



NARODOWY
BANK POLSKI

Annual Report 2021

Banking Sector Liquidity
Monetary Policy Instruments
of Narodowy Bank Polski



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Introduction

Introduction

In 2021, Narodowy Bank Polski (NBP) pursued monetary policy in accordance with the *Monetary Policy Guidelines*.

The key monetary policy instrument in 2021 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 2021, the Monetary Policy Council (MPC) decided to raise NBP interest rates on three occasions (in October, November and December). At the end of 2021, the NBP reference rate stood at 1.75%, the NBP deposit rate stood at 1.25% and the NBP lombard rate at 2.25%. Compared to the end of the previous year, these rates had increased by: 1.65 pp, 1.25 pp and 1.75 pp, respectively. As a result of the changes, the width of the NBP interest rate band, defined by the levels of the NBP lombard rate and the NBP deposit rate, was again shaped symmetrically at a level of +/-50 bps relative to the NBP reference rate.

The operational objective of monetary policy in 2021 was to keep the path of the POLONIA rate close to the NBP reference rate. To achieve this, the central bank took recourse to main and fine-tuning (liquidity-absorbing) open market operations. Using the above-mentioned operations, NBP offered banks the possibility of balancing their own liquidity positions in the reserve maintenance periods to ensure that the liquidity conditions in the banking sector were conducive to the above operational objective.

In 2021, the average absolute deviation of the POLONIA rate from the NBP reference rate amounted to 16 bps (versus 17 bps in 2020).

Like in previous years, the main open market operations in 2021 involved the issuance of 7-day NBP bills on a regular basis.

In December 2021, fine-tuning open market operations were resumed. They are conducted on an ad hoc basis during the reserve maintenance period and offered on the last business day of that period (such operations were conducted until April 2020).

In addition to banks, the Bank Guarantee Fund (BFG) had access to open market operations, both main and fine-tuning.

In 2021, NBP issued bills with a 7-day maturity as part of main open market operations with an average value of PLN 205,511 million and with shorter maturities for fine-tuning operations with an average value of PLN 394 million. In total, the average level of NBP bills in circulation in 2021 amounted to PLN 205,905 million.

In 2021, as in the previous year, NBP conducted structural open market operations involving the purchase of debt securities on the secondary market. Treasury bonds and Treasury-guaranteed bonds issued by Bank Gospodarstwa Krajowego (BGK) and Polski Fundusz

Rozwoju SA (Polish Development Fund, PFR) were purchased as part of these operations. As a result of the above operations, in 2021, NBP provided the banking sector with funds averaging PLN 136,158 million. NBP discontinued its regular structural operations in December 2021.

Similar to the situation after 12 March 2020, in 2021 the central bank offered access to all types of open market operations (including the fine-tuning operations as well as structural operations), to all banks eligible for participation in the main NBP open market operations.¹

Apart from to open market operations, the NBP 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.

Table I. Average level of open market operations (NBP bills and repo), FX swaps and standing facilities as well as structural operations in 2004–2021 (PLN million)

Period	NBP bills	Repos	FX swaps	Structural operations		
				deposit facility	marginal lending facility	structural operations
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.

¹ All the banks meeting the NBP conditions defined in Resolution 56/2010 of the NBP Management Board of 21 October 2010, as amended, had access to the quasi-regular main and fine-tuning operations (those conducted at the end of the required reserve maintenance period) and irregular operations.

In October 2021, the Monetary Policy Council (MPC) decided to increase the main reserve requirement ratio from 0.5% to 2.0%. The revised reserve ratio was applied to the required reserve maintained from 30 November 2021. The consequence of the aforementioned decision was an increase in the level of reserve requirement by PLN 27,007 million, which simultaneously meant a corresponding decrease in the level of funds available to banks and credit unions. The remuneration of required reserve funds was equalised with the NBP reference rate.

For the purpose of current liquidity management, NBP also made available the overnight deposit and credit facilities to commercial banks. 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 2021 amounted to PLN 10,674 million.

During 2021, there was an increase in short-term monetary policy operations measured as the average annual balance of main and fine-tuning open market operations along with marginal facility operations.

The average level of short-term monetary policy operations in 2021 amounted to PLN 219,910 million. Compared to the average level of the previous year, liquidity increased by PLN 82,096 million.

Table II. Deviation of market rates from the NBP reference rate in 2004–2021

Period	Average reference rate (in %)*	Deviation of rates from reference rate in basis points (annual average)**				
		O/N	SW	2W	1M	POLONIA
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.

Chapter 1

Banking sector liquidity

Banking sector liquidity

1.1. Liquidity developments in 2021

In 2021, 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 monetary policy operations, measured as the average annual balance of operations conducted by the central bank (NBP bill issues, repo operations and standing facilities) increased gradually until November 2021, when it reached PLN 280,446 million. In December 2021, this level decreased to PLN 253,238 million and was PLN 97,461 million higher than in December 2020 (PLN 155,777 million).

Until November 2021, the central bank continued the use of structural open market operations involving the purchase of debt securities on the secondary market. Their use by the central bank resulted in a gradual increase in the scale of basic open market operations, the main instrument used to absorb funds from the banking sector.

In December 2021, the central bank resumed the use of fine-tuning open market operations. The average level of funds available to the banking sector in excess of the required reserve amounted to PLN 253,866 million in December 2021 and was PLN 70,068 million higher than in the corresponding period of 2020.

Table 1.1. Short-term NBP monetary policy operations in 2021 and the average level of funds at the disposal of the banking sector (PLN million)

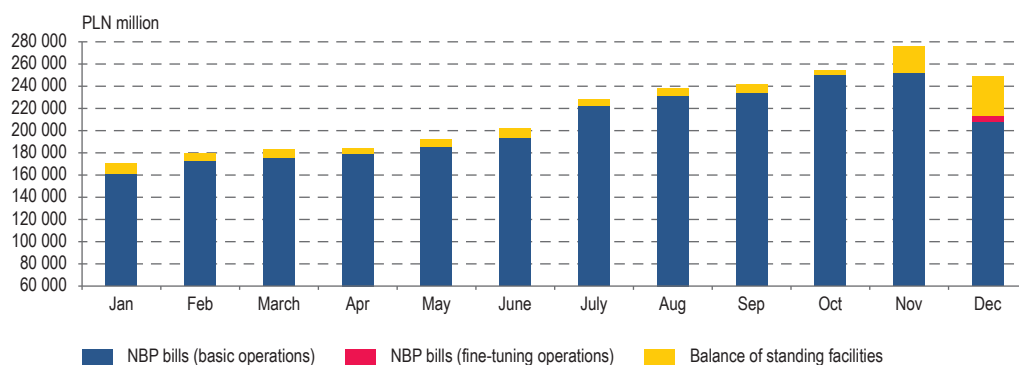
2021	Average level of NBP bills (main operations)	Average level of NBP bills (fine-tuning operations)	Average level of repo operations	Average level of overnight deposit	Average level of short-term monetary policy operations	Average level of short-term banking liquidity
	(1)	(2)	(3)	(4)	(1) + (2) – (3) + (4)	
January	160 825	0	0	9 469	170 294	197 552
February	173 057	0	0	6 893	180 416	205 223
March	175 741	0	0	7 581	185 937	211 070
April	178 885	0	0	5 277	187 123	213 428
May	185 516	0	0	7 177	196 504	223 816
June	193 456	0	0	8 568	205 782	237 875
July	222 397	0	0	5 626	231 811	257 713
August	231 179	0	0	6 618	242 250	267 285
September	234 004	0	0	8 013	246 523	273 547
October	250 434	0	0	3 672	258 653	280 331
November	251 574	0	0	24 252	280 446	282 648
December	208 200	4 634	0	36 016	253 238	253 866
On average	205 511	1 236	0	10 674	219 910	242 122

Note: average values over required reserve maintenance periods.

Source: NBP.

In order to keep the POLONIA rate close to the NBP reference rate, the central bank absorbed the liquidity surplus by issuing NBP bills with a maturity of 7 days under main open market operations and NBP bills with shorter maturities as part of fine-tuning operations. In total, the average level of NBP bills in December 2021 amounted to PLN 212,834 million and increased by PLN 65,291 million compared to December 2020.

Figure 1.1. NBP operations absorbing funds from the banking sector in 2021



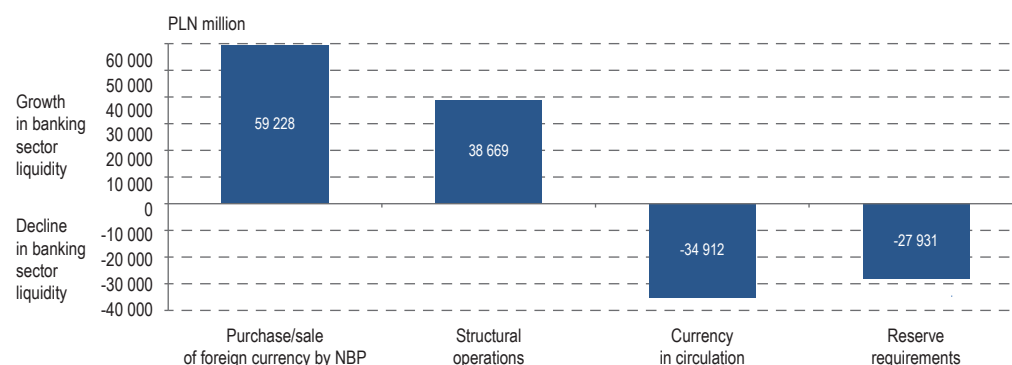
Source: NBP.

