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From Fixed to Floating: Other Country Experiences: The Case of Poland[1]

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1. Introduction

The history of the Polish exchange rate regime can be divided into three distinct periods. In the very beginning of the transformation Poland went through the typical episode of hyperinflation. Hence, transformation had to begin with a stabilization program. An important part of the program was, like in other similar cases, a fixed exchange rate as a nominal anchor[2]. That was, however, not a very typical case of a fixed exchange rate as a disinflation tool. Very low level of foreign exchange reserves coupled with an urgent need to attain credibility for the newly established convertibility were reasons for substantial devaluation preceding the introduction of the fixed nominal exchange rate.

The second period started already in 1991. Stabilization took much longer than envisaged, but the Polish foreign trade changed dramatically its geographical structure: the share of trade with developed market economies increased very rapidly. Inflation differential combined with the fixed rate put a strong pressure on competitiveness of domestic producers. Having still low level of international reserves Poland gave up a fixed rate regime in 1991. However, advantages of having nominal anchor were among factors defining the new regime. The pre-announced crawling peg to currency basket was introduced then as a compromise solution. Peg was to represent the nominal anchor feature, and the (adequate) rate

[1] Material presented here relies heavily on Durjasz, Kokoszczynski (1998), Financial Inflows to Poland, 1990-1996, *Empirica*, vol. 25, 217-242, and Kokoszczynski (2000), Monetary Policy in Central and Eastern Europe: The Case for Direct Inflation Targeting, paper presented at the Oesterreichische Nationalbank Conference *Completing Transition: The Main Challenges*, Vienna, November 2000. The paper expresses my personal views and opinions. They do not necessarily represent the views and opinions of the National Bank of Poland.

[2] This period of the Polish transformation and details of the stabilization program are described extensively in the literature, cf. H. Kierzkowski, M.Okolski, S.Wellisz (eds.) (1993), Stabilization and Structural Adjustment in Poland, Routledge, London; S.Gomulka (2000), Macroeconomic Policies and Achievements in Transition economies, 1989-1999, *Economic Survey of Europe*, No.2/3, 69-83.

of crawl was to control inflation expectations and to ensure a sufficiently competitive rate at the same time.

The next period started mostly not only in a typical way of more flexibility being needed because of capital flows liberalization but also as a result of major change in economic performance. In mid-1990s both current account surplus and capital inflows (privatization including) were major factors pushing the Polish exchange rate regime into adopting more flexible shape. That was initially a crawling band, which went smoothly into full floating.

That history, if it is to be easily understood, needs however a broader context. With the possible exception of the stabilization program all further changes in the exchange rate regime were being designed and introduced as part of monetary policy changes. That is why the following text presents details of exchange rate regime changes as part of the monetary policy evolution.

Monetary policy in Poland, like in other Central and Eastern Europe countries, has been facing some difficult challenges. First, at the beginning of the transformation there was a prior need to stabilize the economy because of high inflation and recession. That was being done with a lot of assistance coming from the international financial institutions. On the other hand, monetary policy had to be implemented in an environment lacking many important institutions (clear ownership rights, legal and institutional framework for efficient functioning of various markets etc.). Further, nonexistence of theoretical prescriptions for this kind of transition made policy design rather a spontaneous and common-sense based process than a conscious choice among strategies well rooted into theory-based policy advice. The result was often an eclectic mix of market-based and administrative instruments being implemented in such a way as to bring parallelly some progress both in terms of macroeconomic performance and institutional evolution.

A few years later more advanced transition economies, including Poland, started to define their general economic strategies having as a major goal their integration into existing European institutions - that meant again two things. First, medium-term macroeconomic strategies had to target growth and inflation in such a way as to make those countries compatible in the medium run with the European Union members. Second, institutional framework for macroeconomic policies had to be shaped with the same goal in mind. That gave more weight to the past experience of mature economies and to theoretical economic discussion in the process of designing monetary policy strategies in the further course of transition.

