



NARODOWY
BANK POLSKI

Annual Report 2022

**Banking Sector Liquidity
Monetary Policy Instruments
of Narodowy Bank Polski**



Annual Report 2022

Banking Sector Liquidity Monetary Policy Instruments of Narodowy Bank Polski

Warsaw, 2023

Developed by:
Domestic Operations Department

Published by:
Narodowy Bank Polski
ul. Świętokrzyska 11/21
00-919 Warszawa,
nbp.pl

© Copyright Narodowy Bank Polski, 2023

Table of contents

Introduction	5
1. Banking sector liquidity	9
1.1. Liquidity developments in 2022	10
1.2. Impact of autonomous factors on changes in banking sector liquidity	12
1.2.1. Purchase and sale of foreign currency by NBP	12
1.2.2. Currency in circulation	16
1.2.3. Public sector deposits held with the central bank	17
2. Monetary policy instruments	21
2.1. NBP interest rates	22
2.2. Open market operations	22
2.2.1. Main operations	24
2.2.2. Fine-tuning operations	24
2.2.3. Structural operations	25
2.3. Reserve requirement	26
2.4. Standing facilities	28
2.4.1. Deposit facility	28
2.4.2. Marginal lending facility	29
3. Other operations	31
3.1. Intraday credit facility	32
3.2. Intraday credit facility in euro	32
Glossary	33
Annexes	37
Annex 1. POLONIA rate as the operating target of NBP monetary policy in 2018–2022	38
Annex 2. Main operations in 2022	39
Annex 3. Fine-tuning operations in 2022	40
Annex 4. Money Market Dealers in 2022	41
Annex 5. Daily information (as at the month-end)	42
List of tables	43
List of figures	44

Introduction

Introduction

In 2022, Narodowy Bank Polski (NBP) pursued monetary policy in accordance with the Monetary Policy Guidelines.

The key monetary policy instrument in 2022 was the NBP interest rates. The most important was the NBP reference rate, which – by determining the yield on main open market operations – affected the level of short-term market interest rates. The NBP lombard rate determined the interest on the NBP marginal lending facility, which allowed overnight borrowing from the central bank. The NBP deposit rate determined the interest on the deposit facility allowing placement of overnight deposits with NBP.

In 2022, the Monetary Policy Council (MPC) decided to raise basic NBP interest rates on eight occasions. At the end of 2022, the NBP reference rate stood at 6.75%, the NBP deposit rate stood at 6.25% and the NBP lombard rate at 7.25%. Compared to the end of 2021, these rates increased by 5 percentage points.

The operational objective of monetary policy in 2022 was to keep the path of the POLONIA rate close to the NBP reference rate. As part of this task, the central bank took recourse to open market liquidity-absorbing operations (main and fine-tuning). Using the above-mentioned operations, NBP offered banks the possibility of balancing their own liquidity positions in the reserve maintenance periods striving to shape the liquidity conditions in the banking sector so that they are conducive to the implementation of the operational objective.

In 2022, the average absolute deviation of the POLONIA rate from the NBP reference rate amounted to 32 bps (versus 16 bps in 2021).

Like in previous years, the main open market operations in 2022 involved the issuance of 7-day NBP bills on a regular basis.

Fine-tuning operations, which involved the issuance of NBP bills with maturities shorter than the main operations and were conducted regularly on the last business day of the reserve maintenance period and on an *ad hoc* basis during the reserve maintenance period, played a complementary role by limiting the volatility of short-term market interest rates.

In 2022, NBP issued bills as part of main market operations with an average value of PLN 191,636 million and NBP bills for fine-tuning operations with an average value of PLN 5,998 million.

In addition, the instrument conducive to limiting fluctuations in short-term interest rates and stabilising the liquidity conditions in the banking sector was the required reserve. Banks were committed to maintain funds on accounts with NBP in the required reserve maintenance period at an average level not lower than the value of the required reserve.

In February 2022, the Monetary Policy Council (MPC) decided to increase the main reserve requirement rate from 2.0% to 3.5%. The change was applicable to the required reserve maintained from 31 March 2022 and resulted in an increase of the required reserve

funds by PLN 26,986 million. The consequence was a decrease in the level of funds available to banks and credit unions by such a value. The remuneration of required reserve funds was equal to the NBP reference rate.

NBP made available the overnight deposit and credit facilities to commercial banks. As part of their needs associated with current liquidity management, banks could deposit excess funds with NBP via the overnight deposit facility and replenish liquidity shortages through the marginal lending facility.

The average level of standing facility operations in 2022 amounted to PLN 9,506 million.

During 2022, there was a decrease in short-term liquidity of the banking sector, i.e. the average annual balance of main and fine-tuning open market operations, standing facility operations and FX swap operations compared to the previous year.

The average level of short-term banking sector liquidity in 2022 amounted to PLN 210,696 million and was lower by PLN 9,214 million compared to the average level in the previous year.

Table I. Average level of open market operations (NBP bills, repo, FX swaps and standing facilities as well as structural operations) in 2004–2022 (in PLN million)

Period	NBP bills	Repos	FX swaps	Structural operations		
				deposit facility	marginal lending facility	structural operations
2022	197 634	0	3 556	9 506	0	145 093
2021	205 905	0	3 331	10 674	0	136 158
2020	134 700	79	0	3 193	0	71 849
2019	80 393	0	0	1 125	0	0
2018	88 796	0	0	1 370	0	0
2017	72 786	0	0	846	0	0
2016	72 438	0	0	772	4	0
2015	89 092	0	0	500	0	0
2014	108 518	0	0	298	0	0
2013	126 078	0	0	463	0	0
2012	95 913	0	0	393	0	0
2011	95 217	0	0	711	0	0
2010	74 968	5 097	0	1 036	0	0
2009	31 873	11 456	1 076	2 461	14	0
2008	11 530	2 135	162	1 421	14	0
2007	19 302	0	0	530	18	0
2006	19 758	0	0	150	50	0
2005	16 699	0	0	162	29	0
2004	5 275	0	0	310	22	0

Note: average values are quoted in annualized terms in the reserve maintenance periods.

Source: NBP.

Table II. Deviation of market rates from the NBP reference rate in 2004–2022

Period	Average reference rate (in %)*	Deviation of rates from reference rate in basis points (annual average)**				
		O/N	SW	2W	1M	POLONIA
2022	5,26	21	12	17	27	32
2021	0,34	7	2	7	11	16
2020	0,51	4	3	6	11	17
2019	1,50	8	5	7	12	14
2018	1,50	9	4	8	12	21
2017	1,50	9	7	10	14	12
2016	1,50	15	7	8	10	16
2015	1,58	10	9	10	12	12
2014	2,39	9	6	6	7	11
2013	2,94	8	5	5	7	18
2012	4,61	10	3	5	11	21
2011	4,22	21	3	3	9	43
2010	3,50	49	17	10	7	69
2009	3,77	69	23	14	11	89
2008	5,72	30	16	19	30	32
2007	4,40	19	9	11	16	23
2006	4,06	10	6	6	7	16
2005	5,34	21	6	6	9	29
2004	5,79	40	11	10	15	0

* NBP average reference rate was weighted by its duration.

** Deviations of rates against the reference rate – a uniform basis of 365 days per year was used.

Source: NBP.

In 2022, the level of liquidity in the banking sector showed volatility throughout the year. In the first half of the year, a significant decline in liquidity took place due to a sharp increase in currency in circulation associated with Russia's armed aggression against Ukraine and the subsequent increase in the required reserve rate. In the second half of the year, an increase in the level of liquidity was recorded, associated with an increase in the purchase of foreign currency by NBP, a decrease in the level of currency in circulation and the payment of the NBP profit to the state budget.

Chapter 1

Banking sector liquidity

Banking sector liquidity

1.1. Liquidity developments in 2022

In 2022, NBP pursued monetary policy using instruments stipulated in the Monetary Policy Guidelines. The instruments used were adapted to the macroeconomic and market conditions changing over the year.

The level of short-term banking sector liquidity, measured as the average annual balance of operations conducted by the central bank (NBP bill issues, repo operations, FX swap and standing facilities) showed volatility throughout the year. In January, short-term liquidity of the banking sector amounted to PLN 252,514 million. In the following months, autonomous factors affecting its size resulted in its fluctuation to reach an average value of PLN 236,387 million in December. The average level in the last month of 2022 was PLN 16,851 million lower compared to December 2021 (PLN 253,238 million).

The level of funds available to the banking sector in excess of the required reserve¹ amounted to PLN 236,600 million in December 2022 and was PLN 17,266 million lower than in the corresponding period of 2021.

Table 1.1. Short-term NBP monetary policy operations in 2022 and the average level of funds at the disposal of the banking sector (PLN million)

2022	Average level of NBP bills (main operations)	Average level of NBP bills (fine-tuning operations)	Average level of repo operations	Average level of overnight deposit	Average level of FX swap	Average level of short-term monetary policy operations	Average level of short-term banking liquidity
	(1)	(2)	(3)	(4)	(5)	(1) + (2) - (3) + (4)	
January	228 257	10 238	0	9 782	4 237	252 514	252 849
February	231 751	12 063	0	6 481	4 022	254 317	254 779
March	185 430	1 438	0	19 226	4 165	210 259	210 484
April	160 168	9 956	0	6 543	4 208	180 875	181 002
May	165 111	4 058	0	6 041	4 223	179 433	179 582
June	173 808	2 582	0	9 017	4 404	189 811	189 930
July	182 478	5 531	0	7 181	5 038	200 228	200 340
August	186 444	1 434	0	9 596	6 337	203 811	203 930
September	183 595	5 295	0	10 026	6 384	205 300	205 419
October	185 944	5 654	0	8 394	0	199 992	200 297
November	206 318	2 808	0	7 265	0	216 391	216 632
December	211 970	10 588	0	13 829	0	236 387	236 600
On average	191 636	5 998	0	9 506	3 556	210 696	210 905

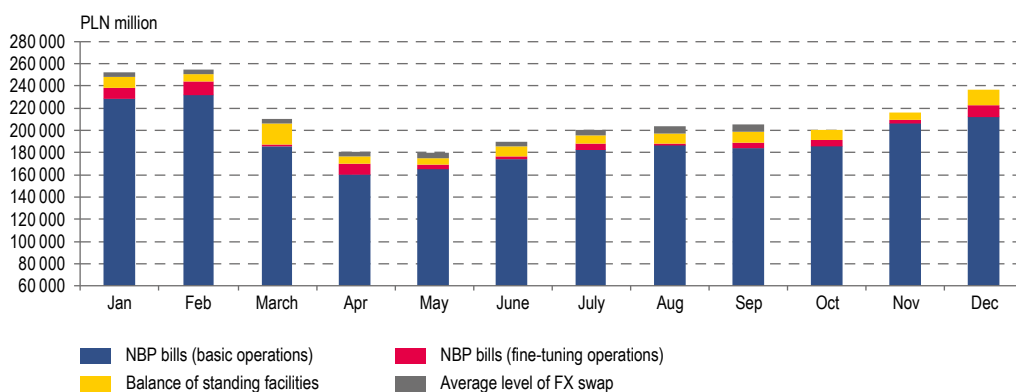
Note: average values over required reserve maintenance periods.

