



Annual Report 2021



Annual Report 2021

Warsaw 2022

Compiled on basis of NBP materials.

Photo of the President of NBP
Piotr Małecki

Published by
Narodowy Bank Polski
Education and Publishing Department
ul. Świętokrzyska 11/21
00-919 Warszawa
www.nbp.pl

ISSN 1427-0277

© Copyright Narodowy Bank Polski, 2022

Contents

Foreword by the President of Narodowy Bank Polski	6
Monetary Policy Council	8
NBP Management Board	8
Organization Chart of Narodowy Bank Polskias at 31 December 2021	9
Summary	11
Chapter 1. Governing bodies of NBP	19
1.1. Governor of Narodowy Bank Polski	20
1.2. Monetary Policy Council	20
1.3. Management Board of Narodowy Bank Polski	22
1.4. Narodowy Bank Polski Plan of Activity	24
Chapter 2. Monetary policy	25
2.1. Monetary policy strategy in 2021	26
2.2. Monetary policy and macroeconomic developments in 2021	28
2.3. Monetary policy instruments in 2021	40
Chapter 3. Financial system	49
3.1. Macroprudential supervision	50
3.2. Cooperation with other public institutions on financial stability	52
3.3. Financial system analytical and research activities	52
3.4. International cooperation for financial stability	54
3.5. NBP operational activities aimed at maintaining financial stability	54
Chapter 4. The issue of currency	57
4.1. Currency in circulation	58
4.2. Issue of collector coins and notes	58
4.3. The functioning of cash transactions	59
4.4. Activities aimed at streamlining cash transactions	60
4.5. Counterfeit of Polish currency	60
Chapter 5. Foreign exchange reserves management	63
5.1. Level of the official reserve assets	64
5.2. Foreign exchange reserves management strategy	65
5.3. Financial risk management in the process of foreign exchange reserves management	66
5.4. Rate of return on foreign currency reserves	67
5.5. Investment income	69

Chapter 6. Foreign exchange activity	71
6.1. Register of bureaux de change	72
6.2. Foreign exchange-related decisions	72
6.3. Foreign exchange control	72
Chapter 7. Payment system-oriented activities	75
7.1. Performance of operational tasks	76
7.2. Policy measures and development of the payment system	77
7.3. Oversight of the payment system	79
7.4. NBP as the shareholder in domestic legal persons providing services for financial institutions	80
Chapter 8. Services to the State Treasury	83
8.1. Bank accounts operated by NBP	84
8.2. Handling international liabilities and claims of the State Budget	85
8.3. Organisation of trade in Treasury securities	85
8.4. Co-operation with the Ministry of Finance within the Public Debt Management Committee	86
Chapter 9. Analytical and research activities	87
9.1. Analyses and research concerning monetary policy	88
9.2. Analyses and studies of price-setting processes, prices and inflation	88
9.3. Macroeconomic forecasting and the development of prognostic models	89
9.4. Analyses and studies of the fiscal situation	89
9.5. Analyses of the global economy and the impact of foreign countries on the Polish economy	89
9.6. Analyses and studies of the economic situation of households	90
9.7. Analyses and studies of the economic situation of the labour market	90
9.8. Analysis and research of the economic and financial situation of enterprises	90
9.9. Inter-sectoral analyses and studies	91
9.10. Research papers by NBP staff	91
9.11. Scientific conferences organised by NBP	91
9.12. Cooperation with the scientific community, central banks and international institutions	92
Chapter 10. Statistics	95
10.1. Core tasks with respect to statistics	96
10.2. Statistical tasks resulting from NBP's participation in the European System of Central Banks and in other international institutions	97
Chapter 11. Education and information	103
11.1. Education	104
11.2. Communication activities	106

11.3. Publishing and Library	107
11.4. Petitions, complaints, requests and letters	108
<hr/>	
Chapter 12. Legislative activity	111
<hr/>	
12.1. Legislation by the NBP governing bodies	112
12.2. NBP contribution to legislative activity by state authorities with respect to draft normative acts	112
12.3. Consulting the European Central Bank's draft opinions to draft Community laws and draft national legislation of the EU Member States by NBP	114
<hr/>	
Chapter 13. International activity	115
<hr/>	
13.1. Duties resulting from Poland's membership of the European Union	116
13.2. Collaboration with international economic and financial institutions	117
<hr/>	
Chapter 14. Internal development of NBP	121
<hr/>	
14.1. Human resources management	122
14.2. Organisational changes	122
14.3. Operational risk management	123
14.4. Investment activity	123
14.5. IT support for the banking system and NBP	123
14.6. Internal audit	124
14.7. Activity of NBP regional branches	124
14.8. Safety and security	125
<hr/>	
Chapter 15. Financial and equity position and financial result of NBP for 2021	127
<hr/>	
15.1. Introduction	128
15.2. Characteristics of the NBP Balance Sheet	131
15.3. Characteristics of the NBP Profit and Loss Account	143
<hr/>	
Appendix 1. Selected macroeconomic and financial data	151
<hr/>	
Appendix 2. The list of selected publications of NBP	159
<hr/>	
Appendix 3. Voting records of the Monetary Policy Council members on motions and resolutions	163
<hr/>	
Appendix 4. Financial Statements of Narodowy Bank Polski as at 31 December 2021 together with the Independent Auditor's Report	169
<hr/>	
Statistical annex	245
<hr/>	
Methodological notes	270
<hr/>	
List of the most important abbreviations	278
<hr/>	



Adam Glapiński
Governor of Narodowy Bank Polski

Dear Readers

The year 2021 was another year of struggling with the COVID-19 pandemic and huge uncertainty about its future course as well as its macroeconomic consequences.

At the beginning of the year the epidemic situation had a strong impact on the domestic economic conditions; however, its impact was weaker than in the first phase of the pandemic. The Polish economy made up the pandemic-induced losses, but a question mark hung over the sustainability of the economic recovery. At the same time, inflation was consistent with the NBP inflation target at the beginning of 2021, although in subsequent quarters it rose gradually, as was also the case in other countries. This was mainly due to factors beyond the influence of domestic monetary policy, above all, the rise in global commodity prices, global supply disruptions and regulatory factors, i.e. sharp increases in

waste collection fees and electricity prices. Due to the character of the factors boosting inflation in the first three quarters of 2021, it was expected that after a temporary rise, inflation would decline in 2022, which amid continued uncertainty about the pandemic was a strong argument in favour of keeping NBP interest rates unchanged.

However, these expectations changed at the end of the third quarter and beginning of the fourth quarter of 2021, when along with a sharp rise in global commodity prices the period when price growth was expected to remain at an elevated level was extended. At the same time, there were signs suggesting that the next waves of the pandemic would no longer significantly disrupt the recovery in economic activity. As a result, it was judged that there was a risk of inflation persisting above the inflation target in the medium term. In order to mitigate this risk, NBP tightened monetary policy significantly. Interest rates and the required reserve ratio were raised and the remaining instruments introduced in 2020 in order to mitigate the pandemic shock, such as purchases of debt securities in the secondary market, were withdrawn. The permanent reduction of inflation has become the major monetary policy challenge of NBP.

At the same time, the central bank was also active in other areas, implementing its statutory tasks. Above all, steps were taken to ensure the uninterrupted supply of banknotes and coins to banks in the next year of the pandemic. The National Strategy for Cash Circulation Security was adopted, which contains proposals for measures aimed at ensuring universal acceptance and availability of cash, the undisturbed supply of the market with Polish currency, the physical security of banknotes and coins, and the resilience of IT systems used in cash circulation to cybersecurity threats. In turn, taking measures to develop the payment system, NBP started building a new RTGS system in zloty (SORBNET3).

As part of managing its foreign exchange reserves, the central bank continued its currency diversification and began investing in equity index futures, which will increase the long-term profitability of the reserves. Moreover, in accordance with global trends, NBP increased its exposure in green bonds and sustainable development bonds. It should be emphasised that at the end of 2021, the value of the foreign exchange reserves exceeded EUR 146 billion. This is of major importance as the reserve assets guarantee the credibility and payment security of the Polish state.

Narodowy Bank Polski also acted consistently in favour of the stability of the financial system, leading the work of the Financial Stability Committee on macroprudential supervision (FSC-M) and participating in the work of the FSC on crisis management (FSC-C). It also conducted analyses and research on financial stability, publishing the results in, among others, the *Financial Stability Reports* and the *Financial System in Poland* report.

These are just some examples of NBP's activities in 2021 – you will find a more detailed and extensive overview of all our activities in the chapters of this Report. I would also like to add that Narodowy Bank Polski earned a profit of PLN 11 billion in 2021. In accordance with the applicable regulations, 95% of NBP's profit, i.e. PLN 10.4 billion, was transferred to the state budget. The remaining portion of the profits increased NBP's reserve fund.

Finally, although it goes beyond the strict timeframe of this Report, I simply cannot fail to mention the situation in Ukraine. By carrying out armed aggression on the territory of its neighbour, Russia has triggered a humanitarian and economic crisis of unprecedented scale. The mass flight of people from war-torn territories, disruptions in supply chains, reduced supply of energy and agricultural commodities, and the heightened volatility in financial markets are a challenge that we had to face in the first months of 2022 and which we will probably also confront in the near future. Since the beginning of the war, Narodowy Bank Polski has not been indifferent to what has been happening on Poland's eastern border. Due to the emergence of threats to the stability of the Ukrainian financial system, as part of our bilateral cooperation, NBP provided the National Bank of Ukraine with a swap line on the US dollar-hryvnia currency pair. In addition, it has enabled refugees from Ukraine to exchange their Ukrainian currency for Polish zloty (up to 10,000 hryvnia).

To sum up, the year 2021 and the beginning of the current year were for NBP a time of great challenges and hard for the benefit of Poland and its citizens. I would like to thank all the staff of NBP, all my colleagues, for their hard work, commitment and effort put into their daily activities. I am proud to present to you the Report which gives an account of all these endeavours.

I invite you to read the Annual Report of Narodowy Bank Polski for 2021.



MONETARY POLICY COUNCIL*

Chairperson

Adam Glapiński

Members:

Grażyna Ancyparowicz

Eugeniusz Gatnar

Łukasz Hardt

Cezary Kochalski

Jerzy Kropiwnicki

Eryk Łon

Rafał Sura

Kamil Zubelewicz

Jerzy Żyżyński

NBP MANAGEMENT BOARD

Chairperson

Adam Glapiński

Deputy Governor – First Deputy Governor of NBP

Marta Kightley

Deputy Governor of NBP

Adam Lipiński

Members:

Marta Gajęcka**

Andrzej Kaźmierczak

Ryszard Kokoszczyński***

Piotr Pogonowski

Paweł Szalamacha

* The composition of the Monetary Policy Council as at 31 December 2021 is presented above. Until the date of approval of the *Report on NBP Operations for 2021*:

– the term of office of the following MPC members came to an end:

on 25 January 2022 – Mr Eugeniusz Gatnar's and Mr Jerzy Kropiwnicki's,

on 9 February 2022 – Ms Grażyna Ancyparowicz's and Mr Eryk Łon's,

on 20 February 2022 – Mr Łukasz Hardt's and Mr Kamil Zubelewicz's,

on 30 March 2022 – Mr Jerzy Żyżyński's;

– the following MPC members were appointed for a six-year term of office:

on 26 January 2022 – Mr Ludwik Kotecki and Mr Przemysław Litwiniuk;

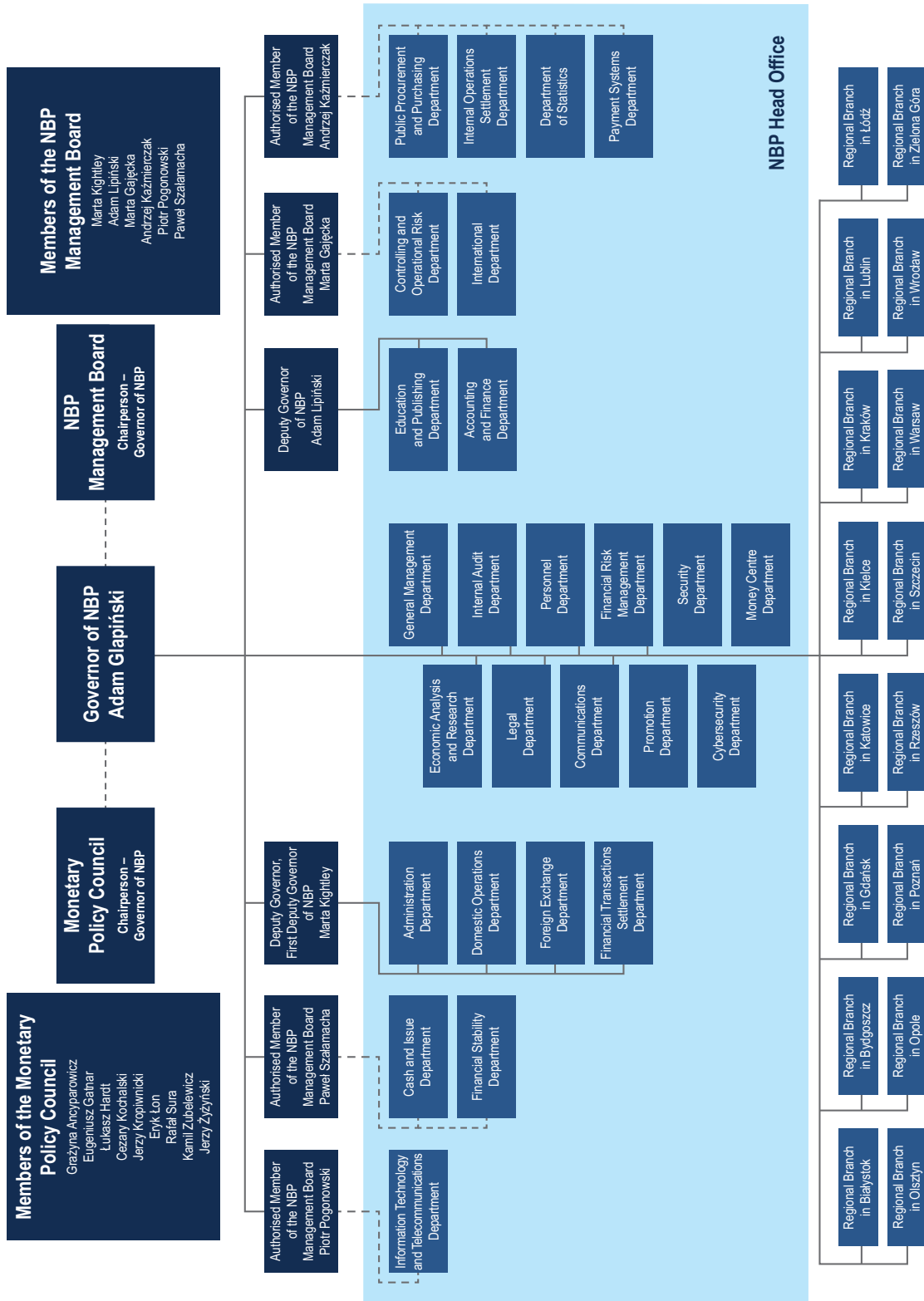
on 21 February 2022 – Mr Ireneusz Dąbrowski and Mr Henryk Wnorowski;

on 23 February 2022 – Mr Wiesław Janczyk.

** On 1 January 2021 Ms Marta Gajęcka was appointed Member of the NBP Management Board.

*** On 4 August 2021 Mr Ryszard Kokoszczyński ceased to be a Member of the NBP Management Board (in connection with the end of the term of office).

Organization Chart of Narodowy Bank Polski as at 31 December 2021



--- Day-to-day oversight exercised in accordance with authorisations granted by the NBP Governor to the Members of the Management Board.
 — Day-to-day oversight exercised on the basis of the NBP reporting structure, according to the areas of work of organisational units assigned by the NBP Governor to be managed by the NBP Deputy Governors.

Summary

Summary

1. According to Article 227 section 1 of the Constitution of the Republic of Poland “The central bank of the State shall be Narodowy Bank Polski. It shall have the exclusive right to issue money as well as to formulate and implement monetary policy. Narodowy Bank Polski shall be responsible for the value of Polish currency”. The basic objectives of NBP are stipulated in the Act of 29 August 1997 on Narodowy Bank Polski and the Banking Act of 29 August 1997, as well as in the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks and of the European Central Bank. In 2021, NBP conducted its activities in line with the *Monetary Policy Guidelines for 2021* and *Narodowy Bank Polski Plan of Activity for 2021–2023*.
2. The *Report* presents the implementation of the statutory responsibilities of NBP in 2021 in the following areas: monetary policy, pursuit of the financial system stability, issue of currency, foreign exchange reserves management, foreign exchange activities, the payment system, services to the State Treasury, analysis and research, statistics, education and information, and international cooperation. The *Report* also presents the legislative activity, the internal development as well as the overview of the economic and financial position of NBP as at 31 December 2021.
3. According to the Constitution of the Republic of Poland and the Act on Narodowy Bank Polski, the governing bodies of NBP comprise: the Governor of Narodowy Bank Polski, the Monetary Policy Council and the Management Board of Narodowy Bank Polski. In 2021, the organisational structure of NBP comprised the Head Office and 16 organisational units.
4. In 2021, NBP performed its tasks under the conditions of the COVID-19 pandemic. NBP was taking actions adequate to the related challenges experienced by the Polish economy.
5. In 2021, monetary policy was conducted in line with the *Monetary Policy Guidelines for 2021*. As in previous years, the main objective of monetary policy was to maintain price stability while supporting sustainable economic growth and financial system stability. In the conduct of monetary policy, NBP continued to apply the strategy of direct inflation targeting. Since 2004, the medium-term inflation target has been 2.5%, with a symmetrical band for deviations of ± 1 percentage point. Monetary policy decisions were made based on available data, including an assessment of the causes and persistence of the shocks affecting inflation processes as well as an assessment of the sustainability of the recovery following the pandemic recession.

In the first quarters of 2021, the Polish economy was recouping the pandemic losses, yet successive waves of the COVID-19 pandemic and uncertainty about its future course continued to affect economic conditions, constituting a significant risk factor for the sustainability of the economic recovery. At the same time, at the beginning of 2021 inflation was running at levels consistent with the NBP target, although in the subsequent quarters – similarly to developments in other countries – price growth accelerated gradually. The increase in inflation was primarily driven by factors beyond the control of domestic monetary policy, including mainly higher international commodity prices and global supply chain disruptions – coupled with regulatory factors, such as substantial

rises in waste disposal charges or higher electricity prices. Given the nature of most drivers of price growth, the assessment in the first three quarters of 2021 was that after a temporary rise in 2021 inflation would subside in 2022. This was indicated by available forecasts, including forecasts by NBP, international institutions and market analysts.

Against this background, in 2021 Q1–Q3, the Council kept the NBP interest rates unchanged. NBP also continued the remaining measures taken in 2020 in response to the outbreak of the pandemic. In view of the external and supply-related nature of most factors boosting inflation, the assessed temporary nature of the accelerated price growth, and given the persistent uncertainty about the impact of the pandemic on the economy, this stance was consistent with the *Monetary Policy Guidelines for 2021*, according to which inflation – due to macroeconomic and financial shocks – might temporarily run above or below the target, including beyond the band for deviations from the target. In this way, monetary policy supported the recovery from the pandemic recession, while striving to maintain price stability in the medium term.

The macroeconomic environment for monetary policy conduct changed significantly in the final months of 2021. Global markets saw a new surge in commodity prices, mainly energy, as well as agricultural commodity prices. In addition, global supply chains disruptions persisted. As a consequence, inflation forecasts for the coming quarters were revised up significantly, which increased the risk of inflation staying above the NBP inflation target in the monetary policy transmission horizon. At the same time, incoming information indicated that Poland's GDP had surpassed the pre-pandemic level and the ongoing economic recovery was unlikely to suffer significantly from another wave of the pandemic.

In view of such conditions, in 2021 Q4 the Council raised the NBP interest rates three times and increased the required reserve ratio. Simultaneously, bond purchases under structural open market operations were terminated at the end of 2021. The monetary policy tightening was consistent with the *Monetary Policy Guidelines for 2021* and was aimed at bringing inflation down to the NBP target in the medium term, while supporting sustainable economic growth.

6. In 2021, NBP conducted monetary policy using instruments provided for in the *Monetary Policy Guidelines for 2021*. The instruments used were adjusted to the macroeconomic and market conditions changing during the year. The key instrument of monetary policy in 2021 was the NBP interest rates. In 2021 Q1–Q3, the Council kept the NBP interest rates unchanged. In 2021 Q4, the Council raised the NBP interest rates, including the reference rate from 0.10% to 1.75%. As in previous years, the operational target of monetary policy was to keep the POLONIA rate close to the NBP reference rate. The main instrument to achieve this task was the main open market operations, carried out on a regular weekly basis, in the form of issuance of NBP bills, in principle with a 7-day maturity. A supplementary role was played by the fine-tuning open market operations resumed by NBP from December 2021. The achievement of the operational target of monetary policy was supported by the required reserve system, helping to stabilise short-term market interest rates. In October 2021, the Council also decided to increase the required reserve ratio from 0.5% to 2.0%. In 2021, banks were able to place surplus funds as overnight deposit with NBP, as well as supplement shortages of funds by drawing on the lombard credit offered by the central bank. For a significant part of 2021, NBP continued

to carry out structural operations consisting in the purchase of government securities and government-guaranteed debt securities in the secondary market. The total scale of these operations in 2021 was significantly lower than in 2020. In 2021, as part of its structural open market operations, NBP purchased bonds with a total nominal value of PLN 36.9 billion in the secondary market (compared to PLN 107.1 billion in 2020). In 2021, the dates and scale of the structural open market operations depended on the market conditions, and they were discontinued at the end of 2021 Q4. In 2021, surplus liquidity in the banking sector persisted, and its level was higher than in 2020. The volume of funds at the disposal of the banking sector in excess of the required reserve averaged PLN 253,866 million and was PLN 70,068 million higher than in the corresponding period of 2020. The increase in the liquidity surplus in the banking sector in 2021 was driven primarily by foreign currency transactions carried out by NBP, in particular, the purchase of foreign currency, mainly from the Ministry of Finance. This increase was partly limited by the NBP sales of foreign currency to the European Commission. Another factor contributing to higher liquidity surplus in the banking sector was the purchases of debt securities in the secondary market by NBP as part of its structural open market operations. On the other hand, excess liquidity in the banking sector was curbed by the increase in currency in circulation, and, towards the end of the year, the increase in the basic required reserve ratio.

7. In accordance with Article 3(2)(6) of the Act on Narodowy Bank Polski, the responsibilities of NBP shall include “establishing the necessary conditions for the development of the banking system”. The Polish central bank performs this responsibility on an ongoing basis by acting to ensure stable conditions for the functioning of banks and the whole financial system and also by maintaining a low level of inflation. In 2021, NBP continued to undertake activities aimed at developing the payment system and safeguarding its smooth functioning. Moreover, Narodowy Bank Polski participated in developing legal provisions on the banking sector, conducted analyses and research on the national banking system and cooperated with the Polish Bank Association.
8. In 2021 Narodowy Bank Polski carried out regular analytical and research work on the stability and development of the financial system, nationally and internationally. The results of the work were published in cyclical reports. In 2021 the Governor of NBP fulfilled his obligations as provided for in the laws by chairing the work of the Financial Stability Committee on macroprudential supervision (FSC-M) and participating in the work of the FSC related to crisis management (FSC-C). The NBP analyses and reports were used extensively by the FSC-M. Narodowy Bank Polski cooperated with domestic financial safety net institutions, including the Ministry of Finance, the Polish Financial Supervision Authority (KNF) and the Bank Guarantee Fund (BFG). The Bank also conducted analyses and research aimed at increasing the knowledge of financial processes and interdependencies between the financial system and the economy used for the operationalisation of macroprudential policy. It also cooperated with European institutions to counteract the build-up of systemic risk.
9. The main objective of the issue of currency of NBP was to ensure security and liquidity of cash transactions. In 2021, the value of currency in circulation (including bank vault cash) grew by 10.5% and at 31 December 2021 it amounted to PLN 355.6 billion. This means that the growth rate of the value of cash in circulation returned to the pre-COVID-19 level. Narodowy Bank Polski continued to carry out activities aimed at supplying banks

with banknotes and coins in an uninterrupted manner in another year of the pandemic. In 2021 Narodowy Bank Polski issued 10,800 pieces of gold collector coins, 252 thousand pieces of silver collector coins and 80,000 collector notes. A set comprising a collector note and a collector coin, having a coherent graphic design (*Lech Kaczyński. It Is Worth Being a Pole*), was issued for the first time. NBP adopted the National Strategy for Cash Circulation Security, a document containing proposals of measures promoting the universal acceptance and availability of cash, uninterrupted supply of Polish currency to the market, physical security of banknotes and coins and the cyber resilience of IT systems used in cash transactions. Also in 2021, a service was launched for exchanging coins for banknotes or coins of adequately high denominations by means of self-service machines.

10. When managing foreign exchange reserves, NBP seeks to ensure the safety and adequate liquidity of invested funds. At the same time, while observing these criteria, it also undertakes measures aimed at raising the long-term yield on the reserves. In 2021, Narodowy Bank Polski continued the diversification of currency reserves and it also started investing in equity index futures – changes in the investment structure of reserves will contribute to raising the yield on reserves in the long-term. Moreover, NBP increased its exposure to green bonds and sustainable development bonds.
11. The foreign exchange activity of NBP involves maintaining a register of bureaux de change, issuing decisions on foreign exchange matters and carrying out statutory inspections. In 2021, a total of 871 inspections relating to foreign exchange matters were carried out, 30 decisions on foreign exchange matters and 32 decisions concerning the breach of the rules of conduct of the currency exchange business or failure to comply with the responsibilities attached to this business were issued. As at 31 December 2021, a total of 4,664 foreign exchange bureaux were active in Poland.
12. The activities of NBP with respect to the payment system consisted mainly in the operation of the payment systems and the performance of interbank settlements, the organisation of monetary settlements, and the oversight of the payment system. In 2021, Narodowy Bank Polski participated in legislative work which led to the regulation of the legal status of acceptance of cash. It also started building a new RTGS system in PLN (to be launched in 2025). It also continued work on the consolidation of the TARGET2 system with the T2S platform and the migration of NBP to the new settlement model in the STEP2-T system.
13. The provision of bank services to the State Budget by NBP contributed to ensuring the safety and smoothness of settlements of the public finance sector. As at 31 December 2021, NBP operated 27,604 accounts for 2,923 clients. Narodowy Bank Polski handled the State Budget foreign liabilities and claims and trade in Treasury securities (in total, 21 sale, swap and redemption auctions for these securities were organised), and cooperated with the Ministry of Finance within the Public Debt Management Committee.
14. The analytical and research work conducted at NBP in 2021 aimed to assess the current and future situation in the Polish economy, including in relation to inflation indices and the price-setting process, inflation expectations, estimates and forecasts of GDP and its components, the financial standing of enterprises and the situation in the labour market. Work was also conducted on the development and improvement of the applied analytical tools (among others, the sectoral general equilibrium model MOST_PL was completed).

The findings of these analyses and research are used by the Management Board of NBP and the Monetary Policy Council in the decision-making process. In 2021, NBP organized 3 international scientific conferences. 10 articles by NBP staff were published in journals from the ISI Master Journal list.

15. In 2021 NBP performed statistical tasks comprising the collection of reporting data, primarily from entities of the financial sector, and – to a lesser extent – non-financial entities. Moreover, in 2021 as part of the reporting information system (RIS), NBP implemented new EBA reporting obligations. A new internal ERYDAN database was launched, a new agreement was concluded with Statistics Poland (GUS) governing the exchange of statistical data and an agreement was also concluded with the Polish Development Fund (PFR) governing the acquisition by NBP of data from the records of Employee Capital Plans (PPK).
16. In 2021, Narodowy Bank Polski was the initiator and participant of educational projects carried out across the country. In 2021, a nationwide educational programme, *NBP Gold Schools*, was launched. The offer of the Sławomir S. Skrzypek NBP Money Centre was extended to include new exhibition projects, educational materials and exhibits. The first edition of the competition for the MA dissertation in the field of socio-economic history was also held. NBP continued its communication activities via the Internet, particularly on social media.
17. In 2021, NBP participated in the work of the Standing Committee of the Council of Ministers, the Committee for European Affairs and other inter-ministerial bodies and cooperated with government bodies by issuing opinions on draft normative acts regarding economic policy and with relevance for the banking system. As part of its cooperation with the European Central Bank (ECB), Narodowy Bank Polski took part in issuing opinions on the ECB's draft positions to proposals of EU legislation and draft legal acts of individual EU Member States. The drafts covered in particular issues related to financial supervision, financial stability strengthening, payment services, cash circulation and digital finance.
18. In 2021, NBP representatives participated in the work of the European bodies, including the General Council of the ECB, the General Council of the European Systemic Risk Board (ESRB), the committees and working groups of the ESCB and the ESRB, the Council of ECOFIN (informal meetings), the committees and working groups of the Council of the European Union and the European Commission. The most important work focused on draft Community regulations on the functioning of the financial system, including amendments to capital requirements, digital finance, the deepening of the capital markets union and completing the establishment of the banking union. In 2021, NBP also cooperated with international economic and financial organisations, including the World Bank Group, the International Monetary Fund, the European Bank for Reconstruction and Development and the Bank for International Settlements. As a result of the general allocation of Special Drawing Rights (SDR) conducted by the IMF in 2021, the holdings of NBP's official reserve assets increased (by SDR 3.9 billion). Moreover, in 2021 NBP completed the implementation of the twinning project for the National Bank of Georgia and the first edition of the European Commission's assistance programme for the central banks of the Western Balkan countries.

19. In 2021, the average headcount at NBP was 5 full-time posts higher than in 2020 and amounted to 3,360 full-time posts. This increase was due, among others, to the extension of tasks in cybersecurity.
20. The financial result of NBP for 2021 amounted to PLN 11.0 billion. Its level was primarily affected by: a positive result on foreign exchange gains/losses and gold prices (PLN +19.4 billion), a positive result on monetary policy (PLN +1.1 billion), a negative result on the management of foreign exchange reserves (PLN -1.7 billion), operating expenses and depreciation and amortization expenses (PLN -1.4 billion) and expenses on transfer to the FX risk provision (PLN -6.6 billion), with the latter item being required by the Act on NBP.

Chapter 1

Governing bodies of NBP

Governing bodies of NBP

According to the Constitution of the Republic of Poland and the Act on Narodowy Bank Polski, the governing bodies of NBP comprise the Governor of Narodowy Bank Polski, the Monetary Policy Council and the Management Board of Narodowy Bank Polski.

1.1. Governor of Narodowy Bank Polski

In 2021, as part of his responsibilities, the Governor of Narodowy Bank Polski chaired the meetings of the Monetary Policy Council and the NBP Management Board as well as the Financial Stability Committee in its macroprudential capacity. Additionally, while representing Narodowy Bank Polski and the Republic of Poland, the Governor of NBP attended (or was represented in) the following meetings¹ of international banking and financial institutions:

- meetings of the General Council of the European Central Bank,
- the annual meeting of the Board of Governors of the European Bank for Reconstruction and Development,
- meetings of the Boards of Governors of the World Bank Group and the International Monetary Fund,
- informal sessions of the ECOFIN,
- meetings of the General Board of the ESRB,
- meetings of the Governors of the Bank for International Settlements.

In 2021, the Governor of NBP issued 37 ordinances concerning, in particular, the definition of the method for maintaining a register of bureaux de change, a model register and the procedure for adding entries into the register. Moreover, the Governor of NBP issued 6 announcements: 5 containing uniform texts of legal acts issued by the governing bodies of NBP, and an announcement concerning the balance sheet and the profit and loss account of Narodowy Bank Polski for 2020.

In his capacity as the head of staff, the Governor of NBP participated in developing and implementing the Bank's human resources policy and supervised compliance with the work standards at NBP.

1.2. Monetary Policy Council

In 2021, the Monetary Policy Council acted in accordance with the *Monetary Policy Guidelines for 2021*. In 2021, the MPC held 14 meetings (including 11 decision-making meetings), adopting 15 normative resolutions and one non-normative resolution. MPC resolutions were published in Monitor Polski (Official Gazette) and Dziennik Urzędowy Narodowego Banku Polskiego (Official Journal of Narodowy Bank Polski).

In 2021, the Monetary Policy Council adopted 3 resolutions on the reference rate, the interest rate on refinancing loans, the interest rate on term deposits, and the rediscount rate and

¹ Due to the COVID-19 pandemic the majority of events (meetings, conferences, training sessions, etc.) described in this Annual Report were conducted remotely.

the discount rate on the bills of exchange at Narodowy Bank Polski (Table 1.1). It also adopted one resolution amending the resolution on the required reserve ratio for banks, credit unions and the National Association of Credit Unions and the level of interest rate on the required reserve (Table 1.2).

Table 1.1. NBP interest rates as at the end of 2020 and 2021 (in %)*

Reference rate		Lombard rate		Deposit rate		Rediscount rate		Discount rate	
31.12.2020	31.12.2021	31.12.2020	31.12.2021	31.12.2020	31.12.2021	31.12.2020	31.12.2021	31.12.2020	31.12.2021
0.10	1.75	0.50	2.25	0.00	1.25	0.11	1.80	0.12	1.85

* On 7 April 2022 (the effective date of the MPC resolution) the MPC raised the reference rate to 4.50%, the lombard rate to 5.00%, the deposit rate to 4.00%, the rediscount rate to 4.55% and the discount rate to 4.60% (the NBP rates as at the approval of the *Report on NBP Operations in 2021*).

Source: NBP data.

Table 1.2. Required reserve ratios and the interest rate on the required reserve funds as at the end of 2021*

Required reserve ratio / interest rate on the required reserve funds	In %	In force as of
The required reserve ratio on funds in Polish zloty and funds in foreign currency deposited on bank accounts and on funds received in respect of issue of securities	2.00	30.11.2021
The required reserve ratio on funds received from repo and sell-buy-back transactions, as well as funds received for the duration of at least 2 years	0.00	1.03.2018
The interest rate on the required reserve funds deposited on current accounts or reserve requirement accounts by banks, credit unions and the National Association of Credit Unions**	1.75	9.12.2021

* On 8 February 2022 the MPC raised the required reserve ratio from 2.00% to 3.50%, starting from the required reserve ratio maintained from 31 March 2022 onwards. On 7 April 2022 (the effective date of the MPC resolution) the Council raised the interest rate on the required reserve funds to 4.50%, i.e. the level of the reference rate, which determines the interest on the basic open market operations conducted by NBP (the required reserve ratio and the interest rate on the required reserve funds as at the approval of the *Report on NBP Operations in 2021*).

** 1.0 of the reference rate.

Source: NBP data.

The other resolutions adopted by the MPC in 2021 concerned:

- the National Strategy for Cash Circulation Security,
- the approval of the annual financial statements of Narodowy Bank Polski as at 31 December 2020,
- the approval of the *Report on Monetary Policy Implementation in 2020*,
- the evaluation of the activities of the NBP Management Board regarding the implementation of the monetary policy guidelines for 2020,
- the approval of the *Report on NBP Operations in 2020*,
- the approval of the updated *Financial Plan of Narodowy Bank Polski for 2021*,
- the setting of the monetary policy guidelines for 2022,
- the approval of the *Financial Plan of Narodowy Bank Polski for 2022*,
- amendments to the resolution on the MPC rules,
- selecting a certified auditor to audit the annual Financial Statements of Narodowy Bank Polski for the years 2021 and 2022.

With regard to Article 23(1)(1) of the Act on Narodowy Bank Polski, the MPC adopted the following documents:

- the *Balance of Payments of the Republic of Poland for 2020 Q3 and Q4 and for 2021 Q1 and Q2*,
- the *International Investment Position of Poland in 2020*,
- the *Forecast of the Balance of Payments of the Republic of Poland for 2022*,
- the *Opinion on the 2022 Draft Budget Act*.

The Council also examined inflation and GDP projections and adopted three *Inflation Reports* (in March, July and November).

In 2021, due to the COVID-19 pandemic, the participation of the MPC members in conferences, seminars and meetings with Polish and foreign institutions was limited. MPC members participated, among others, in:

- the meeting with the mission of IMF representatives as part of the annual review of the Polish economy,
- the Visegrád Group Central Bank Governors' conference,
- the National Economic Summit *State – Economy – Security. Pillars of the Polish Economy of the Future*,
- the 22nd Financial Management Conference.

1.3. Management Board of Narodowy Bank Polski

Pursuant to the Act on Narodowy Bank Polski, the activity of NBP is directed by its Management Board. The Management Board adopts resolutions on matters which are not the exclusive competence of other bodies of NBP and implements the MPC-adopted resolutions. In 2021, the NBP Management Board performed its basic responsibilities in accordance with the *Monetary Policy Guidelines for 2021*, the *Narodowy Bank Polski Plan of Activity for 2021–2023* and the *Financial Plan of Narodowy Bank Polski for 2021*.

The NBP Management Board examined draft resolutions and other materials to be discussed at the MPC meetings.

In 2021, the NBP Management Board addressed the issues concerning:

- inflation and GDP projections,
- current macroeconomic developments in Poland, including the path of inflation processes, the position of public finance, the economic situation of enterprises and households and the developments in the labour, real estate, financial, credit and foreign exchange markets,
- current developments in the world financial markets, including the euro area financial markets and the financial markets of Central and Eastern European countries,
- financial system stability in Poland, including the assessment of the functioning of the banking system and the outlook for its development,
- banking sector liquidity and monetary policy instruments,
- the situation in the interbank market and open market operations.

The NBP Management Board also discussed topics concerning the issue of currency, the management of official reserves and the functioning of the Polish payment system.

Due to the persistence of the COVID-19 pandemic in 2021, the NBP Management Board carried out ongoing monitoring of the Polish financial system and the Polish economy. It took decisions on applying appropriate measures aimed at mitigating the negative effects of the pandemic on the domestic banking system and the economy, and maintaining stability of the Polish currency.

In 2021, the NBP Management Board held 55 meetings. It adopted 92 resolutions (including: 68 normative acts and 24 non-normative acts)² and 128 management resolutions.

The resolutions adopted by the NBP Management Board were primarily related to:

- the procedure and detailed rules for banks submitting to Narodowy Bank Polski the data necessary for determining monetary policy and for the periodic assessments of the monetary situation of the state, as well as the assessment of the financial situation of banks and the risks for the banking sector,
- the procedure and detailed rules for banks submitting to Narodowy Bank Polski the data necessary for the preparation of Poland's balance of payments and international investment position,
- the terms and conditions of sale by Narodowy Bank Polski of coins, banknotes and numismatic items for collection and other purposes,
- cash and vault operations at Narodowy Bank Polski,
- the rules for determining the issue of collector banknotes by Narodowy Bank Polski, approving their graphic designs and production patterns and taking decisions on launching their production,
- the rules on the gratuitous transfer by Narodowy Bank Polski of values intended for hospitality, promotional, exhibition, scientific and research purposes and other purposes related to its issuing activities,
- foreign currency reserves management,
- the rules of maintenance by Narodowy Bank Polski of bank accounts and model bank account agreements,
- bank fees and commissions charged by NBP,
- the rules of the management of accounting at Narodowy Bank Polski,
- functioning of the Council for Cash Transactions and the definition of its mode of operation,
- changes in the organisational rules of NBP.

The management resolutions adopted by the NBP Management Board concerned, among others:

- approving the National Strategy for Cash Circulation Security,
- further development of the credit risk management system of feeding operations,
- adopting NBP's stance on the issue of central bank digital currency and approving the report entitled *Central Bank Digital Currency*,
- developing NBP's stance concerning the draft of the European Commission implementing regulation on the designation of a statutory replacement for the CHF LIBOR,
- developing the stance of the Governor of Narodowy Bank Polski for the Supreme Court on FX housing loans,

² In accordance with Article 53 and 54 of the Act on Narodowy Bank Polski of 29 August 1997 (Journal of Laws of 2022, items 492 and 655), resolutions of the Management Board of Narodowy Bank Polski constituting normative acts are published in the Official Gazette or in the Official Journal of Narodowy Bank Polski.

- launching the SORBNET3 project for the development of a new Real-Time Gross Settlement (RTGS) system in zloty.

In addition, in 2021 the NBP Management Board prepared the NBP annual financial statements for 2020.³

1.4. Narodowy Bank Polski Plan of Activity

In 2021, the *Narodowy Bank Polski Plan of Activity for 2021–2023*, adopted by the NBP Management Board on 27 October 2020, was implemented. The *Plan* sets out NBP's goals for the forthcoming years and tasks aimed at their implementation.

In accordance with the rules for planning activity at NBP, the NBP Management Board adopted the *Narodowy Bank Polski Plan of Activity for 2022–2024*, effective as of 1 January 2022.

³ In accordance with Article 17(4)(12) of the Act on Narodowy Bank Polski.

Chapter 2

Monetary policy

Monetary policy¹

In presenting the *Report on Monetary Policy*, the Monetary Policy Council acts in accordance with Article 227 of the Constitution of the Republic of Poland, which imposes the obligation on the Council to present a report on the implementation of the guidelines within 5 months following the end of the fiscal year. In accordance with Article 53 of the Act on Narodowy Bank Polski, the *Report on Monetary Policy* is announced in the Official Gazette of the Republic of Poland, the Monitor Polski. The *Report* presents the main elements of the monetary policy strategy, a description of macroeconomic conditions and decisions taken with respect to monetary policy in the year under review, as well as a description of the monetary policy tools applied.

The *Report on Monetary Policy* in 2021 is accompanied by appendices presenting selected macroeconomic and financial data, as well as by the *Voting records of the Monetary Policy Council members on motions and resolutions* in the year the *Report* encompasses.

An ex-post assessment of the conduct of monetary policy should take into account, above all, that the decisions of monetary authorities affect the economy with a considerable lag and that they are taken amid uncertainty about future macroeconomic developments. Moreover, the economy is subject to macroeconomic shocks that – while remaining outside the control of the domestic monetary policy – may to a large extent affect economic conditions and domestic inflation developments in the short and sometimes in the medium term.

2.1. Monetary policy strategy in 2021

In 2021, the Monetary Policy Council (hereinafter the Council or the MPC) conducted monetary policy in line with the *Monetary Policy Guidelines for 2021*, adopted by resolution No. 12/2020 of 15 September 2020 on adopting the monetary policy guidelines for 2021. The main elements of the monetary policy strategy pursued in 2021 are presented below.

As in previous years, the main objective of monetary policy was to maintain price stability, while supporting sustainable economic growth and financial system stability. This way, the Council pursued the basic objectives of Narodowy Bank Polski set out in the Constitution of the Republic of Poland (Journal of Laws of 1997, item 483, as amended) and the Act on Narodowy Bank Polski of 29 August 1997 (Journal of Laws of 2022, item 492 and 655). According to Article 227 Section 1 of the Constitution of the Republic of Poland “Narodowy Bank Polski shall be responsible for the value of Polish currency”. The Act on Narodowy Bank Polski (hereinafter NBP) states in Article 3 section 1 that “the basic objective of the activity of NBP shall be to maintain price stability, while supporting the economic policy of the Government, insofar as this does not constrain the pursuit of the basic objective of NBP.”

¹ The Chapter *Monetary Policy* is the *Report on Monetary Policy for 2021*, which the Monetary Policy Council adopted at the meeting on 5 May 2022. The responsibilities in this field are exercised in pursuance with Article 3 (2)(5), Article 12, Article 16, Article 17 (3)(1) and (4)(2), Articles 23–24 and the provisions of Chapter 6 of the Act on Narodowy Bank Polski.

The Council pursued the price stability objective by using an inflation targeting strategy. Under this strategy, since 2004 the monetary policy objective has been to keep inflation – understood as the annual change in the consumer price index – at 2.5%, with a symmetric band of deviations of ± 1 percentage points in the medium term. In countries pursuing the inflation targeting strategy, inflation is lower, on average, than in other countries. In the 2004–2021 period, the average inflation in Poland amounted to 2.3%, thus it was close to the NBP target and remained within the symmetric band for deviations, although in some years price growth strayed outside the band (Table 2.1).

Table 2.1. Annual consumer price growth (CPI, %, y/y)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
CPI	3.5	2.1	1.0	2.5	4.2	3.5	2.6	4.3	3.7	0.9	0.0	-0.9	-0.6	2.0	1.6	2.3	3.4	5.1

Source: Statistics Poland data.

The medium-term nature of the inflation target means that – due to macroeconomic and financial shocks – inflation may temporarily deviate from the target and even run outside the band for deviations from the target. The response of monetary policy to shocks is flexible and depends on their causes and the assessed persistence of their consequences, including the impact on inflation developments. Each time inflation deviates from the target, the Council flexibly determines the desirable time necessary to bring it back to the target, as bringing inflation rapidly back to the target may entail significant costs to macroeconomic and financial stability.

The monetary policy strategy pursued by the Council assumes flexibility of the instruments applied. This means that the range of instruments used by NBP can be adapted to the nature of disturbances observed in the economy and market conditions. The flexible use of monetary policy instruments is conducive to effective functioning of the transmission mechanism as well as macroeconomic and financial stability.

While taking monetary policy decisions, the Council considers the time lags in their impact on the economy. The time lag between a decision on monetary policy parameters and its peak impact on real variables (such as output or employment) and on inflation takes several quarters and may change over time. Moreover, monetary policy is conducted under uncertainty, in particular about future economic developments.

Stabilizing inflation at a low level is an important, yet insufficient condition to maintain macroeconomic stability, which, in turn, supports price stability in the long term. In particular, imbalances in the financial sector pose a threat to long-term price stability. Bearing this in mind, in 2021 the Council conducted monetary policy in a way that supported the stability of the financial system and mitigated the risk of imbalances building up in the economy by taking into account in its decisions the development of asset prices (including real estate prices) and growth in lending. Given the free movement of capital and highly integrated financial markets, macroprudential policy played a significant role in containing macroeconomic and financial imbalances as well as in stabilising lending growth.

Besides monetary and macroprudential policy, fiscal policy plays an important role in maintaining macroeconomic stability. A fiscal policy which mitigates the impact of economic shocks, while ensuring long-term stability of public finance, is necessary to maintain macroeconomic stability.

In 2021 – as in previous years – the Council implemented the inflation targeting strategy under the floating exchange rate regime. The floating exchange rate regime did not rule out interventions in the foreign exchange market whenever it would be necessary to ensure the country's macroeconomic and financial stability.

2.2. Monetary policy and macroeconomic developments in 2021

In 2021, monetary policy parameters, including the level of the NBP interest rates, were adjusted according to the situation in the economy, with a view to ensuring price stability while supporting sustainable economic growth and the stability of the financial system. The Council's monetary policy decisions were made on the basis of available information, taking into account the assessment of the causes and persistence of the shocks affecting inflation processes, and the assessment of the sustainability of the economic recovery after the pandemic recession.

In the first quarters of 2021, the Polish economy was recouping the pandemic losses, yet successive waves of the COVID-19 pandemic and uncertainty about its future course continued to affect the economic conditions, constituting a significant risk factor for the sustainability of the economic recovery. At the same time, at the beginning of 2021 inflation was running at levels consistent with the NBP target, although in the subsequent quarters – similarly to developments in other countries – price growth accelerated gradually. The increase in inflation was primarily driven by factors beyond the control of domestic monetary policy, including mainly higher international commodity prices and global supply chain disruptions – coupled with regulatory factors, such as substantial rises in waste disposal charges or higher electricity prices. Given the nature of most drivers of price growth, the assessment in the first three quarters of 2021 was that after a temporary rise in 2021 inflation would subside in 2022. This was indicated by available forecasts, including forecasts by NBP, international institutions and market analysts.

Against this background, in 2021 Q1–Q3, the Council kept the NBP interest rates unchanged. NBP also continued the remaining measures taken in 2020 in response to the outbreak of the pandemic. In view of the external and supply-related nature of most factors boosting inflation, the assessed temporary nature of the accelerated price growth, and given the persistent uncertainty about the impact of the pandemic on the economy, this stance was consistent with the *Monetary Policy Guidelines for 2021*. According to the *Monetary Policy Guidelines*, inflation – due to macroeconomic and financial shocks – might temporarily run above or below the target, including beyond the band for deviations from the target. In this way, monetary policy supported the recovery from the pandemic recession, while striving to maintain price stability in the medium term.

The macroeconomic environment for monetary policy conduct changed significantly in the final months of 2021. Global markets saw a new surge in commodity prices, mainly energy, as well as agricultural commodity prices. In addition, global supply chains disruptions

persisted. As a consequence, inflation forecasts for the coming quarters were revised up significantly, which increased the risk of inflation staying above the NBP inflation target in the monetary policy transmission horizon. At the same time, incoming information indicated that Poland's GDP had surpassed the pre-pandemic level and the ongoing economic recovery was unlikely to suffer significantly from another wave of the pandemic.

In view of such conditions, in 2021 Q4 the Council raised the NBP interest rates three times and increased the required reserve ratio. Simultaneously, bond purchases under structural open market operations were terminated at the end of 2021. The monetary policy tightening was consistent with the Monetary Policy Guidelines for 2021 and was aimed at bringing inflation down to the NBP target in the medium term, while supporting sustainable economic growth.

NBP monetary policy measures in 2021

Until September 2021,² the Council kept the NBP interest rates unchanged, including the reference rate at 0.10%. At its meetings on 6 October, 3 November and 8 December 2021, the Council raised interest rates, including the reference rate, by a total of 1.65 percentage points (from 0.10% to 1.75%; Table 2.2). On 6 October 2021, the Council also decided to increase the required reserve ratio from 0.5% to 2.0%.

Table 2.2. NBP interest rates at the end of the respective months of 2021 (in %)

Month	Reference rate	Lombard rate	Deposit rate	Rediscount rate	Discount rate
January	0.10	0.50	0.00	0.11	0.12
February	0.10	0.50	0.00	0.11	0.12
March	0.10	0.50	0.00	0.11	0.12
April	0.10	0.50	0.00	0.11	0.12
May	0.10	0.50	0.00	0.11	0.12
June	0.10	0.50	0.00	0.11	0.12
July	0.10	0.50	0.00	0.11	0.12
August	0.10	0.50	0.00	0.11	0.12
September	0.10	0.50	0.00	0.11	0.12
October	0.50	1.00	0.00	0.51	0.52
November	1.25	1.75	0.75	1.30	1.35
December	1.75	2.25	1.25	1.80	1.85

Source: NBP data.

Until November 2021, NBP also conducted structural open market operations involving purchases of government bonds and government-guaranteed debt securities in the secondary market. The scale of the purchases during 2021 was adjusted to market conditions (see Chapter 3), and in December the purchases were terminated.

² Meetings of 13 January, 3 February, 3 March, 7 April, 5 May, 9 June, 8 July and 8 September 2021.

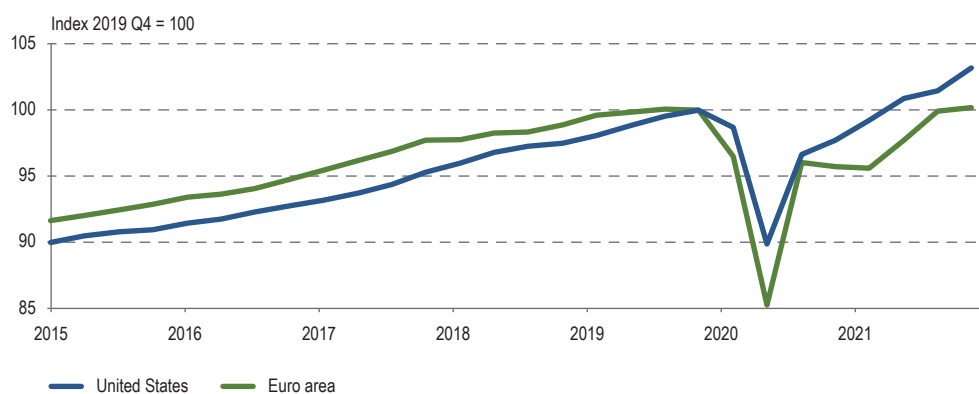
The following section provides further information on the macroeconomic context of the Council's decisions in 2021. Changes in macroeconomic developments, as well as the resulting monetary policy decisions, are presented in two sub-periods, i.e. 2021 Q1–Q3 and 2021 Q4.

Monetary policy and macroeconomic developments in 2021 Q1–Q3

In the first three quarters of 2021, the global economy continued to recover, although the pace of the recovery varied across economies. At the same time, the pandemic persisted, and the risks related to the successive waves of infections intensified periodically. This was accompanied by a gradual increase in inflation, which to a large extent resulted from negative supply shocks, and, in Poland – from regulatory factors. However, the spike in inflation during this period was assessed as temporary.

In early 2021, the global pandemic situation was difficult. In the following months, there were also reoccurring surges in coronavirus infections, although their scale varied between regions. By mid-year, the progressive vaccination programmes had helped improve the pandemic situation temporarily in major economies, although the spread of the Delta variant of the coronavirus triggered a new increase in infections in July and August. In effect, some countries decided to introduce restrictions for non-vaccinated people and restore some of the earlier restrictions.

Figure 2.1. Real GDP volume in the United States and the euro area



Source: OECD data, NBP calculations.

Data from early 2021 confirmed a significant negative impact of the pandemic on economic activity in some economies.³ In the euro area, GDP declined in 2020 Q4 and 2021 Q1 (both in quarterly and annual terms; Figure 2.1). In 2021 Q2, as the epidemic restrictions were gradually lifted, economic activity in the euro area picked up substantially, although GDP remained markedly lower than before the pandemic. At the same time, in the United States economic conditions were improving further, and by 2021 Q2 the US economy had made up for the pandemic losses.

³ With regard to some macroeconomic data, statistical offices first release preliminary estimates which may be later revised. Chapter 2 presents data available until 22 April 2022 (whereas at some meetings only preliminary estimates were available to the Council).

Figure 2.2. Brent oil price



Source: NBP data.

Figure 2.3. Natural gas and coal prices



Note: natural gas prices refer to prices of ICE UK Natural Gas Futures Europe. USD/t – price expressed in US dollar per metric tonne. USD/MMBtu – price expressed in US dollar per million of so-called British Thermal Units.

Source: Bloomberg data, NBP calculations.

The ongoing global recovery in the first quarters translated into a gradual increase in commodity prices, notably those of energy commodities, which in some cases was amplified by the producers’ policy of limiting the increase in the supply of those commodities.⁴ As a result, the annual growth in oil and natural gas prices picked up sharply (until January 2021 the annual growth in the price of Brent oil was negative, while in April it hit more than 140%; Figure 2.2; in turn, the annual growth in natural gas prices was close to 300% in April, exceeding 500% in May⁵; Figure 2.3). By mid-June, oil prices had stabilised temporarily and even declined slightly over July and August, which was in part driven by the decision of OPEC+ countries to relax restrictions on oil extraction, and concerns about economic activity in Asia related

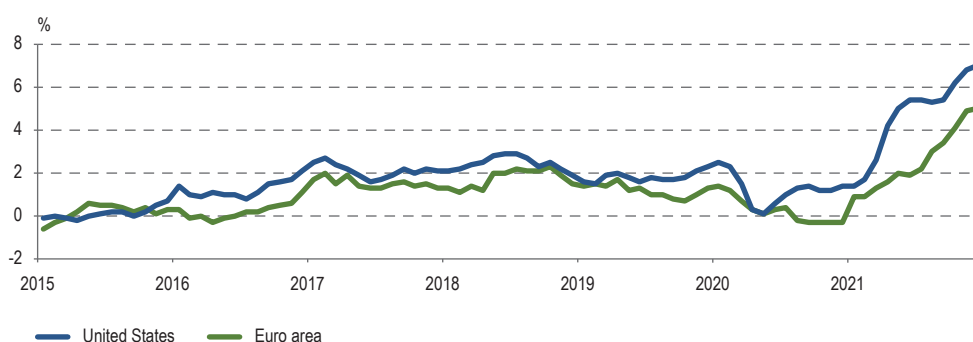
⁴ In the case of oil, supply was restrained due to keeping the production limits by countries associated in the Organisation of the Petroleum Exporting Countries (OPEC) and some other countries which cooperate with this organisation, further referred to as OPEC+. At the same time, oil extraction in the United States also remained lower than before the pandemic.

⁵ The prices of natural gas contracts for delivery in the UK, expressed in US dollars, are taken into account.

to the spread of the Delta variant of the coronavirus in that region. Nevertheless, due to the low base effects of the previous year, oil prices continued to add to global inflation growth. At the same time, prices of natural gas and coal were rising sharply in global markets (Figure 2.3).⁶ Growth in prices of agricultural commodities also accelerated (Figure 2.11), which was primarily due to the highly adverse weather conditions observed in key areas for some crops in the summer.

As a result, while in early 2021 global price growth remained relatively low (in the first months, inflation was below 2%, both in the euro area and in the United States), in the following months it accelerated and ran at elevated levels. By mid-2021, inflation in the United States was close to 5%. Also in the euro area, inflation rose considerably relative to early 2021 (it stood at 3% in August; Figure 2.4). Apart from the situation in the global markets for energy and agricultural commodities, this was also related to supply disruptions, which – particularly amidst the presence of pent-up demand – translated into price increases for some industrial goods. In 2021, international shipping costs also increased substantially, which further boosted prices of many goods (Figure 2.12). Yet, these factors were assessed to drive up prices merely temporarily. This was particularly evident in forecasts, according to which the considerable revisions of inflation expected in 2021 were accompanied by relatively insignificant corrections to the 2022 inflation forecasts.

Figure 2.4. CPI inflation in the United States and the euro area (y/y)



Note: The United States – annual CPI inflation. The euro area – annual HICP inflation.

Source: Bureau of Labor Statistics and Eurostat data.

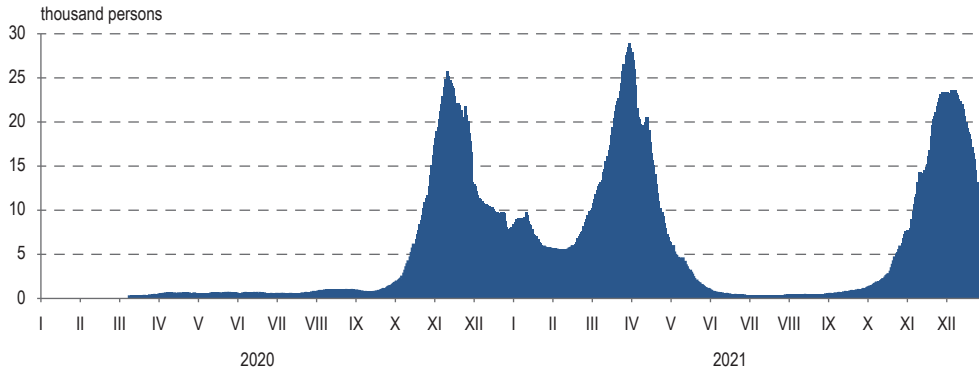
Amid uncertainty about the pandemic situation and its impact on the sustainability of the economic recovery, along with the expected decline in inflation after the factors temporarily boosting it have faded, the major central banks kept to expansionary monetary policy and signalled its continuation in the future (Figure 2.13). The ECB maintained a negative deposit rate of -0.50%. The ECB also continued asset purchases,⁷ stepping up their pace in 2021 Q2.

⁶ The annual growth in gas prices was close to 500% in June and around 600% in July. The very strong increase in natural gas prices in Europe was the effect of low stocks of this commodity following the cold winter and the reduced supply of gas from Russia. The increase in the prices of coal, in turn, was caused by the fact that high natural gas prices boosted its relative cost efficiency in electricity production.

⁷ In 2021, the ECB continued its Asset Purchase Programme, further called APP, and the Pandemic Emergency Programme, further called PEPP. The ECB also continued to conduct the Targeted Longer-Term Refinancing Operations, further called TLTRO and the Pandemic Emergency Longer-Term Refinancing Operations, further called PELTRO.

In turn, the Federal Reserve also kept interest rates unchanged (the target band for the fed funds rate remained at the level of 0.00–0.25%) and continued asset purchases.

Figure 2.5. Daily new cases of COVID-19 in Poland

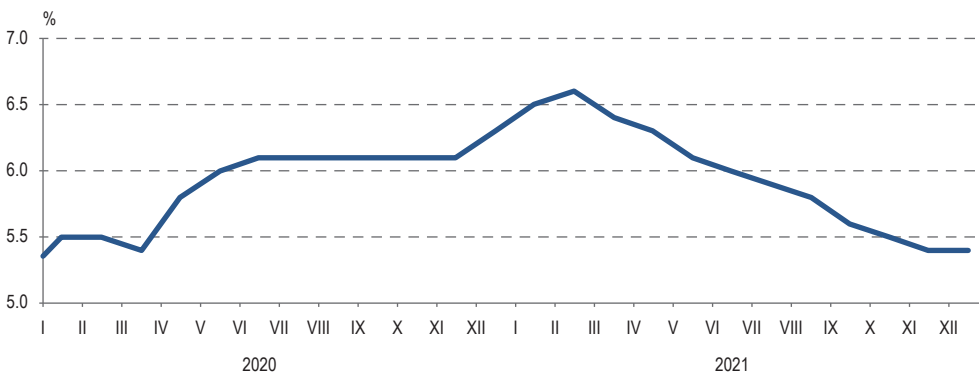


Note: The graph depicts 7-day rolling average of new cases.

Source: Ministry of Health data, NBP calculations.

Following a temporary improvement in the epidemic situation in Poland in early 2021, a new surge in infections was observed in February–April (Figure 2.5), which resulted in a renewed tightening of restrictions. Yet, in May, amid a marked acceleration in vaccinations, a gradual easing of restrictions started. In summer, the relatively good epidemic situation continued, although the spread of the Delta variant of the coronavirus posed a risk factor.

Figure 2.6. Registered unemployment rate in Poland



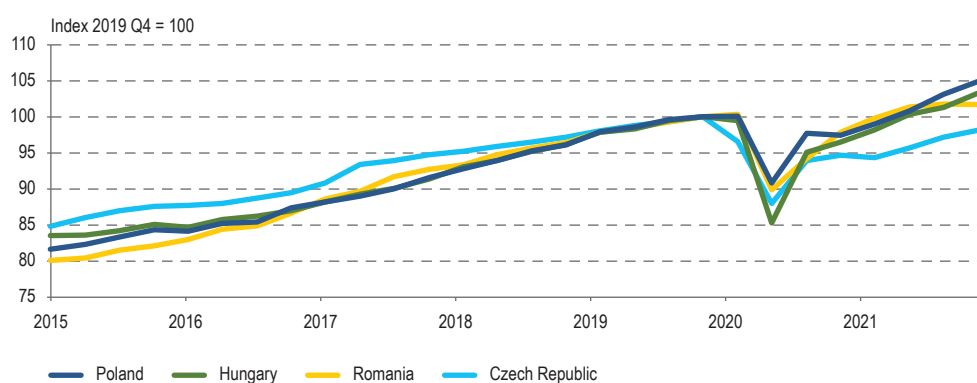
Source: Statistics Poland data.

Available data showed that after the economic slowdown in Poland in 2020 Q4 – which occurred on the back of the autumn surge in infections and the restrictions then introduced, with GDP declining both in quarterly and annual terms (-0.1% q/q and -2.1% y/y⁸) –

⁸ Factors with a downward effect on activity included a decline in consumption and lower investment. Simultaneously, incoming monthly data pointed to a relatively better situation in industry than in other sectors.

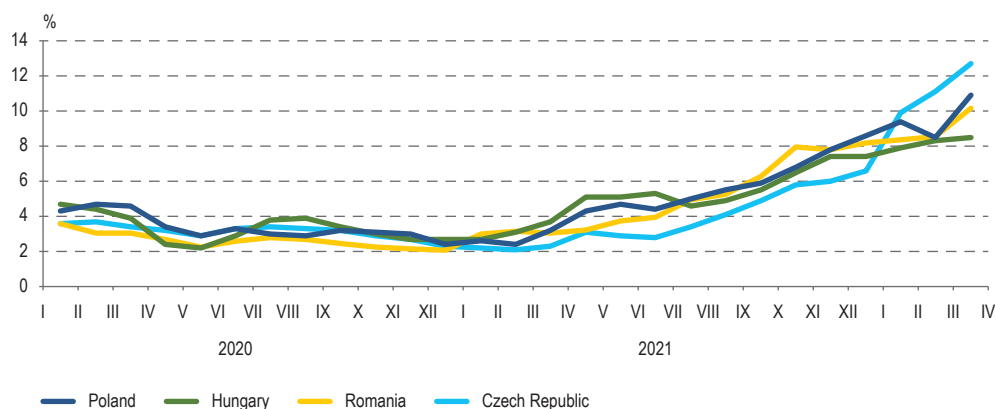
at the start of 2021 the economy returned on the recovery path. In 2021 Q1, there was a rise in GDP in quarterly terms, while the level of GDP remained lower than a year before (1.7% q/q and -0.6% y/y; Figure 2.7). Moreover, data for the first months of 2021 showed that employment in the corporate sector was lower than before the pandemic. Wage growth was accelerating, which – apart from the ongoing recovery – was supported by the base effect. In turn, the unemployment rate was still elevated (Figure 2.3). Simultaneously, the situation in the labour market continued to be eased by wage subsidies for some employees and by standstill benefits.

Figure 2.7. Real GDP volume in the Central and Eastern European countries



Source: OECD data, NBP calculations.

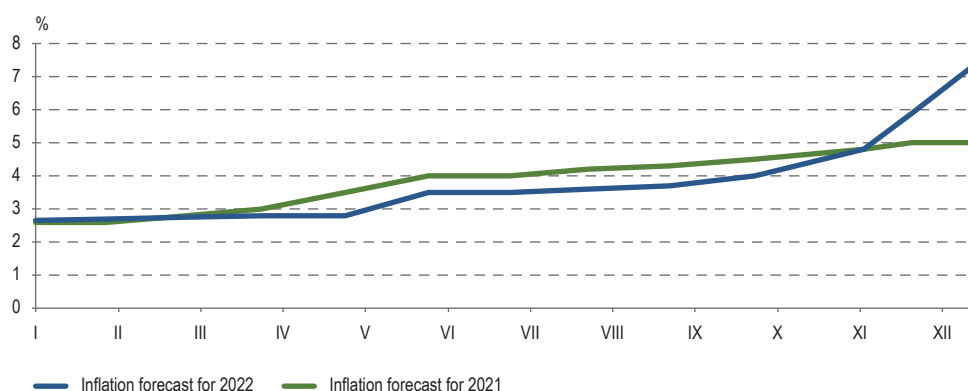
Figure 2.8. CPI inflation in Poland, the Czech Republic, Romania and Hungary (y/y)



Source: NBP data.

In 2021 Q2, Poland's GDP increased both in quarterly and annual terms (1.9% q/q and 11.3% y/y; Figure 2.7). The main factor supporting the activity rebound was a steep rise in consumption, and – to a smaller degree – investment. Incoming data for the first months of 2021 Q3 pointed to continued activity growth. Despite a gradual improvement, labour market conditions remained weaker than before the pandemic, as was particularly demonstrated by the persistently elevated, although gradually declining, unemployment rate. At the same time, some employees in industries most affected by the earlier restrictions were still under the wage subsidy programme provided as part of the anti-crisis support.

Figure 2.9. Median forecast of the analysts surveyed by Refinitiv during 2021 regarding inflation in Poland in 2021 and 2022



Source: Refinitiv data.

At the beginning of the year, inflation was in line with the NBP inflation target,⁹ but increased gradually in the subsequent months (Figure 2.8).¹⁰ This increase resulted largely from the rise in oil prices¹¹ and in the prices of agricultural commodities in the global markets, which translated into higher domestic prices of fuels and food. The increase in companies' operating costs – due to the pandemic – and in international shipping costs (Figure 2.12) combined with disruptions in global supply chains, also added to inflation. Apart from factors of a global nature, inflation was also boosted by regulatory factors, i.e. factors, which – like commodity prices – were beyond the scope of domestic monetary policy (including higher waste disposal charges and electricity prices). At the same time, core inflation net of food and energy prices was stable in the period under consideration (in July 2021 it stood at 3.7% as against 3.9% in January 2021).

The forecasts available in the first quarters of 2021 projected a continuation of economic recovery accompanied by a drop in inflation in 2022 (Table 2.3), with the future global and domestic pandemic developments, along with their impact on the economic recovery, still remaining a significant factor of uncertainty. The scenario of lower inflation in the following year was indicated by the NBP projections, forecasts of international institutions and market analysts (Figure 2.9). They signalled that the rise in price growth observed in 2021 should be temporary, and inflation in 2022 was to be lower than in 2021.

Against the background of an inflation increase largely caused by factors beyond the impact of monetary policy, which according to available information was assessed as temporary, and at the same time taking into account high pandemic-related uncertainty about the sustainability of the economic recovery, the Council kept the NBP interest rates unchanged in that period (Figure 2.11). NBP also continued the remaining measures taken in 2020 in response to the outbreak of the pandemic. This stance was in line with the *Monetary Policy*

⁹ Inflation in January 2021 amounted to 2.6% and in February to 2.4%.

¹⁰ Inflation in March grew to 3.2%, in April to 4.3% and in May to 4.7%. In June, inflation declined to 4.4%, and subsequently rose in July to 5.0% and in August to 5.5%.

¹¹ While in January 2021 fuel prices were 7.4% lower than a year before, in May their growth accelerated to 33.0%.

Guidelines for 2021, as in this way monetary policy supported the recovery from the pandemic recession, while striving to maintain price stability in the medium term.

Table 2.3. Inflation forecasts in Poland (in %)

Date of forecast publication	In 2021	In 2022
International Monetary Fund		
June 2021	3.2	2.5
October 2021	4.4	3.3
OECD		
May 2021	3.8	3.3
December 2021	4.8	6.2
European Commission		
February 2021	2.3	2.9
May 2021	3.5	2.9
July 2021	4.2	3.1
November 2021	5.0	5.2
NBP projection of inflation		
March 2021	3.1	2.8
July 2021	4.2	3.3
November 2021	4.9	5.8

Note: European Commission's forecast concerns HICP inflation, other forecasts concern CPI inflation.

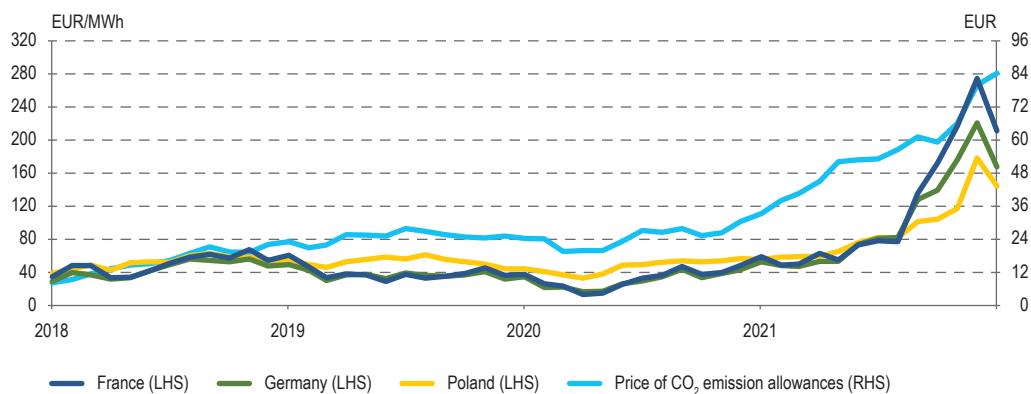
Source: IMF, OECD, European Commission, and NBP data.

