by the NBU	212,926	–	–	–	212,926
Borrowings received	–	2,728	–	–	2,728
Liabilities to the IMF, apart from IMF quota contributions	–	–	156,570	–	156,570
Liabilities to the IMF with respect to quota contributions	–	–	76,798	–	76,798
Other financial liabilities	1,781	58	–	–	1,839
Total financial liabilities	954,794	2,787	233,368	–	1,190,949
Net balance sheet position	(508,669)	731,654	(155,872)	67,051	134,164
Off-balance sheet assets and liabilities					
Assets receivable under swap agreements	–	23,688	–	–	23,688
Loan commitments to banks and other borrowers	–	–	–	–	–
Assets payable under swap agreements	–	23,473	–	–	23,473
Net off-balance sheet position	–	215	–	–	215
Net position	(508,669)	731,869	(155,872)	67,051	134,379

As of 31 December 2020, the geographical concentration risk of the NBU's financial assets and liabilities was presented as follows:

	Ukraine	OECD	IMF	Other	Total
	(UAH millions)				
Financial assets					
Funds and deposits in foreign currency	22,164	96,173	–	2	118,339
Foreign securities	–	600,972	–	70,806	671,778
SDR holdings	–	–	128	–	128
Domestic securities	335,401	–	–	–	335,401
Loans to banks and other borrowers	66,930	–	–	–	66,930
Domestic public debt	1,635	–	–	–	1,635
IMF quota contributions	–	–	81,927	–	81,927
Other financial assets	1,169	25	121	–	1,315
Total financial assets	427,299	697,170	82,176	70,808	1,277,453
Financial liabilities					
Banknotes and coins in circulation	558,694	–	–	–	558,694
Accounts of banks	50,017	–	–	–	50,017
Accounts of government and other institutions	70,663	1	–	–	70,664
Certificates of deposit issued by the NBU	163,485	–	–	–	163,485
Borrowings received	–	2,827	–	–	2,827
Liabilities to the IMF, apart from IMF quota contributions	–	–	193,471	–	193,471
Liabilities to the IMF in respect of quota contributions	–	–	81,917	–	81,917
Other financial liabilities	747	113	–	–	860
Total of financial liabilities	843,606	2,941	275,388	–	1,121,935
Net balance sheet position	(416,307)	694,229	(193,212)	70,808	155,518
Off-balance sheet assets and liabilities					
Assets receivable under swap agreements	–	24,900	–	–	24,900
Loan commitments to banks and other borrowers	2,000	–	–	–	2,000
Assets payable under swap agreements	–	25,006	–	–	25,006
Net off-balance sheet position	(2,000)	(106)	–	–	(2,106)
Net position	(418,307)	694,123	(193,212)	70,808	153,412

24. Credit Risk

The following information provides gross carrying amounts of the NBU's financial assets assessed by impairment stages and credit ratings of counterparties assigned by the following international rating agencies: Fitch Ratings, Moody's, and Standard & Poor's. The following disclosures as of

31 December 2021 and 2020 consider a lower of the two best ratings assigned to an entity by the above rating agencies. The ratings are listed below as per coding of the rating agency of Fitch Ratings using the rating correspondence table of Bloomberg.

The information below is provided as of 31 December 2021:

	Credit rating	Total	% in the financial assets' item	Stage 1	Stage 2	Stage 3
(UAH millions)						
Funds and deposits in foreign currency						
demand deposits	AAA	33,293	18.7	33,293	–	–
	AA+	7	–	7	–	–
	AA	204	0.1	204	–	–
	AA-	2	–	2	–	–
	A+	21,568	12.1	21,568	–	–
	A	3,590	2.0	3,590	–	–
term deposits	AAA	34,937	19.8	34,937	–	–
	AA+	34,395	19.4	34,395	–	–
	AA-	153	0.1	153	–	–
	A+	14,297	8.1	14,297	–	–
	A	14,467	8.1	14,467	–	–
foreign currency cash	Risk-free	20,677	11.6	20,677	–	–
Total funds and deposits in foreign currency		177,590	100	177,590	–	–
Foreign securities:						
government bonds	AAA	464,881	72.2	464,881	–	–
	AA+	1,385	0.2	1,385	–	–
	AA-	4,659	0.7	4,659	–	–
	A+	3,285	0.5	3,285	–	–
Securities issued by international agencies, banks, and other issuers:	AAA	11,663	1.9	11,663	–	–
	AA+	3,415	0.5	3,415	–	–
	AA	9,908	1.5	9,908	–	–
	AA-	11,314	1.8	11,314	–	–
	A+	41,515	6.4	41,515	–	–
	A	83,680	13.0	83,680	–	–
	A-	8,462	1.3	8,462	–	–
Total foreign debt securities		644,167	100.0	644,167	–	–
Domestic securities:						
government securities	B	323,943	100.0	323,943	–	–
Total domestic securities		323,943	100.0	323,943	–	–
Loans to banks and other borrowers:						
loans to banks	B+	620	0.5	620	–	–
	B	42,714	31.7	42,714	–	–
	B-	8,614	6.4	8,614	–	–
	No rating	82,917	61.4	43,670	–	39,247
loans to other borrower	No rating	38	–	–	–	38
Total loans to banks and other borrowers		134,903	100.0	95,618	–	39,285
Domestic public debt	B	1,541	100.0	1,541	–	–
Other financial assets	AAA	170	28.5	170	–	–
	AA	105	17.6	105	–	–
	No rating	321	53.9	321	–	–
Total other financial assets		596	100.0	596	–	–

The information below is provided as of 31 December 2020:

	Credit rating	Total	% in the financial assets' item	Stage 1	Stage 2	Stage 3
(UAH millions)						
Funds and deposits in foreign currency						
demand deposits	AAA	37,931	32.1	37,931	–	–
	AA+	8	0.0	8	–	–
	AA	4,955	4.2	4,955	–	–
	AA-	27	0.0	27	–	–
	A+	16,715	14.1	16,715	–	–
	A	10,677	9.0	10,677	–	–
term deposits	AAA	10,674	9.0	10,674	–	–
	AA+	1,414	1.2	1,414	–	–
	AA	11,873	10.0	11,873	–	–
	AA-	1,902	1.6	1,902	–	–
foreign currency cash	Risk-free	22,164	18.8	22,164	–	–
Total funds and deposits in foreign currency		118,340	100.0	118,340	–	–
Foreign securities:						
government bonds	AAA	407,161	60.6	407,161	–	–
	AA+	7,474	1.1	7,474	–	–
	AA-	8,123	1.2	8,123	–	–
	A+	9,673	1.4	9,673	–	–
Securities issued by international agencies, banks, and other issuers:	AAA	46,370	6.9	46,370	–	–
	AA+	10,192	1.5	10,192	–	–
	AA	20,087	3.0	20,087	–	–
	AA-	17,696	2.6	17,696	–	–
	A+	56,987	8.5	56,987	–	–
	A	78,712	11.7	78,712	–	–
	A-	9,182	1.5	9,182	–	–
Total foreign debt securities		671,657	100.0	671,657	–	–
Domestic securities:						
government securities	B	335,401	100.0	335,401	–	–
Total domestic securities		335,401	100.0	335,401	–	–
Loans to banks and other borrowers:						
loans to banks	B	3,800	3.7	3,800	–	–
	B-	37,424	36.1	37,424	–	–
	No rating	62,517	60.2	20,630	–	41,887
loans to other borrower	No rating	38	0.0	–	–	38
Total loans to banks and other borrowers		103,779	100.0	61,854	–	41,925
Domestic public debt	B	1,635	100.0	1,635	–	–
Other financial assets	AAA	121	8.6	121	–	–
	AA	2	0.1	2	–	–
	A	23	1.6	23	–	–
	No rating	1,266	89.7	283	983	–
Total other financial assets		1,412	100.0	429	983	–

Loans granted to banks that do not have international ratings assigned include the loans to domestic banks to support their liquidity the ratings of which are determined in accordance with the internal methodology of the NBU.

As of 31 December 2021, the gross carrying value balance in the amount of UAH 43,670 million had the internal rating as follows: AAA in the amount of UAH 558 million, AA – at the amount of UAH 2,096 million, A – at the amount of UAH 9,809 million, BBB – UAH 24,672 million, BB – UAH 3,821 million, B – UAH 2,267 million, CCC – UAH 447 million (as of 31 December 2020, UAH 20,630 million had the internal ratings as follows: AA – at the amount of UAH 1,265 million, A – at the amount of UAH 8,267 million, BBB – UAH 7,404 million, BB – UAH 2,435 million, B – UAH 1,259 million).

