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Monetary and exchange rate policy in Poland after 1990 – relationship and prospects of coordination

Abstract: The aim of the paper is to characterize relationship between monetary and exchange rate policies in Poland since 1990 and to shed some light on the prospects of coordination between them in the context of inclusion of the Polish zloty in the ERM II. We find that the evolution of both monetary and exchange rate policies was in principle correct, improving their abilities to influence the economy. As the most important changes we regard introduction of the inflation targeting strategy and switching to the float exchange rate regime. The latter one, however, may in our opinion interfere with the introduction of the zloty into the ERM II, thus making this process distant.
Keywords: monetary policy, exchange rate, price stability, monetary regime, transformation, the ERM II.
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1. Introduction

In 1989 the economic transformation in Poland started. The basis for this process had been the so-called Balcerowicz plan[1] which came into effect on January 1st, 1990. The plan included three main tasks. The first one was to reduce inflation[2] in order to stabilize money and to introduce convertibility of the Polish zloty. It was aimed at restoring the role of the zloty as a national currency after a long period of informal dollarization[3]. The second task was to balance the market and to set market mechanism in motion and thus – abandon non-market methods of regulating economy and, in fact, principles of central planning. The last, third task was fast

[1] From the name of its author, Leszek Balcerowicz, the then finance minister.
[2] In the autumn of 1989, monthly inflation rate reached even 50%. (Wilczyński 2000). According to Kokoszczyński (2004), such rise of CPI already constituted hyperinflation.
[3] As Wilczyński stresses (2005, s. 91), in 1989 the zloty „almost completely lost the feature of transaction money".

privatization of the Polish economy, perceived as the main form of its micro-economization and thus creation of a background for effective decision making at the level of individual firms. (Wilczyński 1992).

Realization of the tasks, mainly the first one, created a special and unique challenge for the policymakers, responsible for the individual areas of economic policy in Poland. It concerned also the National Bank of Poland (the NBP) whose responsibilities included implementation of the monetary policy and – to a large degree – also the exchange rate policy. The NBP was forced to make incessant adjustments to changeable economic and institutional conditions and to search for new, often very unorthodox measures and tools. In such circumstances, frequent changes of targets, strategies and instruments of the Polish central bank were indispensable.

In principle, one may say that the direction of changes was correct. Such a statement is confirmed by plain facts: decreasing of the inflation rate from ca 650% in 1989 to 1,4 % in 2006 and avoiding – as one of the few countries in Central and Eastern Europe – currency crisis. However, since 1989 relations between monetary and exchange rate policies have been far from satisfactory. Conflicts of targets have occurred, as well as a lack of coherence between the instruments of the discussed polices. Also assignment of competence between the NBP and the government has been rather blurred. All the factors have made stabilization of the price and exchange rate levels difficult.

The paper has two aims. The first one is to characterize the relations between monetary and exchange rate policy in Poland since 1990, whereas the second – an attempt to shed some light on the prospects of coordination between the two policies, in the context of including the Polish zloty in the ERM II. In section 2 the institutional frameworks of monetary and exchange rate policy in Poland after 1990 are presented, as well as their evolution. In section 3 we underline specific features of the relations between monetary and exchange rate policy in the period of conducting the monetary policy strategy which was formally based on money supply. The fourth section outlines changes in exchange rate policy which came into being when the NBP adopted inflation targeting. The discussion in the final section focuses on the problems connected with conducting the monetary and exchange rate policies under the independently floating exchange rate regime.

2. Institutional frameworks of monetary and exchange rate policies in Poland after 1990

Until 1989 the NBP had acted as a "monobank"[4]. It was an issuer of money, central credit and settlement institution as well as central foreign exchange institu-

[4] However, according to Kokoszczyński (2006), in the Polish banking system a classic example of a monobank had never existed. There were few so-called specialized banks, formal monopolists in particular fields of banking activity (e.g. foreign currency operations or agriculture).

tion. (Knakiewicz 1997). In fact, the NBP has become „typical" central bank since January 1990, thanks to the beginning of the transformation of the Polish economy into the market economy. (See Gronkiewicz-Waltz 1992, Knakiewicz 1997, Rutkowski 1977). Since then, the NBP has aimed at becoming an independent institution. It was argued in the literature that after 1989 the Polish central bank has been consistently acting to obtain greater independence. (Baka 1990, Knakiewicz 1997, Wojtyna 1996, Ugolini 1996). Within a dozen or so years, it has become a fully independent central bank, conducting the monetary policy according to contemporary standards and making use of modern economic theories and experience of developed economies.

Such a status, however, has been achieved gradually. The Act on the NBP of January 31, 1989, legally binding until the end of 1997, decreased the degree of subordination to the Council of Ministers and the Minister of Finance (Gronkiewicz-Waltz 1992). The government stopped formulating monetary policy guidelines and the so-called credit plan. It kept, however, a statutory mandate to fix the principles and set the level of the zloty exchange rate. The principles of setting the exchange rate against other currencies were determined by „the Council of Ministers, at the request of the NBP President, agreed with the Minister of Finance and the Minister of Cooperation with Foreign Countries" (*The Act on the NBP of 1989*, art. 39). The NBP could only inspire decisions-making process, taking into account the existing exchange rate regime. Still, the government always took the final decision. (Polański 1998a, Szpunar 2000).

The Act of January 31 left to the parliament very important competence within the area of the monetary policy. Although this act granted the NBP the initiative in formulating the monetary policy, formal rights in this field still were in the hands of the parliament. The NBP had just prepared projects of monetary policy guidelines, which were next adopted by the parliament in the form of resolution. What is worth noticing, the government had a decisive impact on the guidelines. The Minister of Finance played the main role. In order to increase budgetary incomes, he usually planned underestimated inflation rate in the Budget Law. Thus, the NBP was forced to adopt unrealistic inflation targets. (Polański 1998a, Szpunar 2000). Still, the responsibility for achieving the targets rested on this institution. The scope of independence was therefore limited. According to Gronkiewicz-Waltz (1992), the parliament, within the confines of the binding bills, decided every year on the central bank's independence. It must be stressed that in the period 1996-1997 the NBP published its own estimates of inflation, much more realistic than the above-directed projections of the MF. (Polański 1998b).