In 2021, 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 0.5% to 2.0% reduced the banking sector liquidity level by an average of PLN 27,931 million in terms of December 2021 as related to December 2020.

Among the autonomous factors, growth in banking sector liquidity was primarily driven by NBP operations of foreign exchange purchases exceeding their sales. As a result of these transactions, the increase in liquidity in terms of December 2021 as related to December 2020 was PLN 59,228 million on average.

Figure 1.2. Main factors influencing short-term liquidity of the banking sector in 2021



Source: NBP.

The use of structural open market operations contributed to a higher level of NBP bills by PLN 38,669 million on average in terms of December 2021 as related to December 2020.

An increase in currency in circulation was the most significant factor limiting banking sector liquidity. This increase amounted on average to PLN 34,912 million in terms of December 2021 as related to December 2020.

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

1.2.1. Purchase and sale of foreign currency by NBP

In 2021, NBP purchased foreign currency in an amount considerably exceeding its sales, as a result of which banking sector liquidity increased by an average of PLN 59,228 million in December 2021 compared to December 2020.

The purchase of foreign currency by NBP included:

- the purchase of foreign currency from the Ministry of Finance (MF) within the limit set for 2021² equivalent to PLN 72,384 million (mainly from the MF foreign currency account held with NBP in the amount of PLN 71,803 million),
- services provided to the central government and other entities whose accounts are held with NBP, in the amount of PLN 25,460 million,
- the conversion of EU funds to PLN directly from the European Union fund accounts, equivalent to PLN 351 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) in the amount of PLN 29,977 million,
- services provided to the central government and other entities whose accounts are held with NBP, in the amount of PLN 10,901 million.

The purchase of foreign currency from the MF currency account with NBP accounted for 73% of all foreign currency purchases by the central bank. The purchase of foreign currency from central government entities and other entities holding foreign currency accounts with NBP amounted to the equivalent of EUR 5,632 million, representing an increase of almost 76% on the previous year. This resulted from the higher value of EUR/PLN cyclical exchange transactions commissioned by the Ministry of the Climate. The purchase of foreign currency by the central bank from entities holding foreign currency accounts with NBP varied over the respective quarters of 2021. In the first quarter, foreign currency operations for the amount of PLN 3,659 million were conducted, whereas in the subsequent quarters, these transactions were similar to each other and amounted to PLN 7,482 million, PLN 7,317 million and PLN 7,003 million, respectively.

In 2021, 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

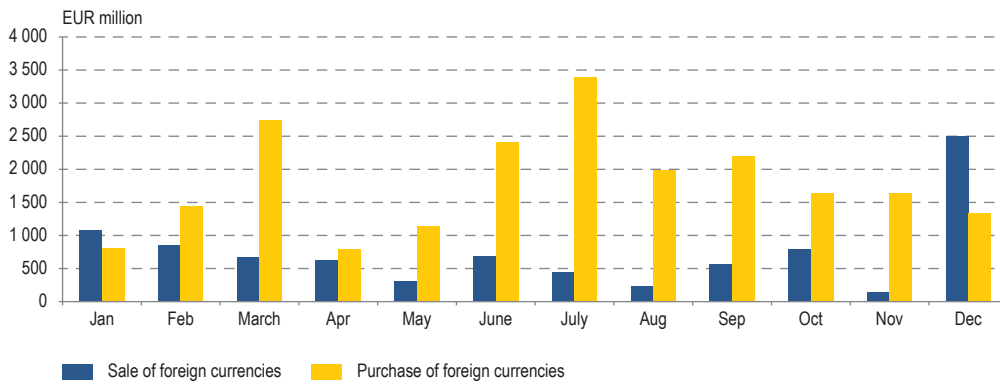
² Detailed information concerning the ceilings of foreign currency purchases and sales between the MF and NBP is presented in Annex 7.

to PLN 351 million, which accounted for 0.4% of the total amount of foreign currency purchases by the central bank.

The opposite side of the central bank’s foreign exchange transactions consisted in foreign currency sale to entities holding foreign currency accounts with the central bank. The European Commission (EC) was the main customer commissioning PLN/foreign currency swap transactions.

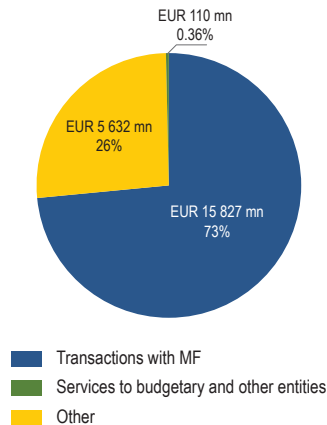
In 2021, transactions of foreign currency sales by NBP were also carried out for the needs of central government entities and other entities holding foreign currency accounts with the central bank. The volume of transactions was diversified in individual months. Like in previous years, most foreign currency for the needs of these entities was sold in December (54%). In 2021, the sale of foreign currencies to budget entities was 8% higher than in the previous year.

Figure 1.3. Purchase and sale of foreign currencies by NBP in 2021



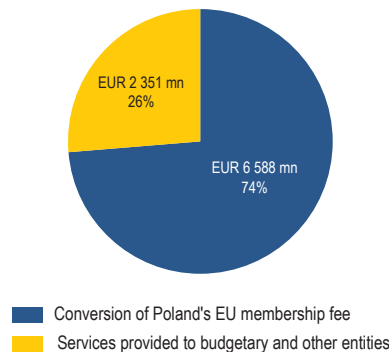
Source: NBP.

Figure 1.4. The structure of currency purchase by NBP in 2021



Source: NBP.

Figure 1.5. The structure of currency sale by NBP in 2021



Source: NBP.

FX operations carried out by the central bank as part of its currency purchase and sale activities in 2021

Foreign operations of the State Treasury

In 2021, 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. These transactions were conducted by the central bank on behalf of the Ministry 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, to a smaller extent, from the issue of bonds to foreign markets (EUR 403 million). In addition, the European Commission transferred EUR 7,434 million under the SURE loan agreement.³

In 2021, the average balance of the MF's foreign currency account with NBP was EUR 10,228 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.

Transactions resulting from European Union membership

In 2021, 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. The EC has the right to demand over 40% of the total amount of the annual fee in the first quarter of the year.

In 2021, the amount of payments in respect of the membership fee was PLN 31,554 million, of which over 29% was paid in the first quarter. In 2021, the value of the transactions related to the conversion of the membership fee amounted to EUR 6,588 million (the equivalent of PLN 29,977 million), which accounted for 95% of the amount of Poland's contribution paid to the European Union in 2021. In order to transfer EU funds to the accounts in different Member States, the European Commission converts the funds originating from the membership fee into euro. The EC took decisions on the schedule and amounts of conversion of funds in PLN to foreign currency. Due to the need to fund the costs of ongoing EU projects in the Member States, the European Commission converted most funds to EUR in the first quarter of 2021 (PLN 10,180 million, i.e. EUR 2,250 million). The conversion of PLN into EUR in

³ 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.

2021 Q1 accounted for 34% of the annual conversion. In the subsequent quarters, the EC converted 20%, 16% and 30% of the PLN funds into euro.

Due to the fact that the European Commission did not convert all the PLN funds received into EUR, part of the funds remained on the EC's PLN account with NBP for the following year. The balance of EC funds as at 31 December 2021 amounted to PLN 3,906 million, as compared to PLN 1,852 billion as at 31 December 2020.

In 2021, EU funds received by Poland were exchanged into PLN directly from the fund accounts with NBP in the amount of PLN 351 million, i.e. EUR 78 million, under the central bank's transactions of foreign currency purchases.

Services to central government entities

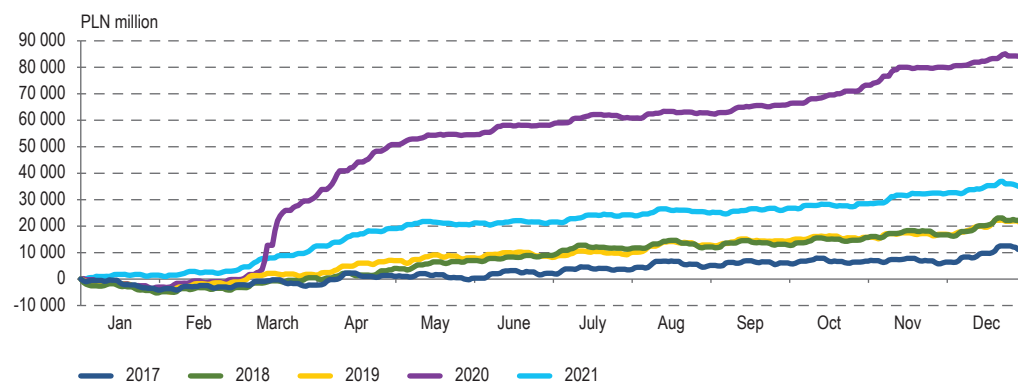
Apart from foreign currency operations related to servicing foreign payables and receivables of the State Treasury and transactions involving the use of funds related to EU membership, the central bank carried out foreign currency operations with other entities authorised to exchange foreign currencies at NBP under bank account agreements. In 2021, the value of this kind of transactions involving the purchase of foreign currencies by NBP amounted to the equivalent of PLN 25,460 million, i.e. 80% higher than in 2020. The sale transactions of foreign currencies by the central bank amounted to the equivalent of PLN 10,901 million, exceeding the previous year's value by 12%.

