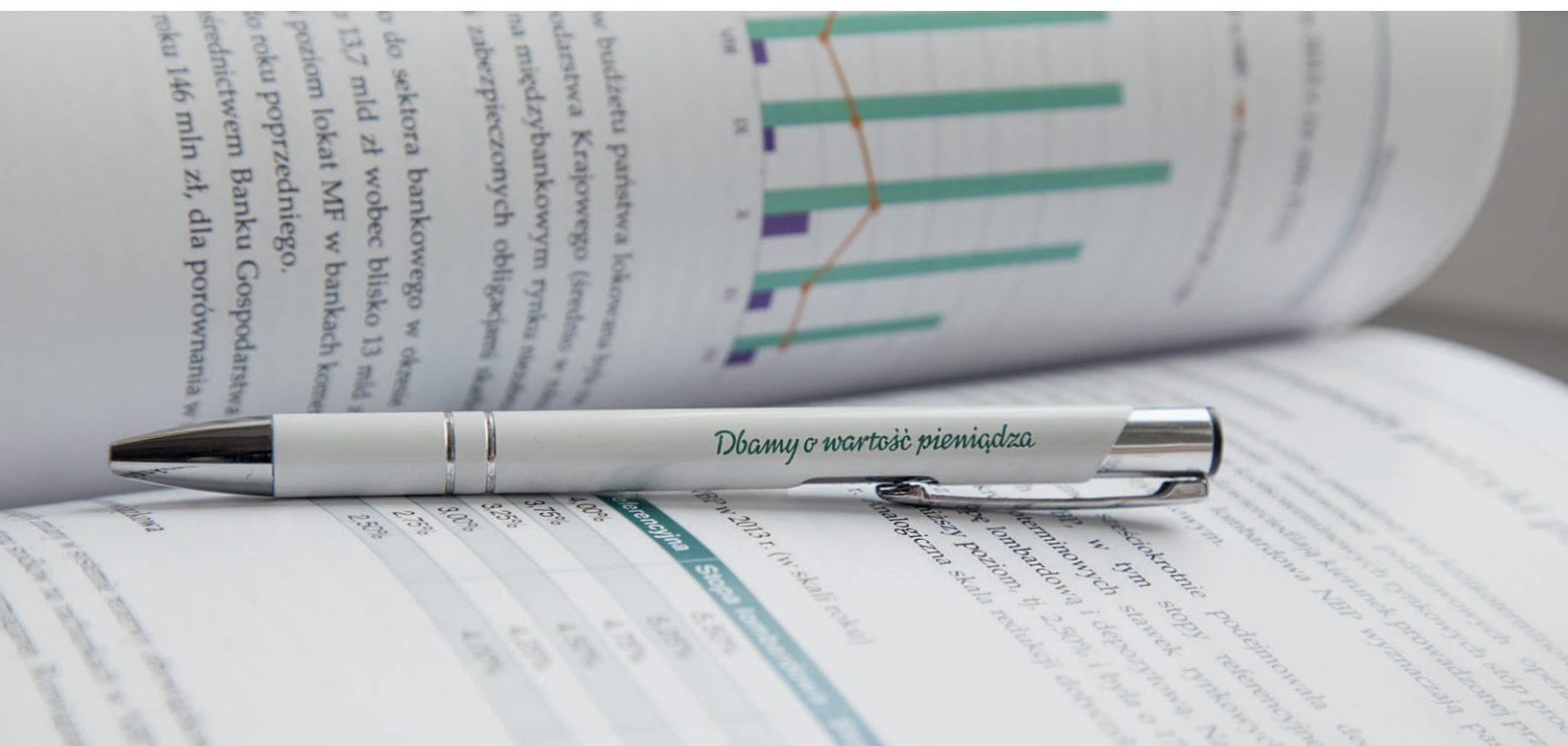


# Annual Report 2018

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



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# **Annual Report 2018**

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

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# Introduction



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# Introduction

In 2018, Narodowy Bank Polski (NBP) pursued monetary policy in accordance with the *Monetary Policy Guidelines for 2018*.

The basic instrument of the monetary policy in 2018 was the short-term interest rate – the NBP reference rate. By setting the level of the NBP reference rate, the Monetary Policy Council (MPC) determines the yields on the monetary policy instruments. Changes in the level of this rate determine the course of monetary policy and affect the path of market rates. The deposit rate and the lombard rate set the fluctuation band for overnight interest rates in the interbank market, which is symmetric with respect to the reference rate.

In 2018, the Monetary Policy Council made no changes in interest rates. The last change (lowering by 50 basis points) took place in March 2015. Throughout 2018 the reference rate stood at 1.5%, the deposit rate at 0.5%, and the lombard rate at 2.5%.

NBP managed the banking sector liquidity and implemented the monetary policy guidelines adopted by the MPC by carrying out open market operations through which it affected the banking sector liquidity in a manner allowing short-term market rates to be maintained at a level conducive to the achievement of the inflation target assumed by the MPC. In 2018, the main open market operations involved the issuance of 7-day NBP bills on a regular basis. The fine-tuning operations involved the regular (on the last working day of the reserve maintenance period) and ad-hoc (during the reserve maintenance period) issuance of the NBP bills with shorter maturities than the main operations, and were aimed to reduce the volatility of short-term market interest rates.

Access to the open market operations, the main ones and the regularly conducted fine-tuning ones, was granted to all banks complying with the terms and conditions set by NBP; also the Bank Guarantee Fund (BFG) had access to the main open market operations. Banks operating as Money Market Dealers (MMD) had access to the ad-hoc fine-tuning operations. In 2018, 13 banks most active in both money market and foreign currency markets obtained the status of a Money Market Dealer.

Commercial banks also had the possibility of using standing facilities, placed at their disposal by NBP, to facilitate their short-term liquidity management. Banks were able to deposit excess funds with NBP via overnight deposit facility and cover liquidity shortages via the marginal lending facility.

In 2018, NBP did not carry out any structural operations targeted at a long-term change in the banking sector liquidity.

In the year under discussion, the short-term banking sector liquidity level, measured as the average annual balance of central bank operations, increased.

**Table I** Average level of open market operations (NBP bills and repo), FX swaps and standing facilities in the years 2001–2018 (in PLN million)

Period	NBP bills	Repos	FX swaps	Standing facilities		
				Deposit facility	Marginal lending facility	Balance (deposit - credit)
2018	88 796	0	0	1 370	0	1 370
2017	72 786	0	0	846	0	846
2016	72 438	0	0	772	4	768
2015	89 092	0	0	500	0	500
2014	108 518	0	0	298	0	298
2013	126 078	0	0	463	0	463
2012	95 913	0	0	393	0	393
2011	95 217	0	0	711	0	711
2010	74 968	5 097	0	1 036	0	1 036
2009	31 873	11 456	1 076	2 461	14	2 447
2008	11 530	2 135	162	1 421	14	1 407
2007	19 302	-	-	530	18	512
2006	19 758	-	-	150	50	100
2005	16 699	-	-	162	29	133
2004	5 275	-	-	310	22	288
2003	6 251	-	-	167	34	133
2002	10 565	-	-	80	170	-90
2001	14 701	-	-	715	234	481

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

Source: NBP.

In 2018, the average level of short-term banking sector liquidity amounted to PLN 90,166 million. Compared to the average level of the previous year, liquidity increased by PLN 16,534 million. In the course of the year, the level of short-term banking sector liquidity increased from PLN 83,377 million in December 2017 to PLN 86,625 million in December 2018, which means an increase by PLN 3,248 million.

The average level of standing facilities was PLN 1,370 million. The deposit rate determined the yield on the overnight deposit facility and the lombard rate – the costs of incurring the marginal lending facility.

The year 2018 saw a higher volatility of the POLONIA rate in comparison with 2017. This rate remained stable and its deviation from the NBP reference rate was recorded mainly at the end of required reserve maintenance periods. The average absolute deviation of the POLONIA rate from the reference rate in 2018 was 21 bps (versus 12 bps in 2017).



**Table II** Deviation of market rates from the NBP reference rate in 2001–2018

Period	Average reference rate (in %)*	Deviation of rates from reference rate in basis points (annual average)**				
		O/N	SW	2W	1M	POLONIA
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	–
2003	5,67	28	8	7	9	–
2002	8,82	90	60	–	32	–
2001	16,13	142	–	–	42	–

\* 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.

The instrument used by NBP, which helps to smooth the fluctuations in short-term interest rates and to stabilise the banking sector liquidity, was the required reserve system. An essential feature of this instrument was obliging the banks to maintain, in the required reserve period, funds on accounts with NBP at an average level not lower than the required reserve. In 2018, the basic required reserve ratio did not change and amounted to 3.5%. The interest rate on the required reserve from 1 January 2018 amounted to 0.5% in accordance with Resolution No. 7/2017 of the Monetary Policy Council (MPC).

Pursuant to Resolution No. 6/2017 of 8 November 2017, as of 1 March 2018 the MPC determined a zero required reserve rate on funds acquired for at least two years.

Chapter 1

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# Banking sector liquidity



# Banking sector liquidity

## 1.1 Liquidity developments in 2018

In 2018, monetary policy was conducted – as in previous years – in an environment of excess liquidity of the banking sector. Short-term banking sector liquidity (measured by the level of NBP bills issuance and standing facilities) reached PLN 91,830 million in January 2018. In December 2018, the average level of short-term banking sector liquidity reached PLN 86,625 million and it was higher by PLN 3,248 million, i.e. 3.9%, as compared to December 2017 (PLN 83,377 million).