Changes in the exchange rate regime are then presented in this paper in this broader context – evolution of the monetary policy. The initial point and the first stage of this process is presented very briefly in the next section of this paper. Further, section 3 presents major changes in the country's economic situation in the mid-1990s and the policy responses to them. The next section goes into problems of monetary policy design in the period of moderate (low) inflation in a country negotiating already the membership of the European Union and having in mind as a strategic perspective the EMU membership. Last section concludes.

2. Monetary policy strategy in the beginning of the transformation process: fixed exchange rate as a major disinflation instrument, 1990-1991

Monetary policy in the beginning of the transformation process in Poland has been defined to the large extent by its role in the stabilization program of 1990. The program's major goals were stopping hyperinflation and reducing the budget deficit in the short run, while allowing for deep structural changes of the economy in the long run. The program had been initiated and prepared mostly by the country's authorities, but its macroeconomic part constituted the part of the typical IMF stabilization programs. Its four stabilizing anchors were the fixed exchange rate, the money wage, real money supply and real interest rate. Fixed exchange rate regime usually would be enough to define the monetary policy strategy, but some legal prescriptions suggested strongly that a control of the money supply had to be at least equally binding criterion for defining monetary policy at that time. This approach could become a reason for major internal conflicts within monetary policy, but controlling exchange rate proved to be unsustainable already in 1991 because of other reasons. Hyperinflation was a short-lived phenomenon, but high inflation persisted for much longer than expected – that brought a high real appreciation of zloty and growing concerns regarding the future developments in the trade balance. Therefore, in May 1991 zloty was devalued and dollar peg was substituted with pegging zloty to five currencies' basket with composition reflecting broadly the currency structure of the Polish trade.

These measures seemed to be insufficient. In October 1991 fixed exchange rate regime was abandoned and crawling peg regime introduced. The major reason for that was the worsening performance of exports, though another important factor was the lack of adequate coordination between the monetary and fiscal policy.

From today's perspective two comments are required before making any assessment of that period's monetary and exchange rate policy and changes in its strategy. First, stabilization program had been constructed with expectation of rapid disinflation and some worsening of the external position. However, initial uniform exchange rate of zloty vs. US dollar established at the onset of foreign trade liberalization and internal convertibility of zloty had been calculated under major influence of the "parallel" market. That meant a sharp decline in domestic currency value so the economic performance in 1990, especially the current account surplus of 1% of GDP (cf. table 2), was to the large extent influenced by this decision. On the other hand, inflation persisted on higher level and for much longer than envisaged in the stabilization program. That brought as an outcome a rapid real appreciation of zloty in 1991 with natural consequences for the economy. In a country with a high foreign debt, albeit not serviced at that time, and negligible foreign exchange reserves the current performance of the trade balance had a major influence on policies.

Second, fiscal policy design from the beginning of 1990 had not included among decisive factors even the sheer idea of fiscal policy being an instrument for macroeconomic control in any but the very crude terms, i.e. controlling the budget deficit as a means for controlling inflation. Legal framework made (and still makes) budget a very inflexible tool and political processes gave always more priority to the budget than to the monetary policy tactical and operational goals for any given year. Coordination of monetary and fiscal policy meant then at that time, especially for the Parliament, subordinating the former to the latter (cf. table 3). Part of the explanation may also come from the initial reluctance of the policymakers to think even about the activist role of the government and liberal (in broad meaning of this concept) roots of the stabilization program itself. All these reasons were responsible for the failure of various attempts at coordinating monetary and fiscal policy that is a necessary condition for the successful fixed exchange rate regime.

This period, from the beginning of the stabilization program in January 1990 to the abolishment of the fixed exchange rate in October 1991, can be thought of as a period of disinflation based mostly on the exchange rate regime. Inflation went down from four-digit figure to two-digit level (cf. graph 1). However, both the growing fiscal deficit and deteriorating balance of payments made this strategy unsustainable.

3. "Eclectic" monetary policy strategy: parallel control of money supply and exchange rate, 1991-1998.

