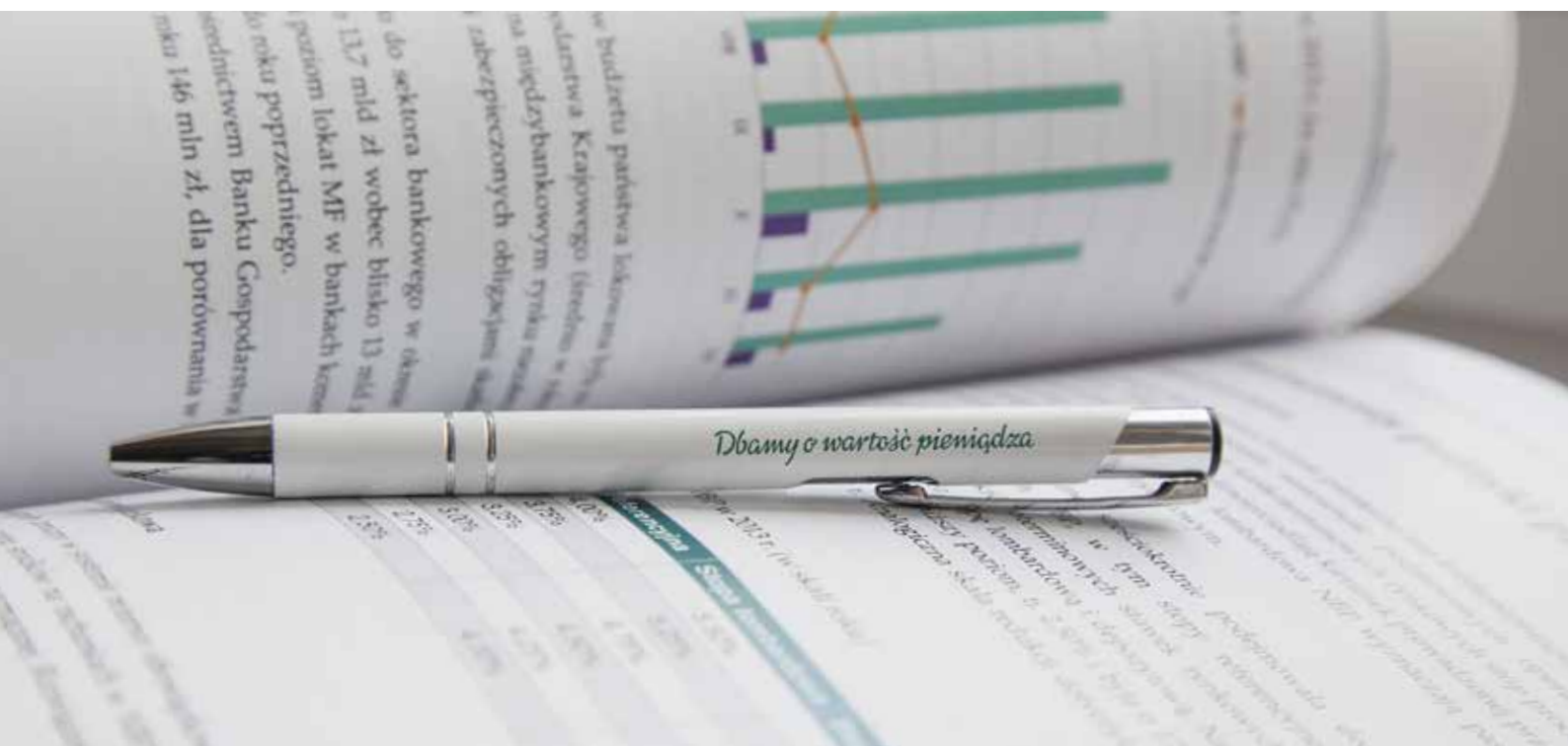


Annual Report 2017

Banking Sector Liquidity Monetary Policy Instruments of Narodowy Bank Polski



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Introduction



Introduction

In 2017, Narodowy Bank Polski (NBP) pursued monetary policy in accordance with the *Monetary Policy Guidelines for 2017*.

The basic instrument of the monetary policy in 2017 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 2017, the Monetary Policy Council made no changes in interest rates. The last change (lowering by 50 basis points) took place in March 2015. Throughout 2017 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 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 2017, 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 2017, 13 banks most active in both money 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 2017, NBP did not carry out any structural operations targeted at a long-term change in the banking sector liquidity.

In 2017, the short-term banking sector liquidity level, measured as the average annual balance of central bank operations, slightly increased. These operations comprised the NBP bills issuance and standing facilities.

Table I. Average level of open market operations (NBP bills and repo), FX swaps and standing facilities in the years 2001–2017 (in PLN million)

Period	NBP bills	Repos	FX swaps	Standing facilities		
				deposit facility	marginal lending facility	balance (deposit - credit)
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 2017, the average level of short-term banking sector liquidity amounted to PLN 73,632 million. Compared to the average level of the previous year, liquidity increased by PLN 426 million. In the course of the year, the level of short-term banking sector liquidity increased from PLN 76,944 million in December 2016 to PLN 83,377 million in December 2017, which means an increase by PLN 6,433 million. Factors which had the greatest impact on liquidity growth included the surplus of foreign currency purchase over sale, a contribution from NBP's profit to the State budget as well as disbursements by NBP for the banking sector on account of NBP bills discount and remuneration of holdings of the required reserve.

In 2017, the average issue of NBP bills amounted to PLN 72,786 million, of which 97.7% (PLN 71,090 million) was sold under main operations and 2.3% (PLN 1,696 million) – under fine-tuning operations. The yield on main open market operations was determined at the reference rate level.

The average level of standing facilities was PLN 846 million. The deposit rate determined the yield on the overnight deposit facility and the lombard rate – costs of incurring marginal lending facility.

The year 2017 saw a lower volatility of the POLONIA rate in comparison with 2016. 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 2017 was 12 bps (versus 16 bps in 2016). 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.

Table II. Deviation of market rates from the NBP reference rate in 2001–2017 (in basis points)

Period	Average reference rate (in %)*	Deviation of rates from reference rate in basis points (annual average)**				
		O/N	SW	2W	1M	POLONIA
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 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 2017, the basic required reserve ratio did not change and amounted to 3.5%. Interest on the required reserve was 0.9 of the reference rate.

At the end of 2017, the Monetary Policy Council decided to introduce two changes in the scope of operation of the required reserve system. Pursuant to Resolution No. 6/2017 of 8 November 2017, as of 1 March 2018 the MPC to lower to zero the required reserve ratio on funds raised for at least a two-year period. On 5 December 2017, pursuant to Resolution No. 7/2017 the Monetary Policy Council decided to lower the level of interest rate on required reserve funds to the level of 0.5% as of 1 January 2018.

Chapter 1

Banking sector liquidity



Banking sector liquidity

1.1. Liquidity developments in 2017

In 2017, 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 77,548 million in January 2017. In December 2017, the level of short-term banking sector liquidity reached PLN 83,377 million and was 8.4% higher as compared to December 2016.

Table 1.1. Absorption of short-term liquidity as part of operations executed by NBP in 2017 (in PLN million)

2017	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)
January	75 558	1 796	194	0	77 548
February	76 435	393	309	0	77 137
March	72 520	1 392	313	0	74 225
April	68 203	956	615	0	69 774
May	66 770	500	596	0	67 866
June	68 058	1 603	819	0	70 480
July	68 203	2 251	720	0	71 174
August	66 889	676	704	0	68 269
September	66 976	1 547	966	0	69 489
October	74 684	1 205	1 589	0	77 478
November	73 302	2 683	883	0	76 868
December	76 110	4 973	2 294	0	83 377
On average	71 090	1 696	846	0	73 632

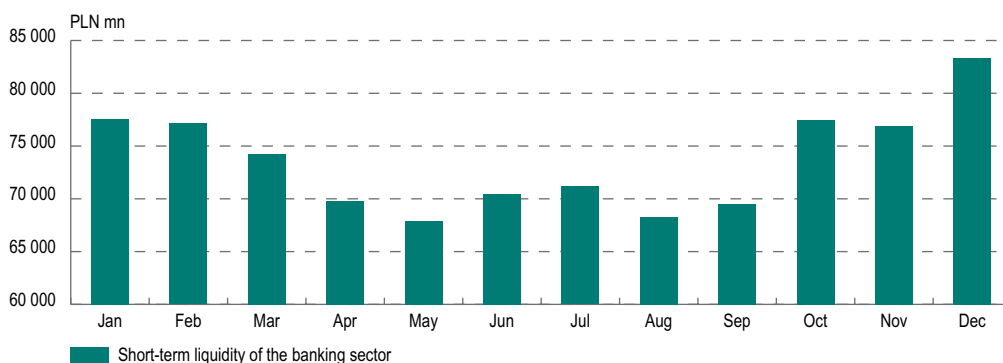
Note: average values during required reserve maintenance periods.