**Table 1.1** Absorption of short-term liquidity as part of operations executed by NBP in 2018 (in PLN million)

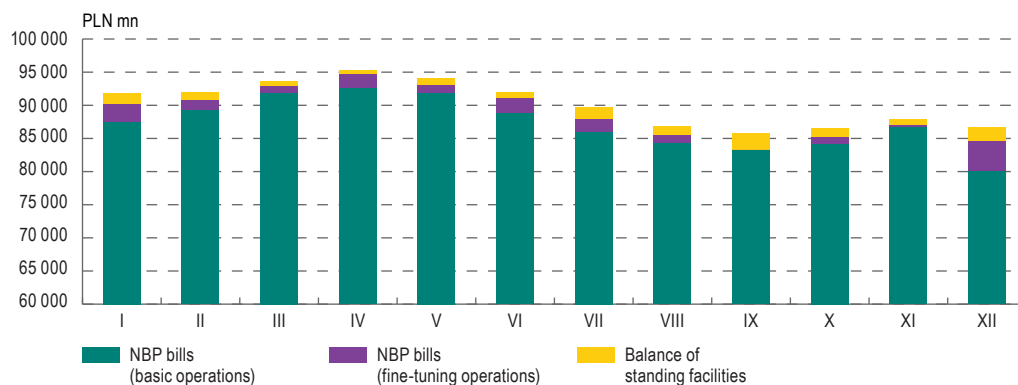
2018	Average level of NBP bills (main operations)	Average level of NBP bills (fine-tuning operations)	Average level of overnight deposit	Average level of marginal lending facility	Average level of short-term banking sector liquidity
	(1)	(2)	(3)	(4)	(1) + (2) + (3) - (4)
I	87 479	2 638	1 713	0	91 830
II	89 210	1 629	1 169	0	92 008
III	91 840	1 000	826	0	93 666
IV	92 481	2 222	530	0	95 233
V	91 873	1 075	1 067	0	94 015
VI	88 724	2 395	817	0	91 936
VII	85 963	1 870	1 955	0	89 788
VIII	84 206	1 217	1 508	2	86 929
IX	83 197	0	2 602	0	85 799
X	84 163	1 016	1 313	0	86 492
XI	86 631	423	886	0	87 940
XII	79 990	4 599	2 036	0	86 625
On average	87 137	1 659	1 370	0	90 166

Note: average values over required reserve maintenance periods.  
Source: NBP.

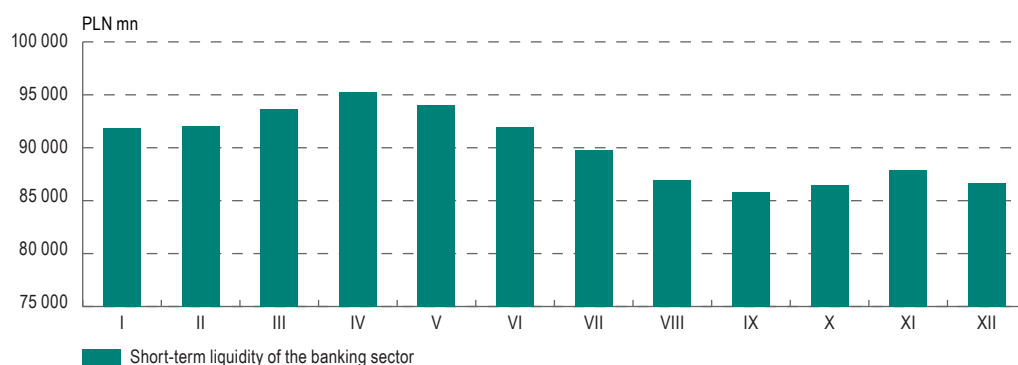
In order to maintain market interest rates at a stable level, in accordance with the *Monetary Policy Guidelines for 2018*, NBP absorbed the liquidity surplus by issuing the NBP bills with a maturity of 7 days as main open market operations (the average value in 2018 amounted to PLN 87,137 million) and the NBP bills with shorter maturities as fine-tuning operations (the average value in 2018 amounted to PLN 1,659 million). In total, the average level of NBP bills in 2018 amounted to PLN 88,796 million. 52 main open market operations and 19 fine-tuning operations were executed.

The excess funds not invested in open market operations were placed by banks as overnight deposit with NBP. In 2018, an average deposit amounted to PLN 1,370 million.



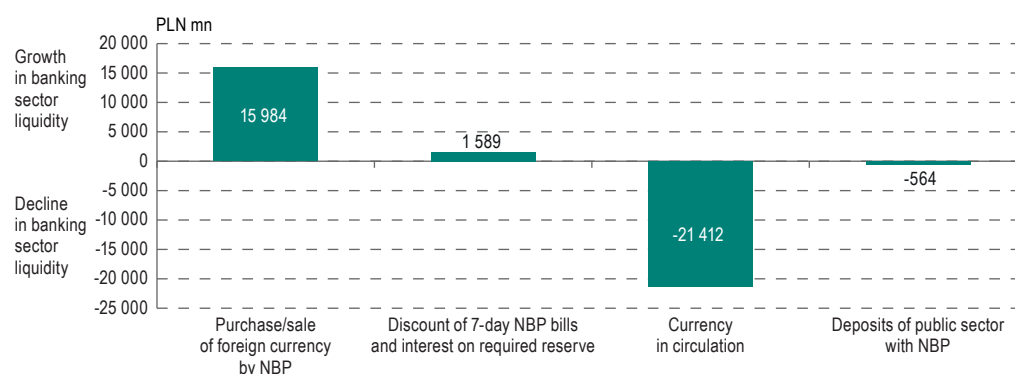
**Figure 1.1** Operations carried out by NBP in 2018

Source: NBP.

**Figure 1.2** Level of short-term liquidity of the banking sector in 2018

Source: NBP.

The direction of changes in the banking sector liquidity during the year was varied. The autonomous factors that had the greatest impact on the changes in the banking sector liquidity included the purchase and sale of foreign currencies by NBP, and currency in circulation. From January to April 2018 and in October and November 2018, the level of the banking sector liquidity increased mainly due to the surplus of foreign currency purchase over sale by NBP. From May to September and in December 2018, the liquidity level of the banking sector decreased mainly due to the increase in the level of currency in circulation and high sale of foreign currencies.

**Figure 1.3** Major factors influencing short-term liquidity of the banking sector in 2018

Source: NBP.

The factor adding the most to the increase in the liquidity of the banking sector in 2018 was the net purchase of foreign currencies by NBP. Comparing December 2018 to December 2017, the average growth in the banking sector liquidity due to the balance of the purchase and sale of foreign currency by NBP amounted to PLN 15,984 million.

In addition, the increase in the banking sector liquidity in 2018 was due to the payments made by NBP to the banking sector arising from the discount of the NBP bills and required reserve remuneration. These factors resulted in the average total growth in liquidity by the amount of PLN 1,589 million.

Among autonomous factors affecting the decline in the banking sector liquidity, of key importance was the increase in currency in circulation which amounted to PLN 21,412 million (December 2018 to December 2017). The annual growth rate of currency in circulation in 2018<sup>1</sup> stood at 10.9%.

The level of the banking sector liquidity also decreased as a result of growth in the level of public sector deposits, which increased on average by PLN 564 million in December 2018 as compared to December 2017.

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

### 1.2.1 Purchase and sale of foreign currencies by NBP

In 2018, operations consisting in the purchase of foreign currencies by NBP prevailed over their sale, as a result of which the banking sector liquidity increased by PLN 15,984 million, in December 2018 to December 2017 terms.

<sup>1</sup> Calculated as a comparison of the average level in December of the year under discussion compared to the level in December of the previous year.

The purchase of foreign currencies by NBP included:

- purchase of foreign currencies from the Ministry of Finance within the limit determined for 2018<sup>2</sup> equivalent to PLN 33,010 million (mainly from the foreign currency account of the Ministry of Finance held with NBP in the amount of PLN 32,830 million),
- services provided to the central government and others entities whose accounts are held with NBP, in the amount of PLN 5,396 million,
- conversion of EU funds to PLN directly from the EU fund accounts, equivalent to PLN 224 million.

Throughout 2018, NBP purchased foreign currencies amounting to a total of PLN 38,630 million (in 2017, this amount reached PLN 36,886 million). Such transactions were mainly performed in the first and fourth quarter of the year and amounted to the total of PLN 25,152 million.

The sale of foreign currencies by NBP was related to:

- the conversion of the membership fee paid to the account of the European Commission (EC) in the amount of PLN 18,778 million,
- services provided to the central government and others entities whose accounts are held with NBP, in the amount of PLN 9,813 million.

In 2018, NBP sold foreign currencies in the total amount of PLN 28,590 million.

The conversion of funds from the MF foreign currency account with NBP to the Polish zloty amounted to 85% of all foreign currency purchase transactions executed by the central bank. Such transactions were mainly performed in March and October 2018 and amounted to PLN 9,262 million (EUR 2,200 million) and PLN 5,608 million (EUR 1,300 million), respectively.

The purchase of foreign currency from the central government entities and other entities holding foreign currency accounts with NBP showed an upward trend in quarter to quarter terms (from PLN 991 million in the first quarter to PLN 1,528 million in the fourth quarter). In 2018, the value of transactions of this type significantly increased as compared to previous years and represented twice the value of transactions that took place in 2017.

In 2018, purchase transactions of funds originating from the EU by NBP took place. The conversion of the EU funds directly from the EU funds accounts was ordered by the Ministry of Finance and the Ministry of Investment and Economic Development. These funds were not credited to the MF foreign currency account as part of the consolidation of funds.

The other side of foreign currency transactions carried out by the central bank involved transactions of foreign currency sale to NBP customers. In 2018, these transactions involved mainly the conversion into EUR of the membership fee paid by Poland to the European Union budget in PLN. Decisions concerning the dates and levels of conversion of funds in PLN into the foreign currency were made by the European Commission (EC) depending on the needs. The currency conversion was performed unevenly throughout the year. The largest amount of foreign currencies was sold in December (20.47%), February (14.61%) and January (11.74%).

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<sup>2</sup> Detailed information concerning the limits of foreign currency purchase and sale between the MF and NBP is presented in Annex No. 5.



Transactions of foreign currency sale were also related to services provided to the central government entities and other entities holding foreign currency accounts with the central bank. The volume of operations was diversified in individual months. In total, in 2018, the sale of foreign currencies to budget entities was almost twice as high as in 2017. Like in previous years, the majority of foreign currency for the needs of entities was sold in December (53.39%).

### **FX operations carried out by the central bank as part of its currency purchase and sale activities in 2018**

#### *Foreign operations of the State Treasury*

In 2018, the servicing of State Treasury foreign debt was carried out with the funds from the Ministry of Finance's foreign currency account with NBP. These transactions were executed by the central bank on behalf of the Ministry of Finance. NBP did not sell foreign currencies to the Ministry of Finance.