Source: NBP.

¹ This is a short-term liquidity of the banking sector increased by funds held in the current account above the reserve required at the end of the reserve period.

In order to keep the POLONIA rate close to the reference rate, the central bank absorbed the liquidity surpluses by issuing NBP bills, in principle, with a maturity of 7 days under main operations and NBP bills with shorter maturities as part of fine-tuning operations. In total, the average level of NBP bills in 2022 amounted to PLN 197,634 million and was PLN 8,271 million lower compared to 2021.

Figure 1.1. NBP operations absorbing funds from the banking sector in 2022



Source: NBP.

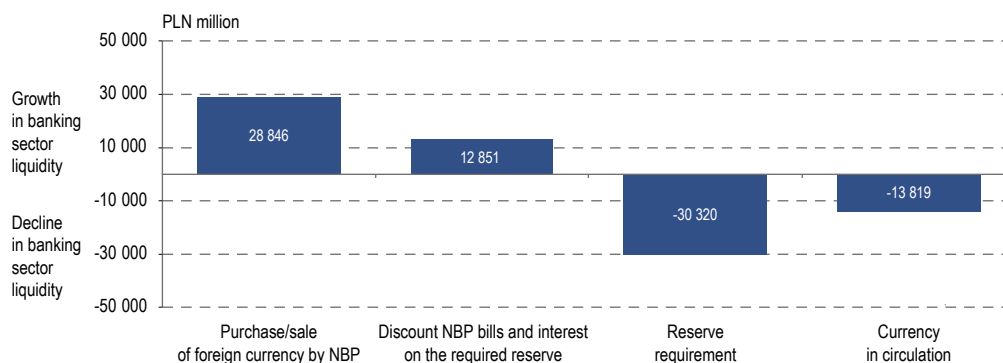
In 2022, changes in the short-term monetary policy operations conducted by the central bank were affected by factors both immediately related to the above-mentioned NBP decisions and autonomous factors (independent of NBP actions) influencing the size of banking sector liquidity.

The MPC's decision to increase the required reserve ratio from 2% to 3.5% reduced the banking sector liquidity level by an average of PLN 30,320 million in terms of December 2022 as related to December 2021.

An increase in the level of currency in circulation was significant among the factors influencing the reduction of the banking sector liquidity. It amounted, on average, to 13,819 million in terms of December 2022 as related to December 2021.

Among the autonomous factors, growth in banking sector liquidity was primarily driven by the net purchase of foreign currencies by NBP. As a result of FX transactions, the increase in liquidity in terms of December 2022 as related to December 2021 in the amount of PLN 28,846 million on average was recorded.

The payments made by NBP to the banking sector arising from the discount of the NBP bills and required reserve remuneration resulted in an increase of banking sector liquidity. These factors resulted in the average growth in liquidity by PLN 12,851 million.

Figure 1.2. Main factors influencing short-term liquidity of the banking sector in 2022

Source: NBP.

1.2. Impact of autonomous factors on changes in banking sector liquidity

1.2.1. Purchase and sale of foreign currency by NBP

In 2022, NBP purchased foreign currency exceeded the value of sales of foreign currencies by the central bank. As a result of these operations, banking sector liquidity throughout the year increased by PLN 28,846 million on average in terms of December 2022 as related to December 2021.

The purchase of foreign currency by NBP included:

- the purchase of foreign currency from the Ministry of Finance (MF) within the limit set for 2022 equivalent to PLN 49,263 million (the equivalent of PLN 48,014 million),
- services provided to the central government and other entities whose accounts are held with NBP, in the amount of PLN 23,434 million,
- the conversion of EU funds to PLN directly from the European Union fund accounts, equivalent to PLN 620 million.

The sale of foreign currency by NBP involved:

- the conversion of the membership fee paid by the State Budget into the account of the European Commission (EC) – the equivalent of PLN 33,884 million,
- services provided to the central government and other entities whose accounts are held with NBP, in the amount of PLN 9,573 million.

The purchase of foreign currency from the MF currency account with NBP accounted for 65% of all foreign currency purchases by the central bank. It was 35% lower compared to 2021. The highest amount of foreign currency on this account was purchased in the fourth quarter (78%).

The purchase of foreign currency from central government entities and other entities holding foreign currency accounts with NBP amounted to the equivalent of EUR 5,058 million, representing a decrease of EUR 574 million compared to the previous year. The main customer commissioning the above-mentioned transactions was the Ministry of Climate. The purchase of foreign currency by the central bank from entities holding foreign

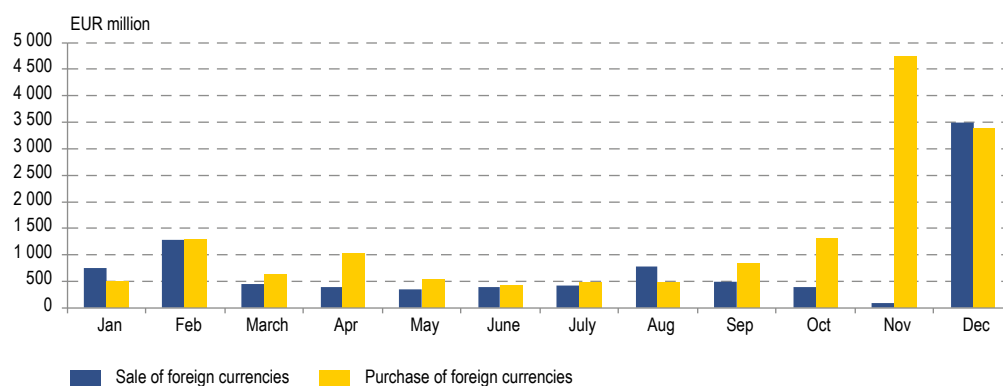
currency accounts with NBP reached the highest level of PLN 6,604 million in the second quarter of the previous year. In the remaining quarters, the value of the transactions was comparable, ranging from PLN 5,530 million to PLN 5,678 million.

In 2022, similarly as in the previous year, NBP conducted transactions of foreign currency purchases directly from the EU fund accounts. The value of these operations amounted to PLN 620 million, which accounted for 0.8% of the total amount of foreign currency purchases by the central bank.

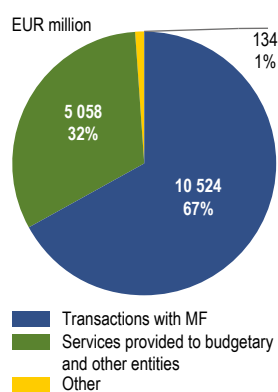
The opposite side of the foreign exchange transactions conducted by NBP consisted in foreign currency sales to entities holding foreign currency accounts with the central bank. The European Commission (EC) was the main customer commissioning PLN/foreign currency exchange transactions. Transactions converting the membership fee paid to the EU budget into euro accounted for 78% of the NBP foreign currency sales transactions in 2022.

In 2022, transactions of foreign currency sales by NBP were also carried out, as in the previous year, for the needs of central government entities and other entities. The volume of transactions was diversified in individual months. Like in previous years, most foreign currency for the needs of these entities was sold in December (41%). In 2022, sale of foreign currencies to budget entities was 12% lower than in the previous year.

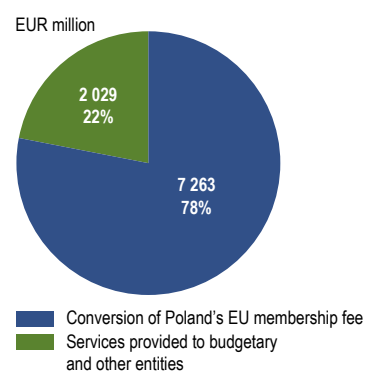
Figure 1.3. Purchase and sale of foreign currencies by NBP in 2022



Source: NBP.

Figure 1.4. The structure of currency purchase by NBP in 2022

Source: NBP.

Figure 1.5. The structure of currency sale by NBP in 2022

Source: NBP.

FX operations carried out by the central bank as part of its currency purchase and sale activities in 2022

Foreign operations of the State Treasury

In 2022, as in previous years, the foreign debt of the State Treasury was serviced with funds from the Ministry of Finance's foreign currency account with NBP. The transactions were commissioned by the Minister of Finance. NBP did not sell foreign currencies to the Ministry of Finance.

MF foreign currency account with NBP

The MF's foreign currency account was credited mainly with foreign currencies obtained from the European Union and from the issue of bonds to foreign markets (EUR 4,833 million) and foreign loans (EUR 1,530). In addition, the European Commission transferred EUR 2,978 million under the SURE loan agreement.²

In 2022, the average balance of the MF's foreign currency account with NBP was EUR 6,137 million. Payments made from the foreign currency account involved, among others, the settlement of claims of international Treasury bond holders and repayments of the outstanding foreign loans as well as payment in respect of shares.

² SURE – an instrument created for the needs of protection of jobs and employees in connection with the COVID-19 pandemic. These funds are to cover the expenses directly related to financing national-level arrangements for reduced working time and other similar decisions implemented by the European Union member states in response to the pandemic.

Transactions resulting from the European Union membership

In 2022, as in previous years, the main transactions related to Poland's membership in the European Union were operations involving the sale of foreign currencies by NBP to the European Commission.

The membership fee is paid to the EU budget in national currencies. In the first quarter of the year, the EC has the right to demand over 40% of the annual fee.

In 2022, the value of the membership fee was PLN 34,288 million, of which 24% of the annual amount was paid in the first quarter.

In 2022, the value of the transactions related to the conversion of the membership fee amounted to EUR 7,263 million (the equivalent of PLN 33,884 million), which accounted almost for 99% of the amount of Poland's contribution paid to the European Union in 2022. In order to transfer EU funds freely to the accounts of funds in different Member States, the European Commission converts the funds originating from the membership fee into euro. The decisions on the schedule and amounts of conversion of funds were taken by the EC. Due to the need to fund the costs of ongoing EU programmes and projects in the Member States, the European Commission converted most funds to EUR in the fourth quarter of 2022 (PLN 13,560 million, i.e. EUR 2,888 million). In this period, the conversion of a part of the contribution into EUR accounted for 40% of the annual conversion. In the first, second and third quarter, the EC converted, respectively, 28%, 10% and 22% of the PLN funds into euro.