In the Act of 1989 clear rules of recalling the NBP President were not included. Also, limits of financing the government activity by the central bank were not anticipated. However, some quantitative limits of purchasing t-bills on the primary market were enforced just in the amendment of the act, passed in the same year.

According to this amendment, the value of purchased t-bills could not exceed 2% of the planned budget expenditures. (*The Act of 1989 on the Amendments to the Act on the NBP*). Unfortunately, such a restriction was not respected[5].

Thus, the NBP was not fully independent in this period. The situation improved under the next amendment, which was put into practice in 1992. It introduced, among other things, a six-year term of the NBP Governor's presidency and limited cases in which the Governor could be recalled. (*The Act of May 22, 1992, on the change of the Banking Law and on the change of the Act on the National Bank of Poland*)[6]. However, the problems with fixing targets and deficit financing remained unsolved until 1997. This shortcoming was very often stressed in the literature. Nevertheless, many authors pointed at a systematic increase in the independence of the Polish central bank, underlining gradual transformation from a formal independence to the actual one. (See e.g. Pietrzak1999, Strzelec 1994, Ugolini 1996, Wojtyna 1996).

A turning point in the evolution of monetary and exchange rate policies and their institutional frameworks was the year 1997. On 7 April this very year the new Constitution of the Republic of Poland was adopted. It strengthened significantly the independence of the NBP. Pursuant to the article 227, the central bank was granted an exclusive right to issue currency and to formulate and implement monetary policy. According to the Constitution, the NBP shall be responsible for the value of the Polish currency. Thus, one may say, the NBP has been given both target and instrument independence.

The main target was expressed more precisely in the new Act on the NBP adopted in August 1997 and enforced on January 1, 1998. According to this act, "the basic objective of the central bank shall consist in maintaining price stability, supporting at the same time the economic policy of the government, insofar as this does not constraint the basic objective of the NBP". (*The Act on the NBP of 1997*, art. 3). Such a statement has been consistent with recommendations of the then European Monetary Institute.

It is a commonly shared view that the act of 1997 has significantly increased the independence of the NBP, making it a fully modern central bank[7]. Using the well-known independence index of Cukierman, it is claimed that since the adop-

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[5] Actually, the NBP was forced to finance the budget deficit. Moreover, it was characteristic that the government treated the legal limit as applying to the balance at the end of the year. Such an interpretation enabled a much larger borrowing from the NBP during a given year, and which follows, reinforced the influence of fiscal policy on the macroeconomic situation.

[6] In the opinion of Kokoszczyński (2004), such a regulation actually took capabilities to influence monetary policy away from the Parliament – although the regulation, according to which the parliament appointed and recalled the President of the NBP, formally remained in force. Even recognizing that monetary policy had been mistaken and rejecting by the parliament an annual report on the monetary policy implementation did not entail any consequences for the NBP and its President.

[7] It has been stated so, among other things, in the Report of the IMF. Such an opinion has been also formulated in the literature. (See e.g. Hochreiter, Kowalski 1999, Szpunar 2001)

tion of the act and the Constitution, the independence of the NBP, has increased almost to the maximum. (Huterski 2000). However, some problems have not been solved yet. In particular, as Kowalski (1997) underlines, the act lacks regulations which would specify methods of resolving potential conflicts with the government. It is also worth noticing that the discussed act has not been fully adjusted to the European law[8].

The Act of 1997 also extended entitlements of the NBP to pursuing exchange rate policy. The obligation to consult issues of the exchange rate with the Minister of Finance, imposed on the central bank by the Act on the NBP of 1989, was removed. Article 24 of the Act of 1997, however, still preserves the right of the Council of Ministers to establish the frameworks of exchange rate policy. Thus, the division of competence in the field of exchange rate still has not been transparent (Janc 2004, Kowalski 1997).

It can be argued that during the whole considered period the government decided about the character of the exchange rate regime, whereas the NBP executed government's guidelines. The exchange rate regime was used as an instrument of the overall economic policy. Taking into account that the exchange rate also appeared to be an important instrument of the monetary policy, a lack of consistency between the policymakers could have been expected. Targets, which had been intended to achieve by means of the exchange rate, also varied. What should be stressed, they were often different from those of the monetary policy.

3. Implementation of an "eclectic strategy" and its consequences for the exchange rate policy (the years 1990–1997)

Since 1990, both monetary and exchange rate policies, have been subjected to frequent and striking transformations. Aside from fundamental changes, such as switching to the new exchange rate regime or setting a brand new main target of monetary policy, strategies and specific operational arrangements have also been reformulated. The most important changes in field of both policies are presented synthetically in the Tables 1-2.

Monetary policy in 1990 was not an autonomous area of the economic policy, but just a part of the broader stabilization program. An integral element of the program was adoption of a fixed nominal exchange rate. The fixed zloty exchange rate against

[8] Namely, the NBP is given full personal and, to a large degree, functional independence. Some shortcomings are observed in the area of institutional independence. Auditing financial reports of the NBP by professional auditors instead of a commission, appointed by the Council of Ministers at the request of the Minister of Finance, has been judged as necessary. Questionable remains the possibility of borrowing by the NBP to the Bank Guarantee Fund. (See *Convergence Report 2004*).

the US dollar became a nominal anchor, intended to restrain inflation and reduce inflationary expectations. The relation of the Polish zloty to the US dollar was reduced to the level almost threefold lower than the one resulting from the comparison of the purchasing power of both currencies at the end of 1989[9]. While setting on January 1, 1990 the central "anchored" parity rate at the level of 9500 zlotys for one dollar, the policymakers stressed that a specific buffer had been created. The aim of this purpose-built buffer was to cover an expected rise in domestic prices. This operation had been secured with the credit of the World Bank, which, however unnecessary, enhanced regime credibility. (Nuti 2000, Sachs 1996).