The MF's foreign currency account was credited by foreign currencies coming from the European Union (structural funds and the Common Agricultural Policy), as well as from the issue of bonds to foreign markets (EUR 1,000 million). Additionally, in January 2018, funds were transferred under a facility from the European Investment Bank. Over 99% of funds on the account were kept in EUR.

In 2018, the average level of the MF's foreign currency account with NBP amounted to EUR 3,652 million. The amount of funds in the account showed a downward trend. In the first quarter of 2018, the average balance of the MF's foreign currency funds at NBP was the highest in the year and amounted to EUR 5,497 million. In the fourth quarter, the average level of foreign currencies on the account was the lowest, amounting to EUR 2,821 million. Payments made from the foreign currency account involved, among others, liabilities payable to holders of international Treasury bonds and repayments of incurred foreign loans, payment of shares and other transactions.

#### *Transactions resulting from the European Union membership*

In 2018, as in the previous years, operations involving the sale of foreign currencies by NBP to the European Commission were the main transactions related to Poland's membership in the European Union. The membership fee is paid to the EU budget in national currencies. For the needs of free transfer of EU funds to the fund accounts to other Member States, the European Commission converts funds originating from the membership fee into the single currency.

In 2018, the value of transactions associated with the currency conversion of the membership fee amounted to EUR 4,421 million (equivalent of PLN 18,778 million). Those operations were ordered by the EC, which submitted instructions to NBP upon occurrence of financial needs associated with covering the costs of projects implemented in Member States. The European Commission converted the largest amounts of funds into EUR in the first quarter of 2018 (PLN 5,898 million, i.e. EUR 1,414 million), when it transferred high amounts to the accounts of structural funds and for the programmes under the Common Agricultural Policy. In addition, these funds were partially transferred to other EU Member States.

The European Commission is not obliged to convert all PLN funds received in a given year into EUR during that year. Accordingly, a part of funds in PLN paid to the European Union remains on the EC's PLN account with NBP for the next year. The balance of EC funds as at 31 December 2018 amounted to PLN 2,589 million, as compared with the amount of PLN 2,850 million as at 31 December 2017.

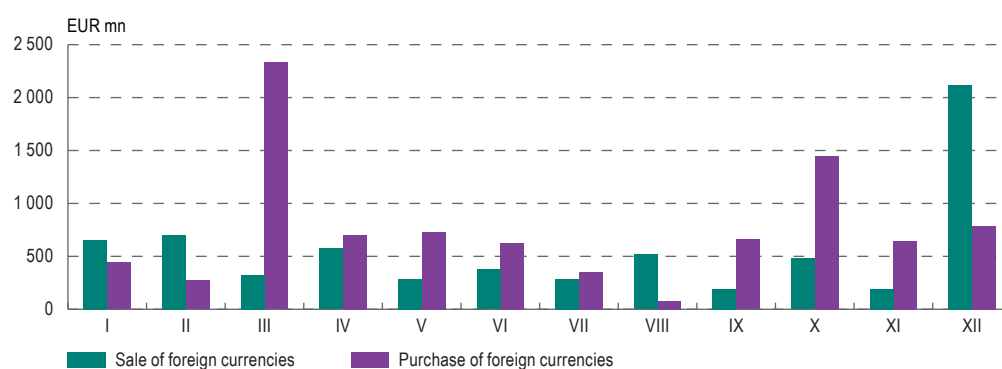
In 2018, the funds received by Poland from the European Union were exchanged into PLN directly from the fund accounts with NBP in the amount of PLN 224 million, i.e. EUR 53 million, under transactions of foreign currency purchase by the central bank.

In 2018, as in the previous years, the foreign currency funds of the Ministry of Finance deposited on the account with NBP were partially transferred to Bank Gospodarstwa Krajowego (BGK). Depending on the situation on the FX market, the Ministry of Finance decided how to use these resources, among others, to convert them into PLN on the interbank market.

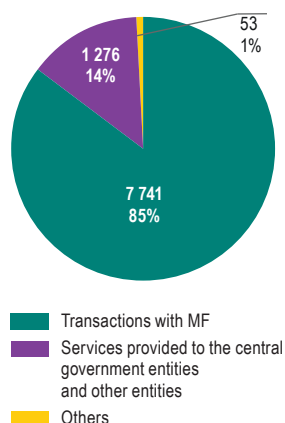
#### *Services to central government entities*

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 2018, the value of transactions involving the purchase of foreign currencies by NBP amounted to the equivalent of PLN 5,396 million. The value of the sale of foreign currencies by the central bank amounted to the equivalent of PLN 9,813 million.

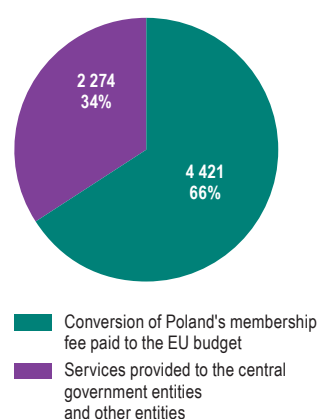
**Figure 1.4** Purchase and sale of foreign currencies by NBP in 2018



Source: NBP.

**Figure 1.5** The structure of currency purchase by NBP in 2018 (in EUR mn)

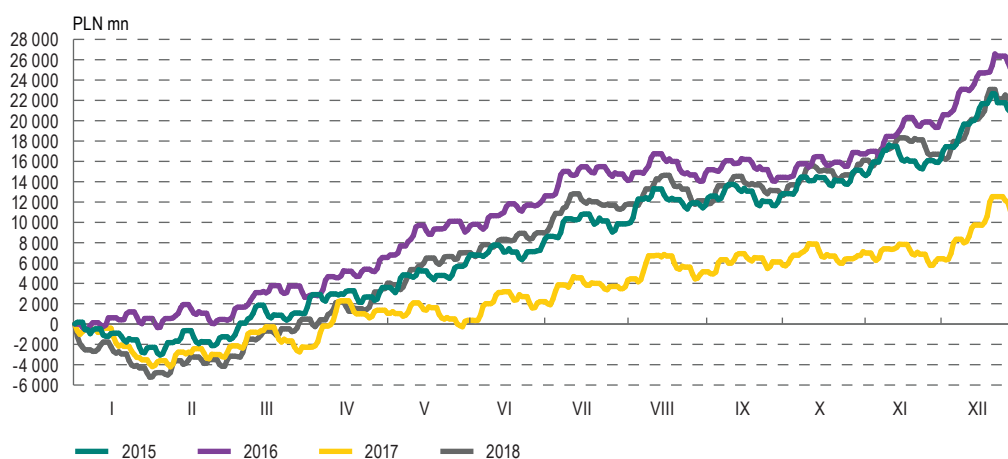
Source: NBP.

**Figure 1.6** The structure of currency sale by NBP in 2018 (in EUR mn)

Source: NBP.

### 1.2.2 Currency in circulation

Currency in circulation is a monetary aggregate which has been growing steadily for many years. The average level of currency in circulation in December 2018 amounted to PLN 218,538 million, which means an increase of PLN 21,412 million compared to December 2017 (in 2017 this growth was equal to PLN 10,234 million). The high increase in currency in circulation may be attributed, as in previous years, to NBP interest rates being maintained at a low and constant level. The amount of currency in circulation was also influenced by factors of a seasonal nature, which explain the changes in the level of this monetary aggregate in selected periods throughout 2018 (from weekly to yearly seasonality as well as increases observed in pre-holiday periods).

**Figure 1.7** Daily changes of currency in circulation, cumulatively in the years 2015–2018

Source: NBP.

In 2018, the path of changes in currency in circulation was not much different from that observed in previous years. Almost throughout the year, a steady increase in the annual

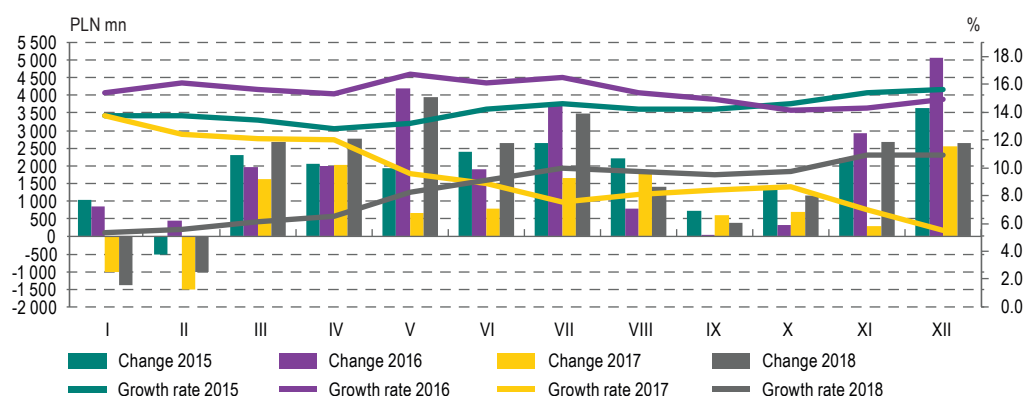


growth rate of currency in circulation could be observed (y/y). The rate ranged from 5.3% in January to 10.9% in November and December.

The highest average growth of currency in circulation occurred in the May (PLN 3,944 million) and July (PLN 3,485 million) period of maintaining the required reserve. The monthly growth rate in these months amounted to 2.0% and 1.7%, respectively (in the remaining months it ranged between -0.7% and 1.4%).

As a given individual data shows, the most intensive increase in currency in circulation, as in the previous years, was recorded in December. The December growth was of seasonal nature and it resulted both from increased demand for cash in connection with the intensification of purchases in the pre-Christmas period as well as additional gratuities paid to some employee groups.

**Figure 1.8** Average change of currency in circulation in individual months of 2015–2018 (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 with the central bank include funds on current accounts and term deposits of the State Budget in PLN (from 1-day to 7-day).

In 2018, the level of public sector deposits with NBP was an outcome of the following factors:

- changes in the volume of budgetary incomes and expenses,
- settlements resulting from the issue and redemption of State Treasury securities,
- funds coming 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 servicing other transactions connected with the State Budget's borrowing needs.