The balance of EC funds as at 31 December 2022 amounted to PLN 4,093 million and was PLN 187 million higher compared to the balance as at 31 December 2021.

In 2022, in addition to foreign currency sales transactions for the needs of the EC, NBP conducted foreign currency purchase operations in connection with the use of EU funds. Part of the funds received by Poland was exchanged into PLN directly from the fund accounts. Their value amounted to PLN 620 million, i.e. EUR 134 million.

Services to central government entities

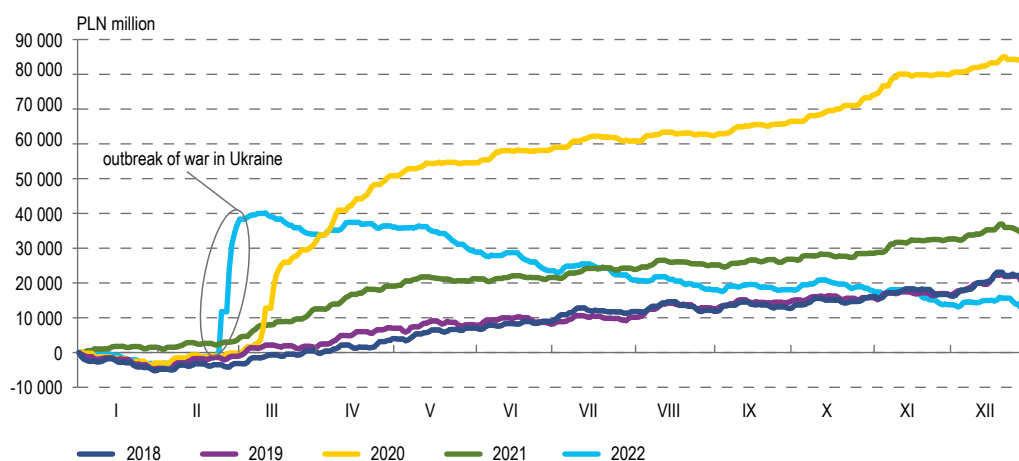
Apart from foreign currency operations related to servicing foreign payables and receivables of the State Treasury and transactions related to EU membership, the central bank carried out foreign currency operations with other entities authorised to execute them at NBP under a bank account agreement. In 2022, the value of this kind of transactions involving the purchase of foreign currencies by NBP amounted to the equivalent of PLN 23,434 million and was lower by PLN 2,026 million than operations of this type performed in 2021. Transactions of foreign currency sales by the central bank to central government entities amounted to the equivalent of PLN 9,573 million and were lower by PLN 1,328 million than in the previous year.

1.2.2. Currency in circulation

Currency in circulation is a monetary aggregate which has been growing steadily for many years. After a sharp rise in 2020 in response to the COVID-19 pandemic, there was a gradual slowdown in 2021. From 24 February 2022, an extraordinary increase in demand for cash was observed in connection with the Russian aggression on the territory of Ukraine, the significant influx of refugees and the related concerns of the public about the adverse economic consequences for Poland. The increased demand for cash from bank customers manifested itself in increased withdrawals from ATMs and bank cash desks, as well as in changing the form of keeping some savings from funds in bank accounts into physical money. There was a significant increase in currency in circulation outside bank cash desks, a decrease in the value of funds in people's current accounts and, as a consequence, an increase in cash in banks' cash desks as a response to the increased withdrawal of deposited funds. In the period from 24 February to 4 March, the increase in currency in circulation amounted to over PLN 39 billion, which translated into a record increase in cash in the March reserve requirement period by an average of PLN 37.9 billion.

In subsequent months (contrary to the situation during the COVID-19 pandemic) systematic decreases in this aggregate occurred. After the surge in cash in the initial period of the war in Ukraine, a marked slowdown in withdrawals and the use of previously accumulated funds was observed. This phenomenon was accompanied by the continuation of the cycle of interest rate rises by NBP, which increased the attractiveness of banks as a place to keep money. In the period from April to December (with the exception of October, when currency in circulation increased by PLN 703 million), cash fell on average from PLN 1.3 billion in April to PLN 6.8 billion in June. The average level of currency in circulation in December 2022 amounted to PLN 369,945 million, which means its increase of PLN 13,818 million compared to December 2021 (in 2021, the corresponding period saw an increase by PLN 34,912 million whereas in 2020 this growth was equal to PLN 81,805 million).

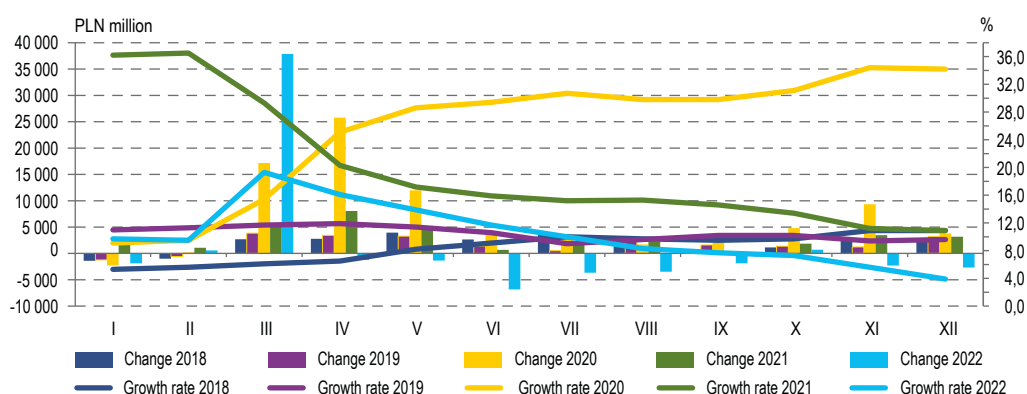
Figure 1.6. Daily changes of currency in circulation, cumulatively in 2018–2022



Source: NBP.

In January and February 2022, the average annual growth in currency in circulation amounted to 9.7% and 9.5%, respectively, its rapid increase to the level of 19.3% occurred in March, while the following months saw its steady decline from the level of 16.1% in April to 3.9% in December. Cash growth rate levels of late 2022 approached the levels reached in the first half of 2018.

Figure 1.7. Average change in currency in circulation in individual months of 2018–2022 (left axis) vs. the growth rate of currency in circulation (right axis)



Source: NBP.

1.2.3. Public sector deposits held with the central bank

Public sector deposits held with the central bank include balances on current accounts and term deposits of the State Budget in PLN (placed for a term of 1 to 7 days).

In 2022, the level of public sector deposits with NBP was an outcome of the following factors:

- changes in the volume of budget revenues and expenditures,
- settlements resulting from the issue and redemption of State Treasury securities,
- funds originating from the Ministry of Finance’s foreign currency account with NBP converted into PLN,
- limits set for the Ministry of Finance’s PLN term deposits with the central bank,
- flows of funds between Poland and the European Union (including, among others, payment of Poland’s membership fee to the European Union budget),
- payments resulting from handling other transactions related to the State Budget’s borrowing needs.

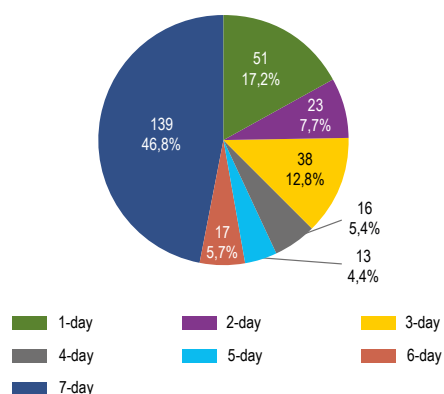
In 2022, the average level of public sector deposits stood at PLN 7,389 million and was PLN 476 million lower than in the previous year (PLN 7,865 million). The average level of the public sector deposits held on current accounts with NBP amounted to PLN 4,892 million (against PLN 3,966 million in 2021), whereas the average level of the Ministry of Finance term deposits with NBP, representing a significant element in the structure of public sector PLN deposits (31%) amounted to PLN 2,289 million against PLN 2,973 million in 2021. The average level of MF deposits in 2022 was 67% of the established daily limit (to compare – in 2011 this share amounted to 87%). The average limit for the Ministry

of Finance term deposits with NBP in 2022 amounted to PLN 3,418 million (PLN 3,407 million in 2021).³

The Ministry of Finance placed surplus funds of the State Budget with Narodowy Bank Polski on a temporary basis. A total of 297 deposits were made in 2022. Almost a half, i.e. 47% of all deposits were placed for 7-days (139 deposits), while 158 deposits were made with the remaining maturities, i.e. from 1 to 6 days.

In the discussed year, the average level of overnight deposits placed by default at the end of the day amounted to PLN 41 million (against PLN 32 million in 2021).

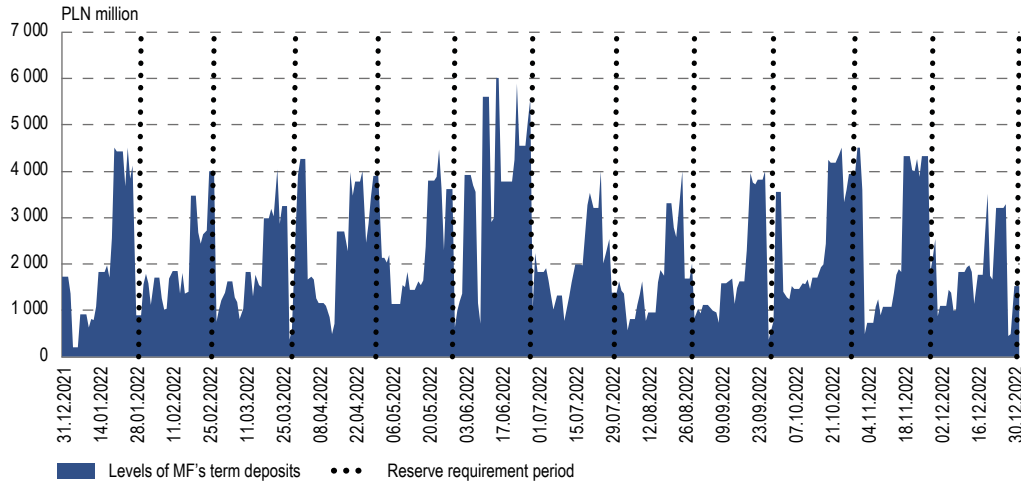
Figure 1.8. The quantitative structure of the Ministry of Finance's term deposits with NBP in 2022



Source: NBP.

