National Bank of Poland
The Road to Indirect Instruments

Piero Ugolini
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### Bibliography

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The following symbols have been used throughout this paper:

... to indicate that data are not available;
— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;
– between years or months (e.g., 1991–92 or January–June) to indicate the years or months covered, including the beginning and ending years or months;
/ between years (e.g., 1991/92) to indicate a crop or fiscal (financial) year.

"Billion" means a thousand million.

Minor discrepancies between constituent figures and totals are due to rounding.

The term "country," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, but for which statistical data are maintained and provided internationally on a separate and independent basis.
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This Occasional Paper presents the National Bank of Poland's experience with its transition from a monobank to a market-based system institution. IMF staff from the Monetary Exchange Affairs (MAE) Department, formerly the Central Banking Department, have been involved in the modernization of the National Bank of Poland with the support of experts provided primarily by cooperating central banks. The first MAE technical assistance missions began in 1989 and were led by Mr. J.B. Zulu and Mr. V. Sundararajan until 1991; and by Mr. Piero Ugolini since 1992. Among the MAE economists that contributed to the technical assistance program were Mr. Anton Op de Beke who assisted the mission chiefs until 1991, and Mr. Peter Dattels until 1995. The author would like to express his great appreciation to Mr. V. Sundararajan for the valuable comments provided in this article, and to Mr. Manuel Guitián—Director of MAE—for his guidance in the preparation of the paper.

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The views expressed here, as well as any errors, are the sole responsibility of the author and do not necessarily reflect the opinion of the Government and the National Bank of the Republic of Poland, the Executive Directors of the International Monetary Fund, or other members of the IMF staff.

Most of the information contained in this paper originates from MAE reports and National Bank of Poland papers. The author would like to thank Messrs. Ryszard Kokoszczynski, Director of the Research Department; Mr. Jacek Osinski, Deputy Director of the Monetary and Credit Policy Department; and Mrs. Ewa Sleszyska-Charewicz, Director of the General Inspectorate of Banking Supervision of the National Bank of Poland for the useful information provided in this report.

The author would like finally to acknowledge the senior management, management, and staff of the National Bank of Poland that have worked both very hard and conscientiously over the last five years on the modernization process of the National Bank; and in particular, President W. Baka and Vice-President A. Olechowski of the
National Bank for being the initiators of the transformation of the bank in 1990, and President Gronkiewicz-Waltz, who since 1992 has succeeded in revamping and accelerating the reform progress within the Bank. Together with President Gronkiewicz-Waltz, the author would like to acknowledge the senior management of the bank, the First Deputy President Mr. W. Kozinski and four senior officials who have been working with International Monetary Fund/Monetary and Exchange Affairs Department missions since early 1990, the Deputy President Mr. K. Barburski and the three Directors and members of the National Bank Board, Mrs. E. Feliga, Mr. Kokoszczynski, and Mr. J. Stopyra.

David D. Driscoll of the IMF's External Relations Department edited the text and saw it through to publication.
I Introduction and Summary

The National Bank Act and the Banking Law for commercial banks of January 31, 1989, formalized the initial steps toward transforming the National Bank of Poland and the Polish financial sector into a market-oriented banking system. This event was one among many dramatic changes that took place in Poland during that period. With the creation of a Solidarity-led government in September 1989, radical changes began in all economic sectors.

Poland was the first centrally planned economy to adopt such changes in its economic structure and to implement an economic program to halt its deterioration. This program was strongly supported by various countries, the International Monetary Fund, and other multilateral and bilateral institutions.

In support of Poland's economic reform, restructuring and reforming the National Bank of Poland and the entire financial sector into a market-oriented system became urgent. In this context, an action plan for the modernization of the National Bank was implemented by the National Bank beginning in early 1990, which served as a catalistic force in the overall reforms of the financial sector.

Five years later, as of 1995, the National Bank of Poland had virtually completed its initial modernization phase (Table 1). Its final modernization, however, is not complete. Work still remains to be done, particularly in the payments system and in the further development of a secondary market for government securities. In addition, the National Bank will have to continue to upgrade its operations to cope with change and innovation in the financial sector. Among the challenges ahead, the Bank will have to protect and strengthen its independence from politics through continuing modernization and adaptation of its operations.

Since Poland was the first centrally planned economy in Eastern Europe to leave the Soviet bloc and undertake an economic turnaround, the experience of the modernization of the National Bank could be valuable to other countries that are, or will be, following a similar path. The following topics are covered in the remainder of this paper. Section II surveys the economic reforms that the Polish Government undertook in the economic and financial sectors. It also describes the National Bank of Poland under the monobank system, the impact of the 1989 laws, and the splitting of the monobank system. Section III describes the status of the central bank at the beginning of its transformation. Section IV provides a description of the steps undertaken by the National Bank and analyzes the main problems encountered by the bank in its modernization. It emphasizes the planning and sequencing of reforms that enabled a rapid pace of modernization. Section V gives an overview of the status of the Polish central bank in 1995. Finally, Section VI presents the conclusion and lessons to learn from the Polish experience.

The Appendix presents the initial action plan of modernization of the bank supported by the International Monetary Fund/Monetary and Exchange Affairs Department technical assistance for 1991-92.

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1The law was approved on January 31, 1989, and became officially operational on February 1, 1989.
2This plan was strongly supported by the IMF, as well as other multilateral institutions, the European Union (EU), most European countries, and the United States. As part of the stabilization and modernization package, the National Bank of Poland adopted a series of far-reaching reforms in virtually all operational activities. The ultimate objective of the Bank was the creation of a market-based system where the central bank could implement indirect instruments of monetary policy to manage interest rate determination. The former Central Bank Department of the IMF, now called Monetary and Exchange Affairs Department, supported the initial modernization efforts of the Bank with the help of six cooperating central banks: the Austrian National Bank, the Bank of England, the Bank of France, the Bundesbank, The Netherlands Bank, and the U.S. Federal Reserve. The format of technical assistance adopted in the case of Poland was unique also for the IMF, insofar as comprehensive technical assistance was provided simultaneously in all functional areas of the National Bank of Poland for the first time.
Table I. Reform of the National Bank of Poland, 1990–95