Source: NBP.

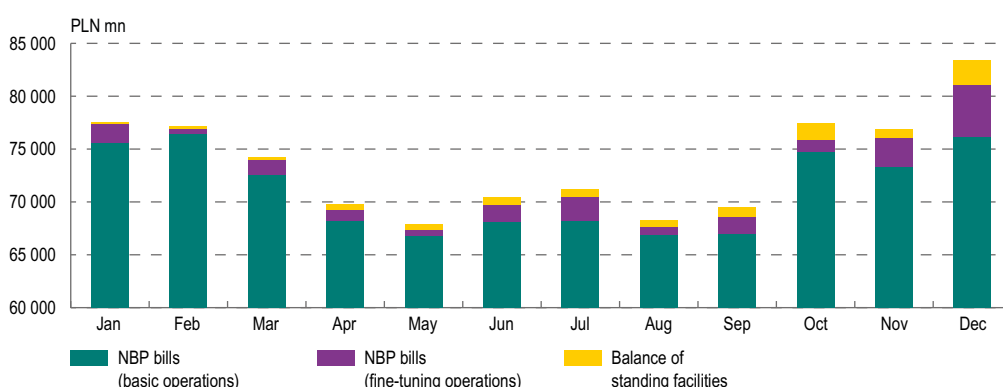
In order to maintain market interest rates at a stable level, in accordance with the *Monetary Policy Guidelines for 2017*, NBP absorbed the liquidity surplus by issuing the NBP bills with a maturity of 7 days as main open market operations (the average value in 2017 amounted to PLN 71,090 million), and the NBP bills with shorter maturities as fine-tuning operations (the average value in 2017 amounted to PLN 1,696 million). In total, the average level of NBP bills in 2017 amounted to PLN 72,786 million. The total of 52 main open market operations and 20 fine-tuning operations were executed.

The excess funds not invested in open market operations were placed by banks as overnight deposit with NBP. In 2017, an average deposit amounted to PLN 846 million.

The direction of changes in banking sector liquidity during the year varied. From January to May 2017, the level of banking sector liquidity decreased mainly due to the surplus of foreign currency sale over purchase by NBP. From March to the end of the year, there was

Figure 1.1. Level of short-term liquidity of the banking sector in 2017

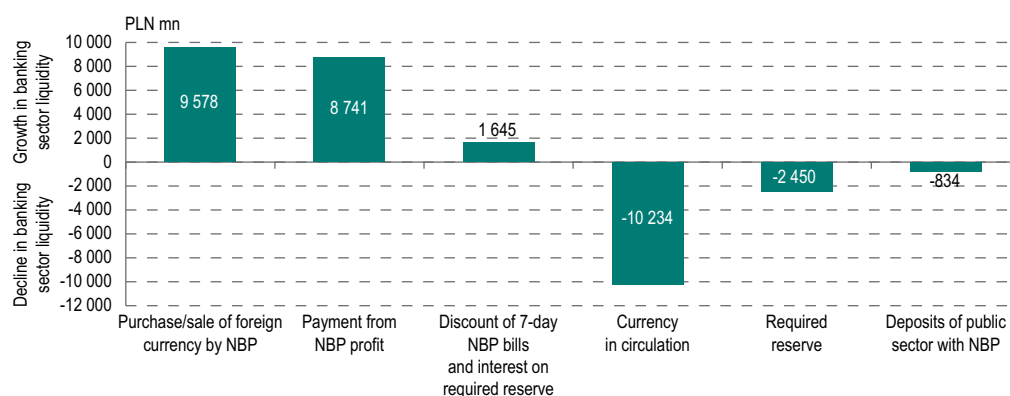
Source: NBP.

Figure 1.2. Operations carried out by NBP in 2017

Source: NBP.

a growth in currency in circulation. In the middle of the year, the contribution from NBP's profit was paid to the State Budget, resulting in the increase of banking sector liquidity. From September, a growth in the level of banking sector liquidity was mainly the result of the purchase of foreign currency by NBP from the Ministry of Finance (MF).

The factor adding the most to the increase in the liquidity of the banking sector in 2017 was the purchase of foreign currencies by NBP. Comparing December 2017 to December 2016, 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 9,578 million. The central bank purchased foreign currencies mainly from the Ministry of Finance. Throughout the entire 2017, NBP purchased foreign currency in the total amount equivalent to PLN 36,886 million. During the year, the sale of foreign currency to convert Poland's membership fee paid to the European Union (EU) budget took place. The total sale of foreign currency by NBP amounted to PLN 22,599 million. The given amounts of foreign currency purchase and sale also comprise foreign exchange operations related to services provided to the central government entities.

Figure 1.3. Factors influencing short-term liquidity of the banking sector in 2017

Source: NBP.

The growth in liquidity was also driven by the payment of PLN 8,741 million to the State Budget from NBP profit effected on 13 June 2017.

In addition, the payments made by NBP to the banking sector arising from the discount of the NBP bills and required reserve remuneration caused an increase of banking sector liquidity. These factors resulted in the average total growth in liquidity by PLN 1,645 million. Among autonomous factors affecting the decline in the banking sector liquidity, the increase in currency in circulation was of the key importance. Currency growth amounted to PLN 10,234 million (December 2017 to December 2016). The annual growth rate of currency in circulation in 2017¹ stood at 5.5%.

Another factor reducing the banking sector liquidity was an increase in the level of banks' required reserve, which amounted to PLN 2,450 million in 2017 (in the previous year, this level amounted to PLN 2,984 million). The growth in the level of the required reserve in 2017 reflected the growth of deposits held in the banking sector.

The level of the banking sector liquidity had also decreased as a result of growth in the level of public sector deposits, which amounted to PLN 834 million, and increased on average by PLN 783 million in December 2017 as compared to December 2016.

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

1.2.1. Purchase and sale of foreign currencies by NBP

In 2017, purchase of foreign currencies by NBP prevailed over their sale, as a result of which the banking sector liquidity increased by PLN 9,578 million in December 2017 as against December 2016.

¹ Calculated as a comparison of the average level in December 2017 compared to the level in December of the previous year.

As in 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 2017,² equivalent to PLN 33,986 million; the largest item among those transactions was the purchase of foreign currency from the foreign currency account of the Ministry of Finance held with NBP (PLN 33,792 million),
- services provided to the central government entities whose accounts are held with NBP, in the amount of PLN 2,371 million,
- conversion of EU funds to PLN directly from the EU fund accounts, equivalent to PLN 530 million.

Throughout 2017, NBP purchased foreign currencies amounting to a total of PLN 36,886 million (in 2016, this amount reached PLN 28,950 million). Such transactions were mainly performed in the fourth quarter of 2017 and amounted to PLN 25,406 million in that period.

Similarly to the previous year, 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 17,159 million,
- services provided to the central government entities whose accounts are held with NBP.

In 2017, NBP sold foreign currencies in the total amount of PLN 22,599 million.

The conversion of funds from the MF foreign currency account with the central bank to the Polish zloty amounted to 92.06% of the total purchase of foreign currency by NBP. Such transactions were mainly performed in the fourth quarter of 2017 and amounted to PLN 24,361 million.

The purchase of foreign currency from central government entities and other entities holding foreign currency accounts with NBP showed an upward trend in quarter to quarter terms, from PLN 152 million in the first quarter to PLN 847 million in the fourth quarter.

In 2017, sale transactions of funds originating from the EU to NBP took place. The conversion of the EU funds directly from the EU funds accounts was ordered by the Ministry of Finance and Ministry of Development. These funds were not credited to the MF foreign currency account as part of the consolidation of funds.

