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OBLIGATORY RESERVES RATIO AND OPEN MARKET OPERATIONS AS THE INSTRUMENTS OF THE NATIONAL BANK OF POLAND

In the paper the author presents problems concerning the most often used methods of influencing the banking system by the Polish central bank like open market operations and obligatory reserves.

1. INTRODUCTION

The hereby study discusses the specific functioning of classic methods of monetary policy, such as obligatory reserves which fulfil, among other things, functions of quasi taxes and open market operations which are considered the most effective method of the central bank's influencing the banking system. The aim of the paper is also an attempt to evaluate these instruments and to present the most important questions concerning their functioning. The work opens with the analysis of the main factors influencing monetary policy, and then presents the directions of the NBP (the National Bank of Poland) in the field of open market operations and obligatory reserves.

The Polish economy and banking system function in specific conditions. Monetary policy is steering, according to suitable records in the act on the NBP (Dziennik Ustaw 1997, no. 140, pos. 940) towards price stabilization and against inflation, in an environment of a high degree of over-liquidity of the banking sector and a considerable level of budget sector deficit and lack of fiscal policy clarity (Grabowski 1999, p. 20), and also many other endogenic and egzogenic factors, that is dependent or independent from the banking environment. Important factors of an objective character are: conducting monetary policy in conditions of uncertainty of the economy's reaction, low level of monetization, relatively high level of budget deficit. Subjective limitations, however, were related especially to the state of the central bank's independence or to co-ordination of activities between government and NBP policy. In this field the source of conflicts between the main centres of monetary policy: government, parliament and the NBP was visible. The sphere of

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conflicts related mainly to defining the inflation level. Discrepancies in this area were the result of assuming different goals. The NBP was going to accept such an inflation level which would guarantee the stability of the de-inflation process simultaneously preserving a secure level of foreign trade balance, whereas the government accepted such an inflation rate which would guarantee a safe realization of the budget. Taking into consideration the fact that a higher actual inflation level meant bigger nominal tax revenues in the budget, the government accepted as low an inflation level as possible. A bigger difference between the forecasted and real inflation figure gave a bigger certainty of budget realization. As a result, the NBP assumed a higher inflation level than the government or did not achieve the inflation goal indicated by the government (Osiński 1999, pp. 52–53).

External conditions, such as exchange rates, terms of trade, foreign demand, the złoty's exchange range and foreign obligations also influenced the monetary policy of the NBP. Limiting the NBP's autonomy was also making treasury bonds available to foreign capital, and an additional difficulty was the process of capital flow liberalization which undoubtedly influenced the level of money supply.

Characteristic for the Polish banking system was the state of overliquidity, a basic factor which defines the direction of monetary policy, present between 1994–1999, caused mainly by the rapid growth of the NBP's monetary reserves. In relation to appreciation expectations, banks limited their assets in foreign currencies. The reason for the overliquidity initially was the introduction of limits to foreign exchange positions and selling the NBP's currency and the growth of official and unofficial exports, excessive foreign currency inflow and a new system of averaged obligatory reserves. Banks started investing in treasury certificates and were active in the field of open market operations. Meanwhile, together with budget improvement, the primary market absorbed lesser and lesser liquidity surpluses because the Ministry of Finance limited the supply of treasury certificates which led to a decrease of their profitability. Since 1996 the source of the surplus of money supply has been the expansion of bank credits for the non-financial sector. The NBP criticized this situation, stressing its inflationary character. The effect of commercial banks' overliquidity was clearly visible in the transition processes of monetary policy's impulses into the banking system. In conditions of overliquidity the central bank ceased to be an important source for commercial banks, and thus its policy (consisting in changing interest rates) was hardly effective. The banking system manipulated by the interest rate of money bills or treasury bills sold in the secondary market did not have to surrender to these predominances, because it had other methods and sources of liquidity gaining up in its sleeve. That is why the changes of the NBP's interest rates could cause "non-equivalent", different to the expected ones, and sometimes much delayed changes of interest rates in the whole banking system. Thus the consequence of liquidity growth was the decreased effectiveness of the central bank's direct influence on assets and liabilities interest rates in the banking system. The above-mentioned factors were the important dominants deciding about the character, costs, effectiveness and stability of Polish monetary policy and the methods of performing it.

In the 1990s the most often implied methods of the central bank's methods of influence on the banking system were, taking into account the frequency and goals achieved, open market operations and obligatory reserves.