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<td>NBP Acts: under the first Act voted on January 31, 1989, and implemented on February 1, 1989, the monobank system was converted into a two-tier banking system. The first Act was revised on December 31, 1989, and implemented on January 1, 1990. Under the latter, broad powers were given to the NBP to conduct monetary policy and limit NBP advances to the government.</td>
<td>Monetary Management</td>
<td>Interest and credit controls, obligatory reserves, and loose rediscount facilities. No use of open market operations. Credit facilities available at the initiative of the banks.</td>
<td>Objective: reduce access to short-term credit from NBP, absorb excess liquidity in the banking sector, reduce inflationary pressures, begin building a market-based monetary framework. Restructuring of refinance credit and creation of Lombard facility, credit ceilings, increasing reserve requirements to maximum legal of 30 percent. Creation of a 10-day information system to assess liquidity situation. Creation of a Money and Credit Policy Department. Introduction of one- and three-month NBP bill auctions (July 1990). New accounting plan for the NBP. Weekly liquidity forecast. Introduction of treasury bill auctions (May 1991). Introduction new reporting system for banks.</td>
<td>Objective: after succeeding in reducing access to short-term bank credit, NBP concentrates on implementing open market operations and introducing interest rate flexibility. Creation of a primary dealer system to support the market. Creation of interdealer brokerage system screen-operated by the NBP. Beginning of first reverse agreements (repo-transaction). Establishment of a yield curve for government securities. Abolition of credit ceilings (December 1992). Suspension of NBP bill auctions (January 1992).</td>
<td>Objective: continue to absorb excess liquidity from the banking sector and fully rely on indirect instruments after abolishing credit ceilings at end-1992. More intensive use of short-term OMO intervention to affect liquidity. With the introduction of a book-entry system in July 1995, the NBP began sizable outright transactions to affect long-term interest rates. The functioning of the clearing house and introduction of an average system for reserve requirements in August 1994 reduced float and improved efficiency in the interbank settlement process. Resumption of limited NBP bill auctions (November 1994).</td>
<td>Modern central bank exercising all of the key central banking functions. The Governor forms policy decisions in consultation with the NBP Board. Senior management encourages communication and interdepartmental cooperation. No interest and credit controls. Indirect instruments: open market operations and obligatory reserve (averaging system). Rediscount credit facilities, and book-entry system for securities.</td>
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<td>Payments System</td>
<td>Banking Supervision</td>
<td>Foreign Exchange Reserves, Operations and Management</td>
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<td>• Commercial banks did not have daily consolidation of their branch accounts.</td>
<td>• Inefficient and decentralized among the 49 NBP branches.</td>
<td>• No official existence.</td>
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<td>• Monthly consolidation of NBP balance sheet.</td>
<td>• Large and erratic float.</td>
<td>• Creation of the Foreign Operations Department.</td>
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<td>• Payments System—Inefficient and decentralized among the 49 NBP branches.</td>
<td>• Credit extended before debiting.</td>
<td>• Implementation of a new accounting plan for commercial banks.</td>
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<td>• About two weeks to complete a payment transaction.</td>
<td>• No formal supervision functions.</td>
<td>• Beginning of on-site inspections.</td>
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<td>• Implementation of steps to speed up both clearing and settlement of paper-based transactions, and develop a full-blown clearing and settlement system based on modern telecommunications:</td>
<td>• Establishment of preliminary prudential regulations and a new reporting and monitoring system based on the new accounting plan for banks.</td>
<td>• Development of interbank market.</td>
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<td>• Adoption of an interbank transportation network to speed up clearing.</td>
<td>• Implementation of facilities for settlement of money market transactions and value dated transactions in foreign exchange.</td>
<td>• Shift to crawling peg within a currency band regime (May 1995).</td>
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<td>• Implementation of modified accounting rules for granting credit or debit.</td>
<td>• Implementation of prudential regulations, including foreign exchange exposure limits.</td>
<td>• Interbank market—modern reserves management.</td>
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<td>• Adoption of an interbank transportation network to speed up clearing.</td>
<td>• Crawling peg within currency-band regime.</td>
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<td>• Modern supervision of commercial banks: monthly reports, off-site analysis, on-site inspections, and standard prudential regulations, including exposure limits on foreign exchange.</td>
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### Table 1 (concluded)

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<td>Monetary Research and Analysis</td>
<td>No official existence.</td>
<td>• Shift from a dollar peg to a basket peg (May 1991).</td>
<td>• Introduction of pre-announced crawling peg (October 1991).</td>
<td>• Building up and strengthening of the dealing and investment capabilities.</td>
<td>• Publication, studies, modeling, analysis, and research developments.</td>
</tr>
<tr>
<td>Management and Organization</td>
<td>NBP Management overburdened with work and responsibilities, and operating with a legalistic approach and bureaucratic procedures. Policy decisions highly concentrated on the top and lack of communication between departments.</td>
<td>Restructuring and reorganizing of NBP. Two Vice-Presidents and NBP Board. Training abroad, and English classes locally.</td>
<td>Disengagement of NBP from commercial activities.</td>
<td>Management, development, and training of NBP staff.</td>
<td>Modern management and organization of the NBP.</td>
</tr>
</tbody>
</table>
II Reform of the Economic System

The turning point of economic reforms to move Poland away from the centrally planned system of the postwar era occurred in October 1988 when a new government was appointed to fight inflation, reduce shortage of goods, and accelerate reform in virtually all sectors of the Polish economy. Following a social “round-table” discussion held in the first quarter of 1989, a political commitment to build a market-oriented system in Poland was formally introduced in the final agreement. The Polish economic reform affected all key sectors of the economy, particularly enterprises, prices and wages, agriculture, fiscal, foreign trade and exchange system, and banking.

Enterprises

Enterprise reform emphasized (1) autonomy and self-management, (2) property rights, (3) financial discipline, and (4) promotion of competition and development of a private sector. The central economic administration was streamlined. All industrial branch communities, except those dealing with hard coal and energy, were consolidated under the Ministry of Industry. In January 1989 the Government passed a law splitting the capital of each state enterprise into a portion owned by the state Treasury and a portion regarded as the enterprises’ own property, with the ultimate objective of transferring the state enterprises into joint-stock companies. Some financial discipline on state enterprises was introduced, and an office was created in early 1988 under the Ministry of Finance to break up the monopolistic power of the enterprises.

Prices and Wages

By December 1989, administrative prices, previously set by the Government, were abolished, and only four food products continued to be administered. Subsidies on all other food products and ceilings on increases in contract prices were also formally abolished. At the industrial producers level, more than half of producer prices were market based. Wages and labor market in general were also gradually liberalized and geared as much as possible to improving efficiency by linking them to market prices and performance.

Agriculture

Official agricultural procurement price ceilings were removed in April 1989. In addition to the abolition of price ceilings on agricultural procurement, the state monopoly in the procurement of most basic agricultural and food products was eliminated in early 1989.

Fiscal

Fiscal reform of both revenue and expenditure sought to limit the expansion of the monetary base in order to reduce inflation. On the revenue side, tax reforms streamlined the structure of the taxation system and changed the taxation of wages and enterprise profits. On the expenditure side, several measures limited the government deficit beginning in 1989, mainly by reducing subsidies. The state budget deficit, which had been entirely financed by the banking system in 1985–88, was financed by treasury bills (for the first time) and by an advance subscription by the National Bank of Poland to be converted into bonds in 1990. The first issuance of treasury bills occurred in the last quarter of 1989. The bills were bearer instruments, had a six-month maturity, and were issued at a fixed discount.

Foreign Trade and Exchange System

Reforms were gradually introduced to eliminate the monopoly of the 60 Foreign Trade Organizations that used to centralize and carry out the bulk of all foreign trade activity via the license and quota system. Also, in December 1988, a new law was introduced authorizing joint ventures with foreign
participation of up to 100 percent without a requirement that the director of the enterprise be a Polish citizen. These enterprises were free to set wages and to repatriate foreign currency profits above the 15 percent surrender requirement to the banking system.

The official exchange rate of the zloty against convertible currencies was determined on the basis of a weighted basket of currencies. As a result of high domestic inflation, however, the real effective exchange rate experienced frequent devaluations. The complex retention scheme, comprising about 1,000 rates ranging from 10 percent to 50 percent, was considerably simplified and liberalized in 1989 to 5 retention rates, ranging from 10 percent to 50 percent depending on the type of export. At the end of 1989, Polish residents and nonresidents were allowed to hold foreign currency accounts, and foreign currency receipts from exports had to be surrendered in part to the Polish foreign exchange banks while capital controls were in effect. The January 1, 1990, Foreign Exchange Law permitted unrestricted purchase of foreign exchange at the official rate from the banking system to pay for all imports. In addition, households became eligible to make all other payments through the parallel exchange market, in which the exchange rate continued to be determined freely by supply and demand without official intervention. As before, enterprises could not participate in that market. Households could continue to hold and accumulate foreign exchange in their convertible accounts.

The exchange retention privileges and foreign exchange auctions, introduced in May 1987, were eliminated and export proceeds were from then on to be fully surrendered to the domestic banking system, although enterprises could retain balances accumulated previously in their foreign exchange retention accounts. The system of supplementary export incentives (tax reliefs, export subsidies, preferential credits) was abolished.