Monetary policy and macroeconomic developments in 2021 Q4

In 2021 Q4, the conditions for monetary policy conduct changed significantly. Despite the ongoing pandemic, incoming data pointed to a consolidation of economic recovery abroad and in Poland, and a declining risk of the successive waves of the infections having a strong impact on economic conditions. At the same time, further severe price shocks occurred in the commodity markets, significantly bolstering costs and prices in most countries, and also resulting in substantially upward revisions of inflation forecasts for the following quarters.

In 2021 Q4, the pandemic situation around the world was still difficult. After a decline in earlier months, there was an increase in infections in October and November. The aggravated epidemic situation was particularly marked in European countries. However, owing to the high vaccination rates in those countries, the death toll was smaller than before, and restrictions introduced in most countries were milder. In turn, from the end of November, the emergence of the Omicron variant of the coronavirus became a new risk factor to the epidemic situation.

Despite the new wave of the pandemic, the recovery continued in the global economy. Euro area data pointed to accelerated recovery in 2021 Q3, although the GDP level was still lower than before the pandemic (Figure 2.1). At the same time, incoming data suggested a slowdown in 2021 Q4, due to the deteriorating epidemic situation and a tightening of restrictions, which had a negative impact on consumption. In turn, robust GDP growth continued in the United States throughout 2021 Q3 and Q4.

Figure 2.10. Wholesale electricity prices in the EU and prices of CO₂ emission allowances

Source: Refinitiv data, NBP calculations.

At the same time, prices of energy commodities in global markets rose rapidly starting from September, this concerned in particular natural gas and coal prices (between the September and October meeting of the Council, prices of natural gas rose by more than 110%, and of coal by 60%; Figure 2.3). The steep increase in natural gas prices in Europe was the effect of low stocks of this commodity following the cold winter and the limited supply of gas from Russia.¹²

Higher gas prices contributed to a sharp increase in electricity prices in the European market, which also boosted its production from coal. In effect, global coal prices embarked on a steep upward path. Electricity price growth in Europe was additionally amplified by the further significant increase in the prices of carbon dioxide emissions, which in 2021 Q4 reached the highest levels on record (Figure 2.10). The rise in the prices of CO₂ emission allowances was related to the tightening of the EU climate policy, including an accelerated withdrawal from the market of some of the allowances for carbon dioxide emissions.

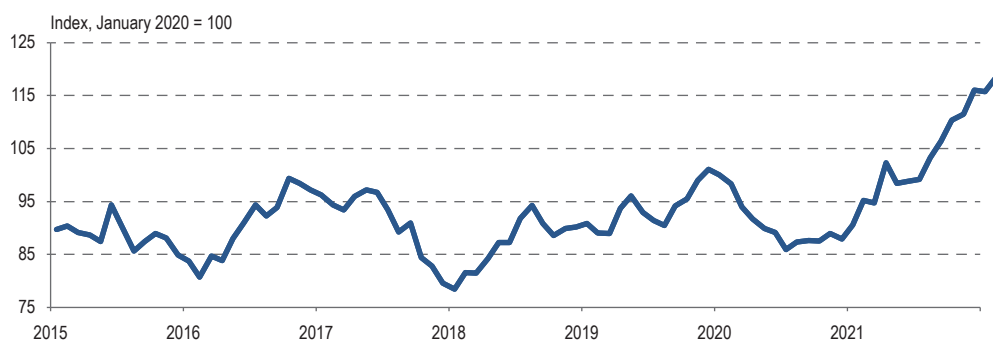
At the same time, there was a further sharp rise in the prices of agricultural commodities, causing the combined index of those prices to reach the highest level in many years (Figure 2.11). The increase was partly due to continued expectations of a lower global wheat harvest, amid high demand for the commodity. Simultaneously, disruptions in global supply chains persisted, as did the high shipping costs, causing further shortages of some goods and pushing up their prices.

In the face of such conditions, there was a further strong increase in global inflation, which in many countries hit its highest levels in decades. In the euro area, inflation rose steadily, exceeding the ECB inflation target markedly (it reached 5% in December; Figure 2.4). Consumer price growth also accelerated substantially in the United States (since October it was above 6%). At the same time, core inflation rose in many economies, supported by the improving financial situation of households and rising production and shipping costs (Figure 2.12) amid high commodity prices and prolonged disruptions in global supply chains. The accelerating current inflation was accompanied by a significant upward revision of the 2022 inflation

¹² The rise in demand for gas resulted among others from the rebound in economic activity in the EU and the use of gas as temporary fuel in the process of energy transition.

forecasts, indicating that price growth would remain elevated for longer than anticipated in previous months.

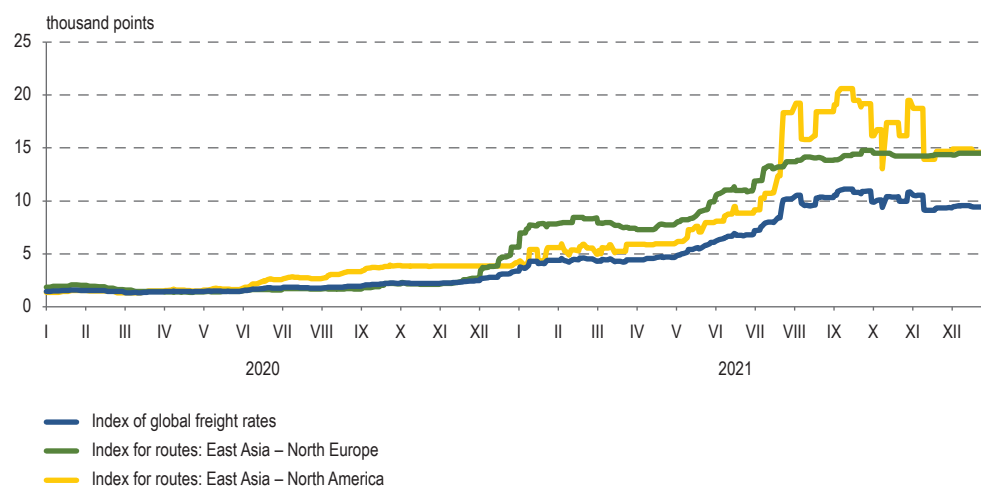
Figure 2.11. Index of agricultural commodity prices



Note: Index of agricultural prices includes prices of wheat, colza, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter and frozen concentrated orange juice. The weights reflect the consumption structure of Polish households.

Source: Bloomberg data, NBP calculations.

Figure 2.12. Freight cost indices



Note: Freight cost indices reflect daily sea freight rates on the spot market (including transport costs and other charges excluding taxes and port charges). The index of global freight rates is a weighted average of 12 indices for major shipping routes through Asia, Europe, North America, and South America.

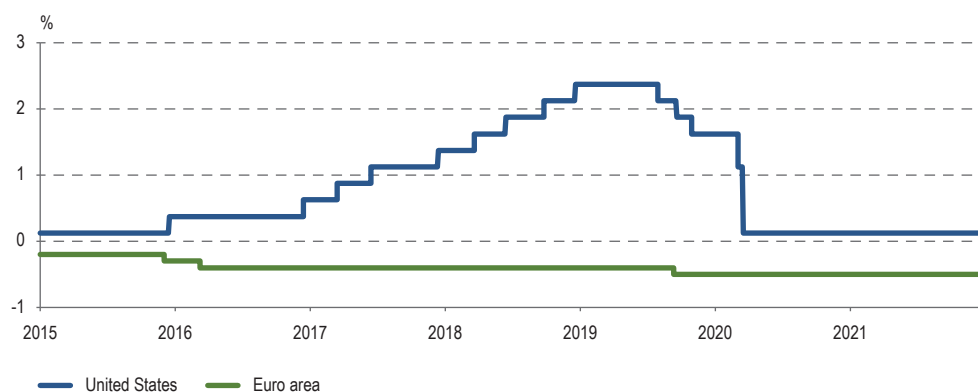
Source: Refinitiv.

Despite the marked inflation rise, the major central banks continued to pursue highly accommodative monetary policy (Figure 2.13). The ECB kept the deposit rate at -0.50% and continued its asset purchases, although in September it announced that the pace of net asset purchases in 2021 Q4 would be slightly slower than in the previous two quarters.¹³

¹³ The ECB also continued the purchase of assets under the APP along with the TLTRO and PELTRO operations.

The US Federal Reserve also kept interest rates close to zero and conducted asset purchases, though it embarked on a gradual process of reducing their pace in November.

Figure 2.13. Interest rates of selected central banks



Note: Central bank interest rate: for the United States – the midpoint of the fed funds range; for the euro area – the deposit facility.

Source: Bloomberg data.

In Poland, the pandemic situation started to deteriorate in September (Figure 2.5), yet the restrictions introduced then were milder than in the previous waves. Consequently, despite a new wave of the pandemic, incoming data pointed to a consolidation of economic recovery. Data on GDP confirmed a strong activity increase in Q3 (a rise of 2.5% q/q and 5.5% y/y; Figure 2.7), supported by rising investment and consumption. The sustained recovery in 2021 Q4 was evidenced by incoming monthly data on industrial output, construction and assembly output and retail sales.¹⁴ At the same time, the situation in the labour market continued to improve. There was further employment growth in the corporate sector, and the unemployment rate was on the downward slope, hitting levels close to the pre-pandemic ones (Figure 2.6). Wages also continued to grow robustly. Simultaneously, the anti-crisis support to the labour market was phased out.¹⁵

Like in many other countries, the economic recovery was accompanied by a substantial acceleration in price growth (Figure 2.7 and 2.8).¹⁶ Inflation growth continued to be driven mainly by the impact of external factors, independent of domestic monetary policy. In particular, the further acceleration in annual price growth was a consequence of the significantly higher global prices for energy and agricultural commodities than a year ago, with the sustained effects of previous increases in waste disposal charges and electricity prices. Higher inflation was also fuelled by higher shipping costs (Figure 2.12) and disruptions in the global supply chains. The ongoing economic recovery, including demand stimulated by rising household income, was also conducive to inflation growth. Under such circumstances, core inflation (net of food and energy prices¹⁷) grew as well.

¹⁴ GDP growth in 2021 Q4 stood at 1.6% q/q and 7.6% y/y.

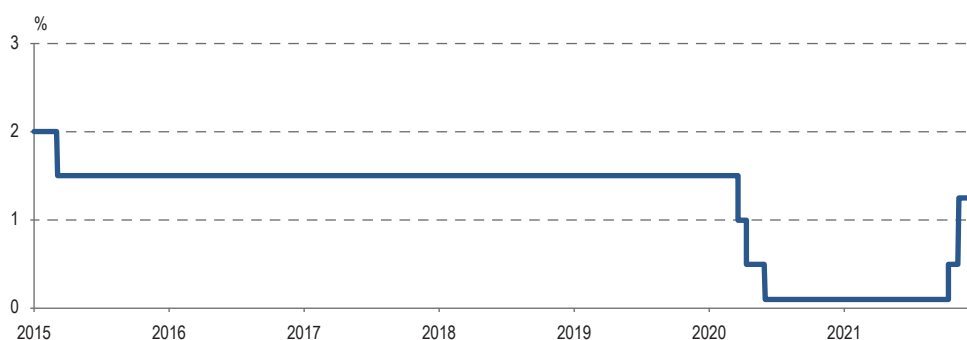
¹⁵ Benefits granted on a general basis were terminated in mid-2021, followed by the expiration of the wage subsidy for employees in the sectors most affected by the pandemic crisis in October.

¹⁶ In September, inflation amounted to 5.9%, in October 6.8%, in November 7.8%, and in December 8.6%.

¹⁷ Inflation net of food and energy prices rose from 3.9% in August 2021 to 5.3% in December.

In view of the unexpected and pronounced amplification of factors boosting current inflation, inflation forecasts for the following quarters, and especially for 2022, were also repeatedly raised (Table 2.3). A marked upward revision of the forecast 2022 inflation was indicated by the November NBP projection,¹⁸ and the forecasts of market analysts and international institutions (Figure 2.9). At the same time, most of the factors contributing to the accelerated price growth had the nature of negative supply shocks, which resulted in a downward revision of GDP growth forecasts for subsequent years, although the economic activity outlook remained favourable. As a result, the risk of inflation staying above the NBP target in the medium term increased.

Figure 2.14. NBP reference rate



Source: NBP data.

Amid the sustained recovery of domestic economic activity and the expected continuation of the favourable situation in the labour market, coupled with the likely stronger and more protracted impact of external shocks on price growth, the Council assessed that risk existed of inflation remaining elevated in the monetary policy transmission horizon. To reduce this risk, from October 2021 the Council tightened monetary policy by steadily raising the NBP interest rates. At the October meeting, the reference rate was raised by 0.40 percentage points; at the November meeting by 0.75 percentage points; and at the December meeting by 0.50 percentage points (Figure 2.14). As a result, by the end of 2021 the NBP reference rate had risen to 1.75%. At its October meeting, the Council also decided to raise the required reserve ratio from 0.5% to 2.0%. At the same time, in October and November the structural operations of secondary-market bond purchases were scaled down, and they were terminated in December. The monetary policy tightening was consistent with the *Monetary Policy Guidelines for 2021* and was aimed at bringing inflation down to the NBP target in the medium term, while supporting sustainable economic growth.

2.3. Monetary policy instruments in 2021

In 2021 NBP conducted monetary policy using instruments provided for in the *Monetary Policy Guidelines for 2021*. The instruments used were adjusted to the macroeconomic and market conditions changing during the year. In the first three quarters of 2021, NBP kept interest

¹⁸ In line with the central path of the November projection, GDP growth was expected to reach 5.3% in 2021 and 4.9% in 2022. In turn, inflation was forecast to run at 4.9% in 2021 and 5.8% in 2022.

rates and the basic required reserve ratio unchanged, and also continued to use structural operations and to offer bill discount credit, i.e. monetary policy instruments launched in 2020 in response to the COVID-19 pandemic. However, in 2021 Q4 NBP interest rates were raised, the level of the basic required reserve ratio was increased, the offer of bill discount credit to banks and structural operations were discontinued, and fine-tuning operations were relaunched.

Banking sector liquidity in 2021

In 2021, surplus liquidity in the banking sector persisted, and its level was higher than in 2020. The volume of funds at the disposal of the banking sector in excess of the required reserve averaged PLN 253,866 million in December 2021 and was PLN 70,068 million higher than in the corresponding period of 2020.¹⁹

The increase in the liquidity surplus in the banking sector in 2021 was driven primarily by the foreign currency transactions carried out by NBP, in particular, the purchase of foreign currency, mainly from the Ministry of Finance. This increase was partly limited by the NBP sales of foreign currency to the European Commission. The prevalence of NBP purchases of foreign currency over its sales resulted in an increase of PLN 59,228 million in the funds at the disposal of the banking sector in 2021 (December 2021 average compared to December 2020 average).

Another factor contributing to the higher liquidity surplus in the banking sector was the purchases of debt securities in the secondary market by NBP as part of its structural open market operations. These operations led to an increase in the level of funds at the disposal of the banking sector by PLN 38,669 million (in the same timeframe as above). Excess liquidity in the banking sector was curbed by the increase in currency in circulation observed in 2021. This factor led to a decrease in the level of funds at the disposal of the banking sector by PLN 34,912 million (in the same timeframe as above).

The decrease in the liquidity surplus in the banking sector, which took place at the end of 2021, was also the result of the increase in the basic required reserve ratio from 0.50% to 2.00%, starting from the December required reserve maintenance period. The required reserve ratio in the December maintenance period was PLN 27,931 million higher in 2021 than in the corresponding period in 2020.

A consequence of the increase in the scale of excess liquidity in the banking sector in 2021 was an increase in the average level of short-term monetary policy operations. The size of funds at the disposal of the banking sector absorbed under the above-mentioned operations (in net terms) amounted to PLN 248,850 million in December 2021 and was PLN 93,073 million (i.e. 59.8%) higher than in December 2020.²⁰

¹⁹ In this Chapter the data and calculations are presented in a format where a given month, quarter or year refers to the required reserve maintenance periods falling within that time.

²⁰ This item encompasses the following operations conducted by NBP in the years 2020–2021: main open market operations (the issuance of NBP bills), fine-tuning operations (the issuance of NBP bills with maturities shorter than the ones used in main operations, repo operations), and the NBP standing facilities.

NBP interest rates

NBP interest rates were the key instrument of monetary policy in 2021. By determining the yield on main open market operations, the NBP reference rate influenced the level of short-term market interest rates.

The NBP lombard rate determined the interest on the lombard credit offered by NBP, enabling overnight borrowing from the central bank. The NBP deposit rate determined the interest on the deposit facility, enabling placement of overnight deposits with NBP.

The discount rate determined the interest on the bill discount credit offered by NBP.

In 2021 Q4 the Council raised the NBP interest rates on three occasions. The changes took effect on the following days: 7 October 2021, 4 November 2021 and 9 December 2021. As a result of the changes, the reference rate was increased to 1.75% (from 0.10%), the lombard rate to 2.25% (from 0.50%), the deposit rate to 1.25% (from 0.00%) and the discount rate to 1.85% (from 0.12%).

As a consequence of the changes, the width of the NBP interest rate corridor, set by the levels of the NBP deposit rate and the NBP lombard rate, was widened from 50 bps to 100 bps. At the same time, the corridor was shaped in a symmetrical manner (+/-50 bps) in relation to the NBP reference rate.

Open market operations

As in previous years, the operational target of monetary policy was to keep the POLONIA rate²¹ close to the NBP reference rate. The main instrument to achieve this task was the main open market operations. By using these operations, NBP offered banks the opportunity to balance their liquidity positions during the required reserve maintenance periods, striving to ensure that liquidity conditions in the banking sector were appropriate in terms of achieving its operational target.

In 2021, the main open market operations were carried out on a regular weekly basis, in the form of issuance of NBP bills, usually with a 7-day maturity.²² By using these operations, NBP absorbed most of the excess funds at the disposal of the banking sector above the required reserve level. The yields on the individual operations equalled the level of the NBP reference rate on the day they were offered. In 2021, NBP conducted 52 main operations and the average daily volume of the NBP bills issued under main open market operations was PLN 205,511 million and was PLN 72,047 million higher than in 2020 (Figure 2.15).

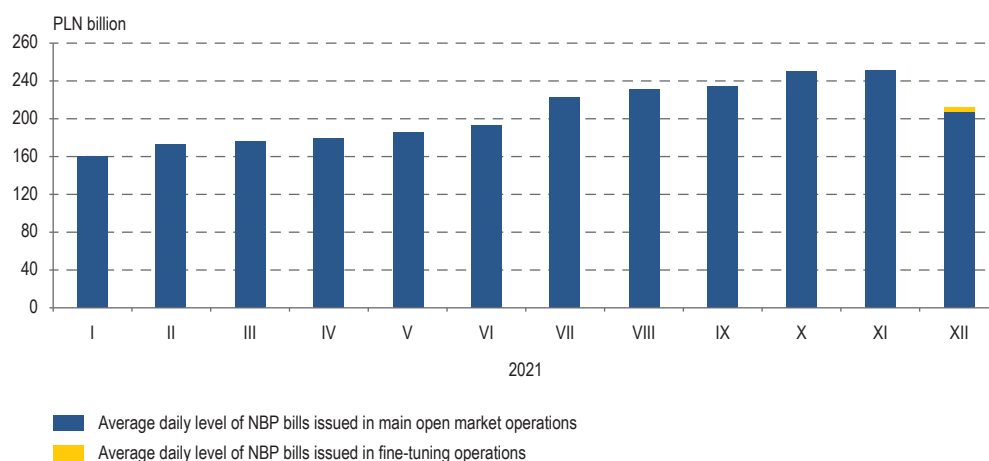
In 2021, as was the case in the majority of required reserve maintenance periods in the previous year, a significant part of funds at the disposal of the banking sector was not absorbed by the NBP main operations. This was due to banks' preferences to hold these surplus funds in

²¹ The POLONIA rate (Polish Overnight Index Average) is determined as the average (weighted by the volume of the individual transactions) of the interest rates on unsecured interbank overnight deposits concluded on a given working day until 4.30 p.m. between the Participants in the POLONIA Reference Rate Fixing.

²² Except for the main operations conducted on 31 December 2020, the maturity of which was 8 days.

instruments providing the greatest possible flexibility in liquidity management, including accounts with NBP (above the required reserve) as well as the deposit facility offered by the central bank.

Figure 2.15. Average daily level of NBP liquidity-absorbing open market operations in individual required reserve maintenance periods in 2021 (nominal value of NBP bills)



Source: NBP data.

The above-mentioned approach of banks to managing their liquidity positions was supported by the market conditions and, in particular, by the uncertainty about the development of the COVID-19 pandemic. Moreover, the relatively small difference between the interest on funds held on the current account above the required reserve and in the form of overnight deposit and the interest on funds invested in NBP bills under the open market operations (until 6 October 2021 amounting to 10 bps) also contributed to a certain extent to the greater propensity of banks to maintain additional liquidity buffers. Additionally, with the significantly lower level of the required reserve until 29 November 2021 (compared to the level before the COVID-19 pandemic), banks kept surplus funds above the required reserve level for settlement purposes.

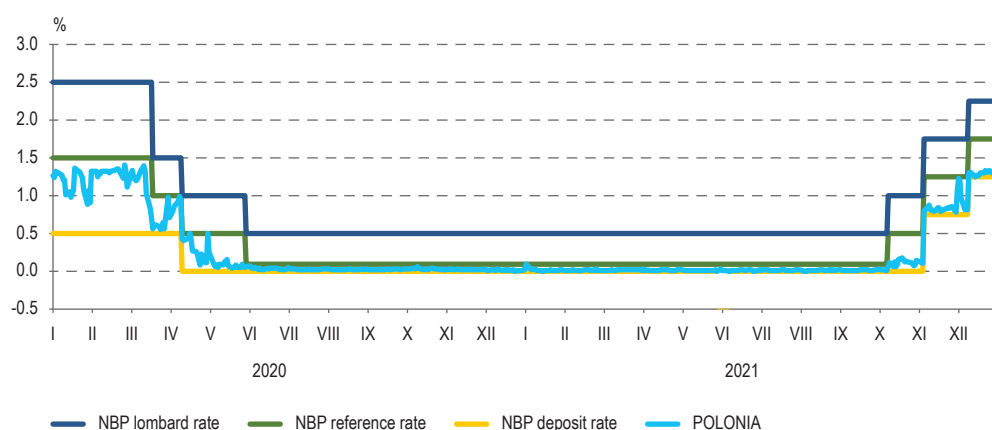
The increase in the NBP interest rates in 2021 Q4 and also the increase in the level of the basic required reserve ratio led to a decline in the funds held by banks on current accounts with NBP above the level of the required reserve, which was accompanied by an increase in the size of overnight deposits at the central bank (Figure 2.18 and 2.19).²³

The presented changes were accompanied by the resumed use of fine-tuning open market operations by NBP from December 2021, which were conducted on an ad hoc basis within the required reserve maintenance period and offered on the last working day of this period. The average daily volume of NBP bills issued in 2021 under fine-tuning operations was PLN 394 million and was PLN 842 million lower than in 2020.

²³ Funds held by banks on a current account above the required reserve level are not remunerated. In turn, the interest on the overnight deposit is determined by the NBP deposit rate, which in the period from 9 April 2020 to 3 November 2021 was 0.00%, and in the earlier and later period had a positive value.

In 2021, the deviation of the POLONIA rate from the NBP reference rate was at a similar level as that recorded in 2020. Its average daily value in absolute terms in 2021 was 16 bps, while in 2020 it was 17 bps.²⁴

Figure 2.16. NBP interest rates and the POLONIA rate in 2020–2021



Source: NBP data.

In the first three quarters of 2021 the average daily absolute deviation of the POLONIA rate from the NBP reference rate was close to that recorded in the second half of 2020, running at 9 bps. The increase in the above-mentioned deviation to 38 bps occurred in 2021 Q4, i.e. in the period in which the MPC changed the level of the NBP interest rates and during the continuing significant prudence in the management of own liquidity positions by banks, especially at the end of the year.

Besides main and fine-tuning open market operations, for a significant part of 2021 NBP continued to carry out structural operations – launched in 2020 in response to the COVID-19 pandemic – consisting of the purchase of government securities and government-guaranteed debt securities in the secondary market.²⁵

In 2021, structural operations were conducted between January and November. They were carried out on a regular basis in accordance with the dates announced in advance by NBP. The total scale of these operations in 2021 was significantly lower than in 2020. In 2021, as part of its structural open market operations, NBP purchased bonds with a total nominal value of PLN 36.9 billion in the secondary market, (compared to PLN 107.1 billion in 2020), including government bonds with a value of PLN 28.6 billion and government-guaranteed bonds with a value of PLN 8.3 billion (Figure 2.17). The level of liquidity supplied to the banking sector by these operations in the above-mentioned period was PLN 37.7 billion.²⁶ The value of the portfolio of debt securities purchased by NBP was PLN 144.0 billion as at the end

²⁴ The quoted index has been computed as the average absolute daily deviation of the POLONIA rate from the NBP reference rate (the average module of the differential) based on a 365-day year.

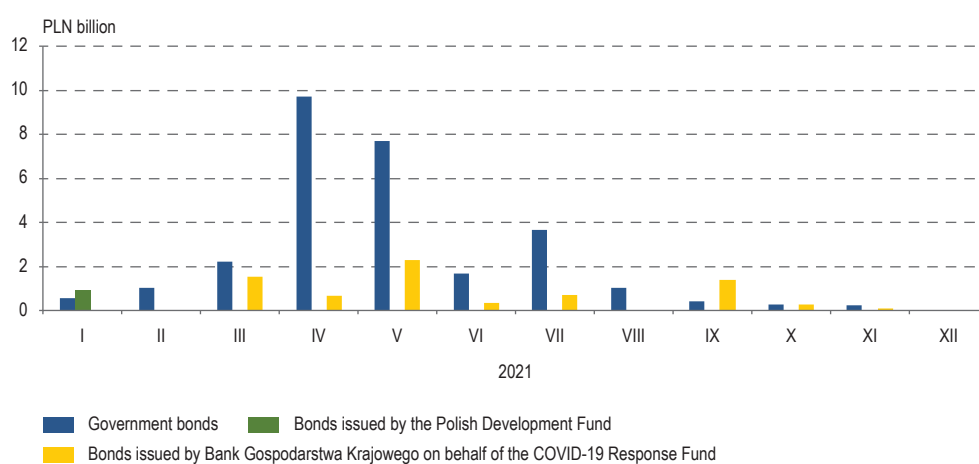
²⁵ In April 2020 the purchases were also extended to government-guaranteed bonds (bonds issued by Bank Gospodarstwa Krajowego on behalf of the COVID-19 Response Fund and bonds issued by the Polish Development Fund).

²⁶ The value of bonds purchased by NBP in the secondary market (at current prices), reflected in the liquidity provided to the banking sector (purchase amount), differed from the nominal value of these bonds.

of 2021.²⁷ In 2021, the dates and scale of the structural open market operations depended on the market conditions.

In 2021 Q4, there was a gradual reduction in scale and then discontinuation of the use of structural operations.²⁸ These activities were consistent with the direction of the monetary policy conducted by NBP in this period.

Figure 2.17. Nominal value of the bonds purchased by NBP as part of the structural open market operations in individual required reserve maintenance periods in 2021



Nominal value of the bonds calculated according to the dates of the tenders.

Source: NBP data.

Reserve requirement

The required reserve system supported the achievement of the operational target of monetary policy, stabilising short-term market interest rates. The average reserve maintenance mechanism enabled entities covered by the required reserve system the freedom to decide on the amount of funds deposited on accounts with the central bank on particular days of the reserve period, provided that the average balance of funds in the accounts with NBP is maintained at a level not lower than the required reserve level.

In 2021, banks, branches of credit institutions, branches of foreign banks operating in Poland, credit unions and the National Association of Cooperative Savings and Credit Unions were subject to the reserve requirement.

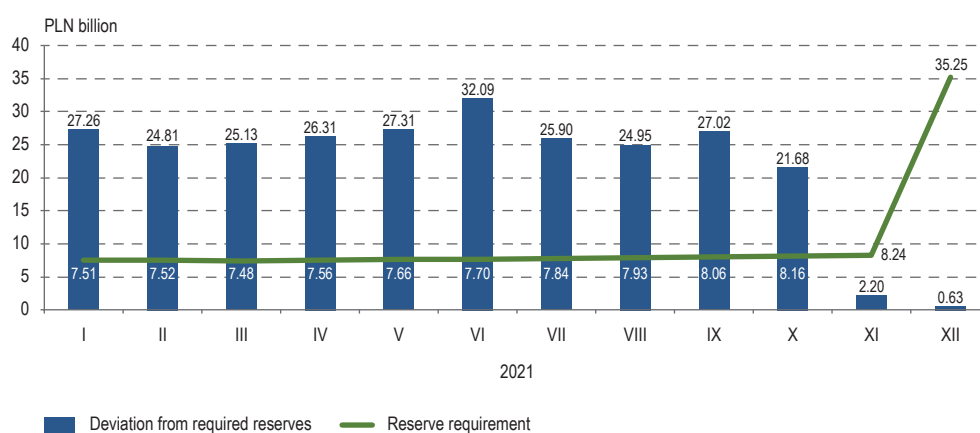
The amount of the required reserve for the December required reserve maintenance period in 2021 was PLN 35,250 million (PLN 33,062 million in the case of commercial banks, PLN 2,047 million in the case of cooperative banks, and PLN 141 million in the case of credit

²⁷ This value takes into account the redemption of the OK0521 series of government bonds on 25 May 2021, whose nominal value in NBP's portfolio amounted to PLN 50.0 million.

²⁸ In the press release of 29 November 2021, NBP announced that starting from December 2021 these operations might be applied if the central bank considers that market conditions necessitate it.

unions). Compared to the required reserve for the corresponding period in 2020, the total required reserve was PLN 27,931 million higher, i.e. 381.7% higher. This change was mainly the result of the increase in the basic required reserve ratio²⁹ from 0.50% to 2.00%, starting with the required reserve maintained from 30 November 2021.³⁰ The interest rate on the required reserve funds in 2021 corresponded to the level of the NBP reference rate.

Figure 2.18. Deviation of the average balance of the accounts of required reserve entities kept in NBP in individual required reserve maintenance periods in 2021



Source: NBP data.

In the period from January to October 2021, the average daily level of surplus funds held on accounts with NBP by required reserve entities (i.e. exceeding the amount of the required reserve) fluctuated between PLN 21,678 million and PLN 32,093 million. A significantly smaller amount of surplus was recorded in the last two required reserve maintenance periods in 2021. In the November period this item amounted to PLN 2,202 million, and in the December period, PLN 628 million.

In 2021 there were no cases of failure to maintain the required level of this instrument by entities subject to the reserve requirement.

Standing facilities

In 2021, the lombard credit offered by NBP enabled banks to obtain funds from the central bank on each operating day on an overnight basis. This credit was collateralised with assets accepted by the central bank (among others, government securities, securities issued by NBP, municipal bonds, covered bonds and high credit quality corporate bonds).

²⁹ The basic required reserve ratio applies to zloty denominated funds and funds in foreign currency held on bank accounts as well as funds obtained from the issue of securities. In 2020 the required reserve ratio for funds obtained in repo and sell-buy-back transactions as well as funds obtained for at least 2 years remained unchanged at 0.0%.

³⁰ The amount of the required reserve for the December (2021) required reserve maintenance period rose by PLN 27,007 million compared to the level required in the November (2021) period.

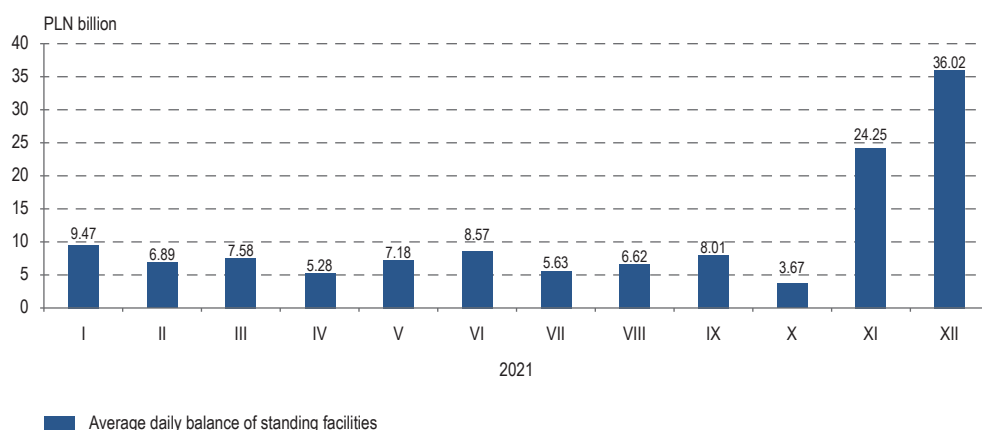
In 2021, the deposit facility enabled banks to deposit on each operating day their surplus funds on an overnight basis with the central bank.

The interest rate on the above-mentioned facilities constitutes the upper and lower limit for market rates set for overnight term, reducing the scale of their potential fluctuations.

In 2021, similarly as in previous years, banks used the lombard credit only occasionally. The total amount of the lombard credit used throughout the year – calculated for the days that it was used – amounted to PLN 9.9 million, and was 51.5% lower than the corresponding value in 2020 (PLN 20.4 million).

In 2021 the total value of overnight deposits placed by banks with NBP amounted to PLN 3,895,979.1 million (calculated as the total days of their placement). Its average daily level in the period under analysis amounted to PLN 10,673.9 million (against PLN 3,193.2 million in 2020). The significant increase in the value of surplus funds placed by banks with NBP in the form of overnight deposit took place in the required reserve maintenance periods in November and December 2021.

Figure 2.19. Average daily balance of standing facilities in individual required reserve maintenance periods in 2021



Source: NBP data.

Bill discount credit

Until 18 October 2021, NBP offered bill discount credit aimed at refinancing loans granted to entrepreneurs by banks. By offering bill discount credit, NBP was ready to accept from banks bills of exchange for discount that were issued by entrepreneurs in connection with the loans granted to them. The interest on the bill discount credit was determined by the NBP discount rate.

In 2021 there were no cases of granting bill discount credit by NBP and at the same time, during the year, the funds raised under this instrument in 2020 were repaid in the amount of PLN 52.9 million.

Foreign exchange swaps

By using foreign exchange swaps, NBP may purchase (or sell) zloty against a foreign currency on the spot market, with its simultaneous resale (or repurchase) as part of a forward transaction on a specified date.

In 2021, NBP did not conduct any such operations as part of monetary policy implementation.

Foreign exchange interventions

As part of the current monetary policy strategy, NBP may make a purchase or sale on the foreign currency market for zloty.

In 2021, NBP did not conduct any such operations.

Chapter 3

Financial system

Financial system¹

A stable-functioning financial system is essential for sustainable economic development in the long-term and for the implementation of the main goal of NBP, i.e. maintaining price stability. The financial stability tasks conferred upon Narodowy Bank Polski include acting with the aim of eliminating or mitigating systemic risk, establishing the necessary conditions for the development of the banking system and acting in favour of the stability of the financial system.

Maintaining the safety of the banking system, whose assets account for over two thirds of the assets of domestic financial institutions, is of special significance for the preservation of financial stability in Poland.

3.1. Macroprudential supervision

In 2021, Narodowy Bank Polski implemented the tasks arising from the Act on NBP on providing support to the Financial Stability Committee as the competent authority for macroprudential supervision (FSC-M), including analytical and legal support. Four meetings of the Committee were held in 2021.

As part of FSC-M work in 2021 Narodowy Bank Polski:

- Prepared and provided analyses, studies and opinions on the identification and assessment of systemic risk, nationally and internationally, including NBP regular reports: *Financial Stability Report* (twice a year) and *Macroeconomic Stability of the Polish Economy* (once a year) and *Polish Payment System Oversight Report* (once a year).
- Analysed the situation in the residential real estate market, including according to the recommendation of the European Systemic Risk Board (ESRB).²
- Prepared proposals of statements and recommendations of the FSC-M for systemic risk mitigation on maintaining the countercyclical buffer at a level of 0%, a temporary change in the amount of risk weights for banks actively involved in the process of settlements with borrowers with FX loans and the functioning of cooperative banks.
- Analysed the rationale for introducing reciprocity in the application of macroprudential policy measures in relation to other countries.³

¹ Tasks in this area are fulfilled pursuant to Article 3(2)(6) and (6a) and (6b) of the Act on Narodowy Bank Polski.

² Recommendation of the European Systemic Risk Board of 21 March 2019 amending Recommendation ESRB/2016/14 on closing real estate data gaps (ESRB/2019/3).

³ ESRB Recommendation on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/015/2).

- Prepared a proposal of the Committee's quarterly opinion on the amount of banks' contributions to the Borrower Support Fund.⁴
- Cooperated, on behalf of the Committee, with EU bodies and institutions as well as with macroprudential supervision authorities of other Member States on their policies. In particular, NBP took measures to implement ESRB recommendations, including those related to the impact of the pandemic situation on the European financial system.

Narodowy Bank Polski implemented the FSC-M recommendation on ensuring the availability of data and information on the real estate market.⁵

A representative of NBP chaired the work of the permanent working group which provided analytical support to the Committee. In 2021, the working group, relying mainly on NBP materials, prepared analyses and opinions concerning, among others: sources and intensity of systemic risk in Poland, specific sources of systemic risk (COVID-19 pandemic, situation of the real estate financing market), identification of other systemically important institutions (O-SII) and their obligation to maintain the adequate capital buffer,⁶ as well as the designation by the EC of a replacement for the CHF LIBOR benchmark.

Moreover, the NBP-chaired working group carried out work on the analysis of the situation in the cooperative banks sector and cooperative savings and credit unions sector. The task of the group was to analyse the development challenges in both sectors. Draft recommendations of the FSC-M in this regard have been developed. In the case of cooperative banks, the following proposals have been developed: exemption of non-refundable aid granted to entities in need of internal restructuring from corporate income tax,⁷ amendment to Recommendation S that excludes cooperative banks from the group of entities obliged to offer loans at a fixed or periodically fixed interest rate and develops rules for providing non-financial assistance to cooperative banks. In the case of credit unions, recommendations were related to the legal restrictions on sources of capital raising and restrictions on the provision of financial services to a wider group of entities. In addition, a draft FSC-M statement has been prepared indicating the measures that cooperative banks should take independently.

The Governor of NBP – acting as Chairperson of the FSC-M – submitted to the Sejm of the Republic of Poland (the Polish Parliament) the *Annual Report on Macroprudential Supervision Activity of the Financial Stability Committee 2020*.⁸

⁴ Article 16a(4) of the Act of 9 October 2015 on Support to Home Loan Borrowers Who Are in a Difficult Financial Situation (Journal of Laws of 2022, item 298).

⁵ FSC-M issued the recommendation addressed to NBP on ensuring the availability of data and information on the real estate market (Resolution No. 23/2018 of 11 June 2018). This recommendation was a consequence of the recommendation issued in 2016 by the European Systemic Risk Board on closing real estate data gaps (ESRB/2016/14) addressed to national macroprudential authorities of all 28 EU Member States.

⁶ O-SII (other systemically important institution) is an entity which is not a global systemically important institution, but which can – due to its size, value, linkages or business model – create a risk to the stability of the financial system of a given country. The FSC-M issues an opinion which is sought by the Polish Financial Supervision Authority on an annual basis.

⁷ Such assistance is provided from the aid funds of institutional protection schemes.

⁸ Pursuant to Article 9(2) of the Act of 5 August 2015 on Macroprudential Supervision (Journal of Laws of 2021, item 140, as amended).

Narodowy Bank Polski communicated the current work of the Committee to the public and to financial system participants via the website on macroprudential supervision.⁹

3.2. Cooperation with other public institutions on financial stability

In 2021, NBP participated in the work of the Financial Stability Committee in its crisis management capacity (FSC-C). Two meetings of the FSC-C were held in 2021. They discussed the economic and financial condition of some commercial banks and actions aimed at preserving financial stability.

Moreover, in 2021 NBP prepared and provided opinions to the Supreme Court of the Republic of Poland on important legal issues related to loans denominated or indexed to foreign currencies and to the European Commission on a replacement for the CHF LIBOR benchmark.

NBP's cooperation with domestic financial safety net institutions also included the following:

- membership of an NBP Management Board member delegated by the Governor of NBP in the Polish Financial Supervision Authority (KNF)¹⁰ and membership of two representatives delegated by the Governor of NBP in the Bank Guarantee Fund (BFG) Council,¹¹
- interaction with the Office of the Polish Financial Supervision Authority (UKNF) and the Bank Guarantee Fund – under the statutory authorisations regarding the rules for submitting information.¹²

3.3. Financial system analytical and research activities

In 2021, numerous financial stability and financial system development issues were researched at NBP. As NBP has the mandate to regulate the liquidity and refinancing of banks, it also analysed the position of individual banks. The results of key studies were presented to the FSC and the UKNF, while some of them were published as regular reports. They included:

- *Financial Stability Report* (June, December 2021). The analyses showed an improvement in the general assessment of the stability of the domestic financial system in 2021. The main source of risks was the legal risk related to FX housing loans. According to the findings of the Report, the likelihood of the most costly court settlements for the banks had decreased. The impact of the pandemic on the economy and the banking sector proved less severe than anticipated. Concerns about a credit crunch from the beginning of the pandemic did not materialise, and the burden of credit losses on banks' balance sheets declined markedly in 2021. Stress tests showed that capital and current earnings provided a sufficient buffer against unexpected shocks. Contagion risk associated with the weaker financial standing of some credit institutions declined and did not create a material threat to the stability

⁹ www.nbp.pl/nadzormakroostroznosciowy. The website offers, among other things, press releases after the FSC-M meetings, information on the macroprudential instruments applied and analytical studies, including the annual report on the activities of FSC-M.

¹⁰ Pursuant to Article 5(2)(3) of the Act of 21 July 2006 on Financial Market Supervision (Journal of Laws of 2020, item 2059, as amended).

¹¹ Pursuant to Article 7(4)(2) of the Act of 10 June 2016 on the Bank Guarantee Fund, Deposit Guarantee Scheme and Resolution (Journal of Laws of 2020 item 842, as amended).

¹² Pursuant to Article 17(1) of the Act on Financial Market Supervision and Article 328(2) of the Act of 10 June 2016 on the Bank Guarantee Fund.

of the banking sector as a whole. Robust activity in the residential real estate market and rapidly growing lending in this segment needs to be monitored. At the same time, no significant price imbalances in the residential real estate market were identified and banks did not excessively ease their lending policies. There were also no signs of households being over-indebted relative to their capacity to service their loans.

- *Financial System in Poland 2020* (November 2021). The level of development of individual segments of the financial system of Poland remained diversified. Financial institutions, including the banking sector, are better developed, while financial markets are less developed. At the end of 2020, the assets of financial institutions forming the Polish financial system amounted to PLN 3.2 trillion (i.e. they represented a 12.0% increase on the 2019 figure) while the ratio of financial system assets to GDP reached 37.3% (which represents an increase of 13 percentage points). It was mainly driven by an increase in the value of the banking sector's assets which represented the largest part of the financial system. The ratio of assets of the banking sector to GDP rose to 100.5%, driven by both an increase in the value of those assets (mainly bonds issued and guaranteed by the State Treasury to finance anti-crisis measures) and a decline in GDP. In addition, the report presents trends in the development of financial institutions operating in Poland and financial markets and barriers to development.
- *Senior loan officer opinion survey on bank lending practices and credit conditions*.¹³ The quarterly analyses present the status and forecasts of changes in banks' lending policy and loan demand developments. In the first half of 2021, as the economic outlook improved, banks eased their lending policies, particularly in the household segment. At the same time, the demand for loans in all market segments rose. Although certain lending standards and terms were adjusted in the subsequent months, banks continued to ease their lending policies (except for housing loans). They also noted a further increase in demand for all types of credit.
- *The level of the countercyclical capital buffer in Poland*. The analyses conducted on a quarterly basis indicated that the standard credit gap (i.e. the deviation in the ratio of private non-financial sector debt to GDP from the long-term trend) remained negative. The pace of credit growth was neither the source of imbalances in the economy and the financial system, nor impeded economic growth. Therefore, there was no need to create the countercyclical capital buffer.
- *Report on the situation in the housing and commercial real estate market in Poland in 2020* (September 2021). The study discusses, among others, the results of the first comprehensive analysis of profitability of investment in housing for rent in all 16 voivodeship cities. The cyclical (quarterly) analyses of the situation in the housing and commercial real estate market continued. In the first three quarters of 2021, the housing property market showed no directional changes in relation to the second half of 2020. The high demand for housing and rising production costs drove up housing prices in the primary and secondary markets. In the largest cities, the demand for housing exceeded the supply. Although the rates of return on housing rental were lower, investment demand remained at a high level.

¹³ The material is prepared based on a quarterly questionnaire survey addressed to chairpersons of the credit committees.

Narodowy Bank Polski also conducted research aimed at increasing knowledge about financial processes and interdependencies between the financial system and the economy used for the operationalisation of macroprudential policy. The research projects focused, among others, on the development of methods for determining the countercyclical buffer on the basis of econometric models of early warning against a financial crisis, the development of methods for forecasting the growth and quality of lending to the non-financial sector, the structural dimension of the credit cycle in Poland, the impact of changes in the capital requirements on bank lending, analyses of credit supply determinants and methods for its forecasting, monitoring the development of technological innovation in the financial system, the development of the market for decentralised finance (DeFi) and the development of regulations on artificial intelligence and machine learning in the context of the provision of financial services.

3.4. International cooperation for financial stability

In 2021, Narodowy Bank Polski cooperated with EU institutions responsible for the assessment of systemic risk and for counteracting against risk build-up. The Governor of NBP is a member of the General Board of the European Systemic Risk Board. NBP representatives actively participated in the work of the ESRB and ESCB structures. They included: monitoring the impact of the guarantee schemes and other fiscal measures introduced in the EU in response to the COVID-19 pandemic, the functioning of central counterparties (CCPs) and the EU relationships with the UK in this area, the operationalisation of macroprudential policy, the interaction between capital buffers and other supervisory and regulatory requirements, the development of stress testing methodologies and preparations for the 2022 review of the EU macroprudential policy framework.

Moreover, in 2021 NBP representatives participated in meetings of the Board of Supervisors of the European Banking Authority (EBA), the Regional Consultative Group for Europe at the Financial Stability Board (FSB), the European Bank Coordination (“Vienna”) Initiative and regional initiatives of central banks (Working Group on Monetary Policy and Financial Stability at the Governors’ Club of the Central Asia, Black Sea Region and Balkan Countries).

NBP representatives also participated in the work of resolution colleges established for the European cross-border banking groups comprising banks operating in Poland.

3.5. NBP operational activities aimed at maintaining financial stability

In 2021, no need arose to provide liquidity support to banks in the form of refinancing loans (pursuant to Article 3(2)(6a) and Article 42(1) of the Act on NBP).

At the end of 2021, one bank under resolution proceedings was exempted from the obligation to maintain the required reserve.

Until 19 October 2021, NBP maintained the possibility for banks to raise funds in the form of a bill discount credit for purposes related to lending to enterprises (offered after the outbreak of the COVID-19 pandemic). After this date, due to the normalisation of the credit market situation, NBP ceased to offer this credit.

Highlights in 2021:

- chairing the work of the FSC-M and FSC-C, including the extensive use of NBP-prepared analyses and studies in the decision-making of the FSC-M,
- analytical work conducted with the aim of increasing knowledge about financial processes and interdependencies of the financial system and the economy, and about the operationalisation of macroprudential policy,
- cooperation with European institutions to counteract the build-up of systemic risk.

Chapter 4

The issue of currency

The issue of currency¹

Narodowy Bank Polski holds the exclusive right to issue the currency of the Republic of Poland. Banknotes and coins issued by NBP are legal tender in the territory of Poland. By putting into circulation banknotes and coins in full denominational structure, NBP guarantees smooth cash settlements and the adequate quality of currency in circulation.

4.1. Currency in circulation

The value of currency in circulation (including bank vault cash), as at 31 December 2021, amounted to PLN 355.6 billion. Compared to the status as at 31 December 2020, it increased by PLN 33.8 billion, i.e. 10.5%. In 2021, the growth rate reached the level observed before 2020, i.e. in the years before the COVID-19 pandemic (the pandemic contributed to the increase in cash in circulation over the 2020 average).

The largest denominations showed the highest growth rate: PLN 500 (an increase of 38.6%) and PLN 200 (20.7%). In the case of the denomination of PLN 100, an increase amounted to 1.4%, while a 4.6% decrease in value was recorded for a PLN 50 note. For the lowest denominations, increases amounted to: 3.6% for PLN 10 and 9.3% for PLN 20.

In 2021, manufacturers of legal tender delivered to NBP 513.4 million pieces of notes and 803.7 million pieces of coins. This means that in relation to the deliveries in 2020 (407.5 million pieces of notes and 1,102.0 million pieces of coins), the number of notes increased by 26.0%, and the number of coins decreased by 27.1%.

4.2. Issue of collector coins and notes

Narodowy Bank Polski issues collector coins and notes, commemorating important historical anniversaries and famous Poles. The bank also aims to develop the interest of the public in Polish culture, science and tradition.

In 2021, in accordance with the *Schedule of Issue of Polish Collector Items and Commemorative Coins*, Narodowy Bank Polski issued 10,800 pieces of gold collector coins, 252,000 pieces of silver collector coins and 80,000 collector notes (in 2020, 4,870 gold coins, 224,000 silver coins and 60,000 collector notes).

In 2021, 35 collector coins and a collector note under 27 themes were issued.

The issued collector items included, among others:

- *Lech Kaczyński. It Is Worth Being a Pole* – a collector banknote with a face value of 20 zł and a gold coin with a face value of 500 zł, having a consistent graphic design,

¹ Tasks in this field are performed pursuant to, among others, Article 4 and Articles 31–37 of the Act on Narodowy Bank Polski.

- *230th Anniversary of the Constitution of 3 May 1791 – the magnum opus of the revived Polish-Lithuanian Commonwealth* – a gold coin with a face value of 100 zł and a silver coin with a face value of 50 zł,
- *Beatification of Cardinal Stefan Wyszyński* – a gold coin with a face value of 100 zł and a silver coin with a face value of 10 zł,
- *Defence of the Polish Post Office in Gdańsk. German Aggression Against Poland* – a silver postage stamp-shaped coin with a face value of 20 zł,
- *The Bishop's Palace in Kraków* – a gold coin with a face value of 100 zł and a silver coin with a face value of 50 zł with a glass insert printed with a mosaic portrait of Pope John Paul II,
- *30th Anniversary of the First Free Parliamentary Election* – a silver coin with a face value of 10 zł and a weight of 1 ounce of silver,
- *In Memory of the Victims of Martial Law* – a silver coin with a face value of 10 zł,
- *The Great Polish Economists* – in 2021, subsequent silver coins of the series with a face value of 10 zł were issued, commemorating Adam Krzyżanowski, Ferdinand Zweig, Adam Heydel, Edward Taylor and Tadeusz Brzeski,
- *We thank healthcare workers for their dedication during the COVID-19 pandemic* – a silver coin with a face value of 10 zł.

In 2021, Narodowy Bank Polski continued to issue gold bullion coins *White-tailed Eagle – 100th Anniversary of Regaining Independence by Poland* with a face value of 500 zł, 200 zł, 100 zł and 50 zł as well as coins of the series *Discover Poland* with a face value of 5 zł² with commemorative images (the following coins were issued in 2021: *The Crane Gate in Gdańsk* and *The Książ Castle in Wałbrzych*).

4.3. The functioning of cash transactions

In 2021, NBP carried out, among others, the following activities related to the functioning of currency circulation:

- Banks were supplied with notes and coins. In 2021, commercial banks and entities which are authorised by law to lodge and withdraw Polish currency notes and coins in/from NBP lodged PLN 152.1 billion (PLN 139.8 billion in 2020), and withdrew PLN 185.9 billion (PLN 222.8 billion in 2020), of which PLN 69.7 billion in the deposit system (PLN 89.3 billion in 2020), and PLN 116.2 billion in the main system (in 2020 PLN 133.5 billion).³ Compared to 2020, 2021 saw a decline in the value of cash withdrawals from NBP and an increase in deposits to NBP. The difference in the value of withdrawals and deposits in 2021 amounted to PLN 33.8 billion (in 2020 – PLN 83.0 billion). The process of supplying banks with Polish currency went uninterrupted.
- A service was offered at all NBP regional branches (mainly for individuals) to exchange coins for banknotes or coins of adequately high denominations by means of self-service machines. Twenty one devices were made available to provide the service. In 2021, 190 million coins with the total face value of PLN 83 million were acquired in this way.

² In a general circulation standard.

³ In the main system, the Polish currency is collected from vaults of NBP regional branches after funds are transferred to NBP for this purpose. In the deposit system, NBP-owned Polish currency is kept in vaults of commercial banks' organisational units. It is collected after funds are transferred to NBP for this purpose.

The service allowed to reduce the production of new coins, with estimated savings of approx. PLN 24 million.

4.4. Activities aimed at streamlining cash transactions

In 2021, NBP took efforts to ensure widespread acceptance and availability of cash and the smooth functioning and security of cash transactions. As part of these efforts, the Cash Circulation Council, a consultative and advisory body to the Management Board of Narodowy Bank Polski, developed the National Strategy for Cash Circulation Security.

The document was jointly created by representatives of NBP, banks, professional cash handlers and representatives of institutions and authorities dealing with cash. It includes proposals of measures of an analytical, legislative, self-regulatory or recommendation nature. It addresses the issues related to universal acceptance and availability of cash, uninterrupted supply of Polish currency to the market, physical security of banknotes and coins and the cyber resilience of IT systems used in cash transactions.

4.5. Counterfeit of Polish currency

As at 31 December 2021, there were 2,978.85 million pieces of general circulation banknotes and 1,727.17 million pieces of 1-złoty, 2-złoty⁴ and 5-złoty⁵ coins in circulation.

Compared to 2020, 2021 saw an increase in the number of disclosed counterfeit banknotes (from 4,697 pieces to 6,035 pieces) and a decline in the number of detected counterfeit coins (from 429 pieces to 406 pieces). The change may be attributed to a lower number of cash transactions during the first wave of the COVID-19 pandemic in the first half of 2020. At the same time, despite the increase in the number of counterfeits detected, the total number of counterfeit banknotes and coins per million banknotes and coins remained unchanged when compared to the previous year and amounted to 1.37 pcs (1.37 pcs in 2020, 1.91 pcs in 2019).

The low level of counterfeits in recent years is associated with the good quality of security features of banknotes and coins and the high level of public awareness about security features, resulting, among others, from education and training activities undertaken by NBP.

Data on the number of counterfeit notes and coins detected in 2017–2020 are shown in Table 4.1.

⁴ Excluding coins struck from the Nordic Gold alloy.

⁵ In 2021, only counterfeit coins with face values of 1 zł, 2 zł and 5 zł were detected. As at 31 December 2021, the total number of coins (general circulation coins excluding coins struck from the Nordic Gold alloy) in circulation amounted to 20,811.37 million.

Table 4.1. The number of counterfeit Polish notes and coins detected in the years 2018–2021

Counterfeits	2018	2019	2020	2021
Banknotes	5,601	6,467	4,697	6,035
Coins	825	718	429	406
Total	6,426	7,185	5,126	6,441

Source: NBP data.

Highlights in 2021:

- maintaining an uninterrupted supply of currency notes and coins to banks during the COVID-19 pandemic,
- development of the National Strategy for Cash Circulation Security by the Cash Circulation Council and its adoption by the Management Board of NBP,
- launching a service for converting coins into notes or coins of adequately high denominations by means of self-service machines,
- issuing, for the first time, a collector banknote and a gold coin with a consistent graphic design (*Lech Kaczyński. It Is Worth Being a Pole*).

Chapter 5

Foreign exchange reserves management

Foreign exchange reserves management¹

Pursuant to Article 52(1) of the Act on Narodowy Bank Polski, the central bank holds and manages foreign exchange reserves as well as takes measures to ensure the safety of Poland's foreign exchange operations in terms of payment liquidity. In the context of a floating exchange rate, the role of foreign exchange reserves is primarily to enhance the country's financial credibility, thereby reducing the cost of financing in the global markets and the volatility of the zloty exchange rate, as well as to mitigate the risk of a sudden outflow of capital. Incidentally, these reserves may be used to support the stability of financial markets or the banking sector in the event of significant disturbances in their functioning.

5.1. Level of the official reserve assets

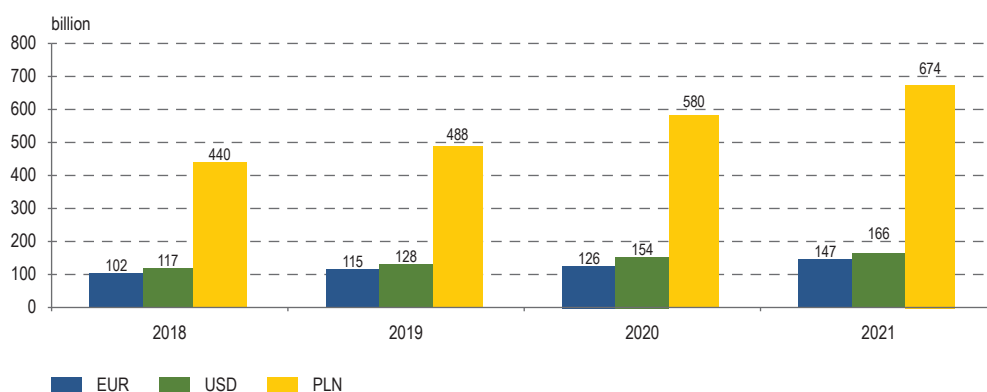
In 2021, the NBP official reserve assets² increased:

- in euro terms by EUR 21.0 billion (16.7%) to EUR 146.6 billion,
- in dollar terms by USD 11.8 billion (7.7%) to USD 166.0 billion,
- in zloty terms by PLN 94.4 billion (16.3%) to PLN 674.2 billion.

The increase in the official reserve assets was primarily driven by: a positive balance of external cash flows, changes in exchange rates and the general allocation of special drawing rights by the IMF.

As at the end of 2021, NBP gold holdings amounted to 230.8 tonnes.

Figure 5.1. Official reserve assets in 2018–2021 (as at the end of a given year)



Source: NBP data.

¹ Tasks in this area are performed pursuant to Article 3(2)(2) and Article 52 of the Act on Narodowy Bank Polski.

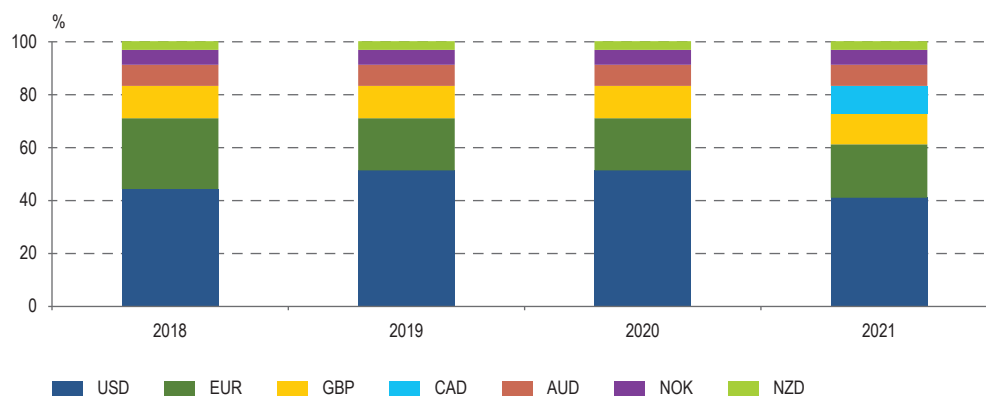
² According to the definition of the International Monetary Fund, official reserve assets include readily available, liquid foreign assets held by the central bank. This category includes monetary gold, special drawing rights (SDRs), the reserve position in the IMF and foreign currency assets, mostly in the form of securities, deposits and cash.

5.2. Foreign exchange reserves management strategy³

Ensuring the safety of the invested funds and their adequate liquidity is the priority in foreign exchange reserves management. While observing these criteria, Narodowy Bank Polski also undertakes measures to raise the yield on the reserves in the long-term horizon.

The implementation of the *Foreign Exchange Reserves Management Strategy* adopted by the NBP Management Board in 2020, including the continued diversification of currency reserves, involved the introduction of changes in the currency structure of the reserves in 2021: the share of USD was reduced (by 10 percentage points), CAD was included, and the shares of the remaining currencies were retained. At the end of 2021 the foreign exchange structure of the official reserves was as follows: 41% USD, 20% EUR, 12% GBP, 10% CAD, 8% AUD, 6% NOK and 3% NZD. The *modified duration*⁴ of the reserves was extended as well (from 2.1 to 3.2), which augmented the average yield on reserves and which will support this yield in the long term. Moreover, investments were made in equity index futures contracts on US, euro and UK markets (at the end of 2021 the ensuing exposure to equity markets stood at 3.1% of the value of foreign currency reserves).

Figure 5.2. Currency composition of the official reserve assets in 2018–2021 (as at the end of a given year)



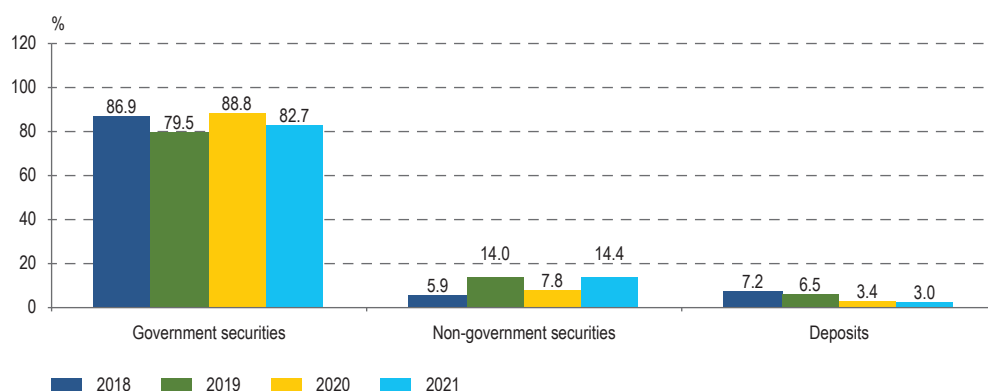
Source: NBP data.

In 2021, government securities characterised by the highest level of security and liquidity had a dominant share in NBP foreign currency reserves (Figure 5.3). Narodowy Bank Polski also invested in non-government securities, including in those issued by government agencies and non-financial corporations, and it held part of funds in short-term deposits at banks of high creditworthiness. Some of the securities held in the NBP portfolio (around 0.6% of the foreign currency reserves) are green bonds supporting the financing of sustainable development. Bond futures transactions were also used in managing investment portfolios.

³ Excluding funds held on the foreign currency accounts operated by NBP for the Ministry of Finance.

⁴ Modified duration is a measure of interest rate risk, representing the sensitivity of investment portfolios to fluctuations in yields on financial instruments.

Figure 5.3. Share of investment instruments in NBP foreign exchange reserves, excluding gold, in 2018–2021 (as at the end of the given year)



Source: NBP data.

5.3. Financial risk management in the process of foreign exchange reserves management

Investment risk management is one of the key elements in the management of foreign exchange reserves. It is based on a system of investment limits and restrictions. In 2021, a thorough review of limits reducing credit risk was carried out leading to the modification of counterparty creditworthiness assessment methods (taking into account the development of the global financial system).

Table 5.1. Investment limits and restrictions applicable at NBP in the financial risk management

Risk	Mitigation methods
Credit risk	Limited share of deposit transactions and non-government securities Counterparty selection criteria and ongoing monitoring of counterparty creditworthiness Limits for NBP counterparties Limited maturity of deposit transactions Minimum accepted rating of securities Limits for issuers of securities Collateral in reverse repo transactions
Market risk	Currency composition of the Strategic Asset Allocation along with fluctuation ranges determining the scope of active investment policy Level of modified duration of the Strategic Asset Allocation along with fluctuation ranges determining the scope of active investment policy Limited exposure to equity index futures
Liquidity risk	Investments in the most liquid financial markets Limited share of deposit transactions Securities selection criteria

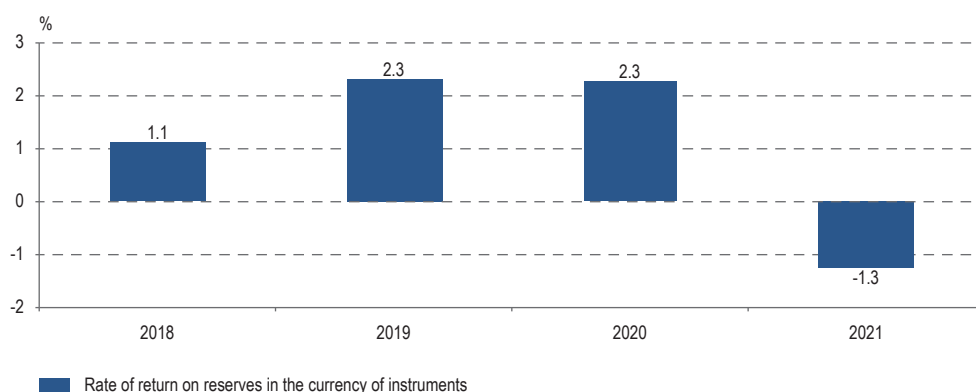
Source: NBP data.

5.4. Rate of return on foreign currency reserves⁵

The rate of return on the invested foreign currency reserves depends, most of all, on market conditions: changes in currency exchange rates, the level of yields and changes in investment instrument prices.

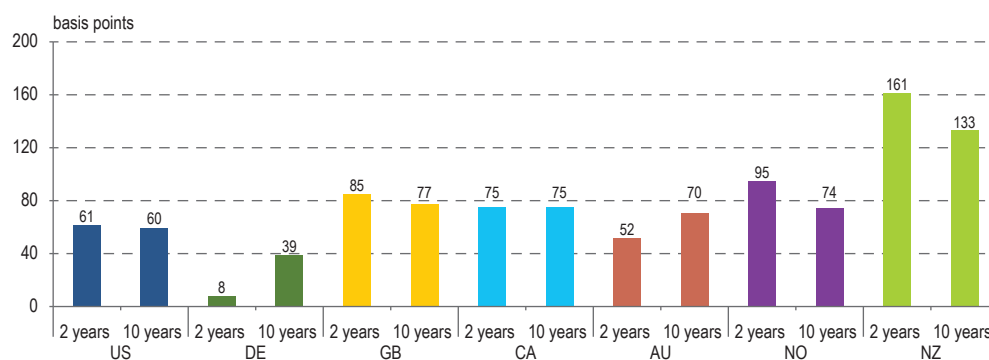
In 2021, the rate of return on foreign currency reserves investment in the currency of the instrument⁶ amounted to -1.3%. The negative yield on reserves was associated with an increase in the yields (or a decline in the prices) of government securities in all markets (Figure 5.4 and Figure 5.5).

Figure 5.4. Rate of return on the NBP foreign currency reserves excluding the impact of foreign exchange rate changes in 2018–2021



Source: NBP data.

Figure 5.5. Fluctuations in yields on 2-year and 10-year government securities in major markets in 2021



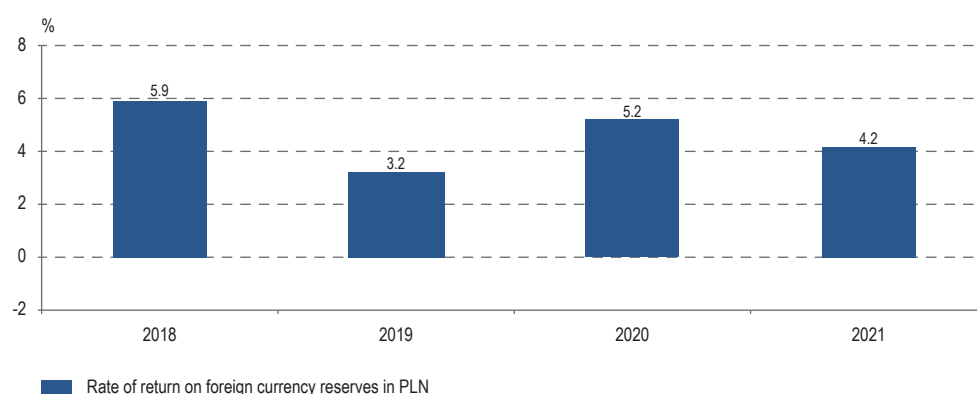
Source: NBP data.

⁵ Foreign currency reserves correspond to foreign exchange reserves excluding gold.

⁶ The rate of return on foreign currency reserves in the currency of individual investment portfolios is calculated on the basis of daily fluctuations in the market value of instruments (excluding the impact of the changes in foreign exchange rates).

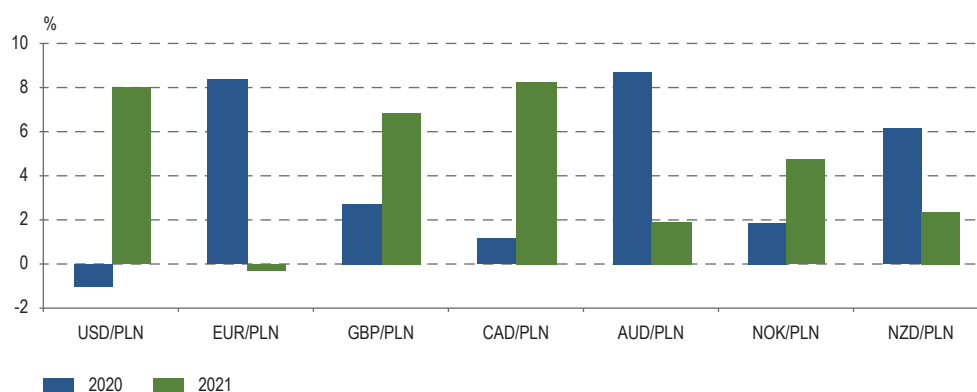
In 2021, the rate of return on the reserves calculated in PLN⁷ amounted to 4.2% (Figure 5.6), which was associated with an appreciation of most of the reserve currencies against PLN⁸ (Figure 5.7). The strongest impact on the rate of return was exerted by the appreciation of the US dollar, related primarily to the expected mitigation of monetary accommodation by the Federal Reserve System.

Figure 5.6. Rate of return on NBP foreign currency reserves including the impact of foreign exchange rate changes in 2018–2021



Source: NBP data.

Figure 5.7. Fluctuations in the exchange rates of major reserve currencies in relation to PLN in 2020 and 2021



Source: NBP data.

⁷ The rate of return on foreign currency reserves in PLN also includes the impact of fluctuations in the exchange rates of reserve currencies in relation to PLN.

⁸ An increase in the exchange rates: USD/PLN by 8.0%, CAD/PLN by 8.3%, GBP/PLN by 6.9%, NOK/PLN by 4.7%, NZD/PLN by 2.4% and AUD/PLN by 1.9%; a decline in the exchange rate of EUR/PLN by 0.3% (NBP average exchange rates).