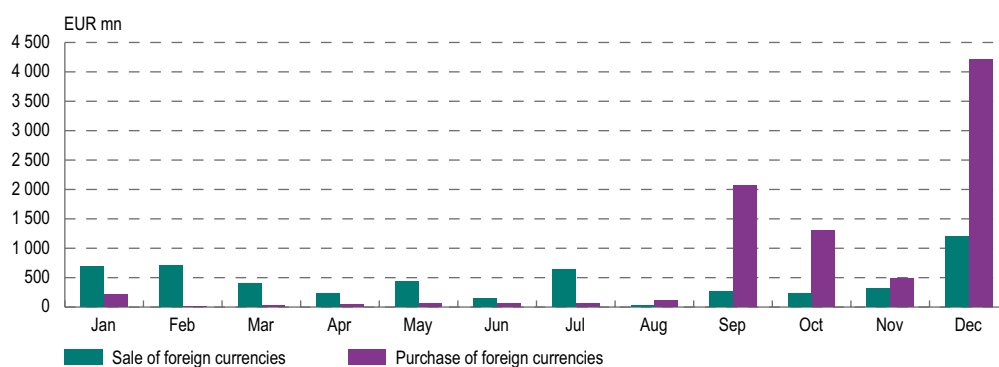
Transactions of foreign currency sale by NBP in 2017 involved mainly the conversion to euro of the membership fee paid by Poland to the European Union budget in zloty. Decisions concerning the moments and levels of conversion of zloty funds to foreign currency were made by the European Commission depending on the EC funding needs. The foreign currency conversion was performed unevenly throughout the year. The largest amount of foreign currency was sold in December (20.34%), February (16.59%) and January (15.15%). August was the only month when no transaction was performed.

Transactions of foreign currency sale were also related to services provided to central government entities and other entities holding foreign currency accounts with the central

² Detailed information concerning the limits of foreign currency purchase and sale between the MF and NBP is presented in Annex 5.

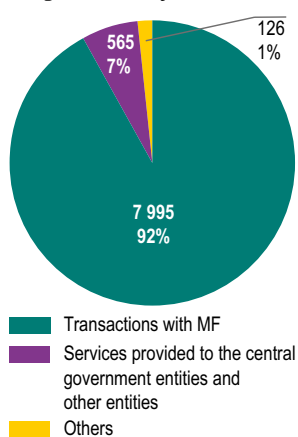
bank. The volume of operations was diversified in individual months of 2017. Like in previous years, the majority of foreign currency for the needs of entities was sold in December (30.61%).

Figure 1.4. Purchase and sale of foreign currencies by NBP in 2017



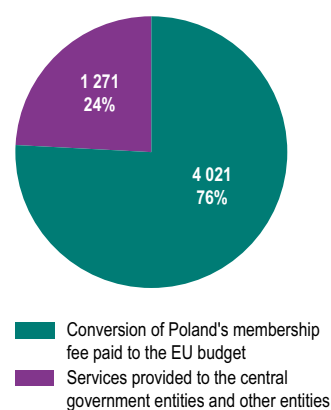
Source: NBP.

Figure 1.5. The structure of currency purchase by NBP in 2017



Source: NBP.

Figure 1.6. The structure of currency sale by NBP in 2017



Source: NBP.

FX operations carried out by the central bank as part of its currency purchase and sale activities in 2017

Foreign operations of the State Treasury

In 2017, as in the previous years, 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, which means that NBP did not sell foreign currencies to the Ministry of Finance.

The MF's foreign currency account was mainly credited by foreign currencies coming from the European Union in the form of funds transferred by the European Commission using the fund accounts (EUR 11,304 million). Bonds to foreign markets were also issued (equivalent of EUR 1,806 million). Over 99% of funds on the account were kept in EUR.

In 2017, the Ministry of Finance's foreign currency account with NBP showed a high balance. Its average level in 2017 amounted to PLN 6,691 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 2017, 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 2017, the value of transactions associated with the currency conversion of the membership fee amounted to EUR 4,021 million (equivalent of PLN 17,159 million). Those operations were ordered by the European Commission, which submitted instructions to NBP upon occurrence of financial needs associated with covering costs of projects implemented in Member States. The European Commission converted the largest amounts of funds into EUR in the first quarter of 2017 (PLN 6,355 million, i.e. EUR 1,465 million), when it transferred high amounts to the accounts of structural funds and for the programmes under the Common Agricultural Policy.

The European Commission is not obliged to convert all zloty funds received in a given year into EUR during that year. Accordingly, a part of funds in zloty paid to the European Union remains on the EC's zloty account with NBP for the next year. The balance of EC funds as at 31 December 2017 amounted to PLN 2,850 million, as compared with the amount of PLN 4,360 million as at 31 December 2016.

In 2017, the funds received by Poland from the European Union were exchanged into PLN directly from the fund accounts with the NBP in the amount of PLN 530 million, i.e. EUR 126 million, under transactions of foreign currency purchase by the central bank.

In 2017, 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. At the same time, the Ministry of Finance's instructions involving the transfer of foreign currency funds from the account with BGK to the account with the central bank were executed.

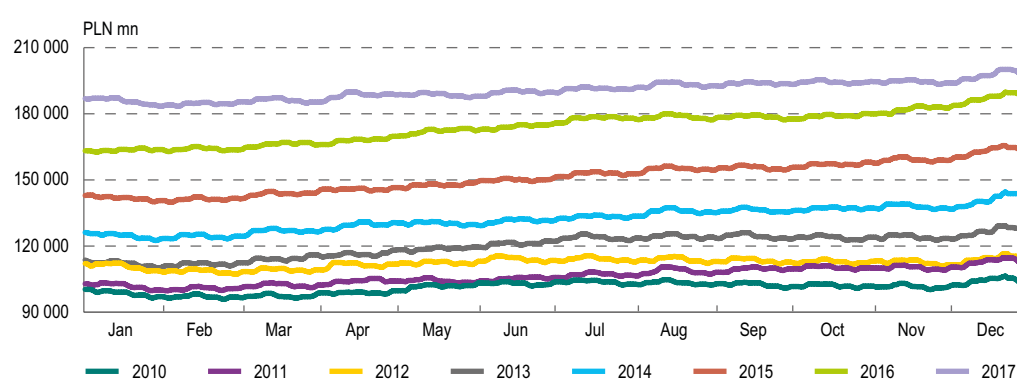
Services to central government entities

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 entities authorised to exchange foreign currencies at NBP under bank account agreements. In 2017, the value of transactions involving the purchase of foreign currencies by NBP amounted to the equivalent of PLN 2,371 million. The value of the sale of foreign currencies by the central bank amounted to the equivalent of PLN 5,440 million.

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 2017 stood at PLN 197,123 million, which means an increase of PLN 10,234 million compared to December 2016. The amount of currency in circulation was also affected by seasonal factors, which explain the changes in the level of this monetary aggregate in certain periods throughout 2017 (from weekly to yearly seasonality as well as increases observed in holiday periods).

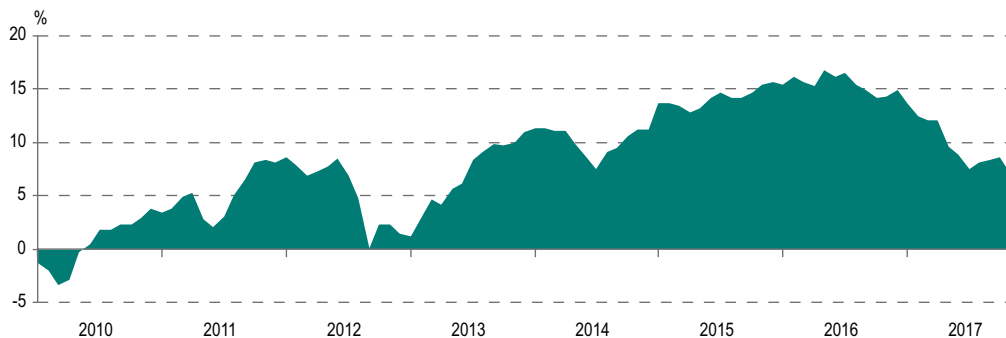
Figure 1.7. Currency in circulation in the years 2010–2017



Source: NBP.

In 2017, the growth rate of currency in circulation was systematically decreasing. The highest value of this rate was recorded in January 2017 (13.7%) whereas the lowest growth rate of this monetary aggregate (5.5%) occurred in the last month of the year.

The highest growths of currency in circulation are usually recorded in December. In the last month of 2017, the average growth in cash amounted to PLN 2,542 million and it was the highest average monthly growth throughout the year. This growth was considerably lower than the growth observed a year earlier (in December 2016 it amounted to PLN 5,050 million). The December growth was of seasonal nature and it resulted both from increased demand for currency in circulation in connection with intensification of purchases in the pre-Christmas period as well as additional gratuities paid to some employee groups.