The NBU determines internal ratings as follows:

AAA rating is the highest grade of a counterparty's creditworthiness. The counterparty's financial position is assessed as strong and stable in a long-term perspective, and the ability to repay on a timely basis and in full the interest and principal on debt obligations is very high

AA rating is the very high grade of a counterparty's creditworthiness. The counterparty's financial position is assessed as strong and stable in a long-term perspective, and the ability to repay on a timely basis and in full the interest and principal on debt obligations is high

A rating is the high grade of a counterparty's creditworthiness. The counterparty's financial position is assessed as strong and stable in a long-term perspective, and the ability to repay on a timely basis and in full the interest and principal on debt obligations is beyond any doubts

BBB rating is a medium grade of a counterparty's creditworthiness. The counterparty's financial position is assessed as strong and stable in a mid-term perspective, the counterparty's debt obligations have a higher risk of nonpayment compared to counterparties with higher ratings. However, difficulties may arise with timely and full repayment of the interest and principal on debt obligations in the event of occurrence of unfavorable changes in commercial, financial, and economic conditions, although, in the nearest future, a probability of the counterparty's failure to meet its debt obligations is treated as insignificant.

BB rating is a medium grade of a counterparty's creditworthiness. The counterparty's financial position is assessed as satisfactory and stable in a short-term perspective, the counterparty is able, at the date of assessment, to repay the interest and principal on debt obligations, but has a higher probability of default on obligations than the counterparty with BBB rating.

B rating is a grade of a counterparty's creditworthiness that is somewhat lower than medium. Key indicators of the counterparty's financial position are assessed as satisfactory and stable in a short-term perspective, it has a sufficient level of financial reliability. Timely and complete payments on debt obligations mostly depend on commercial, financial, and economic conditions.

CCC rating is a lower than medium grade of a counterparty's creditworthiness. Key indicators of the counterparty's financial position are assessed as satisfactory, but their stability in a short-term perspective is doubtful, it has a low level of financial reliability. The counterparty bank's ability to pay is fully dependent on domestic economic situation.

CC rating is a low grade of a counterparty's creditworthiness. Key indicators of the counterparty's financial position are assessed as satisfactory, but their deterioration in a short-term perspective is considered as highly probable, it has a very low level of financial reliability. The counterparty bank's ability to pay is fully dependent on domestic economic situation.

C rating is a very low grade of a counterparty's creditworthiness. The counterparty's financial position is unstable and is assessed as unsatisfactory. Repayments of interest and principal on debt obligations may be suspended by the counterparty without obtaining a consent of lenders on the debt restructuring before maturities. The counterparty bank's ability to pay is fully dependent on domestic economic situation.

Total loans granted to five banks with the highest level of credit exposures as of 31 December 2021 amounted to UAH 53,796 million (as of 31 December 2020: UAH 49,213 million), or 40% (31 December 2020 – 47%) of total loans to banks and other borrowers, before allowance. The allowance recognized on the loans granted to five banks amounted to UAH 15,606 million as of 31 December 2021 (31 December 2020 – UAH 21,051 million).

The information below on net credit risk by types of pledged loan collateral as of 31 December 2021:

	Maximum permissible credit risk	Collateral accepted as security	Other collateral	Net credit risk (loans to banks)	Net credit risk (domestic public debt)
(UAH millions)					
Loans secured by:					
immovable property	3,128	5,477	–	3,128	–
securities	81,486	115,764	–	–	–
other collateral	14,965	21,067	–	857	–
other collateral types	282	–	300	282	–
Unsecured loans	1,541	–	–	–	1,541
Total loans to banks and other borrowers	101,402	142,308	300	4,267	1,541

The information below on net credit risk by types of pledged loan collateral as of 31 December 2020:

	Maximum permissible credit risk	Collateral value	Other collateral	Net credit risk (loans to banks)	Net credit risk (domestic government debt)
(UAH millions)					
Loans secured by:					
real assets	3,960	6,682	–	3,960	–
securities	53,194	96,326	–	117	–
other collateral types	9,776	11,641	–	1,004	–
Unsecured loans	1,635	–	–	–	1,635
Total loans to banks and other borrowers	68,565	114,649	–	5,081	1,635

Maximum credit risk exposure is represented by the carrying amounts of loans outstanding at the reporting date. Collateral accepted as security is the fair value of collateral used by the NBU in the calculation of allowance at the reporting date.

25. Foreign Currency Risk

As of 31 December 2021, the NBU had the following positions in currencies:

	UAH	USD	EUR	SDR	GBP	Other	Nonmonetary	Total
	(UAH millions)							
Financial assets								
Funds and deposits in foreign currency	-	106,513	41,236	-	3,592	26,244	-	177,585
Foreign securities	-	575,554	33,641	-	9,258	25,714	121	644,288
SDR holdings	-	-	-	510	-	-	-	510
Domestic securities	322,861	1,082	-	-	-	-	-	323,943
Loans to banks and other borrowers	99,861	-	-	-	-	-	-	99,861
Domestic public debt	1,541	-	-	-	-	-	-	1,541
IMF quota contributions	-	-	-	76,807	-	-	-	76,807
Other financial assets	376	-	23	179	-	-	-	578
Total financial assets	424,639	683,149	74,900	77,496	12,850	51,958	121	1,325,113
Financial liabilities								
Banknotes and coins in circulation	627,819	-	-	-	-	-	-	627,819
Accounts of banks	36,487	5,565	15,080	-	1	3	-	57,136
Accounts of government and other institutions	16,401	26,574	11,164	-	-	994	-	55,133
Certificates of deposit issued by the NBU	212,926	-	-	-	-	-	-	212,926
Borrowings received	-	2,728	-	-	-	-	-	2,728
Liabilities to the IMF, apart from IMF quota contributions	-	-	-	156,570	-	-	-	156,570
Liabilities to the IMF with respect to quota contributions	-	-	-	76,798	-	-	-	76,798
Other financial liabilities	1,781	7	31	-	-	20	-	1,839
Total financial liabilities	895,414	34,874	26,275	233,368	1	1,017	-	1,190,949
Net balance sheet position	(470,775)	648,275	48,625	(155,872)	12,849	50,941	121	134,164
Off-balance sheet assets and liabilities								
Assets receivable under swap agreements	2,684	21,004	-	-	-	-	-	23,688
Loan commitments to banks and other borrowers	-	-	-	-	-	-	-	-
Assets payable under swap agreements	-	2,728	-	-	-	20,745	-	23,473
Net off-balance sheet position	2,684	18,276	-	-	-	(20,745)	-	215
Net position	(468,091)	666,551	48,625	(155,872)	12,849	30,196	121	134,379

As of 31 December 2020, the NBU had the following positions in currencies:

	UAH	USD	EUR	SDR	GBP	Other	Nonmonetary	Total
	(UAH millions)							
Financial assets								
Funds and deposits in foreign currencies	–	64,633	27,186	–	1,671	24,849	–	118,339
Foreign securities	–	577,178	48,851	–	13,981	31,647	121	671,778
SDR holdings	–	–	–	128	–	–	–	128
Domestic securities	334,128	1,273	–	–	–	–	–	335,401
Loans to banks and other borrowers	66,930	–	–	–	–	–	–	66,930
Domestic public debt	1,635	–	–	–	–	–	–	1,635
IMF quota contributions	–	–	–	81,927	–	–	–	81,927
Other financial assets	1,168	–	2	121	–	24	–	1,315
Total financial assets	403,861	643,084	76,039	82,176	15,652	56,520	121	1,277,453
Financial liabilities								
Banknotes and coins in circulation	558,694	–	–	–	–	–	–	558,694
Accounts of banks	38,871	6,063	5,077	–	1	5	–	50,017
Accounts of government and other institutions	13,537	53,409	1,682	–	–	2,036	–	70,664
Certificates of deposit issued by the NBU	163,485	–	–	–	–	–	–	163,485
Borrowings received	–	2,827	–	–	–	–	–	2,827
Liabilities to the IMF, apart from IMF quota contributions	–	–	–	193,471	–	–	–	193,471
Liabilities to the IMF in respect of quota contributions	–	–	–	81,917	–	–	–	81,917
Other financial liabilities	841	10	9	–	–	–	–	860
Total financial liabilities	775,428	62,309	6,768	275,388	1	2,041	–	1,121,935
Net balance sheet position	(371,567)	580,775	69,271	(193,212)	15,651	54,479	121	155,518
Off-balance sheet assets and liabilities								
Assets receivable under swap agreements	2,280	22,620	–	–	–	–	–	24,900
Loan commitments to banks and other borrowers	2,000	–	–	–	–	–	–	2,000
Assets payable under swap agreements	–	2,262	5,672	–	–	17,072	–	25,006
Net off-balance sheet position	280	20,358	(5,672)	–	–	(17,072)	–	(2,106)
Net position	(371,287)	601,133	63,599	(193,212)	15,651	37,407	121	153,412

Assets and liabilities in other currencies mainly included positions in CHF, AUD, JPY, and CNY.

26. Interest Rate Risk

As of 31 December 2021, the NBU had the following structure of the weighted average interest rates by major currencies for monetary financial interest-bearing instruments. Interest rates on each financial instrument has been calculated as weighted-average contractual rates at the reporting date.