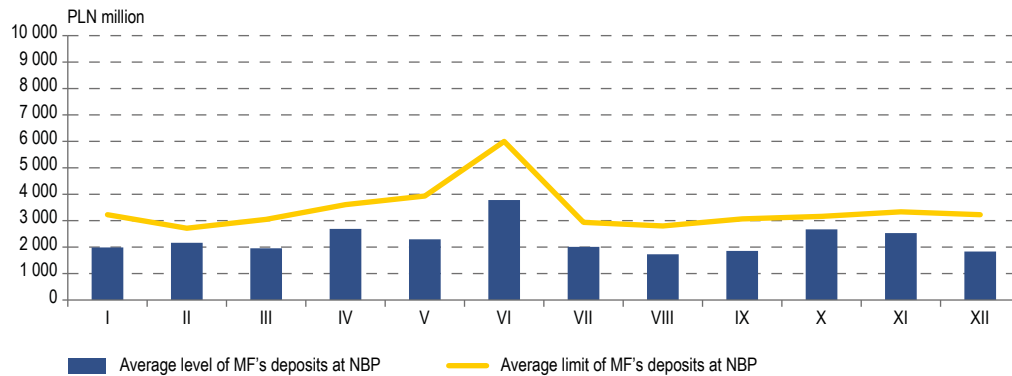
As in previous years, the daily level of the Ministry of Finance PLN term deposits with NBP was highly variable in 2022, averaging between PLN 1,730 million and PLN 3,783 million in the individual months. Deposits reached their highs in Q2, amounting to PLN 2,690 million in April, PLN 2,297 million in May and PLN 3,783 million in June. A higher level of deposits in May and June, as in the previous year, resulted from an increase of the limit of deposits to the level of PLN 6,000 million in the period from 19 May to 30 June. In the remaining months, average deposit levels ranged from PLN 1,730 million to PLN 2,672 million.

³ Average values are provided in reserve periods.

Figure 1.9. Daily levels of the Ministry of Finance's term deposits with NBP in 2022

Source: NBP.

The limit of MF's PLN term deposits with NBP was periodically increased at the end of each month, i.e. in periods of the highest tax receipts (resulting from PIT, CIT, VAT), and on the dates of Treasury bond redemption. The highest levels of deposits were observed each month on the VAT settlement days (the 25th or 26th day of the month).

Figure 1.10. The average level of the Ministry of Finance's term deposits in PLN in 2022

Source: NBP.

Chapter 2

Monetary policy instruments

Monetary policy instruments

2.1. NBP interest rates

The key monetary policy instrument in 2022 was the NBP interest rates. The NBP reference rate, by determining the yield on main open market operations, affected the level of short-term market interest rates.

The NBP lombard rate determined the interest on the marginal lending facility offered by the central bank. The NBP deposit rate determined the interest on the deposit facility enabling placement of overnight deposits with the central bank by commercial banks. Both of the above-mentioned NBP rates defined the width of the so-called NBP interest rate corridor, which sets the band for the movements of the overnight rate determined in the interbank market. The discount rate on bills determined the interest on the bill discount credit.

In 2022, the MPC continued a cycle of interest rate increases. Changes in interest rates took place in each month from January to July and in September 2022. As a result of the increases, at the end of the year the reference rate stood at 6.75%, the deposit rate at 6.25% and the lombard rate at 7.25%. The interest rate increases took place maintaining the symmetric corridor determined by the deposit rate and the lombard rate against the reference rate (-0.50 pp / +0.50 pp). The discount rate increased to the level of 6.85% at the end of the year.

Table 2.1. The basic NBP interest rates in 2022 in annual terms (%)

Effective from:	Deposit rate	Reference rate	Lombard rate	Bill discount rate
2022.01.05	1.75	2.25	2.75	2.35
2022.02.09	2.25	2.75	3.25	2.85
2022.03.09	3.00	3.50	4.00	3.60
2022.04.07	4.00	4.50	5.00	4.60
2022.05.06	4.75	5.25	5.75	5.35
2022.06.09	5.50	6.00	6.50	6.10
2022.07.08	6.00	6.50	7.00	6.60
2022.09.08	6.25	6.75	7.25	6.85

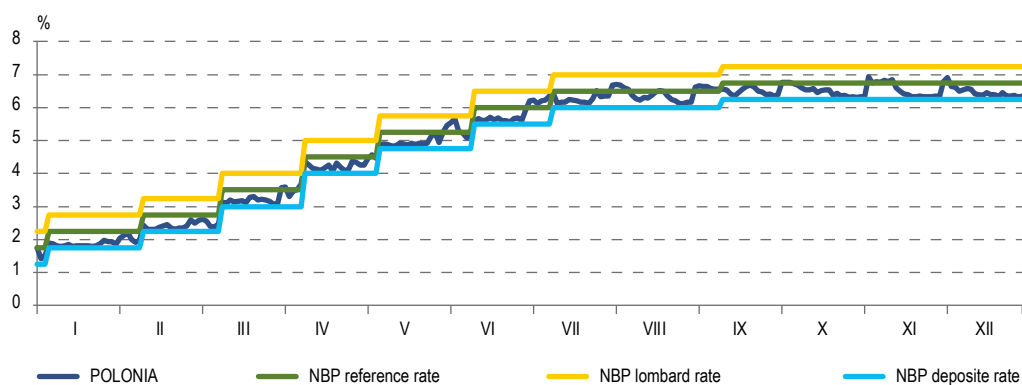
2.2. Open market operations

In accordance with the *Monetary Policy Guidelines for 2022*, while pursuing its operational objective, similarly to the previous year NBP strived to keep the POLONIA rate close to the NBP reference rate. The main instrument to implement the operational objective of monetary policy was main open market operations with the function of absorbing liquidity from the banking sector (in principle, involving issuance of 7-day NBP bills). By conducting these operations, NBP provided banks with the opportunity to balance their liquidity positions during the reserve maintenance periods, at the same time striving to keep short-term interest rates as close to the NBP reference rate as possible.

Fine-tuning operations played a supplementary role in achieving the operational objective of the monetary policy by NBP. They were offered on an *ad hoc* basis during the required reserve maintenance period and regularly on the last business day of that period. Irregular operations were offered to banks when a need arose to reduce the volatility of short-term market interest rates. The operations carried out on the last business day of reserve maintenance were intended to allow market participants to minimise the average deviation of the aggregate level of their current accounts held with the central bank during the reserve maintenance period relative to the value of reserve requirement. The average daily level of the NBP bills issue in 2022 amounted to PLN 197,634 million, of which the main operations accounted for 97% and the fine-tuning ones for 3%. The yield on these operations was set at the level of the NBP reference rate.

In 2022, a part of the funds at the disposal of the banking sector was not absorbed through the purchase of NBP bills. Banks deposited surpluses in instruments ensuring a higher flexibility in liquidity management, including in the form of a deposit facility placed with the central bank. In 2022, banks showed a propensity to keep additional liquidity buffers, which was partly driven by concerns over the hostilities in Ukraine. However, these surpluses were lower than in 2021. This was the effect among others of the increase in the reserve requirement rate from December 2021 and then from April 2022 and the continued process of increasing basic interest rates by the Monetary Policy Council. The higher rates prompted banks to invest their spare funds both in instruments offered by the central bank and by the market.

Figure 2.1. POLONIA short-term market rate against NBP rates in 2022



Source: NBP.

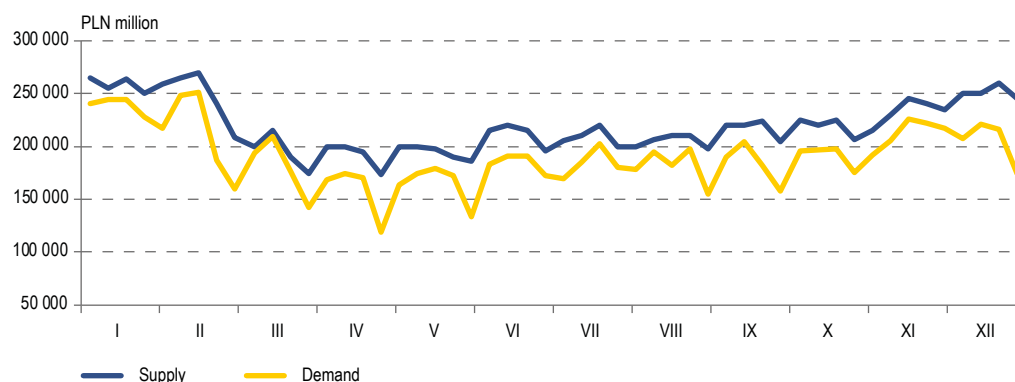
As already mentioned above, the objective of the banking sector liquidity management policy adopted by NBP was to establish the optimum liquidity conditions in the banking sector from the point of view of influencing the shortest-term market rates (in particular, the POLONIA rate). When determining the levels of individual open market operations, the central bank strived to maintain balanced liquidity conditions in the banking sector throughout the reserve maintenance period. Supply was determined at a level which (based on the prepared forecasts of banking sector liquidity in the maturity period of a given operation) intended to allow market participants to minimise the average deviation of the current account held with NBP from the value of the reserve requirement, in a given

reserve maintenance period. In 2022, the average absolute deviation of the POLONIA rate from the NBP reference rate was 32 bps.

2.2.1. Main operations

In 2022, NBP carried out main open market operations involving the issuance of NBP bills with a maturity of 7 days.⁴ NBP bills were issued regularly once a week on Fridays, on a tender basis. The settlement of the tenders took place at time T+0. The yields on the individual operations equalled the level of the NBP reference rate effective on the day of the operation. In 2022, the average level of NBP bills issued under the main operations was PLN 191,636 million and was PLN 13,875 million lower than a year ago. In 2022, the central bank offered NBP bills amounting to PLN 11,664,000 million under main operations. The bids received in this period amounted to PLN 10,145,046 million and were fully accepted by the central bank. The ratio of demand reported during the year to supply of NBP bills was 0.87.

Figure 2.2. NBP bills – demand in relation to supply at tenders for main open market operations in 2022



Source: NBP.

At all tenders for sale of NBP bills in 2022, the supply offered by NBP exceeded the demand reported by banks. The ratio of the demand reported at individual tenders under main operations to the supply offered by the central bank ranged from 0.69 to 0.97.

2.2.2. Fine-tuning operations

In 2022, NBP also conducted fine-tuning operations. These operations were liquidity-absorbing and involved the issuance of NBP bills with maturities shorter than those applicable to main operations.

⁴ Except for operations conducted on: 10 November (8-day maturity), 4 November and 30 December (6-day maturity).

Fine-tuning operations were conducted at the initiative of the central bank, with the aim of reducing the volatility of short-term market interest rates. These operations were conducted regularly on the last day of the reserve maintenance period and *ad hoc* during this period.