In the early stage of this period, from late 1991 to mid-1995, monetary policy in Poland was shaped by two different goals. On one hand, maintaining the steady disinflation trend was a natural, long run priority. First, obvious domestic reasons explained that. Second, geographical reorientation of Polish foreign trade meant that country's major trading partners had inflation in the lower range of single-digit figures. Higher productivity growth affected positively real effective exchange rate deflated with unit labor costs, but price deflators showed different trends (cf. graph 3) and policymakers perceived that as a major danger for sustainability of the balance of payments

On the other hand, Poland was at that time in the process of negotiating the foreign debt restructuring with London Club and Paris Club debtors. To complete these negotiations successfully Poland had to reach much higher level of foreign exchange reserves than the one maintained in the beginning of the 1990s. National Bank of Poland perceived this latter goal as virtually equally important for long run growth and disinflation itself. As a consequence, monetary authority's reaction to the complex interactions among exchange rate, inflation, balance of payments and money supply were very cautious. Relatively poor results in the balance of payments in 1991 and 1992 were the reasons for some nominal adjustment in the exchange rate in 1992 and 1993. That did not help current account and official reserves too much, but was partly the cause for much weaker disinflation in that time.

Another potential conflicts between external developments and disinflation started to be clearly visible only in 1994 – the first year of rapid increase of foreign exchange reserves and resulting growth in money supply. Economic growth seemed to be already a permanent phenomenon, the then unique Polish approach to the bad loans problem started to show some positive results, external debt restructuring – all these factors changed substantially the performance and perception of the Polish economy. One outcome of that was a dramatic change in financial inflows. Their main sources were (cf. table2):

- net unclassified current account transactions, caused mostly by huge price differentials between Poland and her neighbors,
- “orthodox” current account surplus, being the result of depreciation of the real exchange rate and growth in productivity (cf. graph 3),
- foreign direct investment, induced to large extent by changes in the perceived country risk and domestic market potential, signaled by the growth of the GDP,
- net portfolio inflows, for which price developments on the Polish capital market and its growth were prime incentives (debt inflows were at that time responsible for bigger share of these inflows, due to the interest rate differential).[3]

Policy responses to these developments were initially rather cautious. Several decisions to decrease the monthly rate of crawling peg devaluation and interest rate adjustments (cf. table 1 and graph 4) did not influence reserve accumulation. That – combined with the nature of the exchange rate regime – resulted in the substantial increase in the Polish banking system’s liquidity which was the main factor driving up the money supply growth in 1995. An important part of policy response was the growing scale of sterilized interventions (cf. graph 5). They involved at first reverse-repo open market operations. Later in 1994 the central bank started the outright sales of Treasury bills, and finally the outright sale of NBP’s own bills. The volume of sterilizing operations had been almost continuously growing till mid-1996.

These developments coupled with problems in maintaining the previous rate of disinflation were the key factor behind the next major step in the evolution of the exchange rate regime, i.e. the introduction of the crawling band in mid-1995. Another incentive for that, going much beyond the limited success of sterilization, was the monetary authorities’ perception of financial inflows as not just a transitory phenomenon after successful completion of negotiations with the London Club creditors in 1995.

Current account surplus suggested in a very plausible way that zloty was undervalued. However, after having already decided that nominal appreciation is still a better choice than higher inflation there was a further choice to be made: How to accomplish the appreciation of domestic currency? The administrative revaluation of

[3] More extensive treatment of these developments, their causes and policy responses can be found in P. Durjasz, R. Kokoszczyñski (1998), op.cit.

the zloty was thought of as definitely less desirable – instead a market-based approach had been adopted. The first step in making the exchange rate regime more flexible was to widen the spread between central bank's buy and sell rate in March 1995. Then, in May of the same year, the crawling peg was replaced with the crawling band, with its width set initially at ±7%. Central bank attempted to contain the rate of zloty's appreciation by intervening in the forex market within the band. That was one of the conditions set by the cabinet for endorsement of the new regime. The idea behind that was to facilitate the adjustment of real sector to the increased exchange rate flexibility.

The new regime had also another important advantages for monetary policy – more flexibility meant more autonomous interest rate policy and fewer incentives for short-term speculative flows.

The inflow of foreign reserves continued in 1995. Though the growing money supply was not perceived then as a major danger thanks to decreasing inflation, in December 1995 central bank decided to revaluate the zloty. Favorable inflation developments were a strong argument for relaxing interest rate policy, particularly in the beginning of 1996. That influenced beneficially both the appreciation pressure on zloty and foreign exchange reserves growth with latter stabilizing at the comfortable level in mid-1996.