The changes in the exchange system were accompanied by the unification of the customs tariff, the introduction of selective import surcharges, and measures to liberalize trading concessions and licensing requirements for exports and imports. A revised law on joint ventures also entered into effect on January 1, 1990. It provided inter alia for an extension of the initial tax holiday from three to four years.

**Banking**

The transformation of the banking sector began in early 1982 when, as part of the package of economic reform, a new banking law provided more autonomy to the banking sector, particularly the National Bank.

**Monobank System, 1982–85**

Under the 1982 law, the National Bank of Poland was no longer formally subordinated to the Ministry of Finance. The President of the National Bank was authorized to prepare a credit plan for approval by the Council of Ministers and the Parliament. Although the plan had to be consistent with the national economic plan, it represented a major step toward recognizing the role of the National Bank in gauging the appropriate credit expansion of the banking sector. Even though the new law expanded Parliament's influence over monetary policy, it also opened the possibility of establishing new banks. A council of banks was created and chaired by the President of the National Bank of Poland, and a Bankruptcy Law was enacted to strengthen the bank's role in enforcing credit contracts.

As central bank, the National Bank of Poland issued currency, acted as the Government's bank, refinanced other banks, held the official reserves of gold and part of the official foreign exchange reserves, administered the foreign exchange regulations, and, in consultation with other banks, prepared the annual credit plan. The National Bank also provided commercial services to the public. It was the largest commercial and savings bank, providing banking services to socialized and nonsocialized enterprises through an extensive network of branches and to households through a similar network of so-called National Savings Banks. Over two thirds of household and enterprise banking transactions were carried out with the National Bank. The bank's branches operated almost as separate units.

By 1987, the National Bank of Poland operated 732 bank branches out of 808 existing banks, excluding 1,660 cooperative banks.

**Bank Handlowy Warsaw** was a commercial bank dealing almost exclusively with the socialized sector, providing over 95 percent of settlement services with respect to foreign trade transactions in domestic and foreign currencies. It held virtually all foreign curr-

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3By 1987, the National Bank of Poland operated 732 bank branches out of 808 existing banks, excluding 1,660 cooperative banks.
4Bank Gospodarki Zywnościonej.
currency deposits of the socialized sector and the largest share of the official foreign exchange reserves. Bank Handlowy contracted most of Poland’s foreign debt and was responsible for making external debt-service payments. Correspondingly, over three quarters of its liabilities were in the form of foreign debt.

The Bank Polska Kasa Opieki SA specialized in providing foreign exchange services to the household sector. It held foreign-currency-denominated deposits of residents—constituting about two thirds of its liabilities—and most of the accounts of non-residents. It had the authority to extend and also to contract loans in foreign currencies and, in addition, to finance domestic operations involving the sale of consumer goods, real estate, and services against payments in convertible currencies. The bulk of its assets, however, consisted of deposits with the National Bank and Bank Handlowy.

The Bank of Food Economy provided commercial banking services to socialized agriculture and to the food processing industry. It also acted as the central organizational, financial, and audit unit for a network of over 1,600 associated cooperative banks and provided them with refinancing facilities. The cooperative banks, in turn, specialized in providing commercial banking services to the nonsocialized agricultural sector, to the rural population, and to rural socialized enterprises.

The banking system in Poland was a reflection of the socialist influence of the former Soviet Union. Financial assets consisted almost exclusively of currency and bank deposits (including foreign currency). There was no capital market and only a few bonds were issued in 1985 by some socialized enterprises. During 1981–86, M1 accounted for more than half of broad money, and cash amounted to about 23 percent of broad money. The socialized sector accounted for about 35 percent of the total money stock. Deposit notes were administrated and raised occasionally. Savings notes on one-year deposit were raised from 6.5 percent a year to 10 percent in 1982, and remained unchanged until 1988 when they were increased to 25 percent; with inflation ranging around 20 percent until 1987 and 60 percent in 1988, deposit rates remained considerably negative in real terms.

In a socialist environment, bank credit was the main source of financial resources. Credit was allocated according to priority areas and criteria set by the authorities. For example, the share of credit outstanding to the socialized sector, largely for working capital expenditures in the industrial sector, averaged about 80 percent during 1982–87.

Reform, 1986–89

Following the banking reform of 1982 described earlier, additional concrete steps toward establishing a modern banking sector were taken in 1986 when the Export Development Bank was created and in 1987 when the National Bank’s Savings Department was converted into a savings bank. However, the Banking Act for Commercial Banks and the National Bank of Poland Act of January 31, 1989, represented a turning point. Under the latter act, the two-tier banking system was officially introduced in Poland. The National Bank became a full-fledged central bank with the power of “issuing banknotes and coin of the Republic of Poland, granting refinancing credit to other banks, accepting deposits, setting financial accounts, organizing foreign exchange transactions in accordance with the provisions of the Foreign Exchange Act, providing banking services for the Treasury and performing other operations as provided in the Act.” The bank’s terms of reference included:

- participating in determining the Government’s economic policy and in the implementation thereof, pursuant to the relevant acts and resolutions adopted by the Sejm;
- initiating and pursuing monetary policy, including foreign-exchange policy, guided by recommendations of the Sejm;
- overseeing the correctness of banking practices and the development of the banking system; and
- pursuing the interests of the state in its cooperation with international banking institutions and foreign banks.

Under Article 79 of the same act, the National Bank of Poland was divested from all commercial activities and was to “cede to other banks by June 30, 1992, on terms agreed with the latter, the handling of corporate and consumer accounts, including the provisions of consumer services involving foreign currency and foreign exchange.”

As a result, the National Bank transferred its commercial banking functions to nine state-owned commercial banks. The shifting of the monobank system in Poland was based on three variables (volume of transactions, volume of credits, and number of accounts). On that basis, the number of banks and the number and location of branches for each bank by geographical region were decided. A computer simulation was used for this purpose. Under the new legislation, private domestic and foreign banks were also allowed to be licensed and conduct business in Poland. By November 1989, seven new banks and four representation offices of foreign banks were authorized.
The network of the National Bank was considerably downsized and the central bank retained the Warsaw headquarter’s office and 49 district branches scattered throughout the national territory. The special and independent status of the bank was codified in a constitutional amendment in 1989. Apart from assuming typical central bank functions, the 1989 law introduced some important changes to the status of the National Bank, such as the acquisition of accountability to the Parliament. The National Bank was required to present to the Parliament a credit plan in conjunction with the annual budget, but it was entitled to increase or decrease its size depending on economic circumstances. In addition, the President of the National Bank was going to be appointed by Parliament upon nomination by the State President, similarly to the appointment of the Prime Minister.

Another major event providing additional independence to the National Bank occurred in the revised National Bank of Poland Act of January 1990 (which was passed in December 1989 and went into force in January 1990), giving broad powers to the National Bank to conduct monetary policy and limiting its advances to the Government to a strict limit of 2 percent of budgeted expenditures. This excluded central investment projects, which became eligible for special National Bank refinancing activities.

The January 1990 Act opened the door to the full building of the National Bank of Poland as a modern central bank.
The National Bank of Poland in 1990

The dramatic systemic reforms introduced in all sectors of the Polish economy in late 1989 aimed at building a market-oriented economy. However, as also recently shown by the breakdown of the former Soviet Union, the transition from a centrally planned to a market-oriented economy requires drastic reforms as well as a strong program of economic stabilization. In the case of Poland, the stabilization plan was aiming at bringing down hyperinflationary pressures, which rose from about 60 percent a year in 1988 to some 640 percent a year in 1990, and to elicit or stimulate an early supply response to eliminate long queues and food shortages. The main pillars of the reform were the reduction in the fiscal deficit, improvement in the balance of payments, and control over the excess liquidity in the economy. The price and interest rates liberalization and the exchange rate regime were among the main instruments used to meet these targets, together with the reform of the banking sector and the modernization of the central bank. The latter is the subject of the remainder of this chapter.