2. OBLIGATORY RESERVES

Eventful for the banking system year 1989 resulted also in the introduction of obligatory reserves – a method for the central bank to influence the banking system. Obligatory reserves were introduced for the first time by the United States in the 1930s. Through the obligatory reserves policy the central bank forces commercial banks to raise or lower the credit share which influences the money supply. In order to obtain this the state introduces a certain line of policy where the restrictive policy of the central bank, consisting of, among other things, raising the obligatory reserves rate means that commercial banks are forced to keep the majority of their assets with the central bank. Then credit share gets decreased and more expensive borrowing results in a decrease of economic activity.

An expansive policy, on the other hand, is realized when, for instance, the central bank orders a decrease in the level of minimal reserves through decreasing the obligatory reserves rate. Created this way assets of commercial banks support an additional credit share which, in consequence, results in increasing the amount of money in circulation through creating new secondary deposits. Then one should expect economic revival and increasing society's incomes (Kaźmierczak 1992, p. 130).

Introducing obligatory reserves rate into Polish banking system was meant to secure solvency and preserve the liquidity of commercial banks (presently this function is of decreasing importance) and to construct an instrument allowing the regulation of the supply of currency in circulation by means of influencing the credit possibilities of commercial banks. The specified by law aim of collecting reserves is achieved by transferring to the reserve account some of the assets collected by commercial banks. Obligatory reserves are a burden to commercial banks and have to be taken into consideration when establishing interest rates. For the assets transferred to the NBP a commercial bank does not get any interest (thus it is a form of a tax), but it has to pay to its clients interest on the whole deposit. This fact is taken into consideration in establishing interest rates for deposits. Its level, however, directly influences credit costs. The scale of this influence depends on the reserve rate and on the fact whether interest is being charged. This, of course, influences money supply (Czechowska 1998, p. 82).

The 1997 bill on the NBP broadened the definition of obligatory reserves through broadening the basis of accounting it, according to which an obligatory reserve is a percentage of financial assets collected in Polish and foreign currency on bank accounts, coming from selling securities and other assets accepted by a bank and which are to be returned except for the assets coming from another domestic bank, and also assets from a foreign bank on the basis of contracts signed before the bill or assets gained from abroad for at least two years. Obligatory reserves are transferred to the reserve account in the NBP. In 1999 new regulations of establishing and maintaining obligatory reserves were introduced. From this point on, banks are obliged to establish obligatory reserves whose basis is an arithmetic average of the assets collected in bank accounts which are subject to reserves, calculated for all calendar days (Zygierewicz 1999) instead of maintaining a reserve which is an arithmetic average of assets at the end of the first and second period of ten days and the last day of a month.

Interest rates of obligatory reserves are determined by a regulation in which an equal interest rate of the financial assets which has to be transferred to the reserve account is established for all the banks. For every kind of deposit a different interest rate can be determined, but not exceeding 30 per cent of all the deposits collected in a bank. The regulation also arranges the principles and rates of transferring financial assets to the reserve account, and the amount of penal interest in a case when a bank preserves a reserve amount lower than required. Interest rates are established by the NBP board in an amount not exceeding the double interest rate of a collateral credit. Penal interests concern the difference between the amount which should be transferred to the reserve account and the sum which was actually transferred.

Financial assets accepted from other banks are excluded from the duty of transferring reserves, moreover, the NBP's president is entitled to determine the amount of money whose keeping in cash departments will be considered equal to transferring to the reserve account. Since 1997 the money reserves in cash departments can make not more than 10% of the reserve due; before it was 50%. This change caused an increase of the amount of reserves transferred to the NBP's reserve account, whereas the amount of money kept in different banks did not alter because of minimizing the liquidity risk. According to the previous legal regulations within the confines of obligatory reserves one could separate obligatory reserves on interest bearing current accounts and on free of interest current accounts and the declared amount of cash kept in cash departments.

Since 1998 obligatory reserves on interest bearing accounts have been abolished. Besides the exceptions concerning not transferring obligatory reserves from the deposits of some chosen funds (European Fund For Developing Polish Village, Fund of European Communities Co-operation, call deposits of the National Fund for Environment Preservation and Water Economy, voivodeship funds, budget assets meant for restructuring and modernizing agriculture), a bank can obtain an exemption from transferring all or part of reserves during conducting a repair programme, in order to improve its financial situation. With the exempt assets the bank has to purchase treasury securities which are an additional and secure income for a bank and protection for their depositors, for instance, in 1996, 88 banks obtained this kind of help, including 8 commercial banks and 80 co-operative banks. (The data concerning obligatory reserves is presented in Table 1 and Figure 1.)