5.5. Investment income

In 2021, the income on investment related to foreign exchange reserves management, excluding realised and unrealized exchange rate effects, was negative and amounted to PLN -1.7 billion (compared to PLN 6.9 billion in 2020). This was mainly due to unrealised costs related to the price revaluation of debt securities (PLN -3.4 billion). On the other hand, investment income raised the positive interest income on debt securities and deposits (PLN 1.2 billion) and income on realised price differences on futures transactions and sale of securities (PLN 0.5 billion).

Highlights in 2021:

- introduction of changes in the currency and investment composition of reserves, which contributes to raising the yield on the reserves in the long term,
- increased exposure to so-called green bonds and sustainable development bonds,
- development of counterparty creditworthiness assessment methods and of a system of limits reducing credit risk.

Chapter 6

Foreign exchange activity

Foreign exchange activity¹

Foreign exchange activity involves maintaining a register of bureaux de change, issuing decisions on foreign exchange matters and controlling the following: bureaux de change (including for the purposes of compliance with the obligations imposed on them under the Act on Counteracting Money Laundering and Terrorism Financing), use of granted individual foreign exchange authorisations and the performance of the reporting responsibilities by residents and operators of bureaux de change for the purposes of balance of payments and international investment position statistics. The purpose of this activity is to ensure the security of foreign exchange transactions.

6.1. Register of bureaux de change

In 2021, 687 entries were made to the register of bureaux de change (as compared to 751 in 2020), of which 117 entries concerned new entities (as compared to 139 in 2020). The remainder regarded the deletion of entities or data updates in the register.

As at 31 December 2021, 4,664 bureaux de change were active in Poland (in 2020 – 4,752).

6.2. Foreign exchange-related decisions

In 2021, a total of 30 decisions on foreign exchange were issued, including 20 authorisations and 10 other decisions (27 decisions on foreign exchange were issued in 2020). Authorisations were granted for the waiver of restrictions on foreign exchange transactions with non-residents from countries that are not members of the EU, the OECD and the EEA. Other decisions concerned prolongation of the validity of authorisations.

6.3. Foreign exchange control

Foreign exchange control by the Governor of NBP in 2021 included inspections of residents who were subject to the mandatory transfer to Narodowy Bank Polski of data necessary for the compilation of balance of payments and international investment position statistics, and inspections of operators of bureaux de change.

In 2021, a total of 871 inspections were carried out (in 2020 – 644), including:

- 279 inspections concerning the performance of the reporting obligation for compiling balance of payments statistics (in 2020 – 309),
- 592 inspections of bureau de change activity (in 2020 – 334).

¹ Tasks in this field are performed pursuant to Article 3(2)(3) and Article 52(2) of the Act on Narodowy Bank Polski, Article 130(2)(1)(a) of the Act of 1 March 2018 on Counteracting Money Laundering and Terrorism Financing (Journal of Laws of 2021, item 1132 as amended) and the provisions of the Act of 27 July 2002 – the Foreign Exchange Law (Journal of Laws of 2020, item 1708 as amended).

Irregularities were reported in the course of 456 inspections, i.e. 52% of all the inspections (in 2020 – 48%), including during:

- 138 inspections of the performance of the reporting obligation for the purposes of balance of payments statistics (in 2020 – 150),
- 318 inspections of bureau de change activity (in 2020 – 163).

In one case of a gross violation of the rules of conduct of bureau de change activity, the decision was issued to prohibit the entrepreneur from pursuing currency exchange business and delete the entrepreneur from the register of bureaux de change. Thirty one decisions were also issued to impose a financial administrative penalty in connection with the non-fulfilment by the operators of the bureaux of responsibilities laid down by the Act on Counteracting Money Laundering and Terrorism Financing. Narodowy Bank Polski notified the competent financial authorities of 442 cases of violation of legal provisions. Having conducted the appropriate proceedings, tax offices and customs and tax offices informed NBP of penalties imposed on 67 bureaux de change, 168 cases of submission of the so-called active repentance and 4 cases of voluntary submission to liability. The results of all the inspections for compliance by entrepreneurs pursuing currency exchange business with responsibilities laid down in the Act on Counteracting Money Laundering and Terrorism Financing were delivered to the General Inspector of Financial Information.

Inspections carried out by NBP ensure that:

- foreign exchange trading in bureaux de change is compliant with the rules of conduct of regulated activity,
- responsibilities in the area of counteracting money laundering and terrorism financing are properly fulfilled,
- data provided by reporting entities for the purposes of BoP statistics are compliant with source documents.

In 2021, NBP as an institution engaged in the process of prevention of money laundering and terrorism financing in the currency exchange sector, participated in the fifth round of Moneyval evaluation, i.e. in the assessment of the efficiency of the Polish system in counteracting this practice. NBP representatives presented the bank's competencies as a co-operating institution in this domain, i.e. in matters of control, as well as the sanctions used by NBP against entrepreneurs in the currency exchange business in the case of failure to comply with responsibilities related to counteracting money laundering and terrorism financing.

Highlights in 2021:

- 871 foreign exchange inspections performed,
- 30 foreign exchange decisions issued, 32 decisions issued concerning the breach of rules of conduct of the currency exchange business or failure to comply with responsibilities attached to this business.

Chapter 7

Payment system-oriented activities

Payment system-oriented activities¹

The activities of Narodowy Bank Polski with respect to the payment system comprise operational tasks, including the operation of the payment systems and performance of interbank settlements, the activities relating to the payment system policy and development, including organising payment settlements and drafting relevant legal regulations and the oversight of the payment system.

The objective of Narodowy Bank Polski is to ensure efficient operation of the payment system, enabling fast and safe flow of money between individuals, economic entities, public institutions or other entities that are parties to the payment transaction.

7.1. Performance of operational tasks

7.1.1. Operation of accounts in the SORBNET2 system

The SORBNET2 system is an RTGS (Real-Time Gross Settlement) payment system in which current accounts of banks are operated and the interbank settlement of zloty-denominated payments is performed. In an RTGS system, payment orders are executed in accordance with the gross settlement principle (processing of single orders, without their mutual offsetting) and the rule of real time settlement (processing of orders on an on-going basis during the day, instead of at pre-determined hours).

As at 31 December 2021, accounts operated in the SORBNET2 system included zloty current accounts of 46 banks (in 2020 – 45), the current account of Krajowa Spółdzielcza Kasa Oszczędnościowo-Kredytowa (National Association of Cooperative Savings and Credit Unions), as well as accounts for KIR SA, KDPW SA and KDPW_CCP SA. In 2021, two current accounts in PLN were opened,² and one was closed.³

In 2021, 4.6 million payment orders were executed in the SORBNET2 system (in 2020 – 4.3 million) totalling PLN 121.4 trillion (in 2020 – PLN 96.7 trillion). This represents an increase in the number of executed payment orders by 317,200 (7.4%) and a rise in their value by PLN 24.7 trillion (25.5%) compared to 2020. The average value of a single payment order in 2021 was PLN 26.2 million (in 2020 – PLN 22.4 million) and it increased by 16.9% as compared to the previous year.

7.1.2. Operation of accounts in EUR in the TARGET2-NBP system

The TARGET2-NBP system is a Polish component of the TARGET2 system – the Pan-European RTGS system used for settlements of euro-denominated payments. As at 31 December 2021,

¹ Tasks in this area are performed pursuant to Article 3(2)(1), (6) and (6a) of the Act on Narodowy Bank Polski and the Act of 24 August 2001 on Settlement Finality in Payment and Securities Settlement Systems and the Rules of Oversight of these Systems (Journal of Laws of 2019, item 212, as amended).

² On 24 June 2021, a current account was opened for AION Bank SA Spółka Akcyjna Branch in Poland and on 13 September 2021, a current account was opened for Bank Spółdzielczy in Bydgoszcz.

³ On 4 January 2021, a current account in SORBNET2 for Idea Bank SA was closed.

the TARGET2-NBP system operated accounts in euro for 19 entities: NBP, KIR SA, KDPW SA and KDPW_CCP SA and for 15 commercial banks (in 2020 – 20 entities, including 16 banks⁴).

In 2021, a total of 2.1 million transactions were carried out in the TARGET2-NBP system, totalling EUR 2.0 trillion. Compared to 2020, the number of completed operations increased by 260.9 (i.e. 14.4%) and their value rose by EUR 371.5 billion (i.e. 23.3%). The average value of a single order was EUR 1.0 million and increased by 7.7% compared to 2020.

7.2. Policy measures and development of the payment system

7.2.1. Regulatory, standardisation and research activities

In 2021, as part of regulatory and research activities relating to the payment system:

- The Governor of NBP requested the President of the Republic of Poland to submit a legislative initiative concerning legal amendments aimed at more comprehensive regulation of the legal status of cash acceptance in the territory of the Republic of Poland. Legislative work resulted in the introduction of regulations ensuring acceptance of cash payments by consumers at points of sale.⁵
- Results of the research project carried out in 2020–2021 on the scope of application and characteristics of payment methods used by Polish residents in their daily lives were published on the NBP website (the report entitled *Payment habits of Poles*).
- A report entitled *Central Bank Digital Currency* was published, presenting the progress of work on digital currency issuance carried out by central banks around the world and the conditions for the introduction of digital zloty in Poland.
- NBP continued to provide the European Central Bank with annual payment system data with the aim to identify and monitor developments occurring in the functioning of payment systems.

Narodowy Bank Polski participated in legislative work relating to adapting Polish regulations to the ECB Regulation (EU 2020/2011), regulations governing the rules of dealing with sort codes and unique identifiers of payment accounts in the event of the use of resolution instruments for payment service providers which are at risk of insolvency as well as an amendment to the Act on Payment Services.

7.2.2. Development of domestic large-value payment systems

In 2021, the following activities were undertaken with the purpose of developing domestic large-value payment systems:

⁴ The change resulted from the resolution of Idea Bank SA and the takeover of the enterprise by Bank Polska Kasa Opieki SA on 3 January 2021.

⁵ Act of 17 September 2021 amending the Act on Payment Services (Journal of Laws of 2021, item 1814). The regulations entered into force on 5 November 2021. The law provides for few exceptions to the obligation to accept cash payments.

- The SORBNET3 project was launched aimed at building a new RTGS system in PLN (the launch of the system is scheduled for 2025).
- Work continued on NBP's participation in the ECB-coordinated consolidation of the TARGET2 system with the TARGET2-Securities platform (T2S). The aim of the consolidation is to launch in 2022 a new RTGS system in euro. All central banks participating in the TARGET2 system and participants in the national components of the TARGET2 system were also involved in the work. In 2021, NBP introduced changes to the Bank's internal IT systems and participated in system tests coordinated by the ECB.

7.2.3. SEPA scheme

In 2020, NBP continued to provide intermediation services in accessing the EBA Clearing-run pan-European payment system STEP2-T for interested banks, enabling them to settle cross-border credit transfers in euro in the SEPA Credit Transfer (SCT) scheme.⁶

Moreover, consultations were conducted with EBA Clearing and conceptual work and arrangements were performed with KIR SA with a view to NBP joining the Continuous Gross Settlement (CGS) model in STEP2-T as of 14 June 2022 (on 12 July 2022, the existing session-based settlement model will be replaced by the CGS model).

7.2.4. Payment System Council activity

The Payment System Council, the advisory body to the NBP Management Board, deals with analysing and evaluating the Polish payment system on an on-going basis and promotes the development of this system.

In 2021, the Council primarily discussed the following issues:

- plans of KIR SA to launch the instant payment service in euro (Euro Express Elixir),
- the status of preparations for the implementation of the continuous gross settlement (CGS) mechanism in Euro Elixir,
- the status of work on the launch of an industry support services centre for counteracting money laundering by KIR SA and the Polish Bank Association,
- plans concerning the development of the BLIK Mobile Payment System for the settlement of transactions in euro,
- the benefits and challenges of introducing KDPW_CCP settlement services to the banking sector,
- the results of the implementation of the Cashless Poland programme,
- the results of the NBP survey on payment habits in Poland,
- the main assumptions and directions of the National Strategy for Cash Circulation Security,
- the status of work on the concept of digital central bank currency issuance in the world and in Poland,
- strategic directions for the development of retail payment systems in Europe,
- experience and challenges in combating fraudulent transactions in retail payments,

⁶ At the end of 2021, 18 banks used these intermediation services.

– efforts to develop good practices of the banking sector in the scope of unauthorised payment transactions.

In 2021, the Payment System Council established a permanent Working Group for Payment Security. The Group's task is to develop proposals for solutions leading to the reduction of fraudulent transactions in retail payments in Poland.

7.3. Oversight of the payment system

The oversight by NBP of the payment system seeks to minimise the risk associated with possible disruptions in the operation of the systems and schemes making up the infrastructure of the payment system, i.e. payment systems, payment schemes, securities settlement and clearing systems and provision of acquiring services by domestic payment institutions. Oversight of the system by NBP contributes to ensuring the stability of the financial system.

In 2021, NBP carried out the following payment system oversight activities:

- Payment systems. The Governor of NBP issued 3 decisions authorising modifications to the rules of operation of payment systems. The oversight assessment of the Elixir payment system operated by KIR SA was completed and the assessment of the BlueCash payment system operated by Blue Media SA was continued.
- Payment schemes. The Governor of NBP issued one decision authorising modifications to the rules of operation of a payment scheme. Furthermore, 4 assessments of changes to the rules of operation of payment schemes which cover an area larger than the territory of the Republic of Poland and which do not have to be authorised by the Governor of NBP were performed. In addition, 2 tripartite payment schemes were entered in the list of payment schemes supervised by the Governor of NBP.
- Securities settlement and clearing systems. The Governor of NBP, at the request of the KNF, issued 4 opinions on changes in the rules of procedure specifying the principles of the operation of the securities settlement and clearing systems operated by KDPW SA and KDPW_CCP SA. The Governor of NBP issued an opinion on the systemic importance of the settlement of financial instruments in PLN by the British clearing house LCH Ltd for the financial stability of Poland. Narodowy Bank Polski provided the KNF with its position on the review of activities of KDPW SA conducted pursuant to Article 22(6) of the CSDR (Central Securities Depositories Regulation). On the basis of the EMIR (European Market Infrastructure Regulation), Narodowy Bank Polski participated in the procedure of approving the amendments to the methodology for determining the value of margins (organised market) and to the stress test methodology (over the counter market) for transactions cleared by KDPW_CCP SA.
- Intermediary service in authorising non-cash payments (acquiring). The Governor of NBP issued opinions on 2 applications for authorisation by the Polish Financial Supervision Authority to provide payment services as a national payment institution with regard to the acquiring service.

Moreover, in 2021:

- Assessment was continued of the compliance of the SORBNET2 system functioning with the oversight requirements stated in *Cyber resilience oversight expectations for financial market infrastructures* (CROE) developed by the ESCB.
- The third edition of a survey coordinated by the European Central Bank was conducted on the cyber-resilience of payment systems: the BlueCash payment system (operator – Blue Media SA), the BLIK payment system (operator – Polski Standard Płatności sp. z o.o.), Krajowy System Rozliczeń (operator – Fiserv Polska SA) and the Elixir, Express Elixir and Euro Elixir systems (operator KIR SA).

7.4. NBP as the shareholder in domestic legal persons providing services for financial institutions

In 2021, NBP held shares and participating interests in the following domestic entities:⁷

- KDPW SA, with its registered office in Warsaw, which is the central institution responsible for operating the deposit and settlement system in the scope of financial instrument trading in Poland; KDWP SA holds 100% of the shares of KDPW_CCP SA, which operates systems of clearing of transactions in financial instruments;
- Krajowa Izba Rozliczeniowa SA, with its registered office in Warsaw, which is the key institution on the domestic market of payments clearing;
- Bazy i Systemy Bankowe sp. z o.o. (Bank Databases and Systems, Ltd), with its registered office in Bydgoszcz, which is a producer and integrator of IT solutions addressed mainly to financial sector institutions, in particular, banks and insurance institutions as well as public administration.

Table 7.1. Specification of shares and participating interests held by NBP in Polish commercial law companies, as at 31 December 2021

Name of entity	Share capital (PLN)	Number of shares / participating interests held by NBP	NBP interest in share capital (%)
Krajowy Depozyt Papierów Wartościowych SA	21,000,000	7,000	33.33
Krajowa Izba Rozliczeniowa SA	5,445,000	3,750	34.44
Bazy i Systemy Bankowe sp. z o.o.	10,000,000	1,000	100.00

Source: NBP data.

⁷ In accordance with Article 5(2) of the Act on NBP, Narodowy Bank Polski may hold shares or participating interests in other legal persons that provide services to financial institutions or the State Treasury or are relevant for NBP in terms of acting to sustain the stability of Poland's financial system.

Highlights in 2021:

- commencement of work on the new RTGS system in PLN (SORBNET3),
- continuation of work on the consolidation of the TARGET2 system with the T2S platform,
- participation in the legislative process concerning an amendment to the Act on Payment Services aimed at more comprehensive regulation of the legal status of cash acceptance,
- continuation of work on NBP migration to the new settlement model in the STEP2-T system.

Chapter 8

Services to the State Treasury

Services to the State Treasury¹

Tasks performed by NBP as part of services to the State Treasury include operating accounts of the State Budget, handling international liabilities and claims of the State Budget, trading in Treasury securities and activities to manage public debt, in particular, the State Treasury debt.

8.1. Bank accounts operated by NBP

In 2021, NBP operated bank accounts referred to in Article 196 of the Public Finances Act, including, in particular, the central current account of the State Budget, as well as current and auxiliary accounts of budgetary entities and offices providing services to tax authorities, including so-called joint accounts for collecting certain types of tax and non-tax revenues of the State Budget. Moreover, pursuant to Article 51(1)(4) of the Act on Narodowy Bank Polski, NBP operated accounts of other legal persons.

NBP operates accounts in PLN and foreign currencies, including accounts used to handle funds coming from the EU budget. NBP also maintains term deposit accounts in PLN and foreign currencies. As at 31 December 2021, NBP provided services for 2,923 customers (in 2020 – 2,953), for whom NBP regional branches operated 27,604 accounts, including 13,101 VAT accounts (in 2020 – 25,719 and 12,166, respectively), of which 4,457 accounts were handled under the third party substitution cash service (in 2020 – 4,387 accounts).

8.1.1 Operating bank accounts

Narodowy Bank Polski performed operations on State Budget accounts – in non-cash form, mainly through the NBP electronic banking system and B2B cross-system interface, as well as in cash form. The B2B interface, which provides solutions adjusted to the account holder's needs (including micro-accounts and individual reports) as well as ensures high security of transmitted data, was used in the handling of bank accounts of strategic importance for the State Budget (i.e. the central current account of the State Budget, the contribution payment account for the Social Insurance Institution, accounts for payments of taxes).

In 2021, the number of cash and cashless operations processed in the NBP IT system used for handling the State Budget's bank accounts stood at 135.8 million. This means that the decline in the number of operations recorded in 2020 (to 130.9 million) was not permanent and was due to the COVID-19 pandemic.

Furthermore, 2021 saw:

- Continued modernisation of IT systems supporting banking service provided to the State Budget, and the introduction of new functions tailored to the needs of the account holders;

¹ Tasks in this area are performed pursuant to Article 3(2)(4) and Articles 49, 51 and 52 of the Act on Narodowy Bank Polski, the Public Finances Act of 27 August 2009 (Journal of Laws of 2021, item 305, as amended) and the Act of 29 August 1997 – the Banking Law (Journal of Laws of 2021, item 2439, as amended).

- Implementation of the third party substitution cash service in a new form (following the elimination of cash cheques used by NBP account holders at the end of 2019). Other recently introduced services, i.e. payment cards, cash withdrawal orders in the third party substitution cash service and ATM withdrawals via mobile phone, were also developed.

8.2. Handling international liabilities and claims of the State Budget

Pursuant to the agency agreement concluded with the Minister of Development and Finance on 18 November 2016, in 2021, Narodowy Bank Polski handled the State Budget liabilities and claims arising from:

- 50 loans granted by international financial institutions to the government of the Republic of Poland,
- 75 foreign loans granted to domestic entities and guaranteed by the government of the Republic of Poland,
- Poland's contributions to 9 international financial institutions and receivables from shares in a foreign financial institution.

While acting as a depositary for the World Bank Group, NBP administered 15 promissory notes issued by the government of the Republic of Poland in connection with Poland's membership in institutions of that financial group.

8.3. Organisation of trade in Treasury securities

8.3.1. Treasury securities auctions

Narodowy Bank Polski acts as the issuing agent for Treasury securities. Therefore, it organises sale and redemption auctions of Treasury bills, as well as sale, redemption and swap auctions of Treasury bonds. In 2021, the following auctions were organised:

- 8 Treasury bond sale auctions,
- 13 swap auctions.

In 2021, no bond redemption auction was held, while 16 auctions were organised for the sale of Bank Gospodarstwa Krajowego bonds issued for the COVID-19 Prevention Fund.

8.3.2. Treasury Securities Dealer System

In 2021, as in previous years, NBP performed tasks associated with the Treasury Securities Dealer System (DSPW).² Under the agreement concluded with the Ministry of Finance, Narodowy Bank Polski:

² The Treasury Securities Dealer System (DSPW) system was established in 2003 in order to ensure the security of financing of the State budget borrowing needs and improve the liquidity, transparency and effectiveness of the SPW market (SPW – skarbowe papiery wartościowe: Treasury securities). Domestic banks and foreign entities that comply with the requirements set out in the Regulations on fulfilling the DSPW function may apply for the status of the DSPW, which authorises them, among others, to purchase SPW at auctions organised by the Ministry of Finance. More information on the functioning of the DSPW system can be found on the website of the Ministry of Finance.

- supplied the Ministry of Finance with data used for the preparation of assessments of the activities of the DSPW banks,
- acted as the organiser of Treasury securities fixing.³

8.4. Co-operation with the Ministry of Finance within the Public Debt Management Committee

In 2021, NBP co-operated with the Ministry of Finance within the Public Debt Management Committee. The objective of the co-operation is the exchange of the information used to harmonise the public debt management policy (of the Ministry of Finance) with NBP's monetary and foreign exchange policies.

Highlights of 2021:

- operating 27,604 accounts for 2,923 clients,
- organisation of 21 Treasury securities sale and swap auctions.

³ Acting as an organiser of SPW fixing, NBP defines its rules, in agreement with the Minister of Finance (the issuer) and BondSpot SA (the proxy), and provides the general supervision of SPW fixing (para. 2 item 3 of the SPW fixing regulations).

Chapter 9

Analytical and research activities

Analytical and research activities¹

Actions of central banks aimed at ensuring macroeconomic and financial stability require detailed knowledge of the developments in the economy and its external environment. While performing these tasks, NBP analyses the current and expected economic situation in Poland and worldwide, relying on a broad range of data and analytical as well as prognostic tools. NBP also conducts scientific research to assess changes in the economy and verify the applied analytical tools. The findings of these analyses and research are used by the Management Board of NBP and the Monetary Policy Council in the decision-making process.

Below, we present the most important analytical and research works and activities performed in 2021 concerning macroeconomic stability,² including price stability, broken down into major thematic groups.

9.1. Analyses and research concerning monetary policy

- The monetary policy of foreign central banks was monitored and analysed, including in the world's major economies.
- The macroeconomic effects of NBP's activities in the area of monetary policy were studied and analysed, including the impact of structural open market operations on the Polish economy and the financial markets.
- Research was conducted on the impact of monetary policy on changes in employment levels.
- Research has been completed on the optimum monetary policy under uncertainty conditions, the impact of private sector expectations on the effectiveness of monetary policy, and the impact of demography and migration on the monetary policy in Poland.

9.2. Analyses and studies of price-setting processes, prices and inflation

- The formation of inflation expectations among consumers, businesses, financial sector analysts and experts outside the financial sector was analysed.
- Research and analytical work was carried out on the developments in inflation indices and price-setting processes, price stickiness in the Polish economy, use of online shop data for inflation forecasting and the assessment of the impact of the COVID-19 pandemic on price formation.
- Work was carried out on methods to measure and analyse consumer inflation expectations.

¹ Tasks in this area are performed under, among others, Article 59 of the Act on Narodowy Bank Polski.

² Analytical and research activities concerning the stability and development of the financial system were presented in Chapters 3 and 7 of the *Report*.

9.3. Macroeconomic forecasting and the development of prognostic models

- Regular inflation and GDP projections were drawn up, along with estimates of GDP and its components used for the assessment of macroeconomic stability and the stability of the financial sector.
- Indicators and tools were developed to analyse and forecast business conditions in Poland and worldwide amid a volatile economic situation and disruptions caused by the COVID-19 pandemic.
- Four rounds of the NBP Survey of Professional Forecasters were completed.
- Research was conducted on measuring the uncertainty of macroeconomic forecasts based on revisions to these forecasts.
- The latest global trends in macroeconomic modelling were studied based on analyses of literature of the subject.

9.4. Analyses and studies of the fiscal situation

- Studies were carried out on the impact of household heterogeneity on the effectiveness of fiscal incentive packages.
- Research was conducted into the impact of demographic and migration processes on the social security system and long-term fiscal sustainability in Poland and in the European Union.
- Analyses and forecasts were carried out of the following: the situation of the state budget and the general government sector, the restrictiveness of fiscal policy and its impact on the economy, the use of funds from the European Union budget and their impact on the main macroeconomic aggregates.
- The fiscal measures launched in order to counteract the adverse impact of the COVID-19 pandemic were analysed, along with their effects on the financial position of the public sector finance and the borrowing needs of the State.

9.5. Analyses of the global economy and the impact of foreign countries on the Polish economy

- NBP analysed, on a regular basis, the external trade of the Polish economy, along with its price and cost competitiveness, as well as the degree of the external balance of the Polish economy.
- The network of trade links within global value added chains between Poland and selected trading partners was investigated.
- The impact of participation in global value added chains on the Polish economy was studied.

- Research was conducted into the determinants of export of services.
- The importance of foreign direct investment for the Polish economy was analysed.
- The economic situation and economic policies of selected countries were analysed, including those of major world economies and countries of Central and Eastern Europe.
- The economic situation during the COVID-19 pandemic worldwide and in Poland was monitored and analysed on an ongoing basis.
- Medium- and short-term economic outlook was assessed for the countries where NBP invests foreign currency reserves.

9.6. Analyses and studies of the economic situation of households

- Cyclical analyses of the financial situation of the household sector were conducted in terms of sources of income, consumption expenditure and savings, consumer climate and changes in the stock of assets and liabilities.
- Changes in retail sales and consumer sentiment were monitored.

9.7. Analyses and studies of the economic situation of the labour market

- The labour market situation was monitored and tools for short-term forecasting of labour market-related macroeconomic aggregates were developed.
- The impact of economic immigration (mainly from Ukraine) on the labour market and economic growth in Poland (including the effects of the pandemic) was analysed.
- The number of persons who benefited from individual solutions of the anti-crisis shield was estimated.
- The impact of the expiry of individual anti-crisis shield instruments on the unemployment rate was studied.
- The changes introduced in 2021 to the methodology of the Labour Force Survey (LFS) used by Statistics Poland (GUS) were analysed.

9.8. Analysis and research of the economic and financial situation of enterprises

- Quarterly NBP Quick Monitoring Surveys were conducted, comprising detailed analyses and forecasts of economic conditions, including, among others, decisions on the size of output, employment, investment, as well as their financial and pricing decisions and their impact on the banking system.

- A survey entitled the NBP Annual Survey was conducted, focusing on the development outlook of the non-financial enterprise sector, including the impact of selected energy and environmental policy elements on the sector.
- The annual study Quick Monitoring Survey was conducted – a survey of micro companies, analysing the situation of companies employing up to 10 people, focusing on assessing the pricing, wage and efficiency mechanisms of this group of entities.
- Cooperation with the World Economic Forum on the Global Competitiveness Report was continued.
- The impact of the COVID-19 pandemic on the sectoral structure of the Polish economy and the level and potential for automation of production was assessed.

9.9. Inter-sectoral analyses and studies

- Studies of the impact of microeconomic demand and supply shocks on the output, employment, investment, margins and pricing decisions of Polish enterprises were conducted.
- The importance of the network structure of the economy was analysed in the context of GDP volatility, producer price volatility and inter-sectoral correlation.
- The sectoral general equilibrium model MOST_PL was completed. The economic effects of the introduction of a border carbon tax, the migration influx of 2015–2018 and the changes taking place in the ETS (European Emissions Trading Scheme) for the Polish economy were studied.

9.10. Research papers by NBP staff

The publication of results of research conducted by NBP staff enables a scientific verification of its quality and methodological correctness by making them available for the assessment by national and foreign experts and the peer review process these publications are subject to.

In 2021, recognised national and international scientific journals published 23 academic publications by NBP staff. Ten publications were posted on the ISI Master Journal list.³

9.11. Scientific conferences organised by NBP

In 2021, NBP organized 3 international scientific conferences which were attended by central bankers and scholars with notable scientific achievements:

³ The list is included in the Appendix *List of selected NBP publications*.

- 10–11 June 2021: *Annual Research Conference (ARC) – The Policy Toolkit for a World in Flux*. This was the sixth conference organised by NBP in cooperation with the National Bank of Ukraine. The conference dealt with the following issues: the effectiveness of economic policy in the contemporary world, including the communication of monetary policy, the impact of public sector debt on economic growth, the effectiveness of new monetary policy strategies, the impact of international capital flows on small open economies, the role of climate change in determining macroeconomic conditions and the effectiveness of fiscal policy as a tool to stabilise the economy.
- 28–30 June 2021: *NBP Summer Workshop* (9th edition). The discussions covered numerous topics in the area of macroeconomics and finance (including financial markets, tax policy, capital regulation, inflation expectations, labour markets, wages, student loans).
- 5 November 2021: *Recent Trends in the Real Estate Market and Its Analysis – 2021 edition*. The conference is organised by NBP in cooperation with the Warsaw School of Economics on a biannual basis (it was held for the fifth time). The issues discussed at the meeting included the pricing of residential and commercial real estate and real estate financing.

9.12. Cooperation with the scientific community, central banks and international institutions

In 2021, as part of cooperation with the scientific community, central banks and international institutions:

- Representatives of NBP participated in the activities of ESCB working groups, EU bodies and other national and international institutions on issues and projects related to the main areas of NBP research and analytical work.
- Research projects were conducted jointly with the National Bank of Ukraine and the Bank of Morocco (NBP technical assistance programme).
- As part of the technical cooperation with the National Bank of Ukraine, research continued on the impact of demographic and migration processes on the social security system and fiscal stability in Poland and in the European Union.

Highlights of 2021:

- conducting analyses concerning the economic situation in Poland and its external environment for the needs of the NBP Management Board and the Monetary Policy Council,
- improvement of forecasting tools and completion of several modelling and analytical-research tasks, including concerning the impact of the COVID-19 pandemic on the economic situation,
- publication of 23 research papers by NBP staff, including 10 in journals from the ISI Master Journal list,
- organisation of 3 international scientific conferences.

Chapter 10

Statistics

Statistics¹

Narodowy Bank Polski is one of Poland's key institutions that conduct statistical research. NBP acquires data from entities in the financial sector (mainly banks) and from non-financial corporations. Moreover, NBP receives data from other institutions, such as Statistics Poland, the Office of the Polish Financial Supervision Authority (UKNF), the Ministry of Finance and the National Securities Depository (KDPW SA). The data and information obtained are used for the implementation of monetary and macroprudential policy, risk monitoring in the financial sector, conducting studies of financial stability and other analyses.

NBP makes statistical data available to external entities on a regular basis (in the form of reports, publications and databases). It also provides selected information to domestic institutions (the Sejm of the Republic of Poland, the Council of Ministers, Statistic Poland (GUS), the Bank Guarantee Fund (BFG), the UKNF, the Association of Polish Banks and academic institutions) as well as to international institutions, primarily the ECB, Eurostat and the BIS.

The compliance of the statistical research methodology with applicable standards enables international comparisons, including the analysis of Poland's position against the background of other European countries. NBP continues to expand the scope of the collected data while working on the further development of methods of their acquisition, processing and publication, in accordance with international research standards.

10.1. Core tasks with respect to statistics

The core tasks of NBP relating to statistics include collection of data from reporting entities, their validation, processing, storage and making them available in the form specified by their main users. Adequate IT systems are developed and improved to achieve these objectives. In parallel, work is continued on data processing methodology as well as on changing the scope of the data depending on the degree of development of financial institutions and financial market instruments as well as macroeconomic conditions. Changes introduced are compliant with international standards (of the Eurostat, IMF, ECB).

In 2021, NBP continued the regular provision of statistical compilations, analytical materials and publications addressed to both internal recipients at the Bank and external audiences. The most important of these include:

- quarterly reports on the balance of payments and the *International Investment Position of Poland* annual report,
- quarterly data on Poland's external debt and international investment position,
- monthly balance of payment (BoP) data,
- annual data on inward direct investment in Poland and Polish outward direct investment,
- monthly consolidated balance sheet of monetary financial institutions, including key monetary aggregates (M3 money supply and its counterparts),

¹ Tasks in this area are performed pursuant to Article 3(2)(7), Article 17(4)(13) and Article 23 of the Act on Narodowy Bank Polski and the Act of 29 June 1995 on Public Statistics (Journal of Laws of 2021 item 955, as amended).

- monthly data on the average interest rate on bank deposits and on loans,
- monthly financial data on the banking sector (assets, liabilities, profit and loss account),
- quarterly data on the banking sector capital adequacy,
- quarterly data on domestic investment funds,
- quarterly and annual financial accounts, by institutional sectors.

10.2. Statistical tasks resulting from NBP's participation in the European System of Central Banks and in other international institutions

In 2021, NBP continued to cooperate with international institutions in the area of statistics, above all with the ECB, the European Commission (Eurostat), the Committee on Monetary, Financial and Balance of Payment Statistics (CMFB), the European Banking Authority (EBA) and the European Systemic Risk Board (ESRB).

The cooperation is also of an inter-institutional nature through participation of NBP representatives in committees setting up statistical standards.

10.2.1. Monetary and financial statistics

In 2021, NBP provided the ECB with harmonised monthly and quarterly data on the aggregated balance sheet of monetary financial institutions (MFIs), monthly interest rate statistics, monthly and quarterly data on assets and liabilities of investment funds, annual data on the statistics of insurance institutions, quarterly data on pension funds as well as data required by the RIAD.²

Moreover, in 2021:

- Work was carried out on the assumptions for the creation of Krajowy Rejestr Kredytowy (national credit register) containing individual information on credits and other credit exposures. A data model and an outline of the register architecture was developed and the functions of the future IT system to support the register were defined. Performance tests were also conducted and a system development plan was prepared.
- Changes were introduced in the scope of bank reporting for monetary policy and financial stability purposes,³ associated with an amendment of the ECB Regulation.⁴ At the same time, the IT system was adapted to the modified scope of data.

² Register of Institutions and Affiliates Data (RIAD).

³ Resolution No. 71/2016 of the Management Board of Narodowy Bank Polski of 22 December 2016 on the manner, detailed scope and deadlines of reporting to Narodowy Bank Polski the data necessary for the monetary policy purposes, periodical evaluation of the state's monetary situation and assessing financial situation of banks as well as banking sector risk (Official Journal of NBP of 2017, item 1, as amended).

⁴ Regulation (EU) No. 2021/379 of the European Central Bank of 22 January 2021 on the balance sheet items of credit institutions and of the monetary financial institutions sector (ECB/2021/2).

In 2021, Narodowy Bank Polski:

- Participated in the activities of the ECB Working Group on Monetary and Financial Statistics on amending European provisions on monetary statistics,⁵ payment statistics,⁶ the quality of data received from insurance institutions and pension funds, the strategy for obtaining data from the sector of captive financial institutions and money lenders.⁷ In a separate expert group,⁸ it participated in the analyses of the proposed amendments to the investment fund statistics.
- Participated, as an observer, in the work of the Expert Group on Integrated Reporting Framework. It was also represented in the group established in 2021 to advise the ECB Governing Council on this issue.⁹ In 2021, the banking sector, central banks and users were consulted and the first phase of the project was launched.
- Took part in the work of the following ECB groups: Working Group on Analytical Credit Datasets (WG AnaCredit) and the NEWS1 Expert Group. The work of the AnaCredit Group included, among others: analysis of the quality of the data submitted to the AnaCredit system, reconciliation of the basic aggregates received under the balance sheet statistics with the credit exposure data from AnaCredit reporting, preparing a methodology for corresponding comparisons with data from FINREP reports, developing procedures for publication of aggregate data. The NEWS1 Group worked on the methodological issues related to the definition of loan categories, their valuation and presentation.
- Participated in the work of the RIAD Hub Network. In 2021, work was carried out¹⁰ on harmonised management of information on investment funds – in the context of the planned amendment to the regulation on statistics on this area.¹¹

10.2.2. Prudential statistics

In 2021, NBP provided the Office of the Polish Financial Supervision Authority (UKNF) with data used for the assessment of the financial and prudential situation of the banking sector. The UKNF then reported such data to the European Banking Authority (EBA). Since 2021, the data sent to the EBA concerned all entities in the banking sector. In addition, NBP submitted to the ECB reports on financial reporting, capital adequacy, liquidity and large exposures (consolidated banking data, CBD).

⁵ Regulation (EU) No. 2021/379 of the European Central Bank of 22 January 2021 on the balance sheet items of credit institutions and of the monetary financial institutions sector (ECB/2021/2).

⁶ Regulation (EU) No. 2020/2011 of the European Central Bank of 1 December 2020 amending Regulation (EU) No. 1409/2013 on payment statistics (ECB/2013/43) (ECB/2020/59).

⁷ Network of Experts on Captive Financial Institutions.

⁸ Expert Group on Investment Fund Statistics.

⁹ High Level Task Force on ESCB's Integrated Reporting Framework (IREF).

¹⁰ Contact Group of Experts on Investment Fund.

¹¹ Regulation (EU) No. 1073/2013 of the European Central Bank of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38).

Moreover, in 2021, as part of the reporting information system (RIS), Narodowy Bank Polski:

- introduced new EU reporting requirements concerning: market risk reporting (FRTB),¹² stable funding (NSFR) and changes to the current reporting packages in the scope of own funds requirement (COREP), financial information (FINREP on a consolidated level) and the leverage ratio (LR),¹³
- implemented the EBA new reporting obligations in the scope of data needed to carry out remuneration benchmarking (REM BM), data of high earners (REM HE) and funding plans (FP) on a unitary basis.¹⁴

Representatives of NBP also participated in the works of the ECB and EBA working groups which deal with the issues of supervisory statistics, the quality of data, accounting, reporting and audit as well as regulation.

10.2.3. Statistics of the balance of payments and the international investment position

In 2021, as in previous years, NBP provided the ECB with harmonised monthly and quarterly data on the balance of payments, the international investment position, official reserve assets, liquid assets and liabilities denominated in foreign currency and external debt. It also continued to provide Eurostat with annual data on international trade in services and foreign direct investment.

Moreover, Narodowy Bank Polski:

- Continued to carry out research and analyses of migration processes. In 2021, NBP conducted in all voivodeships a survey of companies employing immigrants and improved methods for synchronising survey data with other available data on migration in Poland.
- Introduced changes in reporting for the needs of balance of payments and international investment position resulting from the dematerialisation of shares implemented in 2021.¹⁵
- Participated in the work of international working groups dealing with the following issues: external relations statistics (at the ECB), balance of payments statistics and direct investment statistics (at the Eurostat) and foreign investment statistics (at the OECD).
- Continued the work on updating manuals for international statistics as relates to the System of National Accounts and the Balance of Payments and International Investment Position Manual.

¹² Commission Implementing Regulation (EU) 2021/453.

¹³ Commission Implementing Regulation (EU) 2021/451.

¹⁴ Guidelines of 16 July 2014 on the remuneration benchmarking exercise – EBA/GL/2014/08; Guidelines of 16 July 2014 on the data collection exercise regarding high earners – EBA/GL/2014/07; Guidelines of 9 December 2019 on harmonised definitions and templates for funding plans of credit institutions under Recommendation of the European Systemic Risk Board of 20 December 2012 (ESRB/2012/2) – EBA/GL/2019/05.

¹⁵ Pursuant to the Act of 30 August 2019 Amending the Act – Code of Commercial Companies and Some Other Acts (Journal of Laws of 2019, item 1798).

10.2.4. Other statistics

- Financial accounts statistics. NBP submitted quarterly and annual financial accounts to the ECB and the Eurostat, as appropriate; participated in the ECB Working Group on Financial Accounts¹⁶ and participated in the work of EU institutions on ensuring the quality of data used in the Macroeconomic Imbalance Procedure in the EU.
- General government sector statistics. In 2021, NBP submitted to the ECB annual data on the statistics of the sector. It also participated in the work of working teams concerning this area of statistics, both domestically and at the ECB.¹⁷
- Real sector statistics. As part of the BACH (Bank for the Accounts of Companies Harmonised) working group,¹⁸ in 2021 the analysis of economic sectors from the point of view of the impact of climate policy on these economies was carried out (*Past Economic Performance of Climate Policy Relevant Sectors*). Studies on climate risk were carried out in the Risk Assessment Working Group operating within the European Commission.
- Statistics on securities investments. NBP developed tools for managing the quality of data on securities and participated in the work of the ECB Working Group on Securities Statistics.

Moreover, in 2021 NBP:

- launched ERYDAN, the in-house database containing macroeconomic data and their visualisation in the form of ready-made thematic dashboards,
- participated in the ECB work on the development of data analysis tools,¹⁹
- investigated new methods of risk analysis for domestic banks and studied the cyclical nature of lending by the domestic banking sector, as well as analysed the probability of bankruptcy of domestic banks, taking into account the materialisation of systemic risk,
- signed a new agreement on the exchange of information between NBP and GUS, which will increase the scope and quality of statistical information made available by NBP,
- in connection with the provisions of the Act on Employee Capital Plans (PPK), concluded the agreement with Polski Fundusz Rozwoju SA (Polish Development Fund – PFR) on the provision of data from PPK records by PFR.

¹⁶ Working Group on Financial Accounts and Government Finance Statistics.

¹⁷ General Government Statistics Working Group established by the President of Statistics Poland and Working Group on Financial Accounts and Government Finance Statistics.

¹⁸ BACH Working Group acts as part of the European Committee of Central Balance Sheet Data Offices (ECCBSO).

¹⁹ Network of Experts on Machine Learning.

Highlights in 2021:

- implementation of new European reporting requirements within the Reporting Information System,
- launching a new internal ERYDAN database,
- conclusion of the new agreement with Statistics Poland governing the exchange of statistical data and the agreement with PFR governing the acquisition by NBP of data from the PPK records.

Chapter 11

Education and information

Education and information

The educational activity of NBP relates to the tasks specified in Article 59 of the Act on Narodowy Bank Polski, according to which the central bank carries out publishing and promotional activities. As part of this activity, the bank runs numerous educational, communication and promotional projects which aim to communicate NBP activity and to raise public awareness about the operating principles of the central bank, the banking system and the market economy.

11.1. Education

11.1.1. Economic Education Programme

As part of NBP's educational activity, projects are implemented which aim to popularise the operating principles of the financial market, develop attitudes that are conducive to its stability and growth, enhance knowledge of economic issues, including the knowledge of the role and mission of a central bank, as well to promote entrepreneurship, counteract financial exclusion and popularise knowledge about economic heritage, the history of money and new trends in economics. Central bank activities are implemented in two forms. The first one is based on own economic education activities, the second one – on sponsoring external projects on the subject.

In 2021, NBP:

- Launched a nationwide educational programme, *NBP Gold Schools*, addressed to primary school 7th and 8th formers and secondary school students. The aim of the programme is to create a network of schools committed to developing economic education. The first edition was conducted under the theme: *Giants of Personal Finance*. Approximately 142,000 students took part (lessons in economics, meetings with experts and school debates were held). The title of NBP Gold School was awarded to 284 establishments. The next edition of the programme was launched at the end of 2021 and will end in 2022.
- Continued to organise new editions of competitions for dissertations on economic subjects: the NBP Governor Award competition for outstanding books on banking, money and finance,¹ the NBP Governor Award competition for the best MA dissertation in economic sciences² and the competition for the best essay in this area targeted at young people.³
- Conducted competitions: for primary schools and kindergartens (competition entitled *Before I Spend... About Finance in Kindergartens and Schools*, the beneficiaries of which will be

¹ The results of the competition will be announced in the second or third quarter of 2022.

² NBP received 73 submissions for the competition. Five dissertations were awarded by the jury of the competition. The paper entitled *Consolidation of oversight within Narodowy Bank Polski against the background of the European experience* was recognised as the best.

³ NBP received 364 submissions for the competition. The topic: "Great Polish economists were also teenagers... Watch the video at nbp.pl/ekonomisci and choose a hero for your paper. What events and economic observations from your youth might have led your chosen economist to become interested in the subject? And what do you find interesting in this area?" The competition jury awarded prizes and distinctions. Cash prizes were awarded to the winners of the competition and their mentor teachers.

approximately 3,800 pupils) and for universities (2nd edition of the competition *Universities to Schools – about Finance with NBP*, the beneficiaries of which will be approximately 3,600 primary school 7th and 8th formers and secondary school students).

- Organised a series of 10 online training courses in the scope of economic education, with a total of 1,080 teachers participating.
- Issued a publication entitled *The Great Polish Economists* for the dissemination of Polish economic thought. The publication has the form of a notebook, clearly presenting the figures of Polish economists and their output. The form and content of the publication have been prepared for use by teachers and students during lessons at schools.
- Conducted nationwide educational activities in the media concerning inflation and central bank monetary policy, targeting different audiences (i.e. those with low and intermediate levels of economic knowledge and those with an interest in finance, banking and economics). The material was published in the press in the total circulation of more than 3.5 million copies and was viewed online almost 180,000 times.

Educational projects co-funded by NBP were addressed to various social groups, including schools,⁴ universities, senior citizens and persons at risk of financial exclusion. NBP's sponsoring decisions were preceded by a verification process comprising several stages. Projects with a value exceeding PLN 30,000 were assessed by the Council for Economic Education, an opinion-providing and advisory body attached to the Management Board of NBP.⁵ Projects with a value below PLN 30,000 were evaluated by the NBP Commission for the Support of Social Educational Initiatives. The conclusions and recommendations of these bodies form an element of the project evaluation process. Projects submitted under the grant competitions were evaluated by separate selection boards.

In total, 167 projects were funded/subsidised, including 43 projects endorsed by the Council, 112 projects endorsed by the Commission as well as 12 projects under the grant competition entitled *Universities to Schools – about Finance with NBP* (2nd edition).

All educational projects were evaluated. The evaluation is carried out by NBP staff, the Council for Economic Education and the Commission for the Support of Social Educational Initiatives as well as by external research agencies selected under a tender procedure.

The educational activity of NBP is appreciated by its beneficiaries – many universities and schools publish information about the benefits of cooperation with NBP on their websites.

11.1.2. Sławomir S. Skrzypek NBP Money Centre

The activity of the exhibition and educational facility, the Sławomir S. Skrzypek NBP Money Centre, aims to bring the history of money closer to the public, along with its role in the social and economic history of Poland and the world. The Money Centre offers modern interactive

⁴ Over 256,000 students and over 6,000 teachers were involved in the activities.

⁵ It comprises representatives of social and professional communities associated with the educational and research activity, social communication and financial policy.

exhibitions, approx. 10,000 exhibits on display, and educational programmes addressed mainly to school and university students and to families. Visiting the exposition and participating in the educational activity of the NBP Money Centre is free of charge.

In 2021, the activity of the NBP Money Centre was limited due to the COVID-19 pandemic. Nevertheless, the exposition was visited by approx. 80 persons per day. In 2021, the Centre received over 29,000 visitors (compared to 31,000 in 2020), most of whom were individual visitors.

In 2021, the activity of the NBP Money Centre included, among others:

- Continuation of a series of lectures on Poland's economic history, in collaboration with the monthly science and history magazine *Mówią Wieki*, on numismatics (in collaboration with the Polish Numismatic Society) and on economics.
- A series of lectures was initiated entitled: *Welcome to the NBP Money Centre Club*, with the aim of providing a forum for discussion of financial and economic issues from a historical and contemporary perspective.
- The following exhibitions and educational projects were implemented: the open-air exhibition "Polish Gold Reserves" was prepared (presented in 5 cities), the Night of Museums was organised under the slogan "Money – Witness to History", the first edition of the competition for the MA dissertation in the field of socio-economic history was held and the world's first digital collector coin was presented (issued by the Bank of Lithuania).
- The educational board game *NBP Money Centre* was published, addressed to final classes of primary and secondary schools, the Summer in the City campaign was organised and new scenarios for educational activities were prepared.
- The offer of the facility was expanded to include, among others, modern multimedia equipment (so-called holopyramids), updated and graphically enhanced multimedia materials, 3D shows (films: *Polish Gold* and *Victoria 1920*), audio guides in French and new exhibits.⁶

11.2. Communication activities

11.2.1. Communication campaigns and other promotion activities

In 2021, NBP continued its communication activities with the aim of informing the public about the central bank tasks. Due to the pandemic situation, most of the communication activities were carried out on the Internet and on TV. The main focus was on presenting NBP's efforts to counteract the economic impact of the COVID-19 pandemic, as well as to curb the rise in inflation.

⁶ A nineteenth-century secretaire, items of applied art decorated with or used to store numismatics.

Moreover, the following activities were promoted in 2021, among others: the NBP educational projects, work on the National Strategy for Cash Circulation Security, NBP's plans for the accumulation and management of gold reserves, issuing of collector banknotes and coins, the activities of the Sławomir S. Skrzypek NBP Money Centre and publications issued by NBP.

11.2.2. Presentation of NBP's activity on the Internet

Responding to the needs of its audience, NBP increased its communication via the Internet. In 2021:

- NBP websites recorded a total of over 114 million views/hits (an increase of 2.8% compared to 2020), the website www.nbp.pl had 110.6 million views/hits (an increase of more than 3% compared to 2020 and the number of users increased by 1.2%),
- 114 video materials were uploaded on YouTube with the total of 2.2 million viewings (a 70% increase compared to 2020), the total number of viewings since the channel's inception exceeded 6.8 million and the number of subscriptions exceeded 14,000,
- the NBP Facebook profile was followed by 107,000 people, its Twitter profile by more than 26,000 and its LinkedIn profile by almost 47,000 (as at the end of 2021),
- live broadcasts were provided of the NBP Governor's press conferences with the participation of journalists (in the second half of the year),
- broadcasts of award ceremonies for winners of competitions organised by NBP were provided (19th Władysław Grabski Competition, a competition for journalists), as well as other events and lectures (28 broadcasts in total).

11.2.3. Liaising with the media and market analysts

While liaising with the media and market analysts in 2021, NBP:

- informed the public of its reports and analyses, including reports on monetary policy, the financial system (macroprudential supervision, in particular), the payment system and on the macroeconomic situation,
- presented the current activity of the central bank, among others, monetary policy implementation, issuance of the currency (including collector coins and banknotes) and educational activities,
- organised meetings with the media and press conferences and conducted correspondence with journalists.

11.3. Publishing and Library

NBP's publishing activity involves issuing documents related to central bank tasks, research and statistical and analytical papers, and documents aimed at spreading knowledge about economics and finance.

In 2021, a number of publications were released, including, among others: *Annual Report*, *Plan of Activity*, *Report on the Operations of NBP*, *Monetary Policy Guidelines*, *Report on Monetary Policy*, *Balance of Payments of the Republic of Poland*, *Inflation Report*, *Financial System in Poland*, *Financial Stability Report*, *Report on Banking Sector Liquidity and Monetary Policy Instruments*, *Information on home prices and the situation in the housing and commercial real estate market in Poland*, *International Investment Position*, *Report on Systemic Oversight of the Polish Payment*

System, Foreign Direct Investment in Poland and Polish Direct Investment Abroad, Report on Cash Circulation in Poland, The situation in local residential real estate markets in Poland, Payment habits in Poland in 2020, Central bank digital money, Information Bulletin (a statistical monthly), *Bank i Kredyt* (*Bank and Credit*, a scientific journal), *Materiały i Studia* (published in Polish), *NBP Working Papers* (published in English),⁷ *Review of European Issues*, quarterly summaries of the *ECB Economic Bulletin* in Polish. In addition, *the National Strategy for Cash Circulation Security* (in both abbreviated and full version) was issued in 2021. A separate group of publications were educational publications, including: *Bankoteka* (a quarterly educational journal of the NBP Money Centre, in Polish, English and Russian), an anniversary edition of *Bankoteka*, describing 5 years of activity of the NBP Money Centre and the album publication, *History of the Polish Zloty*, presenting the history of the Polish currency against the background of political and economic changes.

NBP runs the Central Library, which is a scientific library, in its Head Office building. It houses one of the biggest collections of publications in Poland relating to economic sciences, specifically banking, finance and management. In 2021, the NBP Central Library was visited by over 4,400 readers. The collection of the NBP Central Library comprises over 155,200 volumes (1,700 more than in 2020). The facility provides tools for effective searching of electronic sources and is adapted to the needs of people with disabilities (a computer station for visually impaired people). The most valuable library materials are preserved and stored in digital form.

11.4. Petitions, complaints, requests and letters

In 2021, NBP handled a total of 2,465 queries (in 2020 – 2,995), including 2,293 letters, 105 complaints and requests, 66 requests for public information and one petition. Correspondence that did not relate to NBP activities was referred to other entities in accordance with their remit or the senders were informed of the authorities or institutions competent to handle the case.

Matters addressed to NBP referred to, among others, the monetary policy of NBP, the economic situation of the country and the effects of the COVID-19 pandemic, the management of foreign exchange reserves, cash transactions and collector coins and banknotes, historical information on banks and financial institutions, information on foreign currency lending, interpretation of legislation, the provision of statistical data as well as the dissemination of economic knowledge, new technologies, the establishment of cooperation and the patronage of NBP. There were also matters concerning the activity of commercial banks and numerous reports of incidents of attempted fraud, including identity theft and phishing.

⁷ A detailed list of publications of *Materiały i Studia* and *NBP Working Papers* series issued in 2021 is presented in the Appendix entitled *List of selected academic publications of NBP*.

Highlights in 2021:

- providing funding for 167 economic education projects carried out all over the country,
- launching of the nationwide *NBP Gold Schools* educational programme,
- expanding the Sławomir S. Skrzypek NBP Money Centre's offer to include new exhibition projects, educational materials and exhibits and to hold the first edition of the MA dissertation competition in the field of socio-economic history,
- continuing NBP's communication activities on the Internet, in particular on social media.

Chapter 12

Legislative activity

Legislative activity¹

12.1. Legislation by the NBP governing bodies

In 2021, the governing bodies of NBP issued 150 legal acts, including 43 by the Governor of NBP, 15 by the Monetary Policy Council, and 92 by the Management Board of NBP.

Out of the legal acts issued by the governing bodies of NBP² in 2021, 40 were promulgated in Monitor Polski (the Official Gazette of the Republic of Poland) and 19 in the Official Journal of Narodowy Bank Polski.

12.2. NBP contribution to legislative activity by state authorities with respect to draft normative acts

Pursuant to the Act on Narodowy Bank Polski, NBP cooperated with the state authorities by issuing opinions on draft normative acts regarding economic policy and with relevance to the banking system. Through these activities NBP sought to ensure the stability of the financial system and the safety and development of the banking system.

In 2021, NBP received:

- 1,267 documents sent as part of the work of the Standing Committee of the Council of Ministers, including 344 bills, for which 14 opinions (NBP positions) were drawn up,
- 72 draft legal acts sent as part of inter-ministerial consultations, including 25 bills and 47 draft regulations, for which 31 opinions (NBP positions) were drawn up,
- 82 bills from the Chancellery of the Sejm, the Chancellery of the Senate and the Chancellery of the President of the Republic of Poland, for which 65 opinions (NBP positions) were drawn up,
- 45 draft legal acts sent as part of the work of the Committee for European Affairs, for which five opinions (NBP positions) were drawn up.

As part of legislative activity in 2021:

- NBP participated in the work of the Committee for European Affairs,
- NBP representatives participated in five consultative conferences, three sessions of legal committees as well as in 20 meetings of Sejm and Senate committees and subcommittees.

Narodowy Bank Polski also contributed to developing solutions in the major areas of the functioning of the state, in particular, by participating in the activities of the following bodies:

- the Council of the Bank Guarantee Fund,
- the Polish Financial Supervision Authority,

¹ Tasks in this field are performed, among others, pursuant to Article 7, Article 12, Article 16(3), Article 17(3) (2) and 17(4), and Article 21(3) and (4) of the Act of 29 August 1997 on Narodowy Bank Polski and pursuant to the provisions of other acts in compliance with delegations included therein for the governing bodies of NBP to adopt legal acts.

² One regulation by the Governor of NBP of 28 December 2021 was promulgated in Monitor Polski on 3 January 2022 (item 1).

- the Financial Stability Committee,
- the Polish Accounting Standards Committee,
- the Export Insurance Policy Committee,
- the Financial Market Development Council,
- the Social Dialogue Council.

12.2.1. Draft legislation related to the operation of the banking system

The most important draft legal acts related to the operation of the banking sector that NBP issued its opinion on in 2021 included:

- bills which subsequently became:
 - the Act of 25 February 2021 Amending the Act – Banking Law and Certain Other Acts (Journal of Laws of 13 April 2021, item 680),
 - the Act of 8 July 2021 Amending the Act on the Bank Guarantee Fund, Deposit Guarantee Scheme and Resolution and Certain Other Acts (Journal of Laws of 31 August 2021, item 1598),
 - the Act of 11 August 2021 Amending the Act on Public Finances and Certain Other Acts (Journal of Laws of 20 August 2021, item 1535),
 - Act of 11 August 2021 Amending the Act on Tax on Goods and Services and the Act – Banking Law (Journal of Laws of 6 September 2021, item 1626),
 - the Act of 17 September 2021 Amending the Act on Payment Services (Journal of Laws of 5 October 2021, item 1814),
 - the Act of 1 October 2021 Amending the Act on Financial Instrument Trading and Certain Other Acts (Journal of Laws of 25 November 2021, item 2140),
 - the Act of 17 December 2021 Amending the Act on Narodowy Bank Polski and the Act – Executive Penal Code (Journal of Laws of 5 January 2022, item 22).
- bills:
 - government Bill amending the Act on Covered Bonds and Mortgage Banks and Some Other Acts,
 - government Bill amending the Act on Macroprudential Supervision of the Financial System and Crisis Management,
 - government Bill on Homeland Defence,
 - government Bill on Payment Services.

12.2.2. Other bills

In 2021, Narodowy Bank Polski participated in issuing opinions on draft legal acts not related directly to the banking sector.

The most important draft legal acts on which opinions were issued and which were subsequently passed concerned e-delivery of registered letters, open data and the re-use of public sector information as well as amendments to the Code of Civil Procedure. The draft legal acts on which NBP issued its opinions and which were not passed included bills on the national symbols of the Republic of Poland, electronic communication and the protection of whistleblowers reporting legal offences.

12.3. Consulting the European Central Bank's draft opinions to draft Community laws and draft national legislation of the EU Member States by NBP

In 2021, NBP participated in assessing 39 proposals for legislative acts (Community laws and national legislation of the EU Member States) on which the ECB issued opinions.³ The ECB opinions on draft Community laws related to:

- the Regulation on cross-border payments in the European Union,
- the Regulation on Markets in Crypto-assets and the Regulation amending Directive (EU) 2019/1937,
- the Regulation on a pilot regime for market infrastructures based on distributed ledger technology,
- the Regulation on digital operational resilience for the financial sector.

The consultations covered also numerous draft legal acts of the EU Member States. Within this framework opinions were also issued on Polish legislation, e.g. the draft act amending the Act on Payment Services and the draft act amending the Act on the Bank Guarantee Fund, the Deposit Guarantee Scheme and Resolution (aimed at streamlining certain lending operations of NBP) – see Section 12.2.1.

Moreover, the ECB opinions on draft legislation concerned, among others, issues related to financial supervision, financial stability strengthening, electronic and cash payments, the oversight of payment systems and counteracting money laundering.

Highlights in 2021:

- participation in the work of the state authorities on draft legal acts with relevance to the banking system and the economy,
- participation in issuing the ECB opinions on proposals of EU legislation and draft legal acts of the EU Member States on, among others, financial and banking issues, including financial supervision, financial stability strengthening as well as payment services, cash transactions and digital finance.

³ According to the provisions of the Treaty on the Functioning of the European Union and the Statutes of the ESCB and the ECB, the ECB is entrusted with the task of issuing opinions on Member State and Community level draft legislative acts concerning the issue of currency, legal tenders, the status and activities of national central banks, the monetary statistics, payment systems and financial institutions.

Chapter 13

International activity

International activity¹

13.1. Duties resulting from Poland's membership of the European Union

In 2021, NBP representatives participated in the activities of EU bodies, including the General Council of the ECB, the General Council of the ESRB, committees and working groups of the ESCB and ESRB, the Council of ECOFIN (informal meetings), and committees and working groups of the Council of the European Union and the European Commission.

The key legislative activities comprised a review of the Capital Requirements Directive and Regulation (CRD VI, CRR III) in respect of the implementation of the final provisions of the Basel III reform, strengthening the resilience of European banks to shocks and supporting the post-COVID-19 economic recovery in the EU.

The activities also covered:

- a legislative package concerning the deepening of the capital markets union (establishing the European single access point,² amendments to the following regulations: on European long-term investment funds, on alternative investment fund managers and on financial instrument markets),
- a package of legal acts constituting the EU strategy in digital finance (regulations on crypto-asset markets, digital resilience of the financial sector and market infrastructures based on distributed ledger technology),
- a review of the Community insurance regulations (a draft amendment to the Solvency II Directive, a proposal for a new directive establishing a framework for the recovery and resolution of insurance and reinsurance undertakings),
- regulations on combating money laundering and the financing of terrorism,
- completing the banking union (a review of the principles of emergency management and deposit guarantees).

13.1.1. Cooperation within the European System of Central Banks

NBP representatives participated in the work of the ESCB to the extent resulting from the status of the central bank of a Member State which remains outside the euro area. They also took part in the online quarterly meetings of the ECB General Council (one of the ECB's decision-making bodies) and in the work of the ESCB committees.

The sessions of the ECB General Council focused on macroeconomic developments and the situation in the financial markets in the euro area countries and other Member States of the EU in the context of the COVID-19 pandemic. The topics discussed included in particular economic activity, changes in the labour market, inflation, exchange rate fluctuations, balance of payments, lending conditions and monetary policy. Moreover, the General

¹ Tasks in this field are performed, among others, pursuant to Article 5, Article 11(2) and (3), Article 23(7) of the Act on Narodowy Bank Polski and the Statutes of the ECB and the ESCB.

² The purpose of establishing the European single access point is to centralise access to publicly available information with relevance to financial services and capital markets, among others.

Council continued to monitor the activities of central banks with regard to the prohibition of financing of the public sector with central bank funds and the prohibition of privileged access. The General Council also discussed the results of the review of the ECB monetary policy and the new ECB monetary policy strategy adopted in 2021.

During the meetings of the ESCB committees as well as the ESCB working groups and task forces the following issues were discussed, among others:

- the impact of low interest rates on financial stability,
- the real utilisation of capital buffers,
- the consolidation of the TARGET2 system with the securities settlement platform T2S,
- amendments to the Central Securities Depository Regulation (CSDR) on improving securities settlement in the European Union and on central securities depositories,
- the digital euro,
- the implementation of the PISA (payment instruments, schemes and arrangements) package constituting the ECB's new oversight approach to payment schemes,
- the harmonisation of licencing/notification regimes for payment system operators in the EU,
- work on the banks' Integrated Reporting Framework (IReF), integrating the existing ESCB statistical reporting requirements for banks,
- the results of the work of the task force on cyber-resilience,
- the draft Regulation on Digital Operational Resilience for the Financial Sector (DORA),
- the implementation of modern ICT technologies allowing central banks to reduce their costs (data processing consolidation, artificial intelligence, cloud processing) and the implementation of a platform for teleconferences and joint work on documents by central banks during the COVID-19 pandemic,
- climate risk monitoring,
- threats in the commercial real estate sector in the EU.

Moreover, as part of NBP representatives' participation in the ESCB committees and task forces, on 13–14 May 2021 NBP organised a meeting of an informal task force of the representatives of money museums and educational centres at central banks (ESCB Money Museums Informal Networking Group).

13.1.2. Collaboration with other EU bodies

In 2021, NBP representatives participated in the activities of the following EU bodies:

- the Economic and Financial Committee (EFC) of the Council of the EU,
- working groups of the Council of the EU and the European Commission.

13.2. Collaboration with international economic and financial institutions

13.2.1. The Organisation for Economic Co-operation and Development (OECD)

In 2021, NBP experts participated in meetings of committees and working groups of the OECD and in the activities under the OECD International Network on Financial Education.

13.2.2. The World Bank Group (WBG)

As part of cooperation with the World Bank Group (WBG), representatives of NBP participated in:

- the Spring and Annual Meetings of the Boards of Governors of the WB and the IMF,
- four negotiation meetings under the 20th Replenishment of the Funds of the International Development Association (IDA20);³ due to the COVID-19 pandemic and its consequences for the poorest countries, negotiations over IDA20 were brought forward by a year.

NBP – in cooperation with the public administration – continued to support the activities of the Polish executive director⁴ representing a group of 9 Member States in the WBG.⁵

In addition, on 20 January 2021 NBP organised the presentation of the World Bank report on *Global Economic Prospects 2021*.

13.2.3. The International Monetary Fund (IMF)

In 2021, as part of cooperation with the IMF, NBP participated in meetings with IMF representatives under Article IV of the IMF Agreement and provided professional support to the Polish representatives at the Fund.⁶

In 2021, NBP, under the temporary increase of the IMF financial resources, continued the following activities:

- standing ready to extend to the IMF an interest-bearing loan up to the amount corresponding to SDR 2.57 billion – as a member of New Arrangements to Borrow (NAB),
- acting as a signatory of the bilateral loan agreement with the IMF for the amount of up to EUR 2.7 billion.

The funds made available by Narodowy Bank Polski to the IMF both under NAB and the bilateral loan agreement will retain their status as foreign currency reserves. So far, the IMF has not used the funds made available under the bilateral loan. Under NAB, as at the end of 2021 the IMF had used the amount corresponding to SDR 30.4 million.

On 2 August 2021, the IMF Board of Governors adopted a resolution on a general allocation of Special Drawing Rights (SDR) equivalent to USD 650 billion (about SDR 453 billion). In the allocation Poland received SDR 3.9 billion.

³ IDA is a unit of the WBG specialising in providing development assistance to the world's poorest countries.

⁴ The representative of Poland – for the first time in history – took up the position on 1 November 2020 (for two years).

⁵ Apart from Poland, the group includes the following members: Azerbaijan, Kazakhstan, Kyrgyzstan, Serbia, Switzerland, Tajikistan, Turkmenistan and Uzbekistan.

⁶ The Polish Minister of Finance acts in the capacity of the Governor of the Republic of Poland at the IMF, and the NBP representative is the Deputy Governor.

13.2.4. The European Bank for Reconstruction and Development (EBRD)

In 2021:

- the Governor of NBP⁷ met with the President of the EBRD,
- NBP representatives participated in the 30th Annual Meeting of the EBRD Board of Governors,
- NBP – in cooperation with the public administration – participated in consultations concerning investment documents and projects considered at the meetings of the EBRD Board of Directors.

13.2.5. The Bank for International Settlements (BIS), the International Bank for Economic Cooperation (IBEC) and the Asian Infrastructure Investment Bank (AIIB)

In 2021, NBP representatives participated in:

- meetings of the Governors of the Bank for International Settlements; the General Meeting of Shareholders of BIS resolved to pay the dividend for the financial year 2020/2021 (NBP received a dividend in the amount of about USD 5.9 million, corresponding to SDR 4.16 million);
- the meeting of the IBEC Council and working meetings related to the current activities of the bank;
- the Annual Meeting of the Board of Governors of the AIIB,⁸ which mainly addressed the issues of recovery from the crisis due to the COVID-19 pandemic and climate finance.

13.2.6. Other activities on the international arena

In 2021, NBP in cooperation with other central banks, international financial institutions and research-oriented universities organised seven international conferences, six of which were held virtually and one in person. In addition to the events already presented in the *Report*, NBP hosted:

- on 15 February 2021: a discussion panel with deputy governors of central banks devoted to monetary policy in Central and Eastern Europe in response to the COVID-19 pandemic;
- on 1 October 2021: a conference “Structural Changes in Central European Economies During and After the COVID Pandemic”. This was the 3rd conference organised in cooperation with the Magyar Nemzeti Bank. One of the speakers was the Secretary General of the Organisation for Economic Co-operation and Development. During the discussions the participants presented expert forecasts on changes in the economy after the COVID-19 pandemic and economic forecasts for Central Europe.

In 2021, in the framework of the technical cooperation of Narodowy Bank Polski with central banks from countries in economic transition, NBP implemented a total of 215 projects, including:

⁷ The Governor of NBP acts in the capacity of the Governor of the Republic of Poland at the EBRD.

⁸ Together with representatives of the Ministry of Finance.

- 23 video conferences,
- 12 webinars on the analysis of direct foreign investment, inflation forecasting models, Bayesian econometrics, time series analysis, cash transactions, counteracting the counterfeiting of notes and coins, economic education and the use of multimedia in central bank communications,
- 180 expert missions within international assistance projects.⁹

Due to the COVID-19 pandemic all the undertakings were held online. In total, 399 persons from 23 central banks attended them.

Moreover, NBP gave 22 consultations on cash transactions, bureau de change activity, human resources management, public procurement, central bank accounting and the payment system.

NBP continued the implementation of the twinning project for the National Bank of Ukraine. In 2021, it completed the implementation of the twinning project for the National Bank of Georgia and the European Commission's assistance programme for the central banks of the Western Balkan countries (first edition).

Highlights in 2021:

- participation in the work of EU bodies on EU draft legislation regulating the functioning of the financial system, concerning, among others amendments to the CRD VI directive and the CRR II regulation on capital requirements, digital finance, as well as work on deepening the capital markets union and completing the banking union,
- increasing the official reserve assets of NBP by SDR 3.9 billion as a result of the general allocation of special drawing rights by the IMF,
- completion of the twinning project for the National Bank of Georgia and the first edition of the European Commission's assistance programme for the central banks of the Western Balkan countries.

⁹ As part of the twinning project for the National Bank of Ukraine, 159 expert missions were organised, as part of the twinning project for the National Bank of Georgia – 16 missions, and as part of the assistance programme for central banks and financial institutions of the Western Balkan countries – five missions.

Chapter 14

Internal development of NBP

Internal development of NBP

14.1. Human resources management

14.1.1. NBP headcount

In 2021, the average headcount at NBP amounted to 3,360 full-time posts and was 5 posts higher than in 2020. This increase was due, among others, to the extension of tasks in the scope of cybersecurity.

Expenses related to the remuneration of employees, along with the related social contributions, were 5.2% higher in 2021 than in 2020 and, including provisions for future liabilities to employees, they went up by 5.6%.

The change in the NBP average head count in 2018–2021 is presented in Table 14.1.