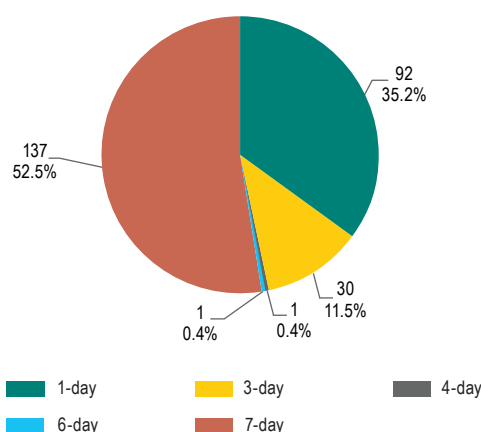
In 2018, the average level of public sector deposits stood at PLN 3,771 million and was higher by PLN 453 million comparing to the previous year (PLN 3,318 million). The average level of the public sector deposits held on current accounts with NBP amounted to PLN 2,884

million (against PLN 2,529 million in 2017), whereas the average level of the Ministry of Finance's PLN term deposits with NBP, representing a significant position in the structure of public sector deposits denominated in PLN (23.5%) amounted to PLN 887 million against PLN 789 million in 2017.

The Ministry of Finance invested surplus funds of the State Budget on a temporary basis with Narodowy Bank Polski. A total of 261 deposits were made in 2018. More than a half, i.e. 52.5% of all deposits, were made with a 7-day period of maturity (137 deposits), 123 deposits were made with 1-, 3- and 4-day periods of maturity,<sup>3</sup> which accounted for 47.1% of the total deposits.

In the period under discussion, the average level of overnight deposits, placed automatically at the end of the day, amounted to PLN 21 million (against PLN 14 million in 2017).

**Figure 1.9** The quantitative structure of Ministry of Finance's term deposits with NBP in 2018



Source: NBP.

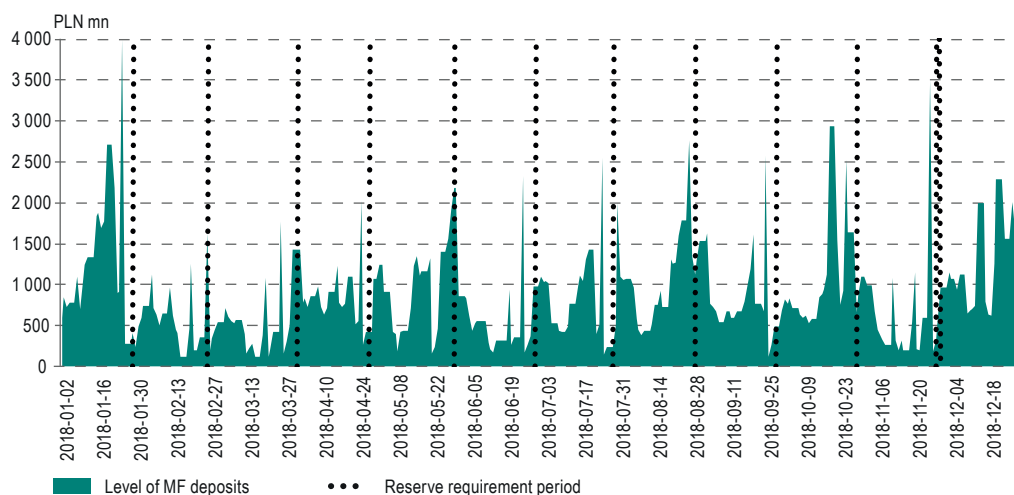
The level of the Ministry of Finance's PLN term deposits with NBP in 2018, as in previous years, was highly variable and its average levels in individual months ranged between PLN 571 million and PLN 1,322 million. Deposits reached their highest level in Q4, amounting to: PLN 1,138 million in October, PLN 622 million in November and PLN 1,322 million in December. The average volume of the Ministry of Finance's deposits placed in 2018 accounted for 32.8% of the established daily limit (for comparison, in 2017 this figure represented 32.6%).

In accordance with the agreement concerning depositing MF's funds on term deposit accounts in PLN with NBP, it has been agreed that in the third decade of each month of 2018, the limit of the MF's term deposits with NBP will be periodically increased. This was related to the periods of the highest tax revenues (coming from PIT, CIT, VAT) and the dates of redemption of Treasury bonds. In 2018, the maximum daily deposit limit (100%) specified in the agreement was reached on three cases (in January, November and December 2018).

<sup>3</sup> 3-day deposits and one 4-day deposit are treated as the deposits with the shortest maturity periods since they were always made before the bank holidays (on Fridays and on 24 December 2018).

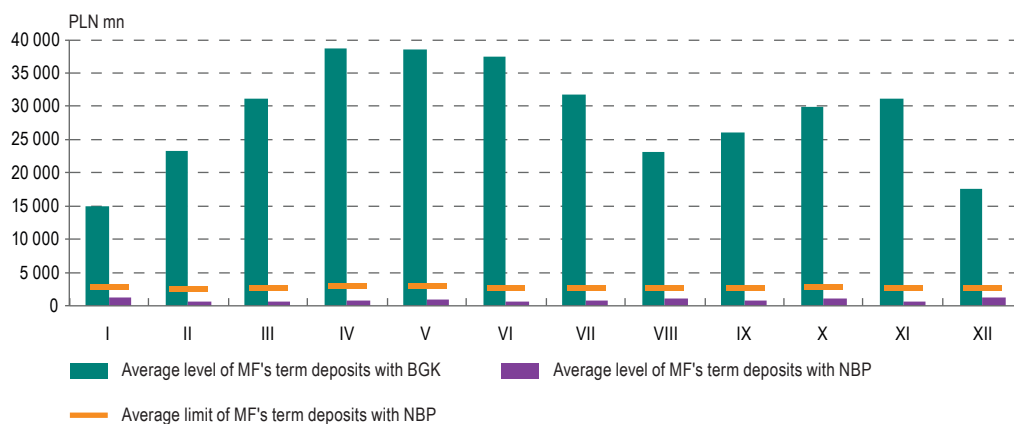
Each month the highest levels of deposits were observed on the VAT settlement days (the 25th or 26th day of the month).

**Figure 1.10** Daily levels of the Ministry of Finance's term deposits with NBP in 2018



Source: NBP.

**Figure 1.11** The average level of the Ministry of Finance's term deposits in PLN in 2018



Source: NBP.

In 2018, as in previous years, the majority of funds from the State Budget was invested on the interbank market through BGK. The average level of MF's deposits with commercial banks amounted to PLN 28,668 million and was higher by PLN 2,439 million (i.e. 9.3%) in relation to the previous year.

The Ministry of Finance placed funds on the interbank market, mainly in the form of uncollateralised term deposits. Moreover, the MF performed buy-sell back operations collateralised in Treasury bonds. A part of the funds was placed through BGK as a deposit facility with NBP (on average PLN 276 million per year compared with PLN 99 million in 2017).



The highest amount of funds at the disposal of the Ministry of Finance was deposited in the months when, on the one hand, redemption of Treasury securities took place – in April and July (which was preceded by a significant accumulation of funds from tax revenues) and, on the other hand, there were numerous currency purchases from the FX currency account – in March and October.

In 2018, redemption of Treasury bonds by the MF was held four times: on 25 January 2018 – bond series WZ0118, 25 April 2018 – bond series PS0418, 25 July 2018 – bond series PS0718, and 25 October 2018 – bond series OK1018. In 2018, the Ministry of Finance did not issue Treasury bills.

Chapter 2

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# Monetary policy instruments



# Monetary policy instruments

## 2.1 Interest rate

The primary instrument of the monetary policy is the short-term interest rate – the NBP reference rate which determines the yield on main open market operations, affecting at the same time the level of short-term market interest rates. Changes in the NBP reference rate reflect the course of the monetary policy pursued by the central bank. The NBP deposit and lombard rates set the fluctuation band of the overnight interest rate in the interbank market.

In 2018, the Monetary Policy Council did not make a decision to change the basic short-term interest rate, i.e. the NBP reference rate. Throughout the entire 2018 the reference rate was maintained at the level applicable as of 5 March 2015 when it was lowered by 50 basis points.

In 2018, the basic NBP interest rates were at the following levels:

- the reference rate – 1.50%,
- the lombard rate – 2.50%,
- the deposit rate – 0.50%.

## 2.2 Open market operations

In accordance with the Monetary Policy Guidelines for 2018, implementing the operational objective of the monetary policy, NBP made efforts to keep the POLONIA rate close to the NBP reference rate. The following open market operations represented the key instrument used to shape market interest rates:

- main operations – in the form of regular issuance of the NBP bills, usually with a maturity of 7 days,
- fine-tuning operations – in the form of issuance of the NBP bills with maturities shorter than those of main operations (1-, 2-, 3- and 4-day).

Open market operations were carried out by NBP in order to ensure adequate conditions for commercial banks to balance their own liquidity positions in the required reserve maintenance periods.