Figure 1.8. Growth rate of currency in circulation in the years 2010–2017 (y/y)

Source: NBP.

1.2.3. Public sector deposits held with the central bank

Public sector deposits with the central bank include mainly funds on current accounts and term deposits of the State Budget in PLN (from 1-day to 7-day).

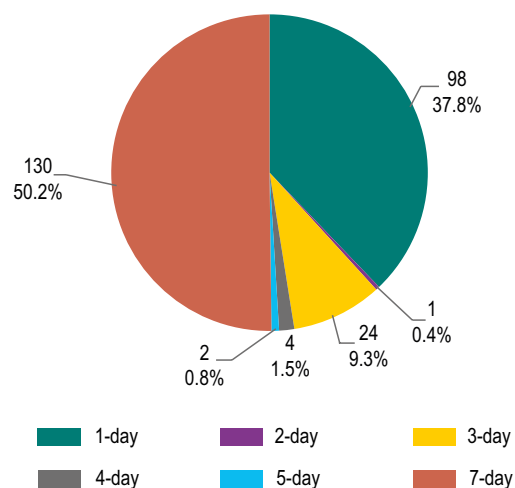
In 2017, the level of public sector deposits with NBP was an outcome of the following factors:

- 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.

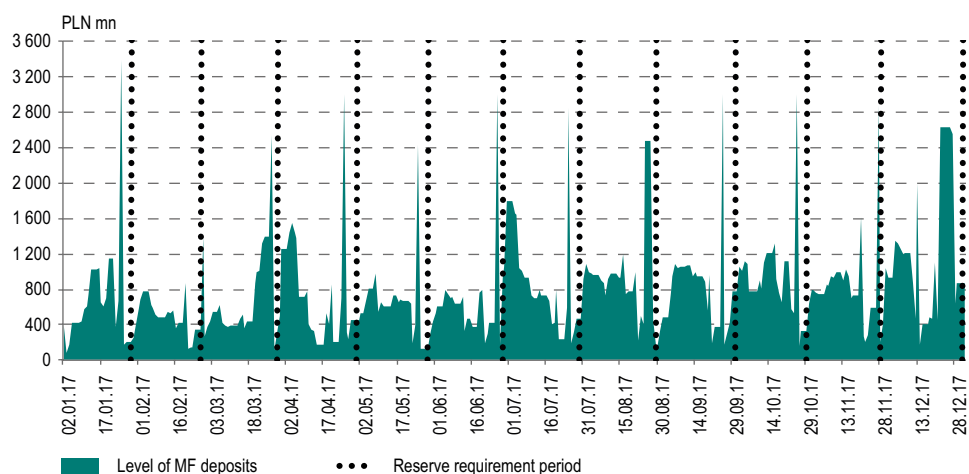
In 2017, the average level of public sector deposits stood at PLN 3,318 million and was higher by PLN 136 million comparing to the previous year (PLN 3,182 million). The average level of the public sector deposits held on current and subsidiary accounts with NBP amounted to PLN 2,529 million (against PLN 2,380 million in 2016), whereas the average level of the Ministry of Finance’s term deposits with NBP, representing a significant position in the structure of public sector deposits denominated in PLN (23.8%) amounted to PLN 789 million against PLN 802 million in 2016.

The Ministry of Finance invested surplus funds of the State Budget on a temporary basis with Narodowy Bank Polski. A total of 259 deposits were made in 2017, as in the previous years – mainly with a 7-day period of maturity (130 deposits), which accounted for 50.2% of the total deposits and 1- to 3-day periods of maturity³ (122 deposits), 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 14 million (against PLN 10 million in 2016).

³ 3-day deposits were made mainly on Fridays, so they are also treated as deposits with the shortest maturity periods.

Figure 1.9. The quantitative structure of Ministry of Finance's term deposits with NBP in 2017

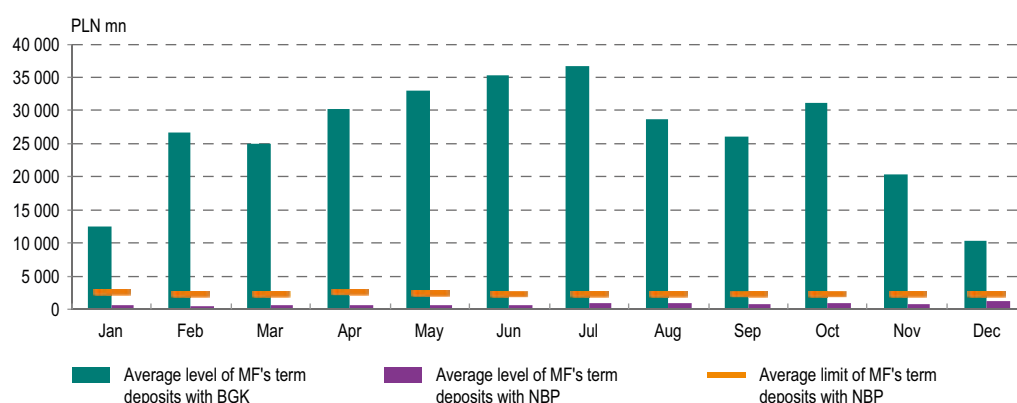
The level of the Ministry of Finance's PLN term deposits with NBP in 2017, as in previous years, was variable and its average levels in individual months ranged between PLN 525 million and PLN 1,202 million. Deposits reached their highest level in Q4, amounting to PLN 922 million in October, PLN 816 million in November and PLN 1,202 million in December. The average volume of the Ministry of Finance's deposits placed in 2017 accounted for 32.6% of the established daily limit (for comparison, in 2016 this figure represented 32.9%).

Figure 1.10. Daily levels of Ministry of Finance's term deposits with NBP in 2017

Source: NBP.

In accordance with the agreement concerning depositing MF's funds on term deposit accounts in PLN with NBP it has been agreed that in connection with high inflows of funds from taxes (PIT, CIT, VAT) to the Ministry of Finance, in the third decade of each month of 2017, the limit of the MF's term deposits with NBP will be periodically increased. Each month the highest levels of deposits were observed on the first day of VAT settlement.

Figure 1.11. The average level of Ministry of Finance's term deposits in PLN in 2017



Source: NBP.

In 2017, 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 26,229 million and was higher by PLN 6,339 million (i.e. 31.9%) 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 99 million per year compared with PLN 166 million in 2016).

The highest funds were deposited by the Ministry of Finance in April, May, June, July and October – on average, over PLN 30 billion per month. This largely overlapped with months when redemption of Treasury securities took place. In 2017, redemption of Treasury bonds by the MF was held four times: on 25 January 2017 – bond series WZ0117, 25 April 2017 – bond series PS0417, 25 July 2017 – bond series OK0717, 25 October 2017 – bond series DS1017. On 30 August 2017, the repurchase of 27-, 29-, 32- and 33-week Treasury bills issued in January and in February 2017 took place.



Chapter 2

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 2017, 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 2017 the reference rate was maintained at the level applicable as of 5 March 2015 when it was lowered by 50 basis points.

In 2017, 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 2017*, 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.

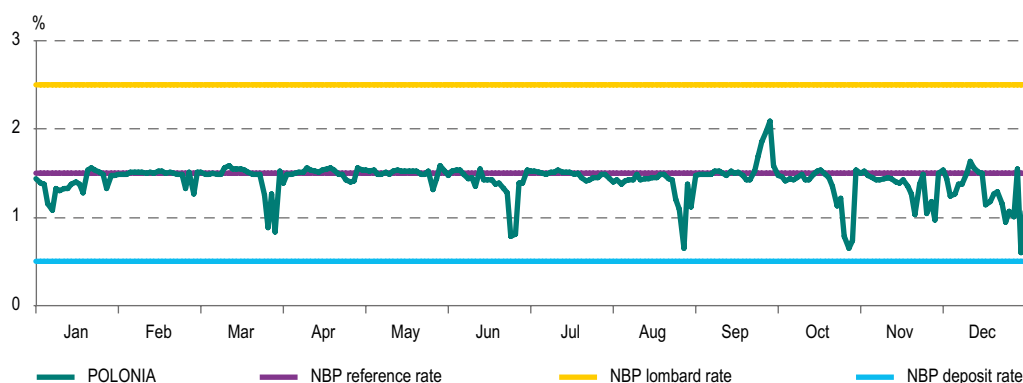
Open market operations in 2017 were carried out amid persistent excess liquidity in the banking sector. From the beginning of the year to the end of May 2017, banking sector liquidity, measured by the issuance of the NBP bills,⁴ was characterised by a downward trend and decreased from PLN 77,354 million in January to PLN 67,270 million in May (on average during the reserve maintenance period). In the subsequent two months, liquidity gradually increased to the level of PLN 70,454 million in July, and after that in August it decreased again by PLN 2,889 million reaching the average monthly value of PLN 67,565 million.