Status of the National Bank of Poland in 1990

In the case of Poland, the National Bank was officially vested with the power of conducting and executing monetary policy in January 1990. The latter National Bank of Poland Act also gave the central bank the authority of conducting all those functions typical of a modern central bank, such as bank supervision, payments systems, and management of foreign reserves. In the midst of the rapid changes occurring in the Polish economy in 1990, reforms in the monetary control and banking supervision systems became urgent as well as more complex owing both to the rapid transformation and changes in the economy and to the alarming situation in the macroeconomic situation. The National Bank had to face two challenges: the halting of the deterioration in the monetary sector, and the establishment of a modern full-fledged central bank capable of implementing monetary management by using indirect instruments. The National Bank had to face all this at a moment when the entire economy was being transformed, the environment was inflationary, and the obsolete financial sector was plagued by nonperforming loans of inefficient public enterprises.

To face the first challenge, the main instruments of monetary control available to the National Bank in 1990 were reserve requirements and refinance facilities. The bank raised reserve requirements to their legal limit of 30 percent and introduced a tighter refinance policy. Following partial interest rate liberalization in 1989, auction of the National Bank's bills was started in July 1990 in an attempt to absorb excess reserves. In view of the large dependence of the financial sector on the National Bank's refinancing, tighter controls were introduced at an early stage and some refinancing was converted into medium-term credit. In particular, the National Bank had also to deal with low-interest, long-maturity housing and agricultural loans, when the economic stabilization required major increases in interest rates in 1989. The National Bank also used moral suasion and continually adjusted the refinance rate monthly in an effort to get a grip on the situation. Nevertheless, it became clear that these measures could only have a limited impact and were particularly ineffective in reducing credit demand from loss-making state enterprises.

Apart from either the lack of or the delay in introducing accompanying measures to reform the financial sector and public enterprises, which should support the efforts of the monetary authorities, the National Bank was also handicapped in its efforts by endogenous factors strictly related to its own organization and structure. The National Bank was performing both central banking and commercial banking activities. Besides the new responsibilities assumed in January 1990, the National Bank continued to hold private accounts and to provide banking services to the nonbank public, in addition to providing budgetary cash, banking, and accounting services to the central government. It also offered banking clearing and other services, including accounting and computing, to the branches of the commercial banks.
The National Bank had a great need to be restructured. The Bank had 49 branches, of which only about half were performing strict branch functions. The new duties and responsibilities assigned to the National Bank required a new organizational structure and functional allocations of its departments, major retraining programs for its existing staff, and hiring of new personnel with specific skills.

**Objective of Modernization**

The ultimate target for the National Bank of Poland modernization plan was the development of a market-based system of monetary control through the use of indirect instruments. Although the Polish authorities wanted to reach their objectives rapidly and in the most efficient fashion, it became clear, even at the outset, that the road to their ultimate goal was bumpy and difficult.

The National Bank Act did not give enough flexibility to the Bank for it to make some of the required changes without the approval of the Parliament. Moreover, the change in reserves requirements, the creation of an interbank market in foreign exchange, the introduction of a book-entry system, and the introduction of special reserve accounts proved to be very time consuming. Further, all the operational areas of the National Bank (accounting, payment systems, banking supervision, liquidity forecast, foreign exchange operations), which are fundamental to the development of a market-based monetary system with indirect instruments, needed to be redesigned or completely built from scratch.

In support of its modernization efforts, the National Bank requested technical assistance from the Central Banking Department (presently the Monetary and Exchange Affairs Department—MAE—of the International Monetary Fund). To cope with the new request, MAE followed a pioneering approach, which is now being implemented in virtually all former Soviet Union (FSU) countries. The new approach focused on delivering a comprehensive technical assistance program in all interrelated operational areas of the central bank, while introducing regulations and procedures to improve existing structures. The comprehensiveness of the technical assistance delivered was dictated by the close links between operational areas in a market-oriented central bank and the need to make progress simultaneously in all areas in order to avoid undue delays.

The MAE technical assistance was initiated with cooperation from six central banks, each helping in a specific area. The cooperating central banks agreed to make expert staff available as MAE consultants for short-term visits to Poland. In addition, they provided managerial and technical support to their experts and allowed them time from their normal duties to prepare for and to follow up on their visits to Poland. Many experts also arranged training opportunities abroad for National Bank staff at their own institutions and elsewhere.

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7 Monetary management and money market development, the Bank of England; monetary and balance of payments research and analysis, the Netherlands Bank; banking supervision, the Bank of France; central bank accounting and internal auditing, the Austrian National Bank; foreign exchange operations, the Bundesbank; and the payments system, the U.S. Federal Reserve. In the area of public debt management, the Banca d’Italia provided one expert for one visit.

8 More details on the technical assistance program are provided in an *IMF Survey* article of August 13, 1990, “IMF Central Banking Department Organizes Aid to National Bank of Poland.”
IV Modernization of the National Bank of Poland

The economic program of stabilization, which started in early 1990, was designed to reduce inflation and create an environment in which a market-based economic system might thrive.

The maintenance of a fixed exchange rate as an anchor was the central element of the Polish Government's anti-inflationary strategy. The rationale was that an unstable exchange rate would fuel inflationary expectations, while a stable exchange rate would offer a point of financial stability and reference for the Polish enterprises while they were restructuring themselves. The choice of a fixed exchange rate on January 1, 1990, was partly motivated by the lack of an organized foreign exchange market and was expected to be only a temporary measure before the authorities moved to a crawling peg system on October 15, 1991. The crawling peg is also virtually a fixed exchange rate regime, since the daily rates are preannounced.

The choice of the exchange rate as a nominal anchor to reduce inflation and maintain international competitiveness needed to be supported by appropriate fiscal and monetary policies. Flexibility in interest rates and credit policy was essential to support the nominal anchor system and required an urgent and rapid modernization of the National Bank.

The choice of this fixed exchange rate regime constrained the monetary policy of the National Bank. To avoid capital outflows, it had to adopt policies aimed at achieving a level of interest rates not lower than foreign interest rates, adjusted for the rate of crawl (during the crawling system) and the country's risk premium. Thus, interest rate and credit policies became crucially important to support the chosen exchange regime.

Role of the National Bank of Poland

The road toward a full use of indirect instruments of monetary policy appeared difficult at the early stage, and some initial conditions in the money market and interbank market posed serious constraints on the introduction of indirect instruments. In particular, since 1988 there had been large inflows of funds into the banking system, which became increasingly liquid despite the tight measures taken by the National Bank. In addition, the Bank continued to provide large refinancing facilities to the entire financial sector, as well as to the agricultural sector via the Bank for Food Economy.

In order to support the Polish authorities' stabilization program, the National Bank had to strengthen and develop the financial sector and its own capabilities. A major challenge was to increase the flexibility of the interest rates to support the exchange rate regime and anti-inflationary policies, and to develop further indirect instruments of monetary control.

To address the situation, interest rates were partly liberalized in 1989. The Bank had to rely on direct instruments of credit control during the initial phase of building its arsenal of indirect monetary instruments and developing the needed structures to support a market-oriented system, such as accounting, payments, and bank supervision system. Refinance and discount facilities were reformed, and credit auctions and National Bank bills were introduced to bring into the system some flexibility in the interest rate structure. During a second phase, in 1992, the Bank used a mixed approach of both credit ceilings and open market operations. Credit ceilings were lifted in early 1993, and open market operations became the main instrument of monetary policy. Reforms in the accounting and payments system were also crucial to the launching of the Bank's operations.

An action plan to modernize the National Bank of Poland and pave the way toward the use of indirect instruments of monetary policy was developed by the Bank in early 1990.