Nevertheless, the fixed exchange rate was a source of serious problems with controlling money supply. Namely, within legal circumstances, applied then to the NBP, the central bank was not able to control the increase of foreign exchange reserves and – as a consequence – increase in the money supply, which was treated as an intermediate target of the monetary policy[10]. Thus, in order to control the money supply, limits of net credit to the government sector, net assets of the banking system and net foreign exchange reserves were brought into effect[11].

These limitations and other administrative instruments, applied to overcome problems with money supply, made conducting of the coherent monetary policy strategy impossible. However, as Kokoszczyński (2004) stressed, the then strategy had already contained some elements of monetary targeting. Nevertheless, officially, the rank of intermediate target money supply gained just in another few years.

As results from Table 2, as early as in 1991 the NBP's strategy was to reduce inflation through control of money supply, treated as the intermediate target[12]. In the consecutive years, including an immediate target completed the strategy. The classical triad of targets was established, initially informally and, in the years 1996–1997 – already officially.

At the same time, along with the development of the money market, it became possible to extend the range of available monetary policy instruments. Similarly to central banks in the countries of mature market economy, the NBP started to make use of indirect, market instruments, mainly open market operations[13].

[9] The choice of the exchange rate level and its maintenance until May 1991 turned out to be controversial. It is believed that the scale of devaluation was excessive, aggravating corrective inflation and leading to recession. (Kowalski 1994)

[10] The NBP tried to control money supply by holding real interest rates positive. (Polański 1999). Such an action was seen as combating dollarization, but it fuelled recession as well. (Kowalski and Stawarska 1999).

[11] Such limits were introduced with cooperation with the IMF and were treated as quarterly executive criteria of the stabilization program.

[12] Elements of this strategy had already functioned. But just in *The Monetary Policy Guidelines for the Year 1992* the statement had been expressed, according to which disinflation through control of money supply was recognized as the official strategy.

[13] Causes and consequences of such attitude are described e.g. in Kiedrowska (2005).

Table 1. Changes of Polish exchange rate regime within the years 1990–2000

Period	Type of regime	Main features
1.1.1990-13.10. 1991	Fixed-peg exchange rate	Since January 1, 1990 till May 16, 1991 – official parity of the Polish zloty against the US dollar, called also “anchored” exchange rate. According to it, 1 USD = 9500 zlotys.
		May 17, 1991 – the zloty exchange rate was devalued by 16,8 %, thus 1 USD = 11100 zlotys
		May 20, 1991 – a switch of the peg to the collective unit, value of which was determined by the basket of five currencies. Basket: 45 % USD dollar, 35 % DM, 10 % GBP, and 5 % both FRF and CHF.
14.10.1991-15.10.1995	Pegged exchange rate, adjusted according to changes of the main macroeconomic factors (crawling peg)	October 14, 1991 – introduction of peg with preannounced crawling devaluation at a monthly rate of 1,8 %. The zloty exchange rate was daily reduced by specific amount, equal to devaluation rate. Moreover, permissible deviations of the zloty exchange rate on the interbank market against the parity were established, in form of fluctuation band, amounting to ± 0,5 %.
		February 26, 1992 –devaluation of the zloty by 10,7 %
		October 1, 1992 – the fluctuation band was widened to ± 1 %.
		August 27, 1993 – the rate of crawling peg was reduced to 1,6 %. The zloty was devalued by 7,4 %.
		September 13, 1994 – the rate of crawling devaluation was reduced to 1,5 %.
		November 30, 1994 – the rate of crawling devaluation was reduced to 1,4 %.
		February 6, 1995 – the rate of crawling devaluation was reduced to 1,2 %.
		March 6, 1995 – the fluctuation band was widened to ± 2 %.
16.5.1995-11.4.2000	Pegged exchange rate within horizontal bands (crawling band)	May 16, 1995 – the zloty exchange rate was partially floated. The central parity rate stopped serving as the official exchange rate. It became just the basis for determining the range of deviations of the zloty exchange rate in the interbank market to ± 7 %. The principles of crawling devaluation were still in force. The banks were allowed to setting on their own the exchange rates of buying and selling foreign exchange.
		December 22, 1995 – the zloty exchange rate was revaluated by 6 %.
		January 8, 1996 – the rate of crawling devaluation was reduced to 1,0 %.
		February 26, 1998 – the rate of crawling devaluation was reduced to 0,8 %. The fluctuation band was widened to ± 10 %.
		July 17, 1998 – the rate of crawling devaluation was reduced to 0,65 %.
		September 10, 1998 – the rate of crawling devaluation was reduced to 0,5 %.
		October 29, 1998 – the fluctuation band was widened to ± 12,5%.
		January 1, 1999 – the new currency basket was introduced, basket: 55 % EUR, 45 % USD.
		March 25, 1999 – the rate of crawling devaluation was reduced to 0,3 %. The fluctuation band was widened to ±15 %.
Since 12.4.2000	Independently floating	April 12, 2000 – the zloty exchange rate was fully floated. Since then, it is determined only by demand and supply on the foreign exchange market.

Source: Authors’ work on the basis of: NBP (1996b), Małecki 2002, Rosati 2001, MPC (1999), MPC (2001a), MPC (2002).

Table 2. Changes of the targets and strategy of the NBP within the years 1990–2006