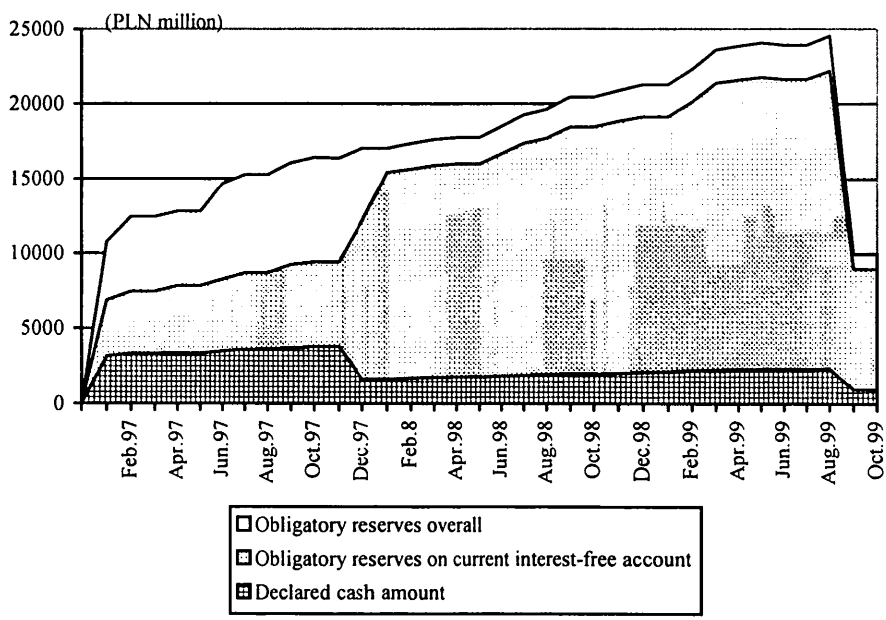

Figure 1. Obligatory reserve ratio in the years 1997–1999
Source: The NBP Information Bulletins.

Table 1

Obligatory reserves ratio in the years 1997–1998

Date	Obligatory reserves total (PLN million)	Obligatory reserves on interest account (PLN million)	Obligatory reserves on current interest-free account (PLN million)	Declared cash amount (PLN million)
1997				
Jan.	10757.1	709.5	6894.0	3153.6
Feb.	12458.3	1648.6	7470.4	3339.3
Mar.	12455.3	1645.7	7470.4	3339.3
Apr.	12808.4	1623.4	7851.0	3334.0
May	12807.8	1622.9	7851.0	3334.0
Jun.	14684.6	2933.0	8270.4	3481.3
Jul.	15293.7	3016.9	8694.0	3582.8
Aug.	15292.6	3015.8	8694.0	3582.8
Sep.	16068.2	3123.8	9257.8	3686.5
Oct.	16425.7	3216.3	9422.2	3787.2
Nov.	16399.7	3208.5	9408.4	3782.7
Dec.	17053.8	3255.9	12174.1	1623.8
1998				
Jan.	17053.8	-	15430.0	1623.8
Feb.	17357.8	-	15650.2	1707.6
Mar.	17634.8	-	15893.4	1741.4
Apr.	17774.5	-	16015.5	1759.0
May	17774.5	-	16015.5	1759.0
Jun.	18514.5	-	16691.2	1823.3
Jul.	19270.9	-	17393.7	1877.2
Aug.	19651.6	-	17728.2	1923.5
Sep.	20457.1	-	18475.7	1981.4
Oct.	20457.1	-	18475.7	1981.4
Nov.	20875.6	-	18861.0	2014.5
Dec.	21271.1	-	19157.8	2113.4
1999				
Jan.	21271.1	-	19157.8	2113.4
Feb.	22314.1	-	20124.9	2189.2
Mar.	23623.9	-	21381.9	2242.0
Apr.	23881.4	-	21597.2	2284.2
May	24083.8	-	21774.9	2308.8
Jun.	23942.3	-	21644.7	2297.6
Jul.	23942.3	-	21644.7	2297.6
Aug.	24554.7	-	22213.8	2340.8
Sep.	9956.0	-	8972.8	983.2
Oct.	9956.0	-	8972.8	983.2

Source: The NBP Information Bulletins.

The information presented in Table 1 and in Figure 1 indicate a substantial decrease of the declared amount of money within the confines of obligatory reserves and an increasing obligatory reserves ratio on free of interest current accounts, and an essential decrease of reserves together with a decreasing reserves ratio to 5%.