⁴ In this chapter we disregard standing facilities.

In September, as a result of a considerable purchase of foreign currencies from the Ministry of Finance, it increased to the level of PLN 68,523 million on average during the reserve maintenance period. Over the next months, it demonstrated an upward tendency, reaching the level of PLN 81,083 million in December. The average level of open market operations in 2017 amounted to PLN 72,786 million.

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. 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 2017



Source: NBP.

2.2.1. Main operations

In 2017, NBP carried out main open market operations which involved the issuance of NBP bills, usually with a maturity of 7 days.⁵ 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.

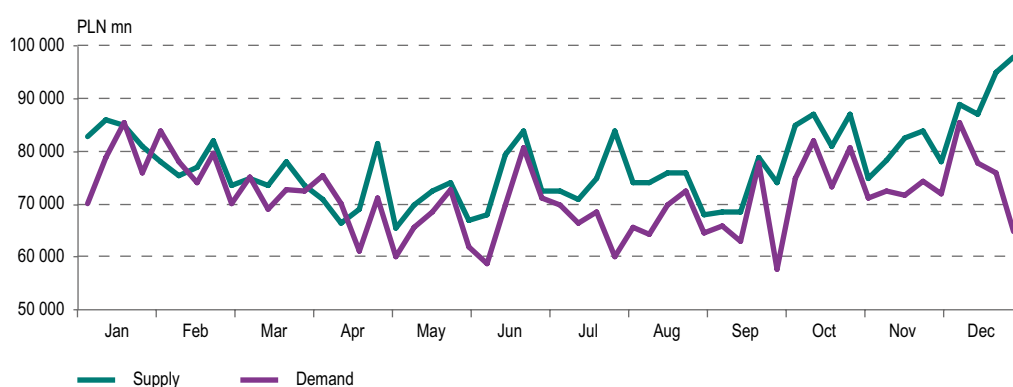
In 2017, the average level of NBP bills issued under the main operations amounted to PLN 71,090 million and was lower by PLN 85 million as compared to the average level in 2016. In 2017 (in reserve maintenance periods), the central bank offered NBP bills totalling

⁵ In 2017, the exception was the regular operation with a maturity of 8 days carried out on 5 January (Thursday).

PLN 4,029,500 million for sale under the main operations. In that period, the bids received from banks amounted to PLN 3,716,573 million, whereas the value of bids accepted by the central bank amounted to PLN 3,698,921 million. The aggregate values of supply in 2017 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 0.92.

In 2017, underbidding of the NBP bills was more frequent than overbidding (in 46 out of 52 tenders for main open market operations).

Figure 2.2. NBP bills – demand in relation to supply at tenders for main open market operations in 2017



Source: NBP.

2.2.2. Fine-tuning operations

In 2017, NBP carried out fine-tuning operations in order to mitigate the fluctuations in short-term market interest rates, in the form of issuance of NBP bills with maturities shorter than in the case of main operations. As in the previous year, fine-tuning operations 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 2017, NBP conducted 12 regular fine-tuning operations. Regular fine-tuning operations had the form of O/N transactions. Due to the 2017 calendar structure, these were eight 1-day operations, two 3-day operations and in two cases – 4-day operations.

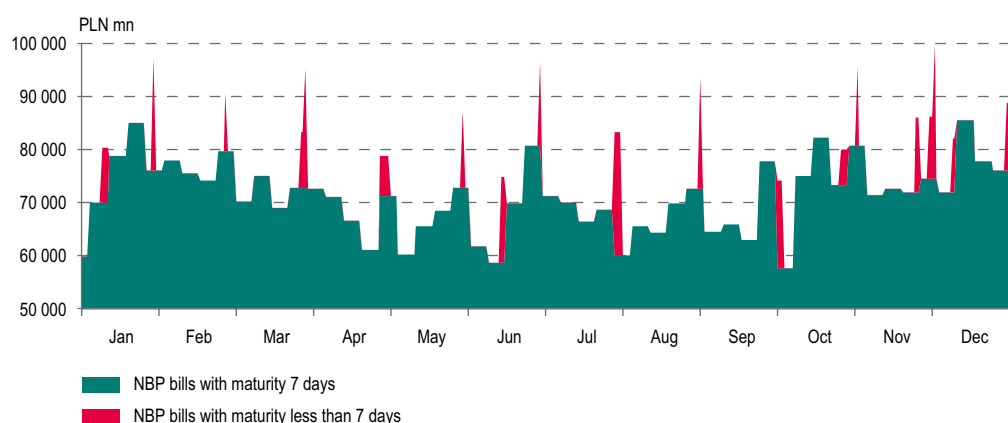
Additionally, in 2017, eight open market operations were conducted by NBP (one in January, March, June and October and two in November and December) during the reserve maintenance period in order to compensate for the deviations in market interest rates from the reference rate. These were 2-day operations conducted five times and 3-day operations conducted three times.

As a result of 20 fine-tuning operations which were conducted in 2017, the average level of the NBP bills with shorter maturity amounted to PLN 1,696 million and exceeded by

PLN 433 million the average level in 2016. In 2017, the central bank offered for sale under fine-tuning operations NBP bills amounting to PLN 376,500 million. In this period, bids received from banks totalled PLN 314,882 million, whereas bids accepted by the central bank amounted to PLN 308,452 million.

Overbidding from banks in relation to the NBP bills offered by the central bank in fine-tuning operations occurred in 5 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 ranged between 0.443 to 1.159.

Figure 2.3. Operations carried out by NBP in 2017



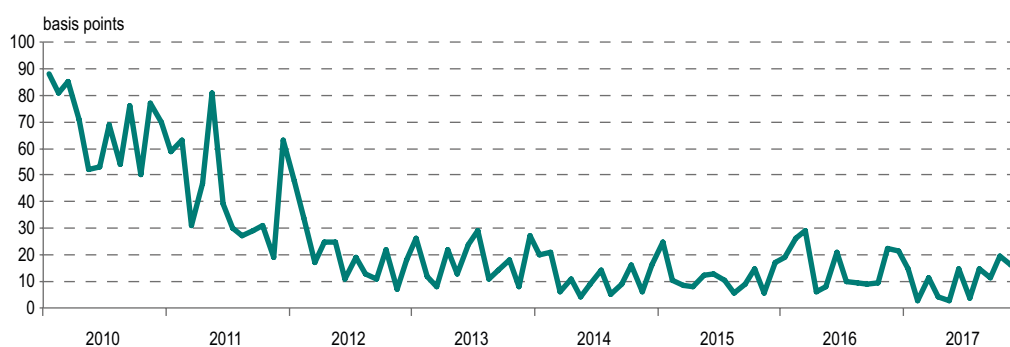
Source: NBP.

The method to use open market operations (both main and fine-tuning ones) adopted in 2017 allowed NBP for the effective implementation of the monetary policy operational objective. The average absolute deviation of the POLONIA rate from the NBP reference rate in 2017 reached 12 basis points, as compared to 16 basis points in 2016.⁶ Deviations of the POLONIA rate from the NBP reference rate in 2017 showed relatively high regularity (increased negative deviations in the last days of required reserve maintenance period).

A different situation occurred only in September when, despite the overall surplus of funds maintained on accounts of banks over the required reserve level, the POLONIA rate increased significantly. It was the result of the fact that under the conditions of liquidity segmentation occurring among market participants, several banks searched for funds whereas those holding surpluses of liquidity offered it at relatively high rates.

⁶ Table II, page 8 presents the deviation of the POLONIA rate from the NBP reference rate in the 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 2010–2017



Source: NBP.

2.3. Reserve requirement

In 2017, banks, credit unions (SKOKs) and the National Credit Unions 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.

Funds on bank accounts and funds obtained from the sale of securities with the exception of funds received from other domestic bank, a credit union, and the National Credit Union 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 is diminished by an equivalent of EUR 500 thousand. In 2017, 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, on which the required reserve ratio was 0%.