Primary target of monetary policy	Numerical target of monetary policy: Year	Numerical target of monetary policy: Target		Monetary policy strategy
1.1.1989-31.12.1997 – strengthening of the Polish currency	1990	95,0% CPI (XII/XII); increase of national money – 4,1 billion zl		Since December 28, 1989 formally monetary targeting; actually – a typical strategy, being a part of the stabilization.
	1991	32,0% CPI (XII/XII); increase of M2 aggregate – 8,5 billion zl		Since January 1, 1991 monetary targeting.
	1992	36,9% CPI (XII/XII); increase of M2 aggregate – 12,7 billion zl		
	1993	32,2% CPI (XII/XII); increase of M2 aggregate – 15 billion zl		Since January 1, 1994 – informal „triad" of targets: 1) primary target – inflation rate; 2) intermediate target – formally money supply, informally – also exchange rate; 3) immediate target – stabilization of short-term interest rates.
	1994	23,0% CPI (XII/XII); increase of M2 aggregate – 15,5-16,9 billion zl		
	1995	17,0% CPI (XII/XII); increase of M2 aggregate – 17,1 billion zl		
	1996	17,0% CPI (XII/XII); increase of M2 aggregate – 23 billion zl; increase of the so-called reserve money – 7 billions zl		Since January 1, 1996 – classical triad of targets: 1) primary target – inflation rate; 2) intermediate target – formally money supply, informally – also exchange rate; 3) immediate target – increase of reserve money.
Since January 1, 1998 –maintaining price stability, supporting at the same time the economic policy of the government, insofar as this does not constraint the basic objective of the NBP	1998	9,5% CPI (XII/XII)		Since January 1, 1998 till December 31, 2003 direct inflation targeting (annual target with a band of fluctuations)[a]
	1999	6,6-7,8% CPI (XII/XII)	From January 1, 1999 till December 31, 2003 – medium-term target – reducing inflation rate to 4% at the end of 2003	
	2000	5,4-6,8%[b] CPI (XII/XII)		
	2001	6,0-8,0% CPI (XII/XII)		
	2002	3,0% +/-1 percentage point CPI (XII/XII)		
	2003	3,0 %+/1 percentage point CPI (XII/XII)[c]		
	Since January 1, 2004	2,5% +/- 1 percentage point CPI (m/m)		Since January 1, 2004 direct inflation targeting with continuous target

[a] Formally, this strategy was adopted on January 1, 1999, but its pursuing had just started in 1998.
[b] Such level of target was adopted in March, at the beginning of the year it amounted to 8-8,5 %.
[c] Such level of target was adopted in June, at the beginning of the year it amounted to 5% +/– 1 percentage point.

S o u r c e : Authors' work on the basis: *The Act on the National Bank of Poland* of January *31, 1989*; *The Act on the National Bank of Poland* of August, *29 1997*; MPC (1998) MPC (2003b), *Inflation Reports* from the years 1996–2004; *Reports on monetary policy implementations* from the years 1992–2006.

Despite constant improvement of strategy and increase in efficiency of tools, achieving the planned inflation targets caused many troubles[14]. The disinflation process was disrupted and entailed high costs[15]. Moreover, the NBP did not hit the planned values of intermediate and immediate targets[16], as it can be seen in Table 3.

Table 3. Fulfilment of the monetary policy targets within the years 1991–1998

Year	Primary target (inflation rate)				Intermediate target (increase of M2)			
	Actual inflation (CPI, XII/XII)	Planned inflation	Deviation from the target (percentage points)	Deviation from the target (per cent of the target)	Actual value (billions of zlotys)	Planned value (billions of zlotys)	Deviation from the target (billions of zlotys)	Deviation from the target (per cent of the target)
1991	60,4	32,0	28,4	88,8	9,0	8,5	0,5	5,9
1992	44,3	36,9	7,4	20,1	15,0	12,7	2,3	18,1
1993	37,6	32,2	5,4	16,8	14,8	15,0	-0,5	-1,3
1994	29,5	23,0	6,5	28,3	21,4	-1,4	22,8	16,6
1995	21,6	17,0	4,6	27,1	26,9	17,1	9,8	57,3
1996	18,5	17,0	1,5	8,8	32,4	23,0	9,4	33,0
1997	13,2	13,0	0,2	1,5	39,8	27,4 – 28,6	11,2	39,2
1998	8,6	9,5	-0,9	-9,5	44,3	28,2 – 35,3	11,0	25,2

S o u r c e: Authors' work on the basis of *Reports form Monetary Policy Implementation* and *Monetary Policy Guidelines*.

There were many reasons that stood behind these negative phenomena[17]. They were all, however, heightened by the exchange rate regime, which contributed to massive foreign capital inflows and – along with surplus of current account in the balance of pay-

[14] Within the years 1991-1997 planned inflation target had not been achieved even once (Table 3). It is characteristic that a three-digit inflation rate was eliminated relatively fast and twelve-month CPI decreased below 30%. But reducing inflation to a single-digit rate turned out to be much more complicated. It happened just in 1998, in the ninth year of the transformation.

[15] As results from research of Schmidt-Hebel and Tapia (2002), among 20 countries conducting inflation targeting, Poland had highest sacrifice ratio.

[16] It must, however, be kept in mind that – as was already mentioned in the second part – the NBP did not determine its targets on its own. It was forcibly expressed in e.g. 1996, when the parliament significantly changed values of targets, proposed by the central bank.

[17] Problems posed, among others things, excessive budget deficits, delays in privatization and demonopolization of the Polish economy, external factors (e.g. inflation and growth in the key trading partners, movements in officially controlled process, indexation mechanisms strengthening inflationary inertia. (See e.g. Dąbrowski 1999; Kokoszyński 2004).

ments – to increase of foreign exchange reserves. (Kokoszyński 2004, Polański 1999). Gradual modifications of the exchange rate regime did not improve the situation.

It turned out that keeping the zloty exchange rate against the US dollar fixed is no longer possible. Despite progress in implementation of stabilization program, the inflation rate was still high[18], bringing about the overvaluation of the zloty. This, in turn, worsened the terms of trade and caused a rapid increase of current account deficit. Thus, in October of 1991 a new exchange rate regime was introduced, the so-called crawling peg. (See Table 1)[19].

Under the new regime the official parity was daily reduced by a small amount. It was the so-called micro-devaluation. Within a month, it amounted to the fixed devaluation rate, initially equal to 1,8 %. Moreover, a very narrow tolerance for deviations of the zloty rate on the interbank market was permitted. Originally, the width of the fluctuation band equalled ±0,5 %. It was supposed that thanks to adoption of this regime the exchange rate was going to stabilize inflationary expectations, as well as serve as an instrument of export supporting. (NBP 1992, Małecki 2002, Rosati 2001). To make fulfilment of these targets more plausible, the NBP had been constantly reducing the rate of the crawling devaluation, so in 1995 it finally achieved the level of 1,2 %. The fluctuation band was being gradually widened to 2 % as well. The two goals, however, were contradictory. According to Polański (1999, p. 45), „on the one hand managing the exchange rate made control of money supply difficult, an on the other administrative feedback between expected devaluation and inflation were conducive to formation of an inflationary spiral"[20]. Such a view was shared by Wojtyna (2004), recognizing that abandoning the fixed exchange rate deprived the stabilization program of one of the most important nominal anchors. He also stressed that in practice, in spite of declaration of the authorities not to permit real appreciation and depreciation, interests of exporters and the situation of the balance of payments also were taken into consideration.