Open market operations in 2018 were carried out amid persistent excess liquidity in the banking sector. From the beginning of the year to the end of April 2018, banking sector liquidity, measured by the issuance of the NBP bills,<sup>4</sup> was characterised by an upward trend. The average level of the NBP bills in the January reserve maintenance period amounted to PLN 90,117 million, while in April it was PLN 94,703 million. Over the next five months, liquidity gradually decreased, reaching the level of PLN 83,197 million in September. In October and November, it increased again to the level of PLN 85,179

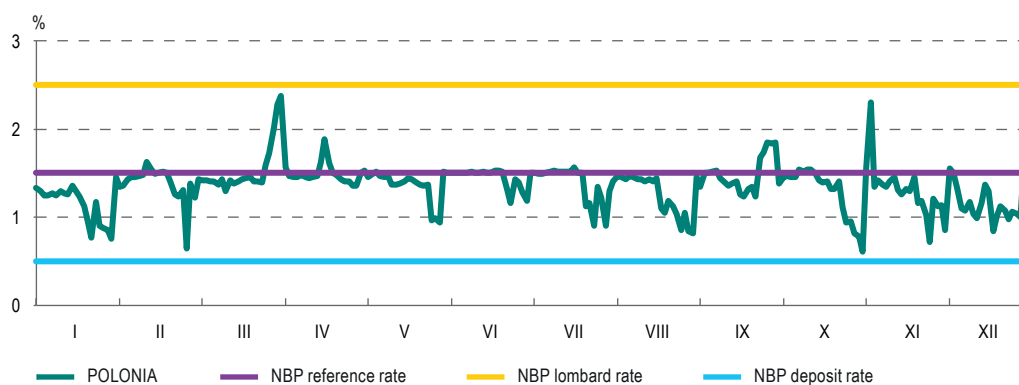
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<sup>4</sup> In this chapter we disregard standing facilities.

million and PLN 87,054 million, respectively. In the last month of the year, the issue of the NBP bills stayed at the level of PLN 84,589 million. The main reason for these liquidity fluctuations were foreign currency transactions, which in most months stayed on the side of foreign currency purchase by NBP. The average level of open market operations in 2018 amounted to PLN 88,796 million. NBP bills issued under main operations accounted for 98.1% (PLN 87,137 million) of the value, while those issued under fine-tuning operations constituted 1.9% (PLN 1,659 million). The yield on main open market operations was determined at the reference rate level.

The objective of the banking sector liquidity management policy adopted by NBP, as in the previous year, was to establish the optimal, from the point of view of influencing the shortest-term market rates (in particular, the POLONIA rate), liquidity conditions in the banking sector. Maintaining the POLONIA rate near the reference rate was achieved by means of main open market operations as well as regular and irregular fine-tuning operations. Setting the levels of individual open market operations, the central bank endeavoured to maintain balanced liquidity conditions in the banking sector throughout the reserve maintenance period. Supply was determined at a level (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 aggregate level of current accounts held with NBP from the value of the reserve requirement (in a given reserve maintenance period).

**Figure 2.1** Short-term market rate POLONIA against NBP rates in 2018



Source: NBP.

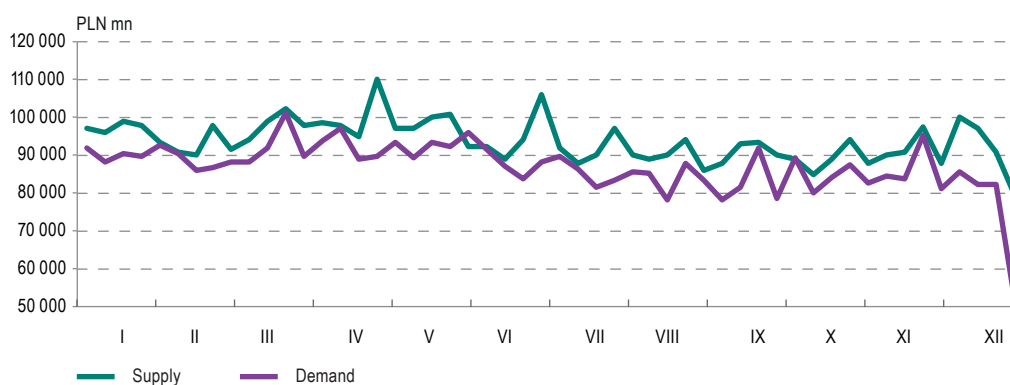
### 2.2.1 Main operations

In 2018, NBP carried out main open market operations which involved the issuance of NBP bills, with a maturity of 7 days. The NBP bills were issued regularly once a week (on Fridays). Access to main open market operations was available to all banks participating in the SORBNET2 system with an account in the SKARBNET4 system operated by NBP. Moreover, the Bank Guarantee Fund (BFG) also had access to those operations. Tenders for NBP bills had the settlement period of  $t + 0$  and the yield equal to the NBP reference rate.

In 2018, the average level of NBP bills issued under the main operations amounted to PLN 87,137 million and was lower by PLN 953 million as compared to the average level in 2017. In 2018, the central bank offered NBP bills totalling PLN 4,878,000 million for

sale under the main operations. In that period, the bids received from banks amounted to PLN 4,525,262 million, whereas the value of bids accepted by the central bank amounted to PLN 4,521,335 million. The aggregate values of supply in 2018 were at a higher level than the aggregate values of demand. The ratio of commercial banks' demand for NBP bills to supply offered by NBP was at an annual average of 0.93.

**Figure 2.2** NBP bills – demand in relation to supply at tenders for main open market operations in 2018



Source: NBP.

In 2018, underbidding of the NBP bills was more frequent than overbidding (in 50 out of 52 tenders for main open market operations).

### 2.2.2 Fine-tuning operations

In 2018, NBP carried out fine-tuning operations in the form of issuance of the NBP bills with maturities shorter than in the case of main operations. These operations were carried out on the initiative of the central bank in order to mitigate fluctuations in short-term market interest rates. As in the previous year, they were conducted regularly on the last day of the reserve maintenance period and *ad hoc* during this period.

The goal 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 2018, NBP conducted 11 regular fine-tuning operations. In September, it was decided that such operations would not be conducted. Regular fine-tuning operations had the form of O/N transactions. Due to the 2018 calendar structure, there were six 1-day operations, one 2-day operation (in May), three 3-day operations and one 4-day operation.

Additionally, in 2018, eight open market operations were offered by NBP (two in January and one in February, June, July, August, October and December), conducted during the reserve maintenance period in order to compensate for the deviations in market interest rates from the reference rate. These were 3-day operations conducted four times, 2-day operations conducted three times and a single 1-day operation.

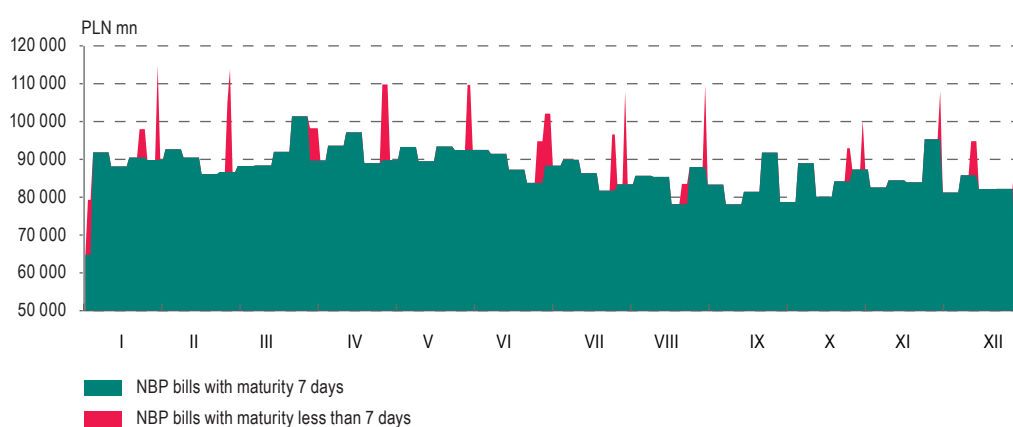
As a result of 19 fine-tuning operations which were conducted in 2018, the average annual level of these operations amounted to PLN 1,659 million and was lower by PLN 37 million



than the 2017 level. In 2018, the central bank offered for sale under fine-tuning operations NBP bills amounting to PLN 372,000 million. In this period, bids received from banks totalled PLN 314,160 million, whereas bids accepted by the central bank amounted to PLN 311,399 million.

Overbidding from banks in relation to the NBP bills offered by the central bank in fine tuning operations occurred in 4 tenders (on the last business day of the reserve maintenance period). The ratio of commercial banks' demand for the NBP bills in fine-tuning operations in individual tenders to the supply offered by NBP fluctuated between 0.357 and 1.097.

**Figure 2.3** Operations carried out by NBP in 2018

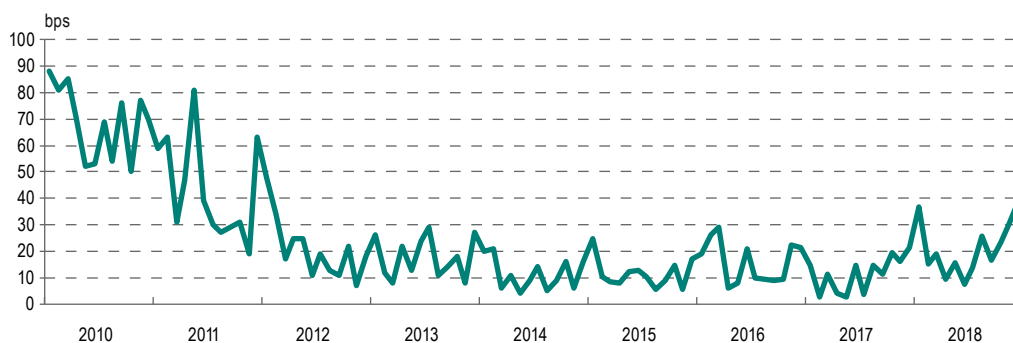


Source: NBP.

The method to use open market operations (both main and fine-tuning ones) adopted in 2018 generally allowed NBP to effectively implement the monetary policy operational objective. The average absolute deviation of the POLONIA rate from the NBP reference rate in 2018 reached 21 basis points, as compared to 12 basis points in 2017.<sup>5</sup> Deviations of the POLONIA rate from the NBP reference rate in 2018 showed relatively high variability in the third decade of the month. The reason for this situation was that under the conditions of the existing liquidity segmentation among market participants, some banks offered funds in order to achieve the highest possible profits, while those that sought liquidity wanted to obtain it at relatively low rates. A different situation occurred in January and December, when the deviations were relatively significant throughout the month. In January, the banking sector entered a new required reserve period with a very high liquidity surplus, which resulted in a high positive deviation of the banks' current account level from the level of required reserve and a decrease in short-term market rates. In December, banks participated in smaller scale of open market operations, creating surplus liquidity for potential risk of unexpected liquidity constraints, which also resulted in a decline of market interest rates. Still another situation occurred in November, when greater deviations of the POLONIA rate from the reference rate in the second half of the month were mainly related to liquidity problems in two commercial banks.

<sup>5</sup> Table II, page 8, presents the deviation of the POLONIA rate from the NBP reference rate in previous years.