	UAH	USD	EUR	SDR	GBP	Other	Total weighted average interest rate
							(%)
Financial assets							
Term deposits in OECD	–	0.12	–	–	0.09	2.49	0.19
Foreign securities	–	0.36	0.04	–	0.61	1.72	0.40
SDR holdings	–	–	–	0.08	–	–	0.08
Domestic securities	10.14	–	–	–	–	–	10.14
Loans to banks and other borrowers	9.50	–	–	–	–	–	9.50
Domestic public debt	8.67	–	–	–	–	–	8.67
Financial liabilities							
Deposit Guarantee Fund	4.80	–	–	–	–	–	4.80
Certificates of deposit issued by the NBU	8.47	–	–	–	–	–	8.47
Borrowings received	–	3.05	–	–	–	–	3.05
Liabilities to the IMF, apart from IMF quota contributions	–	–	–	2.44	–	–	2.44

The sign “–” in the table above means that the NBU has no respective interest-bearing assets or liabilities in corresponding currency.

Also domestic securities include indexed government debt securities.

Interest is accrued at floating rates on SDR holdings and liabilities to the IMF (interest rates are reviewed on a weekly basis).

Interest rates used for accruing expenses on accounts of the Deposit Guarantee Fund are not fixed, and their amounts correspond to weighted average interest rates on demand deposits of individuals in the national currency.

Interest on foreign securities is accrued at both variable and fixed rates.

As of 31 December 2020, the NBU had the following structure of the weighted average interest rates by major currencies for monetary financial interest-bearing instruments. Interest rates on each financial instrument has been calculated as weighted-average contractual rates at the reporting date.

	UAH	USD	EUR	SDR	GBP	Other	Total weighted average interest rate
							(%)
Financial assets							
Term deposits in OECD	–	0.13	–	–	0.03	2.67	0.34
Foreign securities	–	0.31	–	–	0.10	1.69	0.35
SDR holdings	–	–	–	0.08	–	–	0.08
Domestic securities	9.55	–	–	–	–	–	9.55
Loans to banks and other borrowers	7.03	–	–	–	–	–	7.03
Domestic public debt	8.67	–	–	–	–	–	8.67
Financial liabilities							
Deposit Guarantee Fund	5.68	–	–	–	–	–	5.68
Certificates of deposit issued by the NBU	5.68	–	–	–	–	–	5.68
Borrowings received	–	3.10	–	–	–	–	3.10
Liabilities to the IMF, apart from IMF quota contributions	–	–	–	2.55	–	–	2.55

Analysis of financial assets and liabilities by periods of interest rate repricing

The table below presents analysis of assets and liabilities by periods of interest rate repricing.

For financial assets and liabilities with fixed interest rates, classification was determined based on the contractual maturity date from the consolidated statement of financial position date. For assets and liabilities with variable interest rates, classification was determined taking into account the earlier of repricing period or maturity date.

As of 31 December 2021, financial assets and liabilities by periods of interest rate repricing were as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Non-interest bearing	Total
(UAH millions)							
Financial assets							
Funds and deposits in foreign currency	98,249	–	–	–	–	79,336	177,585
Foreign securities	57,250	123,769	398,012	59,736	5,400	121	644,288
SDR holdings	510	–	–	–	–	–	510
Domestic securities	2,668	–	160,422	50,300	109,471	1,082	323,943
Loans to banks and other borrowers	11,032	240	168	88,421	–	–	99,861
Domestic public debt	–	55	156	640	690	–	1,541
IMF quota contributions	–	–	–	–	–	76,807	76,807
Other financial assets	5	1	4	11	6	551	578
Total financial assets	169,714	124,065	558,762	199,108	115,567	157,897	1,325,113
Financial liabilities							
Banknotes and coins in circulation	–	–	–	–	–	627,819	627,819
Accounts of banks	–	–	–	–	–	57,136	57,136
Accounts of government and other institutions	675	–	–	–	–	54,458	55,133
Certificates of deposit issued by the NBU	212,926	–	–	–	–	–	212,926
Borrowings received	–	2,728	–	–	–	–	2,728
Liabilities to the IMF, apart from IMF quota contributions	155,946	–	–	–	–	624	156,570
Liabilities to the IMF with respect to quota contributions	–	–	–	–	–	76,798	76,798
Other financial liabilities	–	–	–	–	–	1,839	1,839
Total financial liabilities	369,547	2,728	–	–	–	818,674	1,190,949
Net gap	(199,833)	121,337	558,762	199,108	115,567	(660,777)	134,164
Cumulative gap	(199,833)	(78,496)	480,266	679,374	794,941	134,164	
Off-balance sheet assets and liabilities							
Contingent claims with fixed rate under interest rate swap	1,196	–	2,431	16,981	–	–	20,608
Contingent liabilities with floating rate under interest rate swap	3,121	16,315	–	–	–	–	19,436
Net gap	(1,925)	(16,315)	2,431	16,981	–	–	1,172
Cumulative gap	(1,925)	(18,240)	(15,809)	1,172	1,172	1,172	
Total net gap	(201,758)	105,022	561,193	216,089	115,567	(660,777)	135,336
Total cumulative gap	(201,758)	(96,736)	464,457	680,546	796,113	135,336	

As of 31 December 2020, financial assets and liabilities by periods of interest rate repricing were as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Non- interest bearing	Total
							(UAH millions)
Financial assets							
Funds and deposits in foreign currency	93,304	2,828	–	–	–	22,207	118,339
Foreign securities	23,012	65,646	144,594	432,452	5,953	121	671,778
SDR holdings	128	–	–	–	–	–	128
Domestic securities	872	4,126	161,149	48,036	119,945	1,273	335,401
Loans to banks and other borrowers	7,331	11,218	73	48,308	–	–	66,930
Domestic public debt	–	27	82	436	1,090	–	1,635
IMF quota contributions	–	–	–	–	–	81,927	81,927
Other financial assets	5	1	912	15	9	373	1,315
Total financial assets	124,652	83,846	306,810	529,247	126,997	105,901	1,277,453
Financial liabilities							
Banknotes and coins in circulation	–	–	–	–	–	558,694	558,694
Accounts of banks	–	–	–	–	–	50,017	50,017
Accounts of government and other institutions	1,414	–	–	–	–	69,250	70,664
Certificates of deposit issued by the NBU	163,485	–	–	–	–	–	163,485
Borrowings received	–	2,827	–	–	–	–	2,827
Liabilities to the IMF, apart from IMF quota contributions	192,640	–	–	–	–	831	193,471
Liabilities to the IMF in respect of quota contributions	–	–	–	–	–	81,917	81,917
Other financial liabilities	–	–	–	–	–	860	860
Total financial liabilities	357,539	2,827	–	–	–	761,569	1,121,935
Net gap	(232,887)	81,019	306,810	529,247	126,997	(655,668)	155,518
Cumulative gap	(232,887)	(151,868)	154,942	684,189	811,186	155,518	
Off-balance sheet assets and liabilities							
Contingent claims with fixed rate under interest rate swap	4	20	–	15,391	–	–	15,415
Contingent liabilities with floating rate under interest rate swap	15,391	–	–	–	–	–	15,391
Net gap	(15,387)	20	–	15,391	–	–	24
Cumulative gap	(15,387)	(15,367)	(15,367)	24	24	24	
Total net gap	(248,274)	81,039	306,810	544,638	126,997	(655,668)	155,542
Total cumulative gap	(248,274)	(167,235)	139,575	684,213	811,210	155,542	

As of 31 December 2021, the share of foreign securities bearing variable interest rates amounted to 5.4% of the total portfolio (31 December 2020 – 9.79%).

27. Liquidity Risk

For the purposes of measuring liquidity risk, financial assets are grouped by their contractual term set as of the reporting date for receiving the cash flows to be repaid taking into account the period remaining as of the reporting date to the contractual date of the cash flows repayment. IMF quota contributions are presented as assets on demand, based on Article XXVI of the IMF Agreement, but such presentation does not mean that there are expectations that Ukraine will take advantage of this article. Financial liabilities are grouped by maturity taking into account the remaining contractual maturity as of the reporting date.

The amounts of financial assets and liabilities disclosed in the liquidity risk table below are the contractual discounted cash flows from financial instruments carried at fair value. Derivatives settled on a net basis are included at the net

amounts expected to be paid. Impaired loans are included at their carrying value based on the expected timing of cash inflows.

Foreign securities are included in the table taking into account the remaining contractual maturity as of the reporting date. Judging from historical data, this timing is not significantly different to the expected timing of disposal of such securities.

When the amounts payable are not fixed, such amounts are presented in the liquidity analysis taking into account the conditions at the reporting date. Foreign currency items are translated using the spot exchange rates at the reporting date.