That marked the beginning of another period in the monetary policy. Lower interest rates and high liquidity of the banking system stimulated highly lending activities of commercial banks and the growth of domestic demand. Inflation pressures were not so high, but the growth in current account deficit signaled the need for further stabilization. Domestic expansion was also fuelled by the growth in wages and in the budget deficit. On the other hand, important turbulences in the international financial markets increased the potential negative effects of growing current account deficit. Facing the lack of adequate fiscal adjustment interest rate policy in 1997 reacted very strongly to those developments. However, high liquidity and growing competition in the domestic banking sector made for very weak transmission of central bank's interest rates into the domestic demand developments. National Bank of Poland used an unorthodox instrument (though utilized a couple of decades earlier by the Bundesbank) – households were offered 6- and 9-months deposits, priced in a very competitive manner, directly by the central bank. This move had been as having another advantage – interest rates offered for these deposits were to influence the households' saving behavior without stimulating short-run capital inflows from abroad.

4. The quest for consistent disinflation strategy: direct inflation targeting, 1998 - ?, and the road to full floating

The story presented earlier suggests very strongly that with the growing openness of the economy eclectic monetary policy strategy showed a very high degree of internal inconsistency. Attempts to control parallely the money supply growth and the level of exchange rate pushed often policymakers into facing conflicting situations. The need to redefine the strategy of monetary policy became even more visible in the beginning of 1998. Substantial interest rate differential and good economic prospects brought back foreign portfolio inflows – that undermined again the stability of the exchange rate regime. Inflation at that time was definitely too high for abolishment of the credible nominal anchor. The range of possible choices was rather limited – either intermediate goal of money supply or exchange rate, or adoption of direct inflation targeting accompanied by the full floating of the nominal exchange rate[4]. The past tradition and former legal framework were in favor of money supply control. However, financial markets developments, growing openness of the capital account and growing monetization of the economy (influenced by the degree of success in disinflation) undermined very strongly analytical foundations for this kind of policy. Money demand function became very unstable in late 1990s, and – consequently – any significant statistical relationship between inflation and monetary aggregates (including Divisia money) became almost impossible to obtain.

Past problems with maintaining Poland's external balance showed plausibly many important disadvantages of exchange rate control as a monetary policy strategy. Growing global capital mobility and further liberalization of Poland's capital account strengthened these disadvantages. Moreover, exchange rate targeting requires also a strong support of fiscal policy, including the latter ability to response in a fast and effective manner to both domestic and external shocks[5].

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[4] This problem is comprehensively presented in many papers, cf. F.S.Miskin (1998), International Experience with Different Monetary Policy Regimes, paper presented at the conference on monetary policy rules, Sveriges Riksbank and Institute for International Economic Studies, University of Stockholm.

[5] A novel and comprehensive approach to complex interactions between fiscal policy and monetary policy aimed at price stability can be found in M.Woodford (2001), Fiscal Requirements for Price Stability*, NBER Working Paper 8072.*

Another important development influencing the choice of monetary policy strategy was the adoption of the new Polish constitution and as a result of that a new central bank law. They defined unambiguously the final goal of the National Bank of Poland and abolished the parliament's influence on the basic document defining monetary policy targets. Strategic choices in the area of monetary policy became a sole responsibility of newly established Monetary Policy Council (MPC) and that fact was also an important factor defining both the need for redefining the monetary policy strategy and its final shape.

In April 1998 Monetary Policy Council signaled its initial ideas about the final shape of the new strategy by changing *Monetary Policy Assumptions for 1998*. The major change was specifically in downgrading the money supply figure from an intermediate target into something in-between a reference value and a forecast. Later this year, in September the MPC announced its medium-term inflation target and some basic features of the new strategy in document published under the title *Medium-term Strategy of Monetary Policy, 1999-2003*[6]. According to this text the major reasons justifying adoption of direct inflation targeting[7] were:

- to remove inconsistencies of the eclectic strategy maintained previously,
- to facilitate the better communication between the central bank and the general public,
- to increase the credibility of the central bank and its new interest-rate setting body via the increased transparency required by the new strategy,
- to increase the flexibility of policy response to domestic and external shocks influencing strongly inflation developments and external equilibrium,
- to reduce the macroeconomic costs of disinflation via influencing inflation expectations of economic agents.