Table 14.1. Change in the NBP average head count in 2018–2021

Specification	2018	2019	2020	2021	2021–2020
Total	3,280	3,312	3,355	3,360	5
Head Office	1,950	1,983	2,008	2,025	17
Regional branches	1,330	1,329	1,347	1,335	-12

Source: NBP data

14.1.2. Developing NBP staff qualifications

The purpose of the NBP training activity is to ensure the competence and reliability of the staff.

In 2021, every employee participated, on average, in 2.7 training events, the same as in 2020. The training activities focused on the development of professional expertise of employees (among others, in the scope of sustainable development). In addition, in connection with the continuing COVID-19 pandemic, training was provided with the aim of maintaining the high personal effectiveness and good mental and physical condition of employees. The induction of newly recruited staff was also supported.

Internships for 21 students of Polish and foreign universities preparing their theses in finance and banking were also organised.

14.2. Organisational changes

In 2021, the following organisational changes were introduced:

- As of 15 January 2021, the Communications Department, the Marketing Department and the Cybersecurity Department were established while the Department of Communications

and Promotion was closed. The aim of the changes was to increase the efficiency of task implementation by separating the areas of communication, promotion and cyber security organisationally from the formerly operating departments. In addition, the Controlling Department was transformed into the Controlling and Operational Risk Department, with a view to streamline management by linking the issues of financial planning and control with operational and compliance risk within a single department.

- As of 12 October 2021, the Economic Analysis Department was transformed into the Economic Analysis and Research Department. The changes were linked with the takeover by this department of the economic research carried out by the closed Department of Research and Financial Innovation. Financial innovation tasks, on the other hand, have been delegated to the Payment Systems Department. As part of the organisational changes, the Money Centre Department was also created, taking over the task of running and developing the exhibition and education facility, the Sławomir S. Skrzypek NBP Money Centre, from the Education and Publishing Department.

14.3. Operational risk management

In 2021, NBP took measures aimed at minimising the probability of the materialisation of events disrupting the implementation of the Bank's tasks, resulting in financial losses or deteriorating NBP's reputation. Current and future threats to the Bank were monitored and identified, including the risk associated with the COVID-19 pandemic.

The promotion of standards included in the *Code of Ethics for Employees of Narodowy Bank Polski* was also continued.

14.4. Investment activity

In 2021, expenditure on investment purchases of NBP amounted to PLN 83.4 million (compared to PLN 83.4 million in 2020). The main areas of investment activities in NBP included ICT and construction infrastructure.

Construction investments mainly focused on the modernisation and reconstruction of infrastructure at the NBP Head Office and regional branches. The ICT investment involved the modernisation of used and implementation of new IT systems and applications, the technological exchange and upgrading of the network, server and data storage infrastructure, the purchase of hardware and the expansion of cybersecurity systems.

14.5. IT support for the banking system and NBP

The most important activities related to IT systems performed in 2021 included:

- commencement of the construction of the new RTGS system in PLN (SORBNET3),
- the construction of a new analytical and reporting platform (MAR) for systems of banking services provided to the State Budget,
- further development of the New Branch System (NSO).

In addition, IT systems were upgraded in the areas of internal accounting, own administrative activities, payment system, monetary policy, exchange rates, prudential reporting, money issue and cash management.

Activities were also carried out to enhance the reliability, efficiency and security of ICT systems.

These included:

- implementation of the NAC (Network Access Control) mechanism enabling blocking of the connection of unauthorised devices to the network,
- implementation of the system protecting against cyber attacks (DNS),
- enhancing the security of applications by installing the latest versions of the databases in use,
- implementation of a system to generate single use passwords on mobile devices to better secure access to NBP applications,
- increasing the security of the storage system through the development of virtualised storage.

14.6. Internal audit

In 2021, 32 audits were conducted. The audits covered, in particular, issues related to IT activity, cash-and-issue activity, accounting and security. The audits also covered research, statistics, education and communication activities, payment system activities, financial system stability, as well as human resources management, risk management and monetary policy.

The audit covered 16 departments of the NBP Head Office and 6 NBP regional branches. The audits resulted in 52 instructions and 57 recommendations. They were aimed at increasing the efficiency of operations and improving the organisational solutions applied as well as removing any irregularities found.

14.7. Activity of NBP regional branches

Narodowy Bank Polski carries out its activity in the field through 16 regional branches located in each voivodeship city.

In 2021, the regional branches:

- in the framework of banking services provided to the State Budget, continued communication and education related to new services for NBP account holders, i.e. payment cards, orders for cash withdrawals in the third-party substitution cash service and ATM withdrawals using a mobile phone,
- in the cash and treasury area, continued the implementation of barcodes in the GS1 standard on the part of cash market participants and implemented the service of converting coins into banknotes or coins of higher denominations using self-service devices.

As in previous years, the regional branches also carried out other tasks related to issuing, foreign exchange, analytical and research activities, as well as education and communication.

14.8. Safety and security

In 2021, activities aimed at ensuring and maintaining an adequate level of security at NBP were carried out, including:

- the development of the internal access control system,
- the implementation of a qualified electronic signature validation service at NBP,
- activities enhancing cybersecurity: systems and tools used by the Security Operations Centre were developed, an inventory of the resources used was performed and directions for NBP development in this area were developed.

Highlights in 2021:

- upgrade of the existing IT systems and introduction of new ones, including for the purpose of enhancing their cybersecurity,
- communication and educational activities related to the introduction of new services for NBP account holders.

Chapter 15

Financial and equity position and financial result of NBP for 2021

Financial and equity position and financial result of NBP for 2021

15.1. Introduction

The aim of this chapter is to present summarised information on financial and equity position and financial result of NBP for 2021.¹ It describes, from the financial perspective, the areas of activity of the central bank, primarily the management of foreign exchange reserves, the conduct of monetary policy, the issuing activity as well as operating expenses and depreciation and amortisation expenses.

In particular, the chapter includes information concerning the Balance Sheet and the Profit and Loss Account in 2021 compared to previous year. The following items are presented in the Balance Sheet: change in the balance sheet total, change in the structure of assets and liabilities, major items of assets and liabilities broken down by foreign currencies and domestic currency. In the Profit and Loss Account, items comprising the net result are presented (e.g. net result on interest, net result on financial operations, net result on commissions and fees) and its main areas (net result on the management of foreign exchange reserves, net result on foreign exchange gains/losses, net result on monetary policy, operating expenses and depreciation and amortisation expenses).

In addition to financial data for 2021 and 2020, in order to show the information presented over a broader time horizon, historical data are also included, i.e. the developments in the financial and equity position in 2017–2021.

The information contained in this chapter is complementary to the *Financial Statements of the Narodowy Bank Polski as at 31 December 2021*, available on the NBP website, together with the *Independent Auditor's Report*.

NBP Balance Sheet

As at the end of 2021, the NBP balance sheet total amounted to PLN 825.3 billion. The increase in the balance sheet total in 2021 by PLN 131.0 billion (18.9%) was mainly driven by transactions of account holders with NBP, the SDR allocation performed by the IMF, changes in currency exchange rates and prices of gold and the continued purchase of securities denominated in zloty for monetary policy purposes.

The main changes in assets were related to:

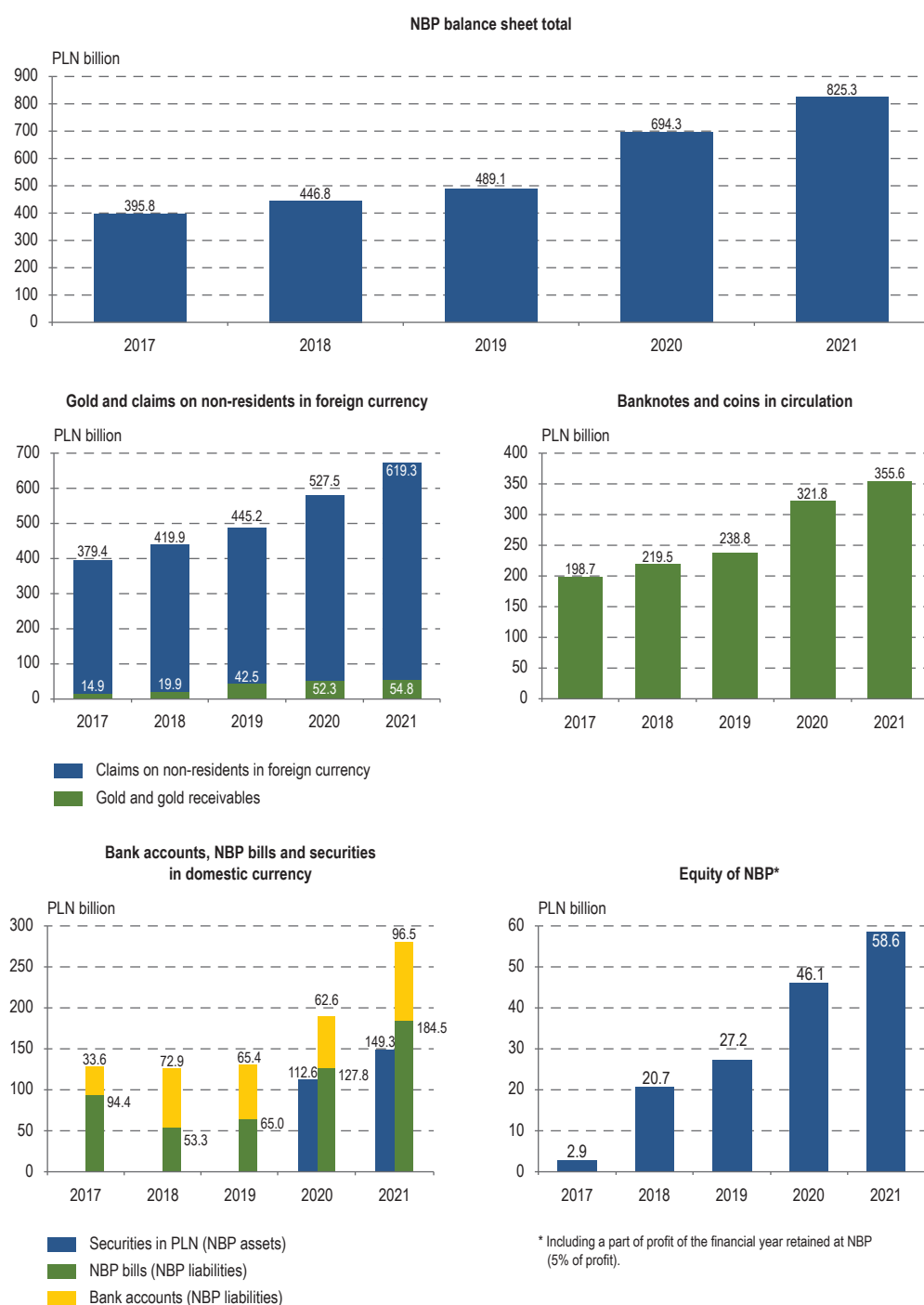
- gold and claims denominated in foreign currency – a total increase of PLN 94.5 billion (16.3%),
- securities denominated in domestic currency – an increase of PLN 36.8 billion (32.7%).

¹ All data included in this chapter are NBP data, including the data from the accounting books of NBP. The figures may not add up to totals due to rounding.

The major changes in liabilities involved:

- liabilities related to monetary policy – a total increase of PLN 90.6 billion (47.6%),
- banknotes and coins in circulation – an increase of PLN 33.8 billion (10.5%),
- equity of NBP, mainly due to currency revaluation gains/losses and FX risk provision – an increase of PLN 14.0 billion (25.6%).

Figure 15.1. Overview of changes in the NBP Balance Sheet in 2017–2021 (as at 31 December of the financial year)



The FX risk provision accumulated with the aim to protect against losses that may occur as a result of the appreciation of the zloty against foreign currencies reached its highest level since 2008 – PLN 16.5 billion.

Profit and Loss Account of NBP

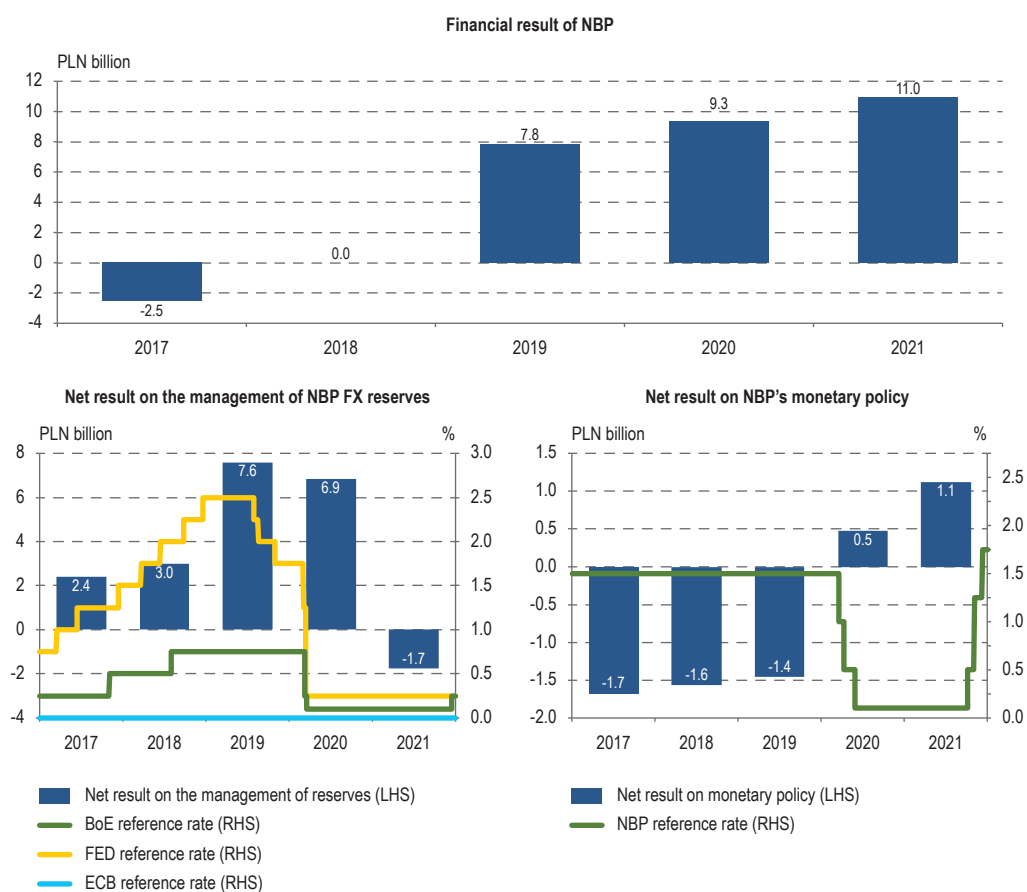
The financial result for 2021 amounted to PLN 11.0 billion. An increase in profit of PLN 1.6 billion (17.4%) was recorded.

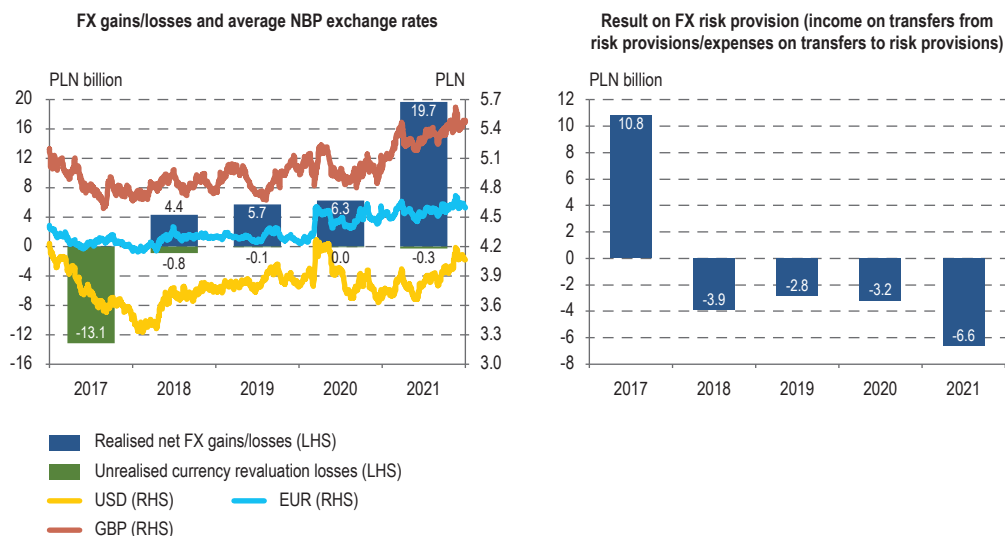
The main elements of the NBP's profit in 2021 included:

- a positive net result on realised foreign exchange gains/losses and gold prices less unrealised currency revaluation losses – PLN 19.4 billion,
 - a positive net result on monetary policy – PLN 1.1 billion,
- less:
- expenses on the FX risk provision – PLN 6.6 billion,
 - a negative net result on the management of foreign exchange reserves (in the currency of an instrument) – PLN 1.7 billion,
 - operating expenses and depreciation and amortisation expenses – PLN 1.4 billion.

A contribution from profit to the State budget in 2022 – PLN 10.4 billion.

Figure 15.2. Overview of changes in the NBP Profit and Loss Account in 2017–2021 (for the relevant financial year)





15.2. Characteristics of the NBP Balance Sheet

As at the end of 2021, NBP recorded an increase in the balance sheet total of PLN 131 billion. Factors affecting this result included transactions carried out by account holders with NBP and the Bank's own transactions which contributed to an inflow of foreign currencies equivalent to almost PLN 58 billion. In addition, in 2021 the International Monetary Fund conducted the SDR allocation, as a result of which the Republic of Poland received SDR 3.9 billion contributing to an increase in the balance sheet total of almost PLN 22 billion. Changes in foreign exchange rates and the price of gold resulted in a further increase in assets and liabilities by almost PLN 32 billion. On the contrary, the continued purchase of securities denominated in zloty for monetary policy purposes contributed to an increase in the Bank's balance sheet total by almost PLN 35 billion.² On the other hand, the decrease in the exposure to simultaneous repo and reverse repo transactions used in the management of foreign exchange reserves at the end of 2021, compared to the end of the previous year, reduced the NBP's balance sheet total by approx. PLN 12 billion.

In 2021, compared to 2020 the balance sheet structure did not change significantly. The SDR allocation led to an increase in receivables from the IMF in assets. On the other hand, on the liabilities side the increase in liabilities due to SDR allocation was offset by a decrease on the balances on foreign currency accounts of residents and non-residents, as well as the reduced exposure to simultaneous repo and reverse repo transactions. Consequently, no corresponding increase in liabilities denominated in foreign currency occurred. Foreign currency flows to NBP due to transactions carried out by account holders are mostly exchanged into domestic currency and increase NBP's liabilities denominated in domestic currency. As a consequence, the NBP balance sheet is characterised by currency asymmetry. This means that assets denominated in foreign currency and gold form the prevailing part of assets, while liabilities denominated in domestic currency (monetary policy, issue of banknotes and coins) prevail on the liabilities side. The result of this asymmetry is an open FX position

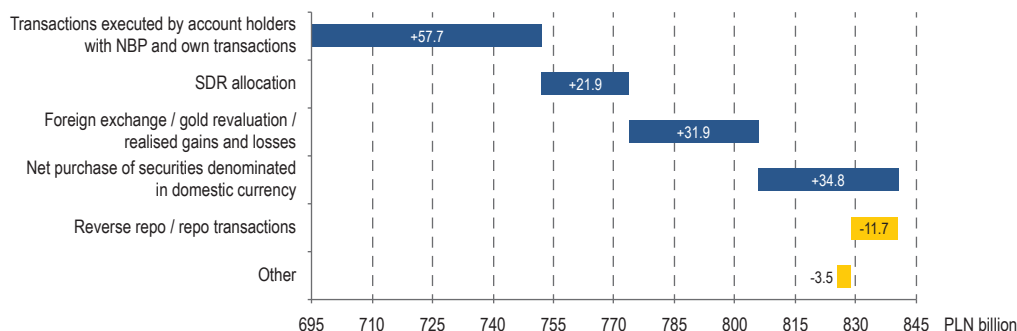
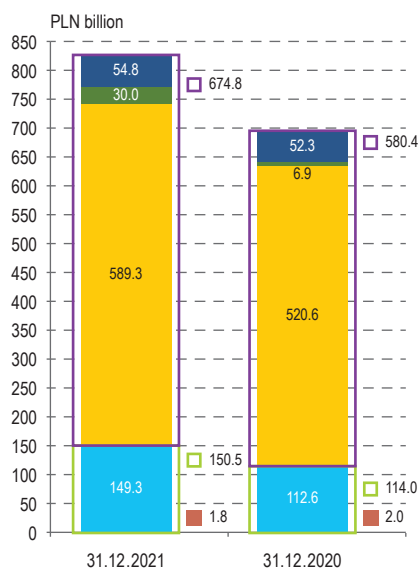
² Including settlements on account of interest payments and redemption of securities at maturity.

of NBP, i.e. a surplus of assets over liabilities denominated in foreign currency, which exposes the Bank to FX risk.

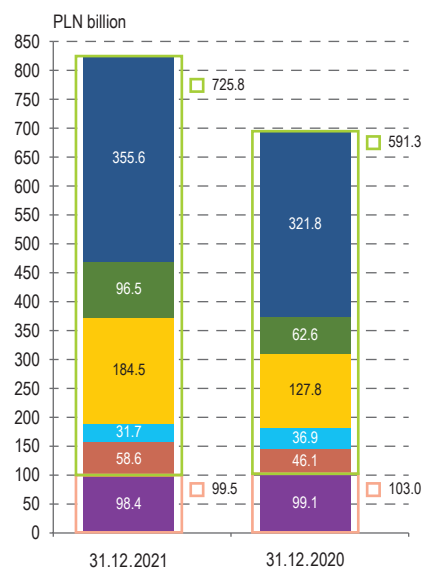
Table 15.1. NBP assets and liabilities at the end of 2021 and 2020 (PLN billion)

Assets	2021	2020	Change
A.1. Gold and gold receivables	54.8	52.3	2.6
A.2. Claims on non-residents denominated in foreign currency	619.3	527.5	91.9
2.1. Receivables from the IMF	30.0	6.9	23.1
2.2. Balances with foreign institutions, securities, loans granted and other foreign assets	589.3	520.6	68.7
A.5. Claims on credit institutions related to monetary policy operations denominated in domestic currency	0.0	0.1	-0.1
A.6. Other claims on credit institutions denominated in domestic currency	0.0	0.0	0.0
A.7. Securities of residents denominated in domestic currency	149.3	112.6	36.8
A.10. Other assets	1.8	2.0	-0.2
Total assets	825.3	694.3	131.0
Liabilities	2021	2020	Change
L.1. Banknotes and coins in circulation	355.6	321.8	33.8
L.2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	96.5	62.6	33.9
L.3. Other liabilities to credit institutions denominated in domestic currency	0.8	0.4	0.3
L.4. Liabilities due to issued securities denominated in domestic currency	184.5	127.8	56.8
L.5. Liabilities to other residents denominated in domestic currency	15.3	24.9	-9.6
L.6. Liabilities to non-residents denominated in domestic currency	4.0	2.2	1.8
L.7. Liabilities to residents denominated in foreign currency	32.6	46.3	-13.6
L.8. Liabilities to non-residents denominated in foreign currency	36.0	45.4	-9.3
L.9. SDR allocation	29.8	7.1	22.6
L.11. Other liabilities	1.1	0.7	0.4
L.12. Provisions	16.7	10.0	6.7
L.13. Revaluation accounts	51.0	45.7	5.3
L.14. Capital	1.5	1.9	-0.4
14.1. Statutory fund	1.5	1.5	0.0
14.2. Reserve fund	0.0	0.4	-0.4
L.15. Financial result	0.0	-2.5	2.5
15.1. Financial result for the financial year	11.0	9.3	1.6
15.2. Loss of previous years	-11.0	-11.9	0.9
Total liabilities	825.3	694.3	131.0

Note: In 2021 the balance of the FX risk provision presented as at 31 December 2020 in item L.14. Capital was transferred to item L.12. Provisions. This applies to all tables and figures in this chapter containing the specified items of the balance sheet.

Figure 15.3. Change in the balance sheet total of NBP in 2021 compared to 2020

Figure 15.4. Structure of assets


- A.1. Gold and gold receivables
- A.2.1. Receivables from the IMF
- A.2.2. Balances with foreign institutions, securities, loans granted and other foreign assets
- A.7. Securities of residents denominated in domestic currency
- Other assets
- Assets denominated in foreign currency
- Assets denominated in domestic currency

Figure 15.5. Structure of liabilities


- L.1. Banknotes and coins in circulation
- L.2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency
- L.4. Liabilities due to issued securities in domestic currency
- Other liabilities denominated in domestic currency
- Equity of NBP
- Liabilities denominated in foreign currency (L.7 + L.8 + L.9)
- Liabilities denominated in domestic currency
- Liabilities denominated in foreign currency

15.2.1. Assets and liabilities in foreign currency and in gold

The items of NBP assets and liabilities in foreign currency and in gold are primarily related to the accumulation and management of foreign exchange reserves (see Chapter 5), the Bank's role of an agent of the government of the Republic of Poland in relations with the IMF (see Chapter 8) and NBP acting as an operator of the Polish component

of the pan-european settlement system for euro-denominated payments (TARGET2-NBP, see Chapter 7).³ In addition, the NBP also maintains bank accounts in foreign currencies as part of its services provided to the State budget (see Chapter 8).

Table 15.2. NBP assets and liabilities in gold and in foreign currency by selected areas of activity at the end of 2021 and 2020 (PLN billion)

	Management of foreign exchange reserves		IMF		Settlements in TARGET2		Services to government sector		Other		Total		
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	Change
A.1. Gold and gold receivables	29.9*	28.3*							24.9**	24.0**	54.8	52.3	2.5
A.2. Claims on non-residents denominated in foreign currency	586.5	517.5	30.0	6.9	2.6	2.9			0.2	0.3	619.3	527.5	91.8
A.10. Other assets									0.6	0.6	0.6	0.6	0.0
Total assets	616.4	545.8	30.0	6.9	2.6	2.9	0.0	0.0	25.7	24.9	674.8	580.4	94.4
L.7. Liabilities to residents denominated in foreign currency					2.6	2.9	29.8	42.9	0.2	0.5	32.6	46.3	-13.6
L.8. Liabilities to non-residents denominated in foreign currency	35.9	45.2							0.2	0.1	36.0	45.4	-9.3
L.9. SDR allocation			29.8	7.1							29.8	7.1	22.6
L.11. Other liabilities									0.7	0.4	0.7	0.4	0.3
L.13. Revaluation accounts									0.4	3.9	0.4	3.9	-3.5
Total liabilities	35.9	45.2	29.8	7.1	2.6	2.9	29.8	42.9	1.5	47.8	99.5	103.0	-3.5
Net balance sheet item	580.5	500.5	0.2	-0.2	0.0	0.0	-29.8	-42.9	24.2	-22.8	575.3	477.4	97.9

* Gold on the current account and term deposits.

** Gold in NBP vaults.

The differences between assets and liabilities in foreign currency and in gold represented foreign currency holdings and gold holdings. In addition to its gold holdings, NBP maintained foreign currency reserves denominated in the US dollar, the euro, the British pound, the Australian dollar, the Norwegian krone, the New Zealand dollar and, from 2021, the Canadian dollar. Moreover, NBP also had a holding of IMF's special drawing rights (SDRs).

The difference between the equivalent of foreign currency holdings and gold holdings at the average NBP exchange rate and the equivalent of these holdings at the average cost of the holding (i.e. the average purchase price) represents unrealised currency/gold revaluation gains or losses. Unrealised gains increase liabilities in the balance sheet (as part of the equity of NBP under the item of revaluation accounts – see Table 15.8), while unrealised losses reduce the financial result (net result on financial operations, see Table 15.12).

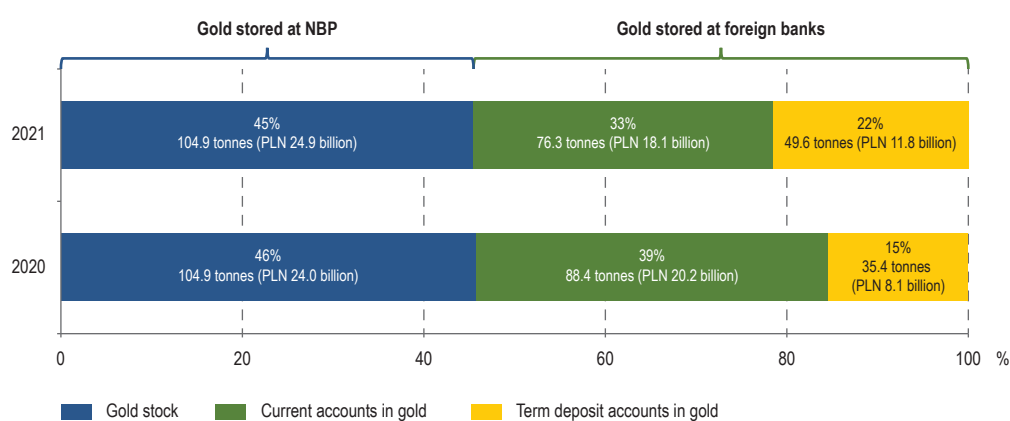
³ Under the TARGET2 system, Narodowy Bank Polski operates the accounts of participants of this system, mainly domestic banks (presented under liabilities of the balance sheet) and also maintains the balance on the current account with the ECB (presented under assets of the balance sheet).

Table 15.3. Holdings of gold and main foreign currencies at the end of 2021 and 2020 (PLN billion)

	2021			2020		
	Holdings at the average cost of holding	Holdings at the average NBP exchange rate	Unrealised gains (+) / losses (-)	Holdings at the average cost of holding	Holdings at the average NBP exchange rate	Unrealised gains (+) / losses (-)
Gold	31.4	54.8	23.5	24.7	52.3	27.5
USD	197.4	212.3	14.9	223.9	225.3	1.4
EUR	103.8	106.0	2.3	84.2	88.5	4.3
GBP	58.4	62.7	4.3	50.9	53.0	2.1
CAD	53.6	53.4	-0.3	0.0	0.0	0.0
AUD	40.7	42.6	1.9	33.0	35.6	2.6
CHF	3.7	3.9	0.3	0.0	0.0	0.0
NOK	27.4	29.0	1.7	25.3	26.8	1.5
NZD	14.1	14.3	0.3	12.8	13.6	0.8
IMF (SDR)	0.3	0.3	0.0	-0.2	-0.2	0.0
Unrealised gains (balance sheet)			49.0	Unrealised gains (balance sheet)		40.3
Unrealised losses (financial result)			-0.3	Unrealised losses (financial result)		0.0

15.2.1.1. Gold

Narodowy Bank Polski holds gold conforming to international standards of purity, stored at foreign banks (on current accounts or on term deposit accounts) and in NBP vaults. Due to the ongoing investment process, the NBP's gold holding increased slightly in 2021 and amounted to 230.8 tonnes (PLN 54.8 billion) as at the balance sheet date, representing 6.6% of NBP's assets (228.7 tonnes and 7.5% at the end of 2020).

Figure 15.6. Gold and gold receivables as at the end of 2021 and 2020


15.2.1.2. Management of foreign exchange reserves (other than gold)

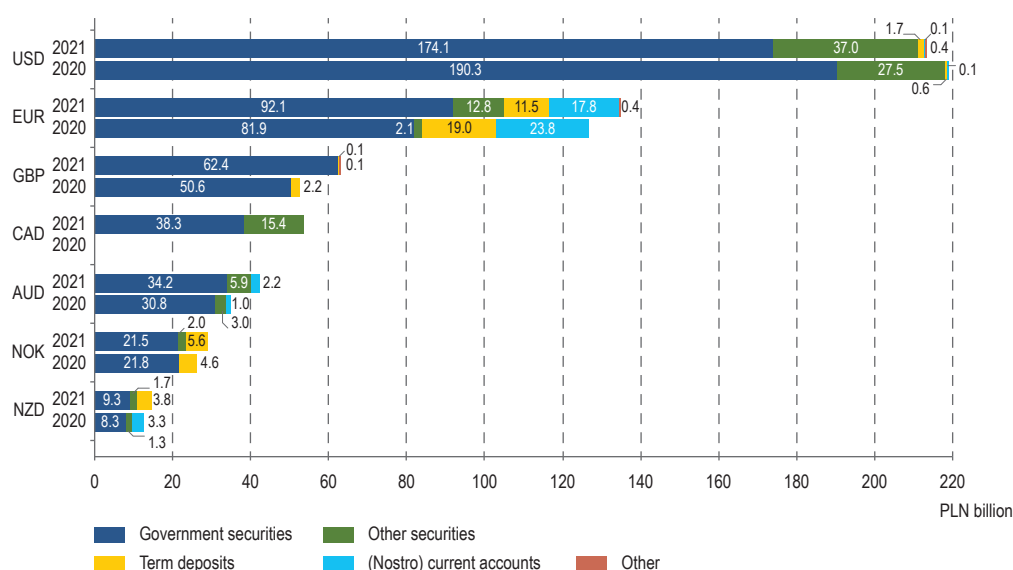
Investment instruments used in the management of foreign exchange reserves account for the largest share of NBP assets. They include primarily securities issued by governments, government agencies and international institutions and, to a lesser extent, term deposits and

bonds of non-financial corporations. In addition, a minor portion of foreign currency reserves is held in current accounts, mainly with foreign central banks. In order to gain additional income, NBP concludes reverse repo transactions (presented under assets of the balance sheet), usually simultaneously to repo transactions (presented under liabilities of the balance sheet) and invests in futures contracts (including equity index futures).

Table 15.4. Main investment instruments of foreign exchange reserves at the end of 2021 and 2020; assets (+), liabilities (-) (PLN billion)

	2021	2020	Change
A.2.2. (Nostro) current accounts	20.2	28.3	-8.1
A.2.2. Term deposits	22.6	26.4	-3.8
A.2.2. Reverse repo transactions	35.9	45.2	-9.3
L.8. Repo transactions	-35.9	-45.2	9.3
A.2.2. Securities	506.8	417.6	89.2
A.2.2. Other	1.0	0.0	1.0
Total	550.6	472.2	78.4

Figure 15.7. Currency composition of foreign exchange reserves (excluding gold) as at the end of 2021 and 2020



The volume of foreign exchange reserves under management was mainly affected by the inflow of foreign currencies to holders of accounts with NBP, as well as the currency revaluation and the price revaluation of securities held. However, the currency and investment composition of the reserves was influenced by the governance decisions of NBP. In 2021, NBP started to invest in CAD. In addition, the Bank created a portfolio of held-to-maturity securities from part of its portfolio of USD-denominated securities.

15.2.1.3. Receivables from and liabilities to the IMF

Narodowy Bank Polski presents in its balance sheet receivables and liabilities related to Poland's participation in the IMF. Items recognised in assets include the member quota in the IMF paid in foreign currency (the so-called reserve tranche), the current account in SDR used for settlements with the IMF and loans extended to the IMF. On the other hand, liabilities due to the SDR allocation granted to Poland are presented under liabilities.

Table 15.5. Receivables (+) from and liabilities (-) to the IMF denominated in SDR as at the end of 2021 and 2020 (PLN billion)

	2021	2020	Change
A.2.1. Reserve tranche	5.7	4.9	0.8
A.2.1. Current account with the IMF	24.1	1.6	22.5
A.2.1. Term deposit with the IMF	0.0	0.0	0.0
A.2.1. Loans extended to the IMF	0.2	0.3	-0.2
L.9. SDR allocation	-29.8	-7.1	-22.6
Total	0.2	-0.2	0.5

The SDR allocation performed by the IMF in 2021 resulted in a simultaneous increase in the current account balance with the IMF and an increase in liabilities to the IMF. As a consequence, it did not affect the holding of SDRs. Change in the NBP FX position in SDR⁴ was mainly the result of operations conducted with the IMF on the basis of concluded loan agreements and borrowing agreements. This item was mainly affected by funds transferred by NBP to IMF borrowers, related to meeting the IMF's borrowing needs (increasing the reserve tranche), and repayments to NBP by IMF borrowers (decreasing loans extended to the IMF).

15.2.2. Assets and liabilities denominated in domestic currency

Assets and liabilities denominated in domestic currency are primarily related to the issuance of cash by NBP, the conduct of monetary policy and the maintenance of bank accounts for the government sector, including the State budget. As most of the financial instruments used for the performance of these functions are liabilities, there is a surplus of liabilities over assets denominated in domestic currency. The increase in this surplus in 2021 mainly resulted from the conversion into domestic currency of foreign currencies transferred to the Bank for the benefit of account holders with NBP.

⁴ NBP also holds SDR-denominated shares in the Bank for International Settlements (PLN 56.9 million as at the end of 2021).

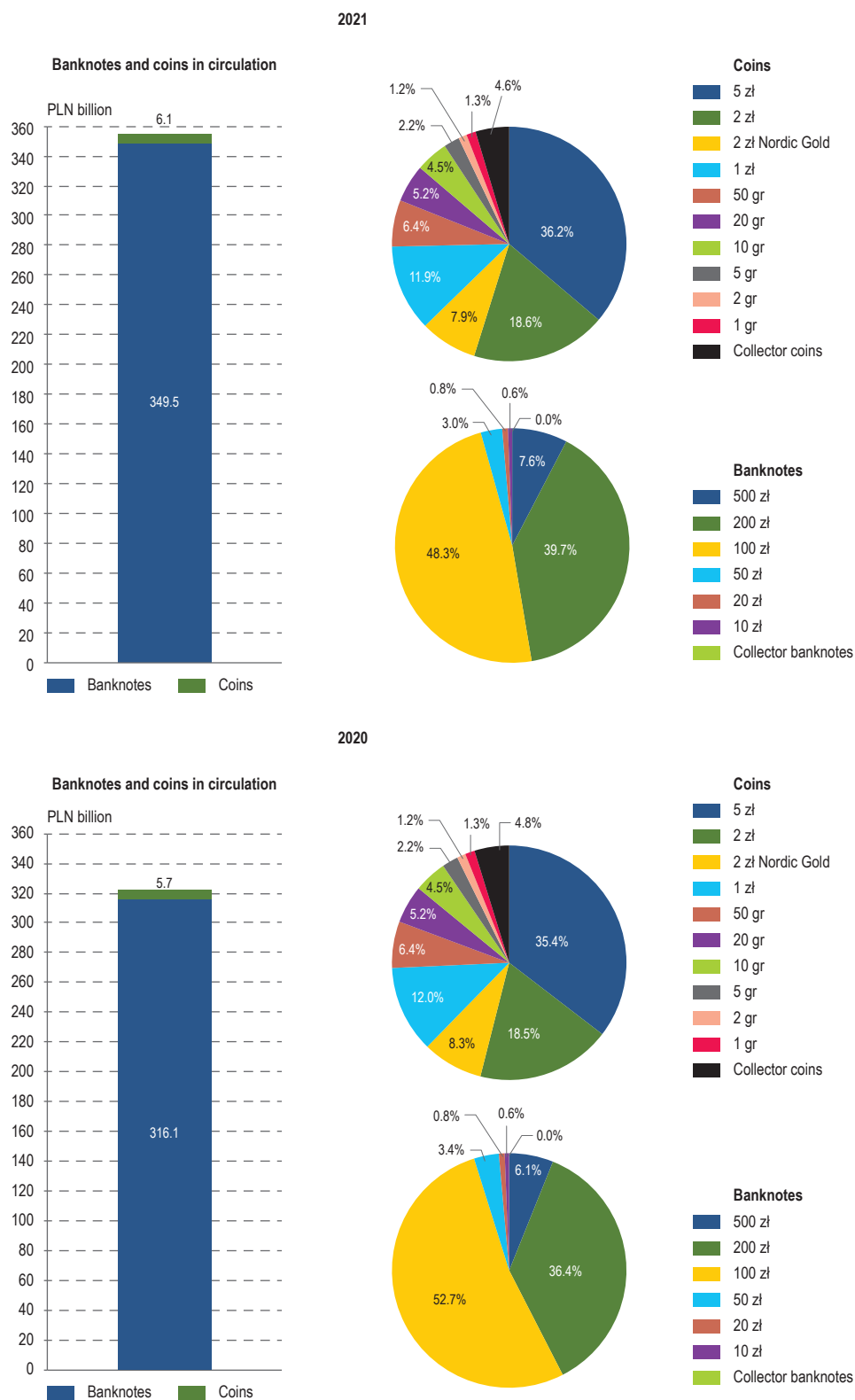
Table 15.6. Assets and liabilities denominated in domestic currency by selected areas of NBP activity as at the end of 2021 and 2020 (PLN billion)

	Issue of banknotes and coins		Monetary policy		Services to government sector		Other		Total		
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	Change
A.5. Claims on credit institutions related to monetary policy operations denominated in domestic currency			0.0	0.1					0.0	0.1	-0.1
A.6. Other claims on credit institutions denominated in domestic currency							0.0	0.0	0.0	0.0	0.0
A.7. Securities of residents denominated in domestic currency			149.3	112.6					149.3	112.6	36.8
A.10. Other assets							1.2	1.3	1.2	1.3	-0.1
Total assets	0.0	0.0	149.3	112.6	0.0	0.0	1.2	1.3	150.5	114.0	36.6
L.1. Banknotes and coins in circulation	355.6	321.8							355.6	321.8	33.8
L.2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency			96.5	62.6					96.5	62.6	33.9
L.3. Other liabilities to credit institutions denominated in domestic currency							0.8	0.4	0.8	0.4	0.3
L.4. Liabilities due to issued securities in domestic currency			184.5	127.8					184.5	127.8	56.8
L.5. Liabilities to other residents denominated in domestic currency					15.2	23.9	0.1	1.0	15.3	24.9	-9.6
L.6. Liabilities to non-residents denominated in domestic currency							4.0	2.2	4.0	2.2	1.8
L.11. Other liabilities							0.4	0.3	0.4	0.3	0.0
L.12. Provisions							16.7	10.0	16.7	10.0	6.7
L.13. Revaluation accounts							50.6	41.9	50.6	41.9	8.8
L.14. Capital							1.5	1.9	1.5	1.9	-0.4
L.15. Financial result							0.0	-2.5	0.0	-2.5	2.5
Total liabilities	355.6	321.8	281.0	190.4	15.2	23.9	74.0	55.3	725.8	591.3	134.5
Net balance sheet item	-355.6	-321.8	-131.7	-77.8	-15.2	-23.9	-72.9	-53.9	-575.3	-477.4	-97.9

15.2.2.1. The issue of currency

The issue of currency is based on the exercise by NBP of its constitutional right to issue currency of the Republic of Poland. NBP issues banknotes and coins of general circulation as well as collector banknotes and coins of various denominations (see Chapter 4). Banknotes and coins issued represent, together with liabilities related to monetary policy, the most significant liability item on the Balance Sheet of NBP. The volume of money issue depends on exogenous factors, in particular on the development of the demand for cash in the economy. The rise in cash money observed in 2021 was associated with an overall increase in money supply in the economy which, as measured by the M2 monetary aggregate, increased by a comparable amount (i.e. 8.8%) in this period. The effect of the COVID-19 pandemic, resulting in an over average increase in the value of cash in circulation in 2020, lost its significance in 2021.

Figure 15.8. The denomination breakdown of currency in circulation as at the end of 2021 and 2020



15.2.2.2. Monetary policy

Narodowy Bank Polski implements monetary policy using a set of instruments adopted by the Monetary Policy Council (see Chapter 2). In 2021, monetary policy was conducted amid a liquidity surplus prevailing in the banking sector. In order to implement the operational objective of the monetary policy NBP uses selected instruments, in particular open market operations based on the issue of NBP bills (presented under liabilities in the Balance Sheet). The reserve requirement was also a monetary policy instrument used by NBP. The obligation to maintain the required minimum reserve (presented under liabilities) limits the scale of open market operations performed to absorb the excess liquidity from the banking sector. NBP provided standing facilities to domestic banks and enabled them to place liquidity surpluses in NBP in the form of overnight deposits (presented under liabilities) or to supplement liquidity needs with the use of lombard credit (presented under assets). In addition, NBP took additional measures to mitigate the negative effects of the COVID-19 pandemic. In particular, it purchased Treasury bonds and securities guaranteed by the Treasury on the secondary market as part of structural open market operations. It also made bill discount credit⁵ available to banks, enabling them to refinance the loans they grant to entrepreneurs (presented under assets).

Table 15.7. Assets (+) and liabilities (–) related to monetary policy as at the end of 2021 and 2020 (PLN billion)

	2021	2020	Change
A.5. Bill discount credits	0.0	0.1	-0.1
A.7. Securities denominated in domestic currency	149.3	112.6	36.8
L.2. Current accounts (including reserve requirement accounts)	-66.1	-30.4	-35.7
L.2. Deposit facilities	-30.5	-32.3	1.8
L.4. NBP bills	-184.5	-127.8	-56.8
Total	-131.7	-77.8	-53.9

As a result of the continuing purchase of securities as well as the purchase of foreign currency for account holders with NBP, there was an increase in liabilities to the banking sector, reduced by the increase in banknotes and coins in circulation over the year (see Chapter 4). Excess liquidity in the banking sector was absorbed through the issue of NBP bills. Banks left part of the funds in current accounts as a deposit facility.

15.2.2.3. Equity of NBP

As the central bank of the state Narodowy Bank Polski is not subject to the capital adequacy regulations applicable to the banking sector. In accordance with the practice adopted among ESCB central banks, in addition to the (statutory and reserve) funds, NBP recognises

⁵ This credit was made available until 19 October 2021.

the following items as components of equity: the FX risk provision,⁶ gold revaluation account, gold holding revaluation gains, currency and securities revaluation gains, a balance sheet loss (of previous years) and a portion of profit for the financial year retained at NBP (5%), which is allocated to increase the reserve fund.

Table 15.8. Equity of NBP as at the end of 2021 and 2020 (PLN billion and %)

	2021	2020	Change
L.12. FX risk provision	16.5	9.9	6.6
L.14. Statutory fund	1.5	1.5	0.0
L.14. Reserve fund	0.0	0.4	-0.4
L.13. Gold revaluation account	1.6	1.6	0.0
L.13. Gold holding revaluation gains	23.5	27.5	-4.1
L.13. Currency revaluation gains	25.5	12.7	12.8
L.13. Price revaluation gains	0.4	3.9	-3.5
L.15. Loss of previous years	-11.0	-11.9	0.9
L.15. Financial result for the financial year retained at NBP*	0.5	0.5	0.1
Total	58.6	46.1	12.5
% of NBP balance sheet total	7.1%	6.6%	0.5 p.p.
Sensitivity of the equity of NBP to:			
– appreciation of the zloty exchange rate against foreign currencies by 1%**	-5.2	-4.4	-0.8
– increase in interest rates by 100 basis points***	-14.9	-9.1	-5.8

* The financial result for the financial year, after the approval of the NBP financial statements by the Council of Ministers, is allocated as a contribution from profit to NBP's reserve fund (5%) and as a contribution from profit to the State budget (95%).

** The figures represent the total decrease in unrealised currency revaluation gains or increase in unrealised currency revaluation losses in the case of an even 1% decrease in the average NBP exchange rates of the main reserve currencies as at the balance sheet date.

*** For foreign currencies – based on the MD (modified duration) ratio, the cumulative decrease in unrealised price revaluation gains or increase in unrealised price revaluation losses in the case of an even increase in yield curves of 100 basis points as at the balance sheet date.

The most volatile components of the equity of NBP include revaluation gains/losses on gold, revaluation gains/losses on foreign currencies and revaluation gains/losses on securities (unrealised gains) and the FX risk provision. Changes in revaluation gains/losses are mainly affected by the trends in market exchange rates and prices.

The aforementioned currency asymmetry generates the risk of a loss as a result of exchange rate volatility, while the probability of its occurrence increases parallel to the scale of appreciation of the zloty against foreign currencies. The creation of the provision decreases the financial result of NBP, simultaneously creating a protection against potential future losses. The release of the provision increases the financial result of NBP, thereby limiting

⁶ In order to counteract the negative impact of volatility in the zloty exchange rate on the NBP financial result, the Act on NBP requires the Bank to create a provision against the foreign exchange rate risk of the zloty (referred to as FX risk provision). The principles for creating and releasing the provision are determined by the Monetary Policy Council (Resolution No. 6/2019 of the Monetary Policy Council of 5 November 2019 on the principles for creating and releasing the provision against the foreign exchange rate risk of the zloty at Narodowy Bank Polski; NBP Official Journal, item 14).

a potential loss resulting from currency revaluation. In 2021, NBP increased the FX risk provision by PLN 6.6 billion, to a record high of PLN 16.5 billion.

Moreover, in 2021, NBP used the reserve fund to cover the loss of previous years.⁷

15.2.3. NBP Balance Sheet – five-year statement

Table 15.9. NBP Balance Sheet in 2017–2021 as at the balance sheet date (PLN billion)

Assets	2021	2020	2019	2018	2017
A.1. Gold and gold receivables	54.8	52.3	42.5	19.9	14.9
A.2. Claims on non-residents denominated in foreign currency	619.3	527.5	445.2	419.9	379.4
2.1. Receivables from the IMF	30.0	6.9	5.3	4.8	3.4
2.2. Balances with foreign institutions, securities, loans granted and other foreign assets	589.3	520.6	439.9	415.0	376.1
A.5. Claims on credit institutions related to monetary policy operations denominated in domestic currency	0.0	0.1	0.0	0.0	0.0
A.6. Other claims on credit institutions denominated in domestic currency	0.0	0.0	0.0	5.6	0.0
A.7. Securities of residents denominated in domestic currency	149.3	112.6	0.0	0.0	0.0
A.10. Other assets	1.8	2.0	1.4	1.4	1.4
Total assets	825.3	694.3	489.1	446.8	395.8
Liabilities	2021	2020	2019	2018	2017
L.1. Banknotes and coins in circulation	355.6	321.8	238.8	219.5	198.7
L.2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	96.5	62.6	65.4	72.9	33.6
L.3. Other liabilities to credit institutions denominated in domestic currency	0.8	0.4	0.4	0.4	0.5
L.4. Liabilities due to issued securities in domestic currency	184.5	127.8	65.0	53.3	94.4
L.5. Liabilities to other residents denominated in domestic currency	15.3	24.9	9.3	7.3	7.6
L.6. Liabilities to non-residents denominated in domestic currency	4.0	2.2	2.3	2.6	2.9
L.7. Liabilities to residents denominated in foreign currency	32.6	46.3	22.4	25.1	19.3
L.8. Liabilities to non-residents denominated in foreign currency	36.0	45.4	43.7	37.9	29.2
L.9. SDR allocation	29.8	7.1	6.9	6.8	6.5
L.11. Other liabilities	1.1	0.7	0.2	0.2	0.2
L.12. Provisions	16.7	10.0	6.9	4.0	0.1
12.1. FX risk provision	16.5	9.9	6.7	3.9	0.0
12.2. Provisions for liabilities	0.2	0.2	0.2	0.1	0.1
L.13. Revaluation accounts	51.0	45.7	30.5	27.2	13.2
L.14. Capital	1.5	1.9	1.5	1.5	3.0
14.1. Statutory fund	1.5	1.5	1.5	1.5	1.5
14.2. Reserve fund	0.0	0.4	0.0	0.0	1.5
L.15. Financial result	0.0	-2.5	-4.0	-11.9	-13.3
15.1. Financial result for the financial year	11.0	9.3	7.8	0.0	-2.5
15.2. Loss of previous years	-11.0	-11.9	-11.9	-11.9	-10.8
Total liabilities	825.3	694.3	489.1	446.8	395.8

⁷ The reserve fund as at the end of 2020 of PLN 0.4 billion increased by 5% of the 2020 profit (i.e. by PLN 0.5 billion).

Changes in the NBP balance sheet total are mainly the result of external foreign currency flows stemming from the execution of transactions of account holders with NBP, fluctuations in the revaluation of financial instruments denominated in foreign currency and in gold and the level of exposure to simultaneous repo and reverse repo transactions, as well as one-off operations (such as the SDR allocation carried out in 2021). In addition, starting from 2020, the level of the NBP balance sheet total was affected by NBP's purchase of securities in domestic currency. This operation also had an influence on the change in the structure of the NBP balance sheet, increasing the share of domestic currency in NBP assets, previously dominated by foreign currency reserves and gold.

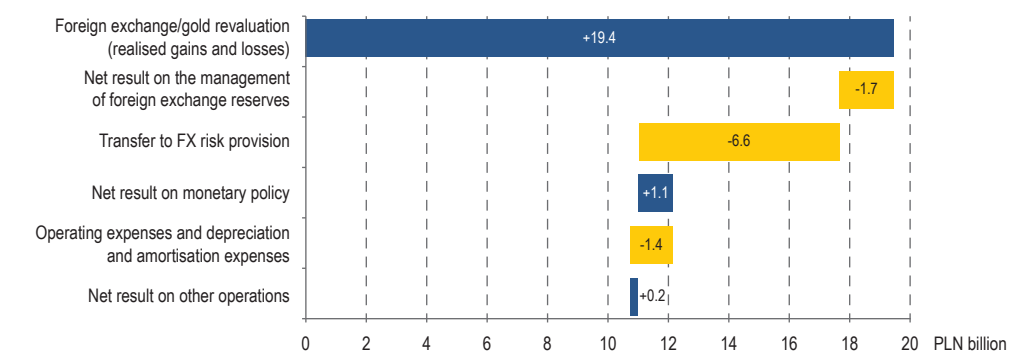
15.3. Characteristics of the NBP Profit and Loss Account

In 2021, Narodowy Bank Polski posted one of its highest financial results in its history – PLN 11.0 billion. The financial result of NBP is derived from the functions it performs as well as market conditions. Such a high financial result, which includes the net result on the management of foreign exchange reserves⁸ and exchange rate gains/losses on foreign currencies and gold prices, stemmed from operations carried out as part of management of reserves denominated in foreign currencies and in gold. In addition, a positive net result on monetary policy contributed to the increase in the financial result. In accordance with the applicable regulations, a part of the surplus earned was allocated to increase the FX risk provision and also covered the operating expenses as well as depreciation and amortisation.

Table 15.10. Financial result of NBP for 2021 and 2020 (PLN billion)

	2021	2020
P&L 1. Net result on interest	2.3	3.1
1.1. Interest income	8.6	8.2
1.2. Interest expenses	-6.4	-5.0
P&L 2. Net result on financial operations	9.9	7.3
2.1. Realised net result	20.3	10.6
2.2. Unrealised losses	-3.7	-0.1
2.3. Net result on impairment of financial assets	0.0	0.0
2.4. Transfer to/from FX risk provision	-6.6	-3.2
P&L 3. Net result on commissions and fees	0.0	0.0
P&L 4. Income on shares and participating interests	0.0	0.0
P&L 5. Other income	0.2	0.1
P&L A. Total net income	12.4	10.6
P&L 6. Salaries	-0.6	-0.6
P&L 7. Administrative expenses	-0.3	-0.2
P&L 8. Depreciation and amortisation costs	-0.1	-0.1
P&L 9. Expenses on issue of banknotes and coins	-0.4	-0.3
P&L10. Other expenses	0.0	0.0
P&L B. Financial result for the financial year	11.0	9.3

⁸ Calculated in the currency of the instruments and subsequently converted into domestic currency.

Figure 15.9. Financial result of NBP for 2021 by areas (PLN billion)

As a result of the prevailing role of financial instruments in the NBP Balance Sheet, the most important elements of the Bank's Profit and Loss Account are related to interest, discount and premium (net result on interest) and foreign exchange gains/losses and price revaluation gains related to the trading in investment instruments of foreign exchange reserves (net result on financial operations) as well as the implementation of monetary policy. In addition, NBP incurs costs related to its operations (salaries, administrative costs, expenses on issue of banknotes and coins and depreciation and amortisation expenses). In 2021, compared to the previous year, a decrease in net result on interest was recorded, related among others, to low yields on foreign markets where foreign exchange reserves are invested. On the other hand, the increase in the net result on financial operations was mainly a consequence of transactions involving foreign currencies and gold, as well as the start of investment in equity index futures. The net result on financial operations was reduced by expenses on the FX risk provision and expenses resulting from the revaluation of securities in foreign currency, especially in view of the increase in their yields observed in the second half of the year.

15.3.1. Net result on the management of foreign exchange reserves

Income and expenses related to investment instruments of foreign exchange reserves mainly involve interest on securities and deposits (presented under the net result on interest), result on the sale transactions in securities and price revaluation of securities (only revaluation losses⁹) and the net result on off-balance sheet financial instruments (presented under the net result on financial operations¹⁰). The net result on the management of foreign exchange reserves is largely determined by the trends in factors beyond the control of NBP. These factors include mainly: the volume of the inflow of funds in foreign currency from abroad and their exchange into domestic currency in NBP (which affects the level of foreign exchange reserves) and the developments in financial markets – exchange rates against the zloty and interest rates in foreign markets, value of equity indices. The net

⁹ Securities denominated in foreign currency, excluding the portfolio of securities held to maturity, are valued according to the average market price or based on yield curve rates (if market prices are not available). In accordance with the principle of prudence, revaluation gains are recognised under liabilities in the NBP Balance Sheet (as an element of the equity of NBP) and therefore they do not increase the financial result of NBP. Securities denominated in foreign currency held to maturity are valued at their clean price adjusted for calculated discount and premium, less impairment.

¹⁰ Refers to the valuation of derivatives used in connection with the management of foreign currency reserves.

result on the management of foreign exchange reserves is also affected by the adopted investment structure of foreign exchange reserves, i.e. their currency composition and the type of financial instruments used.

Table 15.11. Net result on the management of foreign exchange reserves in 2021 and 2020 by currency and instrument (PLN billion)

2021	USD	EUR	GBP	CAD	AUD	NOK	NZD	Total
P&L 1. Net result on interest	1.4	-0.9	0.1	0.0	0.2	0.2	0.1	1.2
Term deposits	0.0	-0.3	0.0	0.0	0.0	0.0	0.0	-0.2
Reverse repos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Repos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Securities	1.4	-0.6	0.1	0.0	0.2	0.2	0.1	1.4
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P&L 2. Net result on financial operations	-0.4	-0.1	-0.7	0.0	-0.7	-0.7	-0.4	-2.9
Realised price gains/losses	0.5	0.3	0.0	0.0	-0.2	-0.1	0.0	0.5
Price revaluation losses	-0.9	-0.4	-0.7	0.0	-0.5	-0.5	-0.4	-3.4
Financial result for the current year	1.0	-1.0	-0.6	0.0	-0.5	-0.5	-0.2	-1.7
2020	USD	EUR	GBP	CAD	AUD	NOK	NZD	Total
P&L 1. Net result on interest	2.4	-0.6	0.2	0.0	0.3	0.2	0.2	2.7
Term deposits	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.0
Reverse repos	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Repos	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Securities	2.4	-0.4	0.2	0.0	0.3	0.2	0.2	2.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P&L 2. Net result on financial operations	2.3	0.4	0.7	0.0	0.8	0.0	0.0	4.2
Realised price gains/losses	2.3	0.4	0.7	0.0	0.8	0.0	0.0	4.2
Price revaluation losses	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Financial result for the financial year	4.7	-0.2	0.9	0.0	1.1	0.2	0.2	6.9
Change of financial result for the current year	-3.6	-0.7	-1.5	0.0	-1.6	-0.7	-0.5	-8.6

Note: Interest on term deposits in gold is also included, which is accrued and paid in USD.

The main reason for the decrease in the net result on the management of foreign exchange reserves in 2021 compared to the previous year was the increase in yields (decline in securities prices) in foreign markets observed in 2021, especially in the second half of the year. It affected expenses on price revaluation of securities held by NBP. The decline in the net result was partly offset by the launch of the investment in equity index futures.

15.3.2. Foreign exchange/gold revaluation gains/losses and transfer to/from FX risk provision

The impact of changes in foreign exchange rates and gold prices on the NBP financial result depends on the trends in the exchange rate of the zloty against foreign currencies and the price of gold both during the year (realised FX gains/losses) and as at the balance sheet date (unrealised gains/losses on valuation of foreign currency holdings and gold holdings). Realised foreign exchange gains/losses are presented under the net result on financial operations.

However, at the end of the year the impact on the NBP financial result due to foreign currency holdings is asymmetrical. Currency revaluation losses and gold revaluation losses (unrealised losses) decrease the net result on financial operations. On the other hand, currency revaluation gains and gold revaluation gains (unrealised gains) increase the equity of NBP and are not recognised in the NBP financial result.

Foreign exchange gains/losses represent the most volatile element of the NBP financial result. The net result on realised foreign exchange gains/losses in 2021 mainly related to the sale transactions of USD, EUR, GBP and AUD. This result rose by PLN 7.2 billion (114.2%) from 2020, mainly due to the sale of USD, which was linked to the launch of investment in CAD as part of further currency diversification of reserves as well as an increase in the average annual positive difference between the average NBP rate and the average cost of the holding for AUD, NOK, GBP and NZD. On the other hand, in the case of gold the increase in foreign exchange gains/losses resulted from the investment policy.

Table 15.12. Foreign exchange/gold revaluation gains/losses and transfer to/from FX risk provision in 2021 and 2020 (PLN billion)

	2021								
	USD	EUR	GBP	CAD	AUD	NOK	NZD	Gold	Total
P&L 2. Result on financial operations	6.6	1.7	1.6	-0.3	1.5	1.2	0.8	6.1	12.8
Foreign exchange gains/losses	6.6	1.7	1.6	-0.3	1.5	1.2	0.8	6.1	19.4
– realised foreign exchange gains/losses	6.6	1.7	1.6	0.0	1.5	1.2	0.8	6.1	19.7
– currency revaluation losses	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	-0.3
Transfer to FX risk provision									-6.6
	2020								
	USD	EUR	GBP	CAD	AUD	NOK	NZD	Gold	Total
P&L 2. Net result on financial operations	3.8	1.4	0.7	0.0	0.4	-0.2	0.3	0.0	3.2
Foreign exchange gains/losses	3.8	1.4	0.7	0.0	0.4	-0.2	0.3	0.0	6.3
– realised foreign exchange gains/losses	3.8	1.4	0.7	0.0	0.4	-0.2	0.3	0.0	6.3
– currency revaluation losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Transfer to FX risk provision									-3.2
Change in net result on financial operations	2.8	0.3	0.9	-0.3	1.1	1.5	0.6	6.2	9.6

The FX risk provision protects the central bank against the materialisation of FX risk and its adverse impact on the financial result (in the case of NBP, the value of foreign currency assets is negatively affected by the appreciation of the zloty). In 2021, NBP continued to build up the provision (fully used in 2017), which was replenished by the amount of PLN 6.6 billion (to PLN 16.5 billion).

15.3.3. Net result on monetary policy

NBP bills were the main instrument of monetary policy conducted amid a liquidity surplus prevailing in the domestic banking sector. In connection with the issue of bills, NBP incurs discount expenses (presented under the net result on interest). The level of expenses of monetary policy mainly depends on the level of interest rates set by the Monetary Policy Council, the excess liquidity of the banking sector, the required minimum reserve rate

and its interest rate. On the other hand, the NBP measures to reduce the negative impact of the COVID-19 pandemic resulted in an increase in net income related to the securities denominated in domestic currency purchased (interest, discount and premium presented in the net result on interest).

Table 15.13. Net result on monetary policy conducted in 2021 and 2020 (PLN billion)

	2021	2020	Change
P&L 1. Net result on interest	1.1	0.5	0.6
NBP bills	-0.8	-0.5	-0.3
Required minimum reserve	-0.1	-0.1	0.0
Deposit facility	-0.1	0.0	0.0
Securities in denominated in domestic currency	2.0	1.1	0.9

In 2021, NBP posted a positive result on its monetary policy. The increase in the result compared to the previous year was primarily associated with rising income on purchased securities. It was partially offset by the rising expenses of discount on bills issued by NBP, which was associated with an increase in the excess liquidity of the banking sector and the increase in NBP interest rates towards the end of 2021.

15.3.4. Operating expenses and depreciation and amortisation expenses

In 2021, NBP recorded an increase in operating expenses and depreciation and amortisation expenses by PLN 0.05 billion (4.3%) compared to 2020. This was associated, among others, with an increase in salaries in line with the adopted HR and payroll policy, administrative expenses and expenses on issue of banknotes and coins (i.e. the cost of producing banknotes and coins). Expenses on issue of banknotes and coins depend primarily on the number of banknotes and coins ordered and their purchase prices as well as the cost of purchasing bullion for coin production.

Figure 15.10. Structure of operating expenses and depreciation and amortisation expenses in 2021 and 2020

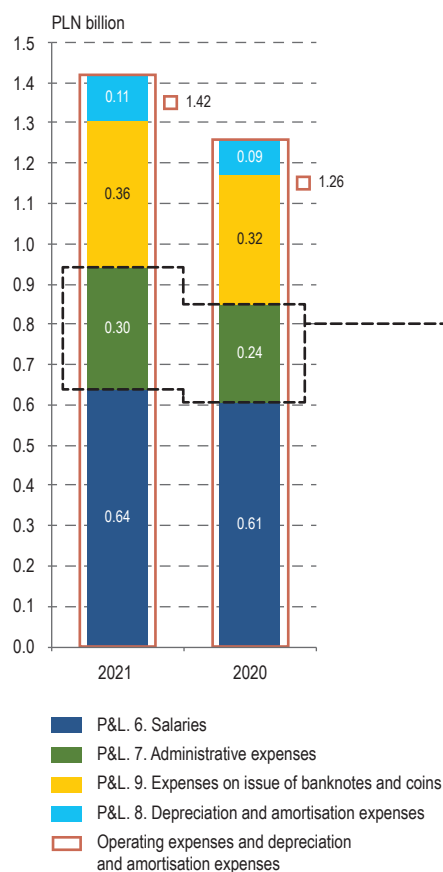
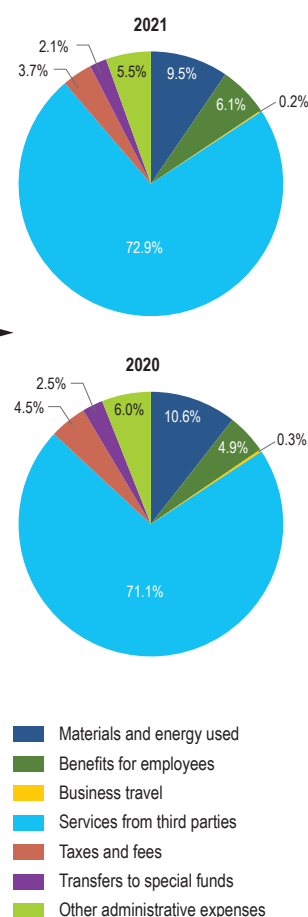
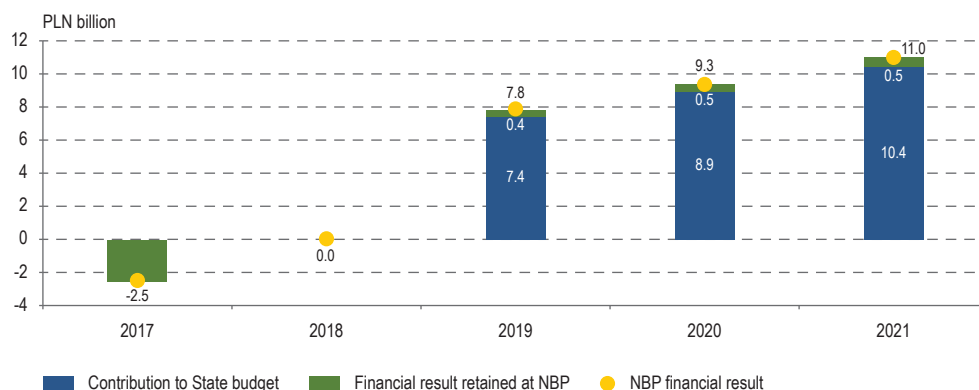


Figure 15.11. Structure of administrative expenses in 2021 and 2020



15.3.5. Allocation of the financial result and contribution from profit to the State budget

The financial result of NBP as at the end of 2021 amounted to PLN 11.0 billion. Pursuant to the Act on NBP, PLN 10.4 billion (i.e. 95%) was allocated to the State budget as contribution from NBP's profit, while the amount of PLN 0.5 billion (i.e. 5%) increased the NBP reserve fund. Contribution from NBP's profit is made after the Financial Statements of Narodowy Bank Polski have been approved by the Council of Ministers.

Figure 15.12. Financial result and contribution from profit to the State budget in 2017–2021

Note: The result provided for a given year, a contribution to the State budget is made in the following year after the approval of the annual financial statements of NBP by the Council of Ministers.

Seigniorage

The issue of cash involves the cost of purchasing banknotes and coins. Unlike other NBP liabilities, the liability due to the issue of banknotes and coins does not bear interest and therefore does not generate interest expenses. On the other hand, financial assets acquired in return generate certain income for NBP.

Income earned on assets whose source of financing is the liability due to the issue of banknotes and coins, less expenses on the issue, is referred to as the seigniorage. It represents the income from the issue of money.

Bearing in mind that the main assets of NBP are foreign exchange reserves (including gold) and – since 2020 – also securities denominated in domestic currency held for monetary policy purposes, in simple terms it can be assumed that what constitutes the income on the issue of money is net result on the management of foreign exchange reserves, including net result on foreign exchange gains/losses and net result on securities denominated in domestic currency, in a part respectively corresponding to the share of liabilities due to the issue of money in the total assets of NBP less expenses on the issue of banknotes and coins. In 2021, the estimated seigniorage amounted to PLN 8.4 billion (PLN 6.5 billion in 2020).

15.3.6. NBP Profit and Loss Account – five-year statement

Foreign exchange reserves and the rates of return on their investment (taking into account FX exchange rates), as well as the volume of monetary policy operations and domestic interest rates have the greatest influence on the amount of the NBP financial result earned. Changes in the financial result are most often caused by the volatility of FX exchange rates against the Polish zloty (e.g. a 2017 loss). To a lesser extent, they are affected by changes in the yields on securities in foreign markets and on the level of domestic interest rates.