The NBU's liquidity risk position as of 31 December 2021 was as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity date not determined	Total
(UAH millions)							
Financial assets							
Funds and deposits in foreign currency	177,585	–	–	–	–	–	177,585
Foreign securities	49,832	100,702	403,944	84,289	5,400	121	644,288
SDR holdings	510	–	–	–	–	–	510
Domestic securities	2,667	–	9,320	50,300	261,656	–	323,943
Loans to banks and other borrowers	11,032	240	168	88,421	–	–	99,861
Domestic public debt	–	55	156	640	690	–	1,541
IMF quota contributions	76,807	–	–	–	–	–	76,807
Other financial assets	326	2	24	22	14	190	578
Total financial assets	318,759	100,999	413,612	223,672	267,760	311	1,325,113
Financial liabilities							
Banknotes and coins in circulation	627,604	–	–	–	–	215	627,819
Accounts of banks	57,136	–	–	–	–	–	57,136
Accounts of government and other institutions	55,133	–	–	–	–	–	55,133
Certificates of deposit issued by the NBU	212,926	–	–	–	–	–	212,926
Borrowings received	–	2,728	–	–	–	–	2,728
Liabilities to the IMF, apart from IMF quota contributions	–	16,398	30,216	104,512	2,335	3,109	156,570
Liabilities to the IMF with respect to quota contributions	76,798	–	–	–	–	–	76,798
Other financial liabilities	9	5	155	1,068	–	602	1,839
Loan commitments	–	–	–	–	–	–	–
Total financial liabilities	1,029,606	19,131	30,371	105,580	2,335	3,926	1,190,949
Liquidity gap arising from financial instruments	(710,847)	81,868	383,241	118,092	265,425	(3,615)	134,164
Cumulative liquidity gap	(710,847)	(628,979)	(245,738)	(127,646)	137,779	134,164	

The NBU's liquidity risk position as of 31 December 2020 was as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity date not determined	Total
(UAH millions)							
Financial assets							
Funds and deposits in foreign currency	115,511	2,828	–	–	–	–	118,339
Foreign securities	6,934	21,722	168,147	468,902	5,952	121	671,778
SDR holdings	128	–	–	–	–	–	128
Domestic securities	872	4,126	15,976	48,036	266,391	–	335,401
Loans to banks and other borrowers	2,251	11,751	4,425	48,503	–	–	66,930
Domestic public debt	–	27	82	436	1,090	–	1,635
IMF quota contributions	81,927	–	–	–	–	–	81,927
Other financial assets	43	4	1,071	24	16	157	1,315
Total financial assets	207,666	40,458	189,701	565,901	273,449	278	1,277,453
Financial liabilities							
Banknotes and coins in circulation	558,479	–	–	–	–	215	558,694
Accounts of banks	50,017	–	–	–	–	–	50,017
Accounts of government and other institutions	70,664	–	–	–	–	–	70,664
Certificates of deposit issued by the NBU	163,485	–	–	–	–	–	163,485
Borrowings received	–	–	–	2,827	–	–	2,827
Liabilities to the IMF, apart from IMF quota contributions	3	12,780	14,439	150,624	12,308	3,317	193,471
Liabilities to the IMF in respect of quota contributions	81,917	–	–	–	–	–	81,917
Other financial liabilities	103	9	44	206	–	498	860
Loan Commitments	2,000	–	–	–	–	–	2,000
Total financial liabilities	926,668	12,789	14,483	153,657	12,308	4,030	1,123,935
Liquidity gap arising from financial instruments	(719,002)	27,669	175,218	412,244	261,141	(3,752)	153,518
Cumulative liquidity gap	(719,002)	(691,333)	(516,115)	(103,871)	157,270	153,518	

The amounts stated in the tables below do not correspond to the amounts recorded in the Consolidated Statement of Financial Position, since the below information includes maturity analysis of financial liabilities which reflects the total

amount of future undiscounted contractual payments (including interest payable) not defined in the Consolidated Statement of Financial Position.

Repayment periods under contractual undiscounted cash flows from financial liabilities in line with agreements as of 31 December 2021 were as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity date not determined	Total
(UAH millions)							
Financial liabilities							
Banknotes and coins in circulation	627,604	–	–	–	–	215	627,819
Accounts of banks	57,136	–	–	–	–	–	57,136
Accounts of government and other institutions	55,133	–	–	–	–	–	55,133
Certificates of deposit issued by the NBU	213,252	–	–	–	–	–	213,252
Borrowings received	–	2,742	–	–	–	–	2,742
Liabilities to the IMF, apart from IMF quota contributions	–	17,325	32,453	107,067	2,348	3,109	162,302
Liabilities to the IMF with respect to quota settlement	76,798	–	–	–	–	–	76,798
Other financial liabilities	9	4	118	–	–	603	734
Loan commitments	–	–	–	–	–	–	–
Liabilities on swaps, including:	–	–	37	1,068	–	–	1,105
swaps settled on a net basis	–	–	37	1,068	–	–	1,105
swaps settled on a gross basis	–	–	–	–	–	–	–
amounts due from	23,688	–	–	–	–	–	23,688
amounts due to	23,473	–	–	–	–	–	23,473
Total future payments on financial liabilities	1,029,932	20,071	32,608	108,135	2,348	3,927	1,197,021

Repayment periods under contractual undiscounted cash flows from financial liabilities in line with agreements as of 31 December 2020 were as follows:

	On demand and up to 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity date not determined	Total
(UAH millions)							
Financial liabilities							
Banknotes and coins in circulation	558,479	–	–	–	–	215	558,694
Accounts of banks	50,017	–	–	–	–	–	50,017
Accounts of government and other institutions	70,664	–	–	–	–	–	70,664
Certificates of deposit issued by the NBU	163,512	–	–	–	–	–	163,512
Borrowings received	–	22	66	2,849	–	–	2,937
Liabilities to the IMF, apart from IMF quota contributions	3	13,202	17,696	156,260	12,602	3,317	203,080
Liabilities to the IMF in respect of quota contributions	81,917	–	–	–	–	–	81,917
Other financial liabilities	9	9	44	–	–	498	560
Loan commitments	2,000	–	–	–	–	–	2,000
Liabilities on swaps, including:	78	16	–	206	–	–	300
swaps settled on a net basis	–	–	–	206	–	–	206
swaps settled on a gross basis	78	16	–	–	–	–	94
amounts due from	22,620	2,280	–	–	–	–	24,900
amounts due to	22,744	2,262	–	–	–	–	25,006
Total future payments on financial liabilities	926,679	13,249	17,806	159,315	12,602	4,030	1,133,681

Section IV. Capital Management

28. Capital Management

The NBU's capital function is to ensure economic independence and its ability to perform the functions defined by the legislation of Ukraine. As of 31 December 2021, the total amount of capital managed by the NBU was UAH 166,877 million (UAH 184,926 million as of 31 December 2020). No requirements are set for the NBU's equity, except for the amount of authorized capital and general reserves established by the Law of Ukraine *On the National Bank of Ukraine*.

Authorized Capital

According to the Law of Ukraine *On the National Bank of Ukraine*, the authorized capital is UAH 10 million. It was increased to UAH 100 million by the decision of the NBU Council based on results of 2007.

General Reserves

The NBU creates general reserves, which are used to cover its losses, in accordance with the Law of Ukraine *On the National Bank of Ukraine*.

General reserves made in the reporting year must equal 10% of the average annual monetary liabilities of the NBU, which in 2021 amounted to UAH 804,893 million (in 2020 – UAH 676,914 million).

Reserve Capital

Reserve capital includes a reserve fund raised by the NBU's subsidiary by paying in annual contributions from the subsidiary's net profit – in accordance with the Law of Ukraine *On Banks and Banking* (before 30 June 2021) and the Law of Ukraine *On Joint Stock Companies* (as of 1 July 2021). Contributions to the reserve fund must be at least 5% of the

net profit until the reserve fund reaches 25% of the subsidiary's regulatory capital (before 30 June 2021) and 15% of the authorized capital (as of 1 July 2021).

Revaluation Reserves for Assets and Liabilities

According to the Law of Ukraine *On the National Bank of Ukraine*, unrealized gains from revaluation of foreign currency and monetary gold due to changes in the official exchange rate of the hryvnia to foreign currencies/accounting price of gold throughout the reporting year, unrealized gains from revaluation of securities and derivative financial instruments in connection with their revaluation to fair value, and unrealized gains or losses from revaluation of bank metals due to changes in the accounting price of bank metals are attributed by the NBU to the item *Revaluation Reserves for Assets and Liabilities* in the *Equity* section of the consolidated statement of financial position and the consolidated statement of changes in equity.

The amount of revaluation reserves is used to offset the amount of unrealized losses from revaluation of foreign currency, monetary gold, securities, and derivative financial instruments carried at fair value if they accumulate throughout the reporting year.

The amount of revaluation reserves for foreign currency, monetary gold, securities, derivative financial instruments, and bank metals that are disposed of is included into the distributable profit in the corresponding reporting periods.