As at 31 December 2017, the amount of the required reserve was PLN 42,581 million, with the banking sector reserve at PLN 42,282 million and the credit unions' and the National Credit Union's reserve at PLN 299 million. The total required reserve was higher, compared to the level as at 31 December 2016, by PLN 2,548 million, which means an increase of 6.36%. The main factor behind the increase of the required reserve in 2017 was an increase in deposits providing basis for its calculating.

In 2017, the remuneration on the required reserve amounted to 0.9 of the reference rate determining the interest rate on the basic open market operations. The average interest rate

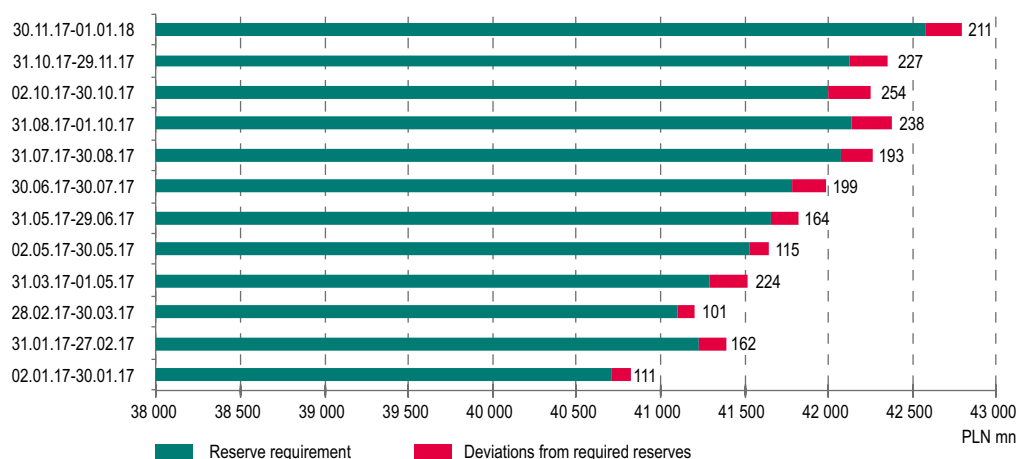
on the required reserve funds in 2017 amounted to 1.35%. As of 1 January 2018, the Monetary Policy Council decreased the level of interest rate on the required reserve funds to 0.5%, i.e. to the level currently corresponding to the NBP deposit rate. The decision of the MPC concerning the lowering of the interest rate on the required reserve funds also comprised the last day of the December required reserve maintenance period, i.e. 1 January 2018.

In 2017, 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 March (PLN 101 million), whereas the largest surplus was recorded in October (PLN 254 million). The average surplus of the required reserves holdings in 2017 amounted to PLN 183 million and accounted for 0.43% of the average level of required reserves.

The year 2017 recorded two cases of banks' non-compliance with the reserve requirements, resulting from a calculation error and technical problems encountered in interbank settlements.

In 2017 the Management Board of NBP decided to continue the exemption of one cooperative bank from the obligation to maintain the required reserve in the period of implementation of the recovery programme.

Figure 2.5. Changes in the required reserve level and deviations from the reserve requirement in 2017



Source: NBP.

2.4. Standing facilities

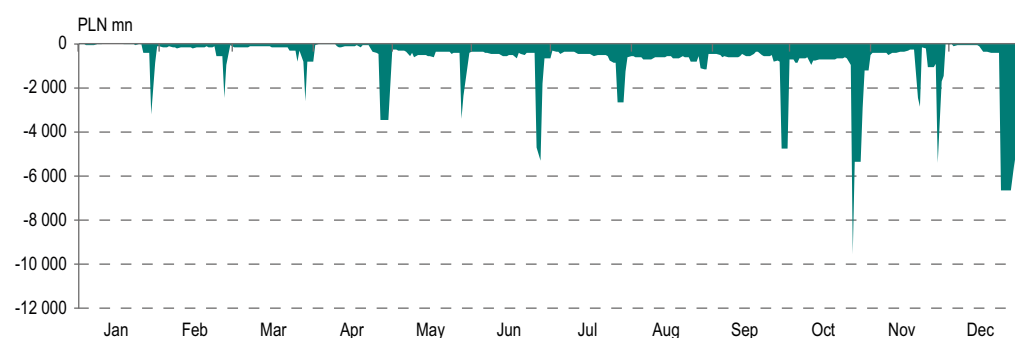
Standing facility operations (deposit facility and marginal lending facility) stabilised the level of interbank liquidity and limited the scale of overnight rates fluctuations. Standing facility operations were carried out on the initiative of commercial banks and their main goal was to increase short-term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

2.4.1. Deposit facility

In 2017, the total value of the deposit facility placed with NBP (calculated as the total days of their placement) amounted to PLN 308,824 million and was higher by 8.66% 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 29 million to PLN 10,936 million. Its average daily level amounted to PLN 846 million against PLN 772 million in 2016. Banks invested the largest amounts on the last days of the required reserve maintenance periods.

Figure 2.6. The use of deposit facility in 2017



Source: NBP.

2.4.2. Marginal lending facility

In 2017 banks used marginal lending facility only occasionally. The total marginal lending facility used throughout the year amounted to PLN 13 million, and was 107.1 times lower than the amount used in 2016 (PLN 1,350 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 0.03 million (against PLN 3.7 million in 2016).

Chapter 3

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 41,388 million to PLN 54,183 million. In 2017, the use of intraday credit facility grew by 0.68% and reached the level of PLN 11,544,493 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 11.58% compared to 2016, and amounted to EUR 12,663 million in 2017. The average daily supply of operating liquidity in EUR to banks reached the level of EUR 49.7 million.

Glossary



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 the NBP under open market operations is regularly published on the NBP website (www.nbp.pl).

Repo operations – short- and long-term refinancing operations aimed to 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 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 deposit facility or reduce short-term liquidity shortage using marginal lending facility.

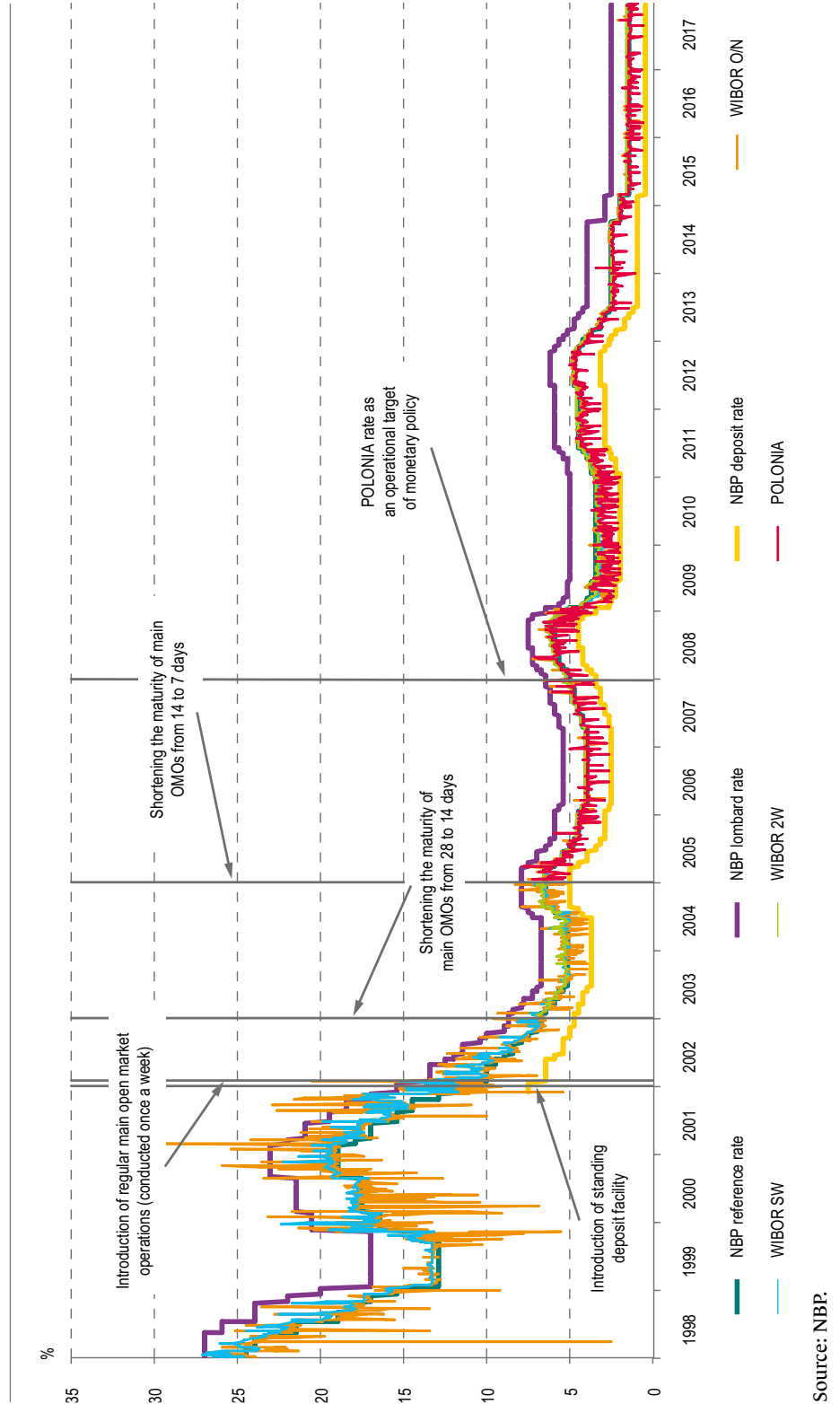
Structural operations – operations conducted in order to change the long-term structure of banking sector liquidity. Under these operations the central bank may carry out the following structural operations: issuance of bonds, early redemption of bonds, purchase or sale of securities in the secondary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