1.2.2. Currency in circulation

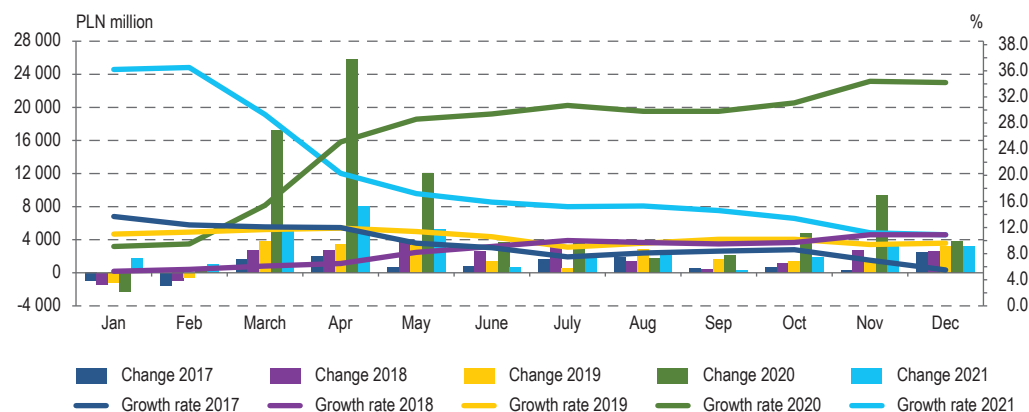
Currency in circulation is a monetary aggregate which has been growing steadily for many years. After a sharp rise in 2020 in response to the emergence of the COVID-19 pandemic, there was a gradual slowdown in 2021. In the months from January to May 2021, the increases in currency in circulation continued at levels significantly higher than those observed in the corresponding periods of the year before the pandemic, while starting from June they returned to levels similar to those recorded in earlier years.

The average level of currency in circulation in December 2021 was PLN 356,127 million, which means an increase of PLN 34,912 million compared to December 2020. The highest changes took place in March (PLN 5,159 million), in April (PLN 8,060 million), in June (PLN 5,216 million) and in November (PLN 3,477 million). The more rapidly rising levels of currency in circulation were particularly visible in periods of sanitary restrictions; however, the restrictions associated with the development of successive pandemic waves did not significantly disrupt the functioning of the domestic economy.

In January and February 2021, the average annual growth in currency in circulation was running at levels close to the previous months, i.e. 36.2% and 36.5%, while the following months saw its steady decline from the level of 29.3% in March to 10.9% in December.

Figure 1.6. Daily changes of currency in circulation, cumulatively in 2017–2021

Source: NBP.

Figure 1.7. Average change in currency in circulation in individual months of 2017–2021 (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 2021, the level of public sector deposits with NBP was an outcome of the following factors:

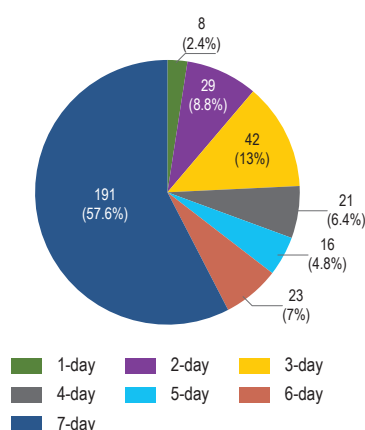
- changes in the volume of budget revenues and expenditures,
- settlements resulting from the issuance and redemption of Treasury securities,
- funds originating from the Ministry of Finance’s foreign currency account with NBP converted into PLN,
- limits set for the Ministry of Finance’s PLN term deposits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

In 2021, the average level of public sector deposits stood at PLN 7,865 million and was PLN 2,017 million higher than in the previous year (PLN 5,848 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 2020), 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 (37.8%) amounted to PLN 2,973 million against PLN 1,882 million in 2020. The average daily level of MF deposits in 2021 was 87% of the limit (in 2020 – 72%). The average limit for the Ministry of Finance term deposits with NBP in 2021 amounted to PLN 3,407 million (PLN 2,598 million in 2020).

The Ministry of Finance placed surplus funds of the State Budget with Narodowy Bank Polski on a temporary basis. A total of 330 deposits were made in 2021. About 58% of all deposits were placed for 7-days (191 deposits), while 139 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 deposit facility amounted to PLN 32 million (against PLN 19 million in 2020).

Figure 1.8. The quantitative structure of the Ministry of Finance’s term deposits with NBP in 2021

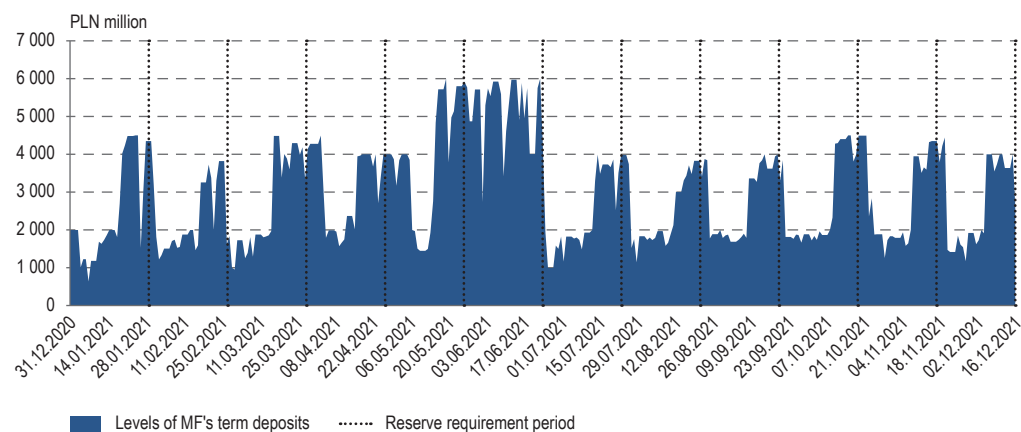


Source: NBP.

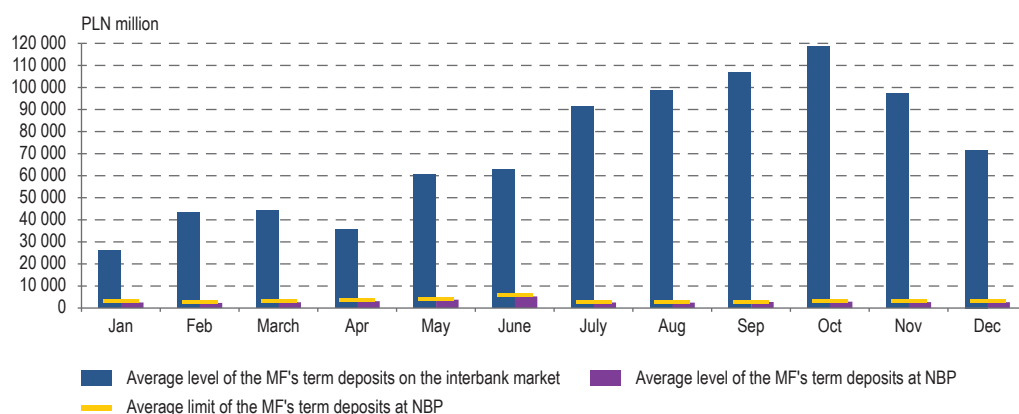
As in previous years, the daily level of the Ministry of Finance PLN term deposits with NBP was highly variable in 2021, averaging between PLN 2,320 million and PLN 5,259 million in the individual months. Deposits reached their highs in Q2, amounting to PLN 3,124 million in April, PLN 3,807 million in May and PLN 5,259 million in June. In the remaining months, average deposit levels were at similar levels ranging from PLN 2,320 million to PLN 2,905 million.

The limit of MF’s PLN term deposits with NBP was periodically increased at the end of each month,⁴ 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).

⁴ See also Annex 7.

Figure 1.9. Daily levels of the Ministry of Finance's term deposits with NBP in 2021

Source: NBP.

Figure 1.10. The average level of the Ministry of Finance's term deposits in PLN in 2021

Source: NBP.

In 2021, as in previous years, most of the State Budget funds were invested on the interbank market. The average level of the MF's deposits with commercial banks amounted to PLN 71,604 million and was PLN 24,705 million higher than in the previous year. Most of the funds at the disposal of the Ministry of Finance were placed between July and November, when the average levels of term deposits on the interbank market ranged from PLN 91,000 million and PLN 119,000 million.

The Ministry of Finance performed buy-sell back operations collateralised by Treasury bonds in the interbank market. Moreover, the MF invested funds in the form of unsecured term deposits.

Chapter 2

Monetary policy instruments

Monetary policy instruments

2.1. NBP interest rates

The key instrument of monetary policy in 2021 was the NBP interest rates. The NBP reference rate, by determining the yield on 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 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. 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 is the interest on the bill discount credit offered by NBP.

Throughout most of 2021, the NBP interest rates remained unchanged at historically low levels. In 2021 Q4, the MPC commenced a cycle of interest rates rises. Changes in interest rates took place in October, November and December 2021. As a result of the increases, at the end of the year the reference rate stood at 1.75%, the deposit rate at 1.25% and the lombard rate at 2.25%. The effect of the above-mentioned changes in interest rates was the re-shaping of the corridor defined by the deposit rate and the lombard rate symmetrically to the reference rate (-0.50 pp /+0.50 pp). At the same time, as part of the MPC's decision, the discount rate was raised to 1.85%.

Table 2.1. The basic NBP interest rates in 2021 in annual terms (%)

Effective from:	Deposit rate	Reference rate	Lombard rate	Bill discount rate
29.05.2020	0.50	0.00	0.10	0.12
07.10.2021	1.00	0.00	0.50	0.52
04.11.2021	1.75	0.75	1.25	1.35
09.12.2021	2.25	1.25	1.75	1.85

2.2. Open market operations

In accordance with the *Monetary Policy Guidelines for 2021*, while pursuing its operational objective, NBP strived to keep the POLONIA rate close to the NBP reference rate.