**Figure 2.4** Average absolute deviation of the POLONIA rate from the NBP reference rate in individual required reserve maintenance periods in the years 2010–2018



Source: NBP.

### 2.3 Reserve requirement

In 2018, banks, credit unions (SKOKs) and the National Credit Union were obliged to maintain average funds on accounts with NBP in the reserve maintenance period, not lower than the value of the required reserve. This solution helped to stabilise the level of short-term interest rates.

Returnable funds on bank accounts and funds obtained from the sale of securities with the exception of funds received from another domestic bank, a credit union, and the National Credit Unions were the basis for calculating the required reserve. Moreover, the basis for the reserve calculation in banks, branches of credit institutions and branches of foreign banks did not include funds obtained from abroad for a minimum of two years and 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 BFG from the basis for calculating the required reserve.

The required reserves were calculated and maintained in the Polish zloty. The value of the required reserve calculated by individual entities was diminished by an equivalent of EUR 500 thousand.

In 2018, the basic required reserve ratio amounted to 3.5% on all liabilities constituting the basis for calculating the required reserve, except for funds received from repo and sell-buy back transactions and funds acquired for at least two years (from 1 March 2018), on which the required reserve ratio was 0%.

As at 31 December 2018, the amount of the required reserve was PLN 43,196 million, with the banking sector reserve at PLN 42,962 million and the credit unions' reserves at PLN 234 million. The total required reserve was higher, compared to the level as at 31 December 2017, by PLN 615 million, which means an increase of 1.44%. A minor change in the amount of the required reserve at the end of 2018, despite an increase of 8.7% in the underlying deposits, resulted from:

- the introduction in 2018 of a zero reserve rate for funds raised for a period of at least two years;

- exemption of four banks from the maintaining of reserve requirements by the NBP Management Board (at the end of 2018, the amount of the exemption from the mandatory reserve stood at PLN 1,317 million).

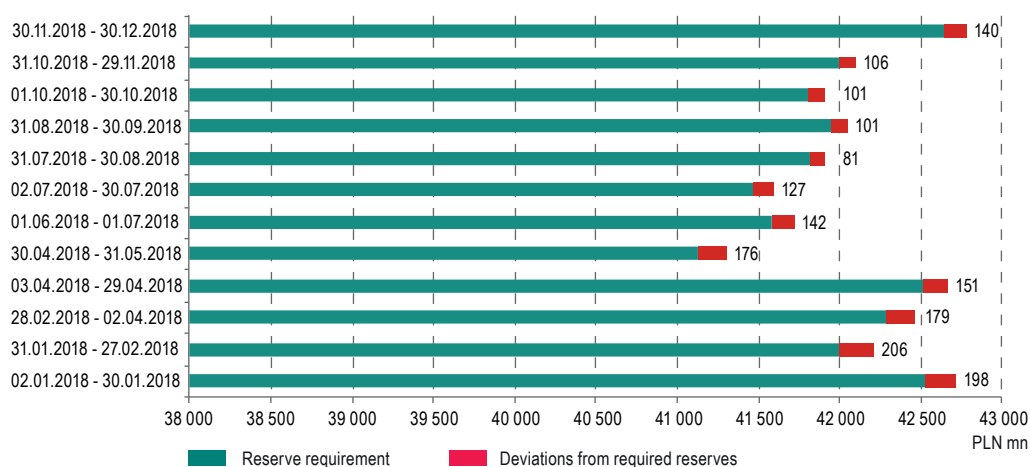
As of 1 January 2018, the Monetary Policy Council decreased the level of interest rate on the required reserve funds to 0.5%, i.e. to the level currently corresponding to the NBP deposit rate.

In 2018, in all the reserve maintenance periods a small surplus of the average holdings on banks' NBP accounts was recorded over the required reserve level. It reached the lowest level in August (PLN 80.79 million), whereas the largest surplus was recorded in February (PLN 206.42 million). The average surplus of the required reserves holdings in 2018 amounted to PLN 142.3 million and accounted for 0.33% of the average level of required reserves.

The year 2018 recorded three cases of banks' non-compliance with the reserve requirements.

In 2018, four banks under resolution benefited from the exemption from the maintaining of reserve requirements, including three commercial banks from the partial exemption and one cooperative bank from the full exemption.

**Figure 2.5** Changes in the required reserve level and deviations from the reserve requirement in 2018



Source: NBP.

## 2.4 Standing facilities

Standing facility operations (deposit facility and marginal lending facility) stabilised the level of interbank liquidity and limited the scale of overnight rates fluctuations. Standing facility operations were carried out on the initiative of commercial banks and their main goal was to increase short-term liquidity of the banking sector liquidity or to invest surplus liquidity in the form of overnight deposits with NBP.

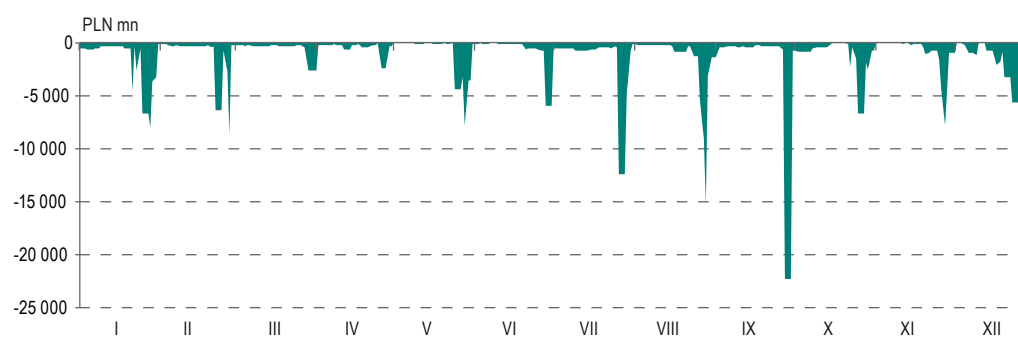
The lombard interest rate set the maximum price of funds obtained from NBP, indicating at the same time the ceiling of rate fluctuations in the interbank market, while the interest

rate on deposit facility set the floor for the rate fluctuations. Additionally, the four-fold level of interest rate on the lombard credit determined the amount of the so-called maximum interest.

### 2.4.1 Deposit facility

In 2018, the total value of the deposit facilities placed by banks with NBP (calculated as the total days of their placement) amounted to PLN 497,452 million and was higher by 61.08% comparing to deposits placed in the previous year. The total value of a single deposit placed by banks under the overnight facility ranged from PLN 60 million to PLN 22,299 million. Its average daily level amounted to PLN 1,370 million against PLN 846 million in 2017. Banks invested the largest amounts on the last days of the required reserve maintenance periods.

**Figure 2.6** The use of deposit facility in 2018



Source: NBP.

### 2.4.2 Marginal lending facility

In 2018, banks used the marginal lending facility only occasionally. The total marginal lending facility used throughout the year amounted to PLN 57 million, and was 5 times higher than the amount used in 2017 (PLN 13 million). The marginal lending facility was mainly incurred in order to test banks' internal procedures. The average daily use of the marginal lending facility amounted to PLN 0.2 million (against PLN 0.03 million in 2017).

Chapter 3

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# Other operations





## Other operations

### 3.1 Intraday credit facility

In the previous year, banks on a daily basis used a non-interest bearing intraday facility that is taken and repaid on the same trading day. This instrument facilitated management of liquidity during the operating day, simultaneously ensuring liquidity of interbank settlements at NBP. Daily supply of operating liquidity to banks ranged from PLN 44,159 million to PLN 57,153 million. In 2018, the use of intraday credit facility grew by 4.88% and reached the level of PLN 12,107,646 million.

### 3.2 Intraday credit facility in euro

Intraday credit facility in euro is an instrument that ensures smooth settlements in the TARGET2-NBP system. The loan collateralised with Treasury bonds accepted by the ECB was incurred and repaid on the same trading day. The use of this facility increased by 74.50% compared to 2017, and amounted to EUR 22,097 million in 2018. The average daily supply of operating liquidity in EUR to banks reached the level of EUR 87 million.

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# Glossary



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# Glossary

**Banking sector short-term liquidity** – liquidity defined as the balance of open market operations conducted by NBP, i.e. main and fine-tuning operations as well as foreign exchange swaps and standing facilities.

**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 market rate quoted for that particular period.

**Fine-tuning operations** – operations which may be conducted by NBP in order to limit the impact of changes in the banking sector liquidity conditions on the short-term market interest rates.

**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.

**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.

**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 applies.

**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.

**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. In addition to the access to the main open market operations, these banks can take part in all fine-tuning operations. Moreover, Money Market Dealers participate in the fixing of the WIBOR and the WIBID reference rates, provide NBP with information concerning overnight transactions concluded on a given day, which are the base for the POLONIA rate fixing.

**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.

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

**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.

**POLONIA rate** – the POLONIA rate (Polish Overnight Index Average) was introduced by NBP and ACI Polska in early 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 TM 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 on a given day until 4.30 p.m.

Since 1 December 2017, NBP has been acting as the Fixing Organiser of Polonia Reference Rate.

**Publication of information in information services** – in the TM Reuters service on the NBPM site and in the Bloomberg service on the NBP18 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 an 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 on the TM Reuters 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 TM Reuters news service and the NBP19 site of the Bloomberg news service. The outcome of tenders is posted on the NBPU site (TM Reuters) and NBP20 site (Bloomberg).

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](http://www.nbp.pl)).

**Repo operations** – short- and long-term refinancing operations aimed at providing liquidity to the banking sector, collateralised with securities approved by NBP.

**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

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average level of funds (set as a percentage of funds accumulated by banks) on their accounts with the central bank.

**Standing facilities** – operations conducted at the initiative of commercial banks under which commercial banks are able to deposit their liquidity surplus with NBP using the deposit facility or reduce short-term liquidity shortage using the marginal lending facility.