Action Plan

The plan to modernize the National Bank was unique insofar as the authorities embarked on a program of reform and change simultaneously in all functional areas of the central bank. The plan's objective was to achieve a rapid transition to the use of market-based instruments. Because of inadequate ac-
counting and payments systems, as well as supervision, the action plan had to be comprehensive, sequenced, and coordinated to enable the Bank to use indirect monetary instruments within a relatively short time. The rapidity with which the National Bank’s authorities could implement the ambitious action plan became an important element of its success.

While the remainder of the chapter will present the broad sequence of the modernization of each functional area of the Bank and the major problems encountered in its implementation, it is important to highlight two major problems, one technical and one political, that the Bank faced in its efforts.

In 1989, Poland had very poor telecommunication facilities. The technology was obsolete. This had a considerable bearing on the centralization of daily accounts of the National Bank’s 49 branches and of the branches of the 9 newly created commercial banks. Because of the poor telecommunication facilities, it also took considerable time for the commercial banks to centralize and consolidate their accounts in the respective headquarters on a daily basis. Thus, for some time, each branch of the main state-owned commercial banks was operating completely independent from the others, with each of the 49 branches of the Bank maintaining a separate account for each branch of the commercial banks operating in its region. As indicated later in the chapter, this led to serious problems of credit allocation and of fraud. Lastly, the poor technology also had a serious impact on the efficiency of the payments system and on the time required for clearing checks and for settling transactions between banks or between clients with accounts in different banks.

The second problem relates to the turmoil created by a banking scandal in July 1991, which resulted in the National Bank functioning for almost a year without an appointed President. It is fair to say that during this period, very little was accomplished of the modernization plan of the Bank. With the appointment of the new President, Mrs. Gronkiewicz-Waltz, the momentum was regained, and the implementation of the action plan took off with greater enthusiasm and vigor.

A summary of the first action plan of modernization of the National Bank of Poland during the initial and intensive phase in 1990–91, prepared by the authorities with the support of MAE under its technical assistance program, is shown in the Appendix.

Monetary Operations

The National Bank of Poland Act of January 1, 1990, gave the Bank broad powers to execute monetary policy and accorded to it some independence by restricting its lending to the Government to an established limit. At the outset, the National Bank’s officials’ main objective was to create and establish a market-based monetary system in which the Bank could rely on indirect instruments of monetary management rather than on direct controls. The choice made by the Polish authorities to rely on a nominal anchor to reduce inflation and maintain export competitiveness constrained the monetary policy of the National Bank, and required some flexibility in interest rate policy and appropriate setting of other monetary policy instruments in its support. Interest rate policy in Poland had to prevent the flow of capital out of zloty-denominated assets and into assets denominated in foreign currency. The Bank’s authorities realized that the road to the full reliance on indirect instruments of monetary policy was long, bumpy, and difficult and would require a wide range of reforms in the financial sector in general and in central banking in particular. Successful management of the interest rate through indirect and market-based instruments and progress toward convertibility are associated with a relatively stable macroeconomic environment, an interest rate structure that is not in serious disequilibrium prior to liberalization, adequate competition in the banking sector, reasonable financial strength in the banking sector, an active and well-functioning money market, monetary policy instruments that can influence the marginal cost of funds to banks, sufficiently strong banking supervision policies and instruments, and consistent and mutually supportive reforms in the exchange and trade system (trade and payment restrictions, surrender requirement), exchange arrangements, and the institutional framework for foreign exchange trading.

Clearly, in the case of the National Bank most of the above conditions were not met. In addition to the obsolete banking system, it had to face some difficult initial conditions, which seriously constrained its full use of indirect instruments.

- Since 1989, the National Bank had been using refinancing credit as the main source of funds. In particular, it had to fully cover the financing needs for current central investment projects, as well as refinancing credit for agriculture. In 1989, the Bank for Food Economy received about 80 percent of its funds from the Bank’s refinancing, and direct refinancing of the banks by the National Bank represented about two thirds of total credit. As a result, (a) commercial banks had no incentive to attract deposits, and the spread between deposit and loan rates was very large; (b) credit was not entirely allocated on the basis of market economy principles, but was still affected by sectored credit priorities; (c) insofar as funds were made available by the National Bank,
an interbank money market had no incentive to develop; and (d) since most of the credit was extended at real negative interest rates, the whole interest rate structure was distorted.

- Savings banks had a dominant function in the financial sector with large deposits and limited loans.
- Commercial banks’ excess reserves were subject to large fluctuations owing to the float in the inefficient payments system. This made the liquidity forecast exercise of the National Bank very ineffective.
- There was no short-term information system on the status of banks for determining monetary policy and forecasting liquidity. The National Bank used to receive monthly information with some delays owing to the decentralization of the branch bank accounts.

After the introduction of the National Bank Act in 1990, the National Bank focused its activities first on halting the economic deterioration by addressing the immediate excess liquidity in the banking sector and reducing inflationary pressures, and second on building a market-based monetary framework. While the first target was broadly achieved in 1993, it took about five years for the Bank to establish the use of indirect instruments. Three main periods could be identified as the major phases of its transformation.

**First Phase, 1990–91**

In view of the initial constraints, excess liquidity in the banking sector, and the lack of instruments and infrastructure for indirect monetary policy intervention, the National Bank of Poland had to rely in the first phase on credit ceilings for each state-owned bank. During this phase, however, the National Bank began laying the foundation for a market-based system of monetary intervention. At this stage, a new department was created in the Bank, the Monetary and Credit Policy Department. This department was charged with the responsibility of developing a financial market and enriching the National Bank with indirect instruments of monetary policy intervention. An action plan was developed by the Monetary and Credit Policy Department and implemented with the support of the Bank’s management and the Polish Government. One of the first steps taken by this department was the introduction of a short-term (ten days) information system to monitor the liquidity of banks. This allowed the National Bank to perform some initial monetary operations within the established credit ceilings. By the end of 1991, a full-fledged reporting system was developed for commercial banks, providing information for monetary statistics and for management and prudential purposes.

To address the excess liquidity problem, remove initial constraints, and create a better environment for interest rates flexibility, the National Bank took several major steps in 1990. Its strategy was to tighten credit expansion, to absorb excess liquidity in the banking sector by issuing securities, and to introduce some flexibility in the interest rate structure. Its main tasks were to make the National Bank a lender of last resort, encourage banks to attract deposits, and develop an interbank market. Credit expansion or contraction would ultimately be managed at the initiative of the National Bank and not of the banks. To this end, the Bank took the following steps.

- Auctions of one-month fixed deposits with the National Bank of Poland were launched in March 1990, to be replaced on July 26, 1990, by the first weekly tender of one-month National Bank bills. This was the first attempt made by the Bank to reduce liquidity by an indirect instrument, to introduce the flexibility in the interest rates structure, and to stimulate interbank and money markets.

- Refinance policy was modified and tightened significantly to improve monetary control and reduce credit expansion. The design of refinance policy and, in particular, procedures for the allocation of refinance among banks posed difficult questions in part because of weaknesses in interbank markets and other structural factors.

Beginning in January 1990 the basic refinance rate was adjusted monthly on the basis of a set of indicators, including current and projected inflation, developments in net domestic assets of the banking system, and growth in external reserves. The structure of penalty interest rates for overdrafts by banks on their current account with the National Bank—so-called payment or current account credit—was streamlined in the early part of the year and further adjusted in July. About 60 percent of outstanding refinance was converted in July into a medium-term credit (repayable in six years with adjustable rates). The rationale for this measure was to give enough time for banks to repay the large outstanding credit. In this way, the National Bank avoided the potential risk of rolling over large amounts of unpaid debt.10 Some banks were instructed not to make full use of their limits. All additional refinance needs were met either in the form of bill rediscounts or as refinance against the collateral of eligible bills (Lombard credit). The National Bank encouraged banks to discount special agricultural bills in the hope that these could become collateral for interbank lending.