It is worth stressing that the NBP and the government adopted the crawling devaluation rates, according to which official parity was devalued every month, jointly. Therefore, they were included in the budget law. (Polański 1999). The exchange rate then was not only an instrument of the monetary policy[21], but also – or even

[18] In 1990 inflation rate amounted to 249 %. (Wilczyński 2000).

[19] The adoption of the crawling-peg was also aimed at reducing uncertainty that accompanied fixed exchange rate when there were large inflation differentials between trading partners. (Kowalski, Stawarska 1999).

[20] Szpunar (2001) disagrees with such an opinion. He argues that crawling peg could function as stabiliser of real exchange rate, being at the same time an anti-inflationary instrument because the pace of devaluation was lower than increase of the price level. Thus, according to him, it was possible to realize both goals by only one instrument, although it generated cost in the form of slower disinflation.

[21] According to Szpunar (2001), the exchange rate (or, more precisely, the rate of the crawling devaluation and widening of the fluctuation band) was, not to say, the main instrument of the NBP, at least till 1997.

first of all – the intermediate target of this policy. However, achieving this target precluded the central bank from controlling monetary aggregates. Yet, the aggregates constituted a formal intermediate target (see Table 2). The exchange rate had such a status only unofficially. For those reasons the conducted strategy was called "eclectic", since it included components of various attitudes.

Achieving both intermediate objectives – formal and informal – was unfeasible. Commitment to a systematic devaluation of the zloty's rate was conducive to massive inflows of short-term foreign speculative capital. In 1995 such inflows brought about a rapid increase of foreign exchange reserves by c.a. USD 8,935 mln, triggering serious inflationary tension (see Koronowski 1997). In response to this unfavourable phenomenon[22], in the May of 1995, the zloty was partially floated. The parity ceased to serve as the official exchange rate. Banks were allowed to set their own zloty exchange rate, while buying and selling foreign exchange. However, they were under obligation to resell foreign exchange to the NBP. This regulation, however, contributed again to the increase of foreign exchange reserves. In order to prevent money supply from growing sterilization was conducted, in the form of open market operations (reverse repo and outright sale*)*. This exposed the NBP to high losses (NBP 1996b) and contributed to overliquidity in the Polish banking sector[23].

Also the band, within which the market exchange rate could deviate on the interbank market from the official parity, was widened, initially to ±7 %. With time, the zloty was permitted to float within the fluctuation band of ±15 %. Thereby the background for the regime of crawling band was created (Table 1). The intention was to increase fluctuations of the market exchange rate so as to increase uncertainty about its future level and to reduce short-term capital inflows[24]. (See. e.g. Polański 1999, Rosati 2001, Sławiński 1999). Such a target was successfully achieved. Since 1996 the structure of inflowing foreign capital has changed. Direct investments began to play a bigger and bigger role. (Jurek 2002). At the same time, the growth of foreign exchange reserves was curbed. Reserves increased within 1996 by USD 3,070 m.

All these efforts caused a significant decline of unregistered trade turnovers, which in the previous years had corrected *in plus* the balance of current account.

[22] As Kokoszczyński (2004, p. 233) states "the choice, that the Polish monetary authorities had in this situation, was limited to real appreciation of zloty, caused by inflationary consequences of rapid increase in money supply, combined with keeping the existing mechanism of exchange rate control unchanged, or to nominal (thus also real) appreciation in the event of introducing changes in the exchange rate mechanism, aimed at decreasing of capital inflows".

[23] Overliquidity constrained significantly the effectiveness of the interest rates policy. The banks could do without borrowing from the central bank. Thus, the interest rates of the NBP did not determine the cost of money on the interbank market. (See Knakiewicz and Marszałek 2001).

[24] At the same time, moves towards gradual widening of the deviations band were perceived as elimination of "internal conflict between the intermediate targets". (MPC 1998, p. 8).

Thus, the balance worsened[25]. Therefore, despite widening the fluctuation band, the NBP had to conduct interventions and to stabilize the zloty within a narrower, unofficial band. (Lutkowski 2003, Rosati 2001)[26]. Such an action was made in order to restrain the appreciation of the zloty so as to reduce deficit of the current account balance.

Despite the changes, a simultaneous accomplishment of both goals still remained unfeasible. Moreover, the lack of consistency between them even deepened. It must be stressed, however, that the inflation rate decreased. According to the statement included in the *Medium-Term Strategy of Monetary Policy for years 1999-2003*, this was possible as long as the investment risk did not decrease and relations of the Polish economy with international market did not become closer. As Szpunar (2001) explained, the reason behind this phenomenon was that, under the circumstances of a deepening financial market, affecting simultaneously the zloty exchange rate and interest rates was no longer possible. It required a greater scale of interventions, as changing the level of the exchange rate became more difficult. This, in turn, entailed – while attempting to avoid appreciation – increase in banks' liquidity. The results were, as it was mentioned, low effectiveness of the interest rates policy and disruptions in the transmission mechanism. In the face of high overliquidity, the monetary policy tightening required a much higher increase in the interest rate, which resulted in foreign capital inflow and higher appreciation pressure. This led to a vicious circle of the constant growth of sterilization operations as well as their costs.

Under such circumstances, continuous progress of disinflation was a result of granting by the NBP an informal priority to inflation targets. To a lesser extent changes in monetary aggregates were taken into account. Thus, their level exceeded significantly the planned values. The intermediate target, i.e. money supply, was then, in a sense, "sacrificed". What mattered most was achievement of the final target. (Szpunar 2001).

According to Kokoszczyński (2004), the described manner of monetary policy conduction was, in principle, effective. He argues, however, that understanding mutual relations between money supply and the exchange rate as the intermediate targets of the monetary policy was rather difficult. A lack of consistency resulted in the critique of actions undertaken by the NBP. It also influenced negatively credibility and transparency of its policy. Thus, a decision was made to abandon the triad in favour of direct inflation targeting (the DIT or just inflation targeting) strategy.