**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.

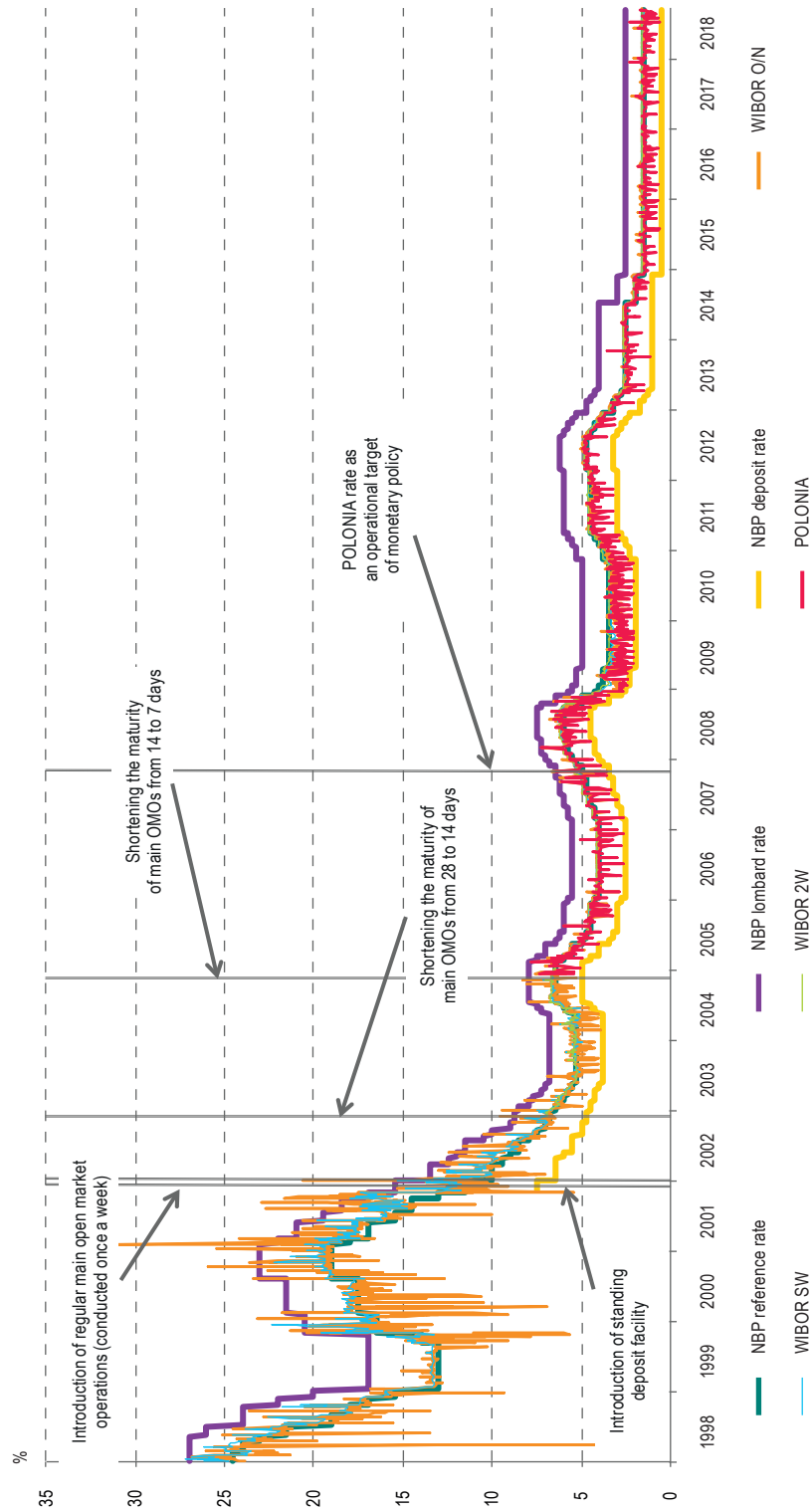


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# Annexes



## Annex 1 Volatility of the shortest-term interest rates in the years 1998–2018



Source: NBP.

## Annex 2

## The NBP monetary policy instruments in the years 1990–2018

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
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																													
FX swap operations																													

Source: NBP.

### Annex 3

#### Main operations in 2018

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	05/01/18	12/01/18	7	97 000.00	91 851.00	91 851.00	1.5
2	12/01/18	19/01/18	7	96 000.00	88 142.00	88 142.00	1.5
3	19/01/18	26/01/18	7	99 000.00	90 487.00	90 487.00	1.5
4	26/01/18	02/02/18	7	98 000.00	89 829.00	89 829.00	1.5
5	02/02/18	09/02/18	7	93 500.00	92 675.00	92 675.00	1.5
6	09/02/18	16/02/18	7	91 000.00	90 487.00	90 487.00	1.5
7	16/02/18	23/02/18	7	90 000.00	86 109.00	86 109.00	1.5
8	23/02/18	02/03/18	7	98 000.00	86 665.00	86 665.00	1.5
9	02/03/18	09/03/18	7	91 500.00	88 256.45	88 256.45	1.5
10	09/03/18	16/03/18	7	94 000.00	88 400.00	88 400.00	1.5
11	16/03/18	23/03/18	7	99 000.00	92 001.96	92 001.96	1.5
12	23/03/18	30/03/18	7	102 500.00	101 384.74	101 384.74	1.5
13	30/03/18	06/04/18	7	98 000.00	89 731.00	89 731.00	1.5
14	06/04/18	13/04/18	7	98 500.00	93 625.00	93 625.00	1.5
15	13/04/18	20/04/18	7	98 000.00	97 147.30	97 147.30	1.5
16	20/04/18	27/04/18	7	95 000.00	88 996.20	88 996.20	1.5
17	27/04/18	04/05/18	7	110 000.00	89 804.60	89 804.60	1.5
18	04/05/18	11/05/18	7	97 000.00	93 272.00	93 272.00	1.5
19	11/05/18	18/05/18	7	97 000.00	89 512.00	89 512.00	1.5
20	18/05/18	25/05/18	7	100 000.00	93 409.00	93 409.00	1.5
21	25/05/18	01/06/18	7	101 000.00	92 480.00	92 480.00	1.5
22	01/06/18	08/06/18	7	92 500.00	95 997.00	92 500.00	1.5
23	08/06/18	15/06/18	7	92 500.00	91 479.00	91 479.00	1.5
24	15/06/18	22/06/18	7	89 000.00	87 283.40	87 283.40	1.5
25	22/06/18	29/06/18	7	94 000.00	83 795.65	83 795.65	1.5
26	29/06/18	06/07/18	7	106 000.00	88 342.50	88 342.50	1.5
27	06/07/18	13/07/18	7	92 000.00	89 892.30	89 892.30	1.5
28	13/07/18	20/07/18	7	88 000.00	86 351.00	86 351.00	1.5
29	20/07/18	27/07/18	7	90 000.00	81 737.00	81 737.00	1.5
30	27/07/18	03/08/18	7	97 000.00	83 421.00	83 421.00	1.5
31	03/08/18	10/08/18	7	90 000.00	85 665.79	85 665.79	1.5
32	10/08/18	17/08/18	7	89 000.00	85 368.00	85 368.00	1.5
33	17/08/18	24/08/18	7	90 000.00	78 160.00	78 160.00	1.5
34	24/08/18	31/08/18	7	94 000.00	87 967.00	87 967.00	1.5
35	31/08/18	07/09/18	7	86 000.00	83 335.33	83 335.33	1.5
36	07/09/18	14/09/18	7	88 000.00	78 130.00	78 130.00	1.5
37	14/09/18	21/09/18	7	93 000.00	81 440.00	81 440.00	1.5
38	21/09/18	28/09/18	7	93 500.00	91 795.00	91 795.00	1.5
39	28/09/18	05/10/18	7	90 000.00	78 737.60	78 737.60	1.5
40	05/10/18	12/10/18	7	89 000.00	89 430.00	89 000.00	1.5
41	12/10/18	19/10/18	7	85 000.00	80 126.64	80 126.64	1.5
42	19/10/18	26/10/18	7	89 000.00	84 204.30	84 204.30	1.5
43	26/10/18	02/11/18	7	94 000.00	87 327.46	87 327.46	1.5
44	02/11/18	09/11/18	7	88 000.00	82 583.50	82 583.50	1.5
45	09/11/18	16/11/18	7	90 000.00	84 468.60	84 468.60	1.5
46	16/11/18	23/11/18	7	91 000.00	83 943.80	83 943.80	1.5
47	23/11/18	30/11/18	7	97 500.00	95 330.00	95 330.00	1.5
48	30/11/18	07/12/18	7	88 000.00	81 245.00	81 245.00	1.5
49	07/12/18	14/12/18	7	100 000.00	85 810.00	85 810.00	1.5
50	14/12/18	21/12/18	7	97 000.00	82 150.00	82 150.00	1.5
51	21/12/18	28/12/18	7	91 000.00	82 203.50	82 203.50	1.5
52	28/12/18	04/01/19	7	80 000.00	53 276.00	53 276.00	1.5
<b>Total 2018</b>				<b>4 878 000.00</b>	<b>4 525 261.62</b>	<b>4 521 334.62</b>	

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

## Annex 4

### Fine-tuning operations in 2018

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	03/01/18	05/01/18	2	25 000.00	14 500.00	14 500.00	1.5
2	23/01/18	26/01/18	3	15 000.00	7 500.00	7 500.00	1.5
3	30/01/18	31/01/18	1	25 000.00	26 306.23	25 000.00	1.5
4	26/02/18	27/02/18	1	20 000.00	18 415.00	18 415.00	1.5
5	27/02/18	28/02/18	1	28 000.00	27 189.94	27 189.94	1.5
6	30/03/18	03/04/18	4	8 500.00	9 325.45	8 500.00	1.5
7	27/04/18	30/04/18	3	20 000.00	20 613.38	20 000.00	1.5
8	30/05/18	01/06/18	2	19 000.00	17 204.19	17 204.19	1.5
9	26/06/18	29/06/18	3	15 000.00	11 000.00	11 000.00	1.5
10	29/06/18	02/07/18	3	17 000.00	13 750.52	13 750.52	1.5
11	25/07/18	27/07/18	2	20 000.00	14 860.00	14 860.00	1.5
12	30/07/18	31/07/18	1	26 000.00	24 523.38	24 523.38	1.5
13	21/08/18	24/08/18	3	15 000.00	5 350.00	5 350.00	1.5
14	30/08/18	31/08/18	1	23 500.00	21 672.36	21 672.36	1.5
15	24/10/18	26/10/18	2	12 000.00	8 740.00	8 740.00	1.5
16	30/10/18	31/10/18	1	13 000.00	13 015.52	13 000.00	1.5
17	29/11/18	30/11/18	1	15 000.00	12 672.45	12 672.45	1.5
18	11/12/18	14/12/18	3	15 000.00	9 000.00	9 000.00	1.5
19	28/12/18	31/12/18	3	40 000.00	38 521.10	38 521.10	1.5
<b>Total 2018</b>				<b>372 000.00</b>	<b>314 159.52</b>	<b>311 398.94</b>	

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

Source: NBP.