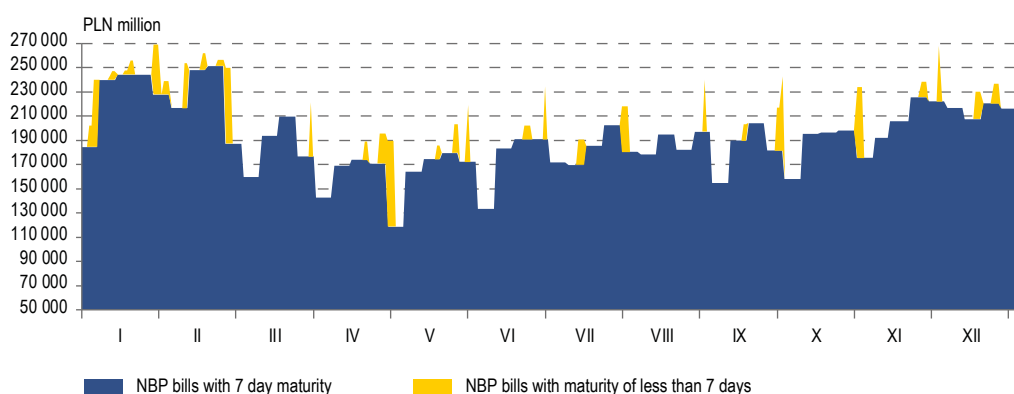
The objective of operations carried out on the last day of the reserve maintenance period was to balance the liquidity conditions in the banking sector on average in the entire required reserve maintenance period. In 2022, NBP conducted 12 regular fine-tuning operations. Regular operations were conducted in the form of overnight transactions. Due to calendar arrangement of days in 2022, 6 operations with a 1-day maturity and 6 operations with a 3-day maturity were carried out.

In addition, in 2022, NBP conducted 21 open market operations carried out during the reserve maintenance period (six in January, four in February, two of each type in April, May, September and December and one of each type in June, July and November), in order to balance the deviations of market interest rates from the reference rate.

The average level of the above fine-tuning operations conducted in 2022 reached PLN 5,998 million and was higher by PLN 5,604 million than the level in 2021. In 2022, the central bank offered for sale NBP bills amounting to PLN 1,240,000 million within fine-tuning operations. The bids received in this period from banks amounted to PLN 973,914 million, whereas bids accepted by the central bank amounted to PLN 965,882 million.

In 2022, demand from participants in the tenders for fine-tuning operations was generally lower than the supply offered by the central bank, although there were two occasions when the demand exceeded the supply. On average, in 2022, the ratio of supply to demand for NBP bills was 0.79. Over the past year, it ranged from 0.14 to 1.26.

Figure 2.3. NBP money bills in 2022



Source: NBP.

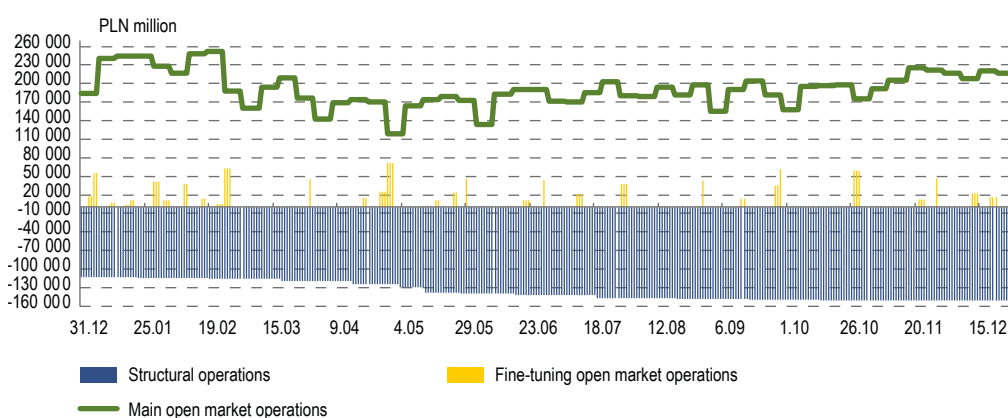
2.2.3. Structural operations

In 2022, NBP did not conduct any structural operations. The last operations of this type took place in November 2021. They involved the purchase on the secondary market of Treasury bonds and bonds guaranteed by the State Treasury, i.e. bonds issued by Bank Gospodarstwa

Krajowego for the COVID-19 Prevention Fund and bonds issued by Polski Fundusz Rozwoju SA (Polish Development Fund). As a result of previously conducted structural operations, the central bank acquired bonds with the total face value of PLN 144,027 million. In 2021, this amount was reduced by the redemption of OK0521 bonds in the amount of PLN 50 million (face value). In 2022, the Minister of Finance repurchased two successive bonds (PS0422 and OK0722) for the total amount of PLN 7,784 million (face value).

The average daily level of structural operations remaining in the NBP's portfolio in 2022 amounted to PLN 145,093 million (in terms of cost).

Figure 2.4. Operations carried out by NBP in 2022



Source: NBP.

2.3. Reserve requirement

In 2022, banks, credit unions (SKOKs) and the National Association of Cooperative Savings and Credit Unions (KSKOK) were obliged to maintain funds on accounts with NBP averaging not less than the required reserve in any given required reserve maintenance period. This solution helped to stabilise the level of short-term market interest rates.

The basis for calculating the required reserve were returnable funds on bank accounts and funds obtained from the sale of securities, except for funds received from another domestic bank, a credit union, and KSKOK. Moreover, the basis for the reserve calculation in banks, branches of credit institutions and branches of foreign banks did not include foreign funds placed for at least two years, funds deposited in savings and credit accounts with building societies, as well as funds accumulated on individual pension accounts or funds acquired under agreements on individual pension security accounts. Both banks and credit unions were able to exclude returnable funds obtained from Bank Guarantee Fund from the basis for calculating the required reserve.

The required reserves were calculated and maintained in the Polish zloty. Holders of required reserves deducted the amount equivalent to EUR 500 thousand from the calculated required reserve.

On 8 February 2022, the Monetary Policy Council (MPC) decided, among others, to increase the basic required reserve ratio from 2.0% to 3.5%, applying to the required reserve maintained as of 31 March 2022. This decision resulted in an increase in the required reserve from PLN 35,110 million to PLN 62,096 million, consequently reducing the level of liquidity buffers at the disposal of banks and credit unions by PLN 26,986 million.

In the case of funds obtained from repo and sell-buy-back operations and funds received from domestic entities for a period of at least two years, the required reserve rate of 0.0% continued to apply.

The remuneration of required reserve funds was at a level of the NBP reference rate. Due to the fact that the MPC raised the NBP reference rate eight times in 2022, the interest rate on the required reserve increased from 1.75% to 6.75%.

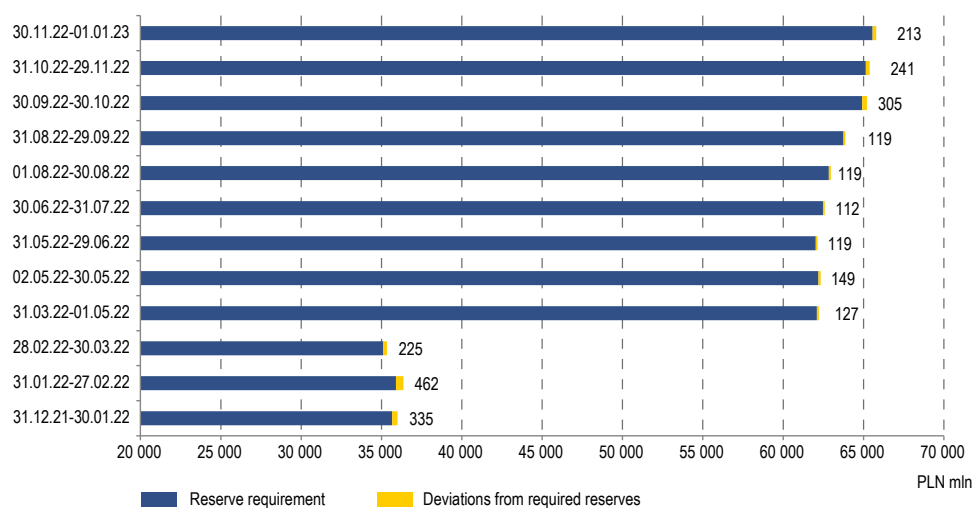
As at 31 December 2022, the required reserve reached PLN 65,570 million, including the banking sector required reserve of PLN 65,293 million and the credit unions' required reserve of PLN 277 million.

Compared to the balance as at 31 December 2021, the total required reserve was PLN 29,902 million, i.e. 84% higher. The change in the balance of the required reserve at the end of 2022 was mainly due to the above-mentioned MPC's decision and the increase in the level of deposits.

In 2022, in all the reserve maintenance periods a surplus of average holdings was recorded on accounts of entities required to maintain the reserve compared to the required level. The smallest surplus was recorded in July (PLN 112 million), whereas the largest surplus was seen in February (PLN 462 million). The average surplus of the required reserves holdings in 2022 amounted to PLN 209 million and accounted for 0.37% of the average level of required reserves.

In 2022, there were eight cases where the entities failed to maintain the reserve requirements at the required level. One bank during the implementation period of the resolution plan used an exemption from the obligation to maintain a part of the reserve requirement.

Figure 2.5. Changes in the required reserves level and deviations from the reserve requirement in 2022



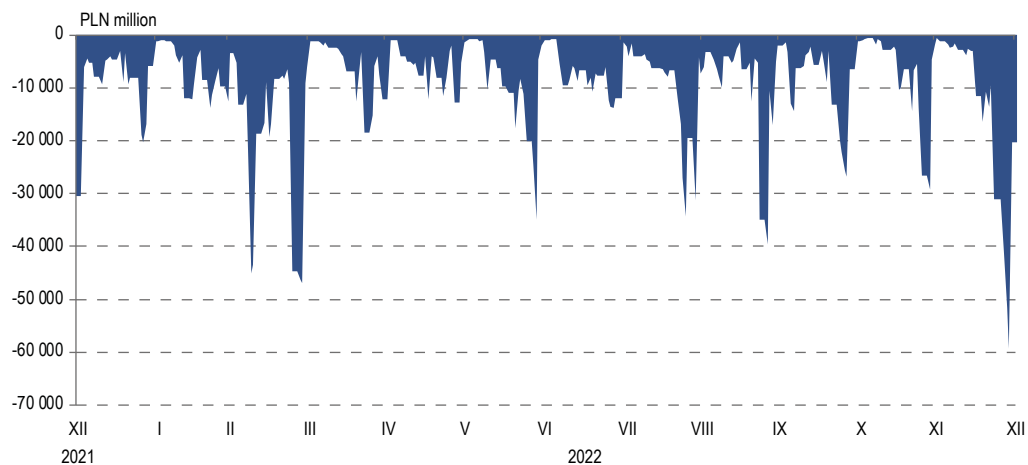
Source: NBP.