As of 31 December 2021 and 2020, the equity of the NBU consisted of the following components:

	2021	2020
		(UAH millions)
Statutory capital	100	100
General reserves	67,691	51,397
Retained earnings	12,803	16,301
Reserve capital	36	36
Revaluation reserves of foreign currency and monetary gold	83,856	105,318
Revaluation reserves of investment metals	613	1,320
Revaluation reserves of financial instruments to their fair value	1,778	10,454
Total equity	166,877	184,926

29. Liabilities to Transfer Distributable Profit to the State Budget of Ukraine

Accounting Policy

Pursuant to the Tax Code of Ukraine, the NBU makes settlements with the State Budget in line with Article 5¹ of the Law of Ukraine *On the National Bank of Ukraine*.

The NBU transfers its portion of distributable profit to the State Budget of Ukraine in accordance with the Law of Ukraine *On the National Bank of Ukraine*. Distributable profit is determined by reducing the profit by the amount of unrealized gains for the reporting period, which are directed to revaluation reserves. A gain becoming realized in the following periods is recognized in the distributable profit of the respective reporting periods. The NBU redeems the excess

of unrealized expenses over revaluation reserve against the current year's profit, and in the case of shortage – against general reserves. These transactions are presented in the Consolidated Statement of Changes in Equity.

Portion of distributable profit remaining after raising general reserves is subject to transfer to the State Budget.

As of 31 December 2021, the NBU's liabilities to the state budget for transferring a share of distributable profit for 2021 amounts to UAH 18,786 million (as of 31 December 2020 – UAH 24,434 million). Liabilities as of 31 December 2020 was transferred to the state budget in April 2021.

Reconciliation of the operating income with the income of the NBU for 2021:

	NBU's income and expenses	Consolidation adjustments	Income and expenses according to the Consolidated Statement of Profit or Loss and Other Comprehensive Income
			(UAH millions)
Net interest income	28,818	18	28,836
Interest income on financial assets at fair value through profit or loss	7,549	–	7,549
Net fee and commission income	596	–	596
Net increase in reserves for assets and liabilities	(197)	–	(197)
Other income and expenses	(4,496)	(20)	(4,516)
Operating profit	32,270	(2)	32,268
Gains or losses on transactions with financial assets and liabilities in foreign currency and monetary gold	(21,319)	–	(21,319)
Result on transactions with financial instruments at fair value through profit or loss (net of interest income)	(9,606)	–	(9,606)
Results on financial instruments	(30,925)	–	(30,925)
Profit for the year	1,345	(2)	1,343

Net increase in reserves for assets and liabilities includes the following items of the Consolidated Statement of Profit or Loss and Other Comprehensive Income: (Losses)/Gains from (impairment)/reversal of impairment on interest-bearing financial assets, Expenses on allowances for contingent and other liabilities, and Gains/(losses) on the reversal of

impairment/(impairment) of other assets. Other income and expenses include items Staff Costs, Costs Related to Production of Banknotes, Coins, Souvenirs and Other Products, Administrative and Other Expenses, Expenses on Income Tax of the Subsidiary, and Other Income.

Reconciliation of the operating profit with the profit of the NBU for 2020:

	NBU's income and expenses	Consolidation adjustments	Income and expenses according to the Consolidated Statement of Profit or Loss and Other Comprehensive Income
			(UAH millions)
Net interest income	15,298	26	15,324
Interest income on financial assets at fair value through profit or loss	8,708	–	8,708
Net fee and commission income	224	–	224
Net increase in reserves for assets and liabilities	114	3	117
Other income and expenses	(3,845)	(28)	(3,873)
Operating profit	20,499	1	20,500
Results from transactions with financial assets and liabilities in foreign currency and monetary gold	95,144	–	95,144
Result on transactions with financial instruments at fair value through profit or loss (net of interest income)	9,305	–	9,305
Results on financial instruments	104,449	–	104,449
Profit for the year	124,948	1	124,949

Liabilities for transferring distributable profit to the State Budget, which are determined in accordance with the Law of Ukraine *On the National Bank of Ukraine*, are calculated as follows:

	Note	2021	2020
			(UAH millions)
Operating profit of the NBU		32,270	20,499
Realized result on transactions with financial assets and liabilities in foreign currency and monetary gold	18	143	15,312
Realized result on transactions with financial instruments at fair value through profit or loss	19	(5,912)	2,335
Unrealized losses not compensated by revaluation reserves of financial instruments to their fair value	19	(2,973)	(565)
Unrealized result on revaluation of previous years that was realized in the current year on disposed securities and derivatives (financial instruments)		7,955	2,789
Realized result on disposed investment metals		186	364
Reversal of other reserves and profit on free transfer of assets		(85)	(6)
Distributable profit for the year		31,584	40,728
General reserves created		(12,798)	(16,294)
Portion of distributable profit subject to transfer to the State Budget		18,786	24,434

Section V.I. Nonfinancial Assets and Liabilities

30. Property and Equipment, and Intangible Assets

Accounting Policy

Property and equipment (PE) items are carried at initial cost, less accumulated depreciation and impairment loss.

Initial cost of acquired PE items includes the costs on acquisition and set-up.

Costs on enhancement of any PE item which increases the expected economic benefits are included in the cost of such PE items. Costs on minor repairs and maintenance and obtaining initially estimated future economic benefits from using PE are expensed when incurred. Costs of replacing major parts or components of PE items are capitalized and the residual value of the replaced part is charged to expenses in the consolidated statement of profit or loss and other comprehensive income of the reporting period.

In case of impairment of PE the cost is reduced to the expected recoverable amount of whichever assessment is higher: fair value less costs to sales or value in use. The decrease of carrying amount is reported as profit or loss in the consolidated statement of profit or loss and other comprehensive income. Impairment cost of assets recognized in previous periods is reversed if estimates were changed used to determine the expected recoverable amount.

Result of disposal of fixed assets determined as the difference between the proceeds and the asset's carrying amount are recognized in profit or loss of the consolidated statement of profit or loss and other comprehensive income.

Capital investments in progress are carried at initial cost. Upon completion of construction, assets are included in the buildings and constructions entry and are measured at initial cost. Capital investments in progress are not depreciated until the asset is ready for use.

Depreciation of PE and Investment Property

Depreciation of property and equipment commences in the month following the commissioning of assets and ceases upon disposal of assets or at completely depreciated PE (in case of the latter, useful life is reviewed and adjusted as necessary). Depreciation is calculated using the straight-line

method for an even decrease in initial cost to residual value over the estimated useful lives as follows:

buildings and facilities	20–50 years
vehicles	7–28 years
machinery and equipment	4–20 years
tools, fixtures, and fittings	4–10 years
other	2–25 years.

Land and capital investments in progress are not depreciated.

The residual value of an asset is the estimated amount that the NBU would currently obtain from disposal of the asset, less the estimated costs of disposal, if the asset is out-of-date and in the condition expected at the end of its useful life. The residual value of an asset is equal to nil if the NBU expects to use the asset until the end of its useful life.

Intangible Assets

All of the NBU's intangible assets have definite useful lives and primarily include computer software and licenses for its use.

The initial cost of acquired intangible assets includes the costs incurred to acquire and bring them to use. Acquired intangible assets are amortized on a straight-line basis over the expected useful lives from 2 to 8 years and subsequently measured at initial cost less accumulated amortization and impairment loss.

Accounting valuations and judgements include:

Impairment of Property and Equipment and Intangible Assets

As of each reporting day, the NBU's management reviews tangible and intangible assets for impairment taking into account the analysis of certain events or circumstances that evidence on impairment. As of 31 December 2021, based on the results of such analysis, the NBU identified the signs of impairment of intangible assets in the amount of UAH 2 million (as of 31 December 2020 no signs of impairment in property and equipment and intangible assets were identified).