Other features of the strategy adopted in Poland included:

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[6] Both this document and current M*onetary Policy Assumptions* are available at the central bank's website (http://www.nbp.pl).

[7] General features of direct inflation targeting as a monetary policy strategy and practical issues arising when introducing and maintaining this approach in industrial and emerging market economies are widely presented in the already vast literature, cf. B.Bernanke et al. (1999), Inflation Targeting. Lessons from the International Experience, Princeton University Press, Princeton; W.Coats (ed.) (1999), Inflation Targeting in Transition Economies: The Case of the Czech Republic, IMF and the Czech National Bank, Prague and Washington; M.Blejer et al. (eds.) (2000), Inflation Targeting in Practice. Strategic and Operational Issues and Applications to Emerging Market Economies, IMF, Washington.

- definition of target in terms of Consumption Price Index (with core inflation being calculated and published as a tool facilitating the communication with the market participants but too sophisticated for the general public),
- target being defined as a rule on a yearly basis, for December year-on-year CPI and the medium-run target for 2003 defined in the *Strategy* –annual horizon for inflation targets being, however, mostly an outcome of some legal considerations,
- target being presented in form of a band.

To make the new strategy fully consistent any commitment with regard to other nominal variables had to be removed. Exchange rate band, however wide and with zloty rather far from its ends, could not be maintained in this system. The decision to liberalize fully the exchange rate regime, i.e. to go from preannounced crawling band into floating, had to be undertaken in Poland jointly by the cabinet and the central bank. This complicated procedure and some uncertainties about the external developments in 1998[8] were responsible for the relatively long period needed to finalize this step, which happened only in April 2000. This move completed the Polish road from fixed to floating exchange rate system.

5. Conclusions

There are two distinct lines of reasoning needed to conclude this paper. One is a natural outcome of the story told by now. Exchange rate regime changes were in Poland an important part of monetary policy evolution. Monetary policy strategy itself faced from the very beginning two, often conflicting, goals: to maintain steady and predictable trend of disinflation on one hand, and to maintain safe and sustainable external position on the other. The former was and is such an obvious target for a country like Poland that it does not need any further explanation here. The latter is more country-specific: large foreign debt inherited mostly from the past regime, strong interactions among exchange rate, current account and inflation, and high import intensity of economic growth are among major constraints for macroeconomic policies influencing balance of payments. In a relatively large and open economy, as Polish history of the 1990s proved

[8] Notwithstanding turmoil in the international financial markets the major reason for cabinet reluctance in this process was the fear of possible strong appreciation of zloty with negative consequences for trade competitiveness and real sector position.

effectively, there were too many cases of short-term trade-offs between inflation and external position to make any intermediate target a viable basis for monetary policy strategy. We argue then that adopting direct inflation targeting in Poland was an optimal choice, and that, in turn, required to move from fixed exchange rate to the lack of any commitment with regard to the level of nominal exchange rate.