Table 15.14. NBP Profit and Loss Account in 2017–2021 (PLN billion)

	2021	2020	2019	2018	2017
P&L 1. Net result on interest	2.3	3.1	3.3	2.6	0.8
P&L 2. Net result on financial operations	9.9	7.3	5.6	-1.5	-2.4
P&L 3. Net result on commissions and fees	0.0	0.0	0.0	0.0	0.0
P&L 4. Income on shares and participating interests	0.0	0.0	0.0	0.0	0.0
P&L 5. Other income	0.2	0.1	0.1	0.1	0.1
P&L A. Total net income	12.4	10.6	9.0	1.2	-1.4
P&L 6. Salaries	-0.6	-0.6	-0.6	-0.5	-0.5
P&L 7. Administrative expenses	-0.3	-0.2	-0.3	-0.3	-0.2
P&L 8. Depreciation and amortisation expenses	-0.1	-0.1	-0.1	-0.1	-0.1
P&L 9. Expenses on issue of banknotes and coins	-0.4	-0.3	-0.3	-0.3	-0.3
P&L 10. Other expenses	0.0	0.0	0.0	0.0	0.0
P&L B. Financial result for the financial year	11.0	9.3	7.8	0.0	-2.5

Appendix 1

Selected macroeconomic and financial data

Selected macroeconomic and financial data

Table A1. GDP and its components in 2013–2021

	2021		2013	2014	2015	2016	2017	2018	2019	2020	2021	2021				
	Current prices (PLN bn)	Per cent of GDP	Annual growth at previous year's prices (in %)										Q1	Q2	Q3	Q4
GDP	2,622.2	100.0	1.1	3.4	4.2	3.1	4.8	5.4	4.7	-2.2	5.9	-0.6	11.3	5.5	7.6	
Domestic demand	2,503.0	95.5	-0.6	4.8	3.7	2.3	4.9	5.6	3.6	-2.9	7.6	-0.5	11.8	8.2	10.9	
Consumption	1,969.7	75.1	0.8	2.8	3.4	3.5	4.2	4.3	4.5	-1.0	5.3	0.3	10.6	4.2	6.7	
Household consumption	1,458.3	55.6	0.3	2.6	3.8	3.9	4.8	4.3	4.0	-3.0	6.1	-0.2	13.0	4.7	8.0	
Capital formation	533.3	20.3	-5.8	12.8	4.7	-2.0	7.6	10.5	0.3	-10.2	17.7	-4.6	17.2	27.3	24.1	
Gross fixed capital formation	434.0	16.6	-1.1	10.0	6.1	-8.2	4.0	9.4	6.1	-4.9	3.8	-1.3	3.0	6.6	5.2	
Exports	1,592.9	60.7	5.5	6.7	8.0	9.3	9.6	6.9	5.2	0.0	11.8	7.4	29.8	7.3	6.1	
Imports	1,473.8	56.2	1.6	9.9	6.9	7.9	10.2	7.4	3.0	-1.1	15.9	8.6	33.8	12.5	12.2	
Value added	2,279.8	86.9	1.2	3.4	4.1	3.1	4.7	5.3	4.6	-2.2	5.6	-0.9	10.4	5.4	7.5	
Industry	612.9	23.4	0.7	4.7	4.3	4.2	2.3	5.4	3.0	-3.3	14.2	8.0	27.2	10.4	14.0	
Construction	151.9	5.8	-5.5	9.0	7.2	-8.1	6.5	11.8	-0.3	-7.8	1.3	-14.4	3.1	5.2	5.6	
Market services and agriculture	1,182.9	45.1	2.5	2.4	4.1	4.8	6.4	5.3	6.3	-2.5	2.9	-5.1	7.2	4.1	5.4	
Non-market services	332.1	12.7	0.9	1.7	2.0	1.3	2.2	1.7	3.9	3.7	3.2	3.5	3.5	2.9	2.9	
Contribution to GDP growth at previous year's prices (in percentage points)																
Domestic demand	–	–	-0.6	4.8	3.6	2.2	4.7	5.4	3.4	-2.8	7.1	-0.5	10.9	7.6	10.1	
Consumption	–	–	0.6	2.3	2.6	2.6	3.2	3.3	3.3	-0.7	4.0	0.2	8.0	3.3	4.7	
Household consumption	–	–	0.2	1.6	2.2	2.2	2.7	2.5	2.3	-1.7	3.4	-0.2	7.2	2.8	3.9	
Capital formation	–	–	-1.2	2.5	1.0	-0.4	1.5	2.1	0.1	-2.1	3.1	-0.7	2.9	4.3	5.4	
Gross fixed capital formation	–	–	-0.2	1.9	1.2	-1.6	0.7	1.7	1.1	-0.9	0.7	-0.2	0.5	1.1	1.1	
Net exports	–	–	1.7	-1.4	0.6	0.9	0.1	0.0	1.3	0.6	-1.2	-0.1	0.4	-2.1	-2.5	
Contribution to value added growth at previous year's prices (in percentage points)																
Industry	–	–	0.2	1.2	1.1	0.6	1.4	0.7	-0.8	3.5	2.0	5.6	2.3	4.0		
Construction	–	–	-0.4	0.7	0.6	-0.6	0.5	0.8	0.0	-0.6	0.1	-0.7	0.3	0.4	0.4	
Market services and agriculture	–	–	1.3	1.3	2.1	2.5	3.3	2.8	3.3	-1.3	1.5	-2.7	4.0	2.3	2.6	
Non-market services	–	–	0.1	0.3	0.3	0.2	0.3	0.3	0.6	0.5	0.5	0.6	0.5	0.4	0.4	

Notes: Market services and agriculture are covered by sections A, G–N and R–U of the PKD classification [Polish Classification of Economic Activity]: agriculture, trade, transportation, accommodation and catering, information and communication, financial and insurance activity, real estate activities, professional, scientific and technical activities, administration and support service activities, arts, entertainment and recreation, other service activity, activities of households and extraterritorial organisations and bodies. Non-market services comprise categories O, P and Q of the PKD classification: public administration and defence, compulsory social security, education, human health and social work activities. Contributions to GDP and value-added growth may not add up to total GDP and value added growth due to rounding.

Source: Statistics Poland data, NBP calculations.

Table A2. Annual growth in consumer goods and services prices and the contribution of the main price categories to CPI

	Weights 2021, per cent	Change (y/y, per cent)													2021 average	2020 average
		2021														
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII			
CPI	100.0	2.6	2.4	3.2	4.3	4.7	4.4	5.0	5.5	5.9	6.8	7.8	8.6	5.1	3.4	
Core inflation	56.5	3.9	3.7	3.9	3.9	4.0	3.5	3.7	3.9	4.2	4.5	4.7	5.3	4.1	3.9	
Non-food products	32.7	1.4	1.4	1.4	1.8	2.0	1.7	1.8	2.0	2.4	2.9	3.3	3.6	2.1	1.4	
Services	23.8	7.4	7.0	7.3	6.8	6.8	6.1	6.2	6.6	6.6	6.8	6.6	7.6	6.8	6.9	
Food and non-alcoholic beverages	27.7	0.8	0.6	0.5	1.2	1.7	2.0	3.1	3.9	4.4	5.0	6.4	8.6	3.2	4.7	
Processed	14.8	2.4	2.5	2.5	2.9	2.6	2.7	3.4	3.9	4.5	5.6	7.1	8.6	4.1	3.2	
Unprocessed	12.9	-1.0	-1.6	-1.7	-0.6	0.7	1.1	2.8	3.9	4.3	4.2	5.6	8.7	2.1	6.5	
Energy	15.7	1.1	1.3	5.4	11.6	13.2	11.7	13.4	13.7	14.4	18.3	21.3	20.6	12.1	-0.6	
Energy carriers	10.5	6.1	4.1	4.2	4.0	4.4	4.4	5.3	6.6	7.3	10.5	13.6	14.3	7.1	4.9	
Electrical energy	4.5	15.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	11.7	
Gas	2.2	-5.2	-3.9	-3.4	-4.3	-2.0	-2.0	2.7	8.1	9.2	16.1	17.5	18.8	4.1	-2.5	
Liquid and solid fuels	1.4	2.2	2.5	2.5	2.6	2.7	2.8	2.2	2.7	5.4	18.3	37.4	39.8	10.2	1.0	
Heat energy	2.4	2.7	2.4	2.5	2.2	1.7	1.8	1.7	2.0	2.5	3.2	4.3	5.0	2.7	2.4	
Fuels	5.3	-7.4	-3.7	7.6	28.1	33.0	27.3	30.0	28.0	28.6	33.9	36.6	32.9	22.1	-10.4	
According to 12 COICOP groups																
Food and non-alcoholic beverages	27.7	0.8	0.6	0.5	1.2	1.7	2.0	3.1	3.9	4.4	5.0	6.4	8.6	3.2	4.7	
Alcoholic beverages and tobacco products	6.9	3.4	2.1	2.1	1.7	1.8	1.7	1.6	1.8	2.1	2.0	2.2	2.5	2.1	4.4	
Clothing and footwear	4.2	-3.7	-2.9	-1.4	-0.3	0.8	-0.5	-0.6	0.0	0.5	0.7	1.9	2.9	-0.2	-2.6	
Home maintenance and energy carriers	19.1	7.6	6.1	6.0	5.7	6.0	5.9	6.2	6.9	7.2	9.0	10.7	11.2	7.4	7.3	
Home equipment and household maintenance	5.8	1.8	2.2	1.9	2.6	3.0	2.6	3.4	3.3	3.8	5.3	5.4	5.7	3.4	1.0	
Health	5.4	4.5	4.5	3.7	3.4	2.6	2.6	2.8	3.0	3.1	3.2	3.1	3.4	3.3	4.8	
Transport	8.9	-4.0	-1.6	5.4	16.2	19.5	16.5	18.5	17.8	18.5	22.1	24.1	22.7	14.4	-5.6	
Communication	5.0	5.7	5.1	7.4	7.6	6.6	4.2	3.6	4.2	5.3	6.0	4.7	5.4	5.5	3.6	
Recreation and culture	5.8	3.6	4.1	4.9	5.4	5.7	4.8	5.6	5.8	4.8	5.0	5.7	6.2	5.1	2.8	
Education	1.0	5.5	5.5	5.5	5.5	5.8	5.0	4.8	4.8	4.3	4.6	4.4	4.4	5.0	5.4	
Restaurants and hotels	4.6	5.4	4.9	4.6	4.4	5.0	5.7	6.1	6.6	7.0	7.5	7.6	8.4	6.1	5.8	
Miscellaneous goods and services	5.5	2.4	2.4	2.1	2.3	1.6	1.4	1.4	1.8	2.6	2.5	2.6	3.4	2.2	2.9	

Table A2. Annual growth in consumer goods and services prices and the contribution of the main price categories to CPI, cont'd

	Weights 2021, per cent	Contribution to CPI growth (in percentage points)													
		2021												2021 average	2020 average
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
CPI	100.0	2.6	2.4	3.2	4.3	4.7	4.4	5.0	5.5	5.9	6.8	7.8	8.6	5.1	3.4
Core inflation	56.5	2.2	2.1	2.2	2.2	2.3	2.0	2.1	2.2	2.4	2.6	2.7	3.0	2.3	2.3
Goods	32.7	0.5	0.4	0.5	0.6	0.7	0.5	0.6	0.6	0.8	0.9	1.1	1.2	0.7	0.4
Services	23.8	1.7	1.6	1.7	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.8	1.6	1.8
Food and non-alcoholic beverages	27.7	0.2	0.2	0.1	0.3	0.5	0.6	0.9	1.1	1.2	1.4	1.7	2.4	0.9	1.2
Processed	14.8	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.3	0.6	0.4
Unprocessed	12.9	-0.1	-0.2	-0.2	-0.1	0.1	0.1	0.4	0.5	0.5	0.5	0.7	1.1	0.3	0.8
Energy	15.7	0.2	0.2	0.9	1.8	2.0	1.8	2.1	2.1	2.3	2.9	3.3	3.3	1.9	-0.1
Energy carriers	10.5	0.6	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8	1.1	1.4	1.5	0.7	0.5
Electricity	4.5	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Gas	2.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.1	-0.1
Liquid and solid fuels	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.5	0.1	0.0
Heat energy	2.4	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Fuels	5.3	-0.4	-0.2	0.4	1.4	1.5	1.3	1.5	1.5	1.5	1.8	1.9	1.8	1.2	-0.6
According to 12 COICOP groups															
Food and non-alcoholic beverages	27.7	0.2	0.2	0.1	0.3	0.5	0.6	0.9	1.1	1.2	1.4	1.7	2.4	0.9	1.2
Alcoholic beverages and tobacco products	6.9	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3
Clothing and footwear	4.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	-0.1
Home maintenance and energy carriers	19.1	1.4	1.2	1.1	1.1	1.1	1.1	1.2	1.3	1.4	1.7	2.1	2.2	1.4	1.3
Home equipment and household maintenance	5.8	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1
Health	5.4	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Transportation	8.9	-0.4	-0.2	0.5	1.4	1.6	1.4	1.6	1.6	1.6	1.9	2.1	2.0	1.3	-0.5
Telecommunications	5.0	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2
Recreation and culture	5.8	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2
Education	1.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Restaurants and hotels	4.6	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4
Other goods and services	5.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2

Note: core inflation quoted in the table denotes CPI inflation excluding prices of food and energy.

Source: Statistics Poland data and NBP calculations based on Statistics Poland data.

Table A3. Balance of payments in 2013–2021 (PLN million)

Balance of payments	2013	2014	2015	2016	2017	2018	2019	2020	2021
Current account	-29,647	-44,347	-16,517	-14,668	-6,775	-27,967	10,798	67,989	-16,515
Balance of trade in goods	-11,248	-23,478	3,432	8,881	-1,465	-26,504	6,547	55,820	-3,038
Balance of services	33,425	39,456	45,459	60,006	76,033	90,645	102,551	101,355	120,609
Balance of primary income	-50,077	-58,750	-61,718	-77,281	-80,662	-85,802	-90,759	-82,250	-115,916
Balance of secondary income	-1,747	-1,575	-3,690	-6,274	-681	-6,306	-7,541	-6,936	-18,170
Capital account	37,857	41,990	42,510	19,471	25,002	44,605	45,283	53,878	42,369
Financial account	-19,039	-20,064	1,978	5,943	-9,540	5,111	24,182	89,896	5,231
Balance of direct investment	-13,311	-40,728	-38,666	-16,594	-28,833	-54,667	-44,738	-48,922	-95,149
Balance of portfolio investment	-761	7,132	11,547	-14,769	-17,620	15,964	45,453	29,363	43,517
Balance of other investment	-5,781	11,654	29,644	-52,724	71,721	21,880	-11,346	41,523	-2,192
Derivative financial instruments	-2,200	-62	-3,663	762	-4,256	-4,628	-4,745	-4,278	-13,418
Official reserve assets	3,014	1,940	3,116	89,268	-30,552	26,562	39,558	72,210	72,473
Errors and omissions	-27,249	-17,707	-24,015	1,140	-27,767	-11,527	-31,899	-31,971	-20,623

Source: NBP data.

Table A4. Selected external stability indicators in 2013–2021

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Current account balance/GDP (per cent)	-1.8	-2.6	-0.9	-0.8	-0.3	-1.3	0.5	2.9	-0.6
Current and capital account balance/GDP (per cent)	0.5	-0.1	1.4	0.3	0.9	0.8	2.4	5.2	1.0
Balance of trade in goods and services/GDP (per cent)	1.3	0.9	2.7	3.7	3.7	3.0	4.8	6.7	4.5
Official reserve assets in terms of monthly imports of goods and services	5.2	5.3	5.3	6.4	4.7	4.8	5.0	6.1	5.5
Gross external debt/GDP (per cent)	70.3	73.1	71.7	76.3	67.0	64.2	58.8	60.3	56.2
Net international investment position/GDP (per cent)	-69.4	-69.4	-62.1	-61.5	-61.2	-55.9	-49.8	-44.3	-39.9

Source: NBP and Statistics Poland data, NBP calculations.

Table A5. M3 monetary aggregate (as at the end of the year, PLN million)

	2013	2014	2015	2016	2017	2018	2019	2020	2021
M3	978,908	1,059,015	1,154,993	1,265,662	1,324,369	1,446,093	1,565,575	1,822,728	1,985,021
Repos	12,278	10,350	7,267	6,239	6,478	11,240	6,809	2,836	5,821
Debt securities issued with maturity up to 2 years	6,286	4,112	2,467	3,211	5,043	6,620	6,117	5,143	4,559
Money market fund shares/units	0	0	0	0	0	0	0	0	0
M2	960,345	1,044,553	1,145,259	1,256,212	1,312,847	1,428,233	1,552,648	1,814,749	1,974,640
Deposits and other liabilities with agreed maturity up to 2 years	404,510	438,270	453,134	440,908	406,473	415,880	397,776	283,035	249,712
Households	263,777	290,770	304,874	302,917	279,207	282,755	277,564	190,210	147,793
Other financial corporations	34,038	33,350	30,516	23,244	22,190	24,489	26,225	19,600	18,283
Non-financial corporations	94,029	101,639	103,365	99,234	88,269	87,586	82,830	65,214	74,747
Non-profit institutions serving households	6,889	6,800	7,022	7,251	7,515	7,779	7,373	3,886	3,177
Local government	4,645	4,526	5,633	5,887	6,046	4,562	3,244	3,272	4,332
Social security funds	1,133	1,184	1,724	2,375	3,245	8,710	540	853	1,380
M1	555,835	606,283	692,124	815,304	906,375	1,012,353	1,154,872	1,531,714	1,724,928
Cash in circulation (excluding MFI vault cash)	114,403	130,030	149,716	174,401	184,486	203,212	224,073	306,809	340,404
Overnight deposits and other liabilities	441,432	476,253	542,409	640,903	721,888	809,141	930,799	1,224,904	1,384,524
Households	279,832	300,786	341,115	402,001	453,227	523,307	603,824	786,844	898,326
Other financial corporations	17,665	18,574	20,302	25,899	31,589	32,800	26,065	31,196	37,769
Non-financial corporations	112,497	124,239	145,975	169,753	187,139	199,722	233,409	311,223	340,395
Non-profit institutions serving households	10,393	11,305	12,518	14,912	16,426	18,290	19,471	25,717	28,311
Local government	19,659	19,494	18,868	25,255	26,744	27,722	33,936	50,999	67,733
Social security funds	1,387	1,853	3,630	3,084	6,764	7,299	14,093	18,926	11,990

MFIs – Monetary Financial Institutions.

Source: NBP data.

Selected macroeconomic and financial data

Table A6. M3 counterparts (stock at the end of each year, PLN million)

	2013	2014	2015	2016	2017	2018	2019	2020	2021
External assets, net	142,995	172,947	187,103	234,209	232,528	290,278	344,825	428,689	525,075
External assets	388,096	437,358	451,322	572,727	483,804	544,419	590,795	700,775	816,640
External liabilities	245,101	264,411	264,219	338,519	251,276	254,141	245,969	272,087	291,565
Credit to other residents	947,800	1,017,017	1,089,011	1,137,243	1,175,789	1,264,010	1,324,871	1,385,186	1,452,765
Loans and other claims	904,029	963,655	1,029,145	1,076,440	1,113,993	1,197,892	1,259,552	1,262,829	1,327,793
Households	562,380	593,273	632,523	665,062	676,362	723,233	766,334	789,087	826,691
Other financial corporations	42,992	53,346	58,344	58,546	65,782	74,182	83,732	81,788	96,146
Non-financial corporations	259,049	275,774	297,950	314,533	333,362	358,589	366,114	348,096	362,918
Non-profit institutions serving households	5,306	5,683	6,068	6,485	6,946	7,296	7,621	7,995	8,359
Local government	34,302	35,579	34,260	31,814	31,541	34,592	35,750	35,863	33,680
Social security funds	0	0	0	0	0	0	0	0	0
Debt securities	33,385	41,985	47,229	48,020	47,502	47,610	46,910	103,687	109,084
Other financial corporations	761	1,713	2,359	3,959	3,496	3,500	3,164	61,781	66,783
Non-financial corporations	15,542	22,588	26,100	25,423	24,941	22,584	19,637	16,529	17,093
Local government	17,082	17,684	18,770	18,638	19,064	21,526	24,109	25,377	25,208
Equity and non-MMF investment fund shares or units	10,386	11,377	12,637	12,783	14,294	18,508	18,409	18,669	15,888
Other financial corporations	6,554	8,971	10,381	10,601	12,070	15,676	15,882	16,252	13,703
Non-financial corporations	3,832	2,406	2,256	2,182	2,222	2,831	2,526	2,416	2,178
Credit to central government, net	145,337	168,872	201,343	253,371	268,824	275,697	310,283	411,635	388,222
Credit to central government	182,792	224,409	239,787	311,159	321,398	346,352	383,746	533,733	536,508
Loans	781	701	1,142	961	1,011	1,043	1,127	1,287	1,614
Debt securities	138,615	180,804	193,333	259,586	267,216	293,297	331,138	475,229	475,863
Deposits of central government	37,456	55,536	38,444	57,788	52,574	70,655	73,464	122,099	148,286
Longer-term financial liabilities	293,510	336,409	359,605	389,984	374,963	407,306	438,021	505,957	507,590
Deposits and other liabilities with agreed maturity over 2 years	17,154	20,512	22,001	25,189	25,784	25,676	28,812	28,956	25,892
Households	10,067	13,756	16,552	19,839	21,344	21,836	25,362	25,549	23,189
Other financial corporations	5,485	5,851	4,624	4,452	3,483	2,939	2,541	2,312	1,240
Non-financial corporations	1,492	813	733	777	789	772	784	948	1,311
Non-profit institutions serving households	79	64	68	102	144	100	100	118	126
Local government	30	27	25	19	24	29	26	28	25
Social security funds	0	0	0	0	0	0	0	0	0
Debt securities issued with maturity over 2 years	40,875	40,422	43,879	53,782	69,762	72,267	78,530	106,207	117,282
Capital and reserves	235,482	275,475	293,725	311,013	279,417	309,363	330,679	370,794	364,416
Fixed assets (excluding fixed financial assets)	48,474	50,382	51,475	52,610	53,221	54,777	61,958	65,391	64,791
Other items, net	-12,187	-13,794	-14,334	-21,788	-31,031	-31,364	-38,341	37,785	61,757

Source: NBP data.

Appendix 2

The list of selected publications of NBP

The list of selected publications of NBP

In 2021, the following publications by NBP staff were included in the ISI Master Journal List:

- Paweł Baranowski, Wirginia Doryń, Tomasz Łyziak, Ewa Stanisławska (2021), *Words and deeds in managing expectations: empirical evidence from an inflation targeting economy*, “Economic Modelling”, vol. 95, 49–67.
- Kamil Galuščák, Jan Šolc & Paweł Strzelecki (2021), *Labor market flows and stocks over the business cycle: the role of the participation margin*, “Eastern European Economics”, vol. 59, issue 5, 449–471.
- Michał Gradzewicz (2021), *What happens after an investment spike – investment events and firm performance*, “Journal of Business & Economic Statistics”, vol. 39, issue 3, 636–651.
- Jakub Growiec, Peter McAdam, Jakub Mućk (2021), *On the optimal labor income share*, “International Journal of Central Banking”, vol. 17(4), 291–342.
- Iftekhar Hasana, Krzysztof Jackowicz, Robert Jagiełło, Oskar Kowalewski, Łukasz Kozłowski (2021), *Local banks as difficult-to-replace SME lenders: evidence from bank corrective programs*, “Journal of Banking & Finance”, vol. 123, issue C.
- Marcin Kolasa, Michał Rubaszek, Małgorzata Walerych (2021), *Do flexible working hours amplify or stabilize unemployment fluctuations?*, “European Economic Review”, vol. 131, issue C.
- Jacek Lewkowicz, Anna Lewczuk (2021), *Does it pay to have your own R&D department? In-house and external R&D in the context of innovations*, “Prague Economic Papers”, vol. 30(3), 272–289.
- Natalia Nehrebecka (2021), *COVID-19: stress-testing non-financial companies: a macroprudential perspective. The experience of Poland*, “Eurasian Economic Journal”, vol. 11, issue 2, 283–319.
- Natalia Nehrebecka (2021), *Climate risk with particular emphasis on the relationship with credit-risk assessment: What we learn from Poland*, “Energies”, vol. 14, issue 23, 8070.
- Ewa Stanisławska, Maritta Paloviita, Tomasz Łyziak (2021), *Consumer inflation views: micro-level inconsistencies and macro-level measures*, “Economics Letters”, vol. 206, 2–4.

In the series *Materiały i Studia*, the following papers were published in 2021:

- Barbara Pajdo, *Determinanty siły finansowej banku centralnego na przykładzie krajów Unii Europejskiej*.
- Katarzyna Hertel, Marcin Humanicki, Marcin Kitala, Tomasz Kleszcz, Kamila Kuziemska-Pawlak, Jakub Mućk, Bartosz Rybaczyk, Maciej Stefański, *Wpływ programu strukturalnych operacji otwartego rynku prowadzonego przez NBP na polską gospodarkę. (The impact on the Polish economy of the Structural Open Market Operations programme conducted by NBP)*.

In 2021, the following papers were published in the *NBP Working Papers* series:

- Ewa Wróbel, *Shocks to bank capital position: Do they matter for lending to firms and how they are channelled? Evidence from Senior Loan Officer Opinion Survey for Poland.*
- Tomasz Piotr Wisniewski, Michal Polasik, Radoslaw Kotkowski, Andrea Moro, *Switching from cash to cashless payments during the COVID-19 pandemic and beyond.*
- Ewa Stanisławska, Maritta Paloviita, *Medium- vs. short-term consumer inflation expectations: evidence from a new euro area survey.*
- Radoslaw Kotkowski, Michal Polasik, *COVID-19 pandemic increases the divide between cash and cashless payment users in Europe.*
- Krzysztof Kruszewski, Mikołaj Szadkowski, *Impact of the central bank's financial result on the transfers of benefits across sectors of the economy.*
- Marcin Bielecki, Michał Brzoza-Brzezina, Marcin Kolasa, *Aging, migration and monetary policy in Poland.*
- Vera Baye, Valeriya Dinger, *Investment incentives of rent controls and gentrification – evidence from German micro data.*

Appendix 3

Voting records of the Monetary Policy Council members on motions and resolutions

Voting records of the Monetary Policy Council members on motions and resolutions

The voting records of the Monetary Policy Council members on motions and resolutions in 2021 are presented below.

Date	Subject matter of motion or resolution	Voting of the MPC members	
		For	Against
3 March 2021	Resolution No. 1/2021 on the National Strategy for Cash Circulation Security	A. Glapiński E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
		G.M. Ancyparowicz was absent	
7 April 2021	Motion to raise the required reserve ratio to 3.5%, while keeping at 0% the required reserve ratio on deposits above 2 years Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon J. Żyżyński
		R. Sura was absent	
7 April 2021	Motion to lower the interest rate on the required reserve funds from 0.10% to 0.01% Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon J. Żyżyński
		R. Sura was absent	
7 April 2021	Resolution No. 2/2021 on approving the annual Financial Statements of Narodowy Bank Polski as at 31 December 2020	A. Glapiński E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon K. Zubelewicz J. Żyżyński	no-one
		G.M. Ancyparowicz and R. Sura were absent	
5 May 2021	Resolution No. 3/2021 on approving the <i>Report on Monetary Policy in 2020</i>	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński	K. Zubelewicz
5 May 2021	Resolution No. 4/2021 on the evaluation of the activities of the NBP Management Board as regards the implementation of monetary policy guidelines for 2020	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński	K. Zubelewicz

Voting records of the Monetary Policy Council members on motions and resolutions

Date	Subject matter of motion or resolution	Voting of the MPC members	
		For	Against
5 May 2021	Resolution No. 5/2021 on approving the <i>Report on the Operations of Narodowy Bank Polski in 2020</i>	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
5 May 2021	Motion to raise the required reserve ratio to 3.5%, while keeping at 0% the required reserve ratio on deposits above 2 years Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
5 May 2021	Motion to lower the interest rate on the required reserve funds from 0.10% to 0.01% Motion did not pass	E. Gatnar Ł.J. Hardt J.J. Kropiwnicki K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski E.M. Łon R. Sura J. Żyżyński
9 June 2021	Resolution No. 6/2021 on the approval of the updated financial plan of Narodowy Bank Polski for 2021	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
9 June 2021	Resolution No. 1/DRF/2021 on the appointment of a registered auditor for the annual financial statements of Narodowy Bank Polski for the years 2021 and 2022	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
9 June 2021	Motion to raise the NBP reference rate by 0.15 percentage points Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
9 June 2021	Resolution No. 7/2021 amending the resolution on the regulations of the Monetary Policy Council	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński	K. Zubelewicz
8 July 2021	Motion to raise the required reserve ratio to 3.5%, while keeping at 0% the required reserve ratio on deposits above 2 years Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński

Date	Subject matter of motion or resolution	Voting of the MPC members	
		For	Against
8 July 2021	Motion to lower the interest rate on the required reserve funds from 0.10% to 0.01% Motion did not pass	E. Gatnar Ł.J. Hardt J.J. Kropiwnicki K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski E.M. Łon R. Sura J. Żyżyński
8 July 2021	Motion to raise the NBP reference rate by 0.15 percentage points Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
8 September 2021	Motion to change the NBP inflation target of 2.5% with a symmetrical tolerance band of +/- 1 percentage point to 2.0% with a symmetric tolerance band of +/- 1 percentage point Motion did not pass	K. Zubelewicz	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
8 September 2021	Motion to widen the symmetric tolerance band for the inflation target of 2.5% from +/- 1 percentage point to +/- 2 percentage points Motion did not pass	J.J. Kropiwnicki E.M. Łon	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski R. Sura K. Zubelewicz J. Żyżyński
8 September 2021	Resolution No. 8/2021 on adopting the monetary policy guidelines for 2022	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński	E. Gatnar Ł.J. Hardt K. Zubelewicz
8 September 2021	Motion to raise the NBP interest rates as follows: – reference rate to 2.00%, – lombard rate to 3.00%, – deposit rate to 1.00%, – rediscount rate to 2.01%, – discount rate to 2.02% and to set the interest rate on the required reserve funds at the level of 1.00% Motion did not pass	K. Zubelewicz	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
8 September 2021	Motion to raise the NBP reference rate by 0.15 percentage points Motion did not pass	E. Gatnar Ł.J. Hardt K. Zubelewicz	A. Glapiński G.M. Ancyparowicz C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura J. Żyżyński
6 October 2021	Motion to raise the NBP reference rate by 0.40 percentage points, i.e. to 0.50%, and to set the remaining NBP interest rates at the following levels: – lombard rate at 1.00%, – deposit rate at 0.00%, – rediscount rate at 0.51%, – discount rate at 0.52% Motion passed	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one

Voting records of the Monetary Policy Council members on motions and resolutions

Date	Subject matter of motion or resolution	Voting of the MPC members	
		For	Against
6 October 2021	Resolution No. 9/2021 on reference rate, refinancing credit rate, deposit rate as well as the rediscount and discount rates at NBP	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
6 October 2021	Motion to raise the required reserve ratio from 0.50% to 2.00% Motion passed	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
6 October 2021	Resolution No. 10/2021 amending the resolution on the required reserve ratios for banks, cooperative savings and credit unions and the National Association of Cooperative Savings and Credit Unions and the level of the interest rate on the required reserve The MPC raised the required reserve ratio from 0.50% to 2.00%	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
3 November 2021	Motion to raise the NBP reference rate by 0.75 percentage points, i.e. to 1.25% and to set the remaining NBP interest rates at the following levels: – lombard rate at 1.75%, – deposit rate at 0.75%, – rediscount rate at 1.30%, – discount rate at 1.35% Motion passed	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
3 November 2021	Resolution No. 11/2021 on the reference rate, refinancing credit rate, deposit rate as well as the rediscount and discount rates at the NBP	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
3 November 2021	Resolution No. 12/2021 amending the resolution on the regulations of the Monetary Policy Council	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one

Date	Subject matter of motion or resolution	Voting of the MPC members	
		For	Against
8 December 2021	Resolution No. 13/2021 on approving the financial plan of Narodowy Bank Polski for 2022	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
8 December 2021	Motion to raise the NBP reference rate by 0.50 percentage points, i.e. to 1.75% and to set the remaining NBP interest rates at the following levels: – lombard rate at 2.25%, – deposit rate at 1.25%, – rediscount rate at 1.80%, – discount rate at 1.85% Motion passed	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one
8 December 2021	Resolution No. 14/2021 on the reference rate, refinancing credit rate, deposit rate as well as the rediscount and discount rates at the NBP	A. Glapiński G.M. Ancyparowicz E. Gatnar Ł.J. Hardt C. Kochalski J.J. Kropiwnicki E.M. Łon R. Sura K. Zubelewicz J. Żyżyński	no-one

Appendix 4

**Financial Statements
of Narodowy Bank Polski
as at 31 December 2021
together with the Independent
Auditor's Report**

Balance Sheet of Narodowy Bank Polski as at 31 December 2021

Assets	Note	31.12.2021	31.12.2020
		<i>PLN thousand</i>	
1. Gold and gold receivables	1	54,843,799.4	52,252,619.6
2. Claims on non-residents denominated in foreign currency		619,333,303.4	527,465,943.1
2.1. <i>Receivables from the IMF</i>	2	30,010,120.7	6,879,394.5
2.2. <i>Balances with foreign institutions, securities, loans granted and other foreign assets</i>	3.1	589,323,182.7	520,586,548.6
3. Claims on residents denominated in foreign currency		0.0	0.0
4. Claims on non-residents denominated in domestic currency		0.0	0.0
5. Claims on credit institutions related to monetary policy operations denominated in domestic currency	3.2	0.0	52,955.4
5.1. <i>Main refinancing operations</i>		0.0	0.0
5.2. <i>Fine-tuning operations</i>		0.0	0.0
5.3. <i>Structural operations</i>		0.0	0.0
5.4. <i>Marginal lending facilities</i>		0.0	0.0
5.5. <i>Other monetary policy operations</i>		0.0	52,955.4
6. Other claims on credit institutions denominated in domestic currency		7.0	16.0
7. Securities of residents denominated in domestic currency	3.2	149,322,164.0	112,563,027.9
7.1. <i>Securities held for monetary policy purposes</i>		149,322,164.0	112,563,027.9
7.2. <i>Other securities</i>		0.0	0.0
8. Claims on general government denominated in domestic currency		0.0	0.0
9. Items in course of settlement		0.0	0.0
10. Other assets		1,824,535.8	1,978,942.9
10.1. <i>Tangible and intangible fixed assets</i>	4	1,033,750.4	1,031,541.1
10.2. <i>Other financial assets</i>	3.3	299,061.9	297,239.1
10.3. <i>Off-balance-sheet instruments revaluation differences</i>	10	354,272.7	444,371.2
10.4. <i>Accruals and prepaid expenses</i>	8	41,496.4	37,263.3
10.5. <i>Sundry</i>	3.4.	95,954.3	168,528.2
Total assets		825,323,809.6	694,313,504.9

Liabilities	Note	31.12.2021	31.12.2020
		PLN thousand	
1. Banknotes and coins in circulation	5	355,557,725.3	321,800,665.9
2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	6.1	96,525,124.4	62,629,413.3
2.1. <i>Current accounts (incl. the required minimum reserve accounts)</i>		66,061,581.2	30,351,413.3
2.2. <i>Deposit facilities</i>		30,463,543.2	32,278,000.0
2.3. <i>Other monetary policy operations</i>		0.0	0.0
3. Other liabilities to credit institutions denominated in domestic currency	6.2	762,678.9	444,908.2
4. Liabilities due to issued securities denominated in domestic currency	6.1	184,521,188.7	127,767,680.0
5. Liabilities to other residents denominated in domestic currency	6.2	15,251,900.0	24,859,721.0
5.1. <i>Liabilities to general government</i>		15,185,508.3	23,852,886.1
5.2. <i>Other liabilities</i>		66,391.7	1,006,834.9
6. Liabilities to non-residents denominated in domestic currency	6.2	3,960,800.8	2,196,156.7
7. Liabilities to residents denominated in foreign currency	6.3	32,629,719.7	46,262,773.2
8. Liabilities to non-residents denominated in foreign currency	6.3	36,036,430.1	45,352,526.9
9. SDR allocation	2	29,769,702.4	7,128,746.3
10. Items in course of settlement		0.0	0.0
11. Other liabilities		1,108,023.7	729,945.2
11.1. <i>Off-balance-sheet instruments revaluation differences</i>	10	24,134.5	111.8
11.2. <i>Accruals and deferred income</i>	8	97,536.8	90,135.9
11.3. <i>Sundry</i>	6.4	986,352.4	639,697.5
12. Provisions		16,693,832.6	10,030,488.9
12.1. <i>FX risk provision*</i>	9.2	16,499,460.9	9,850,919.3
12.2. <i>Provisions for liabilities</i>	7	194,371.7	179,569.6
13. Revaluation accounts	9.1	51,038,899.5	45,740,356.1
14. Capital and reserves		1,500,000.0	1,891,425.1
14.1. <i>Statutory fund</i>	9	1,500,000.0	1,500,000.0
14.2. <i>Reserve fund</i>	9.3	0.0	391,425.1
15. Financial result	9.4	-32,216.5	-2,521,301.9
15.1. <i>Financial result for the financial year</i>		10,974,518.7	9,344,061.5
15.2. <i>Loss of previous years</i>		-11,006,735.2	-11,865,363.4
Total liabilities		825,323,809.6	694,313,504.9

* In 2021, the balance of the FX risk provision presented as at 31 December 2020 in Item 14.3 Reserves was transferred to Item 12.1 FX risk provision (for detailed information on changes in the presentation of assets and liabilities – see Chapter 3).

Profit and Loss Account of Narodowy Bank Polski for the year ended on 31 December 2021

	Note	2021	2020
		PLN thousand	
1. Net result on interest	11	2,252,493.1	3,141,511.1
1.1. Interest income		8,619,588.1	8,158,572.5
1.2. Interest expenses		-6,367,095.0	-5,017,061.4
2. Net result on financial operations		9,949,936.6	7,339,131.4
2.1. Realised gains/losses	12.1	20,257,561.3	10,587,467.3
2.2. Unrealised losses	12.2	-3,658,590.0	-83,733.9
2.3. Write-downs on financial assets		-493.1	0.0
2.4. Transfer to/from FX risk provision	9.2	-6,648,541.6	-3,164,602.0
3. Net result on commissions and fees	13	1,385.0	8,686.2
3.1. Commissions and fees income		47,466.7	48,426.8
3.2. Commissions and fees expenses		-46,081.7	-39,740.6
4. Income on shares and participating interests	14	38,256.7	13,478.2
5. Other income	19	176,280.0	109,648.6
A. Total net income		12,418,351.4	10,612,455.5
6. Salaries	15	-640,499.1	-606,498.8
7. Administrative expenses	16	-299,532.6	-242,149.3
8. Depreciation and amortisation expenses	17	-114,186.4	-89,487.4
9. Expenses on issue of banknotes and coins	18	-364,457.2	-321,754.6
10. Other expenses	19	-25,157.4	-8,503.9
B. Financial result for the financial year		10,974,518.7	9,344,061.5

Notes

1. Introduction

1.1. Legal basis, scope of activities and bodies of NBP

In accordance with Article 227 para. 1 of the Constitution of the Republic of Poland, Narodowy Bank Polski, hereinafter referred to as “NBP”, is the central bank of the State. It has the exclusive right to issue money as well as to formulate and implement monetary policy. NBP is responsible for the value of Polish currency.

The role, functions, objective and tasks of NBP are set forth, in particular, in the following acts and regulations:

- the Act of 29 August 1997 on Narodowy Bank Polski (Journal of Laws of 2020, item 2027, as amended), hereinafter referred to as the “Act on NBP”,
- the Act of 29 August 1997 – Banking Law (Journal of Laws of 2021, item 2439, as amended),
- the Treaty on European Union and the Treaty on the Functioning of the European Union (consolidated texts: Official Journal of the EU 2016/C 202 of 7 June 2016, p. 1).

Pursuant to Article 2 of the Act on NBP, Narodowy Bank Polski has a legal personality and is not subject to entry into the register of State enterprises. NBP performs its activities in the territory of the Republic of Poland, and its registered office is in Warsaw.

In accordance with the Act on NBP, the basic objective of the activity of NBP is to maintain price stability, while supporting the economic policy of the government, insofar as this does not constrain the basic objective of NBP. The tasks of NBP also include:

- organising payments,
- managing the foreign exchange reserves,
- conducting foreign exchange activities within the bounds stipulated by relevant laws,
- providing banking services to the State budget,
- regulating the liquidity of banks and providing them with refinancing facilities,
- establishing the necessary conditions for the development of the banking system,
- acting in favour of the stability of the financial system,
- acting with the aim of eliminating or mitigating systemic risk in the financial system,
- compiling monetary and banking statistics, the balance of payments and the international investment position,
- performing other tasks as specified by laws.

In accordance with the Constitution of the Republic of Poland and the Act on NBP, the bodies of NBP are:

1. Governor of NBP (appointed for a six-year term of office),
2. Monetary Policy Council (its members are appointed for a six-year non-renewable term of office),
3. Management Board of NBP (its members are appointed for a six-year term of office).

The composition of NBP bodies as at 31 December 2021 was as follows:

Governor of NBP

Adam Glapiński

Monetary Policy Council¹

Chairperson	<i>Adam Glapiński</i>		
Members	<i>Grażyna Ancyparowicz</i>	<i>Cezary Kochalski</i>	<i>Rafał Sura</i>
	<i>Eugeniusz Gatnar</i>	<i>Jerzy Kropiwnicki</i>	<i>Kamil Zubelewicz</i>
	<i>Łukasz Hardt</i>	<i>Eryk Łon</i>	<i>Jerzy Żyżyński</i>

Management Board of NBP²

Chairperson	<i>Adam Glapiński</i>	
First Deputy Governor of NBP	<i>Marta Kightley</i>	
Deputy Governor of NBP	<i>Adam Lipiński</i>	
Members	<i>Marta Gajęcka</i>	<i>Piotr Pogonowski</i>
	<i>Andrzej Kaźmierczak</i>	<i>Paweł Szalamacha</i>

¹ On 25 January 2022 Eugeniusz Gatnar and Jerzy Kropiwnicki ceased to act as members of the Monetary Policy Council (after their term of office ended).

On 26 January 2022 Ludwik Kotecki and Przemysław Litwiniuk started to act as members of the Monetary Policy Council.

On 9 February 2022 Grażyna Ancyparowicz and Eryk Łon ceased to act as members of the Monetary Policy Council (after their term of office ended).

On 20 February 2022 Łukasz Hardt and Kamil Zubelewicz ceased to act as members of the Monetary Policy Council (after their term of office ended).

On 21 February 2022 Ireneusz Dąbrowski and Henryk Wnorowski started to act as members of the Monetary Policy Council.

On 23 February 2022 Wiesław Janczyk started to act as member of the Monetary Policy Council.

² On 1 January 2021 Marta Gajęcka started to act as member of the Management Board of NBP.

On 4 August 2021 Ryszard Kokoszczynski ceased to act as member of the Management Board of NBP (after his term of office ended).

1.2. Legal basis of preparation of the financial statements

The Management Board of NBP prepared the financial statements of NBP as at 31 December 2021 on the basis of the following provisions:

- the Act on NBP,
- Resolution No. 13/2020 of the Monetary Policy Council of 6 November 2020 on the accounting principles of Narodowy Bank Polski, format of the Balance Sheet and the Profit and Loss Account and contents of the Notes (NBP Official Journal, item 24), hereinafter referred to as "Resolution No. 13/2020 of the MPC",
- Resolution No. 6/2019 of the Monetary Policy Council of 5 November 2019 on the principles for creating and releasing the provision against the foreign exchange rate risk of the zloty at Narodowy Bank Polski (NBP Official Journal, item 14), hereinafter referred to as "Resolution No. 6/2019 of the MPC",
- Resolution No. 64/2020 of the Management Board of Narodowy Bank Polski of 21 December 2020 on the rules on organisation of accounting at Narodowy Bank Polski (as amended), referred hereinafter as "Resolution No. 64/2020 of the NBP Management Board".

These regulations constitute the NBP accounting policy.

1.3. Period covered by the financial statements

The financial statements cover the financial year from 1 January 2021 to 31 December 2021. Comparative data in the financial statements cover the financial year from 1 January 2020 to 31 December 2020.

1.4. Certified auditor and its selection

The annual financial statements of NBP prepared as at 31 December 2021 are subject to audit by the certified auditor KPMG Audyt sp. z o. o. sp.k., with its registered office in Warsaw. The certified auditor was appointed by the Monetary Policy Council, hereinafter referred to as the "MPC", in 2019 on the basis of Article 69 para. 1 of the Act on NBP. The selection was made following an open tendering, pursuant to the Act of 29 January 2004 – Public Procurement Law (Journal of Laws of 2018, item 1986, as amended), for a period of two years (audit of the financial statements for the years 2019 and 2020) with the option to extend the agreement for another two-year period (audit of the financial statements for the years 2021 and 2022). In 2021, the MPC decided to extend the agreement.

1.5. Information on the adoption and approval of NBP financial statements for the year 2020

The annual financial statements of NBP prepared as at 31 December 2020 were adopted by the MPC by Resolution No. 2/2021 on 7 April 2021 (NBP Official Journal, item 6) and approved by the Council of Ministers by Resolution No. 67/2021 on 27 May 2021. The certified auditor in charge of auditing the

financial statements – KPMG Audyt Spółka z ograniczoną odpowiedzialnością sp.k. – issued an unmodified (unqualified) opinion on the audited financial statements.

In the financial statements, prepared as at 31 December 2020, NBP recorded a net financial result of PLN 9,344,061.5 thousand. Therefore, in 2021 in accordance with Article 69 para. 4 of the Act on NBP, NBP paid a contribution from profit in the amount of 8,876,858.4 thousand to the State budget. In accordance with Article 62 of the Act on NBP, 5% of NBP's profit, i.e. the amount of PLN 467,203.1 thousand, was allocated to NBP's reserve fund.

2. Description of significant accounting principles

2.1. Basic accounting principles

The accounting principles applied by NBP, as specified in the legal regulations listed in point 1.2. of the Introduction to the Financial Statements, conform to the standards applied in the European System of Central Banks, hereinafter referred to as "ESCB", the basis of which is the Guideline (EU) 2016/2249 of the European Central Bank, hereinafter referred to as the ECB, of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2016/34, as amended), hereinafter referred to as "the ECB Guideline".

The following accounting principles are applied during the preparation of the financial statements of NBP:

- true and fair view,
- going concern,
- prudence,
- materiality,
- consistency and comparability,
- accrual.

2.2. Going concern

The financial statements of NBP were prepared under the going concern assumption. In accordance with Article 58 of the Act on NBP, NBP cannot be declared bankrupt.

2.3. Recognition of transactions in the accounting books of NBP

All economic events of a given financial year are recognised in the accounting books for that year.

When recognising transactions in the accounting books, NBP follows the so-called economic approach as laid down in the ECB Guideline. Consequently, the following rules are applied:

- foreign currencies and gold purchased or sold in a spot transaction or a forward transaction are recognised in the NBP accounting books (on off-balance-sheet accounts) on the trade date,
- interest, discount and premium on assets and liabilities as well as on off-balance-sheet instruments are recognised in the Profit and Loss Account at the end of each operating day.

Securities purchased or sold in a spot transaction are recognised in the NBP accounting books on the settlement date.

2.4. Valuation as at the balance sheet date

As at the balance sheet date, for gold, foreign currencies, securities purchased by NBP and off-balance-sheet financial instruments³ the principle of valuation at a market value is applied.⁴ The revaluation results of the assets and liabilities to a market value effective as at the balance sheet date are recognised in accordance with the following rules:

- recognising unrealised losses (revaluation losses) in the financial result,
- unrealised gains (revaluation gains) are not recognised in the financial result – they are recognised on the liabilities side of the balance sheet as *Revaluation accounts*.

Price valuation of financial instruments valued at a market price is made prior to their currency valuation.

The value of individual assets and liabilities and gains and losses are determined separately, without netting the value of items which differ in kind.

Gold conforming to London Good Delivery standard is valued at the average market price for an ounce of gold quoted in US dollars on the London Bullion Market.

Marketable securities not classified as held-to-maturity are valued at their market value.

Marketable securities held to maturity are valued at their clean price adjusted for amortised discount and premium, less impairment.⁵

³ Off-balance sheet items arising from foreign exchange forwards and foreign exchange swaps are valued at the average NBP exchange rate.

⁴ The principle of valuation at market value was not applied for securities held-to-maturity and securities held for monetary policy purposes. Market value is the average value of the purchase price and the sale price based on quotations for a standardised transaction on a given market by recognised entities active on an organised market or a non-organised market, and where such prices are not available on the market – it is the value determined according to an adopted and consistently applied valuation model, including a value determined according to the relevant yield curves made public.

⁵ Marketable securities held-to-maturity may be sold before their maturity:

- 1) if the amount of securities sold is considered non-significant in comparison with the total value of the held-to-maturity securities portfolio, or

Marketable securities held for monetary policy purposes are valued at their clean price adjusted for amortised discount and premium, less impairment.

Securities issued by NBP are valued at their issue price adjusted for amortised discount and premium.

Forward transactions in securities are valued by comparing the market value of securities on the valuation date with their value set in the agreement, discounted as at the settlement date of the spot transaction.

Futures contracts are valued at their market value.

The remaining components of assets and liabilities are valued at, respectively, nominal value, transaction price or market value.

Assets not valued at market value are tested for impairment, i.e. if it is highly probable that a given asset will not generate expected economic benefits in the future. If such evidence is identified, the amount of expected impairment is determined by comparing their book value with their recoverable value.

After their balance-sheet value has been determined in original currency, assets, liabilities and off balance-sheet financial instruments in foreign currencies have their value determined in domestic currency. In the valuation process, the average NBP exchange rates effective as at the balance sheet date are used.

For the valuation as at 31 December 2021, the prices/exchange rates announced on 31 December 2021 were used and for comparative data – those announced on 31 December 2020.

2.5. Events after the balance sheet date

The Balance Sheet and the Profit and Loss Account take into account the events about which information was obtained after the balance sheet date and prior to the approval of the NBP annual financial statements, if such events materially influence their content and are the adjusting events as at the balance sheet date.

3. Changes in accounting principles

Changes in the NBP accounting policy in 2021 were introduced by Resolution No. 13/2020 of the MPC and Resolution No. 64/2020 of the Management Board of NBP.

-
- 2) if the securities are sold during one month before maturity date, or
 - 3) under exceptional circumstances, in particular in the case of a significant deterioration of the issuer's creditworthiness.

Recognition, valuation and presentation of assets and liabilities in the NBP Balance Sheet

As from 1 January 2021, as regards the manner of recognition, valuation and presentation of assets and liabilities in the NBP Balance Sheet changes were introduced, mainly relating to issued securities, provision against the foreign exchange rate risk of the zloty (hereinafter referred to as FX risk provision), accruals and prepaid expenses and deferred income, and assets' impairment:

- securities issued by NBP are recognised in the NBP accounting books at their issue price and are valued as at the balance-sheet date according to their issue price adjusted for amortised discount and premium; until 31 December 2020 securities issued by NBP were recognised on the liabilities side at nominal value, whereas discount on these securities was recognised on the assets side as accruals and prepaid expenses and amortised pro rata in the financial result at the end of each operating day,
- FX risk provision is presented in the Liabilities Item 12. *Provisions*, which complies with the principles set out in the ECB Guideline; until 31 December 2020 the FX risk provision was presented in the Liabilities Item 14. *Capital and reserves*,
- interest on impaired assets and interest for non-compliance with the obligation to maintain the required minimum reserve are presented as interest accruals, less impairment, whereas income on this interest is recognised as the claims arise; until 31 December 2020 the amount of interest accruals on impaired assets and the amount of interest for non-compliance with the obligation to maintain the required minimum reserve were initially recognised in the balance sheet as deferred income and subsequently recognised in the financial result on the payment day or when the impairment had ceased (the interest was not subject to impairment),
- the value of disclosed assets or assets received free of charge which are not depreciated/amortised over the period of use, as well as the value of those assets whose initial value or unit value is lower than PLN 10.0 thousand, is on a one-off basis recognised in other income; until 31 December 2020, their value was recognised as deferred income.

In the context of the above changes, on 1 January 2021 the following adjustments were introduced to the NBP Balance Sheet:

- nominal value of securities issued by NBP was adjusted for unamortised discount (PLN 2,459.5 thousand) – see Note 6.1 and Note 8,
- the amount of interest and the value of disclosed assets or assets received free of charge, which were not amortised in previous years, hitherto recognised as deferred income in the accounting books, were recognised on a one-off basis in the financial result (PLN 1,002.4 thousand); at the same time the related items were tested for impairment (PLN 716.2 thousand) – see Note 3.4., Note 4, Note 8, Note 11 and Note 19.

Moreover, minor adjustments were introduced for the names of balance sheet items and items of the profit and loss account, mainly of a linguistic nature.

One-off depreciation/amortisation

As of 1 January 2021, the depreciation/amortisation of tangible and intangible fixed assets of the initial value of less than PLN 10.0 thousand is made on a one-off basis in the amount equal to the initial value, at the end of the month when the tangible or intangible fixed asset were made available for use. Until 31 December 2020, the threshold was set for PLN 3.5 thousand. As at 1 January 2021, the non-depreciated/non-amortised value of tangible and intangible fixed assets of a unit value below PLN 10.0 thousand was recognised on a one-off basis as depreciation/amortisation expenses (PLN 18,996.7 thousand) – see Note 4 and Note 17.

The table below presents changes in the items of the NBP Balance Sheet arising from the changes introduced to the Bank's accounting policy.

Assets	01.01.2021	31.12.2020	Change
	<i>PLN thousand</i>		
...			
10. Other assets	1,956,770.6	1,978,942.9	-22,172.3
10.1. <i>Tangible and intangible fixed assets</i>	1,012,544.4	1,031,541.1	-18,996.7
...			
10.4. <i>Accruals and prepaid expenses</i>	34,803.8	37,263.3	-2,459.5
10.5. <i>Sundry</i>	167,812.0	168,528.2	-716.2
Liabilities	01.01.2021	31.12.2020	Change
	<i>PLN thousand</i>		
...			
4. Liabilities due to issued securities denominated in domestic currency	127,765,220.5	127,767,680.0	-2,459.5
...			
11. Other liabilities	728,942.8	729,945.2	-1,002.4
...			
11.2. <i>Accruals and deferred income</i>	89,133.5	90,135.9	-1,002.4
...			
12. Provisions	10,030,488.9	179,569.6	9,850,919.3
12.1. <i>FX risk provision</i>	9,850,919.3	-	9,850,919.3
12.2. <i>Provisions for liabilities</i>	179,569.6	179,569.6	0.0
...			
14. Capital and reserves	1,891,425.1	11,742,344.4	-9,850,919.3
14.1. <i>Statutory fund</i>	1,500,000.0	1,500,000.0	0.0
14.2. <i>Reserve fund</i>	391,425.1	391,425.1	0.0
14.3. <i>Reserves</i>	-	9,850,919.3	-9,850,919.3
15. Financial result	-2,540,012.4	-2,521,301.9	-18,710.5
15.1. <i>Financial result for the financial year</i>	-18,710.5	9,344,061.5	-
...			

4. Values based on professional estimates

When preparing its financial statements, NBP makes specific estimates and assumptions that affect the amounts recognised in the financial statements. The estimates and assumptions are based, among others, on historical data and expectations about future events that are believed to be reasonable at the date of preparation of the financial statements. As the existing circumstances and expectations about future events may change as a result of market changes or an occurrence of factors beyond NBP's control, the NBP-made estimates are reviewed on a regular basis.

The key area where NBP makes estimates is the calculation of the amount of the FX risk provision. In accordance with Resolution No. 6/2019 of the MPC, the estimated FX risk provision is equal to the amount that would cover a potential change in the value of foreign currency holdings due to identified foreign exchange rate risk of the zloty, decreased by estimated unrealised foreign currency revaluation gains (see Note 9 and Note 9.2).

Other areas in which NBP makes significant estimates relate to, in particular, setting:

- the amount of provisions for liabilities due to retirement and disability severance payments, death in service benefits and jubilee awards (the provisions are estimated on the basis of actuarial assessment carried out periodically by an independent actuary),
- periods of use of tangible and intangible fixed assets,
- the discount rates of outstanding lease fees (the rates are used to determine the value of lease-related payments, and consequently to determine the value of lease assets – see Note 4 and Note 6.4),
- write-downs due to assets' impairment.

5. Explanatory notes

Note 1 Gold and gold receivables

Financial instruments in gold are recognised in the NBP accounting books at transaction price. The transaction price of an ounce of gold in USD is translated into domestic currency according to the average NBP exchange rate of the US dollar effective as at the date of transaction.

Gold assets constitute a holding of gold for which the average cost is estimated. The average cost of gold holding, which is the average cost of purchasing an ounce of gold by NBP, is used to calculate income and expenses arising from the sale of gold (realised gains or losses on transactions in gold) and determine the results of balance sheet valuation.

At the balance sheet date, gold is valued according to the market value of an ounce of gold expressed in USD, translated into domestic currency according to the average NBP exchange rate of the USD effective as at the balance sheet date. No distinction is made between the results of currency and price valuation of gold – they are treated jointly as gold holdings revaluation differences. Unrealised losses, recognised in the financial result on the balance sheet date, change the average cost of gold holding.

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Gold stored at NBP	24,912,428.2	23,961,404.3	951,023.9
Gold on accounts with foreign banks, of which:	29,931,371.2	28,291,215.3	1,640,155.9
- <i>current accounts in gold</i>	18,144,948.1	20,210,979.9	-2,066,031.8
- <i>term deposits in gold</i>	11,786,423.1	8,080,235.4	3,706,187.7
Total	54,843,799.4	52,252,619.6	2,591,179.8
<i>of which gold revaluation differences</i>	23,474,557.2	27,525,036.9	-4,050,479.7

		31.12.2021	31.12.2020	Change
Gold stored at NBP	thousands of ounces	3,371.2	3,371.2	0.0
	(tons)	(104.9)	(104.9)	(0.0)
Gold on accounts with foreign banks, of which:	thousands of ounces	4,050.5	3,980.5	70.0
	(tons)	(125.9)	(123.8)	(2.1)
- <i>current accounts in gold</i>	thousands of ounces	2,455.5	2,843.6	-388.1
	(tons)	(76.3)	(88.4)	(-12.1)
- <i>term deposits in gold</i>	thousands of ounces	1,595.0	1,136.9	458.1
	(tons)	(49.6)	(35.4)	(14.2)
Total	thousands of ounces	7,421.7	7,351.7	70.0
	(tons)	(230.8)	(228.7)	(2.1)

Gold is held at NBP and on accounts in foreign banks. Gold held in foreign banks is:

- held on the current accounts (mainly at the Bank of England),
- invested in term deposit transactions with foreign financial institutions; interest on term deposits in gold is accrued and paid in USD (see Note 3.1 and Note 11).

The increase in the balance by 70.0 thousand ounces was a result of the investment policy pursued.

The domestic currency value of the item was mainly affected by the revaluation of the holding of gold (see Note 9.1 and Note 12.1).

Note 2 Receivables from and liabilities to the IMF

Transactions with the International Monetary Fund (hereinafter “the IMF”) are recognised in the NBP accounting books at nominal value. As at the balance-sheet date, the amounts of receivables from and liabilities to the IMF are valued according to nominal value. Valuation of assets is carried out with consideration for impairment write-downs.

The balances resulting from operations with the IMF are denominated in Special Drawing Rights (SDR) or in the zloty. The SDR is construed as a separate foreign currency.

The balances in SDR are translated into domestic currency at the average NBP exchange rate effective as at the balance-sheet date.

Items related to the IMF:

- **Reserve tranche** corresponds to the Republic of Poland's member quota in the IMF, reduced by liabilities due to the account in domestic currency operated by NBP for the IMF (so-called No. 1 Account of the IMF).

The quota in the IMF of each member country is determined on the basis of selected macroeconomic indicators and paid in full amount (in domestic currency and in foreign currencies). The size of member quota determines for a given country, among others, the number of its voting rights in the IMF, the assigned amount of SDR allocation and the limits of loans granted to that country.

The funds accumulated in No. 1 Account of the IMF are used by the IMF under quarterly Financial Transaction Plans (FTPs). The funds are exchanged for foreign currency and transferred to member countries – IMF borrowers, which results in an increase in reserve tranche. On the other hand, loan repayments made by IMF borrowers in foreign currencies are exchanged for the domestic currency and credited to No. 1 Account of the IMF, which results in a decrease in reserve tranche.

- **Current account with the IMF** includes funds received under SDR allocation and payments in SDR due to loans extended to the IMF, as well as due to settlements arising from interest and fees on balances and transactions related to the IMF.
- **Term deposit in the IMF** (non-interest bearing) includes funds in the IMF-administered PRG-HIPC Trust (Poverty Reduction and Growth – Heavily Indebted Poor Countries Initiative).

- **Loans in foreign currency extended to the IMF**

Since 2011 NBP has been a participant in the New Arrangements to Borrow (NAB). As a participant in the NAB, NBP has made a commitment to extend to the IMF interest-bearing loans up to the arranged limit. As at the end of 2021 the maximum limit of loans amounted to SDR 2,570,800.0 thousand⁶ (SDR 1,285,400.0 as at the end of 2020). The increase in the item results from the entry into force of the decision to increase NAB, which is effective from 1 January 2021 to 31 December 2025.

Under the 2017 bilateral borrowing agreement (BBA) concluded by NBP and the IMF, until the end of 2020 NBP had made a commitment to extend interest-bearing loans to the IMF amounting up to the SDR equivalent of EUR 6,270,000.0 thousand. In accordance with the agreement of 2020, effective from 1 January 2021 to 31 December 2023, with an option to extend it for one year, subject to approval by NBP, the available limit of the loan was reduced to EUR 2,701,000.0 thousand⁷ (which was related to the increased limit of loans under NAB). The funds may be transferred by NBP at the request of the IMF. The IMF will be able to use these funds provided that it exhausts other available resources originating from quotas of member countries and loans under the NAB. Neither in 2020 nor in 2021 did the IMF borrow funds under BBA.

- **SDR allocations**, meaning granting SDRs to member countries, were conducted in 2009 and in 2021. Under the SDR allocations, the Republic of Poland received a total of SDR 5,229,896.4 thousand.

Reserve tranche (except for the fixed part which amounts to SDR 56,236.0 thousand), the balance of the current account with the IMF, loans extended to the IMF and SDR allocations are remunerated on the basis of the interest rate determined by the IMF.

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Reserve tranche, of which		5,737,726.8	4,903,695.4	834,031.4
- Member quota in the IMF		23,798,105.3	21,905,925.0	1,892,180.3
- No. 1 Account of the IMF		-18,060,378.5	-17,002,229.6	-1,058,148.9
Current account with the IMF		24,059,229.8	1,601,691.4	22,457,538.4
Term deposit with the IMF		40,261.8	38,645.5	1,616.3
Loans extended to the IMF		172,902.3	335,362.2	-162,459.9
Total assets (Receivables from the IMF)	A.2.1	30,010,120.7	6,879,394.5	23,130,726.2
SDR allocation (Liabilities to the IMF)	L.9	29,769,702.4	7,128,746.3	22,640,956.1
Net item		240,418.3	-249,351.8	489,770.1
<i>of which SDR currency revaluation differences</i>		7,985.7	3,209.7	4,776.0

⁶ That is PLN 14,632,222.4 thousand according to the average NBP exchange rate as at 31 December 2021.

⁷ That is PLN 12,422,979.4 thousand according to the average NBP exchange rate as at 31 December 2021.

SDR thousand	Balance sheet item	31.12.2021	31.12.2020	Change
Reserve tranche		1,008,086.7	897,586.7	110,500.0
- Member quota in the IMF		4,095,400.0	4,095,400.0	0.0
- No. 1 Account of the IMF		-3,087,313.3	-3,197,813.3	110,500.0
Current account with the IMF		4,227,072.6	293,178.2	3,933,894.4
Term deposit with the IMF		7,073.8	7,073.8	0.0
Loans extended to the IMF		30,378.0	61,385.7	-31,007.7
Total assets (Receivables from the IMF)	A.2.1	5,272,611.1	1,259,224.4	4,013,386.7
SDR allocation (Liabilities to the IMF)	L.9	5,230,371.0	1,304,866.4	3,925,504.6
Net item		42,240.1	-45,642.0	87,882.1

Under SDR allocation in 2021 the Republic of Poland was granted SDR 3,925,256.7 thousand, which resulted in the increase in the balance of the current account with the IMF and liabilities due to SDR allocation.⁸ In addition, the change in the item in original currency was due to:

- an increase in the reserve tranche was a result of transactions under the FTPs – payments in favour of IMF member countries made by the IMF from No. 1 Account of the IMF with NBP,
- a decrease in receivables due to loans extended to the IMF under the NAB, which was mainly a result of the repayment of a portion of debt towards NBP by the IMF⁹,
- an increase in the current account with the IMF, mainly as a result of settlements of operations other than the SDR allocation (see Note 12.1).

The domestic currency value of the receivables from the IMF and liabilities to the IMF was also affected by the currency revaluation of SDR (see Note 9.1).

⁸ The SDR allocation decision was taken by the IMF Board of Governors on 2 August 2021. The main purpose of the SDR allocation was to meet the IMF member countries' needs to supplement the existing reserve assets, bearing in mind the challenges posed by the crisis caused by the COVID-19 pandemic. Under the general allocation, the IMF distributed SDRs to all member countries in proportion to their paid member quota.

⁹ As at 31 December 2021, the outstanding amount of the NBP's commitment to the IMF under the NAB amounted to SDR 2,540,425.0 thousand (PLN 14,459,337.0 thousand according to the average NBP exchange rate as at 31 December 2021). As at 31 December 2020, the outstanding amount of NBP's commitment was SDR 1,224,025.0 thousand (SDR 6,687,093.4 thousand according to the average NBP exchange rate as at 31 December 2020).

Note 3 Other financial assets

▪ Securities

Securities purchased in a spot transaction are recognised in the NBP accounting books at clean price.

Discount and premium on securities purchased are recognised in the financial result (as discount income or premium expenses, respectively) at the end of each operating day in amounts calculated according to the internal rate of return.

Interest on securities purchased is recognised in the financial result (as interest income) at the end of each operating day in amounts calculated according to the straight-line method.

Securities with the same International Securities Identification Number (ISIN) code, in relation to which NBP has a defined business intent, constitute a holding of securities.

For securities, the average cost of holding is calculated. The average cost of securities holding, which is the average cost of purchasing by NBP a security of a given code (adjusted for amortised discount and premium), is used to calculate income and expenses arising from the sale of securities (realised price gains or losses) and to determine the results of balance sheet valuation.

As at the balance sheet date, securities denominated in foreign currencies, not classified as held-to-maturity, are valued at market price effective on the balance sheet date. Unrealised losses related to a given securities holding are not netted with unrealised gains on any other holding of securities. Unrealised losses recognised in the financial result on the balance sheet date change the average cost of a securities holding.

As at the balance sheet date, securities denominated in foreign currency held to maturity are valued at their clean price adjusted for amortised discount and premium, less impairment.

As at the balance sheet date, securities denominated in domestic currency held for monetary policy purposes are valued at clean price adjusted for amortised discount and premium, less impairment.

▪ Reverse repo transactions

A reverse repo transaction is a contract under which an entity agrees to purchase assets and, simultaneously, agrees to re-sell equivalent assets in future, for a transaction price. This transaction is recognised in assets as a loan granted, collateralised with received assets. Securities received as collateral do not increase the holding of these securities and are not disclosed in assets of the NBP balance sheet. Securities received in reverse repo transactions are not subject to valuation and no income or expense on these securities are recognised in the financial result of NBP.

The difference between the agreed purchasing and re-selling price of securities in reverse repo transactions is recognised in the financial result at the end of each operating day in amounts calculated according to the straight-line method.

As at the balance sheet date, reverse repo transactions are valued at nominal value.

▪ Term deposits

Term deposits are recognised in the NBP accounting books and valued as at the balance sheet date at nominal value.

- **Current accounts, margins related to futures, foreign banknotes and coins in stock**

Current accounts, margins deposited in cash and foreign banknotes and coins in stock are recognised in the NBP accounting books and priced as at the balance sheet date according to their nominal value.

- **Non-marketable shares, participating interests**

Non-marketable shares and participating interests are recognised in the NBP accounting books and valued at the balance sheet date at purchase price, less impairment.

- **Credit and loans granted, other claims**

Credit and loans granted and other claims are recognised in the NBP accounting books and valued at the balance sheet date according to their nominal value, less impairment.

- **Financial assets in foreign currency**

Following the valuation of financial assets in foreign currency according to the above principles, the balances are translated into domestic currency at the average NBP exchange rate as at the balance-sheet date.

Note 3.1 Balances with foreign institutions, securities, loans granted and other foreign assets

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Current accounts, of which	22,771,019.4	31,124,418.7	-8,353,399.3
- current account with the ECB for settlements in TARGET2	2,574,140.7	2,857,132.0	-282,991.3
Term deposits	22,638,153.6	26,407,882.5	-3,769,728.9
Reverse repo transactions	35,876,615.9	45,225,495.5	-9,348,879.6
Securities, of which	506,790,467.3	417,564,746.5	89,225,720.8
- securities held to maturity	41,215,224.6	0.0	41,215,224.6
Foreign banknotes and coins in stock	211,890.8	263,278.9	-51,388.1
Other claims, of which	1,035,035.7	726.5	1,034,309.2
- margins related to futures transactions	1,024,049.9	722.9	1,023,327.0
- interest on term deposits in gold	405.5	3.6	401.9
- other	10,580.3	0.0	10,580.3
Total	589,323,182.7	520,586,548.6	68,736,634.1
<i>of which</i>			
- currency revaluation differences	27,820,277.4	15,866,753.7	11,953,523.7
- price revaluation differences	-3,003,299.9	3,784,535.7	-6,787,835.6

The item comprises mostly the main investment instruments of foreign currency reserves in USD, EUR, GBP, CAD, AUD, NOK and NZD, that is:

- securities (discount securities and fixed-interest-rate securities) – all securities purchased by NBP are marketable securities; in 2021 under the implemented investment policy a portfolio comprising securities issued by the US Government in the amount of USD 9.9 billion was separated (in the value approximate to the book value as at the balance sheet date) and re-classified as held-to-maturity¹⁰,
- term deposits,
- reverse repo transactions – under the NBP investment process reverse repo transactions are usually executed simultaneously with repo transactions¹¹ (see Note 6.3).

The item also includes futures margins whose increase resulted from higher investment in futures contracts (see Note 10.3).

Basic investment instruments of foreign currency reserves by foreign currency are presented below.

31.12.2021							
<i>thousand units of original currency</i>	USD	EUR	GBP	CAD	AUD	NOK	NZD
Term deposits	411,700.0	2,506,181.4	19,000.0	0.0	0.0	12,099,299.6	1,353,791.6
Reverse repo transactions	2,903,444.3	1,167,701.4	2,634,208.9	0.0	1,377,438.0	0.0	74,187.3
Securities	51,985,974.5	22,819,662.3	11,380,580.4	16,830,953.6	13,593,472.8	50,926,300.6	3,979,327.0
Total	55,301,118.8	26,493,545.1	14,033,789.3	16,830,953.6	14,970,910.8	63,025,600.2	5,407,305.9

31.12.2020							
<i>thousand units of original currency</i>	USD	EUR	GBP	CAD	AUD	NOK	NZD
Term deposits	151,800.0	4,115,991.0	432,900.0	0.0	0.0	10,502,127.8	0.0
Reverse repo transactions	4,409,715.6	1,157,260.8	3,775,517.4	0.0	897,227.5	0.0	492,194.3
Securities	57,947,757.4	18,204,454.8	9,849,525.4	0.0	11,670,754.7	49,468,275.2	3,559,060.2
Total	62,509,273.0	23,477,706.6	14,057,942.8	0.0	12,567,982.2	59,970,403.0	4,051,254.5

Change							
<i>thousand units of original currency</i>	USD	EUR	GBP	CAD	AUD	NOK	NZD
Term deposits	259,900.0	-1,609,809.6	-413,900.0	0.0	0.0	1,597,171.8	1,353,791.6
Reverse repo transactions	-1,506,271.3	10,440.6	-1,141,308.5	0.0	480,210.5	0.0	-418,007.0
Securities	-5,961,782.9	4,615,207.5	1,531,055.0	16,830,953.6	1,922,718.1	1,458,025.4	420,266.8
Total	-7,208,154.2	3,015,838.5	-24,153.5	16,830,953.6	2,402,928.6	3,055,197.2	1,356,051.4

¹⁰ As at 31 December 2021 the market value of securities classified as held to maturity was PLN 40,029,535.5 thousand.