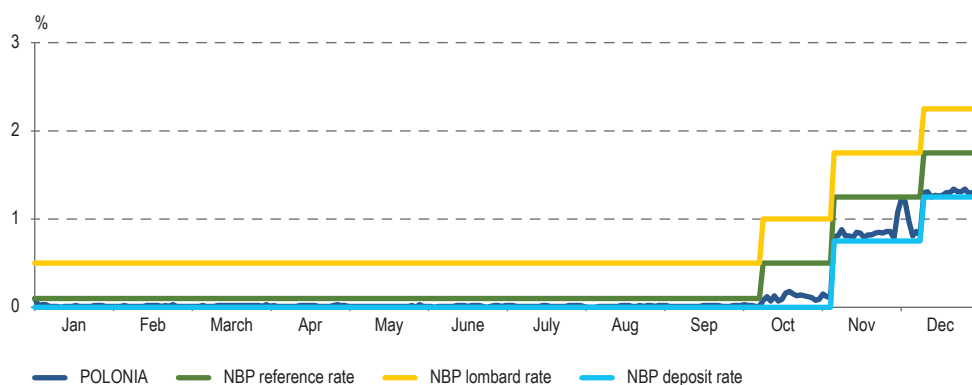
The main instrument to implement the operational objective of monetary policy was short-term open market operations with the function of absorbing liquidity from the banking sector (in principle, involving the issuance of 7-day NBP bills). By launching these operations, NBP provided banks with the opportunity to balance their liquidity positions during the reserve maintenance periods, at the same time striving to ensure that liquidity conditions in the banking sector were appropriate in terms of achieving its operational goal.

Fine-tuning open market operations, resumed since December 2021, played a supplementary role in achieving the operational objective of the monetary policy by NBP. As in the past, these operations were offered on an ad hoc basis during the required reserve maintenance period and regularly on the last business day of that period.

The average daily level of the NBP bills issue in 2021 amounted to PLN 205,905 million, of which the main operations accounted for 99.8% and the fine-tuning ones for 0.2%. The yield on these operations was set at the level of the NBP reference rate.

In 2021, as in the case of the majority of the required reserve maintenance periods in previous year, a significant part of the funds at the disposal of the banking sector was not absorbed using NBP main operations. This resulted from banks' preference to hold surpluses in instruments ensuring the highest possible flexibility in liquidity management, including on accounts with NBP (above the reserve requirement level) and in the form of a deposit facility placed with the central bank.

Figure 2.1. POLONIA short-term market rate against NBP rates in 2021



Source: NBP.

The banks' prudent approach to managing their own liquidity positions was fostered by the prevailing market conditions, in particular, the uncertainty surrounding the development of the COVID-19 pandemic. Moreover, the increased propensity of banks to keep additional liquidity buffers was to some extent affected by the relatively small difference between the interest rate on funds held in the current account above the required level of the reserve and in the form of the deposit facility and the interest rate on funds placed in NBP bills under open market operations (until 6 October 2021, amounting to 10 bps). In addition, with a significantly lower reserve requirement in force until 29 November 2021 (compared to the status before the COVID-19 pandemic), banks held additional funds (above the reserve requirement) for settlement purposes.

The average absolute deviation of the POLONIA rate from the NBP reference rate in 2021 was 16 bps.

In 2021, NBP also continued conducting structural open market operations involving the purchase of Treasury securities and debt securities guaranteed by the State Treasury on the secondary market. The application of structural operations resulted in an increase

in banking sector liquidity. NBP discontinued its structural operations starting from December 2021.

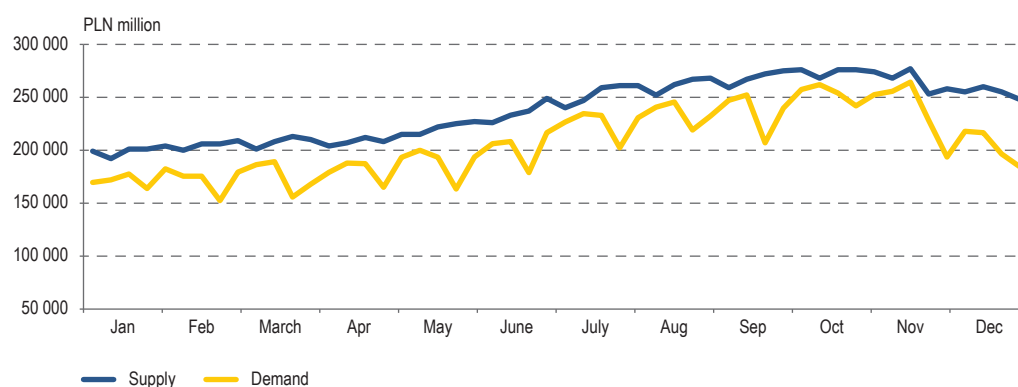
2.2.1. Main operations

In 2021, NBP carried out main open market operations involving the issuance of NBP bills with a maturity of 7 days.⁵ 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 on the day of the operation.

Eligibility criteria for participation in tenders for NBP bills issued under the main operations included holding a current account in the SKARBNET4 system and participation in the SORBNET2 system (both criteria to be met jointly).

In 2021, the average level of NBP bills issued under the main operations was PLN 205,511 million and was PLN 72,047 million higher than the 2020 average. In 2021, the central bank offered NBP bills amounting to PLN 12,548,000 million under main operations. The bids received in this period amounted to PLN 10,882,250 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 2021



Source: NBP.

At all tenders for NBP bills in 2021, 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 between 0.69 to 0.98.

⁵ Except for operations conducted on 31 December 2020 (8-day maturity), which was classified under 2021, as it was conducted on the first day of the required reserve maintenance period in January 2021.

2.2.2. Fine-tuning operations

In 2021, fine-tuning operations were used by NBP only in December. These operations were liquidity-absorbing and involved the issuance of NBP bills with maturities shorter than those applicable to main operations.

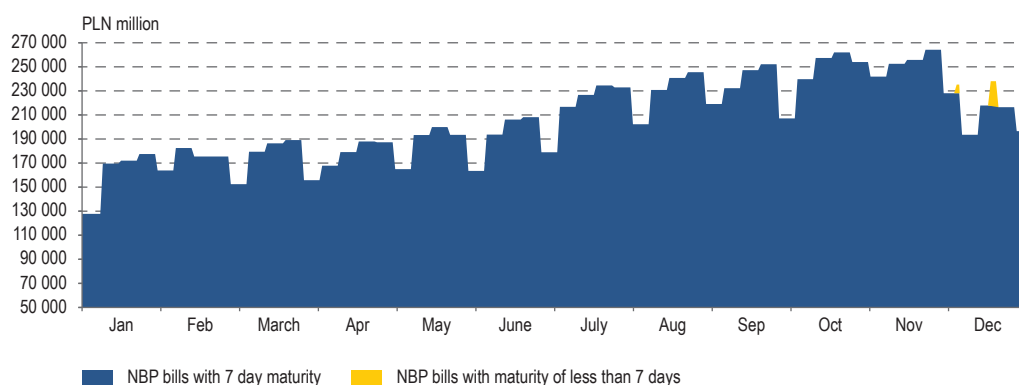
Fine-tuning operations were conducted at the initiative of the central bank, with the aim of reducing (both) the banking sector liquidity surplus and the volatility of short-term market interest rates. In December 2021, the central bank conducted three fine-tuning operations: two irregular operations during the required reserve maintenance period and one operation on the last working day of the required reserve maintenance period.

The first two operations were conducted with a 2-day maturity (1 December) and 3-day maturity (14 December), while the last operation was conducted on 30 December, i.e. on the last day of the required reserve maintenance period and was a 1-day operation.

The average daily level of the above operations in annual terms reached PLN 394 million in 2021 and was PLN 842 million lower than the level achieved in 2020. In 2021, the central bank offered for sale NBP bills worth PLN 127,000 million under fine-tuning operations. The bids received in this period from banks amounted to PLN 96,192 million and were fully accepted by the central bank.

The ratio of demand from participants of tenders for fine-tuning operations to the supply offered by the central bank ranged from 0.27 to 0.96.

Figure 2.3. NBP money bills in 2021



Source: NBP.

2.2.3. Structural operations

In accordance with the *Monetary Policy Guidelines for 2021*, the purpose of structural operations is to alter the long-term liquidity structure in the banking sector and – as in the case of operations of this kind carried out in 2020 – to provide liquidity to the secondary market for repurchased securities and to strengthen the monetary transmission mechanism.

In 2021, operations were continued involving 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 the Polish Development Fund SA.

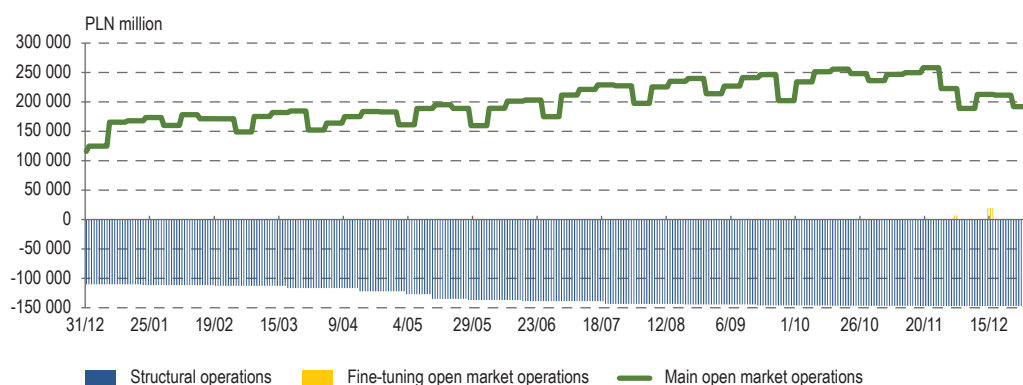
The tenders at which the purchase of securities took place were conducted according to schedules published by NBP. The settlement of the tenders took place at time T + 2. The frequency and scale of the operations depended on market conditions. In April and May 2021, NBP conducted such operations twice a month, while in each of the remaining months (no operations in December) one tender was performed.