Table 1. Evolution of the exchange rate regime in Poland, 1990-2000

Date	Nature of the change
January 1, 1990	**Exchange rate fixed vs. US dollar**, 1 USD = 0.95 PLN
May 16, 1991	**Exchange rate fixed vs. currency basket** (USD - 45%, DEM - 35%, GBP – 10%, FRF – 5%, CHF – 5%0 Zloty devalued against US dollar, 1 USD = 1.11 PLN
October 14, 1991	Introduction of the **crawling peg** with daily devaluation against the basket, monthly rate of devaluation 1.8% per month, central bank's
February 26, 1992	Devaluation against the basket by 12.0%
August 27, 1993	Devaluation against the basket by 8.0% Crawling rate 1.6% per month
September 13, 1994	Crawling rate 1.5% per month
November 30, 1994	Crawling rate 1.4% per month
February 16, 1995	Crawling rate 1.2% per month
March 6, 1995	Central bank's margin 2.0%
May 16, 1995	Introduction of the **crawling band** ±7.0% (central bank's commitment to be implemented with market instruments only)
December 22, 1995	Revaluation against the basket by 6.0%
January 8, 1996	Crawling rate 1.0% per month
February 26, 1998	Crawling rate 0.8% per month Band widened to ±10.0%
July 17, 1998	Crawling rate 0.65% per month
September 10, 1998	Crawling rate 0.5% per month
October 28, 1998	Band widened to ±12.5%
January 1, 1999	Change of the currency basket: EUR - 55%, USD - 45%
March 25, 1999	Crawling rate 0.3% per month Band widened to ±15.0%
June 7, 1999	Abolishment of central bank's legal obligation to effect forex transaction with commercial banks during fixing session
April 12, 2000	**Floating** exchange rate

Table 2. Balance of payments (selected items), 1990-1999 (billion USD)

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998[c]	1999[c]
Current Account [a]	0.6	-2.0	0.9	0.6	2.3	5.5	-1.4	-4.3	-6.9	-11.6
As % of GDP	1.0	-2.6	1.1	-0.7	2.4	4.6	-1.0	-3.0	-4.3	-7.6
Trade Balance	2.2	0.1	0.5	-2.3	-0.8	-1.8	-8,.2	-11.3	-13.7	-14.4
As %of GDP	3.8	0.1	0.6	-2.7	-0.9	-1.5	-6.1	-7.9	-8.7	-9.4
Net Unclassified Current Account Transactions[a]	-0.1	-0.6	1.2	1.8	3.2	7.8	7.2	6.0	6.0	3.6
Capital Account [a,b]	1.6	1.1	-0.4	0.6	-0.5	3.5	4.4	7.0	13.6	9.7
As % of GDP	2.7	1.5	-0.5	0.7	-0.6	2.9	3.3	4.9	8.6	6.3
Change in Gross Official Reserves	2.2	-0.9	0.5	0	1.7	8.9	3.1	2.6	6.7	-1.9
Change in Net International Reserves	n.a.	-1.3	1.6	0.6	2.5	9.1	1.2	2.2	3.9	-0.8

a. One of the specific features of the Polish balance of payments was the large positive value of the item called till 1996 “Purchase/sale of foreign currencies” which is usually classified as short-term capital flow. In Poland that inflow reflects goods and services bought by private persons coming from neighboring countries paying with cash in foreign currency. Since January 1996 Poland introduced then a new item – “Unclassified transactions on current - into current account. Previous figures for current and capital account have been adjusted here for comparison purposes.

b. Capital account is defined here as Gross Official Reserves – Current Account.

c. Since 1998 a new methodology has been used for compiling balance of payments.

Source: National Bank of Poland

Table 3. General government deficit and its financing by the central bank

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000[a]
Deficit[b] as % of GDP	2.35	5.01	2.63	2.77	2.59	3.11	2.89	2.60	3.23	2.8
Central bank’s direct purchase of T-bills prescribed by the budget law as % of state budget deficit[c]	59.7	60.8	69.1	52.3	68.5	39.3	42.4	-	-	-