¹¹ As at 31 December 2021 securities of the value of PLN 35,657,895.9 thousand were collateral to repo transactions (PLN 45,085,487.1 thousand as at 31 December 2020).

The change in the item in original currency was mainly driven by:

- the inflow of funds in foreign currency due to transactions of holders of accounts with NBP as well as NBP's own transactions (see Note 6.1 and Note 6.3),
- a change in the investment structure of foreign currency reserves – the start of investment in CAD with a simultaneous reduction of the portfolio in USD (see Chapter 7.1.4),
- a decrease in investment in simultaneous reverse repo and repo transactions in USD, GBP and NZD (see Note 6.3),
- the IMF financing under the FTP (see Note 2).

Additionally, the change in the item was a result of currency revaluation (see Note 9.1, Note 12.1 and Note 12.2).

Note 3.2 Claims due to monetary policy operations denominated in domestic currency

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Bill discount credits	A.5.5	0.0	52,955.4	-52,955.4
Securities, of which	A.7	149,322,164.0	112,563,027.9	36,759,136.1
- Treasury securities		86,952,637.8	58,528,091.6	28,424,546.2
- securities guaranteed by the State Treasury		62,369,526.2	54,034,936.3	8,334,589.9
Total		149,322,164.0	112,615,983.3	36,706,180.7

In 2021 and 2020 NBP purchased Treasury bonds and securities guaranteed by the State Treasury in the secondary market, as part of structural open market operations. The operations were conducted with the aim to change the liquidity structure of the banking sector in the long term, as well as to provide liquidity of the secondary market of purchased securities and strengthen the monetary policy transmission mechanism (see Note 11).

Furthermore, in 2020 NBP offered a bill discount credit with the aim to enable banks to refinance loans extended to entrepreneurs. These credits were collateralised with bills of exchange which banks accepted as collateral to loans extended to entrepreneurs (see Chapter 7.1.1.2.2). In 2021, NBP ceased to offer this instrument.

Note 3.3 Other financial assets

PLN thousand	31.12.2021	31.12.2020	Change
Shares and participating interests in domestic entities, of which	128,848.9	128,848.9	0.0
- shares in Krajowy Depozyt Papierów Wartościowych S.A.	51,708.1	51,708.1	0.0
- shares in Krajowa Izba Rozliczeniowa S.A.	75,312.5	75,312.5	0.0
- participating interests in Bazy i Systemy Bankowe Sp. z o.o	1,820.0	1,820.0	0.0
- other	8.3	8.3	0.0
Shares and participating interests in foreign entities, of which	170,213.0	168,390.2	1,822.8
- participating interests in the European Central Bank	112,649.7	113,026.8	-377.1
- shares in the Bank for International Settlements	56,917.0	54,632.0	2,285.0
- participating interests in S.W.I.F.T.	646.3	731.4	-85.1
Total	299,061.9	297,239.1	1,822.8

The increase in the value of the item was a result of currency revaluation of shares and participating interests in foreign entities and a decrease in the number of participating interests of NBP in S.W.I.F.T. as a result of re-allocation of participating interests carried out by this entity.

The participation of NBP in domestic entities did not change in comparison to 31 December 2020, and as at 31 December 2021 was as follows:

NBP's participation in domestic entities

Entity	Share capital (PLN thousand)	Nominal price per share/participating interest (PLN thousand)	Number of shares/participating interests held by NBP	NBP's participation in the share capital (%)
	31.12.2021	31.12.2021	31.12.2021	31.12.2021
NBP's participation in domestic entities, of which				
- Krajowy Depozyt Papierów Wartościowych S.A.	21,000.0	1.0	7,000	33.33%
- Krajowa Izba Rozliczeniowa S.A.	5,445.0	0.5	3,750	34.44%
- Bazy i Systemy Bankowe Sp. z o.o	10,000.0	10.0	1,000	100.00%

The participation of NBP in foreign entities was as follows:

- participating interests in the European Central Bank

Since 1 May 2004, i.e. the day of Poland's accession to the European Union, NBP has held a participating interest in the ECB's capital. As at 31 December 2021 and 31 December 2020, the capital paid up by NBP to the ECB amounted to EUR 24,492.3 thousand.

In accordance with Article 28(2) of the Statute of the European System of Central Banks and the European Central Bank, hereinafter referred to as the "Statute of the ESCB and ECB",

only the national central banks of the ESCB are entitled to subscribe the ECB's capital. The ECB's capital is subscribed according to the subscription key determined in Article 29(1) of the Statute of the ESCB and ECB, i.e. shares of national central banks in the ECB's capital are expressed in percentage and correspond to the shares of individual member states in the population and the combined gross domestic product of EU states (in equal consideration). The subscription key of the ECB capital is regularly adjusted every five years, as well as at the time a change in the EU membership takes place. The last regular adjustment of the key was made in 2019. On 1 February 2020 an adjustment of the subscription key of the ECB capital was made following the exit of the United Kingdom from the European Union and, as a consequence, the withdrawal of the Bank of England from the ESCB.¹² Following this adjustment, the share of NBP in the ECB's subscribed capital increased from 5.2068% to 6.0335%, which corresponds to an increase in the participating interest from EUR 563,636.5 thousand to EUR 653,126.8 thousand.

As a central bank from outside the euro area, NBP is required to pay up the minimum percentage of the ECB's capital subscribed by it, which was specified by the ECB General Council (pursuant to Article 47 of the Statute of the ESCB and the ECB) and constitutes NBP's contribution to the operational costs of the ECB. The percentage has amounted to 3.75% since 29 December 2010. Unlike euro area central banks, NBP has no right to participate in the ECB's profits nor is required to cover its losses. As at 31 December 2021 and 31 December 2020, the capital paid up by NBP to the ECB amounted to EUR 24,492.3 thousand. Upon Poland's entry into the euro area, NBP will be required to pay up the remaining 96.25% of the ECB's capital subscribed by it, i.e. EUR 628,634.5 thousand.

- shares of the Bank for International Settlements, hereinafter referred to as "BIS"
As at 31 December 2021 and 31 December 2020, NBP held 8,000 shares that translated into the same number of votes. 25% of the nominal value of shares (the nominal value of one share amounts to SDR 5.0 thousand) was paid up, which totals SDR 10,000.0 thousand. The share of NBP in the share capital of BIS amounts to 1.41%.
- participating interests in S.W.I.F.T. (Society for Worldwide Interbank Financial Telecommunication)
As at 31 December 2021 NBP had 47 shares (in the amount of EUR 140.5 thousand). As at 31 December 2020 NBP had 53 shares (in the amount of EUR 158.5 thousand), which represented less than 0.05% of their total number.

¹² The amount of the ECB's subscribed capital has not changed as a result of the withdrawal of the Bank of England from the ESCB and amounts to EUR 10,825,007.1 thousand.

Note 3.4. Sundry

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Inventories, of which	25,601.6	27,555.3	-1,953.7
- <i>precious metals</i>	24,477.1	26,505.9	-2,028.8
- <i>collector items not in circulation</i>	366.7	364.7	2.0
- <i>other</i>	757.8	684.7	73.1
Credit and loans extended in domestic currency, of which	22,107.6	89,773.3	-67,665.7
- <i>loans to employees, of which</i>	22,107.6	22,784.1	-676.5
• <i>loans extended from the Employee Benefit Fund</i>	11,435.2	12,266.3	-831.1
- <i>other loans</i>	0.0	66,989.2	-66,989.2
Other claims, of which	19,977.9	29,710.3	-9,732.4
- <i>on public authorities</i>	3.3	0.2	3.1
- <i>on customers and suppliers</i>	7,387.6	15,574.8	-8,187.2
- <i>other</i>	12,587.0	14,135.3	-1,548.3
Funds of the Employee Benefit Fund	8,476.5	6,420.9	2,055.6
Adjustment of off-balance-sheet instruments to the average cost of foreign currency holding	19,790.7	15,068.4	4,722.3
Total	95,954.3	168,528.2	-72,573.9

As at 31 December 2020, the item *Other loans* included a claim due to a refinancing loan, in another form specified by the Management Board of NBP, granted in 2015. In 2021 this claim was repaid in full from the funds obtained from claims on loan agreements, assigned in favour of NBP as collateral to the loan granted.

Adjustment of off-balance-sheet instruments to the average cost of foreign currency holding relates to spot and forward transactions in foreign currency recognised on off-balance-sheet accounts (as at 31 December 2020 it related to spot transactions only). The increase in the item is the result of the volume of these transactions as at the end of the year (see Note 10.1) and the difference between the average cost of holding and the purchase/sale price of the transaction.

Note 4 Tangible and intangible fixed assets

▪ Tangible and intangible fixed assets

Tangible and intangible fixed assets are recognised in the NBP accounting books at:

- purchase price, increased by costs directly related to the purchase and adaptation of an asset to the condition enabling its use, or
- production cost

– or according to market value, if it is not possible to determine purchase price or production cost.

Tangible and intangible fixed assets are depreciated/amortised according to the straight-line method beginning from the month which follows the month when the asset was made available for use. The table below presents the estimated periods of use for particular groups of tangible and intangible fixed assets set for 31 December 2021.

Tangible fixed assets	Periods of use (in months)
Land, NBP's cultural goods	unlimited
Buildings and premises	480 or 780
Land and water engineering objects	267-480
Machines, devices, appliances, tools, and other equipment	36-300 ¹
Vehicles	72-180
Intangible assets	Periods of use (in months)
IT software licences	72 or 144
IT software developed by NBP	120
Copyrights, including the rights related to inventions, trademarks, utility and industrial designs	120

¹ A period of 300 months applies to other turbine generator sets and electric generating sets, including AC electric generating units or sets of a voltage below 1000V, as well as electricity devices and apparatus, including: AC distribution devices, AC and DC setting devices, AC apparatus, fixed and mobile transformer stations, DC distribution devices and apparatus, DC apparatus and transformers.

In specific cases, individual periods of use are adopted for tangible and intangible fixed assets.

Periods of use of tangible and intangible fixed assets are verified each financial year.

In the case of tangible and intangible fixed assets with a low initial value, i.e. below PLN 10.0 thousand, depreciation/amortisation is made on a one-off basis, in the amount equal to their initial value, at the end of the month when the assets were made available for use (see Chapter 3).

As at the balance sheet date, tangible and intangible fixed assets are valued at initial value less depreciation/amortisation and impairment.

- **Lease assets**

Lease assets comprise rights to use assets subject to lease (excluding intangible assets), including also the right of perpetual usufruct of land. Lease assets are recognised in the NBP accounting books at cost, including in particular:

- the amount of initial valuation of the lease liability (see Note 6),
- lease fees paid on the date of commencement or before the date of commencement of the lease, less lease incentives received,
- initial direct costs incurred by NBP.

The value of a lease asset is depreciated or amortised throughout the period of lease or the period of use of the underlying asset, whichever is shorter, using the straight-line method, starting from the month of the asset's initial recognition.

As at the balance-sheet date, the value of lease assets is valued at the initial value less revaluation of the lease liability (see Note 6.4) and less depreciation/amortisation and impairment.

In the case of a change of lease conditions, lease assets and liabilities are adjusted accordingly (see Note 6).

Fees related to short-term lease (i.e. when the period of lease is no longer than 12 months and when no purchase of underlying asset is foreseen) or low-value lease (i.e. where the underlying asset or the monthly lease fee is worth less than PLN 10.0 thousand, except for the lease concerning the right of perpetual usufruct of land) are not settled according to the above principles and are recognised as expense throughout the lease period.

PLN thousand	31.12.2021	31.12.2020	Change
Fixed assets	727,780.8	732,938.5	-5,157.7
Lease assets	205,422.0	185,954.0	19,468.0
Intangible assets	100,547.6	112,648.6	-12,101.0
Total	1,033,750.4	1,031,541.1	2,209.3

Change in tangible fixed assets, lease assets and intangible fixed assets in 2021 (due to rounding, individual figures in the table may not add up to totals)	Tangible fixed assets				Lease assets			Intangible fixed assets			
	Land, buildings, premises, land and water engineering objects	Machines, devices, appliances, tools, equipment and vehicles	Tangible fixed assets under construction	Total	Right of perpetual usufruct of land	Other lease assets	Total	Computer software	Copyrights, proprietary rights and similar rights and values	Intangible fixed assets under construction	Total
Gross value as at start of period	949,942.7	681,884.8	21,406.2	1,653,233.7	175,983.5	17,251.6	193,235.2	465,593.5	19,918.5	1,450.0	486,962.1
Increases	20,991.2	60,105.7	53,651.7	134,748.6	0.0	32,733.1	32,733.1	5,848.4	1,326.9	8,300.3	15,475.6
Decreases	-446.4	-50,966.6	-63,527.3	-114,940.3	0.0	-1,982.3	-1,982.3	-37,348.3	-1,061.2	-2,268.0	-40,677.4
Gross value as at end of period	970,487.5	691,023.9	11,530.6	1,673,042.0	175,983.5	48,002.4	223,985.9	434,093.6	20,184.3	7,482.4	461,760.3
of which fully depreciated/amortised	1,481.9	253,619.6	0.0	255,101.5	0.0	0.0	0.0	102,369.6	4,260.8	0.0	106,650.4
Depreciation/amortisation as at start of period	-423,287.3	-496,260.7	0.0	-919,548.0	-2,542.7	-4,738.5	-7,281.2	-364,970.7	-9,333.9	0.0	-374,304.6
Increases	-14,238.0	-61,554.3	0.0	-75,792.3	-2,542.7	-10,640.6	-13,183.3	-22,818.0	-2,433.1	0.0	-25,251.1
Decreases	251.1	50,578.1	0.0	50,829.2	0.0	1,900.6	1,900.6	37,335.5	1,016.4	0.0	38,351.9
Depreciation/amortisation as at end of period	-437,274.2	-507,236.9	0.0	-944,511.1	-5,085.3	-13,478.6	-18,563.9	-350,453.2	-10,750.6	0.0	-361,203.7
Impairment as at start of period	-272.9	-474.3	0.0	-747.2	0.0	0.0	0.0	-8.9	0.0	0.0	-8.9
Increases	0.0	-5.0	0.0	-5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Decreases	0.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment as at end of period	-272.9	-477.2	0.0	-750.1	0.0	0.0	0.0	-8.9	0.0	0.0	-8.9
Net value as at end of period	532,940.4	183,309.8	11,530.6	727,780.8	170,898.2	34,523.8	205,422.0	83,631.6	9,433.7	7,482.4	100,547.6

Change in tangible fixed assets, lease assets and intangible fixed assets in 2020 (due to rounding, individual figures in the table may not add up to totals)	Tangible fixed assets				Lease assets			Intangible fixed assets			
	Land, buildings, premises, land and water engineering objects	Machines, devices, appliances, tools, equipment and vehicles	Tangible fixed assets under construction	Total	Right of perpetual usufruct of land	Other lease assets	Total	Computer software	Copyrights, proprietary rights and similar rights and values	Intangible fixed assets under construction	Total
Gross value as at start of period	932,621.8	651,584.4	26,320.0	1,610,526.1	175,983.5	11,390.2	187,373.8	470,580.4	18,965.9	4,145.4	493,691.8
Increases	17,341.3	39,970.2	33,567.3	90,878.8	0.0	8,150.7	8,150.7	33,444.4	1,073.2	27,839.3	62,356.9
Decreases	-20.4	-9,669.8	-38,481.0	-48,171.2	0.0	-2,289.3	-2,289.3	-38,431.3	-120.6	-30,534.7	-69,086.6
Gross value as at end of period	949,942.7	681,884.8	21,406.2	1,653,233.7	175,983.5	17,251.6	193,235.2	465,593.5	19,918.5	1,450.0	486,962.1
of which fully depreciated/amortised	1,547.2	249,804.4	0.0	251,351.6	0.0	0.0	0.0	123,831.7	2,952.1	0.0	126,783.8
Depreciation/amortisation as at start of period	-410,162.0	-461,525.3	0.0	-871,687.3	0.0	0.0	0.0	-381,816.0	-8,057.7	0.0	-389,873.7
Increases	-13,144.4	-43,831.4	0.0	-56,975.8	-2,542.7	-7,027.8	-9,570.5	-21,547.1	-1,397.5	0.0	-22,944.6
Decreases	19.0	9,096.1	0.0	9,115.1	0.0	2,289.3	2,289.3	38,392.4	121.3	0.0	38,513.7
Depreciation/amortisation as at end of period	-423,287.3	-496,260.7	0.0	-919,548.0	-2,542.7	-4,738.5	-7,281.2	-364,970.7	-9,333.9	0.0	-374,304.6
Impairment as at start of period	-272.9	-474.3	0.0	-747.2	0.0	0.0	0.0	-8.9	0.0	0.0	-8.9
Increases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Decreases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment as at end of period	-272.9	-474.3	0.0	-747.2	0.0	0.0	0.0	-8.9	0.0	0.0	-8.9
Net value as at end of period	526,382.4	185,149.8	21,406.2	732,938.5	173,440.9	12,513.1	185,954.0	100,613.9	10,584.6	1,450.0	112,648.6

Note 5 Banknotes and coins in circulation

Banknotes and coins in circulation are recognised as liabilities and are valued at the balance-sheet date at a nominal value of issued circulation banknotes and coins in domestic currency, decreased by a nominal value of circulation banknotes and coins in domestic currency:

- at NBP cash points and vaults,
- placed as deposit in the vaults of other authorised entities,
- that have been withdrawn from circulation due to being worn out or damaged.

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Domestic banknotes in circulation	349,495,557.8	316,074,943.6	33,420,614.2
Domestic coins in circulation	6,062,167.5	5,725,722.3	336,445.2
Total	355,557,725.3	321,800,665.9	33,757,059.4

The item comprises banknotes and coins in circulation issued by NBP, including collector banknotes and coins, whose value as at 31 December 2021 amounted to PLN 313,639.6 thousand, as compared with PLN 304,515.9 thousand as at 31 December 2020. The 10.5% increase in the item was related to a general rise in money supply in the economy, which – measured with the M2 monetary aggregate – increased in 2021 on a comparable scale (i.e. by 8.8%). The effect of the pandemic, causing above average growth in cash in circulation in 2020, lost its relevance in 2021.

The average level of banknotes and coins in circulation throughout 2021 amounted to PLN 341,610.0 million as compared with PLN 287,577.3 million in 2020.

Note 6 Other financial liabilities

▪ Current accounts and term deposits operated by NBP

Liabilities due to balances on current accounts and term deposit accounts operated by NBP are recognised in the NBP accounting books and are valued as at the balance-sheet date at nominal value.

▪ Issued securities

Issued securities are recognised in the NBP accounting books at issue price and valued as at the balance sheet date at issue price adjusted for amortised discount and premium (see Note 8).

▪ Repo transactions

A repo transaction is a contract under which an entity agrees to sell assets and, simultaneously, agrees to re-purchase equivalent assets in future, for a transaction price. This transaction is recognised in *Liabilities* as a received deposit, collateralised with assigned assets. Securities assigned as collateral

do not decrease the holding of these securities and are disclosed in the assets of the NBP balance sheet.

The difference between the agreed selling and re-purchasing price of securities in repo transactions is recognised in the financial result at the end of each operating day in amounts calculated according to the straight-line method.

As at the balance-sheet date, repo transactions are valued at nominal value.

- **Lease liabilities**

A lease liability is recognised in the NBP accounting books at the discounted value of outstanding lease fees. For fees on the rights of perpetual usufruct of land, the interest rate of long-term Treasury bonds in wholesale offering set as at the date of recognition in the NBP accounting books is taken as the rate of discount of lease fees. For the remaining lease liabilities, the NBP reference rate binding on the day of their recognition in the NBP accounting books is used as the rate of discount.

As at the balance sheet date, the value of lease liabilities is adjusted for the value of interest calculated according to the adopted discount rate and for the value of outstanding lease fees.

In the event of a change of lease conditions, the value of lease assets and liabilities is adjusted accordingly (see Note 4).

- **Other financial liabilities**

Other financial liabilities are recognised in the NBP accounting books and valued as at the balance sheet date at their nominal value.

- **Financial liabilities in foreign currency**

Following the valuation of financial liabilities in foreign currency according to the above principles, the balances are translated into domestic currency at the average NBP exchange rate as at the balance-sheet date.

Note 6.1 Liabilities related to monetary policy operations

PLN thousand	Balance sheet item	31.12.2021	31.12.2020	Change
	Current accounts (incl. required minimum reserve accounts), of which	66,061,581.2	30,351,413.3	35,710,167.9
	- current accounts of banks and KSKOK	65,724,007.7	30,010,468.9	35,713,538.8
	- required minimum reserve accounts of banks not having a current account with NBP	337,573.5	340,944.4	-3,370.9
	Deposit facilities, of which	30,463,543.2	32,278,000.0	-1,814,456.8
	- accrued interest	1,043.2	0.0	1,043.2
	Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	96,525,124.4	62,629,413.3	33,895,711.1
	NBP bills issued under main operations	184,521,188.7	127,767,680.0	56,753,508.7
	Liabilities due to issued securities denominated in domestic currency	184,521,188.7	127,767,680.0	56,753,508.7
	Total	281,046,313.1	190,397,093.3	90,649,219.8

The note comprises liabilities related to monetary policy operations conducted by NBP.

The amount of funds held by banks and KSKOK¹³ with NBP due to the required minimum reserve depends on the basis for calculating the required minimum reserve and the required minimum reserve ratio in force. The required minimum reserve is an averaged value in the maintenance period.

Liabilities due to issued securities denominated in domestic currency comprise mainly liabilities to domestic banks related to the issue of NBP bills under open market main¹⁴ and fine-tuning¹⁵ operations aimed to absorb liquidity (see Chapter 3).¹⁶

The funds of the required minimum reserve and deposit facilities bear interest, whereas NBP bills are issued at a discount (see Chapter 3 and Note 8). As at 31 December 2021 and 31 December 2020, the interest rates which are the basis for remuneration of the required minimum reserve funds, deposit facilities and for determining discount on bills issued by NBP under open market operations were as follows:

¹³ Credit unions hold their required minimum reserve at their accounts with the National Association of Cooperative Savings and Credit Unions [Krajowa Spółdzielcza Kasa Oszczędnościowo-Kredytowa, "KSKOK"].

¹⁴ In 2021, the maturity of main operations was 7 days (in 2020 it was 6, 7 and 8 days).

¹⁵ In 2021, the maturity of fine-tuning operations was 1 day, 2 and 3 days (in 2020 it was 1 day, 2, 3 and 4 days).

¹⁶ Pursuant to Resolution No. 30/2003 of the NBP Management Board of 12 September 2003 on the issue of NBP bills (NBP Official Journal No 15, item 24, as amended) NBP bills can be purchased by domestic banks, branches of foreign banks and branches of foreign credit institutions, the Bank Guarantee Fund and KSKOK.

Rate of interest on liabilities due to monetary policy operations		
%	31.12.2021	31.12.2020
Required minimum reserve*	1.75	0.10
Deposit facility**	1.25	0.00
NBP bills***	1.75	0.10

* The interest rate of the funds of the required minimum reserve.

** NBP deposit rate.

*** NBP reference rate.

The increase in the total liabilities of NBP related to the monetary policy operations by PLN 90,649,219.8 thousand as at 31 December 2021 as compared with 31 December 2020 resulted mainly from:

- NBP's own operations, including purchase of securities by NBP under the structural open market operations (see Note 3.2),
- the purchase of foreign currency incoming to NBP due to transactions by holders of accounts with NBP (see Note 3.1 and Note 6.3),

with a simultaneous decrease in the item as a result of:

- an increase in the volume of cash in circulation in 2021 (see Note 5).

The balance of funds held by banks at NBP is allocated between the purchase of NBP bills, deposit facility or a current account according to individual decisions made by banks.

Note 6.2 Other liabilities denominated in domestic currency

PLN thousand	Balance sheet item	31.12.2021	31.12.2020	Change
Settlements in the domestic payment systems of Krajowa Izba Rozrachunkowa, of which		762,678.9	444,908.2	317,770.7
- in the Elixir system		403,231.9	84,561.7	318,670.2
- in the Express Elixir system		359,447.0	360,346.5	-899.5
Other liabilities to credit institutions denominated in domestic currency	L.3	762,678.9	444,908.2	317,770.7
Liabilities to general government, of which	L.5.1	15,185,508.3	23,852,886.1	-8,667,377.8
- State budget accounts		6,454,710.0	6,017,708.9	437,001.1
- accounts of social insurance funds		8,637,379.5	17,534,326.2	-8,896,946.7
- other		93,418.8	300,851.0	-207,432.2
Other liabilities	L.5.2	66,391.7	1,006,834.9	-940,443.2
Liabilities to other residents denominated in domestic currency	L.5	15,251,900.0	24,859,721.0	-9,607,821.0
Accounts of international financial institutions and central banks, of which		54,713.6	343,796.4	-289,082.8
- No. 2 Account of the IMF		22,890.0	21,066.0	1,824.0
Accounts of international non-financial organisations		3,906,087.2	1,852,360.3	2,053,726.9
Liabilities to non-residents denominated in domestic currency	L.6	3,960,800.8	2,196,156.7	1,764,644.1
Total		19,975,379.7	27,500,785.9	-7,525,406.2

The item comprises mainly:

- current accounts, auxiliary accounts and term deposit accounts in domestic currency operated by NBP for general government entities and non-monetary financial institutions,
- current accounts in domestic currency operated by NBP for international financial and non-financial organisations and central banks, including the account operated by NBP for the IMF, which is used for the Fund's administrative expenditures (so-called No. 2 Account of the IMF) – see Note 12.1,
- liabilities due to settlements in the payment systems operated by Krajowa Izba Rozliczeniowa S.A.

The decrease in the item was mainly related to a decrease in the balance of accounts in domestic currency operated by NBP for social insurance funds, with a simultaneous increase in the balance of accounts operated for international non-financial organisations.

Note 6.3 Liabilities denominated in foreign currency

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change	
	State budget accounts	29,844,278.0	42,867,098.8	-13,022,820.8	
	Accounts of domestic banks for settlements in TARGET2	2,574,101.1	2,857,108.2	-283,007.1	
	Other liabilities to residents	211,340.6	538,566.2	-327,225.6	
	Liabilities to residents denominated in foreign currency	L.7	32,629,719.7	46,262,773.2	-13,633,053.5
	Repo transactions	35,873,254.8	45,222,015.4	-9,348,760.6	
	Accounts of international non-financial organisations	163,175.3	130,498.1	32,677.2	
	Other liabilities to non-residents	0.0	13.4	-13.4	
	Liabilities to non-residents denominated in foreign currency	L.8	36,036,430.1	45,352,526.9	-9,316,096.8
	Total	68,666,149.8	91,615,300.1	-22,949,150.3	
	<i>of which currency revaluation differences</i>	2,871,552.2	3,589,772.4	-718,220.2	

The item comprises mainly:

- current accounts, auxiliary accounts and term deposit accounts in foreign currency operated by NBP for general government entities and international non-monetary financial organisations, as well as accounts of domestic banks for settlements in TARGET2,
- liabilities due to repo transactions with foreign financial institutions under the investment process implemented by NBP, repo transactions are usually executed simultaneously with reverse repo transactions (see Note 3.1),

Repo transactions by foreign currency are presented below.

<i>thousand units of original currency</i>	USD	EUR	GBP	AUD	NZD
31.12.2021	2,903,406.7	1,167,558.5	2,633,780.4	1,377,374.6	74,182.2
31.12.2020	4,409,614.4	1,157,171.5	3,775,008.6	897,212.0	492,182.8
Change	-1,506,207.7	10,387.0	-1,141,228.2	480,162.6	-418,000.6

- liabilities denominated in foreign currency due to payment orders by holders of accounts with NBP, which are in the course of settlement as at the balance-sheet date.

The decrease in the item was mainly related to a decrease in the balance of accounts in foreign currency operated by NBP for the State budget and to a lower value of repo transactions.

Note 6.4 Sundry

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Lease liabilities	209,587.8	188,057.2	21,530.6
Other liabilities, of which	64,572.8	61,007.3	3,565.5
- to public authorities	18,073.8	19,041.1	-967.3
- to suppliers	34,508.0	25,512.6	8,995.4
- other	11,991.0	16,453.6	-4,462.6
Employee Benefit Fund	19,911.7	18,686.9	1,224.8
Adjustment of off-balance-sheet instruments to the average cost of foreign currency holding	692,280.1	371,946.1	320,334.0
Total	986,352.4	639,697.5	346,654.9

Lease liabilities comprised present (discounted) value of outstanding lease fees. They mainly relate to the right of perpetual usufruct of land (see Note 4 and Note 11).

Adjustment of off-balance-sheet instruments to the average cost of foreign currency holding relates to swap, spot and forward transactions in foreign currency recognised on off-balance-sheet accounts (see Note 10.1).

Note 7 Provisions for liabilities

Provisions for liabilities are recognised in the NBP accounting books when NBP is under an obligation arising from past events and when it is probable that the fulfilment of the obligation will reduce the economic benefits of NBP, and the amount of this obligation can be measured reliably. Provisions are created and recognised as expense in the amount that is estimated in a reliable way and that would have to be paid not later than on the balance sheet date to fulfil the above mentioned obligation.

As at the balance-sheet date, provisions for liabilities are adjusted. Provisions for liabilities unused due to a full or partial cessation of obligation justifying their creation are released as income. Provisions for liabilities may be allocated exclusively for the purpose for which they were created.

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Provisions for liabilities to employees	192,667.9	171,187.2	21,480.7
Other provisions	1,703.8	8,382.4	-6,678.6
Total	194,371.7	179,569.6	14,802.1

The changes in provisions for liabilities in 2021 and 2020 by allocation into particular categories are presented in tables below (see also Note 15 and Note 16).

PLN thousand	01.01.2021	Increase	Use	Decrease	31.12.2021
Provisions for liabilities to employees, of which	171,187.2	38,183.0	-14,138.7	-2,563.6	192,667.9
- due to retirement severance payments	93,366.3	17,602.4	-5,221.5	0.0	105,747.2
- due to disability severance payments	2,168.9	322.8	-152.4	0.0	2,339.3
- due to jubilee awards	60,009.8	14,960.8	-8,303.2	0.0	66,667.4
- due to untaken leaves	14,808.2	0.0	-235.3	-2,563.6	12,009.3
- due to death in service benefits	0.0	3,671.9	0.0	0.0	3,671.9
- due to statutory and additional severance payments for employees under employment contracts who are laid off for reasons unrelated to employees	834.0	1,625.1	-226.3	0.0	2,232.8
Other provisions, of which	8,382.4	348.0	0.0	-7,026.6	1,703.8
- for liabilities due to court proceedings	8,325.3	343.4	0.0	-7,026.6	1,642.1
- for liabilities resulting from financial operations in domestic currency	57.1	4.6	0.0	0.0	61.7
Total	179,569.6	38,531.0	-14,138.7	-9,590.2	194,371.7

PLN thousand	01.01.2020	Increase	Use	Decrease	31.12.2020
Provisions for liabilities to employees, of which	156,899.5	28,986.6	-14,081.8	-617.1	171,187.2
- due to retirement severance payments	81,228.6	18,281.2	-6,143.5	0.0	93,366.3
- due to disability severance payments	2,021.0	280.0	-132.1	0.0	2,168.9
- due to jubilee awards	57,276.4	10,362.5	-7,629.1	0.0	60,009.8
- due to untaken leaves	15,530.5	0.0	-144.2	-578.1	14,808.2
- due to statutory and additional severance payments for employees under employment contracts who are laid off for reasons unrelated to employees	843.0	62.9	-32.9	-39.0	834.0
Other provisions, of which	8,729.3	319.5	-664.6	-1.8	8,382.4
- for liabilities due to court proceedings	8,671.6	319.5	-664.6	-1.2	8,325.3
- for liabilities resulting from financial operations in domestic currency	57.7	0.0	0.0	-0.6	57.1
Total	165,628.8	29,306.1	-14,746.4	-618.9	179,569.6

Note 8 Accruals, prepaid expenses and deferred income

Expenses and income related to future periods are recognised in the NBP accounting books, respectively, as components of assets and liabilities.

Expenses and income, partly or completely related to future financial years, are recognised in the NBP accounting books accordingly as accruals and prepaid expenses or accruals and deferred income and are carried to the financial result of the financial year which they concern.

Expenses relating to the current financial year for which the obligation to pay will arise in the following financial year are recognised in the financial result in the amount estimated in a reliable way, and the underlying potential liability of the current financial year is recognised in the accounting books as accruals and prepaid expenses.

The value of assets received free of charge or the value of disclosed tangible and intangible fixed assets subject to depreciation/amortisation according to the straight-line method are initially recognised in the accounting books as accruals and deferred income and are subsequently carried to the financial result along with depreciation/amortisation made on these assets.

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Accruals related to discount on NBP bills*		0.0	2,459.5	-2,459.5
Prepaid expenses related to services		41,496.4	34,803.8	6,692.6
Total assets (Accruals and prepaid expenses)	A.10.4	41,496.4	37,263.3	4,233.1
Accruals		96,244.0	88,597.8	7,646.2
Deferred income		1,292.8	1,538.1	-245.3
Total liabilities (Accruals and deferred income)	L.11.2	97,536.8	90,135.9	7,400.9

* See Chapter 3 and Note 6.1

Prepaid expenses related to services concern mainly expenditures related to NBP's own administrative activities (predominantly due to fees for IT services in favour of NBP).

As at 31 December 2020, the value of accruals related to discount on NBP bills concerned discount expenses on securities issued by NBP, which were not amortised in 2020. Due to the change in the principles of recognition and presentation of these operations as of 1 January 2021, as at 31 December 2021 this item did not occur (see Chapter 3 and Note 6.1).

Note 9 Equity

In line with the practice adopted by central banks of the ESCB, NBP classifies the following as components of its capital:

- the statutory fund, whose amount is determined by Article 61 of the Act on NBP,
- the reserve fund which, in accordance with Article 62 of the Act on NBP, is created from the transfer of 5% of NBP's annual profit until it reaches the amount equivalent to the statutory fund. The reserve fund may only be used to cover NBP's balance sheet losses.,
- the provision against the foreign exchange rate risk of the zloty, created as provided for in Article 65 of the Act on NBP,
- gold revaluation account,
- gold, currency and price revaluation gains,
- loss of previous years,
- a part of profit of the current year at the disposal of NBP (5% of profit), which will be allocated to the reserve fund of NBP.
 - **Gold, currency and price revaluation gains**

Revaluation gains on gold holding are determined by comparing the average cost of gold holding with the average market price of gold expressed in PLN, which is higher than the average cost of gold holding.

Foreign currency revaluation gains are determined by comparing the average cost of foreign currency holding with the average NBP exchange rate, which is higher than the average cost of foreign currency holding.

Price revaluation gains on securities are determined by comparing the average cost of securities holding with the average market price of these securities, which is higher than the average cost of securities holding.

Price revaluation gains on forward transactions in securities are determined by comparing the contract price discounted as at the settlement date (spot) with a lower (in the case of forward sale) or higher (in the case of forward purchase) average market price of securities as at the valuation date.

The value of gold holding revaluation differences, revaluation differences on holdings of individual foreign currencies and price revaluation differences on securities holdings are determined separately, without netting the value of individual items which differ in kind.

- **Gold revaluation account**

Gold revaluation account comprises surpluses of unrealised gains over unrealised losses which arose before 1 January 2004.

The balance of the gold revaluation account is decreased as income in the amount of unrealised gold revaluation losses recognised in the financial result at the balance sheet date.

- **FX risk provision**

The FX risk provision is estimated on the basis of financial risk assessment methods which are generally accepted and consistently applied by NBP (see Chapter 7.1.4.).

At NBP, the Value at Risk (VaR) methodology is used to perform an analysis of the foreign exchange rate risk of the zloty. It estimates the loss expected due to fluctuations of the foreign exchange rate of the zloty, which in normal conditions and with an assumed probability, should not be exceeded within the adopted time horizon. In NBP, a one year horizon and a 95% confidence level were adopted for the purposes of estimating the FX risk provision.

The Value at Risk is then decreased by unrealised foreign currency revaluation gains estimated on the basis of statistical distribution analysis. The estimation is based on the foreign currency holdings as at the balance sheet date and historical time series of the average cost of currency holdings and the average NBP exchange rates for these currencies. Such an approach makes it possible to determine a stable level of unrealised gains and thus limits volatility of the FX risk provision.

The provision is created and released at the balance sheet date.

The provision is created as expense in the amount equal to half of the surplus of income on realised FX gains over realised and unrealised FX losses on foreign currencies recognised in the financial result for the financial year. The creation of the provision must not lead to a negative financial result of the financial year for NBP.

The provision is released – by recognising it as income – to cover unrealised losses arising from changes in the foreign exchange rate of the zloty, increased by the surplus of the realised FX losses over realised FX gains, in the amount that could result in a loss.

The surplus of the created provision over its estimated value is released as income.

PLN thousand	L.12 Provisions	L.13 Revaluation accounts		L.14 Capital and reserves		L.15 Financial result		Total
	FX risk provision	Gold revaluation account	Revaluation accounts*	Statutory fund	Reserve fund	Loss of previous years	Financial result for the financial year	
As at 31.12.2019	6,686,317.3	1,618,023.2	28,876,107.4	1,500,000.0	0.0	-11,865,363.4	7,828,502.5	34,643,587.0
Contribution from NBP's profit							-7,437,077.4	-7,437,077.4
Allocation of NBP profit to reserve fund					391,425.1		-391,425.1	0.0
Gold holding, currency and price revaluation gain/loss			15,246,225.5					15,246,225.5
Transfer to FX risk provision	3,164,602.0							3,164,602.0
Financial result for the financial year							9,344,061.5	9,344,061.5
As at 31.12.2020	9,850,919.3	1,618,023.2	44,122,332.9	1,500,000.0	391,425.1	-11,865,363.4	9,344,061.5	54,961,398.6
Contribution from NBP's profit							-8,876,858.4	-8,876,858.4
Allocation of NBP profit to reserve fund					467,203.1		-467,203.1	0.0
Covering loss of previous years					-858,628.2	858,628.2		0.0
Gold holding, currency and price revaluation gain/loss			5,298,543.4					5,298,543.4
Transfer to FX risk provision	6,648,541.6							6,648,541.6
Financial result for the financial year							10,974,518.7	10,974,518.7
As at 31.12.2021	16,499,460.9	1,618,023.2	49,420,876.3	1,500,000.0	0.0	-11,006,735.2	10,974,518.7	69,006,143.9
Contribution from NBP's profit							-10,425,792.8	-10,425,792.8
Allocation of NBP profit to reserve fund					548,725.9		-548,725.9	0.0
Balance after allocation of financial result for the financial year**	16,499,460.9	1,618,023.2	49,420,876.3	1,500,000.0	548,725.9	-11,006,735.2	0.0	58,580,351.1

* Revaluation accounts concern gold revaluation gains, currency revaluation gains and price revaluation gains on securities and off-balance-sheet financial instruments (see Note 9.1).

** Financial result for the financial year, following the approval of the NBP annual financial statements by the Council of Ministers, is allocated to NBP's reserve fund and contribution from NBP's profit to the State budget (see Note 9.4).

Note 9.1 Revaluation accounts

PLN thousand	31.12.2021	31.12.2020	Change
Gold holding revaluation gains	23,474,557.2	27,525,036.9	-4,050,479.7
Currency revaluation gains	25,546,797.0	12,729,143.9	12,817,653.1
Price revaluation gains, of which	399,522.1	3,868,152.1	-3,468,630.0
- on securities	395,860.3	3,868,152.1	-3,472,291.8
- on off-balance-sheet financial instruments	3,661.8	0.0	3,661.8
Gold revaluation account	1,618,023.2	1,618,023.2	0.0
Total	51,038,899.5	45,740,356.1	5,298,543.4

Average cost of holding of foreign currency and gold, average NBP exchange rates and market price of gold

PLN	Average cost of holding	Average NBP exchange rate / Average price of gold	Average cost of holding	Average NBP exchange rate / Average price of gold
	31.12.2021		31.12.2020	
USD	3.7755	4.0600	3.7354	3.7584
EUR	4.5015	4.5994	4.3906	4.6148
GBP	5.1105	5.4846	4.9275	5.1327
CAD	3.2076	3.1920	2.9054	2.9477
AUD	2.8198	2.9506	2.6837	2.8950
NOK	0.4340	0.4608	0.4148	0.4400
NZD	2.7263	2.7775	2.5552	2.7132
SDR	5.5026	5.6917	5.5335	5.4632
Ounce of gold*	4,226.6645	7,389.6060	3,363.4973	7,107.5102

- **Gold revaluation gains**

In 2021, a decrease in gold revaluation gains was mainly related to a lower positive difference between the average price of gold and the average cost of gold holding. The increase in the price of gold was due to the increase in the average USD exchange rate with a simultaneous decrease in the price of an ounce of gold in USD (the price of an ounce of gold in USD was respectively: USD 1,820.10 as at 31 December 2021 and USD 1,891.10 as at 31 December 2020). The increase in the average cost of gold holding was mainly due to purchase/sale transactions in gold (see Note 1 and Note 12.1).

- **Currency revaluation gains**

PLN thousand	31.12.2021	31.12.2020	Change
USD	14,894,942.8	1,377,723.8	13,517,219.0
EUR	2,256,854.0	4,301,254.9	-2,044,400.9
GBP	4,273,426.7	2,120,771.6	2,152,655.1
CAD	0.0	41.0	-41.0
AUD	1,890,391.4	2,599,836.7	-709,445.3
NOK	1,689,541.3	1,536,138.4	153,402.9
NZD	263,912.0	789,091.0	-525,179.0
SDR	9,876.3	2,506.5	7,369.8
CHF	267,391.3	1,018.0	266,373.3
Other	461.2	762.0	-300.8
Total	25,546,797.0	12,729,143.9	12,817,653.1

- **Price revaluation gains on securities**

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Securities in USD	247,735.4	2,283,063.6	-2,035,328.2
Securities in EUR	50,668.8	273,597.1	-222,928.3
Securities in GBP	0.0	424,298.7	-424,298.7
Securities in CAD	89,134.5	0.0	89,134.5
Securities in AUD	864.9	370,358.5	-369,493.6
Securities in NOK	397.0	200,971.3	-200,574.3
Securities in NZD	7,059.7	315,862.9	-308,803.2
Total	395,860.3	3,868,152.1	-3,472,291.8

- **Price revaluation gains on off-balance sheet financial instruments**

As at 31 December 2021, price revaluation gains on off-balance-sheet financial instruments related to forward purchase transactions in securities denominated in USD and forward sale transactions in securities denominated in AUD (see Note 10 and Note 10.2).

- **Gold revaluation account**

Due to the fact that as at 31 December 2021 no unrealised gold revaluation losses occurred, NBP – similarly to 31 December 2020 – did not release the gold revaluation account.

Note 9.2 FX risk provision

As at 31 December 2021, the estimation of the FX risk provision (equal to the amount of value at risk less unrealised gains on the foreign exchange rate of the zloty) amounted to PLN 52,036,768.0 thousand (PLN 63,641,590.1 thousand as at 31 December 2020). Pursuant to Resolution No. 6/2019 of the MPC as at 31 December 2021 the provision was supplemented by the amount of PLN 6,648,541.6 thousand (PLN 3,164,602.0 thousand as at 31 December 2020), that is an amount equal to half of the surplus of income of realised foreign exchange gains over realised and unrealised foreign exchange losses on foreign currencies recognised in the financial result for the financial year (see Note 12.1, Note 12.2, and Chapter 7.1.4). As at 31 December 2021, the FX risk provision amounted to PLN 16,499,460.9 thousand (PLN 9,850,919.3 thousand as at 31 December 2020).

Note 9.3 Reserve fund

In 2021 the reserve fund of NBP in the amount of PLN 858,628.2 thousand was allocated to cover NBP's balance sheet loss of previous years (see Note 9.4).

Note 9.4 Financial result

- **Financial result for the financial year**

The NBP financial result for 2021 amounted to PLN 10,974,518.7 thousand.

In accordance with Article 62 and Article 69 of the Act on NBP, NBP's profit is allocated (within 14 days of the approval of the NBP annual financial statements by the Council of Ministers) to:

- NBP's reserve fund (5% of the profit) – PLN 548,725.9 thousand,
- contribution from NBP's profit to the State budget – PLN 10,425,792.8 thousand.

- **Loss of previous years**

Uncovered loss of previous years in the amount of PLN 11,006,735.2 thousand is the result of NBP's loss for the year:

- 2007 – in the amount of PLN 12,427,261.7 thousand,
- 2017 – in the amount of PLN 2,524,935.6 thousand

and its partial coverage from the reserve fund:

- in 2008 – in the amount of PLN 969,350.0 thousand,
- in 2015 – in the amount of PLN 250,000.0 thousand,
- in 2016 – in the amount of PLN 400,000.0 thousand,
- in 2018 – in the amount of PLN 1,467,483.8 thousand,
- in 2021 – in the amount of PLN 858,628.2 thousand.

Note 10 Off-balance-sheet items

- **Spot, forward and swap transactions in foreign currency**

Foreign currency purchased or sold by NBP for another foreign currency is recognised in the NBP accounting books at the value of the foreign currency quoted in the transaction, which is translated into domestic currency at the average exchange rate effective as at the transaction date.

Foreign currency purchased or sold by NBP for domestic currency is recognised in the NBP accounting books at transaction value, unless separate regulations provide otherwise.

Funds purchased or sold in FX forward transaction are recognised on off-balance-sheet accounts from the trade date to the settlement date at the FX spot rate set in the contract.

Funds purchased or sold (in a spot transaction) and, respectively, re-sold or re-purchased (in a forward transaction) as part of FX swap are recognised from the trade date to the settlement date on off-balance-sheet account at an agreed FX spot rate.

The results of an adjustment to the average cost of foreign currency holding and revaluation gains or losses on transactions in foreign currency recognised on off-balance-sheet accounts are presented in the NBP balance sheet according to the balance of adjustment and revaluation of these transactions, determined separately for each transaction type (spot, forward, swap) and separately for each foreign currency – gains as assets, while losses as liabilities.

- **Securities purchased or sold in a forward transaction**

Securities purchased or sold in a forward transaction are recognised from the trade date to the settlement date on off-balance-sheet accounts at an agreed price. On the trade date, securities purchased or sold in a forward transaction do not change the holding of securities.

Securities purchased or sold in a forward transaction are valued at the balance sheet date at the market value of such transactions effective as at the valuation date by comparing the market value of securities with the price set in the agreement, discounted as at the settlement date of the spot transaction. The common rules for recognition of unrealised gains and losses are applied to revaluation gains and losses.

Price revaluation gains or losses on forward transactions in securities denominated in foreign currency recognised on off-balance-sheet accounts are presented in the NBP balance sheet – gains as assets, while losses as liabilities.

On the transaction settlement date, securities purchased in a forward transaction increase the holding of securities, while securities sold in a forward transaction decrease the holding of securities.

If more than one transaction for the forward purchase or sale of securities has been entered, valuation and settlement of these transactions are carried out separately.

- **Futures contracts**

Futures contracts are recognised on off-balance-sheet accounts, from the trade date to the settlement date, at nominal value of the purchased or sold underlying instrument.

If, on the closing day of the open position in futures, the actual flow of the underlying instrument takes place, its purchase or sale is recognised at market value.

The list of currency revaluation gains and losses on spot, forward or swap transactions in foreign currency recognised in off-balance-sheet transactions and of price revaluation gains and losses on forward transactions in securities denominated in foreign currency is presented below (see Note 9.1 and Note 12.2).

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Currency revaluation gains on FX spot, FX forward and FX swap transactions		350,610.9	444,371.2	-93,760.3
Price revaluation gains		3,661.8	0.0	3,661.8
- on forward transactions in securities in foreign currency		3,661.8	0.0	3,661.8
Total assets (Off-balance-sheet instruments revaluation differences)	A.10.3	354,272.7	444,371.2	-90,098.5
Currency revaluation losses on FX spot and FX forward transactions		23,930.4	0.0	23,930.4
Price revaluation losses		204.1	111.8	92.3
- on forward transactions in securities in foreign currency		204.1	111.8	92.3
Total liabilities (Off-balance-sheet instruments revaluation differences)	L.11.1	24,134.5	111.8	24,022.7

Note 10.1 Spot, forward and swap transactions in foreign currency recognised on off-balance-sheet accounts

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Currency to be received in FX spot, FX forward and FX swap transactions	-	5,903,731.3	31,352,880.3	-25,449,149.0
Currency to be delivered in FX spot, FX forward and FX swap transactions	-	5,903,731.3	31,352,880.3	-25,449,149.0
Gains on adjustments to the average costs of holding	A.10.5	19,790.7	15,068.4	4,722.3
Losses on adjustments to the average costs of holding	L.11.3	692,280.1	371,946.1	320,334.0
Currency revaluation gains on FX spot, FX forward and FX swap transactions	A.10.3	350,610.9	444,371.2	-93,760.3
Currency revaluation losses on FX spot and FX forward transactions	L.11.1	23,930.4	0.0	23,930.4

The decrease in off-balance-sheet items resulted from a lower volume of spot transactions carried out by NBP and, at the same time, a higher value of forward and swap transactions in foreign currency carried out by NBP. FX swap transactions were carried out in domestic operations on the CHF/PLN currency pair (see Chapter 7.1.1.2.3).

The change in the adjustment to the average cost of holding of spot, forward and swap transactions in foreign currency recognised in off-balance-sheet accounts is related to the volume of those transactions as at the year-end and the difference between the average cost of holding and the exchange rate of purchase/sale of those transactions.

The change in the currency valuation of spot, forward and swap transactions denominated in foreign currency recognised in off-balance-sheet accounts is related to the volume of those transactions as at the year-end and the difference between the average cost of holding and the average NBP exchange rate.

Note 10.2 Securities purchased or sold in a forward transaction

<i>PLN thousand</i>	Balance sheet item	31.12.2021	31.12.2020	Change
Securities denominated in foreign currency purchased in forward transactions, of which		3,333,696.7	0.0	3,333,696.7
- securities in USD		3,333,696.7	0.0	3,333,696.7
Securities denominated in foreign currency sold in forward transactions, of which		794,394.2	3,025,403.6	-2,231,009.4
- securities in AUD		794,394.2	0.0	794,394.2
- securities in USD		0.0	3,025,403.6	-3,025,403.6
Price revaluation gains	A.10.3	3,661.8	0.0	3,661.8
Price revaluation losses	L.11.1	204.1	111.8	92.3

Forward transactions in securities denominated in foreign currency are used by NBP as part of the foreign currency reserve management.

The change in the price valuation of forward transactions in securities denominated in foreign currency recognised in off-balance-sheet accounts is related to the volume of those transactions as at the year-end and the difference between the market price of these securities and their contract price.

Note 10.3 Futures

<i>PLN thousand</i>	31.12.2021	31.12.2020	Change
Bond futures purchased, of which	204,764.0	0.0	204,764.0
- bond futures in AUD	204,764.0	0.0	204,764.0
Bond futures sold, of which	682,241.1	0.0	682,241.1
- bond futures in EUR	682,241.1	0.0	682,241.1
Depo futures purchased, of which	0.0	4,946,000.0	-4,946,000.0
- depo futures in GBP	0.0	4,946,000.0	-4,946,000.0
Depo futures sold, of which	0.0	4,946,000.0	-4,946,000.0
- depo futures in GBP	0.0	4,946,000.0	-4,946,000.0
Equity index futures purchased, of which	3,441.1	0.0	3,441.1
- equity index futures in EUR	1,286.7	0.0	1,286.7
- equity index futures in GBP	260.2	0.0	260.2
- equity index futures in USD	1,894.2	0.0	1,894.2

Futures are used by NBP as part of the foreign currency reserve management (see Note 3.1). In 2021 investment in equity index futures was started with the aim to raise long-term yields on foreign currency reserves and increase investment diversification.

Note 11 Net result on interest

Discount and premium on securities purchased are recognised in the financial result in amounts calculated according to the internal rate of return.

Discount on securities issued by NBP is recognised in the financial result in amounts calculated for the period for which a given security was issued according to the straight-line method.

Interest on financial assets and liabilities is recognised in the financial result at the end of each operating day in amounts calculated according to the straight-line method, except for interest:

- to be paid due to the required minimum reserve, which is recognised in the financial result at the end of each month in amounts calculated for each reserve maintenance period,
- on funds deposited in current accounts in other banks, which is recognised in the financial result on the payment date,
- on margins related to futures, which is recognised in the financial result on the payment date,
- on assets and liabilities related to NBP's own administrative activities, including on lease liabilities, which is recognised at the end of month.

Interest on term deposits in gold is accrued and paid in USD (see Note 1 and 3.1).

Interest to be received or paid due to forward transactions in foreign currency, resulting from a difference between the agreed FX spot and forward rates, is recognised in the net result on interest at the end of each operating day in amounts calculated according to the straight-line method.

Interest to be received or paid due to swap transactions in foreign currency, resulting from a difference between the agreed FX spot and forward rates, is recognised in the net result on interest at the end of each operating day in amounts calculated according to the straight-line method.

Accrued interest, discount and premiums in foreign currency are translated into domestic currency at the average NBP exchange rate.

PLN thousand	Income		Expenses		Net result		
	2021	2020	2021	2020	2021	2020	Change
Investment instruments of foreign exchange reserves, of which	5,692,036.4	6,544,787.8	-4,541,472.9	-3,855,175.6	1,150,563.5	2,689,612.2	-1,539,048.7
- securities*	5,631,240.3	6,325,338.5	-4,248,203.5	-3,610,156.2	1,383,036.8	2,715,182.3	-1,332,145.5
- term deposits**	21,547.1	101,152.8	-253,966.8	-147,342.3	-232,419.7	-46,189.5	-186,230.2
- reverse repo transactions**	21,756.5	113,095.2	-27,583.7	-3,302.5	-5,827.2	109,792.7	-115,619.9
- repo transactions***	17,390.2	4,514.9	-6,036.6	-93,130.5	11,353.6	-88,615.6	99,969.2
- other**	102.3	686.4	-5,682.3	-1,244.1	-5,580.0	-557.7	-5,022.3
Gold**	3,364.7	5,064.0	0.0	0.0	3,364.7	5,064.0	-1,699.3
International Monetary Fund	7,833.8	10,860.7	-8,005.4	-14,158.3	-171.6	-3,297.6	3,126.0
Monetary policy instruments, of which	2,897,212.6	1,579,158.9	-1,775,013.4	-1,106,326.8	1,122,199.2	472,832.1	649,367.1
- NBP bills	0.0	0.0	-768,225.5	-489,710.4	-768,225.5	-489,710.4	-278,515.1
- securities*	2,876,340.1	1,577,680.4	-889,645.7	-526,751.0	1,986,694.4	1,050,929.4	935,765.0
- required minimum reserve****	420.9	144.6	-64,430.0	-85,256.3	-64,009.1	-85,111.7	21,102.6
- deposit facility	0.0	0.0	-52,187.4	-4,609.1	-52,187.4	-4,609.1	-47,578.3
- other*****	20,451.6	1,333.9	-524.8	0.0	19,926.8	1,333.9	18,592.9
Other interest income/expense	19,140.6	18,701.1	-42,603.3	-41,400.7	-23,462.7	-22,699.6	-763.1
Total	8,619,588.1	8,158,572.5	-6,367,095.0	-5,017,061.4	2,252,493.1	3,141,511.1	-889,018.0

* Income includes discount and interest income, and expenses include premium expenses.

** Expenses include interest expenses due to a negative interest rate.

*** Income includes interest income due to a negative interest rate.

**** Income includes interest income for non-compliance with the obligation to maintain the required minimum reserve (see Chapter 3).

***** The item includes mainly income/expenses on swap transactions in foreign currency, reverse repo transactions, bill discount credit, intraday credit and Lombard credit (see Chapter 7.1.1.2.2.).

Net result on interest on investment instruments of foreign currency reserves (see Note 3.1 and Note 6.3)

PLN thousand	2021								
	USD	EUR	GBP	CAD	AUD	NOK	NZD	Other	Total
Securities	1,352,686.4	-591,738.5	81,971.3	25,711.6	194,004.9	188,159.8	132,241.3	0.0	1,383,036.8
Term deposits	339.5	-253,879.6	331.7	114.3	37.5	9,547.1	11,089.8	0.0	-232,419.7
Reverse repo transactions	8,373.4	-27,572.5	12,552.2	0.0	230.3	0.0	589.4	0.0	-5,827.2
Repo transactions	6,651.3	8,664.5	-4,141.3	0.0	434.8	0.0	-255.7	0.0	11,353.6
Other	-553.1	-4,732.4	-84.4	0.0	-28.5	-16.4	-153.2	-12.0	-5,580.0
Total	1,367,497.5	-869,258.5	90,629.5	25,825.9	194,679.0	197,690.5	143,511.6	-12.0	1,150,563.5

PLN thousand	2020								
	USD	EUR	GBP	CAD	AUD	NOK	NZD	Other	Total
Securities	2,379,324.3	-435,179.2	174,205.2	0.0	258,693.5	169,231.0	168,907.5	0.0	2,715,182.3
Term deposits	4,824.1	-147,100.0	1,094.6	0.0	722.6	67,516.9	26,752.3	0.0	-46,189.5
Reverse repo transactions	75,492.4	-3,302.5	35,989.7	0.0	1,036.4	0.0	576.7	0.0	109,792.7
Repo transactions	-64,791.5	3,747.0	-26,743.0	0.0	-641.7	0.0	-186.4	0.0	-88,615.6
Other	647.0	-1,206.8	2.2	0.4	7.2	6.5	0.5	-14.7	-557.7
Total	2,395,496.3	-583,041.5	184,548.7	0.4	259,818.0	236,754.4	196,050.6	-14.7	2,689,612.2

PLN thousand	Change								Total
	USD	EUR	GBP	CAD	AUD	NOK	NZD	Other	
Securities	-1,026,637.9	-156,559.3	-92,233.9	25,711.6	-64,688.6	18,928.8	-36,666.2	0.0	-1,332,145.5
Term deposits	-4,484.6	-106,779.6	-762.9	114.3	-685.1	-57,969.8	-15,662.5	0.0	-186,230.2
Reverse repo transactions	-67,119.0	-24,270.0	-23,437.5	0.0	-806.1	0.0	12.7	0.0	-115,619.9
Repo transactions	71,442.8	4,917.5	22,601.7	0.0	1,076.5	0.0	-69.3	0.0	99,969.2
Other	-1,200.1	-3,525.6	-86.6	-0.4	-35.7	-22.9	-153.7	2.7	-5,022.3
Total	-1,027,998.8	-286,217.0	-93,919.2	25,825.5	-65,139.0	-39,063.9	-52,539.0	2.7	-1,539,048.7

The decrease of PLN 1,539,048.7 thousand in the net result on interest on investment instruments of foreign currency reserves was recorded amid:

- a decrease in the average annual interest on securities in USD, AUD, GBP and NZD,
 - a decrease in the average annual interest on term deposits,
 - higher average annual investment in stand-alone reverse repo transactions in EUR,
- with a simultaneous:
- increase in the level of foreign currency reserves – their average annual level¹⁷ was PLN 509,112.5 million in 2021 as compared with PLN 414,889.3 million in 2020 (see also Note 3.1),
 - average annual depreciation of the zloty against EUR, GBP, AUD, NOK and NZD (see table below),
 - rise in average annual investment in simultaneous repo and reverse repo transactions in USD.

Average annual foreign exchange rates

PLN	2021	2020	Change
USD	3.8629	3.8993	-0.0364
EUR	4.5674	4.4448	0.1226
GBP	5.3117	5.0003	0.3114
CAD	3.0810	2.9073	0.1737
AUD	2.9000	2.6878	0.2122
NOK	0.4493	0.4147	0.0346
NZD	2.7310	2.5323	0.1987

Interest income on gold (see Note 1 and Note 3.1)

The item includes the net result on interest on term deposits in the form of physical gold holding, which is accrued and paid in USD. The decrease in the item in 2021 was the result of the lower, in average annual terms, placement of deposits and appreciation of the zloty against USD, in average annual terms.

¹⁷ Calculations are based on nominal values on a daily basis.

Net result on interest on receivables/liabilities related to the IMF (see Note 2)

PLN thousand	Income		Expenses		Net result		
	2021	2020	2021	2020	2021	2020	Change
Interest on reserve tranche	2,713.6	6,888.7	0.0	0.0	2,713.6	6,888.7	-4,175.1
Interest on current account with the IMF	4,996.9	3,278.8	0.0	0.0	4,996.9	3,278.8	1,718.1
Interest on loans extended to the IMF	123.3	693.2	0.0	0.0	123.3	693.2	-569.9
Interest on SDR allocation	0.0	0.0	-8,005.4	-14,158.3	-8,005.4	-14,158.3	6,152.9
Total	7,833.8	10,860.7	-8,005.4	-14,158.3	-171.6	-3,297.6	3,126.0

The net result on interest on receivables/liabilities related to the IMF is a result of higher interest expenses on interest-bearing liabilities in SDR (SDR allocation) and income on interest-bearing receivables in SDR (reserve tranche¹⁸, current account with the IMF and loans extended to the IMF, see Note 2). The decrease in the negative result was mainly a result of the lower average annual surplus of liabilities over receivables in SDR in 2021, as well as a lower average annual interest on SDR in the context of a depreciation of the zloty against SDR in average annual terms (an increase of the exchange rate from 5.4301 in 2020 to 5.5009 in 2021).

Net result on interest on monetary policy instruments (see Note 3.2 and Note 6.1)

The increase, by PLN 649,367.1 thousand, in the net result on interest on instruments used in monetary policy operations was mostly driven by:

- a higher, by PLN 935,765.0 thousand, result on securities purchased under the structural open market operations (see Note 3.2),

PLN thousand	2021	2020	Change
Net result on securities held for monetary policy purposes	1,986,694.4	1,050,929.4	935,765.0
- Treasury securities	908,442.0	489,972.8	418,469.2
- securities guaranteed by the State Treasury	1,078,252.4	560,956.6	517,295.8

- higher, by PLN 278,515,1 thousand, discount expenses on NBP bills (see Note 6.1),

¹⁸ The value of non-interest-bearing part of the reserve tranche is fixed and amounts to SDR 56,236.0 thousand (see Note 2).

PLN thousand	2021	2020	Change
Discount expenses on NBP bills issued under main monetary policy operations	-761,414.2	-478,240.0	-283,174.2
Discount expenses on NBP bills issued under fine-tuning monetary policy operations	-6,811.3	-11,470.4	4,659.1
Total	-768,225.5	-489,710.4	-278,515.1

The above change resulted mainly from a higher average annual level of the issue of NBP bills under main monetary policy operations amid a simultaneous decrease in the average annual NBP reference rate.

Average annual level of main and fine-tuning operations* and average annual reference rate

PLN million / %	2021	2020	Change
Main operations	205,666.6	133,635.4	72,031.2
Fine-tuning operations	393.6	1,235.6	-842.0
NBP reference rate	0.35	0.51	-0.16 p.p.

* All calendar days from 1 January to 31 December were taken into account for the calculation of the average annual level of main and fine-tuning operations.

- higher, by PLN 47,578.3 thousand, expenses on deposit facility, which was mainly a result of the higher average use of this instrument, particularly at the end of 2021, when the deposit rate rose.

Value of deposit facilities and the average annual level of deposit rate

PLN million / %	2021	2020	Change
Total value of deposit facilities*	3,894,163.6	1,186,249.6	2,707,914.0
Average annual deposit rate**	0.15	0.14	0,01 p.p.

* Value calculated for the days of use.

** All calendar days from 1 January to 31 December were taken into account for the calculation of the average annual level of the interest rate.

- lower, by PLN 20.826,3 thousand, interest expenses on the required minimum reserve, which resulted mainly from a decrease in the average level of the required minimum reserve during the year (see Note 6.1).

Average level of required minimum reserve* and average annual interest rate on required minimum reserve

PLN million / %	2021	2020	Change
Required minimum reserve	10,119.6	20,396.7	-10,277.1
Interest rate on required minimum reserve	0.34	0.30	0.04 p.p.

* Amounts of the required minimum reserve are calculated based on reserve maintenance periods weighted with the number of days in the period.

Other interest income/expenses

The item *Other interest income/expenses* comprises mainly interest expenses on accounts operated by NBP for the State budget and interest income and expenses related to settlements in TARGET2. The item also comprises interest expenses on lease liabilities (see Note 4 and Note 6.4).

Note 12 Net result on financial operations**Note 12.1 Net realised gains/losses**

- **Realised foreign exchange gains/losses on transactions in foreign currency and on transactions in gold**

Income and expense on transactions in foreign currency and transactions in gold are recognised in the financial result on the day when the change took place, in the amount of:

- the difference between the value in domestic currency resulting from a decrease of a foreign currency holding (or a gold holding) and the value determined according to the average daily purchase cost of foreign currency (or gold) – with respect to an inflow and outflow of foreign currency (or gold) in a given operating day,
- the difference between the value in domestic currency resulting from a decrease of a foreign currency holding (or a gold holding) and the value determined according to the average cost of foreign currency (or gold) – with respect to the surplus of outflow of foreign currency (or gold) over inflow in a given operating day (net outflow),

In the case of a short position in a given foreign currency (or gold) a reverse approach applies.

- **Realised price gains/losses**

Gains or losses resulting from spot sale transactions in securities bearing the same code are recognised in the financial result on the settlement day, in the amount equal to the difference between the sale amount and the amount determined according to the average cost of holding of the securities at the end of the current business day.

The result of the settlement of forward transactions in securities is calculated:

- for securities purchased in a forward transaction – as the difference between a market price and an agreed price, adjusted for revaluation losses recognised at the balance sheet date,
- for securities sold in a forward transaction – as the difference between an agreed price, adjusted for revaluation losses recognised at the balance sheet date, and the average cost of a securities holding.

If more than one transaction for the forward purchase or sale of securities has been entered, valuation and settlement of these transactions are carried out separately.

Daily changes in market prices of futures are recognised in the financial result on a daily basis, including the day of closing the open position in futures.

PLN thousand	2021	2020	Change
Realised foreign exchange gains/losses on transactions in foreign currency	13,556,309.0	6,329,209.6	7,227,099.4
Realised gains/losses on transactions in gold	6,142,695.3	12.6	6,142,682.7
Realised price gains/losses, of which	514,987.4	4,249,573.7	-3,734,586.3
- on spot transactions in securities	-690,621.7	2,867,965.3	-3,558,587.0
- on off-balance-sheet financial instruments, of which	1,205,536.4	1,381,608.4	-176,072.0
* on forward transactions in securities	-173,431.7	1,082,335.4	-1,255,767.1
• on futures, of which:	1,378,968.1	299,273.0	1,079,695.1
# on bond futures	369,122.9	298,894.7	70,228.2
# on depo futures	-1,029.5	378.3	-1,407.8
# on equity index futures	1,010,874.7	0.0	1,010,874.7
- other realised price gains/losses*	72.7	0.0	72.7
Other financial operations**	43,569.6	8,671.4	34,898.2
Total	20,257,561.3	10,587,467.3	9,670,094.0

* Other realised price gains/losses include the result of reallocation of participating interests in S.W.I.F.T. (see Note 3.3).

** The increase in the item resulted from an income of PLN 45,657.7 thousand as the result of settlement of the IMF's transactions (PLN 6,911.9 thousand in 2020 – see Note 2) and a lower result of the valuation of the balance of the No. 2 Account of the IMF (PLN -2,088,0 thousand in 2021 as compared with PLN 1,759,5 thousand in 2020 – see Note 6.3).

Net result on realised foreign exchange gains/losses on transactions in foreign currency

PLN thousand	USD	EUR	GBP	CAD	AUD	NOK	NZD	SDR	Other	Total
2021	6,600,229.9	1,728,124.5	1,617,679.8	-2,507.7	1,504,073.4	1,238,855.8	826,414.6	10,004.4	33,434.3	13,556,309.0
2020	3,805,216.0	1,436,384.4	688,504.0	93.7	392,851.5	-245,329.7	260,373.0	-11,849.8	2,966.5	6,329,209.6
Change	2,795,013.9	291,740.1	929,175.8	-2,601.4	1,111,221.9	1,484,185.5	566,041.6	21,854.2	30,467.8	7,227,099.4

The increase in the net result stemmed mainly from the sale of USD, which was related to a new investment in CAD (see Note 3.1 and Chapter 7.1.4), as well as an increase in the average annual positive difference between the average NBP exchange rate and the average cost of holding for GBP, AUD, NOK and NZD.

Net result on realised gains/losses on transactions in gold

In 2021, the increase resulted mainly from purchase/sale transactions in the gold market in the context of an average annual positive difference between the average price of gold and the average cost of gold holding (see Note 1 and Note 9.1).

Net result on realised price gains/losses

Net result on realised price gains/losses on the sale of securities in spot transactions

PLN thousand	USD	EUR	GBP	AUD	NOK	NZD	Total
2021	-386,863.1	-14,368.7	-132,368.1	-6,221.1	-123,178.3	-27,622.4	-690,621.7
2020	1,557,709.5	248,210.0	589,761.3	439,090.0	4,194.8	28,999.7	2,867,965.3
Change	-1,944,572.6	-262,578.7	-722,129.4	-445,311.1	-127,373.1	-56,622.1	-3,558,587.0

Net result on realised price gains/losses on forward transactions in securities

<i>PLN thousand</i>	USD	EUR	GBP	CAD	AUD	NOK	NZD	Total
2021	-460.5	-4,792.0	-6.3	2,856.8	-177,934.0	-5,160.5	12,064.8	-173,431.7
2020	595,788.5	59,145.2	42,080.7	0.0	385,236.1	0.0	84.9	1,082,335.4
Change	-596,249.0	-63,937.2	-42,087.0	2,856.8	-563,170.1	-5,160.5	11,979.9	-1,255,767.1

Net result on realised price gains/losses on daily revaluation of futures contracts

<i>PLN thousand</i>	USD	EUR	GBP	AUD	Total
Bond futures					
2021	288,252.4	18,035.9	37,344.7	25,489.9	369,122.9
2020	179,978.7	53,555.5	40,101.8	25,258.7	298,894.7
Change	108,273.7	-35,519.6	-2,757.1	231.2	70,228.2
Depo futures					
2021	0.0	0.0	-1,029.5	0.0	-1,029.5
2020	-1,376.4	0.0	1,754.7	0.0	378.3
Change	1,376.4	0.0	-2,784.2	0.0	-1,407.8
Equity index futures					
2021	623,853.3	320,255.4	66,766.0	0.0	1,010,874.7
2020	0.0	0.0	0.0	0.0	0.0
Change	623,853.3	320,255.4	66,766.0	0.0	1,010,874.7

The lower net result on realised price gains/losses in 2021 was mostly related to sale transactions in securities amid rising yields in the USD and AUD markets. The decrease in the net result was partly offset with gains on investment in equity index futures – see Note 3.1 and Note 10.3.