2.4. Standing facilities

Standing facility operations (marginal lending facility and overnight deposit facility) are instruments stabilising the level of liquidity and scale of overnight rate fluctuations. Through making the said instrument available, Narodowy Bank Polski prevented excessive rate fluctuations in the interbank market. These operations are carried out on the initiative of commercial banks.

2.4.1. Deposit facility

In 2022, as in the previous years, banks had an access to placing liquidity surpluses in the form of an overnight deposit facility. The combined value of overnight deposits placed by banks each time ranged from PLN 478 million to PLN 59,436 million, while the average daily level of deposit facilities in the period analysed, amounted to PLN 9,506 million compared to PLN 10,674 million in 2021.

Figure 2.6. The use of the deposit facility in 2022

Source: NBP.

2.4.2. Marginal lending facility

In 2022, like in previous years, banks used the marginal lending facility only occasionally. The total amount of the marginal lending facility used throughout the year calculated for the day of use amounted to PLN 62 million and was over 6 times higher than the amount borrowed in 2021 (PLN 10 million). All marginal lending facilities were drawn by banks in order to test their internal procedures.

Chapter 3

Other operations

Other operations

3.1. Intraday credit facility

In 2022, banks used on a daily basis a non-interest bearing intraday facility in PLN, whereby funds were borrowed and repaid on the same trading day. This instrument facilitated liquidity management during the day, simultaneously ensuring liquidity of interbank settlements at NBP. The daily supply of operating liquidity to banks ranged from PLN 67,123 million to 82,555 million. In 2022, the total drawing on the intraday credit was PLN 18,638,063 million, 5% lower than in 2021 (PLN 19,532,059 million), while the average drawing was PLN 73,668 million.

No event of default in repayment of a loan on the maturity date occurred in 2022.

3.2. Intraday credit facility in euro

The intraday credit facility in euro played a role of an instrument that ensures smooth settlements in the TARGET2-NBP system. A loan collateralised with Treasury bonds accepted by the ECB was incurred and repaid on the same trading day. In the period under review, the daily provision of operational liquidity to banks ranged from EUR 0 to EUR 209 million. In 2022, the total drawing on this facility dropped by 3% compared to 2021 and was running at EUR 51,210 million, while the average daily drawing between January and December 2022 stood at EUR 198 million.

Glossary

Glossary

Money Market Dealers – banks that are the most active in the money and foreign exchange markets with which NBP enters into Money Market Dealer agreements. One of the obligations of the Money Market Dealer is to participate in the fixing of the POLONIA reference rates when performing the function.

Deposit facility – an instrument which enables banks to deposit their liquidity surplus on an overnight basis with the central bank. The interest rate on that deposit constitutes the lower limit for the market rate quoted for that particular period.

Marginal lending facility (lombard credit) – an instrument which enables commercial banks to obtain credit on an overnight basis. The interest on that facility indicates the marginal cost of obtaining funds from the central bank. It is collateralised with securities accepted by the central bank.

Bill discount credit – an instrument enabling commercial banks to incur a loan secured by a bill of exchange payable in the future in order to refinance loans granted to entrepreneurs. The interest on the bill discount credit equals the discount rate.

Intraday credit facility (PLN or EUR) – a non-interest bearing credit facility which enables banks to obtain funds on an intraday basis, collateralised with securities accepted by the central bank. It is an instrument, which allows commercial banks to manage intraday liquidity.

Standing facilities – operations conducted on the initiative of commercial banks. Under these operations, commercial banks are able to deposit their liquidity surplus with NBP using the deposit facility or replenish liquidity shortages using the marginal lending facility.

Fine-tuning operations – operations which may be conducted in order to limit the volatility of short-term market interest rates. They may involve liquidity-absorbing operations (issue of NBP bills, reverse repo transactions) or liquidity-providing operations (redemption of NBP bills before maturity, repo transactions).

Open market operations – a principal instrument of the central bank which is used to maintain short-term market interest rates at a level consistent with the NBP reference rate determined by the Monetary Policy Council.

Main operations – operations conducted on a regular basis (once a week). In the context of the banking sector liquidity surplus, they consist in issuance of NBP bills, typically with a 7-day maturity. During tenders, a fixed yield at the level of the NBP reference rate is binding.

Structural operations – operations conducted in order to change the long-term structure of banking sector liquidity. Under these operations the central bank may carry out the following structural operations: issuance of bonds, early redemption of bonds, purchase or sale of securities in the secondary market.

Foreign exchange swaps – operations under which NBP is able to purchase (or sell) the zloty for foreign currencies, in the spot market and simultaneously to resell (or repurchase) the zloty under forward transaction on a specific value date.

Reserve requirement – a monetary policy instrument used by the central bank, among other things, to regulate the banking sector liquidity and to mitigate volatility of short-term interest rates. The obligation to maintain the reserve is also an element of liquidity management at banks. The reserve requirement is an obligation imposed on banks to maintain a specific average level of funds (set as a percentage) on their accounts with the central bank.

POLONIA rate – the Polish Overnight Index Average, was introduced by NBP and ACI Poland at the beginning of 2005. It is an average overnight rate weighted by the value of transactions in the interbank deposit market. The rate reflects the actual interest rates on short-term interbank deposits. The POLONIA rate is published by NBP in the Refinitiv (Thomson Reuters) service (NBPS), Bloomberg service (PZCFPLNI Index) and at the NBP website each day at about 5.00 p.m.

The fixing of the POLONIA rate is carried out by NBP on each operating day at 4.45 p.m. The participant is obliged to provide the central bank with a list of overnight transactions concluded with other participants and submitted for clearance on a given day until 4.30 p.m.

As of 1 December 2017, NBP is the Organiser of the Fixing of the POLONIA reference rate.

NBP reference rate – determines the yield obtainable on the main open market operations, affecting at the same time, the level of short-term market interest rates.

NBP lombard rate – determines the costs of funding obtainable from the NBP. It sets the ceiling for the growth in the overnight market rate.

NBP deposit rate – determines the interest rate on deposits with NBP. It sets the floor for fluctuations of the overnight market rate. The deposit rate and the lombard rate create the fluctuation band for the overnight rate, which is symmetric to the central bank's reference rate.

Funds at the disposal of the banking sector – the sum of operations conducted by the central bank (issue of the NBP bills, repo operations and standing facility operations) increased by the deviation of funds on banks' accounts with NBP in excess of the required reserve.

Publication of information in information services – in the Thomson Reuters (Refinitiv) service, on the NBPM site and in the Bloomberg service on the NBP<GO> site, the central bank provides banks with information on the current market liquidity situation, specifically concerning:

- banks' current accounts, deposit facility placed with NBP and marginal lending facility (lombard credit) provided by NBP, on a daily basis,
- level of required reserve during a specific reserve maintenance period,
- average balance of banks' current accounts during the required reserve maintenance period,
- forecast of the average daily balance of the current account in the period from the issue date of the NBP bills (under main operations) until the day preceding their maturity.

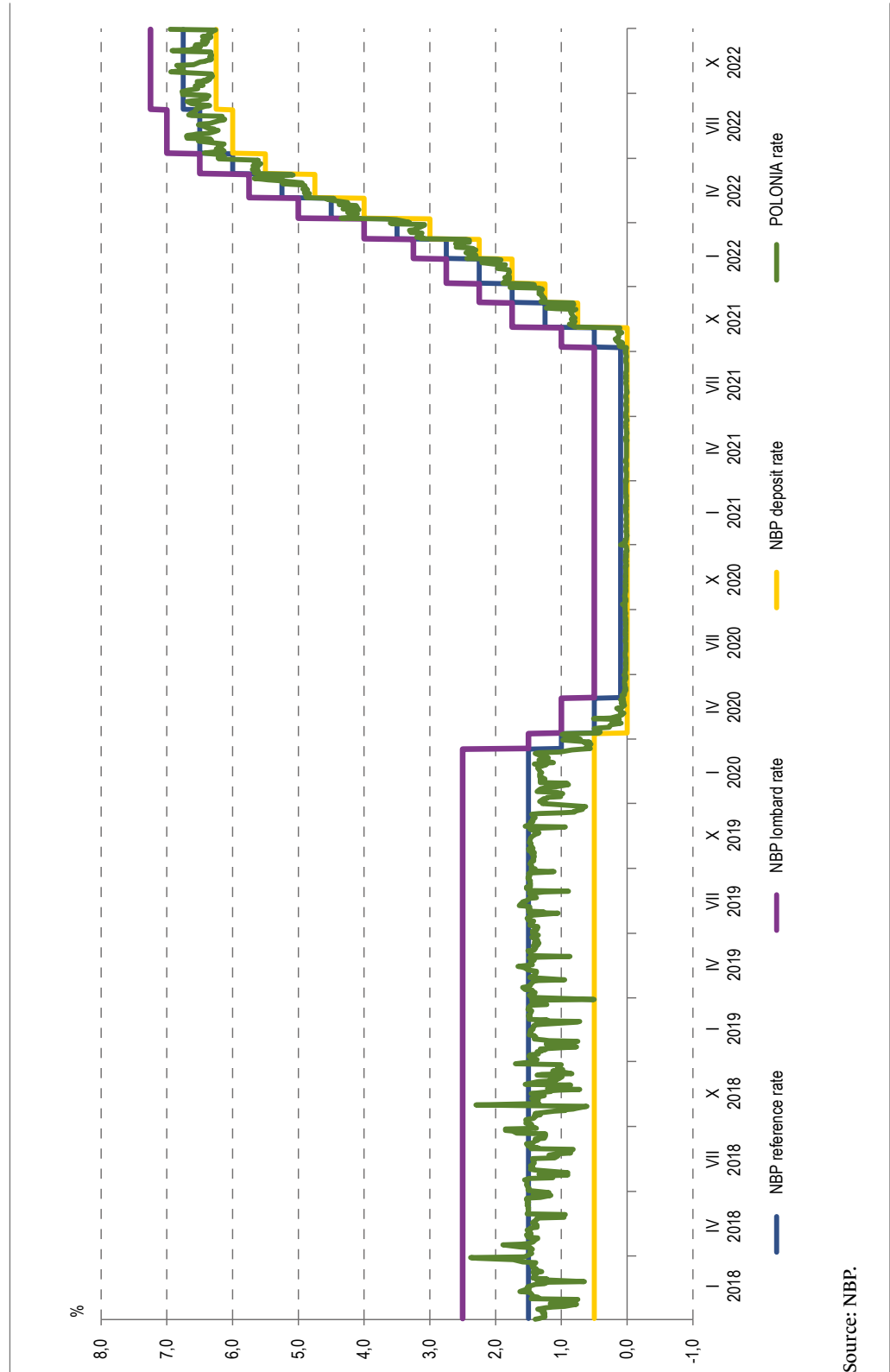
Information on current auctions for NBP bills is also published on the NBPT site of the Thomson Reuters (Refinitiv) news service and the NBP<GO> site of the Bloomberg news service (Liquidity & Open Market Operations). The outcome of tenders is posted on the NBPU site (Reuters) and NBP (Bloomberg) sites.