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10 New interest rates were applied to the old credits—requiring a change in the laws on credit relationships so as to modify the fixed-rate contracts on the old credits to preferential sectors—but only a part of the interest payments was serviced by the end users of credit. The remainder was partly met by budgetary subsidies to end users, and partly by mandated capitalization of interest. This approach served to freeze the sectoral distribution of bank credit, particularly when nominal interest rates were high.
enabling banks to reduce their dependence on National Bank refinance. Owing to the large dependence of banks on the bank's refinance,

the National Bank of Poland initially relied on bank-specific agreements to distribute refinance according to projected needs. Subsequently, refinance limits for individual banks were reduced on a case-by-case basis in response to availability of bank reserves from external surpluses. In addition, a payment credit facility was introduced to deal with shortfalls in the clearing accounts of banks, and banks have been offered a bill rediscount facility to encourage a bill market, and a medium-term refinance facility to meet structural needs.

In addition, the National Bank restructured and streamlined central investment refinance. The National Bank's Monetary and Credit Policy Department established a monetary programming unit to forecast supply and demand for bank reserves. The forecasts were used to evaluate monetary policy options, including the determination of refinance limits and the volume of National Bank bill auctions. The Monetary and Credit Policy Department also built a daily and ten-day information system for selected National Bank balance sheet items, providing current data on the level and distribution of bank reserves, various types of refinance by banks, and other factors affecting reserve money, particularly transactions budget.

- Reserve requirements were raised three times up to the legal limit of 30 percent. Following the introduction of one-week National Bank bills auctions in mid-1990 to drain the excess liquidity from the banking sector, the Bank diversified its offerings of bills in 1991 by phasing out the one-month bill and by introducing three- and six-month National Bank bills. It also began auctioning one-month and three-month treasury bills in May 1991. As a result of the introduction of the treasury bills to finance the government deficit, the demand for National Bank bills gradually declined. The value of National Bank bills outstanding dropped from Zl 4.3 trillion in April 1991 to Zl 2 trillion in May. On the other hand, demand for treasury bills rose steadily with the outstanding value rising from Zl 2.1 trillion to the end of May 1991 to Zl 9.2 trillion to the end of October 1991. As a result, the Bank suspended National Bank bill auctions in January 1992.

12All interest payments on central investment refinance were automatically rolled over into additional refinance, while banks were free to repay and borrow under this facility within agreed overall limits. Thus, it was difficult to forecast the outstanding usage of such refinance as this in effect served as a large and growing line of credit to be used at the initiative of banks.

Second Phase, 1992

The second phase began in early 1992 when the National Bank of Poland, after succeeding in reducing access to short-term central bank credit, could concentrate more on implementing open market operations and developing money markets. The development of treasury bill auctions and the introduction of one- and three-year bond issuances provided the National Bank with the necessary securities to begin the first reverse agreements (repo-transactions) to implement some more sophisticated liquidity management. This was possible because the Bank was able, during this period, to improve its liquidity forecast by virtue of a more refined ten-day reporting system for commercial banks and the consolidation of branch accounts into one account per bank at the National Bank head office in September 1992. As a result, the Bank initiated its first open market operations and commenced work to develop a secondary market for securities. With seven banks with a single current account at the National Bank, a primary dealer system was created to support market making, primary auctions of securities, open market operations, and the distribution of securities. A brokerage system operated by the Bank to encourage trading in the secondary market was also developed.

As a result of the above innovations, an interbank deposit market started developing from overnight to one-month maturity. This market became an important indicator of the state of liquidity in the money market and became the only market in which banks could get same-day funds. The primary bill market emerged as an important investment vehicle for banks, amounting to about 20 percent of total bank assets.

To foster secondary market activities, the National Bank initiated a screen-based interdealer brokerage system called Telegazette for central bank and treasury bills. The National Bank brokerage system was the first attempt to create a market and also became a helpful catalyst in the communication of market information. During 1992, as a result of the above developments, a market-based interest rate structure began to emerge. Particularly, treasury bill auctions reflected bank liquidity conditions, and a yield curve as a major determinant of the overall liquidity in the banking system finally began taking shape in Poland.

This development was particularly important and signaled one of the first successes of the National Bank in introducing flexibility in the interest rate structure. As indicated, interest rates were liberalized at a very early stage of the reform in 1989; however, the announced refinancing rate of the Bank

13Government securities and foreign exchange transactions were settling at \( t + 2 \) days.
Chart I. Open Market Operations
(In millions of złotys; average daily balances)

continued to play a major role as a reference rate in determining the interest rate structure in Poland during 1990–92. In 1990 about 80 percent of total domestic credit was linked to the refinancing rate. The Bank Powszechna Kasa Oszczędności BP, the largest bank in Poland, which provided mostly credit for housing construction, used as a guideline a 2 percentage point spread over the refinancing rate. Accordingly, other banks followed this principle. Thus, the trend that developed in late 1992 and early 1993 was the first result of the growing importance of the market economy and of the attention that market operators began paying interbank market and treasury bill activities. As a result of the new trend and the improved skills and capabilities of the National Bank to conduct open market operations, credit ceilings were lifted at the end of 1992.

In October 1991 a crawling peg exchange rate regime replaced the fixed exchange rate system introduced in 1989. In the period 1990–92 four devaluations took place to reverse the outflow of foreign currency reserves and the loss of international competitiveness. The Bank played an important role in supporting the exchange rate regime, and domestic interest rates were kept at a level well above competitive German and U.S. rates, thus averting a major outflow of capital from złoty-denominated assets. As a result and, in line with the domestic interbank market, an interbank market in foreign exchange commenced in earnest in May 1992 within the crawling peg system.

Notwithstanding the above progress, several problems still remained and needed to be addressed in the following phase beginning in 1993. In particular, difficulties had to be resolved in clearing and settling bill trades and the erratic float, which was greatly hampering the daily liquidity forecast of the Bank.

Third Phase, 1993–95

In 1993 a third phase began during which open market operations by the National Bank of Poland developed further and became the main intervention tool to implement monetary policy (Chart 1). Two elements in support of the full development of open market operations instruments were the creation of an Interbank Settlement Department in the Bank and the establishment of the first national clearinghouse. As a result of these developments and the consolidation of one current account per bank with the National Bank in late 1992, the Interbank Settlement Department was able to effect final settlement via the current account that each national clearinghouse member maintained at the National Bank on the basis of the net settlement position of payment items cleared by the national clearinghouse between each national clearinghouse member. As indicated in Chart 1, from late 1993 to the end of 1995 the total average daily amount of outstanding open market operations per month increased dramatically from Zl 114 million in January 1993 to Zl 13,679 million at the end of December 1995.

During this period, the National Bank continued to improve and modernize its operational functions, particularly accounting, payments system, and banking supervision. The number of money market deal-
ers increased from 7 to 28 banks, and the interbank credits in domestic and foreign currency continuously grew. During 1993 two more developments played an important role in improving the efficiency of the open market operations of the National Bank: the introduction of an average system for reserve requirements in August 1994 and the introduction of a book-entry system in July 1995. The first action permitted the use of a portion of the obligatory reserve balances held at the Bank to provide intraday liquidity for settlement purposes. This additional liquidity had the impact of reducing the pressure that had been building and delaying, at times significantly, completion of the daily national clearinghouse net settlements. While this action provided a significant additional source of liquidity to fund settlement obligations, access to this liquidity was operationally cumbersome. The reserves eligible to meet clearing obligations were kept in a separate account at the National Bank and had to be transferred by its staff from the reserve account to the current account for clearing purposes and then back to the reserve account to meet reserve obligations. In November 1994 these two accounts were combined by the National Bank for each bank into a single reserve/clearing account. While this did not increase the level of liquidity available for settlement purposes, it simplified the process of accessing the available funds and thus improved the efficiency of the interbank settlement process and virtually eliminated the net float (Chart 2). The introduction of the book-entry system provided the National Bank with a powerful tool to engage in outright transactions and repurchase agreement in treasury bills. As a result, the one-to-three day repurchase open market operations have had an impact on the yield curve.