Note 12.2 Unrealised losses

▪ Currency revaluation losses

Currency revaluation losses are determined by comparing the average cost of foreign currency holding with the average NBP exchange rate, which is lower than the average cost (in the case of a positive foreign currency holding), or by comparing the average cost of foreign currency holding with the average NBP exchange rate, which is higher than the average cost (in the case of a negative foreign currency holding) – see Note 9.1.

▪ Price revaluation losses

Price revaluation losses on securities are determined by comparing the average cost of securities holding with the average market price of these securities, which is lower than the average cost.

Price revaluation losses on forward transactions in securities are determined by comparing the contract price, discounted as at the settlement date of the spot transaction, with a lower (in the case of forward purchase) or a higher (in the case of forward sale) current market price of the instrument.

<i>PLN thousand</i>	2021	2020	Change
Currency revaluation losses	-259,225.8	-5.6	-259,220.2
Price revaluation losses, of which	-3,399,364.2	-83,728.3	-3,315,635.9
- revaluation losses on securities	-3,399,160.1	-83,616.5	-3,315,543.6
- revaluation losses on off-balance-sheet financial instruments	-204.1	-111.8	-92.3
Total	-3,658,590.0	-83,733.9	-3,574,856.1

Currency revaluation losses by foreign currency are presented below.

<i>PLN thousand</i>	2021	2020	Change
CAD	-259,212.6	0.0	-259,212.6
HUF	-3.9	-5.6	1.7
JPY	-9.3	0.0	-9.3
Total	-259,225.8	-5.6	-259,220.2

Price revaluation losses by securities denominated in foreign currencies are presented below.

<i>PLN thousand</i>	2021	2020	Change
Securities in USD	-881,434.3	-74,703.8	-806,730.5
Securities in EUR	-406,979.5	-2,510.6	-404,468.9
Securities in GBP	-680,668.5	-3,937.6	-676,730.9
Securities in CAD	-9,229.7	0.0	-9,229.7
Securities in AUD	-526,847.3	-2,080.1	-524,767.2
Securities in NOK	-533,468.6	-384.4	-533,084.2
Securities in NZD	-360,532.2	0.0	-360,532.2
Total	-3,399,160.1	-83,616.5	-3,315,543.6

In 2021 the increase in unrealised price revaluation losses was a result of the increase in the yields in the USD, EUR, GBP, AUD, NOK and NZD markets (see Note 3.1).

Price revaluation losses on off-balance-sheet financial instruments mainly relate to forward purchase/sale transactions in securities denominated in USD (see Note 10.2).

Note 13 Net result on commissions and fees

<i>PLN thousand</i>	P&L Item	2021	2020	Change
Income on the execution of payment orders		33,740.4	31,279.7	2,460.7
Other commissions and fees income		13,726.3	17,147.1	-3,420.8
Commissions and fees income	P&L 3.1	47,466.7	48,426.8	-960.1
Expenses on fees for NBP's TARGET2 participation		-15,339.3	-16,226.2	886.9
Expenses on opening and operation of NBP accounts (including gold and securities accounts)		-17,098.2	-12,839.1	-4,259.1
Expenses on the execution of own payment orders		-4,276.3	-5,257.0	980.7
Expenses due to substitution cash services		-1,840.3	-1,801.7	-38.6
Other commissions and fees expenses		-7,527.6	-3,616.6	-3,911.0
Commissions and fees expenses	P&L 3.2	-46,081.7	-39,740.6	-6,341.1
Net result on commissions and fees		1,385.0	8,686.2	-7,301.2

The decrease in the net result on commissions and fees in 2021 was mainly the effect of:

- an increase in expenses on the operation of NBP accounts, mainly related to higher expenses on a deposit of securities denominated in domestic currency purchased under structural open market operations (see Note 3.2),
- an increase in other commissions and fees expenses, mainly due to higher expenses on futures, mainly in relation with higher trade in bond futures, and the start of investment in equity index futures (see Note 3.1, Note 10.3 and Note 12.1),
- a decrease in income and expenses due to non-delivery of securities in time (fails charges¹⁹) by, respectively, PLN 1,032.2 thousand and PLN 309.4 thousand.

Note 14 Income on shares and participating interests

Income on dividends from shares and participating interests held by NBP is recognised in the financial result on the day an asset originates. Dividends received in foreign currency are translated into domestic currency at the average NBP exchange rate effective on that day.

The item includes income on dividends from shares and participating interests in domestic and foreign entities held by NBP (see Note 3.3).

¹⁹ Fails charges relate to securities purchase/sale transactions and repo/reverse repo transactions in USD. Fails charges are calculated when one of the parties to a transaction delivers securities to the other party at a date later than an agreed date. In the event of a late delivery of securities to NBP by the counterparty, NBP receives income therefrom. In such case, NBP may also incur expenses due to its being unable to transfer the required securities to other counterparties.

PLN thousand	2021	2020	Change
Dividends received, of which	38,256.7	13,478.2	24,778.5
- Krajowy Depozyt Papierów Wartościowych S.A.	6,641.6	5,187.0	1,454.6
- Krajowa Izba Rozliczeniowa S.A.	8,859.4	8,291.2	568.2
- Bank for International Settlements	22,755.7	0.0	22,755.7

Note 15 Salaries

PLN thousand	2021	2020	Change
Expenses on salaries	-496,170.7	-470,700.7	-25,470.0
Expenses on provisions for liabilities to employees	-32,886.0	-28,923.7	-3,962.3
Expenses on social contributions, of which	-111,442.4	-106,874.4	-4,568.0
- Occupational Pension Scheme	-31,108.3	-29,656.4	-1,451.9
Total	-640,499.1	-606,498.8	-34,000.3

In 2021, the average headcount at NBP amounted to 3,360 employees and was higher by 5 employees as compared with 2020. This increase was caused by, among others, organisational changes and new cybersecurity tasks.

In 2021, higher salaries resulted mainly from the adopted HR and remuneration policy.

The increase in expenses on provisions for liabilities to employees in 2021 was mainly driven by higher expenses on creation of the provision for jubilee awards. In 2021 and 2020, expenses on the creation of provisions for liabilities to employees by categories were as follows (see Note 7).

PLN thousand	2021		2020	
	Expenses on provisions	of which actuarial gains/losses*	Expenses on provisions	of which actuarial gains/losses*
Expenses on provisions for liabilities to employees, of which	-32,886.0	-21,105.7	-28,923.7	-18,204.2
- due to retirement severance payments	-17,602.4	-11,631.8	-18,281.2	-13,127.7
- due to disability severance payments	-322.8	-74.0	-280.0	-45.0
- due to jubilee awards	-14,960.8	-9,399.9	-10,362.5	-5,031.5
- due to untaken leaves	0.0**	-	0.0**	-

* Actuarial gains and losses result from changes in the actuarial assumptions, such as the probability of an employee quitting job, death rate, discount rate or the level of future remunerations. Actuarial gains are presented with a (+) sign, while actuarial losses with a (-) sign.

** In the case of a provision for liabilities due to untaken leaves in 2021 and 2020, an income from its partial release was taken to item *Other income*.

Note 16 Administrative expenses

<i>PLN thousand</i>	2021	2020	Change
Materials and energy used	-28,517.8	-25,586.8	-2,931.0
Benefits for employees and other eligible persons	-18,310.6	-11,897.2	-6,413.4
Business travel	-471.3	-703.8	232.5
Services from third parties	-218,468.7	-172,274.4	-46,194.3
Taxes and fees	-11,053.2	-10,997.7	-55.5
Transfers to Employee Benefit Fund	-6,203.7	-6,151.4	-52.3
Other administrative expenses	-16,507.3	-14,538.0	-1,969.3
Total	-299,532.6	-242,149.3	-57,383.3

The increase in administrative expenses in 2021 was primarily a result of:

- an increase in expenses on services from third parties – mainly related to IT systems (software upgrades, modifications, servicing, maintenance and technical assistance) and tangible fixed assets (refurbishment, repair, maintenance and inspection of tangible fixed assets),
- an increase in expenses on benefits for employees and other eligible persons – mainly due to the creation of a provision for death in service benefits (see Note 7).

Note 17 Depreciation and amortisation expenses

<i>PLN thousand</i>	2021	2020	Change
Tangible fixed assets depreciation expenses	-75,787.1	-56,972.3	-18,814.8
Lease assets depreciation expenses	-13,149.2	-9,570.5	-3,578.7
Intangible fixed assets amortisation expenses	-25,250.1	-22,944.6	-2,305.5
Total	-114,186.4	-89,487.4	-24,699.0

The increase in depreciation and amortisation expenses in 2021 was mainly related to a change of the threshold of depreciation/amortisation made on a one-off basis related to tangible and intangible fixed assets (see Chapter 3 and Note 4).

Note 18 Expenses on issue of banknotes and coins

Expenses on the issue of banknotes and coins are recognised in the financial result on the date the liability arose, regardless of the date the banknotes and coins are put into circulation.

The item comprises expenses on the issue of banknotes and coins, including collector banknotes and coins.

In 2021, the item amounted to PLN 364,457.2 thousand and was by PLN 42,702.6 thousand higher as compared with 2020. The increase in the item resulted mainly from higher expenses on the issue of:

- general circulation banknotes, as a result of an increase in the overall number of ordered banknotes,
- collector coins, mostly resulting from a rise in the cost of materials used for their production.

Note 19 Other income and other expenses

Other income/expenses include mainly income on the sale of collector coins and banknotes, and expenses corresponding to the nominal value of collector coins and banknotes sold. The increase in the balance of other income was mainly the result of an increase in this income.

6. Other explanatory notes

Note 20 Other issues

In 2021 and 2020, NBP was party to a swap arrangement with the Swiss National Bank (SNB). Until February 2020, NBP was also party to a swap arrangement with the National Bank of Ukraine (NBU) – see Note 21.²⁰ These arrangements had no bearing on the NBP Balance Sheet and Profit and Loss Account in 2021 and 2020.

In 2021, NBP also carried out FX swap transactions with domestic banks (see Note 10.1 and Chapter 7.1.1.2.3).

Note 21 Events after the balance sheet date

Monetary Policy Council decisions on key NBP interest rates

In the period January – March 2022, the Monetary Policy Council decided to raise interest rates (including the reference rate from 1.75% to 3.50%, Lombard rate from 2.25% to 4.00% and deposit rate from 1.25% to 3.00%).

The Russian Federation's military aggression against Ukraine

Narodowy Bank Polski has carefully analysed the impact of the Russian Federation's military aggression against Ukraine on the economic situation in Poland, standing ready to immediately take preventive actions against possible negative trends on the financial and FX markets.

In February and March 2022, NBP took decisions, among others, concerning:

- interventions in the FX market, particularly with the aim to reduce fluctuations of the zloty exchange rate which were not in line with the direction of the pursued monetary policy,
- opening a FX swap line with the National Bank of Ukraine (NBU),

²⁰ The swap arrangement with SNB was concluded in 2012, whereas the arrangement with NBU in 2015.

- supporting the process of exchange of Ukrainian hryvnia for Polish zloty in Polish banks.

As at 31 December 2021, NBP did not have direct exposures to Russian or Belarussian entities subject to the economic sanctions which arising from the above mentioned military aggression. None of NBP's counterparties which are involved in relationships with NBP within the framework of foreign currency reserve management (including issuers of securities) had its seat in the territory of Ukraine. NBP monitored, on an ongoing basis, the adverse effects of the military aggression on the risk to foreign currency reserve management and to monetary policy operations. In particular, it analysed credit risk and the financial standing of commercial banks in which funds are deposited as part of foreign currency reserve management, as well as issuers of corporate bonds held in NBP's portfolio. The analyses (including the analyses of entities' ratings) did not indicate any significant increase in credit risk.

Moreover, NBP monitored, on an ongoing basis, the level of operational and cybersecurity risk. The Bank had in place contingency procedures, including a business continuity plan.

The above mentioned events had no bearing on the NBP Balance Sheet and Profit and Loss Account in 2021.

7. Financial and operational risk

Narodowy Bank Polski operates a risk management system which is a continuous and repeatable decision-making process that supports the attainment of NBP goals, while using appropriate organisational, procedural and technical solutions. It includes:

- as relates to financial risk – the activity of the NBP Head Office department responsible for financial risk management;
- as relates to operational risk (see Chapter 7.2) – management at the following levels:
 - decentralised operational risk management by directors of the Head Office departments and NBP regional branches who, on an ongoing basis, monitor operational risk, perform the assessment of its level and take measures mitigating risk occurrence in their units,
 - the activity of the NBP Head Office Department, which – on an ongoing basis – monitors and analyses operational risk in NBP as a whole, prepares regulations and draft measures related to changes to operational risk management. It also prepares reports on operational risk for the Commission for Operational Risk Management and for the Management Board of NBP,
 - the Commission for Operational Risk Management, which assesses the effectiveness of operational risk management in NBP, monitors the current level of operational risk and analyses the causes underlying materialisation of risk assessed as high or unacceptable. It also submits and recommends to the Management Board of NBP proposed solutions and changes in this area.
- strategic decision-making by the NBP Management Board.

The tasks carried out as part of risk management include:

- on-going identification and analysis of individual types of risk,
- measurement of risk level and its acceptance or non-acceptance,
- selection of the risk mitigation mechanisms,

- monitoring and day-to-day control of the efficiency of the risk mitigation mechanisms applied,
- provision of periodical information about the results of risk management.

7.1. Financial risk

The main types of financial risk underlying the activities of NBP are: credit risk, liquidity risk and market risk (interest rate risk, foreign exchange rate risk, equity index futures price risk). The accepted level of financial risk is set through the system of investment limits, determination of which takes also into account mitigation of concentration risk. NBP's exposure to individual types of risk stems from its performance of statutory tasks of the central bank, i.e. managing the foreign currency reserves and implementing monetary policy, including regulating the liquidity of banks and providing them with refinancing facilities. The Financial Risk Management Department monitors, on an ongoing basis, the Bank's exposure to financial risk and presents financial risk analysis to the Management Board of NBP.

7.1.1. Credit risk

Credit risk is related to potential financial losses arising from counterparty default (in particular, failure to repay, in full or in part, principal or interest within the agreed time), or due to a decline in the market value of investment instruments arising from a deterioration in the issuer's creditworthiness.

7.1.1.1. Credit risk in foreign currency reserve management

Exposure to credit risk in the process of NBP foreign exchange reserve management is mitigated using the following methods:

- limiting the share of term deposit transactions and corporate bonds,
- counterparty selection criteria and on-going monitoring of their creditworthiness,
- limits imposed on counterparties of term deposit transactions and foreign currency transactions,
- limitation of the maturity of term deposit transactions,
- selection criteria for issuers of securities,
- limits for issuers of securities,
- entering into master agreements with counterparties,
- collateral in repo/reverse repo transactions.

Credit risk analysis is conducted by NBP using both data related to the financial position of counterparties and assignments of rating agencies as well as risk valuation reflected in market quotations.

NBP's exposure to credit risk due to the main investment instruments of foreign exchange reserves is presented below.²¹

²¹ It is assumed that the exposure to the IMF (receivables from the IMF – see Note 2) does not generate credit risk.

<i>PLN thousand</i>	31.12.2021	31.12.2020	Balance sheet item	Note
Current account in gold	18,144,948.1	20,210,979.9	A.1	1
Term deposits in gold	11,786,423.1	8,080,235.4	A.1	1
Current accounts in foreign currency*	20,196,878.7	28,267,286.7	A.2.2	3.1
Term deposits in foreign currency	22,638,153.6	26,407,882.5	A.2.2	3.1
Reverse repo transactions	35,876,615.9	45,225,495.5	A.2.2	3.1
Securities denominated in foreign currency	506,790,467.3	417,564,746.5	A.2.2	3.1
Margins related to futures transactions	1,024,049.9	722.9	A.2.2	3.1
Interest on term deposits in gold	405.5	3.6	A.2.2	3.1
Total	616,457,942.1	545,757,353.0		

* Current accounts, excluding the current accounts in the ECB, used for settlements in TARGET2 (see Note 3.1).

The dominant portion of foreign currency reserves is invested in government securities of high rating countries characterised by the highest level of safety and liquidity. Non-government securities held in the investment portfolios are issued primarily by international institutions and government agencies. The scale of investment in the corporate bond market is small. The share of term deposits in foreign currency reserves is also low – transactions are concluded for short periods with banks of high creditworthiness. NBP also holds funds in current accounts, mainly operated by central banks, in the process of foreign currency reserve management.

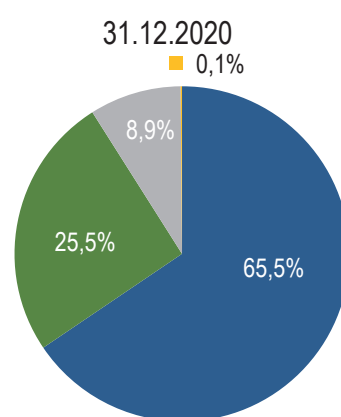
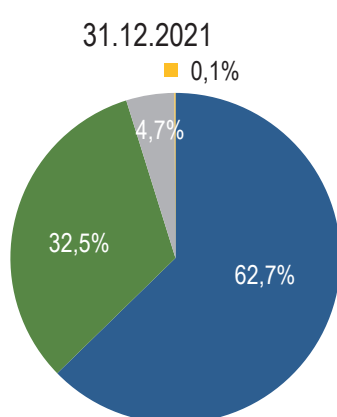
When estimating the credit quality of securities issued by governments and central banks, the creditworthiness ratings of the country of the securities issuer are, among others, considered. The credit quality of issuers of other securities, as well as counterparties with which term deposits are concluded (except for central banks), is assessed based on the scoring models that take into account, among others, ratings assigned by rating agencies and individual issuer's financial data. The financial standing of issuers and NBP's counterparties is subject to on-going monitoring based on daily information provided by rating agencies about changes in creditworthiness ratings and rating forecasts, as well as implied ratings derived from CDS (Credit Default Swap).

The results of an analysis as of 31 December 2021 indicate that no cases of impairment of securities held to maturity have occurred.

Below, exposure to credit risk related to deposits and securities related to foreign currency reserve management is presented by issuer/counterparty's sector, geographical location and credit rating.

PLN thousand	31.12.2021	31.12.2020
General government institutions	469,944,728.5	394,553,133.1
- Foreign central government institutions	431,946,535.0	383,704,758.3
- Other	37,998,193.5	10,848,374.8
Monetary financial institutions	54,893,091.8	44,121,163.7
- Foreign credit institutions	47,011,150.8	31,652,839.4
- Central banks	7,881,941.0	12,468,324.3
International financial organisations	822,850.1	0.0
Non-monetary financial institutions	7,189,758.1	8,634,691.6
Non-financial sector	8,365,021.0	4,743,879.6
Total	541,215,449.5	452,052,868.0

PLN thousand	31.12.2021	31.12.2020
United States	178,075,175.1	192,927,896.6
Euro area	142,415,872.5	114,837,106.4
United Kingdom	70,305,912.3	61,109,955.6
Canada	53,724,403.9	1,342,844.8
Australia	40,108,900.8	33,786,834.9
Norway	24,508,810.5	22,206,036.8
Asian countries	14,755,401.3	14,671,705.2
New Zealand	11,052,580.7	9,656,442.0
Switzerland	4,138,547.4	0.0
Other	2,129,845.0	1,514,045.7
Total	541,215,449.5	452,052,868.0



- Counterparties with the average rating of AAA
- Counterparties with the average rating of AA+/AA/AA-
- Counterparties with the average rating of A+/A/A-
- Counterparties with the average rating of BBB+/BBB

7.1.1.2. Credit risk underlying domestic operations

7.1.1.2.1. Securities

In 2021, NBP continued to purchase Treasury bonds and securities guaranteed by the Treasury in the secondary market, as part of its structural open market operations. As a result of the operations conducted as of 31 December 2021, NBP held Treasury securities in zloty and securities guaranteed by the State Treasury in zloty for a total accounting book value of PLN 149,322,164.0 thousand (see Note 3.2). Securities denominated in domestic currency held for monetary policy purposes are valued according to their clean price adjusted for amortised discount and premium, less impairment.

Securities held for monetary policy purposes were issued or fully guaranteed by the State Treasury. The results of the analysis performed as at 31 December 2021 revealed that no indications of their impairment have occurred.

7.1.1.2.2. Claims on credit operations

To support the liquidity of the financial system, NBP may grant a refinancing loan in zloty to banks in order to supplement their financial resources. Specifically, banks use intraday credit and marginal lending facility (Lombard credit). Banks also use intraday credit in euro. NBP may also, on request by a bank, grant a refinancing loan in another form specified by the Management Board of NBP. Until 19 October 2021, NBP offered bill discount credit to banks with the aim to enable them to refinance loans extended to entrepreneurs (see Note 3.2).

The total drawing on the credit in annual terms*

PLN million / EUR	2021	2020	Change
Lombard credit	9.9	20.4	-10.5
Intraday credit	19,527,146.4	16,692,407.7	2,834,738.7
Refinancing loan extended in another form specified by the Management Board of NBP	0.0	67.0	-67.0
Bill discount credit	0.0	53.0	-53.0
Intraday credit in EUR	52,551.4	55,477.7	-2,926.3

* The values of intraday credit and intraday credit in euro are the sum totals of a daily drawing of these loans. The values of a refinancing loan granted in another form specified by the Management Board of NBP and bill discount credit are accounting book values as at the balance-sheet date (see Note 3.4. and Note 3.2).

The risk underlying these operations is mitigated through the use of eligible collateral that meets the criteria set by NBP. When setting the required level of collateral, the haircut rate is applied, with the purpose to take into account the risk of unfavourable changes of the market value of collateral, in particular of market prices and exchange rates.

Treasury and NBP securities denominated in PLN are the primary collateral presented by banks. The list of assets accepted as collateral also comprises other securities deposited with the Central Securities

Depository of Poland [Krajowy Depozyt Papierów Wartościowych S.A.]: covered bonds, municipal bonds, corporate bonds, bonds issued by the European Investment Bank denominated in PLN, as well as – in the case of Lombard credit – EUR-denominated Treasury bonds.

Bill discount credit was extended to banks that met, among others, the minimum capital adequacy and liquidity requirements. This credit was collateralised with bills of exchange which banks accepted as collateral to the loans extended to entrepreneurs.

In the case of a refinancing loan granted in another form specified by the Management Board of NBP, a wider range of collateral may apply.

Intraday credit in euro is extended in accordance with the principles laid down in the Agreement on the terms of opening and maintaining an account in euro in the TARGET2-NBP system, and it may be collateralised by Treasury bonds participating in BondSpot S.A. fixing and accepted by the ECB (in addition, haircut related to the exchange rate risk is taken into account).

Both claims due to bill discount credit (see Note 3.2) and claim due to a refinancing loan extended in another form specified by the Management Board of NBP (see Note 3.4.) were repaid in full in 2021.

7.1.1.2.3. FX swap transactions with domestic banks

In 2021, NBP executed an FX swap transaction on the CHF/PLN currency pair. The collateral for the operation was set with haircut and the margin requirement, thus mitigating risk exposure (see Note 10.1).

7.1.2. Liquidity risk

Liquidity risk is associated with the possibility of incurring additional expenses, if an urgent need arises to raise liquid funds.

As NBP has the exclusive right to issue banknotes and coins of the Republic of Poland, NBP can create liquidity in domestic currency. This is, however, constrained by the responsibility of NBP for the stability of domestic currency. The assumptions of monetary policy are set annually by the MPC, which, based on the above assumptions, also approves the financial plan of NBP.

In the process of foreign currency reserve management, NBP ensures adequate liquidity of funds by matching current and expected cash flows. Investments are made in the markets that ensure immediate availability of funds – reserve currencies and investment instruments are principally characterised by high liquidity.

7.1.2.1. Maturity analysis for financial liabilities in foreign currency

The table below presents the maturity analysis for financial liabilities of NBP denominated in foreign currency as at 31 December 2021 and 31 December 2020.²²

Moreover, when joining the IMF borrowing programmes (see Note 2), NBP made a commitment to grant foreign-currency-denominated loans to the IMF under, respectively:

- NAB agreement – up to the amount of EUR 2,570,800.0 thousand (SDR 1,285,400.0 thousand as at 31 December 2020), of which the outstanding amount of the NBP's commitment as at 31 December 2021 was SDR 2,540,425.0 thousand (SDR 1,224,025.0 thousand as at 31 December 2020),
- bilateral borrowing agreements – up to the amount of EUR 2,701,000.0 thousand (EUR 6,270,000.0 thousand as at 31 December 2020), of which the outstanding amount of the NBP's commitment as at 31 December 2021 was EUR 2,701,000.0 thousand (EUR 6,270,000.0 thousand as at 31 December 2020).

31.12.2021	TOTAL	Avista	From 1 day to 1 month	Over 1 month to 3 months	Over 3 months	Balance-sheet value	L.7 Liabilities to residents denominated in foreign currency	L.8 Liabilities to non-residents denominated in foreign currency	L.9 SDR allocation	L.11 Other liabilities
<i>PLN thousand</i>										
Current/auxiliary accounts in foreign currency operated by NBP	32,619,174.3	32,619,174.3	0.0	0.0	0.0	32,619,174.4	32,455,999.0	163,175.4	0.0	0.0
Term deposit accounts in foreign currency operated by NBP	7,015.1	0.0	7,015.1	0.0	0.0	7,015.1	7,015.1	0.0	0.0	0.0
Repo transactions	35,879,576.0	0.0	25,577,651.4	1,367,527.9	8,934,396.7	35,873,254.8	0.0	35,873,254.8	0.0	0.0
Other financial liabilities denominated in foreign currency	174,485.1	0.0	174,392.0	93.1	0.0	174,332.7	166,705.5	0.0	0.0	7,627.2
SDR allocation	29,771,979.3	0.0	4,978.0	0.0	29,767,001.3	29,769,702.4	0.0	0.0	29,769,702.4	0.0
TOTAL	98,452,229.8	32,619,174.3	25,764,036.5	1,367,621.0	38,701,398.0	98,443,479.4	32,629,719.6	36,036,430.2	29,769,702.4	7,627.2

31.12.2020	TOTAL	Avista	From 1 day to 1 month	Over 1 month to 3 months	Over 3 months	Balance-sheet value	L.7 Liabilities to residents denominated in foreign currency	L.8 Liabilities to non-residents denominated in foreign currency	L.9 SDR allocation	L.11 Other liabilities
<i>PLN thousand</i>										
Current/auxiliary accounts in foreign currency operated by NBP	45,866,771.3	45,866,771.3	0.0	0.0	0.0	45,866,771.3	45,736,273.2	130,498.1	0.0	0.0
Term deposit accounts in foreign currency operated by NBP	6,661.6	0.0	6,661.6	0.0	0.0	6,661.6	6,661.6	0.0	0.0	0.0
Repo transactions	45,222,443.4	0.0	37,191,442.7	3,790,510.3	4,240,490.4	45,222,015.4	0.0	45,222,015.4	0.0	0.0
Other financial liabilities denominated in foreign currency	527,529.6	0.0	527,402.1	127.5	0.0	527,304.1	519,838.4	13.4	0.0	7,452.3
SDR allocation	7,129,155.5	0.0	1,648.0	0.0	7,127,507.5	7,128,746.3	0.0	0.0	7,128,746.3	0.0
TOTAL	98,752,561.4	45,866,771.3	37,727,154.4	3,790,637.8	11,367,997.9	98,751,498.7	46,262,773.2	45,352,526.9	7,128,746.3	7,452.3

7.1.3. Interest rate risk

Interest rate risk is related to a potential decline in the market value of financial instruments due to an unfavourable change in their yield.

²² Liabilities due to FX spot, FX forward and FX swap transactions recognised on off-balance-sheet accounts are presented in Note 10.1. Liabilities related to NBP's own administrative activities were not included, as bearing no material impact.

The primary measure of interest rate risk applied by NBP is modified duration, hereinafter referred to as "MD", which specifies the sensitivity of investment portfolio values to changes in the yield on financial instruments.

To mitigate the interest rate risk in the process of managing foreign currency reserves, NBP defines the benchmark level of MD of foreign currency reserves, along with admissible fluctuation bands. In 2021, the MD of the reserves was extended in comparison with its level binding in the preceding year.

Sensitivity analysis, conducted based on MD²³, has shown that a change in interest rates by 100 basis points (for each foreign exchange portfolio, evenly distributed along the yield curve) would result in a change of the value of securities portfolios by PLN 14,883.7 million as at 31 December 2021 (by PLN 9,091.1 million as at 31 December 2020). The change in value of securities portfolios in individual currencies in response to a 100 bps change in interest rates, as estimated based on MD analysis, is presented below.

MD-based estimate of a change in values of securities portfolios in individual currencies in response to a 100 bps change in interest rates

PLN million	31.12.2021	31.12.2020	Change
USD	5,079.0	3,795.1	1,283.9
EUR	3,152.4	1,579.7	1,572.7
GBP	1,904.0	1,618.1	285.9
CAD	1,549.0	0.0	1,549.0
AUD	1,700.7	1,069.5	631.2
NOK	1,031.9	714.2	317.7
NZD	466.7	314.5	152.2
Total	14,883.7	9,091.1	5,792.6

In accordance with the accounting principles of NBP, price revaluation gains on securities denominated in foreign currency at the end of the year are recorded as revaluation accounts on the liabilities side of the Balance Sheet, while losses on price revaluation of these securities are debited to NBP's financial result.

Securities denominated in foreign currency held to maturity and securities denominated in domestic currency held for monetary policy purposes are valued at clean price adjusted for amortised discount and premium, less impairment (see Note 3.1 and Note 3.2).

²³ In its sensitivity analysis NBP applied the MD ratio for individual foreign-currency securities portfolios as at 31 December 2021 (excluding the portfolio of securities held to maturity) and 31 December 2020 as a linear measure of the relationship between price and yield, as well as the holding of securities portfolios as at 31 December 2021 (excluding the portfolio of securities held to maturity) and 31 December 2020 based on values used in the monitoring of MD.

7.1.4. Foreign exchange rate risk and gold price risk

Foreign exchange rate risk arises out of a potential decline in the value of foreign currency holdings as a result of fluctuations of foreign currency rates in the foreign exchange market.

The assessment of exposure to foreign exchange rate risk is carried out based on the parametric Value at Risk (VaR) methodology. The level of VaR calculated as at the balance sheet date is taken into account for calculating the amount of the FX risk provision (see Chapter 4 and Note 9).

In the process of foreign currency reserve management, NBP defines the currency composition of the strategic benchmark²⁴, alongside admissible fluctuation bands. In 2021 NBP started to invest in CAD, thus increasing the level of foreign currency reserves diversification (see Note 3.1 and Note 12.1).

As at 31 December 2021, similarly to 31 December 2020, the currency composition of the strategic benchmark included:

Currency	31.12.2021	31.12.2020
	% share	
USD	36%	51%
EUR	22%	20%
GBP	13%	12%
CAD	11%	-
AUD	9%	8%
NOK	6%	6%
NZD	3%	3%

The risk of a change in the price of gold (see Note 1) arises out of a potential decline in the value of gold as a result of changes in the market price of gold.

The impact of a decline in the price of gold on the financial result is limited by unrealised gold revaluation gains and gold revaluation account (see Note 9.1).

The balance-sheet values of foreign currency holdings and gold holding of NBP as at 31 December 2021 and 31 December 2020 by currency are presented below, wherein items in foreign currency related to NBP's own administrative activities are presented as part of PLN holdings since they are immaterial.

²⁴ The strategic currency benchmark is a reference portfolio mirroring long-term assumptions for the investment strategy by setting the foreign currency composition and the level of modified duration. The strategic benchmark does not include a portfolio of securities held to maturity.

31.12.2021	PLN	USD	EUR	GBP	CAD	AUD	NOK	NZD	SDR	Gold	Other currencies	Total
PLN thousand												
ASSETS												
1. Gold and gold receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54,843,799.4	0.0	54,843,799.4
2. Claims on non-residents denominated in foreign currency	0.0	225,161,371.4	142,818,029.7	77,116,328.7	53,732,466.3	46,402,858.2	29,048,156.7	15,019,537.0	30,010,120.6	0.0	24,404.8	619,333,303.4
5. Claims on credit institutions related to monetary policy operations denominated in domestic currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. Other claims on credit institutions denominated in domestic currency	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
7. Securities of residents denominated in domestic currency	149,322,164.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	149,322,164.0
10. Other assets	1,275,838.4	53,603.7	117,556.5	0.0	2,767.3	42,009.6	14.1	9,433.7	56,917.0	0.0	266,395.5	1,824,535.8
TOTAL ASSETS	150,598,009.4	225,214,975.1	142,935,586.2	77,116,328.7	53,735,263.6	46,444,867.8	29,048,170.8	15,028,970.7	30,067,037.6	54,843,799.4	290,800.3	825,323,809.6
LIABILITIES												
1. Banknotes and coins in circulation	355,557,725.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	355,557,725.3
2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	96,525,124.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96,525,124.4
3. Other liabilities to credit institutions denominated in domestic currency	762,678.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	762,678.9
4. Liabilities due to issued securities denominated in domestic currency	184,521,188.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	184,521,188.7
5. Liabilities to other residents denominated in domestic currency	15,251,900.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15,251,900.0
6. Liabilities to non-residents denominated in domestic currency	3,960,800.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,960,800.8
7. Liabilities to residents denominated in foreign currency	0.0	1,293,990.7	31,316,095.0	19,542.8	0.0	0.0	0.0	0.0	0.0	0.0	91.2	32,629,719.7
8. Liabilities to non-residents denominated in foreign currency	0.0	11,787,831.4	5,533,244.0	14,445,232.1	0.0	4,064,081.6	0.0	206,041.0	0.0	0.0	0.0	36,036,430.1
9. SDR allocation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29,769,702.4	0.0	0.0	29,769,702.4
11. Other liabilities	392,931.6	52,222.1	7,834.7	353.4	2,852.5	34,397.6	30.4	12,273.9	0.0	0.0	615,127.5	1,108,023.7
12. Provisions	16,693,832.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16,693,832.6
13. Revaluation accounts	50,639,377.4	247,760.7	50,668.8	0.0	89,134.5	4,501.4	397.0	7,069.7	0.0	0.0	0.0	51,038,899.5
14. Capital and reserves	1,500,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,500,000.0
15. Financial result	-32,216.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-32,216.5
TOTAL LIABILITIES	725,763,343.2	13,381,804.9	36,907,842.5	14,465,128.3	91,987.0	4,102,980.6	427.4	225,374.6	29,769,702.4	0.0	615,218.7	825,323,809.6

31.12.2020	PLN	USD	EUR	GBP	CAD	AUD	NOK	NZD	SDR	Gold	Other currencies	Total
ASSETS												
1. Gold and gold receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52,252,619.6	0.0	52,252,619.6
2. Claims on non-residents denominated in foreign currency	0.0	235,117,265.3	135,170,102.7	72,168,735.7	2,856.9	37,427,034.4	26,395,128.0	14,278,939.9	6,879,394.5	0.0	26,485.7	527,465,943.1
5. Claims on credit institutions related to monetary policy operations denominated in domestic currency	52,955.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52,955.4
6. Other claims on credit institutions denominated in domestic currency	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
7. Securities of residents denominated in domestic currency	112,563,027.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	112,563,027.9
10. Other assets	1,346,430.3	79,705.4	297,776.4	27,804.3	0.0	84,315.1	34,426.0	53,851.9	54,632.0	0.0	0.0	1,978,942.9
TOTAL ASSETS	113,962,429.6	235,196,970.7	135,467,879.1	72,196,540.0	2,856.9	37,511,349.5	26,429,554.0	14,332,791.8	6,934,026.5	52,252,619.6	26,487.2	694,313,504.9
LIABILITIES												
1. Banknotes and coins in circulation	321,800,665.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	321,800,665.9
2. Liabilities to credit institutions related to monetary policy operations denominated in domestic currency	62,629,413.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62,629,413.3
3. Other liabilities to credit institutions denominated in domestic currency	444,908.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	444,908.2
4. Liabilities due to issued securities denominated in domestic currency	127,767,680.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	127,767,680.0
5. Liabilities to other residents denominated in domestic currency	24,859,721.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24,859,721.0
6. Liabilities to non-residents denominated in domestic currency	2,196,156.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,196,156.7
7. Liabilities to residents denominated in foreign currency	0.0	1,565,192.4	44,679,925.5	17,620.9	0.0	0.0	0.0	0.0	0.0	0.0	34.4	46,262,773.2
8. Liabilities to non-residents denominated in foreign currency	0.0	16,573,094.9	5,470,626.4	19,375,986.5	0.0	2,597,428.8	0.0	1,335,390.3	0.0	0.0	0.0	45,352,526.9
9. SDR allocation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,128,746.3	0.0	0.0	7,128,746.3
11. Other liabilities	348,081.5	156.9	242,180.4	11,327.5	0.1	66,902.8	23,704.7	37,567.2	0.0	0.0	24.1	729,946.2
12. Provisions*	10,030,488.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,030,488.9
13. Revaluation accounts	41,872,204.0	2,283,063.6	273,597.1	424,298.7	0.0	370,358.5	200,971.3	315,862.9	0.0	0.0	0.0	45,748,356.1
14. Capital and reserves*	1,891,425.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,891,425.1
15. Financial result	-2,521,301.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2,521,301.9
TOTAL LIABILITIES	591,319,442.8	20,421,907.8	50,666,329.4	19,829,233.6	0.1	3,034,690.0	224,676.0	1,688,620.4	7,128,746.3	0.0	56.5	694,313,504.9

* In 2021 the balance of the FX risk provision presented as at 31 December 2020 in Item 14. Capital and reserves was transferred to Item 12. Provisions (see Chapter 3).

7.1.5. Equity index futures price risk

The risk of a change in the price of equity index futures is related to a potential loss of value of these contracts, resulting mainly from unfavourable changes in the prices of the underlying instrument (equity index).

Daily changes in the market prices of futures are recognised in the financial result on a daily basis – including also on the day of closing an open position in futures – as realised price gains/losses (see Note 12.1).

As at the end of 2021, NBP invested in equity index futures in the markets of the United States, euro area and the United Kingdom.

7.1.6. Market value of financial assets and liabilities and off-balance-sheet financial instruments

Narodowy Bank Polski measures the value of financial assets and liabilities and off-balance-sheet financial instruments using market prices (mark-to-market valuation) or valuation models accepted in market practice (mark-to-model valuation) with prices or market parameters as input factors, with the exception of:

- claims and liabilities due to bank accounts, including deposits and term deposits,
- credits and loans granted,
- securities held to maturity,
- securities held for monetary policy purposes,
- banknotes and coins in circulation,
- securities issued by NBP,
- other financial assets and liabilities (presented in items A.10 and L.11).

Securities held to maturity and securities denominated in domestic currency held for monetary policy purposes are valued at purchase price, adjusted for the amortised discount/premium, less impairment.

Bearing in mind the nature of other financial instruments (e.g. short-term character, uniqueness of the instrument), it was assumed that their balance sheet value approximately equals their market/current value.

Financial assets and liabilities as well as off-balance-sheet financial instruments are classified into one of the following three levels based on the methods of determining the market value for price valuation used by NBP:

Level 1	Level 2	Level 3
Financial assets and liabilities and off-balance-sheet financial instruments whose market value is determined directly on the basis of (unadjusted) prices quoted on active markets for identical assets, liabilities or off-balance-sheet financial instruments.	Financial assets and liabilities and off-balance-sheet financial instruments whose market value is determined on the basis of valuation models, for which all significant input data are observable in the market directly (as prices) or indirectly (as based on prices).	Financial assets and liabilities as well as off-balance-sheet financial instruments whose market value is estimated using valuation models for which input data are not based on data observable in the market.
NBP has classified into this category securities denominated in foreign currency purchased by NBP, except for securities priced based on yield curve values.*	NBP has classified into this category : <ul style="list-style-type: none"> ▪ securities priced based on the yield curves values for a given type of securities having the same credit risk of the issuer, ▪ forward transactions in securities for the revaluation of which it uses the model with input parameters coming directly from the market. 	As at 31 December 2021 and 31 December 2020, NBP did not classify any financial assets and liabilities and off-balance-sheet financial instruments into this category.

* Gold is also subject to revaluation according to market prices. To measure its value, NBP uses the average market price of gold which is converted into domestic currency according to the average NBP exchange rate of the US dollar as at the balance sheet date.

Financial assets and liabilities and off-balance-sheet financial instruments that are presented in the balance sheet as at 31 December 2021 and 31 December 2020 according to market value, assigned to individual levels, are presented below.

31.12.2021 PLN thousand	Level 1	Level 2	Level 3	Balance-sheet value	Balance sheet item
ASSETS					
Securities purchased by NBP	480,784,476.8	26,005,990.5	0.0	506,790,467.3	A.2.2
Forward transactions in securities (revaluation gains)	0.0	3,661.8	0.0	3,661.8	A.10.3
LIABILITIES					
Forward transactions in securities (revaluation losses)	0.0	204.1	0.0	204.1	L.11.1
31.12.2020 PLN thousand	Level 1	Level 2	Level 3	Balance-sheet value	Balance sheet item
ASSETS					
Securities purchased by NBP	403,940,645.4	13,624,101.1	0.0	417,564,746.5	A.2.2
Forward transactions in securities (revaluation gains)	0.0	0.0	0.0	0.0	A.10.3
LIABILITIES					
Forward transactions in securities (revaluation losses)	0.0	111.8	0.0	111.8	L.11.1

In 2021 and 2020, there were no transfers between Level 1 and Level 2.

Narodowy Bank Polski also invests in futures contracts. These contracts are marked to market (Level 1) and settled on a daily basis (see Chapter 2.4 and Note 12.1).

7.2. Operational risk

The concept of operational risk in NBP includes the possibility of incurring financial or non-financial damages, including failure to carry out tasks or a negative impact on the reputation of NBP, both resulting from inadequate or failed internal processes and systems as well as personnel or external events.

The operational risk in NBP is divided into four sub-categories: safety risk, personnel risk, legal risk and technological risk, which includes ICT technological risk (related, inter alia, to IT and ICT systems, IT software and hardware) and non-ICT technological risk (related, inter alia, to construction facilities and elements of mobile equipment).

The operational risk mitigation mechanisms used at NBP include, in particular:

- external and internal regulations,
- the scope of job responsibilities and division of duties,
- data reconciliation, and the “four-eyes” principle,
- the system of (financial, time) limits and restrictions,
- introduction of an access control system as well as IT and telecommunications, physical and electronic safeguards,
- generation of back-up copies of electronic files,
- development of contingency and evacuation plans as well as training and tests related to securing business continuity in NBP,
- insurance,
- control and internal audit.

In 2021, the Controlling and Operational Risk Department monitored, on an ongoing basis, operational risk in NBP activity, including events resulting from the SARS-Cov-2 pandemic. In 2021, the Commission for Operational Risk Management held 12 sessions to discuss topics related to the assessment of the current activities aimed to ensure the proper execution of NBP tasks, with special attention paid to Key Risk Indices values being exceeded as a result of the pandemic. The level of risk at NBP in 2021 was monitored on an ongoing basis and mitigating measures were also systematically adopted.

Warsaw, 24 March 2022

Director of the Accounting
and Finance Department
of Narodowy Bank Polski

/-/ Krzysztof Kruszewski

Management Board
of Narodowy Bank Polski

/-/ Adam Glapiński
/-/ Marta Kightley
/-/ Adam Lipiński
/-/ Marta Gajecka
/-/ Andrzej Kazmierczak
/-/ Piotr Pogonowski
/-/ Paweł Szalamacha



This document is a free translation of the Polish original. Terminology current in Anglo-Saxon countries has been used where practicable for the purposes of this translation in order to aid understanding. The binding Polish original should be referred to in matters of interpretation.

Independent Auditor's Report

To the Monetary Policy Council of Narodowy Bank Polski

Opinion

We have audited the accompanying annual financial statements of Narodowy Bank Polski ("NBP"), which comprise:

- the balance sheet of NBP as at 31 December 2021;
- the profit and loss account of NBP for the year ended 31 December 2021;
- the notes

(all together the "financial statements").

In our opinion, the accompanying financial statements:

- give a true and fair view of the financial position of NBP as at 31 December 2021 and of its financial performance for the financial year then ended in accordance with the act on Narodowy Bank Polski of 29 August 1997 (the "Act on NBP"), Resolution No. 13/2020 of the Monetary Policy Council of 6 November 2020 on the accounting

principles of Narodowy Bank Polski, specimen balance sheet, profit and loss account and contents of notes, Resolution No. 6/2019 of the Monetary Policy Council of 5 November 2019 on the principles for creating and releasing the provision against the foreign exchange rate risk of the zloty at Narodowy Bank Polski, Resolution No. 64/2020 of the Management Board of Narodowy Bank Polski of 21 December 2020 on the principles for organization of accounting in Narodowy Bank Polski (all together "the legal basis for preparation of the NBP financial statements");

- comply, in all material respects, with regard to form and content, with laws applicable to NBP;
- have been prepared, in all material respects, on the basis of properly maintained accounting records.

KPMG Audyt spółka z ograniczoną odpowiedzialnością sp.k.

ul. Inflancka 4A, 00-189 Warsaw, Poland
tel. +48 (22) 528 11 00, fax +48 (22) 528 10 09, kpmg@kpmg.pl

© 2022 KPMG Audyt Spółka z ograniczoną odpowiedzialnością sp.k., a Polish limited partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee.

Company registered at the District Court for the capital city of Warsaw in Warsaw, 12th Commercial Division of the National Business Register.

KRS 0000339379
NIP: 527-261-53-62
REGON: 142078130



Basis for Opinion

We conducted our audit in accordance with:

- International Standards on Auditing as adopted by the National Council of Statutory Auditors as National Standards on Auditing (the “NSA”); and
- the act on statutory auditors, audit firms and public oversight of 11 May 2017 (the “Act on statutory auditors”).

Our responsibilities under those regulations are further described in the Auditor’s Responsibility for the audit of the financial statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence and Ethics

We are independent of NBP in accordance with International Ethics Standards Board for Accountants International Code of Ethics for Professional Accountants (including International Independence Standards) (“IESBA Code”) as adopted by the resolution of the National Council of Statutory Auditors, together with the ethical requirements that are

relevant to our audit of the financial statements in Poland and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. During our audit the key statutory auditor and the audit firm remained independent of NBP in accordance with requirements of the Act on statutory auditors.

Responsibility of the Management of NBP for the Financial Statements

The Management Board of NBP is responsible for the preparation, on the basis of properly maintained accounting records, of financial statements that give a true and fair view in accordance with the legal basis for the preparation of the NBP financial statements, laws applicable to NBP and for such internal control as the Management Board of NBP determines is necessary to enable the preparation of financial statements that are

free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Management Board of NBP is responsible for assessing the NBP ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting principles in accordance with applicable laws, in particular Article 58 of the Act on NBP.

Auditor’s Responsibility for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors’ 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 NSAs 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 financial statements.

The scope of audit does not include assurance on the future viability of NBP or on the efficiency or effectiveness with which the

Management Board of NBP has conducted or will conduct the affairs of NBP.

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

- identify and assess the risks of material misstatement of the 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 internal control of NBP;
 - evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board of NBP;
 - conclude on the appropriateness of the Management Board of NBP's use of the going concern basis of accounting principles and, based on the audit evidence obtained, evaluate, whether a material uncertainty exists related to events or conditions that may cast significant doubt on NBP's ability to continue as a going concern. If we conclude that a material uncertainty exists,

- we are required to draw attention in our auditors' report on the audit of the financial statements to the related disclosures in the 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 auditors' report on the audit of the financial statements, including those related to Article 58 of the Act on NBP;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Management Board of NBP 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.

On behalf of audit firm

KPMG Audyt Spółka z ograniczoną odpowiedzialnością sp.k.

Registration No. 3546

Signed on the Polish original

Marcin Podsiadły

Key Statutory Auditor
Registration No. 12774
Limited Partner, Proxy

Warsaw, 24 March 2022

Signed on the Polish original

Tadeusz de Ville

Limited Partner, Proxy

Statistical annex

Table I. Basic statistical data

Period	1. Industrial output			2. Construction output			3. Consumer Price Index			4. Producer Price Index	
	current prices	constant prices		current prices	constant prices		the same month previous year = 100	previous month = 100	December previous year = 100	the same month previous year = 100	previous month = 100
		the same month previous year = 100	previous month = 100		the same month previous year = 100	previous month = 100					
	million PLN	%	%	million PLN	%	%	%	%	%	%	%
1	2	3	4	5	6	7	8	9	10	11	
December 2020	133,517.1	111.1	95.5	13,155.1	103.4	134.4	102.4	100.1	102.4	100.1	100.3
January 2021	127,485.4	100.7	94.6	4,904.4	89.9	37.1	102.6	101.3	101.3	101.0	101.0
February	133,831.9	102.5	104.0	5,184.9	83.1	105.5	102.4	100.5	101.8	102.2	101.0
March	160,515.6	118.6	118.2	6,979.7	89.2	134.2	103.2	101.0	102.8	104.2	101.6
April	146,531.0	144.2	90.6	7,703.4	95.8	109.9	104.3	100.8	103.6	105.5	100.7
May	146,733.3	129.7	99.1	8,533.9	104.7	110.2	104.7	100.3	103.9	106.6	100.9
June	153,596.7	118.1	103.8	9,626.2	104.5	112.3	104.4	100.1	104.0	107.2	100.9
July	149,588.8	109.5	95.8	9,232.3	103.2	95.3	105.0	100.4	104.5	108.4	101.5
August	146,945.7	113.0	97.3	9,575.7	110.2	103.2	105.5	100.3	104.8	109.6	100.7
September	163,588.6	108.7	110.9	10,546.8	104.2	109.3	105.9	100.7	105.5	110.3	100.9
October	170,219.0	107.6	102.1	10,673.9	104.1	100.3	106.8	101.1	106.6	112.0	102.0
November	180,392.5	114.8	104.9	11,755.5	112.8	109.0	107.8	101.0	107.6	113.6	101.4
December	176,255.9	116.3	96.8	14,571.1	103.1	122.9	108.6	100.9	108.6	114.4	101.0

Period	5. Construction Price Index		6. Number of employed, corporate sector total	7. Average employment, corporate sector total	8. Number of unemployed	9. Unemployment rate	10. Average monthly employee earnings, gross, corporate sector	11. National budget revenue & expenditure		
	the same month previous year = 100	previous month = 100						revenue	expenditure	financial surplus/deficit and net foreign lending/borrowing
	%	%	thousands	thousands	thousands	%	PLN	million PLN	million PLN	million PLN
	12	13	14	15	16	17	18	19	20	21
December 2020	102.7	100.2	6,683	6,329	1,046.4	6.3	5,973.8	419,795.7	504,776.1	-111,349.7
January 2021	102.4	100.3	6,633	6,314	1,090.4	6.5	5,536.8	40,656.0	34,010.7	8,280.0
February	102.4	100.2	6,647	6,334	1,099.5	6.6	5,568.8	71,096.7	70,220.9	579.8
March	102.6	100.4	6,657	6,330	1,078.4	6.4	5,929.1	101,060.6	104,474.9	3,805.8
April	102.9	100.5	6,663	6,317	1,053.8	6.3	5,805.7	147,066.7	137,907.8	23,569.9
May	103.3	100.5	6,673	6,338	1,026.7	6.1	5,637.3	181,478.8	172,128.6	24,226.0
June	103.6	100.5	6,690	6,359	993.4	6.0	5,802.4	233,971.0	205,979.6	46,165.5
July	104.0	100.6	6,680	6,362	974.9	5.9	5,851.9	278,083.5	242,829.9	63,330.6
August	104.4	100.7	6,678	6,352	960.8	5.8	5,843.8	320,103.4	276,736.3	73,652.4
September	104.9	100.7	6,689	6,347	934.7	5.6	5,841.2	360,079.9	312,491.4	81,316.0
October	105.6	100.9	6,694	6,351	910.9	5.5	5,917.2	405,665.5	353,777.4	80,578.0
November	106.6	101.1	6,710	6,364	898.8	5.4	6,022.5	451,444.3	401,063.0	74,750.5
December	107.6	101.0	6,709	6,362	895.2	5.4	6,644.4	494,967.7	521,295.5	-7,534.1

Table I. Basic statistical data, cont'd

Period	12. Corporate financial performance												
	revenues		operating costs		pre-tax profit/loss	statutory deductions	net profit/loss	cost to sales ratio	net margin	quick liquidity ratio	total current assets	accounts receivable and associated claims	accounts payable
	total	of which: sales of goods & services	total	of which: cost of sales									
	million PLN	million PLN	million PLN	million PLN	million PLN	million PLN	million PLN	%	%	%	million PLN	million PLN	million PLN
22	23	24	25	26	27	28	29	30	31	32	33	34	
December 2020	3,206,898.4	1,868,661.9	3,064,359.9	1,942,184.0	142,538.4	26,288.4	116,250.0	95.6	3.6	103.4	1,144,847.5	365,175.6	375,813.3
January 2021	.	.	.	.	.	.	.	.	.	.	.	.	.
February	.	.	.	.	.	.	.	.	.	.	.	.	.
March	868,242.6	507,896.7	810,731.1	515,760.8	57,511.5	10,412.9	47,098.6	93.4	5.4	104.4	1,225,766.2	402,155.2	404,245.3
April	.	.	.	.	.	.	.	.	.	.	.	.	.
May	.	.	.	.	.	.	.	.	.	.	.	.	.
June	1,782,459.8	1,042,286.7	1,658,446.8	1,065,649.1	124,013.0	20,144.2	103,868.8	93.0	5.8	107.6	1,295,089.2	409,186.9	400,148.6
July	.	.	.	.	.	.	.	.	.	.	.	.	.
August	.	.	.	.	.	.	.	.	.	.	.	.	.
September	2,765,013.2	1,617,547.1	2,572,774.5	1,655,272.4	192,238.7	30,550.9	161,687.8	93.0	5.8	107.4	1,386,012.8	429,909.9	423,969.5
October	.	.	.	.	.	.	.	.	.	.	.	.	.
November	.	.	.	.	.	.	.	.	.	.	.	.	.
December	3,960,652.7	2,318,532.0	3,695,681.8	2,363,317.0	264,970.9	42,507.6	222,463.3	93.3	5.6	107.6	1,496,539.9	458,577.4	477,329.8

Table II. Financial market – basic information

Period	1. NBP interest rates					2. Reserve requirement						
						Reserve requirement ratio on zloty deposits		Reserve requirement ratio on foreign currency deposits (PLN equivalent)		Reserve requirement ratio on repo operations	Interest on reserve requirement	Total required reserves held*
	Reference rate	Lombard rate	Deposit rate	Rediscount rate	Discount rate	demand	time	demand	time			
	%	%	%	%	%	%	%	%	%	%	million PLN	
1	2	3	4	5	6	7	8	9	10	11	12	
December 2020	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,513.0
January 2021	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,513.0
February	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,519.9
March	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,557.1
April	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,660.3
May	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,697.1
June	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,837.6
July	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	7,837.6
August	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	8,060.7
September	0.10	0.50	0.00	0.11	0.12	0.5	0.5	0.5	0.5	0.0	0.10	8,160.8
October	0.50	1.00	0.00	0.51	0.52	0.5	0.5	0.5	0.5	0.0	0.50	8,160.8
November	1.25	1.75	0.75	1.30	1.35	2.0	2.0	2.0	2.0	0.0	1.25	35,249.8
December	1.75	2.25	1.25	1.80	1.85	2.0	2.0	2.0	2.0	0.0	1.75	35,667.3

* Interest on reserve requirement for data up to end-December 2017 is 0.9 of the reference rate and for data as from January 2008 it 0.5 of the reference rate.

Period	3. Treasury bill tenders					
	Number of tenders during month	Face value of bills offered for sale	Demand declared by bidders (at face value)	Face value of bills sold	Yield on bills purchased, weighted average	Bills outstanding from tender sales at month end (purchase prices)
		million PLN	million PLN	million PLN	%	million PLN
	13	14	15	16	17	18
December 2020	0	0.00	0.00	0.00	0.00	10,843.57
January 2021	0	0.00	0.00	0.00	0.00	10,843.57
February	0	0.00	0.00	0.00	0.00	10,843.57
March	0	0.00	0.00	0.00	0.00	0.00
April	0	0.00	0.00	0.00	0.00	0.00
May	0	0.00	0.00	0.00	0.00	0.00
June	0	0.00	0.00	0.00	0.00	0.00
July	0	0.00	0.00	0.00	0.00	0.00
August	0	0.00	0.00	0.00	0.00	0.00
September	0	0.00	0.00	0.00	0.00	0.00
October	0	0.00	0.00	0.00	0.00	0.00
November	0	0.00	0.00	0.00	0.00	0.00
December	0	0.00	0.00	0.00	0.00	0.00

Table II. Financial market – basic information, cont'd

Period	4. Tenders for NBP money-market bills					
	Number of tenders during month	Face value of bills offered for sale	Demand declared by bidders (at face value)	Face value of bills sold	Yield on bills purchased, weighted average	Bills outstanding from tender sales at month end (purchase prices)
		million PLN	million PLN	million PLN	%	million PLN
	19	20	21	22	23	24
December 2020	5	906,000.00	712,275.53	712,275.53	0.10	127,764.87
January 2021	4	793,000.00	682,779.18	682,779.18	0.10	163,797.22
February	4	816,000.00	685,730.60	685,730.60	0.10	152,424.30
March	4	831,000.00	710,582.30	710,582.30	0.10	155,767.19
April	5	1,041,000.00	887,035.40	887,035.40	0.10	164,887.67
May	4	877,000.00	750,086.30	750,086.30	0.10	163,457.99
June	4	923,000.00	786,810.40	786,810.40	0.10	178,919.10
July	5	1,256,000.00	1,112,872.15	1,112,872.15	0.10	202,207.76
August	4	1,042,000.00	936,089.05	936,089.05	0.10	219,086.69
September	4	1,066,000.00	938,560.20	938,560.20	0.10	207,064.47
October	5	1,371,000.00	1,254,678.35	1,254,678.35	0.42	241,810.04
November	4	1,072,000.00	1,000,390.55	1,000,390.55	1.25	227,998.23
December	8	1,403,000.00	1,105,060.20	1,105,060.20	1.66	184,512.14

Table II. Financial market – basic information, cont'd

Period	5. Repurchase agreements (credit repo)				6. Structural outright buy operations			
	number of tenders during month	assets earmarked by NBP for purchase of securities	nominal value of bids declared by banks	nominal value of bids accepted	number of tenders during month	nominal value of securities earmarked for purchase by NBP	nominal value of bids declared by banks	nominal value of bids accepted
	25	26	27	28	29	30	31	32
December 2020	0	0.00	0.00	0.00	1	3,000.00	2,052.42	1,662.42
January 2021	0	0.00	0.00	0.00	1	3,000.00	2,946.00	1,494.00
February	0	0.00	0.00	0.00	1	3,000.00	3,361.00	1,029.00
March	0	0.00	0.00	0.00	1	10,000.00	5,082.82	3,749.82
April	0	0.00	0.00	0.00	2	15,000.00	17,112.11	10,389.49
May	0	0.00	0.00	0.00	2	15,000.00	17,878.30	10,002.02
June	0	0.00	0.00	0.00	1	10,000.00	5,645.43	2,029.24
July	0	0.00	0.00	0.00	1	10,000.00	7,487.37	4,364.31
August	0	0.00	0.00	0.00	1	10,000.00	2,149.25	1,053.50
September	0	0.00	0.00	0.00	1	10,000.00	3,243.91	1,830.00
October	0	0.00	0.00	0.00	1	1,000.00	1,742.00	578.00
November	0	0.00	0.00	0.00	1	1,000.00	2,015.50	366.50
December	0	0.00	0.00	0.00	0	0.00	0.00	0.00

Table II. Financial market – basic information, cont'd

Period	7. Data on trading sessions of Warsaw Stock Exchange										
	Number of companies at month end	Capitalisation at month end (million PLN)	P/E ratio at month end	Warsaw Stock Exchange Index (WIG) at month end	WIG monthly average	mWIG40 at month end	mWIG40 monthly average	sWIG80 at month end	sWIG80 monthly average	Monthly turnover (million PLN)	Turnover ratio (%)
	33	34	35	36	37	38	39	40	41	42	43
December 2020	433	538,751.5	53.2	1,984.0	1,951.6	3,976.5	3,815.8	16,096.4	15,376.5	34,491.5	80.7
January 2021	434	544,712.2	54.0	1,948.0	2,000.3	4,101.7	4,145.8	16,895.5	16,992.1	31,593.7	73.0
February	434	553,804.7	62.2	1,907.3	1,952.4	4,307.4	4,248.6	17,530.1	17,481.2	26,351.5	54.1
March	433	568,652.6	34.6	1,938.8	1,951.9	4,360.7	4,359.8	18,554.3	18,125.3	35,800.1	60.6
April	430	598,146.5	31.9	2,037.6	1,999.5	4,507.9	4,449.6	19,775.2	19,266.8	22,095.8	45.5
May	429	649,205.7	21.8	2,233.4	2,123.8	4,904.9	4,652.1	20,630.1	20,195.8	28,209.7	52.5
June	426	637,272.3	21.1	2,218.4	2,239.9	4,825.1	4,906.0	20,581.9	20,856.3	24,629.7	42.2
July	429	648,525.1	23.2	2,253.5	2,247.3	4,943.1	4,877.4	20,660.0	20,575.8	18,527.7	29.7
August	429	682,634.3	18.3	2,368.0	2,291.4	5,236.2	5,072.5	21,041.5	20,943.3	17,702.6	28.6
September	426	682,854.8	17.6	2,310.3	2,341.8	5,255.8	5,279.8	21,107.7	21,277.1	24,603.6	39.3
October	425	729,140.2	16.6	2,405.1	2,414.1	5,705.0	5,566.7	21,310.0	21,467.8	31,558.3	48.2
November	426	677,644.7	13.3	2,194.4	2,309.3	5,328.9	5,574.8	20,183.7	20,924.9	29,760.1	48.1
December	430	701,152.4	13.6	2,266.9	2,213.4	5,291.7	5,273.0	20,056.1	20,003.1	22,657.0	35.9

Table III. PLN/USD and PLN/EUR daily exchange rates

Days	December 2020			January 2021			February 2021			March 2021		
	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR
	PLN/USD	PLN/EUR		PLN/USD	PLN/EUR		PLN/USD	PLN/EUR		PLN/USD	PLN/EUR	
	1	2	3	4	5	6	7	8	9	10	11	12
1	3.7367	4.4769	1.1981	3.7584	4.6148	1.2279	3.7323	4.5137	1.2094	3.7572	4.5231	1.2038
2	3.7038	4.4642	1.2053	3.7584	4.6148	1.2279	3.7311	4.5025	1.2067	3.7765	4.5345	1.2007
3	3.6981	4.4789	1.2111	3.7584	4.6148	1.2279	3.7352	4.4906	1.2022	3.7509	4.5393	1.2102
4	3.6765	4.4732	1.2167	3.6998	4.5485	1.2294	3.7509	4.4958	1.1986	3.7851	4.5540	1.2031
5	3.6765	4.4732	1.2167	3.7031	4.5446	1.2272	3.7554	4.4978	1.1977	3.8393	4.5793	1.1927
6	3.6765	4.4732	1.2167	3.7031	4.5446	1.2272	3.7554	4.4978	1.1977	3.8393	4.5793	1.1927
7	3.7001	4.4745	1.2093	3.6656	4.4973	1.2269	3.7554	4.4978	1.1977	3.8393	4.5793	1.1927
8	3.6914	4.4767	1.2127	3.6919	4.5189	1.2240	3.7301	4.4867	1.2028	3.8665	4.5903	1.1872
9	3.6657	4.4449	1.2126	3.6919	4.5189	1.2240	3.6972	4.4773	1.2110	3.8507	4.5844	1.1905
10	3.6574	4.4276	1.2106	3.6919	4.5189	1.2240	3.6973	4.4809	1.2119	3.8420	4.5718	1.1900
11	3.6630	4.4385	1.2117	3.7271	4.5325	1.2161	3.7117	4.5023	1.2130	3.8287	4.5805	1.1964
12	3.6630	4.4385	1.2117	3.7188	4.5228	1.2162	3.7186	4.5029	1.2109	3.8521	4.5909	1.1918
13	3.6630	4.4385	1.2117	3.7142	4.5272	1.2189	3.7186	4.5029	1.2109	3.8521	4.5909	1.1918
14	3.6548	4.4432	1.2157	3.7323	4.5407	1.2166	3.7186	4.5029	1.2109	3.8521	4.5909	1.1918
15	3.6554	4.4441	1.2158	3.7466	4.5480	1.2139	3.6949	4.4836	1.2135	3.8429	4.5836	1.1927
16	3.6334	4.4347	1.2205	3.7466	4.5480	1.2139	3.6940	4.4891	1.2152	3.8519	4.5949	1.1929
17	3.6254	4.4348	1.2233	3.7466	4.5480	1.2139	3.7287	4.4998	1.2068	3.8676	4.6065	1.1910
18	3.6322	4.4493	1.2250	3.7699	4.5473	1.2062	3.7152	4.4857	1.2074	3.8705	4.6224	1.1943
19	3.6322	4.4493	1.2250	3.7416	4.5342	1.2118	3.6997	4.4892	1.2134	3.8865	4.6226	1.1894
20	3.6322	4.4493	1.2250	3.7303	4.5237	1.2127	3.6997	4.4892	1.2134	3.8865	4.6226	1.1894
21	3.7082	4.5149	1.2175	3.7312	4.5310	1.2144	3.6997	4.4892	1.2134	3.8865	4.6226	1.1894
22	3.6921	4.5069	1.2207	3.7255	4.5354	1.2174	3.7135	4.4963	1.2108	3.8768	4.6138	1.1901
23	3.6919	4.5019	1.2194	3.7255	4.5354	1.2174	3.7117	4.5093	1.2149	3.8746	4.6073	1.1891
24	3.6981	4.5084	1.2191	3.7255	4.5354	1.2174	3.7145	4.5176	1.2162	3.9098	4.6273	1.1835
25	3.6981	4.5084	1.2191	3.7402	4.5436	1.2148	3.6943	4.5143	1.2220	3.9253	4.6358	1.1810
26	3.6981	4.5084	1.2191	3.7512	4.5497	1.2129	3.7247	4.5175	1.2128	3.9307	4.6353	1.1793
27	3.6981	4.5084	1.2191	3.7507	4.5468	1.2123	3.7247	4.5175	1.2128	3.9307	4.6353	1.1793
28	3.6639	4.4879	1.2249	3.7566	4.5479	1.2106	3.7247	4.5175	1.2128	3.9307	4.6353	1.1793
29	3.6778	4.5051	1.2249	3.7460	4.5385	1.2116				3.9570	4.6560	1.1766
30	3.6901	4.5272	1.2269	3.7460	4.5385	1.2116				3.9604	4.6519	1.1746
31	3.7584	4.6148	1.2279	3.7460	4.5385	1.2116				3.9676	4.6603	1.1746
Average monthly rate	3.6778	4.4766	X	3.7304	4.5435	X	3.7196	4.4988	X	3.8673	4.6007	X

Table III. PLN/USD and PLN/EUR daily exchange rates, cont'd

Days	April 2021			May 2021			June 2021		
	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR
	PLN/USD	PLN/EUR		PLN/USD	PLN/EUR		PLN/USD	PLN/EUR	
	13	14	15	16	17	18	19	20	21
1	3.9428	4.6239	1.1727	3.7746	4.5654	1.2095	3.6590	4.4749	1.2230
2	3.8986	4.5933	1.1782	3.7746	4.5654	1.2095	3.6659	4.4654	1.2181
3	3.8986	4.5933	1.1782	3.7746	4.5654	1.2095	3.6659	4.4654	1.2181
4	3.8986	4.5933	1.1782	3.7940	4.5539	1.2003	3.6931	4.4734	1.2113
5	3.8986	4.5933	1.1782	3.8136	4.5752	1.1997	3.6931	4.4734	1.2113
6	3.8973	4.6041	1.1814	3.8066	4.5829	1.2039	3.6931	4.4734	1.2113
7	3.8611	4.5897	1.1887	3.7861	4.5764	1.2087	3.6656	4.4581	1.2162
8	3.8365	4.5581	1.1881	3.7861	4.5764	1.2087	3.6690	4.4674	1.2176
9	3.8208	4.5414	1.1886	3.7861	4.5764	1.2087	3.6545	4.4541	1.2188
10	3.8208	4.5414	1.1886	3.7493	4.5631	1.2171	3.6821	4.4800	1.2167
11	3.8208	4.5414	1.1886	3.7514	4.5628	1.2163	3.6759	4.4723	1.2167
12	3.8144	4.5330	1.1884	3.7456	4.5453	1.2135	3.6759	4.4723	1.2167
13	3.8342	4.5627	1.1900	3.7675	4.5447	1.2063	3.6759	4.4723	1.2167
14	3.8065	4.5552	1.1967	3.7374	4.5316	1.2125	3.7185	4.5027	1.2109
15	3.8014	4.5546	1.1981	3.7374	4.5316	1.2125	3.7349	4.5306	1.2130
16	3.7978	4.5481	1.1976	3.7374	4.5316	1.2125	3.7336	4.5285	1.2129
17	3.7978	4.5481	1.1976	3.7288	4.5298	1.2148	3.7931	4.5309	1.1945
18	3.7978	4.5481	1.1976	3.7050	4.5272	1.2219	3.8198	4.5503	1.1912
19	3.7816	4.5474	1.2025	3.7087	4.5306	1.2216	3.8198	4.5503	1.1912
20	3.7737	4.5541	1.2068	3.7077	4.5189	1.2188	3.8198	4.5503	1.1912
21	3.7950	4.5567	1.2007	3.6778	4.4958	1.2224	3.8214	4.5442	1.1891
22	3.7885	4.5562	1.2026	3.6778	4.4958	1.2224	3.8132	4.5366	1.1897
23	3.7855	4.5649	1.2059	3.6778	4.4958	1.2224	3.7878	4.5200	1.1933
24	3.7855	4.5649	1.2059	3.6795	4.4877	1.2196	3.7986	4.5302	1.1926
25	3.7855	4.5649	1.2059	3.6549	4.4806	1.2259	3.7749	4.5085	1.1943
26	3.7657	4.5565	1.2100	3.6691	4.4914	1.2241	3.7749	4.5085	1.1943
27	3.7826	4.5613	1.2059	3.6929	4.4980	1.2180	3.7749	4.5085	1.1943
28	3.7939	4.5811	1.2075	3.6766	4.4845	1.2197	3.7762	4.5092	1.1941
29	3.7786	4.5782	1.2116	3.6766	4.4845	1.2197	3.7914	4.5123	1.1901
30	3.7746	4.5654	1.2095	3.6766	4.4845	1.2197	3.8035	4.5208	1.1886
31				3.6724	4.4805	1.2200			
Average monthly rate	3.8212	4.5658	X	3.7292	4.5301	X	3.7375	4.5015	X

Table III. PLN/USD and PLN/EUR daily exchange rates, cont'd

Days	July 2021			August 2021			September 2021		
	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR
	PLN/USD	PLN/EUR		PLN/USD	PLN/EUR		PLN/USD	PLN/EUR	
	22	23	24	25	26	27	28	29	30
1	3.8149	4.5187	1.1845	3.8410	4.5731	1.1906	3.8238	4.5184	1.1817
2	3.8263	4.5257	1.1828	3.8377	4.5611	1.1885	3.8044	4.5067	1.1846
3	3.8263	4.5257	1.1828	3.8315	4.5533	1.1884	3.7998	4.5124	1.1875
4	3.8263	4.5257	1.1828	3.8366	4.5468	1.1851	3.7998	4.5124	1.1875
5	3.7979	4.5083	1.1871	3.8485	4.5555	1.1837	3.7998	4.5124	1.1875
6	3.8021	4.5036	1.1845	3.8519	4.5495	1.1811	3.8041	4.5134	1.1865
7	3.8225	4.5197	1.1824	3.8519	4.5495	1.1811	3.8041	4.5181	1.1877
8	3.8408	4.5414	1.1824	3.8519	4.5495	1.1811	3.8213	4.5175	1.1822
9	3.8427	4.5467	1.1832	3.8885	4.5709	1.1755	3.8292	4.5315	1.1834
10	3.8427	4.5467	1.1832	3.8937	4.5681	1.1732	3.8402	4.5499	1.1848
11	3.8427	4.5467	1.1832	3.9148	4.5854	1.1713	3.8402	4.5499	1.1848
12	3.8378	4.5559	1.1871	3.9074	4.5900	1.1747	3.8402	4.5499	1.1848
13	3.8533	4.5662	1.1850	3.8934	4.5718	1.1742	3.8495	4.5386	1.1790
14	3.8955	4.5904	1.1784	3.8934	4.5718	1.1742	3.8542	4.5559	1.1821
15	3.8629	4.5777	1.1850	3.8934	4.5718	1.1742	3.8475	4.5502	1.1826
16	3.8808	4.5865	1.1818	3.8730	4.5651	1.1787	3.8847	4.5736	1.1773
17	3.8808	4.5865	1.1818	3.8797	4.5691	1.1777	3.8882	4.5789	1.1776
18	3.8808	4.5865	1.1818	3.8861	4.5547	1.1720	3.8882	4.5789	1.1776
19	3.8968	4.5877	1.1773	3.9226	4.5843	1.1687	3.8882	4.5789	1.1776
20	3.9012	4.5983	1.1787	3.9301	4.5880	1.1674	3.9282	4.5999	1.1710
21	3.9035	4.5983	1.1780	3.9301	4.5880	1.1674	3.9337	4.6154	1.1733
22	3.8801	4.5773	1.1797	3.9301	4.5880	1.1674	3.9460	4.6308	1.1735
23	3.8851	4.5747	1.1775	3.9107	4.5876	1.1731	3.9256	4.6012	1.1721
24	3.8851	4.5747	1.1775	3.9086	4.5848	1.1730	3.9268	4.6085	1.1736
25	3.8851	4.5747	1.1775	3.8869	4.5679	1.1752	3.9268	4.6085	1.1736
26	3.8915	4.5858	1.1784	3.8912	4.5758	1.1759	3.9268	4.6085	1.1736
27	3.9017	4.5954	1.1778	3.8978	4.5803	1.1751	3.9276	4.5912	1.1690
28	3.8849	4.5955	1.1829	3.8978	4.5803	1.1751	3.9546	4.6192	1.1681
29	3.8617	4.5866	1.1877	3.8978	4.5803	1.1751	3.9684	4.6287	1.1664
30	3.8410	4.5731	1.1906	3.8724	4.5691	1.1799	3.9925	4.6329	1.1604
31	3.8410	4.5731	1.1906	3.8386	4.5374	1.1820			
Average monthly rate	3.8592	4.5630	X	3.8835	4.5700	X	3.8755	4.5664	X

Table III. PLN/USD and PLN/EUR daily exchange rates, cont'd

Days	October 2021			November 2021			December 2021		
	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR	NBP average exchange rates		USD/EUR
	PLN/USD	PLN/EUR		PLN/USD	PLN/EUR		PLN/USD	PLN/EUR	
	31	32	33	34	35	36	37	38	39
1	3.9678	4.5941	1.1578	3.9664	4.6208	1.1650	4.1051	4.6494	1.1326
2	3.9678	4.5941	1.1578	3.9772	4.6129	1.1598	4.0625	4.6002	1.1324
3	3.9678	4.5941	1.1578	3.9681	4.6000	1.1592	4.0653	4.5934	1.1299
4	3.9368	4.5716	1.1612	3.9807	4.5987	1.1552	4.0653	4.5934	1.1299
5	3.9688	4.6034	1.1599	3.9911	4.6065	1.1542	4.0653	4.5934	1.1299
6	3.9992	4.6203	1.1553	3.9911	4.6065	1.1542	4.0619	4.5889	1.1297
7	3.9334	4.5472	1.1560	3.9911	4.6065	1.1542	4.0788	4.5991	1.1276
8	3.9775	4.5956	1.1554	3.9747	4.5950	1.1561	4.0710	4.5941	1.1285
9	3.9775	4.5956	1.1554	3.9622	4.5942	1.1595	4.0837	4.6226	1.1320
10	3.9775	4.5956	1.1554	3.9737	4.6007	1.1578	4.0887	4.6129	1.1282
11	3.9862	4.6120	1.1570	3.9737	4.6007	1.1578	4.0887	4.6129	1.1282
12	3.9664	4.5859	1.1562	4.0559	4.6412	1.1443	4.0887	4.6129	1.1282
13	3.9638	4.5806	1.1556	4.0559	4.6412	1.1443	4.1003	4.6204	1.1268
14	3.9403	4.5770	1.1616	4.0559	4.6412	1.1443	4.1088	4.6436	1.1302
15	3.9413	4.5733	1.1604	4.0497	4.6365	1.1449	4.0999	4.6214	1.1272
16	3.9413	4.5733	1.1604	4.1061	4.6652	1.1362	4.0938	4.6315	1.1313
17	3.9413	4.5733	1.1604	4.1204	4.6614	1.1313	4.0882	4.6334	1.1334
18	3.9471	4.5715	1.1582	4.1114	4.6592	1.1332	4.0882	4.6334	1.1334
19	3.9212	4.5717	1.1659	4.1457	4.6844	1.1299	4.0882	4.6334	1.1334
20	3.9428	4.5841	1.1627	4.1457	4.6844	1.1299	4.1182	4.6381	1.1262
21	3.9449	4.5930	1.1643	4.1457	4.6844	1.1299	4.0937	4.6238	1.1295
22	3.9576	4.6072	1.1641	4.1855	4.7210	1.1279	4.0984	4.6244	1.1283
23	3.9576	4.6072	1.1641	4.1893	4.7171	1.1260	4.0950	4.6359	1.1321
24	3.9576	4.6072	1.1641	4.1764	4.6811	1.1208	4.0785	4.6252	1.1340
25	3.9502	4.6018	1.1650	4.1600	4.6688	1.1223	4.0785	4.6252	1.1340
26	3.9740	4.6134	1.1609	4.1754	4.7038	1.1266	4.0785	4.6252	1.1340
27	3.9815	4.6165	1.1595	4.1754	4.7038	1.1266	4.0889	4.6239	1.1308
28	3.9938	4.6284	1.1589	4.1754	4.7038	1.1266	4.0620	4.6028	1.1331
29	3.9664	4.6208	1.1650	4.1627	4.6982	1.1286	4.0779	4.5997	1.1280
30	3.9664	4.6208	1.1650	4.1214	4.6834	1.1364	4.0631	4.5915	1.1300
31	3.9664	4.6208	1.1650				4.0600	4.5994	1.1329
Average monthly rate	3.9607	4.5952	X	4.0755	4.6508	X	4.0834	4.6163	X

Table IV. Average MFI interest rates on outstanding amounts, PLN denominated (in %)

	Sector	Category	Original maturity	No.	December 2020	January	February	March
						2021		
Deposits in PLN	households and non-profit institutions serving households	overnight		1	0.0	0.0	0.0	0.0
		with agreed maturity	up to 2 years	2	0.5	0.4	0.4	0.3
			over 2 years	3	1.0	1.0	1.0	0.9
			total	4	0.5	0.5	0.5	0.4
		total, overnight included		5	0.2	0.1	0.1	0.1
	non-financial corporations	overnight		6	0.0	0.0	0.0	0.0
		with agreed maturity	up to 2 years	7	0.3	0.2	0.2	0.2
			over 2 years	8	0.5	0.4	0.4	0.4
			total	9	0.3	0.2	0.2	0.2
		total, overnight included		10	0.1	0.0	0.0	0.0
	total, overnight excluded		11	0.5	0.4	0.4	0.3	
	total, overnight included		12	0.1	0.1	0.1	0.1	
Loans in PLN	households and non-profit institutions serving households	revolving loans and overdrafts		13	4.8	4.9	4.8	4.7
		credit cards		14	4.6	4.7	4.7	4.7
		for consumption	up to 1 year	15	3.0	3.0	3.0	2.9
			over 1 and up to 5 years	16	5.7	5.7	5.8	5.7
			over 5 years	17	6.3	6.3	6.5	6.3
			total	18	6.1	6.1	6.3	6.1
		for house purchases	up to 1 year	19	n/a	n/a	n/a	n/a
			over 1 and up to 5 years	20	2.5	2.5	2.5	2.6
			over 5 years	21	2.3	2.3	2.4	2.3
			total	22	2.3	2.3	2.4	2.3
	for other purposes	up to 1 year	23	4.7	4.8	4.7	4.9	
		over 1 and up to 5 years	24	4.3	4.3	4.4	4.2	
		over 5 years	25	3.5	3.5	3.6	3.5	
		total	26	3.7	3.7	3.8	3.7	
	total, overdrafts included		27	3.5	3.5	3.6	3.5	
	non-financial corporations	revolving loans and overdrafts		28	1.9	2.0	2.0	2.0
		credit cards		29	4.0	4.3	4.1	4.3
up to 1 year		30	1.7	1.6	1.7	1.6		
over 1 and up to 5 years		31	2.4	2.5	2.5	2.5		
over 5 years		32	2.5	2.5	2.5	2.5		
total		33	2.4	2.5	2.5	2.4		
total, overdrafts included		34	2.3	2.3	2.3	2.3		
total, overdrafts included		35	3.2	3.2	3.3	3.2		

n/a – category not available due to confidentiality issues.