Obligatory reserves in many countries with a market economy are free of interest. On the basis of the amendment to the banking law passed in 1992, partial interest bearings were introduced in Poland. Some reserves were bearing interest rate equal to 50% of a re-discount rate. Interest accounted by the NBP were transferred to the Agency of Restructuring and Modernizing Agriculture. This solution was criticized as contradicting the rules of budget law aimed at abolishing target funds like the function of obligatory reserves (Gronkiewicz-Waltz 1992, p. 109). The part of the assets collected on current accounts free of interest up to 10%, assets in the form of cash reserves in cash departments and assets on obligatory interest free reserve accounts could be used by a bank for current cash settlements. This meant that banks in periods of over-liquidity could transfer assets to the reserve account, and, when they lacked money, could use the reserves collected in the account. Since December 1997 interest bearing reserve accounts have been closed and the assets from this source have been moved to interest free reserve accounts or to the current accounts of banks. The task of these activities of the central bank was to result in the limitation of commercial banks' activity.

Obligatory reserve ratios were altered several times by the NBP's president (see Figure 2). Initially they did not differ from the level in other countries, in the course of time, however, they were increased even to 30% on call deposits and 10% on time deposits. They increased especially in 1990 because of the high inflation rate. Determining minimal obligatory reserve ratios for the long term on a very high level had its disadvantages, the most important of which was the fact of raising the costs of credit and differentiating the prices of borrowing on an inter-bank and open market, because this market is not burdened with the duty of transferring obligatory reserves. Since the end of 1991 till the beginning of 1997 there occurred a visible decrease of obligatory reserves ratio. This meant decreasing the disadvantages of this instrument from the point of view of commercial banks' costs and the increase of banks' liquidity. The changes of the NBP's obligatory reserves policy during the last few years were forced, to a large extent, by international competition. Decreasing the original costs of banks should result in improving their position in respect to foreign banks. In 1997 there occurred a reversal of trends through increasing three times the obligatory reserve ratio; the first increase concerned the interest rate on call deposits, the second one time deposits, and the third one – interest rates on deposits in foreign currency.

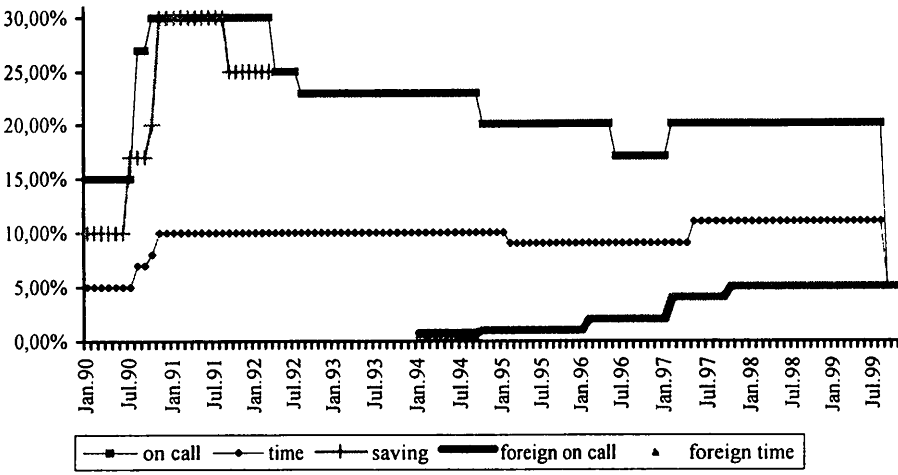

Figure 2. Interest rates on obligatory reserves in the years 1990–1999
Source: The NBP Information Bulletins.

In 1994 another, new element of the NBP's obligatory reserves policy was observed, that is the introduction of obligatory reserves into foreign exchange accounts, which was the action against the 'dollarization' of savings. In August 1994, according to the regulation passed by the President of the NBP, banks had to transfer, respectively, 0.75% of the value of foreign exchange accounts and 0.5% of time accounts (BŻ 1994; B 1994; Ż 1994; L 1994).

Since 1998 the Monetary Policy Council, a new organ of the central bank, establishes the parameters concerning the functioning of monetary policy instruments, including obligatory reserve ratios. In September 1999 the Monetary Policy Council decided to significantly decrease and unify obligatory reserve ratios through the exchange of possessed bonds to bank securities which would give banks the right to gain profits. Bonds were the result of a conversion programme established in agreement with the Ministry of Finance. The assets coming from the reserves would be exchanged to transferable treasury securities within the confines of open market operations and non-transferable NBP's bonds.