[25] In 1996, instead of surplus on the current account, deficit of USD 1,352 m emerged. In the next year, this deficit deepened, amounting USD 4,268 m. Deficit of the balance of trade rose from USD 4,496 m to USD 7,342 m. At the same time, positive balance of unregistered turnovers (mainly unregistered trade) decreased – in August of 1997 it amounted to USD 3,723 m, while in 1996 to USD 4,898 m (NBP 1998, Koronowski 1997).

[26] A famous saying caught on with the banking practitioners, according to which the NBP holds the zloty "on a tight lead". (Sławiński *et al.* 2001, p. 208).

4. The exchange rate policy under the DIT strategy

The decision to change the monetary policy strategy was guided by the practical considerations as well as by the newest results of empirical research. It is a commonly shared point of view that, in contemporary conditions, adopting both the exchange rate and monetary aggregates as intermediary targets cannot be effective. Thus, the monetary authorities ceased to determine such targets.

Abandoning the monetary targeting was mostly forced by changes in the character of money. First of all, differences between individual monetary aggregates have blurred. Moreover, the connection between inflation and the aggregates was becoming more and more loose. It was proved that demand for money, previously considered to be relatively constant, in practice was characterized by high volatility. As a consequence, the central bank was not able to control even very precisely and narrowly determined monetary aggregates. (Blejer and Leone 2000, Friedman 2000, Mishkin 1997, Wojtyna 1997).

The strategy of the exchange rate control was also criticised. The critique resulted from three factors: a common adoption of the view, according to which a float exchange rate is more advantageous than the fixed one, in the presence of currency crises, rapid development of financial innovations and intensifying scale of capital flows. It was widely recognized that in the face of huge scale of these flows, typical of contemporary global economy, monetary policy implementation, aimed at internal targets (i.e. reducing inflation rate) is in principle unfeasible, when a fixed exchange rate regime is applied[27].

Taking this into consideration and identifying problems with the control of intermediate targets by experience, the NBP considered giving the triad up as a necessity. Since 1999 the central bank has officially begun to conduct the DIT strategy[28].

Under the DIT strategy intermediate targets are not included. Nevertheless, any information related to the factors which could threaten achievement of the inflation target adopted at a given period must be taken into considerations. Fulfilling the target, the central bank applies, in a discretionary manner, any available instruments of the monetary policy. As a result, flexibility of the conducted policy increases. (Bernanke *et al* 1999, Mishkin 2000).

Popularity of the inflation targeting strategy results from its many advantages. First, as opposed to the exchange rate strategy, the DIT enables the central bank to focus on domestic problems and to respond to internal shocks. Second, in contrast to monetary

[27] Such a situation is known as the "impossible trinity". Its occurrence is rather well established. However, according to Bofinger and Wollmershauser (2001), problem of impossible trinity between the control of capital flows, internal targets of monetary policy and the exchange rate, applies only to extreme variants of the targets. Adopting some version of managed floating can solve it.

[28] In fact, such a strategy has been already realised since 1998. (See table 2.)

targeting, the DIT does not hang on stable relationship between money and inflation. Third, inflation targeting is transparent and easily understood by the public, both these features facilitating the shaping of expectations. (Mishkin 2006). Thus, basing the monetary policy on this strategy, the central bank is able to influence expectations of economic agents more effectively. Therefore, as Bernanke *et al.* (1999) put it, inflation targeting can provide the economy with an effective nominal anchor.

From the previous section it follows that changes in the monetary policy strategy extracted also, in a way, a new attitude to the use of the exchange rate as the monetary policy instrument. It is also the case after the DIT was adopted. Namely, the NBP gradually ceased to use the exchange rate channel in monetary transmission. It was rather painful, for this channel had probably been the most effective one out of all the monetary policy channels. (See Rybiński 2000).

Still, some actions were undertaken, aimed at adjusting the exchange rate regime to the new strategy. It was necessary because imposing any restrictions on the exchange rate (e.g. in the form of adopting a narrow fluctuation band) would have been in practice equivalent to setting the second, parallel target of the monetary policy. This could have led to a conflict between inflation target and some exchange rate target. Thus, it was officially stated that for effective conducting of the inflation targeting it would be beneficial to let the zloty float, thus making the monetary policy of the NBP consistent. (MPC 2000b).

Before taking a decision on establishing the regime of a floating exchange rate, it was necessary to change the features of the conducted exchange rate policy. First of all, it had to create conditions favourable to effective monetary policy in the changing environment of an external disequilibrium and instability in the global financial markets. Thus, in 1998 the fluctuation band was widened twice: on February 26 (to ±10%) and on October 28 (to ±12,5%). At the same time, foreign exchange interventions were taken rather seldom – for the last time in the first half of 1998. Also, the decision about changes in the fixing mechanism was made. The new principles limited space for conducting foreign exchange transactions between the commercial banks and the NBP during the so-called zloty fixing, mainly by imposing a margin between bid and offered exchanges rates and reducing a time set aside for making offers as well as their maximum volumes. (MPC 1999c).

In June of 1999 the opportunity to make transactions between the NBP and the commercial banks was entirely eliminated. Thanks to this move, the zloty exchange rate was determined only by demand and supply on the market. Thus, in fact, the zloty exchange rate was almost completely floated. (Rosati 2000). The floating of the zloty became plausible because of reducing the rate of monthly devaluation and widening the fluctuation band to ±15% from official parity. (MPC 2000b).

On April 11, 2000 a crucial switch of the exchange rate regime in Poland occurred. It was due to the common decision of the government and the Monetary Policy Council (MPC) – the new body, established on January 1, 1998, in connection with reorganization of the NBP authorities[29]. The resolutions of the MPC[30], which sanctioned abovementioned changes and introduced in Poland the floating exchange rate regime, came into effect on April 12, 2000. It was equivalent to abolition of the central parity rate for the zloty and the crawling band[31]. It is worth stressing that the then NBP President, H. Gronkiewicz-Waltz, was opposed to the resolutions – as the only person among the members of the MPC[32].