The objective of the National Bank in 1993 was to use open market operations to absorb excess liquidity without jeopardizing its monetary policy goals in full harmony with the crawling peg system and the inflation target. An appropriate mix of open market operations was envisaged to achieve both the monetary management and the market development objectives. While defensive and policy open market operations by the National Bank were supposed to be used to modulate or smooth day-to-day volatility in the banking system liquidity and the one-to-three day (overnight, spot, and executed tomorrow for delivery on the next business day) interbank rates, and attaining the target level of domestic credit by using 4–14-day repo operations, outright purchases and sales operations were to be used to sterilize or add liquidity to the banking system on a more permanent basis. Without a book-entry system, the Bank was seriously handicapped in its outright operations, particularly purchases, since its portfolio consisted of physical securities purchased from the Ministry of Finance, each denominated in such a large amount that it was difficult to market them. As a result, and in view of the excess liquidity problem, the Bank until mid-1995 was seriously handicapped in influencing long-term rates and shaping the yield curve and could affect only short-term rates.

Implementation Experience

Despite some progress in reducing inflation in the early years, the Polish financial sector has always
been affected by excess liquidity. The National Bank of Poland has focused on building instruments to absorb this liquidity in the banking sector by making the refinancing facility more effective and binding and by implementing credit ceilings until 1992. This has not been easy. While a turning point was the consolidation of commercial bank accounts into one account at the National Bank, the improvement in the payments system also proved to be key. In addition to cyclical budgetary expenditures and a strong balance of payments, the Bank had to deal, at the beginning, with a lack of effective instruments to absorb liquidity. As in other areas, modernization was slowed down by legal obstacles caused by the rigidity of the articles in the National Bank of Poland Act. This was particularly relevant for implementing important changes in the maintenance and application of reserve requirements and for introducing a book-entry system and other required changes.\textsuperscript{14}

In addition, as previously indicated, the Economic Analysis and Research Department and the Money and Credit Policy Department began working together on a liquidity forecast and macroeconomic model to test and simulate the economic variables under different shocks and assumptions. A ten-day reporting system for the National Bank and the commercial banks was also introduced and used as relevant input for the short-term monetary interventions of the Money and Credit Policy Department. However, the float in the banking system, the lack of accurate data, and inadequate projections for government cash-flow transactions represented a major problem to the liquidity projection exercise. The opening of the first clearinghouse in late 1993 and the creation of an Interbank Settlement Department in the National Bank were instrumental in reducing the float. The introduction of a monthly average system for the obligatory reserves, which reduced the excess reserves that the banking sector used to accumulate for the closing and settlement of the payments on a daily basis, also helped. During 1993–95, the Bank managed to introduce some flexibility in domestic interest rates while keeping domestic credit within established limits without using credit ceilings (Charts 3 and 4). As a result, since 1995 the share of foreign currency deposits has fallen steadily, which indicates an increasing confidence in the price of the zloty (Chart 5).

**Bank Supervision**

Bank supervision was formally introduced in Poland with the passage by Parliament in February 1989 of the drastically amended versions of the Banking Law and National Bank of Poland Law, which cleared the way for the move to a two-tier banking system. These laws specifically assigned the responsibility for supervision to the National Bank. The Banking Law bestowed on the National Bank comprehensive authority in bank supervision, including licensing, information gathering, examina-
tion, limitations on bank operations, sanctions, and liquidation of banks. According to the National Bank of Poland Law, the National Bank's bank supervision is a direct responsibility of the President.¹⁵

A bank supervision department called the General Inspectorate of Banking Supervision was created within the Bank in May 1989, as the National Bank was preparing for the divestiture of its commercial banking operations to nine independent banks. Together with the increase in the number of institutions, a change in the business environment was envisaged that would expose banks to commercial risks unknown under full central economic planning. These trends called for the urgent introduction of prudential bank supervision.

The organization of bank supervision in Poland combined centralized control with decentralized staffing. In addition to the inspectorate staff in Warsaw, bank supervision staff were attached to all National Bank branches in districts where commercial bank head offices were located, plus a few others; all supervisory staff in the branches reported to the director of the inspectorate in Warsaw. It was decided that bank supervision should consist of off-site analysis and on-site inspection. At the end of 1989, total supervision staff was about 60, including employees in the 49 branches.

The main problems faced by the inspectorate were (1) the lack of qualified staff and inspectors, (2) the lack of appropriate modern prudential regulations, (3) poor accounting practices at the level of the National Bank and commercial banks, (4) the lack of an appropriate reporting system to assess the financial conditions of the banks, (5) the large number of banks to supervise (75 banks were operating in Poland by the end of 1990), and (6) the sizable nonperforming loans on the asset side of commercial banks.

The inspectorate introduced a sequencing of specific measures to cope with a critical mass of reform in prudential supervision and in the commercial bank accounting and reporting system. Off-site analysis had a priority while the accounting of commercial banks was being reformed. A more balanced development of both off-site analysis and on-site inspections became possible thanks to the early start on the accounting and reporting system. While building its own capacity and recruiting more qualified staff to be trained, the inspectorate had to get a grip on the current condition of banks and begin some initial form of supervision. In order to perform effective supervision, the inspectorate needed to assess the current financial status of banks and introduce prudential regulations to monitor and regulate their activities to avert a major systemic banking crisis. It needed to design and implement a monthly reporting system to monitor progress in the financial condition of banks. Thus, the inspectorate initially placed great emphasis on improving accounting standards and designing a modern reporting system for commercial banks while conducting an audit of the banks' portfolio. On-site inspections were not considered a priority at that juncture, since the lack of information on the status of the portfolio of banks

and poor accounting practices would have greatly handicapped the effectiveness of the inspections. On-site inspections began at a later stage when information had become available and a better monthly monitoring off-site analysis system had been put in place in the inspectorate.

To cope with the weak accounting standard, the inspectorate began working on a new accounting plan called the National Accounting Plan-91. This plan embodied modern accounting principles to be implemented by all financial institutions reporting to the National Bank under the Banking Law of 1990. Since the implementation of this plan required several years (early 1995), in the interim, banks were asked to report on the basis of a temporary reporting system, which used the old accounting plan but required additional information.

While the National Accounting Plan-91 addressed the problem of modernizing accounting standards, the inspectorate had first to complete an audit of the Polish banks’ portfolios to set prudential ratios, such as capital adequacy, at a realistic level. While waiting for the results of the audit, which would have provided information on the status of the performing and nonperforming loans, interim prudential regulations were issued in 1990. The regulations covered provisioning rules, solvency, liquidity, and distribution of risks among banks. For the capital adequacy ratio, this was set at 8 percent, in line with the Bank of International Settlements/European Community standard. Polish commercial banks had until 1993 to comply with this regulation. As regards on-site inspections in 1992, the inspectorate began a training program for its supervisors. External consulting firms were hired initially to perform on-site inspections, but inspectorate staff used to join these firms in the inspections. This had the dual effect of sending a strong signal to the banking sector that the inspectorate could perform on-site inspections and of providing useful training to the inexperienced National Bank inspectors.