Annexes



Annex 1

Volatility of the short-term interest rates in the years 1998–2017



Annex 2

The NBP monetary policy instruments in the years 1990–2017

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		
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 2017

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	2017.01.05	2017.01.13	8	83 000.00	70 071.00	70 071.00	1.5
2	2017.01.13	2017.01.20	7	86 000.00	78 843.22	78 843.22	1.5
3	2017.01.20	2017.01.27	7	85 000.00	85 613.05	85 000.00	1.5
4	2017.01.27	2017.02.03	7	81 000.00	76 041.64	76 041.64	1.5
5	2017.02.03	2017.02.10	7	78 000.00	83 940.20	78 000.00	1.5
6	2017.02.10	2017.02.17	7	75 500.00	78 184.00	75 500.00	1.5
7	2017.02.17	2017.02.24	7	77 000.00	74 127.80	74 127.80	1.5
8	2017.02.24	2017.03.03	7	82 000.00	79 666.00	79 666.00	1.5
9	2017.03.03	2017.03.10	7	73 500.00	70 166.00	70 166.00	1.5
10	2017.03.10	2017.03.17	7	75 000.00	75 138.20	75 000.00	1.5
11	2017.03.17	2017.03.24	7	73 500.00	69 033.76	69 033.76	1.5
12	2017.03.24	2017.03.31	7	78 000.00	72 819.70	72 819.70	1.5
13	2017.03.31	2017.04.07	7	73 500.00	72 544.90	72 544.90	1.5
14	2017.04.07	2017.04.14	7	71 000.00	75 565.00	71 000.00	1.5
15	2017.04.14	2017.04.21	7	66 500.00	70 211.35	66 500.00	1.5
16	2017.04.21	2017.04.28	7	69 000.00	61 053.71	61 053.71	1.5
17	2017.04.28	2017.05.05	7	81 500.00	71 201.30	71 201.30	1.5
18	2017.05.05	2017.05.12	7	65 500.00	60 140.90	60 140.90	1.5
19	2017.05.12	2017.05.19	7	70 000.00	65 569.65	65 569.65	1.5
20	2017.05.19	2017.05.26	7	72 500.00	68 468.50	68 468.50	1.5
21	2017.05.26	2017.06.02	7	74 000.00	72 695.45	72 695.45	1.5
22	2017.06.02	2017.06.09	7	67 000.00	61 811.70	61 811.70	1.5
23	2017.06.09	2017.06.16	7	68 000.00	58 644.40	58 644.40	1.5
24	2017.06.16	2017.06.23	7	79 500.00	69 799.82	69 799.82	1.5
25	2017.06.23	2017.06.30	7	84 000.00	80 650.40	80 650.40	1.5
26	2017.06.30	2017.07.07	7	72 500.00	71 220.30	71 220.30	1.5
27	2017.07.07	2017.07.14	7	72 500.00	70 013.20	70 013.20	1.5
28	2017.07.14	2017.07.21	7	71 000.00	66 426.50	66 426.50	1.5
29	2017.07.21	2017.07.28	7	75 000.00	68 660.00	68 660.00	1.5
30	2017.07.28	2017.08.04	7	84 000.00	60 016.90	60 016.90	1.5
31	2017.08.04	2017.08.11	7	74 000.00	65 528.90	65 528.90	1.5
32	2017.08.11	2017.08.18	7	74 000.00	64 365.60	64 365.60	1.5
33	2017.08.18	2017.08.25	7	76 000.00	69 855.00	69 855.00	1.5
34	2017.08.25	2017.09.01	7	76 000.00	72 542.00	72 542.00	1.5
35	2017.09.01	2017.09.08	7	68 000.00	64 548.90	64 548.90	1.5
36	2017.09.08	2017.09.15	7	68 500.00	65 818.20	65 818.20	1.5
37	2017.09.15	2017.09.22	7	68 500.00	62 988.48	62 988.48	1.5
38	2017.09.22	2017.09.29	7	79 000.00	77 782.79	77 782.79	1.5
39	2017.09.29	2017.10.06	7	74 000.00	57 577.00	57 577.00	1.5
40	2017.10.06	2017.10.13	7	85 000.00	74 971.00	74 971.00	1.5
41	2017.10.13	2017.10.20	7	87 000.00	82 153.00	82 153.00	1.5
42	2017.10.20	2017.10.27	7	81 000.00	73 283.00	73 283.00	1.5
43	2017.10.27	2017.11.03	7	87 000.00	80 672.00	80 672.00	1.5
44	2017.11.03	2017.11.10	7	75 000.00	71 312.72	71 312.72	1.5
45	2017.11.10	2017.11.17	7	78 500.00	72 623.00	72 623.00	1.5
46	2017.11.17	2017.11.24	7	82 500.00	71 837.28	71 837.28	1.5
47	2017.11.24	2017.12.01	7	84 000.00	74 437.00	74 437.00	1.5
48	2017.12.01	2017.12.08	7	78 000.00	71 913.50	71 913.50	1.5
49	2017.12.08	2017.12.15	7	89 000.00	85 428.00	85 428.00	1.5
50	2017.12.15	2017.12.22	7	87 000.00	77 809.00	77 809.00	1.5
51	2017.12.22	2017.12.29	7	95 000.00	75 994.78	75 994.78	1.5
52	2017.12.29	2018.01.05	7	98 000.00	64 792.80	64 792.80	1.5
	Total in 2017			4 029 500.00	3 716 572.50	3 698 920.70	

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

Annex 4

Fine-tuning operations in 2017

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	2017.01.10	2017.01.13	3	20 000.00	10 300.00	10 300.00	1.5
2	2017.01.30	2017.01.31	1	22 000.00	21 193.02	21 193.02	1.5
3	2017.02.27	2017.02.28	1	11 000.00	12 753.41	11 000.00	1.5
4	2017.03.28	2017.03.31	3	12 000.00	10 380.00	10 380.00	1.5
5	2017.03.30	2017.03.31	1	12 000.00	13 740.12	12 000.00	1.5
6	2017.04.28	2017.05.02	4	10 000.00	7 651.07	7 651.07	1.5
7	2017.05.30	2017.05.31	1	14 500.00	15 059.46	14 500.00	1.5
8	2017.06.14	2017.06.16	2	30 000.00	16 150.00	16 150.00	1.5
9	2017.06.29	2017.06.30	1	16 500.00	15 789.68	15 789.68	1.5
10	2017.07.28	2017.07.31	3	24 000.00	23 257.81	23 257.81	1.5
11	2017.08.30	2017.08.31	1	21 000.00	20 947.18	20 947.18	1.5
12	2017.09.29	2017.01.02	3	16 500.00	18 446.21	16 500.00	1.5
13	2017.10.24	2017.10.27	3	15 000.00	6 650.00	6 650.00	1.5
14	2017.10.30	2017.10.31	1	15 000.00	15 430.94	15 000.00	1.5
15	2017.11.22	2017.11.24	2	20 000.00	14 100.00	14 100.00	1.5
16	2017.11.27	2017.11.29	2	18 000.00	11 700.00	11 700.00	1.5
17	2017.11.29	2017.11.30	1	29 000.00	28 903.17	28 903.17	1.5
18	2017.12.06	2017.12.08	2	15 000.00	10 050.00	10 050.00	1.5
19	2017.12.27	2017.12.29	2	22 000.00	12 750.00	12 750.00	1.5
20	2017.12.29	2018.01.02	4	33 000.00	29 630.32	29 630.32	1.5
Total in 2017				376 500.00	314 882.39	308 452.25	

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

Source: NBP.