Formally, the new regime was characterized as managed floating. In practice, however, the NBP has refrained from interventions aimed at influencing the zloty exchange rate since 2000. Therefore, in the literature the current regime is perceived as independently floating. (Małecki 2002, Rosati 2001). The central bank desisted from the zloty exchange rate defence, focusing on price stability. Then, the NBP does not have any target in the form of the level of the zloty exchange rate against other currencies. Nor does it have any formal commitments concerning interventions on the foreign exchange market. (MPC 2000a). The zloty exchange rate ceased to be employed as an instrument of the monetary policy. (MPC 2001b).

The NBP reserves, however, the right to carry out foreign exchange interventions, "for the sake of the low level of foreign exchange market development" and "if it recognizes them necessary for achievement of the inflation target". (MPC 1999b, p. 15; NBP 2002, p. 6). At the same time, the NBP emphasises clearly that floating the zloty exchange rate constituted the final stage in a policy of the gradual increase of exchange rate flexibility. (MPC 2001a).

The switch to the inflation targeting and conducting this strategy under the floated zloty exchange rate has been assessed positively[33]. It has been stressed that the float exchange rate is an instrument of protection from a currency crisis and also creates conditions favourable to an autonomous pursuit of the monetary policy. (Grabowski 2000). Moreover, it has also been emphasised that the independent floating is conducive to fight with inflation. (Gotz-Kozierkiewicz 2000). Additionally, it reduces the risk of currency crises, prevents transmission of the inflationary tensions from

[29] As it was already indicated, the Council has special prerogatives in the field of exchange rate. According to the *Act on the NBP of August 1997*, "the NBP conducts the exchange rate policy established by the Council of Ministers in consultation with the (Monetary Policy) Council. The procedure for setting the zloty exchange rate against foreign currencies shall be laid down by the Council of Ministers in consultation with the Council".

[30] There were actually two joint resolutions: the first, on the repeal of the resolution about the rate of crawling devaluation and the second, on the repeal of the resolution concerning a fluctuation band. (MPC 2001a).

[31] It is characteristic that the MPC made the proposal to the government of releasing the zloty already in May of 1999. The government, however, being aware of potential disturbances triggered off by floating the exchange rate, delayed the decision. (See Lutkowski 2000, Rosati 2000).

[32] See voting records on the Monetary Policy Council in *Report on Inflation in the 2000*.

[33] One of the few exceptions is Wojtyna (2001). In his opinion, switching to the inflation targeting was rather premature, since it increased uncertainty about manner of the monetary policy conducting.

the foreign countries and eliminates the susceptibility of the domestic economy to the contagion effect. (Antkiewicz 2002, Stanisławski 2005).

Adopting the DIT strategy and switching to the float exchange rate regime have eliminated most inconsistencies in the area of monetary and exchange rate policy. Thus, two of the three elements advocated by Taylor (2000) as indispensable for high quality of the monetary policy, have been provided[34]. Soon afterwards, a new challenge has occurred: to prepare the zloty to the rules of the ERM II. Being up to the challenge requires further changes in the monetary and exchange rate polices.

5. Selected problems of conducting the monetary and exchange rate policies under the float exchange rate regime

Already after the floating of the zloty exchange rate, a commonly expressed opinion was that the independently floating regime was going to facilitate inclusion of the zloty in the ERM II in the future (Borowski *et al* 2006). An information value of the managed exchange rate was perceived as rather unclear, for both the policy-makers and economic agents. It was judged that under the floating regime it would be easier to evaluate the so-called "objective" zloty exchange rate, based on "tough, economic facts". (Polański 1998a).

This opinion has also been shared by the MPC, according to which „introduction of the fixed exchange rate [...] could inhibit a smooth transition of the zloty to the ERM II system. The entry to the ERM II should take place at the equilibrium exchange rate, difficult to determine without restoring to market forces". Therefore, applying the independent float regime „will help more accurately to bring the market rate closer to the equilibrium rate prior to its renewed fixing within the ERM II" (MPC 1998, p. 7-8 and 13) and "will help to avoid mistakes, expensive to the economy". (MPC 2001b, p. 23). The MPC consistently supports this view, declaring *status quo* in the issues of the exchange rate. It has been stressed in many official documents of the MPC that until the entry to the ERM II the independently floating regime should be maintained. (MPC 1998, *The Resolution No. 2/2003 of the Monetary Policy Council of the February 25, 2003 on the Monetary Policy Strategy Beyond 2003,* MPC 2006). Moreover, the MPC has officially announced that the monetary policy should be conducted in the way which would make the introduction of the euro in Poland plausible at the earliest possible date. (MPC 2006). Such declarations have been made incessantly since 2003[35].

[34] The third element of the so-called Taylor's triad is a monetary policy rule.

[35] *The Strategy of Monetary Policy Beyond 2003* included even a statement, according to which "Poland would profit the most from the adoption of an economic strategy that fosters optimum conditions for the introduction of the euro in 2007, which is the earliest date possible" (p.11).

This standpoint is controversial. It lacks cohesion. It is a fairly well known fact that in order to introduce the euro, a national currency has to be maintained for at least two years within fluctuation band of the ERM II without "excessive tensions". To be capable of using this mechanism, the central parity rate against the euro must be established. It has to serve as a basis for setting the intervention margins of the fluctuation band. (For more see Jurek 2007). The NBP also stresses that it is of great importance to set the central parity "at a level viewed by financial markets as being sustainable". (NBP 2004, p. 79).

According to the MPC assumptions, such a basis for setting a central exchange rate has to be a market exchange rate. The latter one, however, has been showed up as volatile to the exceptionally high extent. Long-lasting periods of depreciation and appreciation of the zloty have been observed since the floating of the zloty. (See chart 1). Its exchange rates against both the euro and the US dollar have been hardly dependent on the phenomena occurring in the Polish economy. As it was stressed in the update of *The Convergence Programme* (2006, p.11), the zloty exchange rate fluctuated „mainly under the influence of changes in the foreign investors' attitude to our region, being only the aftermath of changes in their expectations of future rise in the basic interest rates of the FED and the ECB".