	Buildings and structures	Vehicles	Machinery and equipment	Tools, fixtures, and fittings	Other fixed assets	Capital investments in progress	Intangible assets	Total
(UAH millions)								
Initial cost as of 1 January 2020	4,399	152	4,726	99	227	222	478	10,303
Depreciation and amortization as of 1 January 2020	(2,166)	(138)	(2,924)	(91)	(201)	(9)	(388)	(5,917)
Carrying amount as of 1 January 2020	2,233	14	1,802	8	26	213	90	4,386
Additions	–	11	174	–	21	36	20	262
Transfers to other categories, including:	39	–	87	–	(5)	(119)	(4)	(2)
<i>initial cost</i>	39	–	87	–	(5)	(119)	(4)	(2)
Disposals, including:	(7)	–	–	–	–	(77)	–	(84)
<i>initial cost</i>	(19)	–	(16)	(1)	(4)	(77)	(2)	(119)
<i>depreciation and amortization</i>	12	–	16	1	4	–	2	35
Depreciation and amortization charges in the current reporting period	(94)	(6)	(234)	(2)	(6)	–	(30)	(372)
Initial cost as of 31 December 2020	4,419	163	4,971	98	239	62	492	10,444
Depreciation and amortization as of 31 December 2020	(2,248)	(144)	(3,142)	(92)	(203)	(9)	(416)	(6,254)
Carrying amount as of 31 December 2020	2,171	19	1,829	6	36	53	76	4,190
Additions	117	–	307	3	22	140	56	645
Transfers to other categories, including:	2	1	39	(1)	(12)	(27)	(2)	–
<i>initial cost</i>	2	1	39	(1)	(12)	(27)	(2)	–
Disposals, including:	(86)	–	–	–	–	(7)	–	(93)
<i>initial cost</i>	(234)	(4)	(33)	(1)	(2)	(7)	(7)	(288)
<i>depreciation and amortization</i>	148	4	33	1	2	–	7	195
Impairment	–	–	–	–	–	–	(2)	(2)
Depreciation and amortization charges in the current reporting period	(88)	(3)	(266)	(2)	(12)	–	(26)	(397)
Initial cost as of 31 December 2021	4,304	160	5,284	99	247	168	539	10,801
Depreciation and amortization as of 31 December 2021	(2,188)	(143)	(3,375)	(93)	(213)	(9)	(437)	(6,458)
Carrying amount as of 31 December 2021	2,116	17	1,909	6	34	159	102	4,343

As of 31 December 2021, initial cost of fully depreciated property and equipment that were still in operation amounted to UAH 2,068 million (as of 31 December 2020: UAH 2,041 million).

As of 31 December 2021, based on the results of impairment test, impairment costs were UAH 2 million (no signs of impairment were noticed as of 31 December 2020).

Disposal of fixed assets and intangible assets of subsidiaries has been adjusted by the amount of depreciation and amortization charges calculated in accordance with the NBU's accounting policies.

In 2021, pursuant to the regulatory acts of the Cabinet of Ministers of Ukraine, free-of-charge transfer of items of state property rights from the NBU's area of responsibility to the area of responsibility of other bodies authorized to manage state property took place. The result of the transfer of those assets amounted to UAH 85 million (as of 31 December 2020: UAH 6 million), which are recognized in equity as a transaction with the founder.

Capital Commitments

As of 31 December 2021, the NBU had capital commitments with respect to the acquisition, construction, and improvement of property and equipment and intangible assets totaling UAH 215 million (as of 31 December 2020: UAH 251 million).

31. Other nonfinancial assets

Accounting Policy

Investment and other precious metals

Investment metals are the reserves of non-monetary gold, silver, platinum, and palladium kept in the State Treasury of Ukraine. Investment metals are reported by weight in Troy

ounces and their value in hryvnias according to accounting price of investment metals.

The accounting price of investment metals under which the investment metals are reported in consolidated financial statements, was as follows:

	31 December 2021 (in hryvnias)	31 December 2020 (in hryvnias)
1 Troy ounce of gold	49,115.22	53,200.92
1 Troy ounce of silver	624.01	744.19
1 Troy ounce of platinum	26,331.65	30,203.49
1 Troy ounce of palladium	54,171.23	66,289.52

Unrealized revaluations of investment metals due to change of accounting price of investment metals are included into other comprehensive income in the consolidated statement of profit or loss and other comprehensive income recognized in the period in which they occurred. Realized revaluations of investment metals are included into the retained earnings.

Investment metals deposited in foreign banks for which the interest income is accrued, are included into the *Funds and deposits in foreign currency and investment metals* (Note 6). Revaluations of investment metals deposited in foreign banks due to change of accounting price of investment metals are included into other comprehensive income in the consolidated statement of profit or loss and other comprehensive income recognized in the period in which they occurred.

Investment metals include gold ingots that do not meet the established standards, scrap gold and other metals, and are accounted at cost in Stocks of tangible assets.

Investment and precious metals are included into *Other assets* in the consolidated statement of financial position.

Noncurrent Assets Held for Sale

The NBU recognizes its noncurrent assets as held for sale when the carrying amount of asset is recovered rather through sale than current use.

To recognize noncurrent assets as held for sale, assets should be ready for their immediate sale, and such a sale should be highly probable.

The noncurrent assets recognized as held for sale are recognized at whichever is lower: carrying amount or fair values less cost to sell. If carrying amount of items as of the date of recognition as held for sale exceeds their fair value less cost to sell, then loss on valuation of such items is recognized.

Investment Property

Investment property items include:

- the land a future designation of which is undetermined
- a building not occupied by the NBU and designed for renting out under one or several leases
- a building owned by the NBU or managed under lease agreement and rented out under one or several lease agreements
- immovable property under construction or improvement for future use as investment property.

The NBU carries its investment property at cost. Investment property items are depreciated using the straight-line method.

The NBU recognizes its investment property using the following criteria:

- immovable property is transferred under leases
- immovable property is removed from the list of property used by the NBU according to the NBU's resolution on making decision to rent out the immovable property
- economic benefits are received, which are related to such investment property
- it is probable to estimate reliably the cost of immovable property.

In the event one item of investment property is held to receive rentals and the other part is held for use in operations, then such items of investment property are recognized separately if they can be disposed of separately.

Expenditures on current maintenance of investment property are recognized as expenses when they arise. Expenditures on improvement of investment property items that lead to increase in initially expected benefits from their use, increase the initial cost of those items.

Investment property that begins to be held for sale is classified as assets held for sale.

Investment property items are derecognized in the event changes occur in the mode of their functional use.

	2021	2020
		(UAH millions)
Other nonfinancial assets		
Investment metals	2,216	2,794
Current tangible assets	1,748	1,214
Commemorative and investment coins, souvenirs and other products	420	492
Precious metals and stones	388	486
Advance payments	81	76
Investment property	45	46
Investments in associated companies	34	32
Noncurrent tangible assets held for sale	4	4
Other	15	4
Impairment from other nonfinancial assets	(4)	(4)
Total other nonfinancial assets	4,947	5,144

32. Other nonfinancial liabilities

Accounting Policy

Provisions for Probable Contingencies

The NBU's provisions for probable contingences include provisioning under legal or constructive obligations (as a result of past events), particularly under legal suits the settlement of which was very likely (an adverse scenario being more probable than a positive one) to cause an outflow of resources that carry economic benefits and the amount (expenses) under which they can be reliably assessed. Loss allowances are recognized in financial results of the consolidated income statement and other comprehensive income in the period in which they arise.

Judgement

Provisions under Lawsuits Filed against the NBU

The NBU's management analyzes lawsuits, in which it figures as defendant, in order to identify a high probability of potential losses to occur, as a result of which the NBU shall make payments in favor of the other party, the plaintiff. The NBU determines the probability of potential losses as high mainly when the court of second instance rules unfavorably against the NBU.

	2021	2020
		(UAH millions)
Other nonfinancial liabilities		
Provisions for probable contingencies	223	223
Accounts payable for taxes	17	11
Deferred revenue	1	1
Total other nonfinancial liabilities	241	235

Contingent Liabilities

Legal Proceedings

From time to time and in the normal course of business, certain lawsuits are filed against the NBU. As of 31 December 2021, there were lawsuits for which the NBU estimates the probability of having to pay damages as low, but the NBU believes that disclosure in such property lawsuits may harm it in disputes with other parties on the subject matter of the

lawsuit. The NBU made no provisions for liabilities that could arise from these lawsuits.

As of 31 December 2020, there were no major lawsuits against the NBU that, the NBU estimated, had a low likelihood of resulting in losses.

At the same time, for lawsuits against the NBU that the NBU estimated as having high likelihood of resulting in losses, the NBU made respective provisions.

Section V.II. Other Income and Expenses (except for Financial Results by Financial Instruments)

Accounting Policy

Recognition of Income and Expenses

Other income and expenses are recognized on accrual basis depending on stage of certain transaction completion that is assessed as ratio of provided (received) services to total services as established under agreement.

For income recognition a five-step analysis model is used:

- agreement identification
- identification of certain liabilities within the concluded agreement
- determination of transaction price
- distribution of transaction price between liabilities
- recognition of income when or as the liability is fulfilled.

The expenses are recognized as expenses of a certain period simultaneously with recognition of the income for which they were incurred. The expenses which cannot be related to income of a certain period, are recognized as expenses of the reporting period during which they were incurred.

Costs related to the production of banknotes, coins, souvenirs, and other products

The NBU carries out the production of banknotes and coins of the Ukrainian domestic currency. Costs for production of banknotes and coins (except for commemorative coins produced from precious metals and investment coins) are recorded in the NBU's expenses accounts as the finished products are transferred by the Banknote Printing and Minting Works to the NBU's Central Vault. Costs for production of banknotes and coins include depreciation of production machinery, labor costs, other production costs.

Value of commemorative coins produced from precious metals and investment coins less their face value, is recognized as asset in the NBU's consolidated statement of financial position in Other assets and is written off as expenses as the coins are sold.