The counterparties to the structural open market operations were all the banks with access to the NBP main operations.

In 2021, the central bank conducted 13 structural operations. In effect, securities with a total value of PLN 36,886 million were purchased. This amount comprised the NBP purchase of Treasury bonds with a face value of PLN 28,556 million and government-guaranteed bonds with a combined face value of PLN 8,330 million (including bonds issued by BGK – PLN 7,401 million and bonds issued by PFR – PLN 929 million).

Under structural operations, NBP credited the banking sector with liquidity in the total amount of PLN 37,698 million. In 2021, the average daily level of structural operations amounted to PLN 136,158 million.

Figure 2.4. Operations carried out by NBP in 2021



Source: NBP.

2.3. Reserve requirement

In 2021, 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 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 6 October 2021, the MPC decided, among others, to increase the basic required reserve ratio from 0.5% to 2.0%, applying to the required reserve maintained as of 30 November 2021. This decision resulted in an increase in the required reserve from PLN 8,243 million to PLN 35,250 million, consequently reducing the level of funds at the disposal of banks and credit unions by PLN 27,007 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 ratio of 0.0% continued to apply.

The remuneration of required reserve funds was equal to the NBP reference rate. Due to the fact that the MPC raised the NBP reference rate three times in 2021 (from 7 October 2021 from the level of 0.10% to 0.50%, from 4 November 2021 – from 0.50% to 1.25% and from 9 December 2021 – from 1.25% to 1.75%), the interest rate on the required reserve increased from 0.10% to 1.75%.

In December 2021, the required reserve reached PLN 35,250 million, including the banking sector required reserve of PLN 35,109 million and the credit unions' required reserve of PLN 141 million.

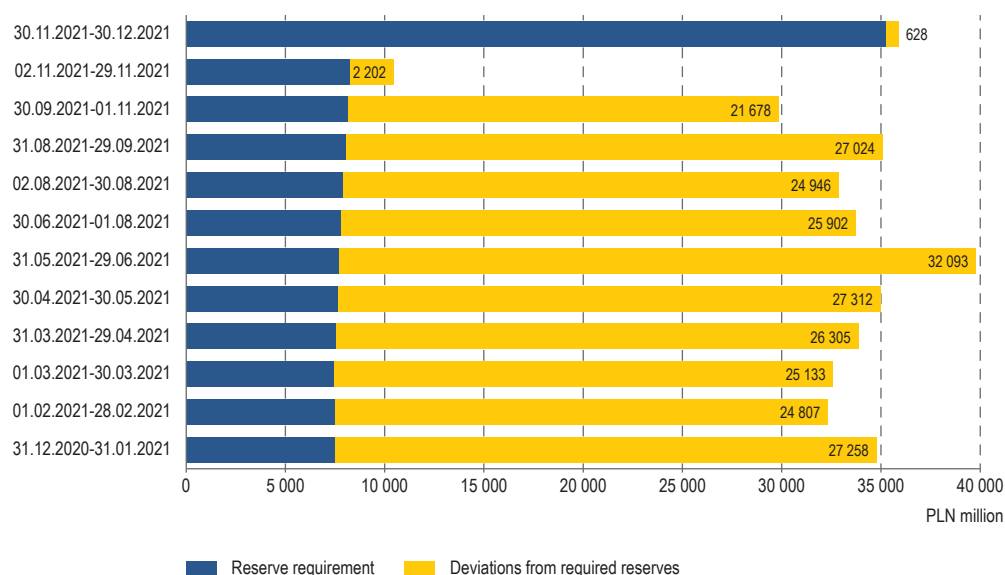
Compared to the balance in December 2020, the total required reserve was PLN 27,932 million, or 381.67% higher. The change in the balance of the required reserve at the end of 2021 was mainly due to the above-mentioned MPC decision concerning the increase of the required reserve.

In 2021, all reserve periods showed a surplus of average holdings on entities' accounts compared to the required level of reserves. The smallest surplus was recorded in December (PLN 628 million), whereas the largest surplus was seen in June (PLN 32,093 million). The average surplus of the required reserves holdings in 2021 amounted to PLN 22,107 million and accounted for 219.40% of the average level of required reserves.

In 2021 there were no cases where the entities failed to maintain the reserve requirements at the required level.

In 2021, one bank during the implementation of a bank recovery plan benefited from exemption from maintaining a part of the required reserve.

Figure 2.5. Changes in the required reserves level and deviations from the reserve requirement in 2021



Source: NBP.

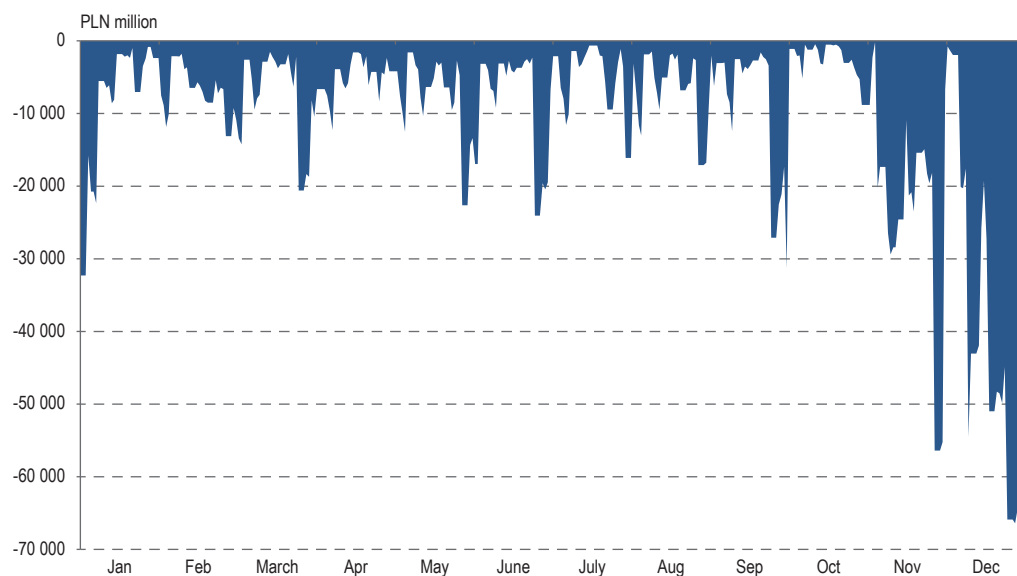
2.4. Standing facilities

Standing facility operations (deposit facility and marginal lending facility) offered by NBP were instruments narrowing down the scale of overnight rate fluctuations in the banking sector through a stabilising effect on the liquidity conditions in the banking sector. These operations were carried out on the initiative of commercial banks, which could use them to replenish liquidity gaps or to deposit temporary surpluses for one-day periods with NBP.

The interest rate on the marginal lending facility determined the maximum price of funds obtained from NBP, at the same time indicating the ceiling for the overnight rate fluctuations set in the interbank market, while the interest rate on the deposit facility determined the floor for the rate fluctuations.

2.4.1. Deposit facility

In 2021, the total value of term deposits placed by banks with NBP (calculated in terms of days of their placement) amounted to PLN 3,895,979 million and was over 3-times higher compared to deposits placed in the previous year. The combined value of overnight deposits placed by banks each time ranged from PLN 180 million to PLN 66,913 million, while the average daily level of deposit facilities in the period analysed, amounted to PLN 10,674 million compared to PLN 3,193 million in 2020.

Figure 2.6. The use of the deposit facility in 2021

Source: NBP.

2.4.2. Marginal lending facility

In 2021, 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 was PLN 10 million, and was 51.5% lower than the amount borrowed in 2020 (PLN 20 million). All marginal lending facilities were drawn by banks in order to test their internal procedures.

The decline recorded was due to lower credit use in the period under review by the same number of banks. Its average daily drawing amounted to PLN 0.03 million (against PLN 0.06 million in 2020).

2.5. Bill discount credit

Until 18 October 2021, NBP made available to banks bill discount credit aimed at refinancing loans granted to entrepreneurs.

By offering bill discount credit, NBP accepted for discounting from banks bills issued by entrepreneurs in connection with loans granted to them. The interest on the bill discount credit was determined by the NBP bill discount rate set by the MPC.

In 2021, no case of bill discount credit granted by NBP occurred and, at the same time, the repayment of funds raised under this instrument in 2020 in the amount of PLN 52.9 million took place during the year.

Chapter 3

Other operations

Other operations

3.1. Intraday credit facility

In 2021, banks used on a daily basis a non-interest bearing intraday facility, whereby funds were borrowed and repaid on the same trading day. This instrument facilitated liquidity management during the day, at the same time ensuring liquidity of interbank settlements at NBP. The daily supply of operating liquidity to banks ranged from PLN 72,736 million to 111,533 million. In 2021, the total drawing on the intraday credit was PLN 19,532,059 million, 17.2% higher than in 2020 (PLN 16,669,163 million), while the average drawing was PLN 76,898 million.

Higher demand for this type of credit was due to increased interest from banks. During the period under review, banks drew and repaid intraday credit on a daily basis. There was no event of repayment of this credit on the following trading day, which is related to its interest rate.