When estimating obligatory reserves we have to state that they are not an instrument of current controlling the banking system liquidity. That is why their ratios should not be altered too often, because banks need a longer period of time to adapt their financial policy to the NBP's plans. Obligatory reserves in Poland are a controversial question. The level of ratio and the lack of interest are arguable issues. The problem which the central bank has to solve is to construct obligatory reserve system in such a way that it assures good performance of monetary policy and guards the concerns of banking institutions. Commercial banks treat them as a central bank instrument which serves taking over part of their potential incomes (Rajczyk 1992), as a quasi-tax – a burden of a non-fiscal character. Whereas for the NBP they are a good solution which brings direct effects in limiting money supply in the country, and additionally they do not financially burden the NBP, as do open market operations. However, high obligatory reserve ratios indirectly influence restraining the development of the interbank market because of the accessibility of such big assets which are located on obligatory reserve accounts and which banks can use to sustain current liquidity. Thus the central bank limits the effectiveness of open market operations.

3. OPEN MARKET OPERATIONS

The notion of open market operation is substantial from the point of view of monetary policy performance and it is a starting point for its evaluation. In order to present their essence an attempt to define them seems required. Around the definition of open market operations controversies in literature arise in the field of their broader and narrower understanding. This differentiation is the result of the different place and time of their performing. An unambiguous definition has not been constructed yet. The differences in the definition concern the scope of the issue and the subjects of operations which can be broad or narrow. The subject of open market operations in the USA, in the organized money and capital markets are usually USA government's securities, in France also private securities, including commercial papers, whereas Bundesbank operates on treasury bills and federal and community bonds. In Poland, since April 1995, money bills have also been admitted, though till then only treasury bills functioned. In 1996 treasury bonds also appeared occasionally.

The differences in defining also concern the broad and narrow way of understanding the subjects which take part in these transactions. Only in the USA the Federal Reserve System sells securities to everyone and buys them from everyone. Thus they are real transactions made between the central bank and a segment of the open market. Such an approach justifies their name – Open Market Operations. In this situation operations occurring in other countries, where the central bank conducts them only between banks, should not appear under this term.

J. Osiński defines open market operations as central bank's transactions in the capital market, first of all in its secondary segment, taking into consideration separating the primary market of treasury bills where the sales between the Ministry of Finance and capital market brokers are conducted by the agency of the NBP (Osiński, 1995).

We can also identify open market operations with the SWAP transactions. In this case the central bank conducts them with commercial banks, but the basis for transaction is foreign currency,

In the case of definition disputes it seems proper to use three possibilities:

1. To give a definition which is the broadest and encompasses all the possible solutions. Such a definition is given by Z. Fedorowicz when he describes open market operations as the transactions of selling or buying by the central bank of public securities (e.g. treasury bills or treasury bonds) and private securities (commercial bills and papers) admitted by the central bank to these operations. Partners of the central bank in securities trading are commercial banks and other financial institutions, and also private persons (Fedorowicz 1991, p. 23);

2. To give a definition deriving from Anglo-Saxon terminology which explains them as operations conducted between the central bank and a segment of open market;

3. To define them taking into consideration specific solutions occurring in given countries at a given moment.

Taking into consideration problems resulting from defining open market operations, the beginnings of their occurrence in Poland can be associated with many events. Taking into consideration their diverse character and variety of transactions, however, most often it is accepted that open market operations have been conducted since 1993.

Within the confines of these operations two types of transactions are performed: conditional and unconditional transactions. The essence of conditional operations conducted in two directions is that when the central bank wants to reduce over-liquidity and to collect excessive money from the free market, it offers securities for sale. When banks search for assets and are not able to find them in the inter-bank market – the central bank offers an auction credit on securities. Then the NBP buys the securities, and, after a fixed time, the seller has to buy them back. These transactions are made on tender, last for a definite time and are of a conditional character, which means that they consist of two parts – a spot operation and one of an opposite direction – a forward operation. The one who sells decides the time limit. The task of the central bank is in fixing such limits that the assets return to investors only when they are the most needed. Within the confines of conditional operations, taking into consideration the central bank's point of view, purchase operations (repo) and sale operations (reverse repo) are distinguished.