Current information concerning the liquidity situation and auctions carried out by NBP under open market operations is regularly published on the NBP website (nbp.pl).

Annexes

Annex 1.

POLONIA rate as the operating target of NBP monetary policy in 2018–2022



Annex 2. Main operations in 2022

No.	Tender date*	Maturity date	Maturity period (in days)	Nominal value of sales offers (PLN mln)	Nominal value of offers to buy (PLN mln)	Nominal value of accepted offers (PLN mln)	Average yield on bills annual 365/360 (%)
1	31.12.2021	07.01.2022	7	248 000.00	184 574.90	184 574.90	1.75
2	07.01.2022	14.01.2022	7	265 000.00	240 039.95	240 039.95	2.25
3	14.01.2022	21.01.2022	7	255 000.00	244 293.65	244 293.65	2.25
4	21.01.2022	28.01.2022	7	264 000.00	244 247.05	244 247.05	2.25
5	28.01.2022	04.02.2022	7	250 000.00	227 962.40	227 962.40	2.25
6	04.02.2022	11.02.2022	7	259 000.00	216 676.86	216 676.86	2.25
7	11.02.2022	18.02.2022	7	265 000.00	248 231.53	248 231.53	2.75
8	18.02.2022	25.02.2022	7	270 000.00	251 547.30	251 547.30	2.75
9	25.02.2022	04.03.2022	7	240 000.00	187 327.35	187 327.35	2.75
10	04.03.2022	11.03.2022	7	208 000.00	159 638.80	159 638.80	2.75
11	11.03.2022	18.03.2022	7	200 000.00	193 656.21	193 656.21	3.50
12	18.03.2022	25.03.2022	7	215 000.00	209 421.81	209 421.81	3.50
13	25.03.2022	01.04.2022	7	190 000.00	176 669.14	176 669.14	3.50
14	01.04.2022	08.04.2022	7	174 000.00	142 476.09	142 476.09	3.50
15	08.04.2022	15.04.2022	7	200 000.00	168 901.09	168 901.09	4.50
16	15.04.2022	22.04.2022	7	200 000.00	173 944.36	173 944.36	4.50
17	22.04.2022	29.04.2022	7	195 000.00	170 738.76	170 738.76	4.50
18	29.04.2022	06.05.2022	7	173 000.00	118 758.01	118 758.01	4.50
19	06.05.2022	13.05.2022	7	200 000.00	164 032.52	164 032.52	4.50
20	13.05.2022	20.05.2022	7	200 000.00	174 231.50	174 231.50	5.25
21	20.05.2022	27.05.2022	7	198 000.00	179 459.78	179 459.78	5.25
22	27.05.2022	03.06.2022	7	190 000.00	172 283.18	172 283.18	5.25
23	03.06.2022	10.06.2022	7	186 000.00	133 493.90	133 493.90	5.25
24	10.06.2022	17.06.2022	7	215 000.00	183 175.98	183 175.98	6.00
25	17.06.2022	24.06.2022	7	220 000.00	190 780.18	190 780.18	6.00
26	24.06.2022	01.07.2022	7	215 000.00	190 873.13	190 873.13	6.00
27	01.07.2022	08.07.2022	7	196 000.00	171 967.41	171 967.41	6.00
28	08.07.2022	15.07.2022	7	205 000.00	169 768.78	169 768.78	6.00
29	15.07.2022	22.07.2022	7	210 000.00	185 386.15	185 386.15	6.50
30	22.07.2022	29.07.2022	7	220 000.00	202 482.25	202 482.25	6.50
31	29.07.2022	05.08.2022	7	200 000.00	180 395.43	180 395.43	6.50
32	05.08.2022	12.08.2022	7	200 000.00	178 380.64	178 380.64	6.50
33	12.08.2022	19.08.2022	7	206 000.00	194 667.71	194 667.71	6.50
34	19.08.2022	26.08.2022	7	210 000.00	182 013.93	182 013.93	6.50
35	26.08.2022	02.09.2022	7	210 000.00	197 259.20	197 259.20	6.50
36	02.09.2022	09.09.2022	7	198 000.00	154 823.86	154 823.86	6.50
37	09.09.2022	16.09.2022	7	220 000.00	189 768.04	189 768.04	6.75
38	16.09.2022	23.09.2022	7	220 000.00	204 271.69	204 271.69	6.75
39	23.09.2022	30.09.2022	7	224 000.00	181 614.13	181 614.13	6.75
40	30.09.2022	07.10.2022	7	204 000.00	158 131.57	158 131.57	6.75
41	07.10.2022	14.10.2022	7	225 000.00	195 520.50	195 520.50	6.75
42	14.10.2022	21.10.2022	7	220 000.00	196 714.44	196 714.44	6.75
43	21.10.2022	28.10.2022	7	225 000.00	197 911.68	197 911.68	6.75
44	28.10.2022	04.11.2022	7	206 000.00	175 436.98	175 436.98	6.75
45	04.11.2022	10.11.2022	6	215 000.00	192 116.23	192 116.23	6.75
46	10.11.2022	18.11.2022	8	230 000.00	205 715.19	205 715.19	6.75
47	18.11.2022	25.11.2022	7	245 000.00	225 612.86	225 612.86	6.75
48	25.11.2022	02.12.2022	7	240 000.00	222 014.31	222 014.31	6.75
49	02.12.2022	09.12.2022	7	235 000.00	216 731.06	216 731.06	6.75
50	09.12.2022	16.12.2022	7	250 000.00	207 557.94	207 557.94	6.75
51	16.12.2022	23.12.2022	7	250 000.00	220 534.45	220 534.45	6.75
52	23.12.2022	30.12.2022	7	260 000.00	216 190.78	216 190.78	6.75
53	30.12.2022	05.01.2023	6	245 000.00	174 623.25	174 623.25	6.75
Total 2022				11 664 000.00	10 145 045.89	10 145 045.89	

* Day of payment for the NBP bills on the tender date.

Source: NBP.

Annex 3. Fine-tuning operations in 2022

No.	Tender date*	Maturity date	Maturity period (in days)	Nominal value of sales offers (PLN mln)	Nominal value of offers to buy (PLN mln)	Nominal value of accepted offers (PLN mln)	Average yield on bills annual 365/360 (%)
1	03.01.2022	05.01.2022	2	60 000.00	17 625.00	17 625.00	2.25
2	05.01.2022	07.01.2022	2	65 000.00	55 620.00	55 620.00	2.25
3	11.01.2022	14.01.2022	3	25 000.00	3 505.00	3 505.00	2.75
4	12.01.2022	14.01.2022	2	20 000.00	3 645.00	3 645.00	2.75
5	17.01.2022	21.01.2022	4	11 000.00	3 210.00	3 210.00	2.75
6	19.01.2022	21.01.2022	2	10 000.00	8 620.00	8 620.00	2.75
7	28.01.2022	31.01.2022	3	41 000.00	42 511.76	41 000.00	2.75
8	01.02.2022	04.02.2022	3	20 000.00	11 015.00	11 015.00	2.75
9	09.02.2022	11.02.2022	2	45 000.00	37 280.00	37 280.00	2.75
10	16.02.2022	18.02.2022	2	25 000.00	13 887.00	13 887.00	2.75
11	22.02.2022	25.02.2022	3	20 000.00	5 135.00	5 135.00	2.75
12	25.02.2022	28.02.2022	3	63 000.00	62 329.50	62 329.50	2.75
13	30.03.2022	31.03.2022	1	50 000.00	44 569.00	44 569.00	3.50
14	20.04.2022	22.04.2022	2	25 000.00	15 185.00	15 185.00	4.50
15	26.04.2022	29.04.2022	3	25 000.00	31 520.00	25 000.00	4.50
16	29.04.2022	02.05.2022	3	82 000.00	71 078.50	71 078.50	4.50
17	18.05.2022	20.05.2022	2	25 000.00	11 460.00	11 460.00	5.25
18	25.05.2022	27.05.2022	2	25 000.00	23 961.20	23 961.20	5.25
19	30.05.2022	31.05.2022	1	48 000.00	46 832.50	46 832.50	5.25
20	21.06.2022	24.06.2022	3	20 000.00	11 187.00	11 187.00	6.00
21	29.06.2022	30.06.2022	1	45 000.00	43 901.00	43 901.00	6.00
22	12.07.2022	15.07.2022	3	25 000.00	21 120.00	21 120.00	6.50
23	29.07.2022	01.08.2022	3	45 000.00	37 880.60	37 880.60	6.50
24	30.08.2022	31.08.2022	1	45 000.00	43 033.40	43 033.40	6.50
25	14.09.2022	16.09.2022	2	20 000.00	13 368.00	13 368.00	6.75
26	27.09.2022	30.09.2022	3	45 000.00	35 602.00	35 602.00	6.75
27	29.09.2022	30.09.2022	1	28 000.00	25 299.50	25 299.50	6.75
28	28.10.2022	31.10.2022	3	64 000.00	58 429.50	58 429.50	6.75
29	22.11.2022	25.11.2022	3	20 000.00	12 800.00	12 800.00	6.75
30	29.11.2022	30.11.2022	1	48 000.00	45 838.00	45 838.00	6.75
31	13.12.2022	16.12.2022	3	30 000.00	22 540.00	22 540.00	6.75
32	20.12.2022	23.12.2022	3	25 000.00	16 222.00	16 222.00	6.75
33	30.12.2022	02.01.2023	3	95 000.00	77 703.50	77 703.50	6.75
	Total 2022			1 240 000.00	973 913.96	965 882.20	

* Day of payment for the NBP bills on the tender date.

Source: NBP.

Annex 4. Money Market Dealers in 2022

The Money Market Dealers (MMD) System has been used by Narodowy Bank Polski since 1992. The central bank selects entities for the function of MMD once a year. The Dealer status is assigned to an entity upon the conclusion of a relevant agreement with NBP.

Pursuant to the provisions of Resolution no 56/2010 of the NBP Management Board of 21 October 2010¹ the MMD status authorises to participate in fine-tuning open market operations used by NBP.

In March 2020, the NBP Management Board, in connection with the conditions arising from the COVID-19 pandemic, decided to permit access of entities authorised to participate in the main open market operations of NBP to NBP fine-tuning operations. This decision remained in force during 2022.