3.2. Intraday credit facility in euro

The intraday credit facility in euro is an instrument that ensures smooth settlements in the TARGET2-NBP system. A loan collateralised with Treasury bonds accepted by the ECB⁶ 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 217 million. In 2021, the total drawing on this facility dropped by 5.3% compared to 2020 and was running at EUR 52,569 million, while the average daily drawing between January and December 2021 stood at EUR 204 million.

⁶ Understood as a list of securities in terms of their type (zero coupon and fixed coupon Treasury bonds) and pricing source (BondSpot fixing), which were accepted by the ECB in 2005.

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 enabling banks to deposit liquidity surpluses 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 reduce short-term liquidity shortages using the marginal lending facility.

Fine-tuning operations 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 liquidity surplus in the banking sector, they consist in the issuance of NBP bills, typically with a 7-day maturity. During tenders, a fixed yield at the level of the NBP reference rate applies.

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 defined average level of funds (set as a percentage of funds accumulated by banks) 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 NBP. It sets the ceiling for the growth in the overnight market rate.

NBP deposit rate – determines the interest rate on deposits at 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 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 site, NBP 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 the forecast average balance of banks' current accounts is published at the moment the decision on the value of the NBP bills on offer is taken.

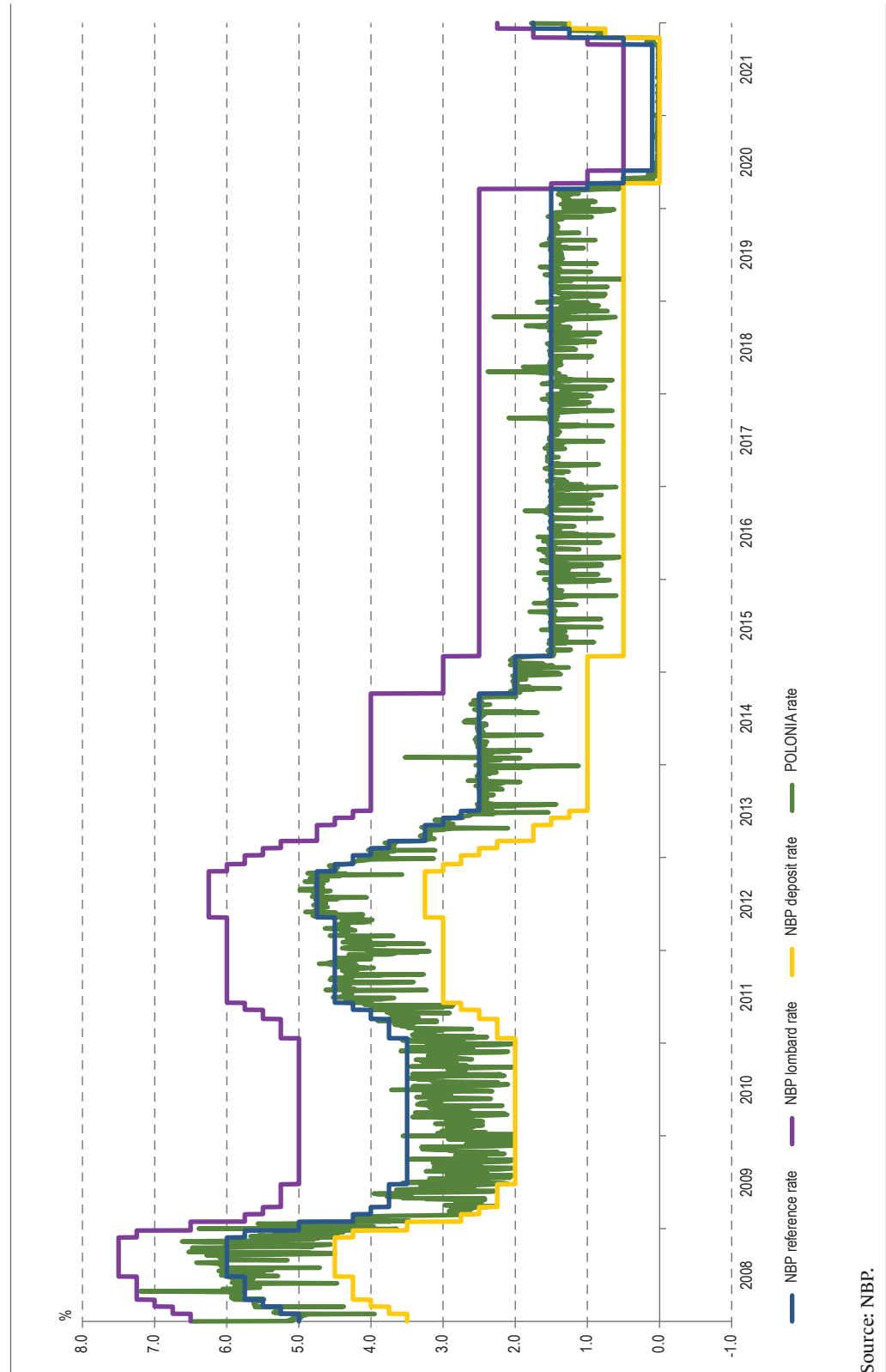
Information on current auctions for NBP bills is also published on the NBPT site of the Thomson Reuters (Refinitiv) news service and the NBP site of the Bloomberg news service. The outcome of tenders is posted on the NBPU site (Reuters) and NBP (Bloomberg) sites.

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

Annexes

Annex 1

POLONIA rate as the operating target of NBP monetary policy in 2008–2021



Annex 2

NBP monetary policy instruments in 1990–2021

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
Required reserves																																		
Issue of NBP bills																																		
Issue / repurchase of NBP bonds																																		
Repo / reverse repo operations																																		
Outright operations																																		
Loans for central investments																																		
Rediscount loan																																		
Marginal lending facility																																		
Deposit facility																																		
Loan limits																																		
Deposits for households																																		
Intraday credit facility																																		
FX swap operations																																		
Bill discount credit																																		

Source: NBP.

Annex 3

Main operations in 2021

No.	Tender date*	Maturity date	Maturity period (in days)	Nominal value of sales offers (PLN mn)	Nominal value of offers to buy (PLN mn)	Nominal value of accepted offers (PLN mn)	Average yield on bills annual 365/360 (%)
1	08.01.2021	15.01.2021	7	199 000.00	169 520.45	169 520.45	0.1
2	15.01.2021	22.01.2021	7	192 000.00	171 959.20	171 959.20	0.1
3	22.01.2021	29.01.2021	7	201 000.00	177 499.20	177 499.20	0.1
4	29.01.2021	05.02.2021	7	201 000.00	163 800.33	163 800.33	0.1
5	05.02.2021	12.02.2021	7	204 000.00	182 441.80	182 441.80	0.1
6	12.02.2021	19.02.2021	7	200 000.00	175 445.85	175 445.85	0.1
7	19.02.2021	26.02.2021	7	206 000.00	175 415.75	175 415.75	0.1
8	26.02.2021	05.03.2021	7	206 000.00	152 427.20	152 427.20	0.1
9	05.03.2021	12.03.2021	7	209 000.00	179 355.95	179 355.95	0.1
10	12.03.2021	19.03.2021	7	201 000.00	186 336.40	186 336.40	0.1
11	19.03.2021	26.03.2021	7	208 000.00	189 119.80	189 119.80	0.1
12	26.03.2021	02.04.2021	7	213 000.00	155 770.15	155 770.15	0.1
13	02.04.2021	09.04.2021	7	210 000.00	167 818.75	167 818.75	0.1
14	09.04.2021	16.04.2021	7	204 000.00	179 126.80	179 126.80	0.1
15	16.04.2021	23.04.2021	7	207 000.00	187 903.35	187 903.35	0.1
16	23.04.2021	30.04.2021	7	212 000.00	187 295.70	187 295.70	0.1
17	30.04.2021	07.05.2021	7	208 000.00	164 890.80	164 890.80	0.1
18	07.05.2021	14.05.2021	7	215 000.00	193 297.50	193 297.50	0.1
19	14.05.2021	21.05.2021	7	215 000.00	199 905.80	199 905.80	0.1
20	21.05.2021	28.05.2021	7	222 000.00	193 421.90	193 421.90	0.1
21	28.05.2021	04.06.2021	7	225 000.00	163 461.10	163 461.10	0.1
22	04.06.2021	11.06.2021	7	227 000.00	193 580.15	193 580.15	0.1
23	11.06.2021	18.06.2021	7	226 000.00	206 153.35	206 153.35	0.1
24	18.06.2021	25.06.2021	7	233 000.00	208 154.40	208 154.40	0.1
25	25.06.2021	02.07.2021	7	237 000.00	178 922.50	178 922.50	0.1
26	02.07.2021	09.07.2021	7	249 000.00	216 695.70	216 695.70	0.1
27	09.07.2021	16.07.2021	7	240 000.00	226 618.40	226 618.40	0.1
28	16.07.2021	23.07.2021	7	247 000.00	234 489.50	234 489.50	0.1
29	23.07.2021	30.07.2021	7	259 000.00	232 856.95	232 856.95	0.1
30	30.07.2021	06.08.2021	7	261 000.00	202 211.60	202 211.60	0.1
31	06.08.2021	13.08.2021	7	261 000.00	230 759.65	230 759.65	0.1
32	13.08.2021	20.08.2021	7	252 000.00	240 701.75	240 701.75	0.1
33	20.08.2021	27.08.2021	7	262 000.00	245 536.80	245 536.80	0.1
34	27.08.2021	03.09.2021	7	267 000.00	219 090.85	219 090.85	0.1
35	03.09.2021	10.09.2021	7	268 000.00	232 204.70	232 204.70	0.1
36	10.09.2021	17.09.2021	7	259 000.00	247 117.60	247 117.60	0.1
37	17.09.2021	24.09.2021	7	267 000.00	252 169.50	252 169.50	0.1
38	24.09.2021	01.10.2021	7	272 000.00	207 068.40	207 068.40	0.1
39	01.10.2021	08.10.2021	7	275 000.00	239 737.50	239 737.50	0.1
40	08.10.2021	15.10.2021	7	276 000.00	257 292.40	257 292.40	0.5
41	15.10.2021	22.10.2021	7	268 000.00	261 880.50	261 880.50	0.5
42	22.10.2021	29.10.2021	7	276 000.00	253 934.45	253 934.45	0.5
43	29.10.2021	05.11.2021	7	276 000.00	241 833.50	241 833.50	0.5
44	05.11.2021	12.11.2021	7	274 000.00	252 511.55	252 511.55	1.25
45	12.11.2021	19.11.2021	7	268 000.00	255 657.60	255 657.60	1.25
46	19.11.2021	26.11.2021	7	277 000.00	264 167.75	264 167.75	1.25
47	26.11.2021	03.12.2021	7	253 000.00	228 053.65	228 053.65	1.25
48	03.12.2021	10.12.2021	7	258 000.00	193 491.70	193 491.70	1.25
49	10.12.2021	17.12.2021	7	255 000.00	217 811.65	217 811.65	1.75
50	17.12.2021	24.12.2021	7	260 000.00	216 470.15	216 470.15	1.75
51	24.12.2021	31.12.2021	7	255 000.00	196 519.80	196 519.80	1.75
52	31.12.2021	07.01.2022	7	248 000.00	184 574.90	184 574.90	1.75
	Total 2021			12 364 000.00	10 754 482.68	10 754 482.68	