The central bank can influence capital market through open market operations in the following forms: by suggesting the direction of money flow (organizing repo or reverse repo operations), establishing the yield on possessed treasury bills or issued money bills (the selling and purchasing price at the fixed in advance discount rate forces banks to adapt their interest rates to these applied in open market operations), interfering with operation scale, and so, for instance, removing money from the market causes a decrease in money supply which should induce the increase of interest rates to the intended level. More effective in Polish conditions was, however, indirect influencing of credit interest rates which is based, among other things, on influencing transaction prices in the inter-bank market. The susceptibility of commercial banks on the interest rate policy of the central bank was also conditioned by a certain sort of strategy pursued by banks: the achievement of higher profit level or increasing the share in the market.

The open market operations in Poland were conducted with changeable intensity, reverse repo operations, whose main aim was collecting money from the market in order to counteract inflation, dominated. The frequency of conducting open market operations was very high which corresponded to the interest on the demand side. The NBP, conducting its monetary policy, focused its attention mainly on neutralizing the money surplus in the banking system, aiming thus at achieving its main goal. Operations crediting the banking system (repo) were applied less often, in moments of sudden market fluctuations, when the NBP evaluated the capital market as underfinanced, for instance, at the moment of starting National Clearing Chamber in 1993. Information on open market operations are presented in Table 2 and Table 3.

Table 2

Open market operations in the years 1993–1997 (the state during the year)

Year	The number of repo operations	The volume of repo operations (PLN million)	The number of reverse repo operations	The volume of reverse repo operations (PLN million)	The number of outright sale operations	The volume of outright sale operations (PLN million)
1993	40	3128.01	90	9524.84	-	-
1994	15	2114.52	196	59604.68	4	2061.0
1995	1	6485.90	193	120973.01	31	8434.2
1996	0	0.00	167	112265.90	0	0.0
1997	0	0.00	102	41030.77	0	0.0

Source: The NBP Information Bulletins.

The data included in Table 2 indicate a visible advantage of the reverse repo operations over repo operations, both in respect to the number of operations conducted and their volume. The lack of balance in the market in the form of the surplus of capital assets supply over demand resulted in a gradual increase of the operation frequency from one per week to nearly daily. Characterizing the specifics of open market operations in Poland we have to state that their dynamics increased from 1993 to 1995, and then a decreasing trend appeared. Since 1996 the scale and frequency of open market operations has decreased.

Table 3

Open market operations in the years 1997–1999 (PLN million). The state at the end of each month

Month	Reverse repo operations	Money bills issued	Private deposits	Operation sum
1997				
Jan.	1468.6	16909.0	0	18377.6
Feb.	2826.3	16431.9	0	19258.2
Mar.	60.6	16953.8	0	17014.4
Apr.	4361.8	18177.2	0	22539.0
May	918.4	18091.8	0	19010.2
Jun.	773.9	18021.2	0	18795.1
Jul.	2822.3	17105.6	0	19927.9
Aug.	1903.4	17113.1	0	19016.5
Sep.	1494.8	14747.7	842.4	17084.9
Oct.	1418.6	16135.8	1984.6	19539.0
Nov.	200.8	14081.3	2731.8	17013.9
Dec.	1288.1	14374.0	3599.8	19261.9
1998				
Jan.	0	9032.2	3589.6	12621.8
Feb.	0	18930.0	3583.6	22513.6
Mar.	0	20727.7	3332.3	24060.0
Apr.	0	23385.1	2994.8	26379.9
May	0	20922.0	2757.3	23679.3
Jun.	0	22056.9	1986.2	24043.1
Jul.	0	25224.1	1257.9	26482.0
Aug.	0	28969.8	650.9	29620.7
Sep.	0	30025.2	58.0	30083.2
Oct.	0	23335.0	18.1	23353.1
Nov.	0	28214.7	8.3	28223.0
Dec.	0	28575.5	3.4	28578.9
1999				
Jan.	0	23274.4	2.6	23277.0
Feb.	0	31001.8	3.2	31005.0
Mar.	0	27429.6	3.2	27432.8
Apr.	0	20045.7	2.9	20048.6
May	0	19338.9	2.7	19341.6
Jun.	0	22583.5	2.7	22586.2
Jul.	0	21487.5	2.5	21490.0
Aug.	0	21737.5	2.6	21740.1
Sep.	0	30874.0	2.4	30876.4
Oct.	0	31748.1	2.5	31750.6

Source: The NBP Information Bulletins 1997, 1998, 1999.