In 2022, the following entities acted as MMD (ranked by bank settlement number):

1. Powszechna Kasa Oszczędności Bank Polski SA,
2. Bank Handlowy w Warszawie SA,
3. ING Bank Śląski SA,
4. Santander Bank Polska SA,
5. Bank Gospodarstwa Krajowego,
6. mBank SA,
7. Bank Millennium SA,
8. Bank Polska Kasa Opieki SA,
9. VeloBank SA,²
10. BNP Paribas Bank Polska SA,
11. SGB-Bank SA,
12. Bank Polskiej Spółdzielczości SA.

¹ Resolution No 56/2010 of the NBP Management Board of 21 October 2010 on the criteria for participation of domestic banks, branches of foreign banks and branches of credit institutions in open market operations conducted by Narodowy Bank Polski (Official Journal of NBP of 2015 item 12 and of 2019 item 13).

² VeloBank SA commenced its operations on 3 October 2022 (initially under the name Bank BFG SA), as a result of the decision of the Bank Guarantee Fund of 29 September 2022, among other, to initiate a resolution process against Getin Noble Bank SA and apply a resolution instrument in the form of a bridge institution. Until the entry into force of the aforementioned decision, the MMD function was performed by Getin Noble Bank SA.

Annex 5. Daily information (as at the month-end)

Items	XII 2021	I 2022	II 2022	III 2022	IV 2022	V 2022	VI 2022	VII 2022	VIII 2022	IX 2022	X 2022	XI 2022	XII 2022
PLN million													
Central budget													
revenues	497 241.52	58 979.79	92 038.46	121 370.04	169 117.42	211 892.05	265 677.27	315 671.37	345 140.15	383 187.08	425 985.24	464 551.51	504 012.06
expenses	521 946.73	36 449.23	80 351.24	120 360.84	158 849.83	197 911.03	235 893.74	278 631.95	317 880.36	355 676.47	398 701.74	446 252.77	518 389.34
deficit (-)/surplus (+)	-24 705.21	22 530.56	11 687.22	1 009.21	10 267.59	13 981.01	29 783.53	37 039.42	27 559.78	27 510.61	27 286.50	18 298.75	-14 377.27
central budget funds	0.27	0.83	0.04	0.03	0.04	0.06	0.04	0.01	0.05	0.04	594.78	0.04	0.91
MF FX account	27 315.85	25 870.40	17 716.19	12 510.73	17 264.03	29 855.21	26 563.82	34 223.06	39 241.97	38 605.59	29 261.00	34 700.19	41 577.24
MF Zloty term deposits in NBP	1 731.00	1 572.79	749.95	3 921.72	3 892.61	1 000.88	2 235.95	1 393.36	1 036.87	3 564.74	4 500.00	2 536.36	1 519.99
MF Zloty term deposits in NBP	355 557.73	352 324.27	379 668.58	389 728.24	391 956.45	385 412.65	379 339.66	377 860.17	373 714.50	373 639.92	374 059.24	369 326.82	368 611.66
Current account	66 061.58	60 086.87	65 496.60	58 830.09	33 114.11	72 260.09	66 975.92	30 987.89	58 149.73	98 393.85	91 622.39	74 237.86	34 514.30
(including required reserve account)													
balance deviation from required reserve*	30 394.05	24 190.84	30 386.40	-3 266.40	2 067.60	10 236.90	4 494.04	2 218.93	-5 604.12	33 480.37	26 485.63	8 667.92	2 229.87
Marginal lending	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bill discount credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intraday credit	73 155.66	74 675.84	77 588.32	77 477.04	74 340.57	72 053.53	71 847.82	71 477.78	72 880.40	73 866.45	71 087.01	68 419.18	80 763.27
Deposit facility	30 462.50	1 188.60	12 599.33	6 084.47	12 198.26	1 415.37	2 037.87	11 962.91	7 166.23	1 985.49	1 163.99	1 646.00	20 191.54
Open market operations**													
repo (-)	38 296.21	81 456.61	40 805.36	30 361.78	51 124.02	33 571.51	52 680.35	81 352.35	61 372.71	15 702.93	33 008.34	79 585.67	109 898.11
swap (+)	4 263.30	4 036.19	4 019.99	4 234.62	4 208.90	4 209.71	4 728.60	5 504.95	6 542.14	0.00	0.00	0.00	0.00
bond redemption (-)	150 541.98	150 541.98	150 541.98	150 541.98	142 921.39	142 921.39	142 921.39	142 921.39	142 428.64	142 428.64	142 428.64	142 428.64	142 428.64
NBP bills 7 days (+)	184 574.90	227 962.40	187 327.35	176 669.14	118 758.01	172 283.18	190 873.13	180 395.43	197 259.20	158 131.57	175 436.98	222 014.31	174 623.25
NBP bills < 7 days (+)	0.00	0.00	0.00	0.00	71 078.50	0.00	0.00	37 880.60	0.00	0.00	0.00	0.00	77 703.50
POLONIA	1.75%	1.85%	2.49%	3.60%	4.25%	5.46%	6.21%	6.69%	6.67%	6.76%	6.94%	6.92%	6.95%
turnover	330.00	1 300.00	1 210.00	300.00	0.00	885.00	510.00	977.00	645.00	0.00	445.00	945.00	125.00
WIBOR													
O/N	1.63%	2.03%	2.64%	3.48%	4.39%	5.36%	5.97%	6.79%	6.56%	6.85%	6.75%	6.76%	5.90%
T/N	1.74%	2.21%	2.80%	3.55%	4.61%	5.39%	6.21%	6.83%	6.64%	6.96%	6.89%	6.82%	6.80%
SW	2.09%	2.31%	2.86%	3.78%	5.08%	5.45%	6.26%	6.74%	6.76%	7.07%	6.95%	6.89%	6.86%
2W	2.18%	2.50%	3.02%	3.97%	5.19%	5.69%	6.45%	6.71%	6.89%	7.08%	7.01%	6.91%	6.86%
1M	2.23%	2.63%	3.14%	4.12%	5.26%	5.89%	6.59%	6.75%	7.01%	7.11%	7.15%	7.15%	6.94%
3M	2.54%	3.02%	3.65%	4.77%	6.05%	6.59%	7.05%	7.01%	7.11%	7.21%	7.51%	7.28%	7.02%
12M	3.13%	3.67%	4.23%	5.16%	6.40%	6.88%	7.51%	7.44%	7.46%	7.48%	7.82%	7.63%	7.23%
WBID													
O/N	1.34%	1.73%	2.34%	3.18%	4.09%	5.06%	5.67%	6.49%	6.26%	6.55%	6.45%	6.46%	5.60%
T/N	1.44%	1.91%	2.50%	3.25%	4.31%	5.09%	5.93%	6.53%	6.34%	6.66%	6.59%	6.52%	5.50%
SW	1.89%	2.11%	2.66%	3.58%	4.88%	5.25%	6.06%	6.54%	6.56%	6.87%	6.75%	6.69%	6.66%
2W	1.98%	2.30%	2.82%	3.77%	4.99%	5.49%	6.29%	6.51%	6.69%	6.88%	6.81%	6.71%	6.66%
1M	2.03%	2.43%	2.94%	3.92%	5.06%	5.69%	6.39%	6.55%	6.81%	6.91%	6.95%	6.74%	6.73%
3M	2.34%	2.82%	3.45%	4.57%	5.85%	6.39%	6.85%	6.81%	6.91%	7.01%	7.31%	7.08%	6.82%
12M	2.93%	3.47%	4.03%	4.96%	6.20%	6.68%	7.31%	7.24%	7.26%	7.28%	7.62%	7.43%	7.03%
USD/PLN (fix)	4 060.00	4 114.7	4 165.5	4 180.1	4 207.2	4 265.1	4 282.5	4 363.6	4 376.0	4 493.3	4 734.0	4 506.6	4 401.8
EUR/PLN (fix)	4 599.4	4 599.4	4 690.9	4 652.5	4 658.2	4 575.6	4 680.6	4 739.9	4 726.5	4 869.8	4 708.9	4 668.4	4 689.9
EUR/USD	1 132.9	1 117.5	1 117.8	1 113.0	1 057.0	1 072.8	1 044.2	1 022.3	0.9980	0.9831	0.9947	1.0359	1.0655
Official reserve assets (as at the end of the month)													
in PLN million	674 161.50	663 564.30	674 223.60	660 782.50	670 557.10	666 680.80	691 380.60	730 896.50	733 094.60	750 896.70	718 014.40	731 918.70	733 757.90
in EUR million	146 576.00	144 309.50	143 730.10	142 021.40	143 952.00	145 703.50	147 712.00	154 137.50	155 103.00	154 194.60	152 480.20	156 781.50	156 454.90
Purchase (-) or sale (+) of foreign currency	5 476.38	1 172.82	-21.90	-808.61	-2 979.99	-888.87	-204.91	-274.50	1 416.80	-1 571.12	-4 388.27	-21 832.18	520.24

* Average deviation of current account from the required reserve calculated cumulatively from the beginning of reserve requirement period.

** Open market operations are reported at nominal value.

Source: NBP.

List of tables

Table I.	Average level of open market operations (NBP bills, repo, FX swaps and standing facilities as well as structural operations) in 2004–2022 (in PLN million)	7
Table II.	Deviation of market rates from the NBP reference rate in 2004–2022	8
Table 1.1.	Short-term NBP monetary policy operations in 2022 and the average level of funds at the disposal of the banking sector (PLN million)	10
Table 2.1.	The basic NBP interest rates in 2022 in annual terms (in %)	22

List of figures

Figure 1.1.	NBP operations absorbing funds from the banking sector in 2022	11
Figure 1.2.	Main factors influencing short-term liquidity of the Banking sector in 2022	12
Figure 1.3.	Purchase and sale of foreign currencies by NBP in 2022	13
Figure 1.4.	The structure of currency purchases by NBP in 2022	14
Figure 1.5.	The structure of currency sales by NBP in 2022	14
Figure 1.6.	Daily changes of currency in circulation, cumulatively in 2018–2022	16
Figure 1.7.	Average change in currency in circulation in individual months of 2018–2022 (left axis) vs. the growth rate of currency in circulation (right axis)	17
Figure 1.8.	The quantitative structure of the Ministry of Finance’s term deposits with NBP in 2022	18
Figure 1.9.	Daily levels of the Ministry of Finance’s term deposits with NBP in 2022	19
Figure 1.10.	The average level of the Ministry of Finance’s term deposits in PLN in 2022	19
Figure 2.1.	POLONIA short-term market rate against NBP rates in 2022 (in %)	23
Figure 2.2.	NBP bills – demand in relation to supply at tenders for main open market operations in 2022	24
Figure 2.3.	NBP money bills in 2022	25
Figure 2.4.	Operations carried out by NBP in 2022	26
Figure 2.5.	Changes in the required reserves level and deviations from the reserve requirement in 2022	28
Figure 2.6.	Use of the deposit facility in 2022	29

nbp.pl