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

Source: NBP.

Annex 4

Fine-tuning operations in 2021

	Tender date*	Maturity date	Maturity period (in days)	Nominal value of sales offers (PLN mn)	Nominal value of offers to buy (PLN mn)	Nominal value of accepted offers (PLN mn)	Average yield on bills annual 365/360 (%)
1	01.12.2021	03.12.2021	2	25 000.00	7 165.00	7 165.00	1.5
2	14.12.2021	17.12.2021	3	30 000.00	20 150.00	20 150.00	1.5
3	30.12.2021	31.12.2021	1	72 000.00	68 877.00	68 877.00	1.5
	Total 2021			127 000.00	96 192.00	96 192.00	

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

Source: NBP.

Annex 5 Structural operations in 2021

Item	Tender date	Settlement date	Name of security	Maturity date	Accepted nominal value (PLN mn)	Average yield (%)
1	20.01.2021	22.01.2021	PS0425	25.04.2025	312.00	0.34
	20.01.2021	22.01.2021	PFR0827	30.08.2027	929.00	1.39
	20.01.2021	22.01.2021	DS1030	25.10.2030	253.00	1.15
	Sum				1 494.00	
2	17.02.2021	19.02.2021	PS0425	25.04.2025	190.00	0.47
	17.02.2021	19.02.2021	DS0727	25.07.2027	235.00	0.87
	17.02.2021	19.02.2021	WS0428	25.04.2028	30.00	0.98
	17.02.2021	19.02.2021	DS1029	25.10.2029	213.00	1.18
	17.02.2021	19.02.2021	DS1030	25.10.2030	361.00	1.33
Sum				1 029.00		
3	17.03.2021	19.03.2021	PS0424	25.04.2024	135.00	0.35
	17.03.2021	19.03.2021	PS0425	25.04.2025	460.00	0.58
	17.03.2021	19.03.2021	DS0726	25.07.2026	75.00	0.82
	17.03.2021	19.03.2021	DS0727	25.07.2027	70.50	1.02
	17.03.2021	19.03.2021	FPC0328	12.03.2028	1 530.92	1.82
	17.03.2021	19.03.2021	WS0428	25.04.2028	282.80	1.18
	17.03.2021	19.03.2021	DS1029	25.10.2029	354.00	1.34
	17.03.2021	19.03.2021	DS1030	25.10.2030	841.60	1.48
Sum				3 749.82		
4	14.04.2021	16.04.2021	PS0425	25.04.2025	877.70	0.50
	14.04.2021	16.04.2021	DS0726	25.07.2026	408.00	0.75
	14.04.2021	16.04.2021	DS0727	25.07.2027	53.75	0.93
	14.04.2021	16.04.2021	FPC0328	12.03.2028	254.85	1.92
	14.04.2021	16.04.2021	WS0428	25.04.2028	350.00	1.13
	14.04.2021	16.04.2021	DS1029	25.10.2029	805.74	1.32
	14.04.2021	16.04.2021	FPC0630	05.06.2030	300.00	2.16
	14.04.2021	16.04.2021	DS1030	25.10.2030	2 339.45	1.46
Sum				5 389.49		
5	29.04.2021	04.05.2021	PS0425	25.04.2025	175.00	0.52
	29.04.2021	04.05.2021	DS0726	25.07.2026	1 074.00	0.82
	29.04.2021	04.05.2021	DS0727	25.07.2027	325.00	1.03
	29.04.2021	04.05.2021	FPC0328	12.03.2028	127.00	1.89
	29.04.2021	04.05.2021	WS0428	25.04.2028	299.00	1.22
	29.04.2021	04.05.2021	DS1030	25.10.2030	3 000.00	1.59
Sum				5 000.00		
6	12.05.2021	14.05.2021	PS1024	25.10.2024	1 541.70	0.52
	12.05.2021	14.05.2021	PS0425	25.04.2025	193.50	0.73
	12.05.2021	14.05.2021	DS0725	25.07.2025	573.90	0.86
	12.05.2021	14.05.2021	DS0726	25.07.2026	772.37	1.12
	12.05.2021	14.05.2021	PS1026	25.10.2026	1 508.00	1.22
	12.05.2021	14.05.2021	DS0727	25.07.2027	356.16	1.33
	12.05.2021	14.05.2021	FPC0328	12.03.2028	134.60	1.99
	12.05.2021	14.05.2021	WS0428	25.04.2028	447.26	1.43
	12.05.2021	14.05.2021	FPC0630	05.06.2030	142.56	2.47
12.05.2021	14.05.2021	DS1030	25.10.2030	2 301.07	1.78	
Sum				7 971.11		
7	26.05.2021	28.05.2021	FPC0328	12.03.2028	1 744.20	1.92
	26.05.2021	28.05.2021	FPC0630	05.06.2030	286.70	2.61
	Sum				2 030.90	

Annex 5 Structural operations in 2021, cont'd

Item	Tender date	Settlement date	Name of security	Maturity date	Accepted nominal value (PLN mn)	Average yield (%)
8	16.06.2021	18.06.2021	PS0123	25.01.2023	77.00	0.24
	16.06.2021	18.06.2021	PS1024	25.10.2024	348.70	0.65
	16.06.2021	18.06.2021	DS0725	25.07.2025	138.00	0.90
	16.06.2021	18.06.2021	DS0726	25.07.2026	370.00	1.19
	16.06.2021	18.06.2021	PS1026	25.10.2026	275.00	1.28
	16.06.2021	18.06.2021	DS0727	25.07.2027	70.00	1.34
	16.06.2021	18.06.2021	FPC0328	12.03.2028	73.00	2.05
	16.06.2021	18.06.2021	FPC0630	05.06.2030	276.54	2.40
				401.00	1.72	
			Sum		2 029.24	
9	16.07.2021	20.07.2021	PS1024	25.10.2024	2 328.50	0.72
	16.07.2021	20.07.2021	DS0725	25.07.2025	803.50	0.97
	16.07.2021	20.07.2021	DS0726	25.07.2026	145.00	1.16
	16.07.2021	20.07.2021	PS1026	25.10.2026	205.00	1.25
	16.07.2021	20.07.2021	DS0727	25.07.2027	145.00	1.33
	16.07.2021	20.07.2021	FPC0328	12.03.2028	85.00	2.15
	16.07.2021	20.07.2021	FPC0630	05.06.2030	622.31	2.40
	16.07.2021	20.07.2021	DS1030	25.10.2030	30.00	1.64
			Sum		4 364.31	
10	18.08.2021	20.08.2021	OK0423	25.04.2023	390.00	0.36
	18.08.2021	20.08.2021	PS1026	25.10.2026	430.00	1.19
	18.08.2021	20.08.2021	FPC0328	12.03.2028	5.00	2.06
	18.08.2021	20.08.2021	FPC0630	05.06.2030	23.50	2.33
	18.08.2021	20.08.2021	DS1030	25.10.2030	205.00	1.55
			Sum		1 053.50	
11	15.09.2021	17.09.2021	PS1024	25.10.2024	45.00	0.86
	15.09.2021	17.09.2021	DS0725	25.07.2025	365.00	1.01
	15.09.2021	17.09.2021	PS1026	25.10.2026	20.00	1.40
	15.09.2021	17.09.2021	FPC0328	12.03.2028	1 100.00	2.26
	15.09.2021	17.09.2021	FPC0630	05.06.2030	300.00	2.63
			Sum		1 830.00	
12	13.10.2021	15.10.2021	DS1023	25.10.2023	125.00	1.60
	13.10.2021	15.10.2021	PS1026	25.10.2026	160.00	2.22
	13.10.2021	15.10.2021	FPC0328	12.03.2028	278.00	2.97
	13.10.2021	15.10.2021	DS1030	25.10.2030	15.00	2.50
			Sum		578.00	
13	17.11.2021	19.11.2021	PS1026	25.10.2026	250.00	3.07
	17.11.2021	19.11.2021	FPC0328	12.03.2028	116.50	3.66
			Sum		366.50	
			Total		36 885.87	

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

Source: NBP.