It has to be mentioned that in 1997 the share of the transactions of open market operations of money bills increased. In the years 1998–1999 however the NBP did not conduct operations on treasury bills. Also worth mentioning is the fact that in 1997 the NBP introduced an additional, atypical instrument which absorbed liquidity – deposits from domestic private persons. Assets collected in this way made the basis for financing state budget as the "flood credit". Actions undertaken by the NBP were conducted in order to increase the propensity to save, to absorb the liquid reserves of households, and to influence the increase of interest rates of bank deposits (Szpunar 1998). At this moment the NBP met with criticism from the banking system in which the argument of uneven competition was raised, stressing that the NBP is in a privileged position, because it is not subject to pay obligatory reserves and Contributions to Banking Guarantee Fund. As a result of applying this atypical method of monetary policy the overliquidity scale absorption was obtained, as well as an increase of interest rates on deposits in banks and the decrease of the costs of open market operations because of lower profitability as it was in the case of money bills' emission offered to commercial banks.

Besides conditional operations, since 1994 the NBP has also conducted unconditional transactions where the sold securities are not the subject to trade to the moment of redemption by the issuer. Initially these operations were conducted on treasury bills, then bonds were applied occasionally, and finally regular money bills. Thus issuing money bills became a basic instrument of open market operations, a method of shaping the financial liquidity of banks and influencing money supply.

Table 4

The structure of money bills in the years 1997–1999

Kind of money bill	Sale 1997 (PLN million)	Sale 1997 (%)	Sale 1998 (PLN million)	Sale 1998 (%)	Sale * 1999 PLN million)	Sale * 1999 (%)
1-day	0	0.0	0	0.0	0	0
7- day	2266.83	5.7	11717.07	4.8	0	0
14- day	770.49	1.9	5444.69	2.2	0	0
28- day	0	0.0	215378.27	87.9	242619.65	100
91- day	22120.62	55.9	2136.56	0.9	0	0
182- day	10314.59	26.1	3279.00	1.3	0	0
273- day	4081.66	10.3	5068.96	2.1	0	0
total	39554.19	100.0	245022.55	100.0	242619.65	100.0

*up to October

Source: The NBP Information Bulletins.

Considering the concept of the open market operation methodology we have to bear in mind the fact that the Monetary Policy Council, operating since 1998, changed the methods of conducting them. Issuing 28-day money bills became the basis of these operations. The Monetary Policy Council assumed that the shorter maturities of money bills would influence to a larger extent the relationship between their profitability with market rates, although they were aware that this decision would cause the worsening of liquidity in commercial banks and the increase of the costs of maintaining these securities by the NBP (Jabłoński 1998). Money bills within the confines of open market operations are sold according to the referential rate established by the Monetary Policy Council. The return rate of 28-day open market operations demarcates the lower acceptable rate standard and, simultaneously, is in the capacity of a referential rate which informs about the current trend of monetary policy (Ziółkowska 1999) (see Table 5 and Figure 3).

Table 5

The comparison of return rates in open market operations in the years 1998 and 1999

Rate in 1998	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct	Nov.	Dec.
Referential	-	24	24	23	21,5	21,5	19	19	18	17	17	15,5
Real	-	23,84	24,12	23,83	22,92	21,65	21,01	19,15	18,68	18,03	17,15	16,40
Rate in 1999	**Jan.**	**Feb.**	**Mar.**	**Apr.**	**May**	**Jun.**	**Jul.**	**Aug.**	**Sep.**	**Oct.**		
Referential	13	13	13	13	13	13	13	13	14	14		
Real	15,31	13,10	13,10	13,10	13,10	13,10	13,10	13,10	13,63	14,10		

Source: The NBP Information Bulletins.

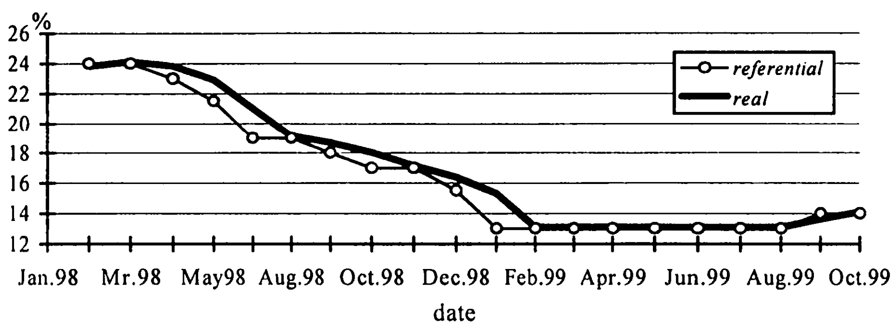

Figure 3. The comparison of return rates in open market operations in the year 1998
Source: NBP Information Bulletins.