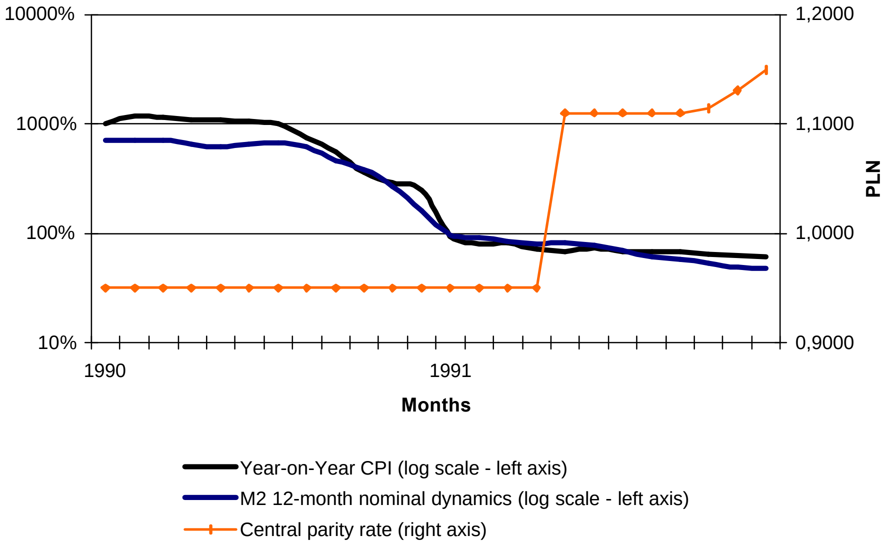
a. Estimate

b. Excluding privatization revenues

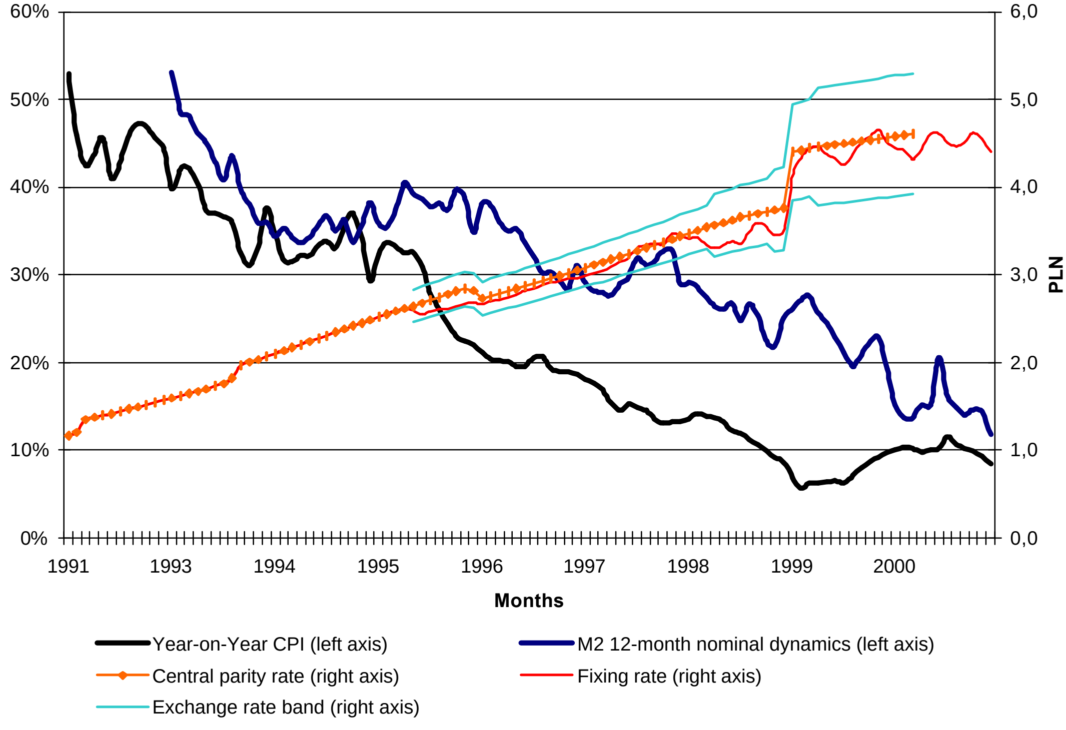
c. Since 1998 prohibited by the Constitution

Source: Ministry of Finance and National Bank of Poland

Graph 1: Year-on-Year CPI, M2 12-month nominal dynamics, and Zloty basket exchange rate January 1990 - December 1991