Table IV. Average MFI interest rates on outstanding amounts, PLN denominated (in %), cont'd

April	May	June	July	August	September	October	November	December
2021								
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4.8	4.8	4.8	4.8	5.0	5.0	5.2	5.8	6.6
4.7	4.7	4.7	4.7	4.8	4.8	4.9	6.2	6.7
2.9	2.9	3.1	3.1	3.2	3.2	3.2	3.3	3.5
5.7	5.7	5.8	5.8	5.8	5.8	5.9	6.2	6.3
6.4	6.3	6.4	6.4	6.4	6.4	6.6	7.0	7.4
6.2	6.1	6.2	6.2	6.2	6.2	6.4	6.7	7.0
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2.7	2.8	2.8	2.7	2.9	3.0	2.9	3.0	3.4
2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6	3.1
2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6	3.1
4.8	4.8	4.9	4.7	4.7	4.6	4.6	5.3	5.8
4.3	4.2	4.3	4.2	4.1	4.2	4.2	4.6	5.1
3.5	3.5	3.6	3.5	3.5	3.5	3.6	4.1	4.7
3.7	3.7	3.7	3.7	3.6	3.7	3.8	4.2	4.8
3.5	3.5	3.6	3.5	3.5	3.6	3.6	3.9	4.4
2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.4	3.3
3.6	4.5	4.3	3.4	3.5	3.4	3.3	4.2	4.3
1.5	1.5	1.6	1.6	1.6	1.7	1.9	2.4	2.9
2.5	2.5	2.5	2.5	2.5	2.5	2.6	3.0	3.6
2.5	2.6	2.5	2.5	2.5	2.5	2.6	2.9	3.5
2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.9	3.5
2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.7	3.4
3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.6	4.1

Table V. Average MFI interest rates on new and renegotiated business, PLN denominated (in %)

	Sector	Category	Original maturity, initial rate fixation	No.	December 2020	January 2021	February 2021	March 2021	
Deposits in PLN	households and non-profit institutions serving households	with agreed maturity	up to 1 month	1	0.1	0.1	0.1	0.1	
			over 1 and up to 3 months	2	0.7	0.4	0.3	0.2	
			over 3 and up to 6 months	3	0.2	0.3	0.3	0.2	
			over 6 months and up to 1 year	4	0.2	0.2	0.1	0.1	
			over 1 year	5	0.3	n/a	0.3	0.3	
			total	6	0.5	0.4	0.3	0.2	
	non-financial corporations	with agreed maturity	up to 1 month	7	0.0	0.0	0.0	0.0	
			over 1 and up to 3 months	8	0.1	0.1	0.1	0.1	
			over 3 and up to 6 months	9	0.1	0.1	0.1	0.1	
			over 6 months and up to 1 year	10	0.1	0.1	0.1	0.1	
			over 1 year	11	0.1	n/a	0.0	0.0	
			total	12	0.1	0.1	0.0	0.0	
	total				13	0.2	0.2	0.2	0.1
Loans in PLN	households and non-profit institutions serving households	for consumption	floating rate and up to 3 months initial rate fixation	14	7.1	7.1	7.1	7.1	
			over 3 months and up to 1 year initial rate fixation	15	3.2	3.4	3.0	3.1	
			over 1 year up to 5 years initial rate fixation	16	4.4	5.0	5.1	4.2	
			over 5 years initial rate fixation	17	6.9	6.9	6.9	6.9	
			total	18	6.3	6.6	6.6	6.4	
		for house purchases	annual percentage rate of charge (APRC)	19	11.0	11.4	11.3	10.6	
			floating rate and up to 3 months initial rate fixation	20	2.9	3.0	2.9	2.9	
			over 3 months and up to 1 year initial rate fixation	21	n/a	n/a	n/a	n/a	
			over 1 year initial rate fixation	22	3.2	3.2	3.3	3.4	
		for sole proprietors and unincorporated partnerships	total	23	2.8	2.8	2.8	2.8	
			annual percentage rate of charge (APRC)	24	3.2	3.2	3.2	3.2	
			floating rate and up to 3 months initial rate fixation	25	4.5	4.5	4.4	4.9	
			over 3 months and up to 1 year initial rate fixation	26	n/a	n/a	n/a	n/a	
		for other purposes	over 1 year initial rate fixation	27	3.1	3.4	4.5	n/a	
			total	28	4.5	4.6	4.5	5.0	
			floating rate and up to 3 months initial rate fixation	29	3.8	4.3	3.7	4.1	
			over 3 months and up to 1 year initial rate fixation	30	n/a	n/a	n/a	n/a	
			over 1 year initial rate fixation	31	n/a	n/a	3.0	n/a	
			total	32	3.8	4.3	3.7	4.1	
	total				33	4.4	4.6	4.5	4.5
	non-financial corporations	up to PLN 1 million, overdrafts excluded	floating rate and up to 3 months initial rate fixation	34	1.7	1.6	1.6	1.7	
			over 3 months and up to 1 year initial rate fixation	35	1.9	2.1	2.3	2.4	
			over 1 year initial rate fixation	36	1.5	1.3	2.0	2.4	
			total	37	1.7	1.7	1.7	1.7	
		floating rate and up to 1 year initial rate fixation, with original maturity over 1 year	floating rate and up to 1 year initial rate fixation, with original maturity over 1 year	38	2.1	1.9	1.8	2.0	
			floating rate and up to 3 months initial rate fixation	39	2.3	2.3	2.3	2.5	
			over 3 months and up to 1 year initial rate fixation	40	n/a	n/a	n/a	1.8	
			over 1 year initial rate fixation	41	1.6	0.5	n/a	n/a	
			total	42	2.2	2.2	2.3	2.4	
		floating rate and up to 1 year initial rate fixation, with original maturity over 1 year	floating rate and up to 1 year initial rate fixation, with original maturity over 1 year	43	2.8	2.9	2.9	3.0	
			floating rate and up to 3 months initial rate fixation	44	3.2	2.4	2.5	2.3	
			over 3 months and up to 1 year initial rate fixation	45	2.5	n/a	2.9	n/a	
over 1 year initial rate fixation			46	n/a	n/a	–	n/a		
total			47	3.1	2.4	2.5	2.3		
floating rate and up to 1 year initial rate fixation, with original maturity over 1 year			48	3.5	2.7	2.8	2.4		
total				49	2.4	2.0	2.1	2.1	
total				50	3.4	3.5	3.5	3.4	

n/a – category not available due to confidentiality issues.

Table V. Average MFI interest rates on new and renegotiated business, PLN denominated, cont'd

April	May	June	July	August	September	October	November	December
2021								
0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3
0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6
0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.6	0.9
0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.8	1.3
0.1	0.1	0.1	0.3	0.3	0.3	0.5	0.3	n/a
0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.7
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.8
0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.7	0.8
0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.6	1.0
0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.3	1.2
n/a	0.1	0.1	0.1	n/a	0.0	0.0	0.1	0.7
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.8
0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.8
7.1	7.1	7.1	7.1	7.1	7.1	7.5	8.2	8.9
3.5	3.2	3.3	3.4	3.0	3.3	3.3	2.8	4.3
5.0	4.9	5.2	5.5	4.6	5.0	5.3	4.1	4.8
6.7	6.9	7.0	7.0	6.9	6.9	7.0	7.8	8.6
6.6	6.6	6.6	6.7	6.4	6.5	6.9	6.9	7.5
10.8	10.8	11.0	11.2	10.6	10.5	10.8	10.5	11.2
2.9	2.9	2.9	2.9	2.9	2.9	3.1	3.6	4.5
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3.6	3.7	3.8	3.8	3.8	3.7	3.7	3.5	4.6
2.8	2.9	2.9	2.8	2.9	2.9	3.0	3.5	4.6
3.3	3.2	3.3	3.3	3.3	3.3	3.4	3.9	5.0
4.4	4.2	4.5	4.2	4.5	4.3	4.3	5.2	6.1
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	7.2	8.4	8.9
4.6	4.4	4.7	4.4	4.7	4.6	4.5	5.5	6.3
4.3	3.7	4.1	3.6	5.1	3.9	3.4	4.5	5.6
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4.3	3.7	4.0	3.6	4.9	3.8	3.4	4.5	5.6
4.5	4.5	4.6	4.5	4.5	4.5	4.6	5.1	5.8
1.7	1.7	1.7	1.8	1.8	1.7	2.1	2.8	3.5
2.5	2.4	2.6	2.4	2.5	2.4	2.5	3.6	4.2
n/a	n/a	2.8	2.6	n/a	2.9	n/a	n/a	4.8
1.8	1.8	1.8	1.9	1.8	1.8	2.2	2.8	3.5
2.0	1.9	2.0	2.0	2.2	2.1	2.6	3.1	4.0
2.2	2.3	2.5	2.3	2.3	2.1	2.5	3.1	4.3
n/a	n/a	n/a	n/a	2.6	2.1	2.1	3.7	n/a
n/a	n/a	n/a	n/a	n/a	2.7	n/a	n/a	n/a
2.1	2.3	2.5	2.3	2.3	2.1	2.5	3.1	4.3
2.7	3.0	3.1	3.1	2.7	2.6	3.2	3.4	5.1
2.3	2.7	2.7	2.5	2.4	2.5	2.5	3.0	3.8
3.7	n/a	3.1	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	2.6	n/a	n/a	n/a	n/a
2.4	2.6	2.7	2.5	2.4	2.5	2.5	3.0	3.9
2.6	2.7	2.8	2.7	2.5	2.5	2.7	3.0	4.0
2.1	2.3	2.3	2.2	2.1	2.2	2.4	3.0	3.8
3.5	3.6	3.6	3.6	3.6	3.4	3.5	4.1	4.7

Table VI. Average MFI interest rates on new and renegotiated business, EUR denominated (in %)

	Sector	Category	Original maturity, initial rate fixation	No.	December 2020	January	February	March
						2021		
Deposits in EUR	households and non-profit institutions serving households	overnight*		1	0.0	0.0	0.0	0.0
		with agreed maturity	up to 1 month	2	n/a	n/a	n/a	0.1
			over 1 and up to 3 months	3	0.1	0.1	0.1	0.0
			over 3 and up to 6 months	4	0.0	0.1	0.1	0.1
			over 6 months and up to 1 year	5	0.1	0.1	0.2	0.2
			over 1 year	6	n/a	0.0	0.1	0.0
			total	7	0.1	0.1	0.1	0.1
	non-financial corporations	overnight*		8	0.0	0.0	0.0	0.0
		with agreed maturity	up to 1 month	9	n/a	n/a	n/a	n/a
			over 1 and up to 3 months	10	0.1	n/a	n/a	0.1
			over 3 and up to 6 months	11	0.1	0.0	0.1	n/a
			over 6 months and up to 1 year	12	0.0	0.0	0.0	0.0
			over 1 year	13	0.0	0.0	n/a	0.0
			total	14	0.1	0.0	0.1	n/a
total, overnight excluded				15	0.1	0.1	0.1	0.1
Loans in EUR	households and non-profit institutions serving households	revolving loans and overdrafts*		16	0.8	0.8	0.8	0.7
		for consumption	total	17	-	-	-	-
			annual percentage rate of charge (APRC)	18	-	-	-	-
		for house purchases	total	19	3.4	3.6	3.6	3.8
			annual percentage rate of charge (APRC)	20	6.0	6.6	6.4	6.7
		for other purposes		21	1.7	2.4	2.6	1.9
	total, overdrafts excluded		22	3.2	3.4	3.4	3.2	
	non-financial corporations	revolving loans and overdrafts*		23	1.3	1.3	1.3	1.3
		up to EUR 1 million		24	1.4	1.5	1.4	1.5
		over EUR 1 million		25	2.3	2.1	1.8	2.3
total, overdrafts excluded		26	2.1	1.9	1.7	2.0		
total, overdrafts excluded				27	2.2	2.0	1.8	2.0

* Category calculated on a basis of an outstanding amounts. Excluded from “total” average.

n/a – category not available due to confidentiality issues.

Table VI. Average MFI interest rates on new and renegotiated business, EUR denominated (in %), cont'd

April	May	June	July	August	September	October	November	December
2021								
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.1	0.1	0.1	n/a	n/a	n/a	n/a	0.1	n/a
0.0	0.0	0.0	n/a	n/a	n/a	n/a	n/a	n/a
0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.0	0.0	0.0	0.0	n/a	n/a	0.0	n/a	n/a
0.1	0.1	0.1	0.1	n/a	0.1	0.1	0.1	0.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n/a	n/a	n/a	0.1	0.1	n/a	n/a	n/a	n/a
0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
n/a	0.1	0.0	0.1	0.1	n/a	0.0	0.0	0.1
0.0	0.0	0.0	n/a	0.1	0.0	0.0	n/a	0.0
n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	n/a
0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.8
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
3.6	3.5	3.9	3.6	3.8	3.8	4.0	4.0	4.1
6.0	5.6	7.1	6.2	6.9	6.5	7.0	7.1	7.3
1.5	1.5	2.0	1.9	1.7	1.0	1.4	1.7	1.7
3.1	3.2	2.8	3.1	3.1	2.4	2.7	2.9	2.9
1.3	1.3	1.4	1.4	1.1	1.3	1.3	1.3	1.3
1.5	1.5	1.6	1.5	1.5	1.6	1.6	1.5	1.7
2.4	1.8	2.1	1.7	1.6	1.8	1.7	2.0	2.0
2.2	1.7	1.9	1.7	1.6	1.7	1.7	1.8	1.9
2.2	1.8	2.0	1.8	1.7	1.7	1.7	1.9	2.0

Table VII. Aggregated balance sheet of other monetary financial institutions (PLN million)
ASSETS

Period	Cash in other monetary financial institutions' vaults	Loans and other claims on domestic residents	Monetary financial institutions	General government	Other domestic residents ¹	Debt securities	Monetary financial institutions	General government	Other domestic residents ¹
	1		2	3	4		5	6	7	8	9
	December 2020	14,686.8	1,453,260.9	132,017.3	94,367.2	1,226,876.4	665,459.4	164,068.5	442,078.7	59,312.3
January 2021	13,568.2	1,437,915.4	114,850.9	92,795.1	1,230,269.4	707,240.3	200,067.6	445,700.1	61,472.6
February	12,830.5	1,452,856.1	129,867.6	92,627.0	1,230,361.5	696,153.7	187,252.5	446,690.0	62,211.2
March	13,800.0	1,463,436.9	133,549.9	92,386.9	1,237,500.1	698,314.0	191,791.9	443,537.1	62,985.0
April	14,280.7	1,452,054.1	121,173.4	91,575.5	1,239,305.2	709,795.1	204,008.1	442,727.2	63,059.7
May	14,281.6	1,472,498.4	138,996.2	91,057.2	1,242,445.0	708,269.8	204,031.7	442,328.9	61,909.2
June	13,832.6	1,475,470.1	141,515.8	90,708.0	1,243,246.3	725,397.8	221,045.5	441,449.0	62,903.3
July	14,050.8	1,481,701.8	134,997.9	91,441.9	1,255,262.1	737,274.4	245,249.9	429,178.4	62,846.0
August	13,939.5	1,475,369.6	125,048.6	90,297.9	1,260,023.1	754,578.4	262,425.9	430,269.3	61,883.2
September	14,066.3	1,506,510.1	145,786.3	91,037.2	1,269,686.6	745,216.5	254,358.2	428,661.5	62,196.8
October	13,799.2	1,488,730.4	110,456.2	90,746.1	1,287,528.1	771,239.6	291,676.2	416,912.2	62,651.2
November	13,727.8	1,522,284.8	132,622.4	92,778.3	1,296,884.2	756,170.3	278,101.8	414,851.0	63,217.6
December	14,840.0	1,557,323.5	168,907.6	94,324.5	1,294,091.3	710,141.3	232,096.5	414,118.5	63,926.3

Period	Money market fund shares/ units	Equity and non-MMF investment fund shares or units	Monetary financial institutions	Other domestic residents ¹	External assets	Fixed assets ²	Remaining assets	Total assets
	10		11	12					13	14	15	16	17
	December 2020	0.0	26,360.6	7,820.3	18,540.3	103,884.0	63,057.4	122,901.1	2,449,610.1
January 2021	0.0	26,550.1	7,830.4	18,719.7	99,515.2	62,878.4	122,931.6	2,470,599.3
February	0.0	26,749.7	7,859.3	18,890.4	99,630.3	62,900.8	124,599.0	2,475,720.2
March	0.0	27,484.3	7,930.5	19,553.8	105,069.2	63,232.5	128,723.8	2,500,060.7
April	0.0	27,607.9	7,998.3	19,609.6	109,056.3	62,945.9	132,490.2	2,508,230.1
May	0.0	27,736.1	8,131.8	19,604.3	105,861.8	63,349.9	138,361.9	2,530,359.4
June	0.0	27,688.8	8,061.1	19,627.7	107,905.4	62,329.7	143,146.4	2,555,770.7
July	0.0	27,747.2	8,076.9	19,670.3	117,245.3	62,522.5	147,695.8	2,588,237.7
August	0.0	27,925.0	8,207.8	19,717.2	122,448.0	62,919.9	150,658.8	2,607,839.3
September	0.0	27,902.4	8,203.3	19,699.0	130,910.4	62,773.1	156,714.4	2,644,093.3
October	0.0	28,061.1	8,400.9	19,660.2	131,876.1	62,316.2	162,220.3	2,658,242.9
November	0.0	26,815.8	8,315.2	18,500.6	150,162.7	62,764.8	171,866.7	2,703,793.0
December	0.0	24,262.2	8,503.3	15,759.0	124,200.1	62,432.6	169,272.7	2,662,472.3

¹ Non-monetary financial institutions and non-financial sector.

² Excluding financial fixed assets, included in column 11.

Table VII. Aggregated balance sheet of other monetary financial institutions (PLN million)
LIABILITIES

Period	Deposits and other liabilities to domestic residents						
	1	2	3	4	5	6	7
December 2020	1.653.703.3	67.413.4	65.112.4	1.521.177.5	1.206.350.8	311.991.1	2.835.6
January 2021	1.680.097.5	67.165.1	92.917.3	1.520.015.0	1.215.373.7	301.684.0	2.957.4
February	1.695.689.4	67.399.1	90.615.3	1.537.675.0	1.247.591.8	287.554.4	2.528.8
March	1.721.178.7	68.084.6	95.822.6	1.557.271.5	1.273.503.6	281.549.8	2.218.1
April	1.727.609.6	65.239.9	112.410.3	1.549.959.5	1.272.713.8	275.423.7	1.822.0
May	1.743.105.5	65.888.9	115.735.7	1.561.480.9	1.287.948.7	271.188.6	2.343.6
June	1.770.808.9	64.487.6	141.227.8	1.565.093.4	1.299.329.7	262.373.9	3.389.8
July	1.802.840.4	66.412.5	156.004.1	1.580.423.9	1.312.933.1	263.397.9	4.092.9
August	1.822.200.9	65.911.9	169.204.6	1.587.084.4	1.324.367.1	258.187.9	4.529.4
September	1.845.420.5	67.105.2	181.063.5	1.597.251.8	1.337.266.1	256.341.6	3.644.1
October	1.849.157.9	66.547.3	168.877.9	1.613.732.7	1.351.012.8	259.546.9	3.172.9
November	1.886.610.2	68.048.0	168.816.9	1.649.745.3	1.382.284.9	262.437.0	5.023.5
December	1.832.153.3	70.699.6	104.244.4	1.657.209.3	1.375.784.4	275.603.6	5.821.3

Period	Total liabilities					
	8	9	10	11	12	13
December 2020	0.0	189.969.3	322.319.9	200.397.0	83.220.6	2.449.610.1
January 2021	0.0	188.425.6	321.437.6	194.452.1	86.186.5	2.470.599.3
February	0.0	187.626.0	320.798.6	188.274.6	83.331.6	2.475.720.2
March	0.0	193.897.1	320.938.7	186.153.6	77.892.6	2.500.060.7
April	0.0	200.404.3	321.659.8	180.865.9	77.690.5	2.508.230.1
May	0.0	205.451.9	321.279.8	179.329.7	81.192.5	2.530.359.4
June	0.0	207.024.1	320.012.4	178.451.1	79.474.2	2.555.770.7
July	0.0	211.298.9	322.239.4	175.175.8	76.683.2	2.588.237.7
August	0.0	211.263.7	323.176.5	174.059.2	77.139.0	2.607.839.3
September	0.0	215.883.5	320.510.9	180.884.8	81.393.6	2.644.093.3
October	0.0	220.428.4	313.438.2	189.529.7	85.688.7	2.658.242.9
November	0.0	219.052.3	309.931.7	196.770.7	91.428.0	2.703.793.0
December	0.0	219.327.5	302.586.6	203.717.1	104.687.8	2.662.472.3

¹ Non-monetary financial institutions, local government, social security funds and non-financial sector.

Table VIII. Balance sheet of Narodowy Bank Polski (PLN million)
ASSETS

Period	Domestic assets	External assets	Total assets
	1	2	3
December 2020	115,757.7	596,891.5	712,649.2
January 2021	117,421.5	606,167.9	723,589.5
February	121,520.1	625,993.9	747,514.0
March	125,938.4	645,479.3	771,417.7
April	129,831.4	605,117.6	734,949.0
May	148,872.4	614,876.8	763,749.1
June	146,435.0	623,324.3	769,759.3
July	149,493.9	642,770.1	792,264.1
August	151,040.4	667,047.4	818,087.9
September	155,239.3	683,418.7	838,658.1
October	158,345.1	682,333.4	840,678.5
November	156,647.1	703,596.0	860,243.1
December	152,270.9	692,440.0	844,711.0

LIABILITIES

Period	Currency in circulation	Deposits and other liabilities to domestic residents				Debt securities issued	Capital and reserves	External liabilities	Remaining liabilities	Total liabilities
			Other monetary financial institutions	Central government	Other domestic residents ¹					
	1	2	3	4	5	6	7	8	9	10
December 2020	321,496.2	133,745.5	65,486.5	49,705.5	18,553.5	127,767.7	56,294.9	71,689.7	1,655.4	712,649.2
January 2021	323,001.2	121,299.5	48,567.1	57,940.3	14,792.1	163,798.7	51,703.3	62,451.9	1,334.9	723,589.5
February	324,466.9	153,707.8	63,025.7	79,369.4	11,312.7	152,425.7	48,212.1	67,051.1	1,650.5	747,514.0
March	332,772.5	145,983.2	65,825.6	69,525.3	10,632.3	155,770.0	72,039.2	63,189.9	1,662.8	771,417.7
April	340,599.9	125,571.7	56,493.0	61,128.3	7,950.4	164,887.7	54,187.6	48,105.1	1,597.2	734,949.0
May	341,991.6	148,517.8	73,750.9	67,552.8	7,214.1	163,458.0	49,689.5	58,519.2	1,573.0	763,749.1
June	342,491.2	146,253.7	78,625.3	60,897.3	6,731.1	178,919.1	44,335.2	56,152.3	1,607.8	769,759.3
July	345,753.8	134,344.3	69,648.6	57,889.9	6,805.7	202,207.8	52,372.6	55,731.7	1,853.9	792,264.1
August	346,546.7	122,407.1	59,907.0	55,906.6	6,593.5	219,086.7	49,973.2	78,184.4	1,889.8	818,087.9
September	347,919.8	136,221.4	79,628.9	49,530.3	7,062.2	207,064.5	63,916.5	81,510.5	2,025.4	838,658.1
October	349,946.7	95,725.2	43,895.9	42,440.2	9,389.2	241,810.0	68,167.7	82,469.5	2,559.4	840,678.5
November	353,658.8	107,541.4	65,214.3	38,087.6	4,239.5	227,998.2	80,476.8	88,208.3	2,359.6	860,243.1
December	355,244.1	144,396.8	99,098.2	36,558.7	8,739.9	184,512.1	70,332.9	87,848.0	2,376.9	844,711.0

¹ Non-monetary financial institutions, local government, social security funds and non-financial sector.

Table IX. Consolidated balance sheet of monetary financial institutions (PLN million)
ASSETS

Period	Loans and other claims on domestic residents			Debt securities	General government		Other domestic residents ¹	Equity and non-MMF investment fund shares or units ¹	External assets	Fixed assets ²	Remaining assets ³	Total assets	
	1	2	3		4	5							6
December 2020	1,321,333.4	94,367.2	1,226,966.2	578,916.3	500,606.8	78,309.5	18,669.1	700,775.5	65,390.8	123,490.7	2,808,575.8		
January 2021	1,323,153.6	92,795.1	1,230,358.5	586,281.5	504,856.6	81,425.0	18,848.5	705,683.1	65,236.4	123,520.8	2,822,724.0		
February	1,323,073.8	92,627.0	1,230,446.9	589,181.6	506,993.0	82,188.6	19,019.2	725,624.3	65,244.5	128,081.9	2,850,225.4		
March	1,329,971.9	92,386.9	1,237,585.0	589,213.0	506,222.9	82,990.2	19,682.7	750,548.5	65,577.2	132,632.0	2,887,625.4		
April	1,330,965.6	91,575.5	1,239,390.1	593,140.3	510,109.8	83,030.6	19,738.5	714,173.9	65,277.7	135,452.8	2,858,748.8		
May	1,333,587.3	91,057.2	1,242,530.1	604,320.6	522,571.8	81,748.8	19,733.1	720,738.6	65,691.2	145,151.7	2,889,222.4		
June	1,334,039.5	90,708.0	1,243,331.5	606,194.7	523,506.1	82,688.6	19,756.5	731,229.7	64,673.2	145,531.2	2,901,424.7		
July	1,346,789.5	91,441.9	1,255,347.6	597,242.2	514,583.0	82,659.1	19,799.1	760,015.5	64,858.0	149,050.8	2,937,755.0		
August	1,350,372.2	90,297.9	1,260,074.2	598,484.0	516,759.9	81,724.1	19,846.1	789,495.4	65,257.8	152,383.9	2,975,839.4		
September	1,360,774.2	91,037.2	1,269,737.0	597,764.7	515,700.2	82,064.5	19,827.9	814,329.2	65,113.7	160,682.5	3,018,492.2		
October	1,378,324.5	90,746.1	1,287,578.4	586,020.3	503,473.6	82,546.7	19,789.1	814,209.5	64,652.0	169,417.5	3,032,412.7		
November	1,389,684.9	92,778.3	1,296,906.6	584,855.4	501,715.4	83,140.0	18,629.5	853,758.7	65,102.0	176,889.2	3,088,919.6		
December	1,388,438.1	94,324.5	1,294,113.5	584,947.6	501,071.1	83,876.5	15,887.8	816,640.1	64,791.4	169,711.6	3,040,416.6		

¹ Non-monetary financial institutions, and non-financial sector.

² Excluding financial fixed assets, incorporated in column 7.

³ Including rights issues.

LIABILITIES

Period	Currency in circulation	Deposits and other liabilities to central government	Deposits and other liabilities to other domestic residents ¹			Money market fund shares/units	Debt securities issued	Capital and reserves	External liabilities	Remaining liabilities	Excess of inter-MFI liabilities	Total liabilities	
			overnight	with agreed maturity	repurchase agreements								
													4	5	6
1	2	3	4	5	6	7	8	9	10	11	12	13	
December 2020	306,809.4	114,817.9	1,539,730.9	1,224,904.3	311,991.1	2,835.6	0.0	118,630.8	370,794.5	272,086.7	84,876.0	829.6	2,808,575.8
January 2021	309,433.0	150,857.7	1,534,807.2	1,230,165.8	301,684.0	2,957.4	0.0	117,062.1	365,310.4	256,903.9	87,521.4	828.2	2,822,724.0
February	311,636.4	169,984.7	1,548,987.7	1,258,904.4	287,554.4	2,528.8	0.0	117,653.3	361,151.4	255,325.6	84,982.1	504.2	2,850,225.4
March	318,972.5	165,347.9	1,567,903.8	1,284,135.9	281,549.8	2,218.1	0.0	121,147.5	385,047.4	249,343.5	79,555.4	307.3	2,887,625.4
April	326,319.2	173,538.6	1,557,909.9	1,280,664.1	275,423.7	1,822.0	0.0	124,367.0	367,849.1	228,971.0	79,287.7	506.4	2,858,748.8
May	327,710.0	183,288.5	1,568,695.0	1,295,162.8	271,188.6	2,343.6	0.0	125,486.5	362,837.5	237,848.9	82,765.4	590.5	2,889,222.4
June	328,658.7	202,125.2	1,571,824.6	1,306,060.8	262,373.9	3,389.8	0.0	125,300.6	356,286.4	234,603.4	81,081.9	1,544.0	2,901,424.7
July	331,703.0	213,894.0	1,587,229.6	1,319,738.9	263,397.9	4,092.9	0.0	127,938.5	366,535.1	230,907.5	78,537.1	1,010.1	2,937,755.0
August	332,607.2	225,111.3	1,593,677.9	1,330,960.6	258,187.9	4,529.4	0.0	127,511.6	364,941.9	252,243.6	79,028.8	717.2	2,975,839.4
September	333,853.5	230,593.8	1,604,314.1	1,344,328.4	256,341.6	3,644.1	0.0	126,744.9	376,224.1	262,395.3	83,419.0	947.6	3,018,492.2
October	336,147.5	211,318.1	1,623,121.8	1,360,402.0	259,546.9	3,172.9	0.0	128,386.3	373,204.9	271,999.2	88,248.1	-13.2	3,032,412.7
November	339,931.0	206,904.5	1,653,984.8	1,386,524.4	262,437.0	5,023.5	0.0	126,599.7	382,093.2	284,979.1	93,787.6	639.8	3,088,919.6
December	340,404.1	140,803.1	1,665,949.2	1,384,524.3	275,603.6	5,821.3	0.0	129,323.8	364,416.3	291,565.1	107,064.8	890.1	3,040,416.6

¹ Non-monetary financial institutions, local government, social security funds and non-financial sector.

Table Xa. M3 and counterparts (PLN million)

Period											M1
	Currency in circulation (excluding MFIs' vault cash)	Currency in circulation (including MFIs' vault cash)	Cash in monetary institutions' vaults	Overnight deposits and other liabilities	Households	Other financial corporations	Non-financial corporations	Non-profit institutions serving households	Local government	Social security funds	
	1	2	3	4	5	6	7	8	9	10		11
December 2020	306,809.4	321,496.2	14,686.8	1,224,904.3	786,843.8	31,195.5	311,222.8	25,716.7	50,999.3	18,926.1	1,531,713.7
January 2021	309,433.0	323,001.2	13,568.2	1,230,165.8	795,791.1	35,867.4	310,750.2	26,101.2	47,823.7	13,832.3	1,539,598.8
February	311,636.4	324,466.9	12,830.5	1,258,904.4	814,458.9	34,031.8	320,555.0	26,367.1	52,537.1	10,954.4	1,570,540.8
March	318,972.5	332,772.5	13,800.0	1,284,135.9	829,092.1	31,852.8	329,953.4	26,626.6	56,297.2	10,313.7	1,603,108.4
April	326,319.2	340,599.9	14,280.7	1,280,664.1	838,358.1	34,681.1	317,928.1	27,055.8	55,362.4	7,278.7	1,606,983.3
May	327,710.0	341,991.6	14,281.6	1,295,162.8	838,220.7	35,789.7	327,838.3	27,531.2	59,713.3	6,069.5	1,622,872.8
June	328,658.7	342,491.2	13,832.6	1,306,060.8	847,270.9	38,070.1	327,780.1	27,827.2	58,406.0	6,706.5	1,634,719.5
July	331,703.0	345,753.8	14,050.8	1,319,738.9	852,563.4	37,462.1	336,464.8	29,253.9	57,872.1	6,122.7	1,651,441.9
August	332,607.2	346,546.7	13,939.5	1,330,960.6	855,912.0	38,605.3	343,288.4	29,328.0	57,620.2	6,206.8	1,663,567.8
September	333,853.5	347,919.8	14,066.3	1,344,328.4	861,008.1	41,382.7	347,550.2	29,834.5	57,953.7	6,599.2	1,678,181.9
October	336,147.5	349,946.7	13,799.2	1,360,402.0	869,915.6	41,625.8	352,959.2	29,931.0	57,847.7	8,122.7	1,696,549.5
November	339,931.0	353,658.8	13,727.8	1,386,524.4	882,927.4	45,209.2	361,777.4	29,768.9	59,563.8	7,277.7	1,726,455.3
December	340,404.1	355,244.1	14,840.0	1,384,524.3	898,326.5	37,769.5	340,395.1	28,310.7	67,733.0	11,989.5	1,724,928.5

Period												M3
	Deposits and other liabilities with agreed maturity up to 2 years	Households	Other financial corporations	Non-financial corporations	Non-profit institutions serving households	Local government	Social security funds	M2	Repurchase agreements	Debt securities issued with maturity up to 2 years	Money market fund shares	
	12	13	14	15	16	17	18	19	20	21	22		23
December 2020	283,035.2	190,209.8	19,599.7	65,214.0	3,886.4	3,271.9	853.5	1,814,748.9	2,835.6	5,143.2	0.0	1,822,727.7
January 2021	272,821.8	183,394.5	19,505.4	59,282.3	3,848.7	6,236.8	554.0	1,812,420.6	2,957.4	4,814.0	0.0	1,820,192.0
February	258,893.8	175,292.2	18,041.3	53,541.3	3,709.3	7,905.9	403.9	1,829,434.6	2,528.8	4,633.6	0.0	1,836,597.0
March	253,036.4	168,827.1	16,364.9	57,388.9	3,626.8	6,571.5	257.2	1,856,144.7	2,218.1	4,043.8	0.0	1,862,406.7
April	247,380.8	164,163.2	14,287.1	57,557.4	3,627.2	7,455.8	290.1	1,854,364.1	1,822.0	3,778.5	0.0	1,859,964.6
May	243,557.4	158,955.3	13,962.3	59,099.3	3,399.9	7,446.3	694.3	1,866,430.2	2,343.6	3,198.8	0.0	1,871,972.6
June	234,925.0	155,635.8	14,319.7	54,009.6	3,433.7	7,092.7	433.4	1,869,644.5	3,389.8	2,966.3	0.0	1,876,000.6
July	236,044.4	152,686.4	16,488.5	54,950.9	3,435.1	7,753.7	729.7	1,887,486.2	4,092.9	2,935.8	0.0	1,894,515.0
August	231,509.6	150,441.7	17,560.3	52,061.7	3,454.1	7,262.0	729.7	1,895,077.4	4,529.4	2,961.4	0.0	1,902,568.2
September	229,778.3	148,429.3	18,579.7	51,312.1	3,443.8	7,283.3	730.1	1,907,960.2	3,644.1	2,594.9	0.0	1,914,199.2
October	233,501.4	146,942.4	21,193.6	53,313.7	3,314.5	7,557.0	1,180.2	1,930,050.9	3,172.9	2,466.9	0.0	1,935,690.7
November	236,784.5	146,917.4	19,524.6	58,839.0	3,323.1	6,856.1	1,324.4	1,963,239.9	5,023.5	3,679.7	0.0	1,971,943.1
December	249,711.6	147,792.7	18,283.4	74,747.0	3,176.5	4,332.3	1,379.6	1,974,640.1	5,821.3	4,559.3	0.0	1,985,020.6

Table Xb. M3 and counterparts (PLN million)

Period	Net external assets	External assets	External liabilities	Credit to other domestic residents	Loans and other claims on domestic residents				
					Households	Other financial corporations	Non-financial corporations	Non-profit institutions serving households	
	1	2	3	4	5	6	7	8	9
December 2020	428,688.8	700,775.5	272,086.7	1,385,185.6	1,262,829.4	789,086.5	81,788.1	348,096.4	7,995.2
January 2021	448,779.2	705,683.1	256,903.9	1,391,664.7	1,266,111.3	787,844.4	81,677.2	352,841.1	7,995.8
February	470,298.6	725,624.3	255,325.6	1,392,491.4	1,265,917.6	786,973.9	83,225.3	352,268.9	7,978.9
March	501,205.0	750,548.5	249,343.5	1,400,157.4	1,272,444.3	792,508.2	86,437.2	350,692.9	7,946.7
April	485,203.0	714,173.9	228,971.0	1,401,795.0	1,274,101.7	793,809.7	85,912.7	351,695.9	7,971.8
May	482,889.7	720,738.6	237,848.9	1,402,938.7	1,276,964.3	797,048.3	85,962.1	351,515.2	8,004.6
June	496,626.3	731,229.7	234,603.4	1,403,788.9	1,277,273.0	802,114.6	86,143.5	347,023.4	8,050.0
July	529,108.0	760,015.5	230,907.5	1,415,758.0	1,289,127.3	810,337.1	86,712.0	350,204.9	8,093.6
August	537,251.9	789,495.4	252,243.6	1,419,769.7	1,293,781.7	813,451.7	86,492.5	351,967.8	8,162.3
September	551,933.9	814,329.2	262,395.3	1,429,413.6	1,303,048.4	820,212.9	86,507.4	354,803.8	8,212.9
October	542,210.3	814,209.5	271,999.2	1,447,683.1	1,320,728.0	825,693.2	91,655.8	361,933.7	8,295.7
November	568,779.6	853,758.7	284,979.1	1,455,929.8	1,330,000.3	829,452.0	96,349.3	362,756.8	8,348.6
December	525,075.0	816,640.1	291,565.1	1,452,765.2	1,327,793.3	826,690.5	96,146.2	362,917.9	8,358.9

Period	Local government	Social security funds	Debt securities	of which issued by:			Equity and non-MMF investment fund shares or units	of which:	
				other financial corporations	non-financial corporations	local government		other financial corporations	non-financial corporations
				10	11	12		13	14	15	16	17	18
December 2020	35,863.2	0.0	103,687.0	61,781.0	16,528.6	25,377.5	18,669.1	16,252.0	2,416.0
January 2021	35,752.8	0.0	106,704.9	64,419.8	17,005.2	25,279.9	18,848.5	16,601.0	2,246.3
February	35,470.7	0.0	107,554.6	65,610.7	16,578.0	25,366.0	19,019.2	16,763.8	2,254.2
March	34,859.2	0.0	108,030.5	66,398.6	16,591.6	25,040.3	19,682.7	17,391.1	2,290.3
April	34,711.6	0.0	107,954.9	66,534.4	16,491.3	24,924.4	19,738.5	17,431.0	2,306.2
May	34,434.2	0.0	106,241.3	65,667.2	16,081.6	24,492.5	19,733.1	17,416.7	2,315.2
June	33,941.5	0.0	106,759.4	66,176.2	16,512.4	24,070.8	19,756.5	17,431.5	2,323.8
July	33,779.7	0.0	106,831.6	66,030.0	16,629.2	24,172.5	19,799.1	17,496.3	2,301.5
August	33,707.5	0.0	106,141.9	65,167.1	16,557.0	24,417.8	19,846.1	17,515.1	2,329.8
September	33,311.4	0.0	106,537.3	65,927.3	16,137.3	24,472.8	19,827.9	17,536.4	2,285.4
October	33,149.6	0.0	107,166.0	65,566.3	16,980.5	24,619.3	19,789.1	17,454.1	2,328.9
November	33,093.7	0.0	107,300.1	65,809.5	17,330.5	24,160.1	18,629.5	16,319.8	2,303.6
December	33,679.7	0.0	109,084.2	66,783.1	17,093.4	25,207.7	15,887.8	13,702.8	2,178.3

Table Xb. M3 and counterparts (PLN million), cont'd

Period	Credit to central government, net	Credit to central government	of which:		Deposits of central government	Longer-term financial liabilities	Deposits and other liabilities with agreed maturity over 2 years	Households
			loans	debt securities				
	19	20	21	22	23	24	25	26
December 2020	411,634.6	533,733.3	1,286.6	475,229.3	122,098.7	505,957.2	28,955.9	25,549.2
January 2021	378,191.3	536,619.0	1,237.0	479,576.6	158,427.7	498,850.7	28,862.2	25,517.8
February	361,422.8	538,783.3	1,247.9	481,627.0	177,360.5	495,455.9	28,660.6	25,365.2
March	365,857.2	538,710.2	1,202.9	481,182.6	172,853.1	523,159.4	28,513.4	25,223.8
April	359,981.4	542,049.4	1,215.9	485,185.4	182,068.0	507,951.2	28,042.9	24,794.8
May	363,398.4	554,702.3	1,246.8	498,079.3	191,303.9	504,741.1	27,631.2	24,269.4
June	345,803.6	556,201.8	1,222.9	499,435.3	210,398.1	497,796.7	27,449.0	24,013.0
July	324,832.5	548,072.8	1,404.5	490,410.6	223,240.3	509,545.0	27,353.5	24,013.6
August	314,684.6	548,932.6	1,431.1	492,342.2	234,248.0	507,033.6	26,678.3	23,389.1
September	311,740.6	548,953.2	1,552.0	491,227.4	237,212.5	520,318.6	26,563.3	23,395.6
October	319,043.7	536,450.7	1,678.5	478,854.3	217,407.0	519,080.8	26,045.5	23,041.3
November	325,452.5	537,239.9	1,563.0	477,555.3	211,787.4	525,782.7	25,652.4	22,742.0
December	388,222.3	536,508.2	1,614.4	475,863.4	148,285.9	507,590.0	25,892.0	23,189.5

Period						Debt securities issued with maturity over 2 years	Capital and reserves	Fixed assets (excluding financial fixed assets)	Other items (net)
	Other financial corporations	Non-financial corporations	Non-profit institutions serving households	Local government	Social security funds				
	27	28	29	30	31	32	33	34	35
December 2020	2,312.3	948.4	117.9	28.0	0.0	106,206.8	370,794.5	65,390.8	37,785.1
January 2021	2,292.7	912.8	117.8	21.1	0.0	104,678.1	365,310.4	65,236.4	35,171.2
February	2,231.8	924.9	117.9	20.8	0.0	105,643.8	361,151.4	65,244.5	42,595.6
March	2,227.1	922.0	119.3	21.3	0.0	109,598.5	385,047.4	65,577.2	52,769.3
April	2,206.0	904.8	114.6	22.7	0.0	112,059.1	367,849.1	65,277.7	55,658.7
May	2,130.8	1,056.1	151.6	23.4	0.0	114,272.3	362,837.5	65,691.2	61,795.7
June	2,095.9	1,165.8	150.7	23.6	0.0	114,061.4	356,286.4	64,673.2	62,905.2
July	1,973.7	1,168.2	174.2	23.7	0.0	115,656.4	366,535.1	64,858.0	69,503.5
August	1,874.5	1,215.5	175.3	23.9	0.0	115,413.5	364,941.9	65,257.8	72,637.9
September	1,705.9	1,261.4	175.3	25.0	0.0	117,531.3	376,224.1	65,113.7	76,315.9
October	1,529.4	1,279.9	171.1	23.8	0.0	119,830.4	373,204.9	64,652.0	81,182.5
November	1,399.9	1,310.6	174.5	25.4	0.0	118,037.0	382,093.2	65,102.0	82,461.9
December	1,240.0	1,311.1	126.1	25.4	0.0	117,281.7	364,416.3	64,791.4	61,756.7

Table XI. Reserve money and counterparts (PLN million)

Period	Currency in circulation (including MFIs' vault cash)	Banks' current accounts	Required reserves	Reserve money	Net external assets	Credit to central government, net	Other items, net
	1	2	3	4	5	6	7
December 2020	321,496.2	62,288.5	340.9	384,125.6	525,201.8	1,541.9	-142,618.1
January 2021	323,001.2	45,668.6	158.2	368,828.0	543,716.1	-6,353.9	-168,534.2
February	324,466.9	59,816.0	146.5	384,429.5	558,942.9	-26,442.2	-148,071.2
March	332,772.5	62,847.4	134.7	395,754.6	582,289.4	-14,344.7	-172,190.1
April	340,599.9	53,030.9	123.0	393,753.8	557,012.5	-2,275.2	-160,983.6
May	341,991.6	70,209.6	113.5	412,314.7	556,357.6	4,674.7	-148,717.5
June	342,491.2	74,702.5	545.6	417,739.3	567,172.0	12,886.8	-162,319.5
July	345,753.8	66,465.6	120.4	412,339.8	587,038.4	18,168.4	-192,867.0
August	346,546.7	56,278.7	102.9	402,928.3	588,863.1	21,447.3	-207,382.0
September	347,919.8	75,715.2	312.1	423,947.1	601,908.2	30,889.7	-208,850.8
October	349,946.7	40,424.2	125.4	390,496.3	599,863.9	38,032.3	-247,399.9
November	353,658.8	61,026.7	814.3	415,499.7	615,387.6	43,893.9	-243,781.8
December	355,244.1	96,186.5	337.6	451,768.2	604,592.0	42,911.1	-195,734.9

Methodological notes

Table I. Basic statistical data

Information contained in Table I is derived from the “Statistical Bulletin” of Statistics Poland (GUS). Definitions of the categories presented in the Table can be found in the GUS publications.

1. Data presented in pts. 1, 2, 6, 7, 10 and 12 comprise national economy entities regardless of their ownership type, i.e. public sector entities (state-owned entities, units of local government and mixed ownership, where public sector entities prevail) and private sector entities. The private sector includes units of private domestic ownership (among others: companies, cooperatives, natural persons conducting economic activities, social organizations, associations, foundations), private foreign ownership (among others: foreign enterprises branches, foreign representatives, partnerships with exclusive foreign capital share) and “mixed” ownership with a private sector unit capital majority or lack of sectors majority in unit capital.
2. The corporate sector comprises entities, which conduct their economic activities in the fields of: forestry, including the provision of services; marine fishing; mining and quarrying, manufacturing; electricity, water, gas and conditioned air production and supply; sanitation management and other sanitation services; construction; repair of motor vehicles, motorcycles; transport, storage and communication; wholesale and retail trade; hotels and restaurants; information and communication; real estate market services; legal services; accounting and tax services for head offices, management solutions; architecture and engineering services; technological research and analysis; advertising; market and public opinion polls; other professions, technical or academic activity; administration and support; recreational, cultural, sporting and other services computer repair and maintenance for individual clients; other business activities.
3. According to the Polish Statistical Classification of Economic Activities (PKD 2007), the notion of “industry” applies to the following sections: “mining and quarrying”, “manufacturing” and “electricity, gas and water production and supply” as well as water supply sanitation management and other sanitation services.
4. Data on the sold production of industry (pt. 1), and the construction and assembly production (pt. 2) refer to economic entities with of more than 9 employees.
5. Data on the value of the sold production of industry (pt. 1) and the construction and assembly production (pt. 2) are disclosed net without the due value added tax (VAT) and the excise tax, while they include subsidies for specific purposes to products and services in the so-called base prices.
6. Construction and assembly production data (pt. 2) refer to works performed in Poland on commission (i.e. for third-party) and directly (i.e. without subcontractors) by the business entities of the construction sector, i.e. classified under “construction” according to the PKD 2007.

7. Information on the sold production of industry (pt. 1) and the construction assembly production (pt. 2) are disclosed without seasonal adjustments.
8. Data on employed persons include persons employed on a full and part-time basis in the main place of work. Employed persons include: persons employed on the basis of a labour contract; owners and co-owners of units engaged in economic activities including contributing family members; outworkers; agents and persons employed by agents; members of agricultural production co-operatives. Data presented in the *Report* do not include private farmers or employees of budget entities conducting activity within the scope of national defence and public safety.
9. Unemployment rate (pt. 9) is calculated as a percentage share of the unemployed in the total of employed and unemployed persons over 15 years of age.
10. Revenues from privatisation do not constitute the current revenues of the state budget; instead they finance the budget deficit (pt. 11).
11. Data on financial results of enterprises (pt. 12) pertain to business units that keep accounting books (except for the following units, classified according to PKD 2007 under “Agriculture, forestry, hunting and fishing” and “Financial and insurance services”) with more than 49 employees.

Table II. Financial market – basic information

Information comprised in Table II has been derived from Narodowy Bank Polski (save for the data in pt. 7, supplied by the Warsaw Stock Exchange).

1. Interest rates in Table II are presented on an annual basis at the level which was binding on the last day of a given month. The average monthly interest rate has been given only for the weighted average yield on purchased T-bills or the NBP money-market bills.
2. Pursuant to the provisions of the MPC Resolution, setting of the national bank rediscount rate has been resumed, beginning from March 2020 (pt. 1, col. 5).
3. Total reserve requirements (pt. 2, col. 12) pertain to the volumes declared by banks and binding on the last day of the month.
4. Information on Treasury bill tenders (pt. 3, except for the stocks of bills in circulation at the end of the month – col. 18) comprises data from tenders conducted within one month. The average yield on bills purchased is weighted by the share of the sales of bills with different maturities in the total value of bills purchased. The stock of bills in circulation at month end has been determined on the basis of the agreed maturity, calculated from the day after the tender which resulted in the sale of the bill. The above stock does not include bills in circulation which do not stem from tenders.
5. Information on tenders for the NBP money-market bills (pt. 4, except for the stock of bills in circulation at month end – col. 24) comprises data from tenders conducted within

one month. The average yield on bills purchased is weighted by the share of the sales of bills with different maturities in the total value of bills purchased.

6. Information on the NBP's outright buy (pt. 6) of securities on the secondary market refer to structural open market operations influencing the long-term liquidity of the banking sector, which has been affected by the aftermath of the COVID-19 pandemics.
7. The below presentation of indices comprises precise data involving the situation of the largest (WIG 20), medium (mWIG40) and small stock companies (sWIG80).
 - **WIG20 index** has been calculated since 16 April 1994 based on the value of portfolio with shares in 20 major and most liquid companies in the main stock market. The initial value of WIG20 index was 1,000 points. It is a price index and thus when it is calculated it accounts only for prices of underlying shares whereas dividend income is excluded. The WIG20 index may not include more than 5 companies from a single exchange sector.
 - **mWIG40 index** is successor of MIDWIG index and has been calculated since 31 December 1997 and comprises 40 medium size companies listed at WSE. The initial value of index was 1,000 points. mWIG40 is a price index and thus when it is calculated it accounts only for prices of underlying shares whereas dividend income is excluded. The mWIG40 index excludes WIG20 and sWIG80 index participants and foreign companies listed at WSE and other markets with the market capitalization at the ranking date above EUR 1 billion.
 - **sWIG80 index** is successor of WIRR index that has been calculated since 31 December 1994 and comprised 1% of smaller companies listed at WSE. The initial value of index was 1,000 points. sWIG80 is a price index and thus when it is calculated it accounts only for prices of underlying shares whereas dividend income is excluded. The sWIG80 index excludes WIG20 and mWIG40 index participants and foreign companies listed at WSE and other markets with the market capitalization at the ranking date above EUR 100 million.
8. The indices comprise companies from all the quotation markets.
9. Capitalization refers only to domestic companies.
10. The P/E ratio shows the relation of the market price to net earnings and is calculated as a quotient of the total market value of companies at month end to their aggregated profits and losses generated within the last 4 quarters, for which financial data are available.
11. The turnover ratio shows the relation between the value of sold shares to the average value of shares quoted in a given month.
12. The monthly turnover value and the turnover ratio comprise the continuous quotation and fixing.

Table III. PLN/USD and PLN/EUR daily exchange rates

The information has been based on the data of Narodowy Bank Polski.

1. NBP average exchange rate is the official exchange rate used for statistical and accounting purposes.
2. The average PLN/USD and PLN/EUR exchange rates and the USD/EUR ratio were calculated as the arithmetic average of NBP average exchange rates for a month (based on daily exchange rates).

Monetary statistics

Narodowy Bank Polski releases monetary statistics based on data received from monetary financial institutions (MFI).

Sectoral classification

The below sectoral classification of institutional units of the economy is compliant with the rules set forth in the regulation (EU) No. 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (ESA 2010). The details in NBP website <https://www.nbp.pl/en/statystyka/m3/Sectoral-classification-of-the-economy-in-monetary-statistics.pdf>.

Financial sector comprises the following sub-sectors:

- monetary financial institutions (MFIs) – include banks, credit unions and money market funds (MMFs),
- non-MMF investment funds,
- insurance corporations,
- pension funds,
- other financial intermediaries – include financial leasing companies, factoring companies, brokerage offices, and financial companies created for securitization of assets,
- financial auxiliaries and captive financial institutions and money lenders – include bureaux de change, bourses, hire purchase institutions.

Non-financial sector comprises the following sub-sectors:

- non-financial corporations – include state-owned corporations, private corporations, co-operatives and individual entrepreneurs employing more than 9 persons;
- households comprising:
 - individuals,
 - farmers,
 - individual entrepreneurs employing up to 9 persons;
- non-profit institutions serving households.

General government sector comprises the following sub-sectors:

- central government – includes among others public authorities, government administration, state control and law enforcement institutions, courts and tribunals, state colleges and universities, state cultural institutions, etc.),
- local government – includes, among others, self-government bodies, public schools run by local government units, local state cultural institutions, institutions of social assistance),
- social security funds – comprises Zakład Ubezpieczeń Społecznych (ZUS – Social Insurance Institution) and Kasa Rolniczego Ubezpieczenia Społecznego (KRUS – Agricultural Social Insurance Fund), and funds managed by them, Narodowy Fundusz Zdrowia (National Healthcare Fund) and its regional branches.

Table IV. Average MFI interest rates on outstanding amounts, PLN denominated

Data on zloty denominated businesses refer to all businesses at the end of the reporting month, these concluded prior to the reporting month and still binding as well as new businesses. This interest rate is a quotient of interest on average zloty denominated business by average volume of businesses per reporting month, commissions and other charges excluded.

The interest rate is calculated based on data received from the following banks:

1. Powszechna Kasa Oszczędności Bank Polski SA
2. Bank Handlowy w Warszawie SA
3. ING Bank Śląski SA
4. Santander Bank Polska SA
5. mBank SA
6. Bank Millennium SA
7. Bank Polska Kasa Opieki SA
8. Bank Ochrony Środowiska SA
9. Bank Polskiej Spółdzielczości SA
10. Credit Agricole Bank Polska SA
11. BNP Paribas Bank Polska SA
12. Santander Consumer Bank SA
13. mBank Hipoteczny SA
14. Getin Noble Bank SA
15. Alior Bank SA
16. Polski Bank Spółdzielczy w Ciechanowie
17. Krakowski Bank Spółdzielczy
18. Wielkopolski Bank Spółdzielczy
19. Bank Spółdzielczy w Brodnicy.

At the end-December 2021, the above banks held 84% of deposits of residents and 84% of credit to households and non-financial corporations. From December 2014 onwards, new methodology for calculating average weighted interest has been applied. New method involves using data on reporting agent's homogenous groups (layers). For more information please refer to http://www.nbp.pl/en/statystyka/oproc/mir_new/manual_mir.pdf.

Table V. Average MFI interest rates on new and renegotiated business, PLN denominated

Information refers to agreements carried out in a given reporting month. Renegotiated existing agreements shall be deemed new businesses.

Interest rates in the statistics on new businesses differ from those in Table IV. The formula is applied to statistical information on new businesses, also known as Narrowly Defined Effective Rate (NDER). The concept of Narrowly Defined Effective Rate was coined as an opposite to widely understood effective interest rate or Real Interest Rate (RIR). The NDER included, the new business statistics provides RIR for the second category of consumer and house purchase loans. As opposed to the NDER, which covers for interest costs of capital the real interest rate incorporates all charges paid by the borrower. These charges are most of all commissions (brokers included) but also compulsory loan insurance premiums against death or unemployment of the borrower.

For the Table V data are collected from the same sample of banks as in case of Table IV. Weighted average is calculated with the use of the same method.

Table VI. Average MFI interest rates on new and renegotiated business, EUR denominated

General rule of calculating interest rate are the same as for Table IV (see star-marked lines) and Table V. The Table IV and V sample of banks applies as well.

General comments on Tables VII, VIII, IX

1. The figures refer to the end of each reporting month and have been derived from balance sheets received from the banks and from the balance sheet of Narodowy Bank Polski and credit unions.
2. The presentation is structured in accordance with the ECB standards.
3. Assets in Tables VII, VIII, IX are shown gross of provisions, accumulated depreciation (except for debt securities presented at the carrying amount).

Table VII. Aggregated balance sheet of other monetary financial institutions – assets and liabilities

1. Loans and other claims on domestic residents (assets col. 2) include loans granted, debt purchased, realised guarantees and sureties, other claims and claims on repurchase agreements.
2. Debt securities (assets col. 6) are debt securities issued by domestic residents and held by other monetary financial institutions.

-
3. Money market funds shares/units¹ purchased by other MFIs (assets col. 10).
 4. Equity and non-MMF investment fund shares or units (assets col. 11) include shares, and fixed financial assets issued by domestic residents.
 5. External assets (assets col. 14) include all assets of non-residents denominated in zloty and foreign currencies.
 6. Fixed assets (assets col. 15) include total fixed assets except for financial fixed assets.
 7. Remaining assets (assets col. 16) include other cash equivalents held at other monetary financial institutions, vault cash excluded, as well as other claims and interest due and not due on loans and other claims, settlement accounts, claims on third parties, deferred income and expenditure, claims on financial derivatives positions, valuation adjustments, rights issue, other assets.
 8. Deposits and other liabilities to domestic residents (liabilities col. 1) comprise overnight deposits, deposits with agreed maturity, blocked deposits, loans received, claims from cash collateral (classified to “with agreed maturity”), other liabilities and claims on repurchase agreements, subordinated loans except for those in the form of securities issued.
 9. Money market funds shares/units issued² are liabilities of money market funds against shares/units issued (liabilities col. 8).
 10. Debt securities issued (liabilities col. 9) are liabilities on own debt securities issued by other monetary financial institutions and subordinated claims in the form of securities issued (purchased by residents and non-residents).
 11. Capital and reserves (liabilities col. 10) comprise share paid-in capital, called-up capital unpaid, own shares, accumulated reserves, general risk provisions, reserve capital and retained earnings, supplementary funds provisions, including specific provisions, impairment allowances, mortgage notes reserves, specific provisions for off-balance liabilities, general risk provisions.
 12. External liabilities (liabilities col. 11) include all liabilities of non-residents denominated in zloty and foreign currencies, except for debt securities issued.
 13. Remaining liabilities (liabilities col. 12) include interest not due on deposits and other liabilities and interest on debt securities issued, suspense and transit items, liabilities against third parties, deferred income and expenditure, liabilities from financial derivatives positions, other liabilities, valuation adjustments.

¹ During the period covered by the *Report* there were no investment funds in Poland meeting the criteria of money market funds, hence the zero-sum in the “Money market shares/units.”

² See footnote 1. Zero-sum in “Money market fund shares/units” results from change indicated in the footnote 1.

Table VIII. Balance sheet of Narodowy Bank Polski

1. Domestic assets (zloty and foreign currency, col. 1) include loans and other receivables from resident sectors, debt securities issued by resident sectors, equity and non-MMF investment shares/units, fixed assets and remaining assets.
2. External assets (col. 2) comprise NBP receivables from non-residents denominated in zloty and foreign currencies.
3. Currency in circulation (col. 1) include banknotes and coins (excluding commemorative banknotes and coins) issued by NBP.
4. Deposits and other liabilities to domestic residents (zloty and foreign currency, col. 2) include funds of resident sectors placed with NBP on overnight deposits, deposits with agreed maturity, required reserve deposits, repos and other liabilities.
5. Debt securities issued (col. 6): debt securities issued by NBP.
6. Capital and reserves (col. 7): statutory fund, reserve fund, profit/loss of the current year and reserves.
7. External liabilities (col. 8): NBP liabilities to non-residents denominated in zloty and foreign currencies.
8. Remaining liabilities (col. 9) include liabilities not included elsewhere (which may include accrued interest on deposits, financial derivative positions, suspense items, transit items).

Table IX. Consolidated balance sheet of monetary financial institutions – assets and liabilities

1. Table IX comprises consolidated balance sheet of monetary financial institutions.
2. In the assets and liabilities of the above-mentioned balance sheet, domestic inter-MFI operations have been netted out.
3. Remaining assets (assets col. 10) and currency in circulation (liabilities col. 1) were decreased by cash in vaults of other monetary financial institutions.

List of the most important abbreviations

BFG	Bank Guarantee Fund (Bankowy Fundusz Gwarancyjny)
BIS	Bank for International Settlements
bps	basis points
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ECOFIN	Economic and Financial Affairs Council
ESCB	European System of Central Banks
ESRB	European Systemic Risk Board
EU	European Union
FSC	Financial Stability Committee (Komitet Stabilności Finansowej)
GDP	Gross Domestic Product
GUS	Statistics Poland (Główny Urząd Statystyczny)
IMF	International Monetary Fund
KDPW SA	National Depository for Securities (Krajowy Depozyt Papierów Wartościowych SA)
KIR SA	National Clearing House (Krajowa Izba Rozliczeniowa SA)
KNF	Polish Financial Supervision Authority (Komisja Nadzoru Finansowego)
MPC	Monetary Policy Council (Rada Polityki Pieniężnej)
NBP	Narodowy Bank Polski
OECD	Organisation for Economic Co-operation and Development
PFR	Polish Development Fund (Polski Fundusz Rozwoju)
SDR	Special Drawing Rights
SEPA	Single Euro Payments Area
SORBNET2 SORBNET3	Real-Time Gross Settlement System [RTGS] at the NBP Head Office
TARGET2	Trans-European Automated Real-Time Gross Settlement Express Transfer System
UKNF	Office of the Polish Financial Supervision Authority (Urząd Komisji Nadzoru Finansowego)

www.nbp.pl