Personnel Costs

Labor costs, payment of a single contribution for mandatory state social insurance, contributions to the NBU Corporate Nonstate Pension Fund, and costs on personnel training and skill enhancement, are recognized in the period in which they were incurred by the NBU.

Costs for annual (principal, additional, and social) leaves not used by the NBU employees for the past work years and transferred to next years, and other future employee benefits are recognized as liabilities on employee benefits.

The NBU is the founder of the Corporate Nonstate Pension Fund which is the fund with fixed contributions. The NBU pays contributions to this fund on a contractual basis, and after funds transfer, the NBU has no liabilities regarding these payments. The contributions to the NBU Corporate Nonstate Pension Fund are recognized in Personnel costs when the liabilities on funds transfer arise. After the NBU employee's retirement all payments are performed by the NBU Corporate Nonstate Pension Fund.

Taxes except for payment of distributable profit paid by the NBU, are included into Administrative and other expenses.

33. Other income

	2021	2020
	(in UAH millions)	
Income from sale of investment and commemorative coins, souvenir and other products	686	614
Operating income from the IMF	486	–
Fines, penalties, forfeit received/returned	18	23
Income from sale of property and equipment, and intangible assets	5	9
Income from license registration and issue	4	2
NBU's holding in income of associated company	4	2
Other	78	69
Total other income	1,281	719

34. Staff Costs

	2021	2020
	(UAH millions)	
Payroll of staff	2,068	1,653
Single contribution for mandatory state social security and contributions to nonstate pension funds	465	374
Financial assistance and other social benefits	10	4
Other	20	18
Total staff costs	2,563	2,049

Other staff costs include costs for training and development, expenditures for voluntary medical insurance of employees, etc.

35. Administrative and Other Expenses

	2021	2020
	(UAH millions)	
Banknote Printing and Minting Works' expenses not included in production cost	408	355
Depreciation and amortization	221	203
Expenses for maintenance of noncurrent tangible and intangible assets	168	140
Utilities and household expenses	156	151
Problem assets expenses	82	248
Telecommunication services and maintenance	29	26
Taxes, duties, and charges	27	24
Excess of the carrying value over the value of sales of valuables and precious metals	25	41
Payments to NBU Council members	20	15
Cost of sewage facility services	19	14
Business trips	14	10
Contributions to the NBU's Labor Union	10	8
Financial assistance and other social benefits to pensioners of the NBU	10	4
Loss on disposal of property, plant and equipment and intangible assets	7	77
Consulting and legal services	6	20
Audit expenses	5	5
Repayments to banks of the earlier paid fines	4	16
Expenses on maintaining and selling collateral	1	16
Other	32	2
Total administrative and other expenses	1,244	1,375

Depreciation and amortization charges for 2021 excludes depreciation worth UAH 177 million (in 2020: UAH 170 million) for property and equipment used in the production of banknote paper, banknotes, coins, and other products. This portion of depreciation and amortization charges is included in costs related to the production of banknotes, coins, and other products.

Other expenses include the cost of audit, software maintenance, other operational expenses related to cash processing, negative results from raw materials inventory, stationery expenses, advertising and marketing expenses, fines, penalties, and forfeit, etc.

SECTION VI. Other Notes

36. Related Party Transactions

Related Party Transactions. Judgement

The NBU carries out transactions with related parties, mainly with the government, banks and organizations controlled by the state. In accordance with IFRS 9, financial instruments are initially recognized at fair value. If no active market exists for specific market interest rates, the NBU applies judgement. A basis for the judgement is pricing for similar types of transactions with nonrelated parties and analysis of the effective interest rate, as specified in Note 21.

Terms and Conditions of Related Party Transactions

For the purposes of these consolidated financial statements, parties are considered to be related if the parties are under common control, or if one party has the ability to control the other party or can exercise significant influence over the other party in making financial or operational decisions, as defined by IAS 24 *Related Party Disclosures*. In considering each possible related party relationship, attention is paid to the substance of the relationship, not merely the legal form. The related parties of the NBU include the Ukrainian government, state-controlled entities, key management personnel, etc.

In the normal course of its operations, the NBU enters into transactions with related parties. The year-end balances on these transactions are presented in the table below:

	Note	2021			2020		
		Government and state-controlled entities	Associated companies	Other related parties	Government and state-controlled entities	Associated companies	Other related parties
(UAH millions)							
Domestic securities	9	323,943	–	–	335,401	–	–
Loans to banks and other borrowers		37,277	–	–	25,752	–	–
Loss allowances for loans to banks and other borrowers		(3,664)	–	–	(4,098)	–	–
Domestic public debt		1,541	–	–	1,635	–	–
Other assets		35	34	–	949	32	–
Accounts of banks		25,206	–	–	18,451	–	–
Accounts of government and other institutions	13	54,432	3	7	69,144	–	6
Accounts of the Deposit Guarantee Fund	13	675	–	–	1,414	–	–
Liabilities to transfer distributable profit to the state budget	29	18,786	–	–	24,434	–	–
Certificates of deposit issued by the NBU		67,724	–	–	46,512	–	–
Other liabilities		595	–	–	23	–	–

Other related party transactions include the account balances of the Corporate Nonstate Pension Fund.

The terms and conditions of the transactions above were as follows:

long-term loans to state-owned banks (included in the loans to banks and other borrowers in the table above) as of 31 December 2021 bore an interest rate of 9.00% (6.00% as of 31 December 2020)

the accounts of the government and other institutions as of 31 December 2021 and 2020 were non-interest-bearing

the accounts of the Deposit Guarantee Fund bore interest rates of 4.80% as of 31 December 2021 (5.68% as of 31 December 2020)

the balances of required reserves transferred by state-owned banks to the NBU's correspondent accounts (included in accounts of banks in the table above) earned no interest as of 31 December 2021 and 2020 (Note 12).

The terms of transactions with domestic public debt and domestic securities are disclosed in the respective notes.

Income and expense items from transactions with related parties were as follows:

	2021			2020		
	Government and state-controlled entities	Associated companies	Other related parties	Government and state-controlled entities	Associated companies	Other related parties
	(UAH millions)					
Interest income	39,058	–	–	29,258	–	–
Interest expenses	(3,870)	–	–	(4,042)	–	–
Fee and commission income	199	–	–	120	–	–
Other income	(81)	4	–	166	2	–
Staff costs	–	–	(52)	–	–	(38)
Other expenses	(128)	–	(52)	(583)	–	(40)
Gains on reversal of impairment	428	–	–	248	–	–

In accordance with the Law of Ukraine *On the National Bank of Ukraine*, the NBU provides services to the State Treasury of Ukraine on a free-of-charge basis.

In 2021, the short-term benefits (salary and single contribution for mandatory state social security) of key management personnel were UAH 52.0 million, including

remuneration to members of the NBU Council of UAH 20.0 million [in 2020, the short-term benefits of key management personnel were UAH 38.0 million, including remuneration to members of the NBU Council of UAH 14.7 million]. As of 31 December 2021 and 31 December 2020, there were no outstanding loans to key management personnel.

Short-term benefits to NBU Council Chairperson Members:

	2021, in UAH millions	Length of service in 2021 in months	2020, in UAH millions	Length of service in 2020 in months
Bohdan Danylyshyn	2.7	12	1.9	12
Vasyl Furman	2.7	12	1.9	12
Vasyl Horbal	2.7	12	0.5	3.5
Viktor Koziuk	2.7	12	1.9	12
Vira Rychakivska	–	–	0.9	6
Olena Scherbakova	2.7	12	1.9	12
Mykola Kalenskyi	2.7	12	1.9	12
Oleksandr Petryk	2.7	12	1.9	12
Vitaliy Shapran	1.1	7	1.9	12
Total	20.0		14.7	

Short-term benefits to NBU Governor and Board Members:

	2021, in UAH millions	Length of service in 2021, in months	2020, in UAH millions	Length of service in 2020, in months
Kyrylo Shevchenko	5.9	12	2.5	5.5
Yakiv Smolii	–	–	2.2	6
Kateryna Rozhkova	5.2	12	3.8	12
Roman Borysenko	–	–	2.1	8
Yuriy Heletiy	5.2	12	2.0	5
Yaroslav Matuzka	5.2	12	1.3	3.5
Sergiy Nikolaychuk	2.6	6	–	–
Dmytro Sologub	2.3	6	3.6	12
Serhii Kholod	–	–	1.6	7
Oleksii Shaban	5.5	12	2.4	11
Oleg Churiy	–	–	1.8	7
Total	31.9		23.3	

37. Current and noncurrent assets and liabilities

The table below shows the classification of assets and liabilities by periods of their expected recovery or maturity into current (up to one year) and noncurrent (more than one year):