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## Annex 5

### 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 sale and purchase of foreign currencies to service liabilities and receivables of the State Treasury**. The annex to the agreement determines maximum values of FX transactions on an annual basis. In 2018, the following amounts of limits were in force:

- the total sales of foreign currencies by NBP to the Ministry of Finance shall not exceed the equivalent of EUR 7.0 billion,
- the total amount of foreign currencies purchased by NBP from the Ministry of Finance shall not exceed the equivalent of EUR 17.5 billion,

whereas:

- the accumulated absolute difference between the amount of foreign currencies sold and purchased as at year-end shall not exceed the equivalent of EUR 7.0 billion,
- the accumulated absolute difference between the amount of foreign currencies purchased and sold as at year-end shall not exceed the equivalent of EUR 10.5 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 2018, the limit for the MF's term deposits placed with NBP, counted in terms of daily balances, was as follows:

- PLN 4.0 billion in the period from 19 January to 31 January and from 19 October to 31 October;
- PLN 3.5 billion in the periods: from 19 February to 28 February, from 19 March to 8 April, from 20 April to 7 May, from 21 May to 31 May, from 18 June to 30 June, from 19 July to 31 July, from 20 August to 31 August, from 19 September to 30 September, from 19 November to 30 November and from 18 December to 31 December;
- PLN 2.0 billion in the periods: from 1 January to 18 January, from 1 February to 18 February, from 1 March to 18 March, from 9 April to 19 April, from 8 May to 20 May, from 1 June to 17 June, from 1 July to 18 July, from 1 August to 19 August, from 1 September to 18 September, from 1 October to 18 October, from 1 November to 18 November and from 1 December to 17 December.

## Annex 6

### Money Market Dealers in 2018

The Money Market Dealers (MMD) System has been used by NBP since 1992. Narodowy Bank Polski (NBP) selects entities for the function of MMD once a year. The MMD status is granted to a given entity upon concluding the agreement between the MMD and the NBP concerning the performance of the Money Market Dealer function.

In 2018, the banks with the MMD status represented the exclusive circle of the central bank's counterparties authorised to participate in fine-tuning open market operations, used irregularly, in the required reserve maintenance period, with maturities of up to 7 days (excluding operations used on the last business day of the reserve maintenance period).

In 2018, the following entities acted as MMD (order 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<sup>6</sup>
5. Bank Gospodarstwa Krajowego
6. mBank SA
7. Bank Millennium SA
8. Bank Polska Kasa Opieki SA
9. Raiffeisen Bank Polska SA<sup>7</sup>
10. Societe Generale SA Oddział w Polsce
11. Deutsche Bank Polska SA
12. Bank BGŻ BNP Paribas SA
13. Getin Noble Bank SA.

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<sup>6</sup> Until 6 September 2018, the bank operated as Bank Zachodni WBK SA.

<sup>7</sup> The Bank performed the MMD function until 31 October 2018. On that day, Bank BGŻ BNP Paribas SA took over the core business of Raiffeisen Bank Polska SA.

## Annex 7 Daily information (as at the month-end)

Items	XII 2017	I 2018	II 2018	III 2018	IV 2018	V 2018	VI 2018	VII 2018	VIII 2018	IX 2018	X 2018	XI 2018	XII 2018
CENTRAL BUDGET:													
revenues	350 860.77	40 312.09	65 647.86	91 890.49	130 469.89	157 189.66	185 327.40	216 102.03	247 928.86	277 396.96	314 429.43	348 367.54	380 850.73
expenses	376 657.61	26 629.10	57 559.89	85 341.80	115 838.81	144 423.58	172 472.60	213 013.46	242 408.34	269 678.75	302 938.02	332 335.06	391 146.54
deficit (-) or surplus (+)	-25 796.84	13 682.99	8 087.97	6 548.68	14 631.09	12 766.09	12 854.80	3 088.57	5 520.52	7 718.21	11 491.41	16 032.48	-10 295.81
central budget funds	9.58	7.87	10.54	8.69	6.41	6.95	6.01	6.77	5.00	6.24	5.76	5.66	122.95
MF foreign currency account	13 195.56	21 900.64	26 918.14	17 947.22	16 990.43	13 330.82	6 403.66	11 299.77	16 200.72	12 530.85	12 912.23	10 565.75	18 789.51
MF zloty term deposits in NBP	870.00	490.00	342.00	1 426.00	1 067.00	2 188.00	979.00	2 002.00	1 533.00	487.00	1 095.00	964.00	1 500.00
CURRENCY IN CIRCULATION	198 715.92	193 521.83	194 561.94	199 195.76	202 196.89	205 718.83	207 703.80	210 001.76	210 843.19	211 845.61	214 429.71	215 414.86	219 489.94
CURRENT ACCOUNT													
(including required reserve account)	28 250.83	44 853.56	40 126.86	37 712.37	46 241.60	20 464.92	26 336.20	46 966.70	43 109.40	29 112.59	42 701.00	53 067.77	61 390.26
Balance deviation from required reserve*	1 665.50	2 851.00	-2 163.09	639.27	5 108.29	848.46	1 185.11	5 140.66	1 160.41	993.36	704.67	10 427.93	18 195.66
REFINANCING LOAN	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
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
rediscount	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	46 471.15	49 508.86	50 085.81	48 189.50	46 686.77	47 104.41	46 076.97	46 002.13	46 648.08	49 376.96	46 027.15	47 507.81	47 701.32
DEPOSIT FACILITY	5 278.69	3 220.96	8 690.69	2 631.47	338.42	3 575.53	5 911.73	761.80	1 361.26	22 299.30	770.67	972.33	11 552.20
OPEN MARKET OPERATIONS**	94 423.12	89 829.00	86 665.00	98 231.00	89 804.60	109 684.19	102 093.02	83 421.00	83 335.33	78 737.60	87 327.46	81 245.00	53 276.00
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
NBP bills 7-days (+)	64 792.80	89 829.00	86 665.00	89 731.00	89 804.60	92 480.00	88 342.50	83 421.00	83 335.33	78 737.60	87 327.46	81 245.00	53 276.00
NBP bills <7-days (+)	29 630.32	0.00	0.00	8 500.00	0.00	17 204.19	13 750.52	0.00	0.00	0.00	0.00	0.00	0.00
POLONIA (%)	1.55	1.34	1.43	1.56	1.53	1.52	1.19	1.41	1.35	1.38	2.30	1.50	1.42
Turnover	10.00	205.10	75.00	2 482.00	480.00	1 022.00	120.00	195.00	733.70	490.00	80.00	335.00	290.00
WIBOR (%)													
O/N	1.49	1.44	1.50	1.59	1.51	1.50	1.43	1.43	1.52	1.60	1.60	1.53	1.54
T/N	1.53	1.48	1.54	1.57	1.55	1.54	1.55	1.51	1.55	1.64	1.60	1.55	1.55
SW	1.57	1.55	1.56	1.57	1.56	1.55	1.55	1.55	1.55	1.59	1.57	1.55	1.54
2W	1.60	1.59	1.60	1.60	1.60	1.60	1.60	1.59	1.60	1.60	1.60	1.59	1.58
1M	1.65	1.65	1.65	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
3M	1.72	1.72	1.72	1.70	1.70	1.70	1.70	1.70	1.71	1.72	1.72	1.72	1.72
12M	1.85	1.85	1.85	1.82	1.82	1.82	1.82	1.82	1.87	1.87	1.87	1.87	1.87
WIBID (%)													
O/N	1.19	1.14	1.20	1.29	1.21	1.20	1.13	1.13	1.22	1.30	1.30	1.23	1.24
T/N	1.23	1.18	1.25	1.28	1.25	1.25	1.25	1.21	1.26	1.34	1.31	1.25	1.25
SW	1.37	1.35	1.36	1.37	1.36	1.35	1.35	1.35	1.35	1.39	1.37	1.35	1.34
2W	1.40	1.39	1.40	1.40	1.40	1.40	1.40	1.39	1.40	1.40	1.40	1.39	1.38
1M	1.45	1.45	1.45	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
3M	1.52	1.52	1.52	1.50	1.50	1.50	1.50	1.50	1.51	1.52	1.52	1.52	1.52
12M	1.65	1.65	1.65	1.62	1.62	1.62	1.62	1.62	1.67	1.67	1.67	1.67	1.67
USD/PLN (fixing)	3.4813	3.3318	3.4188	3.4139	3.4868	3.7200	3.744	3.6481	3.6808	3.6754	3.8203	3.7731	3.7897
EUR/PLN (fixing)	4.1709	4.1488	4.1779	4.2085	4.2204	4.3195	4.3616	4.2779	4.2953	4.2714	4.3313	4.2904	4.3000
EUR/USD	1.1981	1.2452	1.2220	1.2328	1.2104	1.1612	1.1650	1.1726	1.1669	1.1622	1.1338	1.1371	1.1437
OFFICIAL RESERVE ASSETS (as at the end of the month)													
in PLN	394 357.80	391 618.50	396 752.50	407 859.60	394 801.90	415 744.20	407 981.80	409 120.00	416 898.50	414 879.80	425 644.40	429 510.70	439 751.70
in EUR	94 549.80	94 393.20	94 964.60	96 913.30	93 546.10	96 248.20	93 539.50	95 635.70	97 059.20	97 129.70	98 271.70	100 109.70	102 267.80
Purchase (-) or sale (+) of foreign currency	-12 644.96	900.92	1 791.68	-8 459.64	-543.02	-1 886.74	-1 081.25	-288.30	1 897.62	-2 025.21	-4 168.15	-1 948.91	-5 771.65

\* 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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