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 purchase and sale 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 2017, 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 6.0 billion,
- the total amount of foreign currencies purchased by NBP from the Ministry of Finance shall not exceed the equivalent of EUR 14.0 billion,

whereas:

- the accumulated absolute difference between the amount of foreign currencies purchased and sold as at year-end shall not exceed the equivalent of EUR 6.0 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 8.0 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 temporary surplus of funds on the central account of the State Budget. In 2017, the limit for the MF's term deposits placed with NBP, counted in terms of daily balances, was as follows:

- PLN 3.5 billion in the period from 20 January to 31 January,
- PLN 3.0 billion in the periods: from 20 February to 28 February, from 20 March to 5 April, from 20 April to 5 May, from 19 May to 31 May, from 20 June to 30 June, from 20 July to 31 July, from 21 August to 31 August, from 20 September to 30 September, from 20 October to 31 October, from 20 November to 30 November and from 20 December to 31 December,
- PLN 2.0 billion in the periods: from 1 January to 19 January, from 1 February to 19 February, from 1 March to 19 March, from 6 April to 19 April, from 6 May to 18 May, from 1 June to 19 June, from 1 July to 19 July, from 1 August to 20 August, from 1 September to 19 September, from 1 October to 19 October, from 1 November to 19 November and from 1 December to 19 December.

Annex 6

Money Market Dealers in 2017

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 NBP concerning the performance of the Money Market Dealer function.

In 2017, the banks with the MMD status were central bank's counterparties exclusively authorised to participate in fine-tuning open market operations, used irregularly, with maturities of up to 7 days. All banks have access to operations used on the last business day of the reserve maintenance period.

In 2017, 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. Bank Zachodni WBK SA
5. Bank Gospodarstwa Krajowego
6. mBank SA
7. Bank Millennium SA
8. Bank Polska Kasa Opieki SA
9. Raiffeisen Bank Polska SA
10. Deutsche Bank Polska SA
11. Bank BGŻ BNP Paribas SA
12. Getin Noble Bank SA
13. Alior Bank SA.⁷

⁷ From 13 January 2017.

Annex 7

Daily information (as at the month-end)

Items	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	July 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017
PLN mn													
CENTRAL BUDGET:													
revenues	315,358.81	41,502.91	63,890.01	88,459.72	120,819.45	146,768.97	179,619.05	209,620.85	238,958.45	266,243.66	299,416.74	327,760.29	350,860.77
expenses	361,479.80	30,208.04	60,086.82	87,531.18	117,880.03	143,492.36	170,841.71	203,754.68	230,138.77	258,481.93	292,351.98	325,675.92	376,657.61
deficit (-) or surplus (+)	-46,120.99	11,294.87	3,803.19	928.54	2,939.42	3,276.62	8,777.34	5,866.17	8,819.68	7,755.73	7,064.76	2,084.36	-25,796.84
central budget funds	9.37	67.59	6.22	26.93	6.29	6.22	7.54	6.83	8.97	6.67	5.82	5.63	9.58
MF foreign currency account	20,303.18	27,993.09	29,628.36	26,781.52	28,037.72	29,015.06	31,695.85	34,627.06	36,860.96	29,165.52	25,430.32	25,652.82	13,195.56
MF zloty term deposits in NBP	1,583.00	428.00	275.00	1,254.00	449.00	445.00	1,789.00	918.00	328.00	776.00	797.00	1,035.00	870.00
CURRENCY IN CIRCULATION	187,574.85	183,384.32	184,325.04	185,290.62	188,929.63	187,305.52	189,781.09	191,051.88	192,454.63	193,678.66	194,309.71	193,726.94	198,715.92
CURRENT ACCOUNT (including required reserve account)	25,829.72	44,197.97	38,000.01	42,002.58	28,252.87	37,782.90	43,440.91	52,136.44	38,711.30	38,718.51	38,837.16	44,407.90	28,250.83
Balance deviation from required reserve*	1,244.43	2,972.40	-3,099.72	712.00	1,596.28	-3,869.05	1,659.85	10,057.96	-3,432.12	482.01	-3,288.68	1,826.84	1,665.50
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
INTRADAY CREDIT	42,902.70	45,786.15	44,828.18	46,241.02	48,714.13	45,424.45	51,068.70	45,033.30	49,980.86	45,562.84	45,268.31	49,718.61	46,471.15
DEPOSIT FACILITY	7,365.86	849.84	944.32	832.74	3,469.99	1,064.30	673.21	1,280.98	1,144.14	4,731.95	1,220.30	1,457.25	5,278.69
OPEN MARKET OPERATIONS**	81,308.47	76,041.64	79,666.00	72,544.90	78,852.37	72,695.45	71,220.30	60,016.90	72,542.00	74,077.00	80,672.00	74,437.00	94,423.12
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 (+)	59,846.07	76,041.64	79,666.00	72,544.90	71,201.30	72,695.45	71,220.30	60,016.90	72,542.00	57,577.00	80,672.00	74,437.00	64,792.80
NBP bills <7-days (+)	21,462.40	0.00	0.00	0.00	7,651.07	0.00	0.00	0.00	0.00	16,500.00	0.00	0.00	29,630.32
POLONIA	1.07	1.47	1.26	1.39	1.56	1.59	1.39	1.48	1.12	1.58	1.50	1.53	1.55
Turnover	1,330.00	0.00	625.00	595.00	1,095.00	331.80	895.00	0.00	424.90	515.00	300.00	95.60	10.00
WIBOR													
O/N	1.04	1.46	1.49	1.41	1.54	1.57	1.52	1.49	1.50	1.66	1.51	1.50	1.49
T/N	1.56	1.57	1.59	1.59	1.59	1.60	1.57	1.57	1.56	1.67	1.55	1.55	1.53
SW	1.58	1.60	1.60	1.58	1.59	1.60	1.59	1.59	1.58	1.61	1.59	1.59	1.57
2W	1.63	1.63	1.63	1.63	1.63	1.63	1.62	1.62	1.62	1.62	1.62	1.62	1.60
1M	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.65
3M	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.72
12M	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
WIBID													
O/N	0.74	1.16	1.19	1.11	1.24	1.28	1.22	1.19	1.20	1.36	1.21	1.20	1.19
T/N	1.28	1.29	1.33	1.32	1.31	1.31	1.29	1.28	1.28	1.37	1.29	1.29	1.23
SW	1.38	1.40	1.40	1.38	1.39	1.40	1.39	1.39	1.38	1.41	1.39	1.39	1.37
2W	1.43	1.43	1.43	1.43	1.43	1.43	1.42	1.42	1.42	1.42	1.42	1.42	1.40
1M	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.45
3M	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.52
12M	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
USD/PLN (fixing)	4,1793	4,0446	4,0770	3,9455	3,8696	3,7354	3,7062	3,6264	3,5822	3,6519	3,6529	3,5543	3,4813
EUR/PLN (fixing)	4,4240	4,3308	4,3166	4,2198	4,2170	4,1737	4,2265	4,2545	4,2618	4,3091	4,2498	4,2055	4,1709
EUR/USD	1,0586	1,0708	1,0588	1,0695	1,0898	1,1173	1,1404	1,1732	1,1897	1,1600	1,1634	1,1832	1,1981
OFFICIAL RESERVE ASSETS (as at the end of the month)													
in PLN	478,076.90	459,850.80	451,768.40	441,836.60	423,403.40	409,837.30	414,068.10	398,126.10	392,903.70	406,641.60	404,153.20	402,977.20	394,357.80
in EUR	109,064.40	106,181.50	104,658.40	104,705.60	100,403.90	98,195.20	97,969.50	93,577.60	92,192.00	94,368.10	95,099.30	95,821.50	94,549.80
Purchase (-) or sale (+) of foreign currency	2,058.43	2,063.07	3,022.38	1,609.19	783.79	1,598.26	413.00	2,410.01	-388.47	-7,780.48	-4,628.73	-744.08	-12,644.96

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

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

Source: NBP.

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