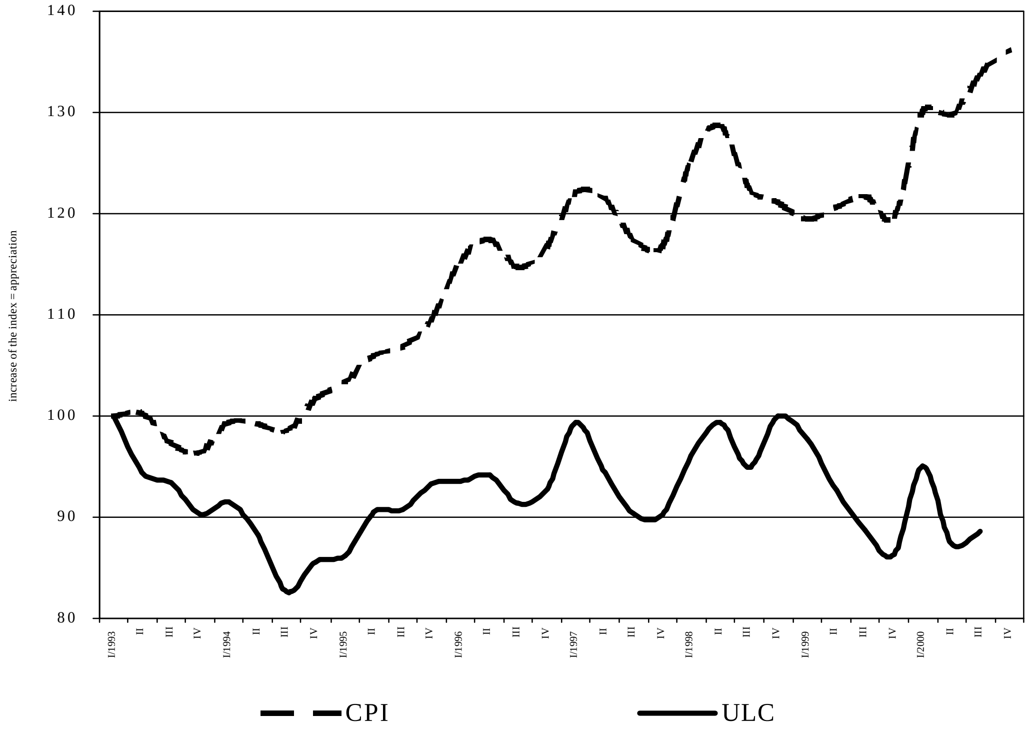
Graph 2: Year-on-Year CPI, M2 12-month nominal dynamics, and Zloty basket exchange rate January 1992 - December 2000



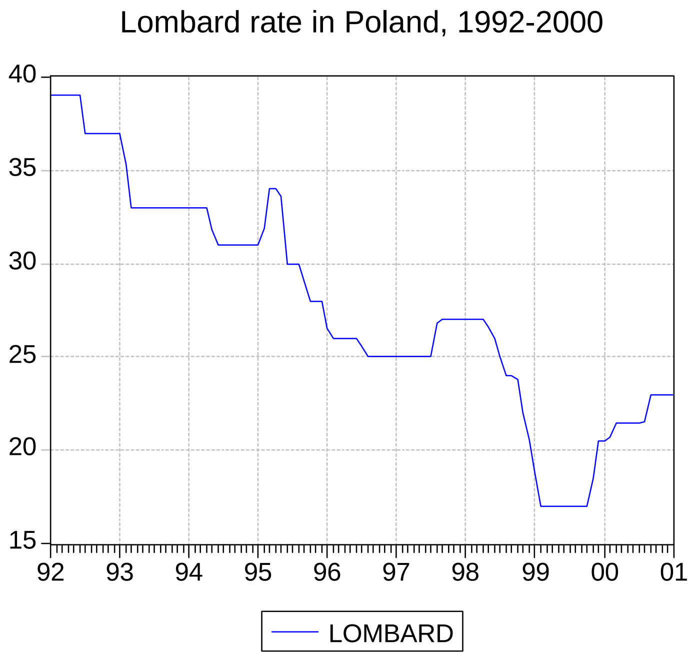
Graph 3: Real Effective Exchange Rate of Zloty; 1993 - 2000

based on consumer prices and unit labour cost in manufacturing;

quarterly data (I 1993 = 100)



Graph 4:


Lombard rate in Poland, 1992-2000
40
35
30
25
20
15
92
93
94
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96
97
98
99
00
01
LOMBARD

Graph 5: Average monthly stock of open market