Annex 6

Agreements with the Ministry of Finance

The terms and conditions of transactions concluded between the MF and NBP relating to the purchase and sale of foreign currencies are defined under the Agreement of 21 December 2015 regulating the operation of the bank account in foreign currencies as well as the purchase and sale of foreign currency to service liabilities and receivables of the State Treasury. The annex to the agreement determines the maximum values of FX transactions on an annual basis. In 2021, the following amounts of limits were in force:

- the total sales of foreign currency by NBP to the Ministry of Finance shall not exceed the equivalent of EUR 10.0 billion,
- the total amount of foreign currency purchased by NBP from the Ministry of Finance shall not exceed the equivalent of EUR 20.0 billion,

whereas:

- the accumulated absolute difference between the amount of foreign currency purchased and sold as at year-end shall not exceed the equivalent of EUR 10.0 billion,
- the accumulated absolute difference between the amount of foreign currency purchased and sold as at year-end shall not exceed the equivalent of EUR 20.0 billion.

The agreement on the Ministry of Finance's PLN term deposits with NBP of 18 December 2006 – pursuant to the Public Finance Act, the Minister of Finance is authorised to make interest-bearing deposits with Narodowy Bank Polski or with another bank, in the case of a temporary surplus of funds on the central account of the State Budget. In 2021, the limit for the MF's term deposits placed with NBP, counted in terms of daily balances, was as follows:

- PLN 6.0 billion in the periods: from 19 May to 30 June,
- PLN 4.5 billion in the period: from 19 January to 1 February, 19 March to 7 April, from 19 October to 3 November and from 19 November to 1 December,
- PLN 4.0 billion in the periods: from 19 February to 1 March, from 16 April to 10 May, from 20 July to 2 August, from 19 August to 1 September, from 17 September to 30 September and from 17 December to 31 December,
- PLN 2.0 billion in the periods: from 1 January to 18 January, from 2 February to 18 February, from 2 March to 18 March, from 8 April to 15 April, from 11 May to 18 May, from 1 July to 19 July, from 3 August to 18 August, from 2 September to 16 September, from 1 October to 18 October, from 4 November to 18 November and from 2 December to 16 December.

Annex 7

Money Market Dealers in 2021

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 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 2021.

In 2021, the following entities acted as MMD (ranked by bank 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 Polska Kasa Opieki SA,
8. Getin Noble Bank SA,
9. BNP Paribas Bank Polska SA,
10. SGB-Bank SA,
11. Deutsche Bank Polska 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).

Annex 8 Daily information (as at the month-end)

Items	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
PLN mn													
Central budget:													
revenues	421 188.64	46 943.42	75 264.36	103 702.22	154 369.67	188 755.12	241 536.41	285 737.35	325 292.84	365 381.27	411 689.59	457 133.76	497 241.52
expenses	505 524.28	34 011.01	70 221.13	104 475.25	137 908.08	172 128.88	205 979.98	242 830.24	276 736.55	312 491.69	353 777.65	401 063.37	521 946.73
deficit (-) or surplus (+)	-84 335.64	12 932.41	5 043.23	-773.02	16 461.59	16 626.24	35 556.44	42 907.11	48 556.29	52 889.58	57 911.94	56 070.39	-24 705.21
central budget funds	121.62	1.10	0.04	0.04	489.48	0.07	0.03	0.07	0.36	0.04	0.04	0.03	0.27
MF foreign currency account	40 151.71	46 680.69	68 056.38	58 194.15	49 574.23	54 167.78	48 922.67	46 161.81	44 042.72	37 870.17	29 829.38	25 678.57	27 315.85
MF thirty term deposits in NBP	1 999.63	4 350.82	3 823.54	3 333.78	4 000.00	5 924.61	4 320.89	3 986.49	3 873.05	3 845.36	4 495.37	4 218.91	1 731.00
Currency in circulation	321 800.67	323 306.31	324 772.27	333 078.25	340 906.42	342 298.42	342 798.16	346 061.16	346 854.62	348 228.78	350 256.23	353 971.16	355 557.73
Current account	30 351.41	43 455.76	46 855.56	54 827.09	48 978.90	55 997.12	55 795.10	50 474.01	47 166.67	44 708.31	31 725.06	55 149.18	66 061.58
(Including required reserve account)													
Balance deviation from required reserve*	22 838.41	26 678.75	23 689.50	47 270.04	41 318.61	48 300.01	47 957.46	24 822.84	39 105.94	36 547.54	21 489.06	19 899.34	30 394.05
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	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94	52.94
Intraday credit	78 068.36	78 151.20	76 774.25	77 694.61	76 239.19	78 204.94	77 396.51	75 640.19	75 869.30	76 203.76	74 552.72	76 210.97	73 155.66
Deposit facility	32 278.00	2 371.00	13 107.00	8 155.00	4 175.00	14 326.00	19 453.00	16 112.00	9 215.00	31 319.00	8 824.50	6 691.75	30 462.50
Open market operations**	14 874.16	49 403.49	39 550.58	39 058.90	43 801.33	27 091.25	40 505.67	59 267.38	75 788.00	61 914.40	96 220.06	81 886.06	38 296.21
repo (-)	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
swap (+)	0.00	0.00	2 612.31	2 622.63	3 821.16	3 738.44	3 769.28	3 858.61	4 528.28	4 507.88	4 604.83	4 374.39	4 263.30
Bond redemption (-)	112 893.52	114 396.84	115 488.93	119 333.87	124 910.63	140 108.29	142 186.10	146 802.83	147 831.13	149 661.88	150 218.27	150 541.98	150 541.98
NBP bills 7 days (+)	127 767.68	163 800.33	152 427.20	155 770.15	164 890.80	163 461.10	178 922.50	202 211.60	219 090.85	207 068.40	241 833.50	228 053.65	184 574.90
NBP bills < 7 days (+)	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
POLONIA %	0.10%	0.01%	0.01%	0.03%	0.02%	0.03%	0.02%	0.02%	0.02%	0.03%	0.15%	1.08%	1.75%
turnover	1 660.00	1 450.00	1 385.00	2 530.00	1 650.00	1 510.00	3 015.00	1 025.00	3 100.00	4 260.00	45.00	1 250.00	330.00
WIBOR %													
O/N	0.11%	0.10%	0.10%	0.10%	0.09%	0.09%	0.09%	0.10%	0.09%	0.10%	0.29%	1.05%	1.63%
T/N	0.10%	0.10%	0.10%	0.09%	0.10%	0.10%	0.10%	0.10%	0.09%	0.10%	0.35%	1.18%	1.74%
S/W	0.12%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.11%	0.52%	1.30%	2.09%
2W	0.17%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.56%	1.47%	2.18%
1M	0.20%	0.19%	0.19%	0.19%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.61%	1.70%	2.23%
3M	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.23%	0.23%	0.74%	2.06%	2.54%
12M	0.25%	0.25%	0.25%	0.25%	0.25%	0.26%	0.26%	0.26%	0.40%	0.48%	1.26%	2.63%	3.13%
WIBID %													
O/N	-0.06%	-0.08%	-0.09%	-0.08%	-0.08%	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%	0.03%	0.76%	1.34%
T/N	-0.05%	-0.09%	-0.09%	-0.08%	-0.07%	-0.07%	-0.08%	-0.07%	-0.08%	-0.07%	0.06%	0.88%	1.44%
S/W	-0.05%	-0.06%	-0.05%	-0.06%	-0.06%	-0.05%	-0.06%	-0.06%	-0.06%	-0.05%	0.33%	1.10%	1.89%
2W	-0.03%	-0.03%	-0.03%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	0.36%	1.27%	1.98%
1M	0.00%	-0.01%	-0.01%	-0.01%	-0.01%	-0.02%	-0.02%	-0.02%	-0.02%	-0.02%	0.41%	1.50%	2.03%
3M	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.03%	0.03%	0.54%	1.86%	2.34%
12M	0.05%	0.05%	0.05%	0.05%	0.05%	0.06%	0.06%	0.06%	0.20%	0.28%	1.06%	2.43%	2.93%
USD/PLN (fix)	3.7584	3.7460	3.7247	3.9676	3.7746	3.6724	3.8035	3.8410	3.8386	3.9925	3.9664	4.1214	4.0600
EUR/PLN (fix)	4.6148	4.5385	4.5175	4.6603	4.5654	4.4805	4.5208	4.5731	4.5374	4.6329	4.6208	4.6834	4.5994
EUR/USD	1.2279	1.2116	1.2128	1.1746	1.2095	1.2200	1.1886	1.1906	1.1820	1.1604	1.1650	1.1364	1.1329
Official reserve assets (as at the end of the month)													
in PLN mn	579 718.70	589 240.20	608 797.50	628 275.30	587 581.10	597 624.60	606 286.20	626 179.20	650 458.40	666 861.30	665 714.70	687 143.40	674 172.10
in EUR mn	125 621.60	129 831.50	134 764.30	134 814.30	128 703.10	133 383.40	134 110.30	136 926.60	143 354.80	143 940.30	144 069.20	146 719.00	146 578.30
Purchase (-) or sale (+) of foreign currency	-1 034.56	1 252.09	-2 651.09	-9 494.15	-709.40	-3 733.15	-7 733.45	-13 415.96	-7 995.30	-7 463.67	-3 905.47	-6 941.29	5 476.38

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

** Open market operations are reported at nominal value; the balance of this position includes NBP bills minus repo operations.

Source: NBP.

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