	Notes			2021		2020	
		current	noncurrent	total	current	noncurrent	total
(UAH millions)							
Assets							
Funds and deposits in foreign currency and investment metals	6	181,279	–	181,279	121,112	–	121,112
Foreign securities	7	644,167	121	644,288	671,657	121	671,778
SDR holdings	8.1	510	–	510	128	–	128
Monetary gold		–	38,800	38,800	–	42,014	42,014
Domestic securities	9	21,077	302,866	323,943	21,040	314,361	335,401
Loans to banks and other borrowers	10	11,440	88,421	99,861	18,427	48,503	66,930
Domestic public debt		110	1,431	1,541	109	1,526	1,635
IMF quota contributions	8.2	–	76,807	76,807	–	81,927	81,927
Property and equipment, and intangible assets	30	–	4,343	4,343	–	4,190	4,190
Other assets	11, 31	3,192	2,333	5,525	3,506	2,953	6,459
Total assets		861,775	515,122	1,376,897	835,979	495,595	1,331,574
Liabilities							
Banknotes and coins in circulation		627,604	215	627,819	558,479	215	558,694
Accounts of banks	12	57,136	–	57,136	50,017	–	50,017
Accounts of government and other institutions	13	55,133	–	55,133	70,664	–	70,664
Liabilities to transfer distributable profit to the State Budget of Ukraine	29	18,786	–	18,786	24,434	–	24,434
Certificates of deposit issued by the NBU	14	212,926	–	212,926	163,485	–	163,485
Borrowings received		2,728	–	2,728	–	2,827	2,827
Liabilities to the IMF, apart from IMF quota contributions	8.3	49,842	106,728	156,570	30,447	163,024	193,471
Liabilities to the IMF with respect to quota contributions	8.3	76,798	–	76,798	81,917	–	81,917
Other liabilities	15, 32	1,012	1,068	2,080	889	206	1,095
Total liabilities		1,101,965	108,011	1,209,976	980,332	166,272	1,146,604

38. Events Subsequent to the Reporting Date

On 24 February 2022, Russia launched massive and unprovoked military attack on Ukraine. Hitting military and civilian targets, the aggressor's military units invaded Ukraine from all directions, where it had built up forces, including Belarus and Transnistria.

On 24 February 2022, Ukraine imposed martial law, ordered mobilization, and severed diplomatic ties with Russia. The Armed Forces of Ukraine have been putting up fierce resistance to Russian forces.

In order to ensure the reliable and stable operation of Ukraine's financial system and facilitate the fullest support for activity of the Armed Forces of Ukraine, as well as the smooth operation of critical infrastructure, the NBU Board approved Resolution No. 18 *On Operation of Banking System Under Martial Law* dated 24 February 2022, identifying specifics of regulation of monetary and FX markets under martial law. The official hryvnia to U.S. dollar exchange rate was fixed at the level of 24 February 2022, namely 29.2549 UAH to 1 USD. Transactions with Russian and Belarusian rubles have been restricted to a minimum, as have transactions by residents of Russia and Belarus.

At the same time, the NBU has been providing unlimited cash support and unsecured refinancing of no more than 30% of retail deposits as of 23 February 2022 with up to one-year maturity and an option to extend the loan by another year, so that banks can maintain their liquidity.

Military aggression inflicted massive destruction of civilian infrastructure, including production facilities, scaled back and, in some cases, stopped the operation of certain businesses, disrupted supply chains, displaced millions of people, and caused other damages, which will have serious implications for Ukraine's economy. Financial assistance from international organizations and foreign countries seeks to support the economy and meet priority needs of Ukrainians, including humanitarian ones.

Russia's invasion of Ukraine on 24 February 2022 affected the assessment of Ukraine's solvency by international rating agencies. On 25 February 2022, the credit rating agency Fitch Ratings downgraded the Long-Term Foreign Currency Issuer Default Ratings from 'B' to 'CCC'. The same decision was made by Moody's credit agency, which downgraded Ukraine's credit rating from 'B3' to 'Caa2' on 4 March 2022, and to 'Caa3' on 20 May 2022. The S&P agency downgraded Ukraine's credit rating from 'B' to 'B-' on 25 February 2022 and to 'CCC+' on 27 May 2022.

In March 2022, the NBU repaid a loan received from the Swiss National Bank in the amount of USD 100 million (UAH 2,925 million at the official exchange rate at the transaction date).

On 24 February 2022, the NBU, before the annual consolidated financial statements are verified by an external auditor and approved by the NBU Board, transferred to the state budget UAH 18,786 million – a portion of distributable profit determined by the NBU Board in accordance with the amount included in the annual financial statements and submitted to the audit firm for verification.

In February and March 2022, liabilities worth SDR 419 million (UAH 17,049 million at the official rate as of the transaction date, or UAH 16,701 million at the annual exchange rate of the IMF) were repaid to the IMF in line with the repayment schedules.

In March 2022, the government received from the IMF SDR 1,006 million under the Rapid Financing Instrument (RFI) (UAH 41,263 million at the official exchange rate at the transaction date, or UAH 40,084 million at the annual exchange rate of the IMF).

In line with NBU Board Decision No. 108 *On Assessing the Investment of the National Bank of Ukraine Into the Authorized Capital* dated 3 March 2022, the absence of possibility to gain economic benefits from the NBU's investment into the equity instruments of the Interstate Bank was established as a criterion for derecognition of such investment as an asset and contingent assessment in the amount equivalent to 1 UAH at the official hryvnia exchange rate as of the transaction date recorded in the accounting books (note 7).

As of 7 March 2022, in line with the Law of Ukraine No. 2118-IX *On Amendments to the Tax Code of Ukraine and Other Laws of Ukraine Regarding the Application of Provisions Under Martial Law* dated 3 March 2022, the Verkhovna Rada has decided to temporarily waive for the duration of martial law in Ukraine Article 54 of the Law of Ukraine *On the National Bank of Ukraine*, which forbids the NBU to make loans to the state. Pursuant to Resolution No. 156 of the Cabinet of Ministers of Ukraine *On Issuing War Bonds*, the NBU purchased UAH 225 billion of domestic government debt securities.

As of 1 June 2022, international reserves amounted to USD 25.1 billion.

On 2 June 2022, the NBU raised the key policy rate to 25% to protect households' income and savings in the hryvnia, boost the attractiveness of hryvnia assets, and to ease pressures on the foreign exchange market. Such decision will enable the NBU to maintain the stability of the exchange rate and restrain inflation processes in wartime.

39. Introducing New and Amended Standards and Interpretations of the Financial Statements

Amended IFRS and Interpretations that Came into Effect on 1 January 2021 and Were Adopted to Be Applied.

Amendments to IFRS 9, IAS 39, and IFRS 7 Interest Rate Benchmark Reform, IFRS 4, and IFRS 16 (phase II: the amendments will go into effect for the years starting 1 January 2021).

Amendments to IFRS 16 Leases – Covid-19-Related Rent Concessions beyond 30 June 2021 for lessees. The amendments apply to annual reporting periods beginning on or after 1 April 2021.

Amended IFRS and interpretations had no effect on the NBU's financial results and financial position.

New and Revised Standards that have been Issued but are not yet Effective

Amendments to IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures – Sale or distribution of assets between an investor and its associate or joint venture (apply to annual reporting periods beginning on or after the date to be specified. Early application is permitted).

Amendments to IAS 1 Presentation of Financial Statement – The classification of liabilities as current or noncurrent is intended to provide a more general approach to the classification of liabilities under IAS 1 based on the contractual terms in effect at the reporting date (apply to annual reporting periods beginning on or after 1 January 2023).

Amendments to IAS 1 Presentation of Financial Statements are intended to provide clarifications on disclosure of accounting policies in financial statements (apply to annual reporting periods beginning on or after 1 January 2023).

Amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* are intended to explain the differences between changes in accounting estimates and changes in accounting policies. The amendments apply to annual reporting periods beginning on or after 1 January 2023.

Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts – Cost of Fulfilling a Contract (apply to annual reporting periods beginning on or after 1 January 2022).

Amendments to IFRS 3 Business combinations related to amendments to Conceptual Framework for Financial Reporting (apply to annual reporting periods beginning on or after 1 January 2022).

IFRS 17 *Insurance Contracts* is a new financial reporting standard for insurance contracts that determines recognition, measurement, presentation, and disclosure of information (applies to annual reporting periods beginning on or after 1 January 2023, although early application is permitted).

Annual improvements to IFRS in 2018–2020 (amendments to IFRS 1, IFRS 9, IFRS 16, IAS 41).

Amendments to IAS 16 *Property, Plant and Equipment – Proceeds before Intended Use*. The amendments apply to annual reporting periods beginning on or after 1 January 2022.

Amendments to IAS 12 *Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction*. The amendments apply to annual reporting periods beginning on or after 1 January 2023.

The NBU did not apply the above new and revised standards before the effective date. NBU management anticipates that the application of the Standards mentioned above is not going to have a significant effect on NBU's financial results and financial position.

15 July 2022
Kyiv, Ukraine