The referential rate is of very big importance for financial markets and the economy because its level influences the prices in the interbank market. In 1998 the profitability of money bills was similar to the then referential rate. The referential rate was reduced several times by the Monetary Policy Council which led to lowering credit prices for enterprises and costs of open market operations. In 1999 the levels of these rates were lower and more stable.

4. CONCLUSIONS

Obligatory reserves and open market operations are the two different methods belonging to different spheres of the central bank's influence on the banking system. From the perspective of the character and thc position of the central bank in respect to commercial banks, where the central bank fulfils the role of an economic entity which makes offers to other banks (the essence of the methods of market character) or acting as a superior, imposing other banks orders and bans (the essence of the methods of an administrative character which is a manifestation of direct influence) these methods differ. The feature which is common for them, against the background of numerous differences, is the achievement of a similar aim, which is influencing liquidity in the banking system, or rather absorbing the liquidity surpluses. Administrative methods, characteristic for periods of transition, are negatively evaluated in the long term, because they may lead to system deregulation. However, the methods of direct influencing are applied, though to a limited extent, in highly developed countries, where they complement market methods whose application is possible thanks to the well-developed functioning of the money market.

In conclusion, we have to state that obligatory reserves are not the best method of influencing commercial banks, because they cause to a large extent the limitation of the banking system activity. Open market operations are evaluated much higher which are presently regarded as the most efficient method in conditions of market economy. The main advantages of open market operations against obligatory reserves is a market method of establishing interest rates against the interest rates which are arbitrarily imposed, and the large scale and frequency flexibility of functioning cause that the results of open market operation changes are not so intensively felt by commercial banks, as was in the case of obligatory reserves.

Open market operations gathered the money which "newly entered the market" and also which came from the former reverse repo operations. It is worthwhile noticing that it was an instrument which brought results in the short term. Open market operations are subtle instruments temporarily influencing the money supply and that is why the NBP cannot always accomplish its aims successfully. The main problem of the Polish central bank was the permanent overliquidity of a banking system which resulted from the lack of demand for money or from its excessive supply which meant that the Polish central bank had to realize its main aim, i.e. the neutralization of overliquidity of the banking system. The actions of the NBP consisting of collecting the surplus money from the market were realized at the expense of the increase of open market operation scale and the interest rates paid because of it.

The state of overliquidity characteristic for the Polish banking system meant that the influence of the NBP in the field of monetary policy was not always effective, because the interest rate of the NBP ceased to fulfil the function of the marginal rates of obtaining money and became the marginal investment rate. In this situation the credit interest rates were less susceptible than the deposit interest rates to the central bank's influence (Osiński 1999). Stronger links in the area of commercial banks' liabilities resulted from the fact of the existing competition and informing the public about the decisions of the NBP. An additional aspect of the relatively low effectiveness of the NBP's actions was uncertainty as to the scale of the banks' reaction on the central bank's actions.

It should be pointed out that the Monetary Policy Council expects a substantial decrease in banks' overliquidity in the year 2000 which will cause open market operations supplying money to the banks (Słojewska 1999). The reverse character of these operations would lead to an increase in the effectiveness of the monetary policy and to transferring more money to the state budget because of the central bank's profits.

The experiences of the Polish monetary policy are not negative. The trend to gradual deinflation and the fact of an inflation decrease to one-figure level prove that. In the future, there may occur some hazards concerning its realization, resulting from the liberalization of capital flows or the existence of the sources increasing the liquidity of the banks independent of the central bank. The assumption of the central bank's monetary policy success can be traced to, for instance, the strengthening of the central bank's independence or in the ban to finance budget deficit. (The question of the NBP's independence is enclosed in the Constitution of the Polish Republic of 6 April 1997, art. 227.) Doubts as to the NBP's independence (Wojtyna 1998; Ziółkowska 1999) in conducting monetary policy occurred in the moments of the government's or parliament's interferences in the policy of government crediting by the NBP and at interferences in the rate of exchange policy. Despite the existing in NBP act clause determining the purchase of treasury tokens up to the sum amounting to 2% of the planned state budget's spendings in a given budget year (Dziennik Ustaw 1989, no. 4, pos. 22), Parliament, acting on the government's proposal, obliged the NBP to purchase treasury tokens to an amount exceeding the deficit level which negatively influenced the monetary policy effectiveness. In 1994 the Seym made a clause in the budget act introducing the compulsion of purchasing treasury bills by the NBP. Securities obtained in this way were then sold according to a different price concept, in the open market.

The improvement of monetary policy effectiveness can also be obtained by the skilful application and differentiation of methods of the central bank's influencing the banking system.

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