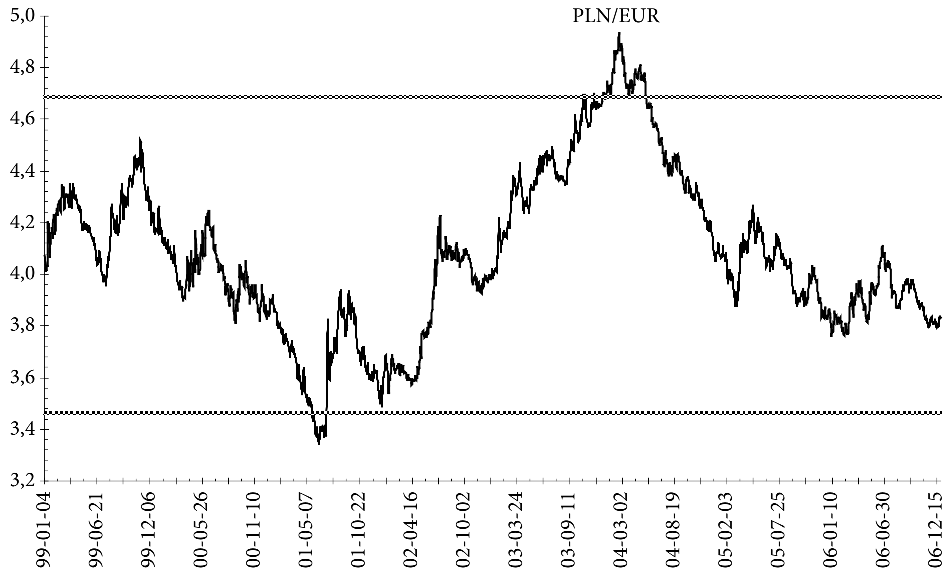
As Jurek (2007) states, the independent floating regime, which the NBP takes advantage of, has not offered so far any basis for setting the zloty central exchange rate against the euro. It is also hard to believe that the situation is going to change in the foreseeable future. It can be argued that as long as the independent floating is applied, it will be very difficult to determine a level of the exchange rate that should be adopted as the point of reference, estimated for establishing the central parity of the zloty against the euro. It is questionable whether such a regime can result in lower volatility and can help to provide the so-called „objective" level of the zloty exchange rate against the euro.

One may say that systematically repeated by the MPC declaration of holding the *status quo* concerning the exchange rate and further sticking to the independent floating regime in practice moves indefinitely the date of the inclusion of the zloty in the ERM II and thus, also the date of Poland's entry into the euro zone.

On the other hand, switching to some variant of the fixed exchange rate will contradict the DIT strategy. Yet, another strategy for the monetary policy is hardly possible. In every country with inflation targeting the exchange rate is floating, for the above-mentioned reasons. It is also hard to imagine the return to the triad of targets. Moreover, the theory does not offer many alternatives, since inflation targeting is perceived as the best (or, at least the best suited to the current economic conditions) of all the monetary policy strategies.

It seems that the MPC, at least to some extent, has become aware of inconsistencies in its stance. Some changes in their official statements on foreign exchange interventions are symptomatic. Namely, in *The Monetary Policy Guidelines for the*

Year 2006 (p.14) and *The Monetary Policy Guidelines for the Year 2007* (p. 14), one can find information that "foreign exchange interventions are another monetary policy instrument which may be used by the NBP. In the Polish economy exchange rate fluctuations exert a considerable impact on inflation. Thus, there may be circumstances under which the NBP will decide that it is necessary to intervene in the currency market in order to stabilize inflation". Such a record may be the first signal of allowing for a possibility of transformation of the Polish exchange rate regime so as to stabilize a market exchange rate (Figure 1). Variability of the exchange rate of Polish zloty against euro within the years 1999-2006.



* Chart depicts also the ±15,0 % fluctuation band, as it is obligatory for all currencies included into the ERM II. An average PLN/EUR exchange rate observed in the years 1999-2006 was used as a reference exchange rate

Figure 1. Variability of the exchange rate of Polish zloty against euro within the years 1999–2006

Source: own preparation based on data from a web site *www.ebc.int*

The current regime, allowing – and sometimes even inducing – high volatility of the zloty against the main global currencies, has become the object of conflicts between the government and the MPC. For instance, in December 2004 the then prime minister, M. Belka, turned to the NBP with intention to make an appointment of the government's representatives with the MPC members. The need for such a meeting resulted from a very strong appreciation of the zloty, which contributed to even higher increase of the monetary policy restrictiveness (Stanisławski 2005). The position of the MPC, however, remained unchanged. Still, it is characteristic that the monetary authorities considered the condition of public finance creating concerns about the size of public debt as the main source of disturbances on the foreign exchange market. (See e.g. MPC 2004).

The question arises, whether in the case of serious disturbances on the foreign exchange market and lacking response of the MPC, the government would be able to influence unilaterally the zloty exchange rate. The answer is ambiguous. In practice, in a regime of independently floating exchange rate the government does not have the competence to influence directly the zloty exchange rate by means of foreign exchange interventions. It is able, however, under the Foreign Exchange Act, to introduce temporary restrictions on the foreign exchange market in order to provide stability of the Polish currency, in the event of rapid fluctuations of its exchange rate or a risk that such fluctuations might arise, and in order to provide the equilibrium in the balance of payments if such equilibrium were lost or threatened. In both cases consultation with the MPC is required. Kluza (2006) stresses, however, that – so far – the government has been declaring that there is no premises for making such extraordinary moves.

Despite the fact that the government has not tried to influence the exchange rate actively, tense relations between the government and the NBP, are, without any doubt, disadvantageous. Coordination between the two policymakers – having respect for the central bank independence – is essential for preparing the schedule of Poland's adoption of the euro. Necessary, among other things, appears to be reassignment of competence in the area of exchange rate policy, so as to enable smooth stabilizing of the zloty in the ERM II. Additionally, crucial will be development of methods, which enable the monetary policy to act within this mechanism and, at the same time, allow for reconciliation of the control of both the exchange rate and inflation rate.

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