Implementation Experience

Establishing an efficient Banking Supervision Department requires considerable time for training staff, for implementing an appropriate reporting system, and for building off-site and on-site capacities. In the case of the National Bank, progress was also somewhat slowed down by the salary structure and the reshuffling of the directors of the inspectorate. The National Bank had lost a large number of qualified staff to private banks because the salaries it offered could not compete with those of the private banks. Several inspectors, once they were well trained, left the Bank to join the private sector. This represented a major setback for the capacity building of the inspectorate and proved costly, since new staff had to be hired and trained. Moreover, during the period without an officially appointed National Bank President, the modernization and functions of the inspectorate suffered from frequent changes in the leadership of the department. Ultimately, both problems were solved in 1992 with the appointment of a new President of the National Bank of Poland, who reorganized the inspectorate and received the authority to
IV MODERNIZATION OF THE NATIONAL BANK OF POLAND

set the salary structure in the Bank independently from that of the Government at a level competitive with the salaries of the Polish banking sector.

Among all the prudential regulations introduced by the Bank, the most difficult to implement was related to provisioning for bad loans by the commercial banks. In view of its impact on the profits of the commercial banks and on government revenue, considerable time was spent by the National Bank and the Ministry of Finance on this issue. As an interim measure, in November 1992 the banks were obliged to make a provision for their bad loans (from 20 percent for substandard to 100 percent for uncollectable), but were not allowed to deduct the provision from their annual profits. The capital adequacy ratio was raised from 8 to 12 percent for the seven banks that were restructured with government bonds.16

Central Bank Accounting

The challenge was the introduction of a market-oriented accounting plan and a modern accounting framework for the National Bank and the preparation of a daily balance sheet.

The creation of the two-tier system in 1989 and the desire of moving toward a market-oriented monetary system created an immediate need for detailed information on the Bank’s balance sheet. However, the Accounting Operations Department of the National Bank had to face serious obstacles, which further complicated the modernization process. As indicated earlier, the National Bank inherited 49 branches and very poor telecommunication facilities. The system was highly decentralized. Each of the 49 bank branches maintained an accounting division, responsible for the relations with bank branches in its district, and prepared its own balance sheet.

In addition to the decentralization, the National Bank’s accounting system was burdened by some 700,000 accounts that are not normally maintained by a central bank. The bulk of them comprised some 650,000 foreign exchange accounts for the nonbank public, in addition to some 8,000 budgetary accounts as part of the Bank’s responsibility for monitoring government cash flows.

The decentralized accounting was a legacy of the past when all branches then belonging to the nine credit banks were National Bank branches. The accounting relations of these branches with the National Bank remained essentially unchanged despite their regrouping into independent banks in February 1989.

Also, in an accounting sense the commercial banks’ branches continued to operate quite independently of their head offices. The change was the introduction of a tier of district branches between the National Bank’s head office and the commercial bank branches.

After February 1989 the National Bank continued the internal account (ledger) administration of the 9 new credit banks in its 12 data processing centers, as it did for the Bank Powszechna Kasa Oszczędności BP Savings, which became independent in 1987 with its nationwide branch network. These centers also processed all transfers between banks, not distinguishing transfers between branches of the same bank from those between branches of different banks. Also, commercial banks’ reserves and clearing accounts were spread over 49 National Bank branches with bank head offices in their districts. The situation was further complicated in the case of refinancing since refinancing limits were allocated by commercial banks to their branches, and then administered by the National Bank branches.

In summary, to obtain a consolidated balance the Bank had to collect the balance sheets from all its 49 branches, operating as 49 independent central banks. The consolidation by the branches was done only once a month.

Implementation Experience

The implementation of the project was very much constrained by and subordinated to the development of appropriate technology to connect the 49 branches to headquarters in Warsaw and to simplify the large number of accounts to be held by the National Bank. The centralization of accounts at the head office was indispensable for the production of the steady flow of balance sheet information necessary for financial and monetary control.

A process of modernization and centralization began in early 1990 and took almost five years to complete. This implied a unique general ledger kept at the head office. In the interim, the Bank began the preparations for an “estimated or statistical” consolidated balance sheet every ten days along the lines of the existing monthly balance sheet.

Foreign Exchange System and Operation

At the outset, in early 1990, the National Bank had to face three major tasks with regard to foreign exchange: (1) building up infrastructure to create a foreign exchange market-based system with interbank market operations; (2) managing the country’s international reserves; and (3) administering, together with the Ministry of Finance and other official entities, the rules of the new Foreign Exchange Law enacted in January 1990.
Foreign Exchange System

The National Bank of Poland’s exchange rate policy has been influenced since 1990 by the goals of reducing inflation and ensuring liquidity for foreign exchange payments. In 1990–91, when the stabilization efforts were most important, exchange rate policy was a main pillar of the stabilization program. Keeping the exchange rate of the zloty fixed against the U.S. dollar for 17 months after an initial devaluation had a strong anti-inflationary impact and helped to reinforce confidence in the Polish currency. It resulted in a decrease in the share of foreign currency deposits in the money supply from two thirds in 1989 to one fourth in 1991. Inflation was also reduced from the hyperinflationary level of 640 percent a year in 1990 to 60 percent in 1991, but the trade balance worsened, foreign exchange reserves fell sharply, and the competitiveness of Polish goods started eroding.

On May 17, 1991, to reduce inflationary pressures further and to restore export competitiveness, the zloty was devalued by 16.8 percent and pegged to a basket of five convertible currencies (U.S. dollar, 45 percent; deutsche mark, 35 percent; pound sterling, 10 percent; French franc, 5 percent; and Swiss franc, 5 percent). On October 14, 1991, a crawling peg regime was introduced. Until August 27, 1993, the monthly rate of depreciation of the zloty was 1.8 percent. This crawling depreciation was supported by a two-step downward adjustment in the value of the zloty (February 26, 1992, minus 12 percent, or 10.7 percent in foreign currency terms; and August 27, 1993, minus 8 percent, or 7.4 percent in foreign currency terms).

Reduction in inflation and improved balance of payments performance created a conducive environment for reducing the rate of crawl of the zloty. Along with the devaluation of August 27, 1993, the rate of monthly depreciation of the zloty was reduced to 1.6 percent, further to 1.5 percent on September 13, 1994, and to 1.4 percent on November 30, 1994. On February 15, 1995, the rate of crawl was reduced again to 1.2 percent a year. Moreover, on March 7, the National Bank widened the bid/ask spread around the central parity from +0.5 percent to +2 percent.

In May 1995, a new exchange rate system was introduced.

Foreign Exchange Reserves Operations and Management

To build up the framework for the creation of a foreign exchange market-based system, the National Bank of Poland had to reorganize first its own internal structure. A new department was created to deal exclusively with managing the foreign exchange reserves and the conduct of foreign exchange operations—the Foreign Operations Department. Another department, the Foreign Exchange Control, was established to deal exclusively with control matters.

The Foreign Operations Department had to build up its capacity, hire and train new staff, and work closely with the commercial banks to conduct its intervention. The initial phase of reform concentrated on improving its organizational structure, recruiting and training new staff, specifying clear exchange of control rules and regulations for transactions between the National Bank and the commercial banks, strengthening exchange management practices and improving reporting, accounting, and analysis of foreign exchange operations. At the same time, the Foreign Operations Department had to build up its capacity for dealing and managing the foreign exchange reserves. It prepared and strictly followed an action plan of modernization.

Implementation Experience

The implementation of the action plan for the modernization of the Foreign Operations Department went very smoothly and was accomplished very rapidly. In a short period of time it built a very modern and efficient dealing room and gained considerable experience in managing official foreign exchange reserves. The Foreign Operations Department was one of the National Bank departments where progress appeared to exceed expectations. On the other hand, building up the interbank market faced some logistical difficulties and did not take off as early as envisaged. The major obstacle was represented by Article 7 of the Foreign Exchange Law, which was ambiguous regarding the legality of commercial banks conducting business in foreign exchange with institutions other than the National Bank. Ultimately, the National Bank managed to reinterpret Article 7, to develop an interbank market, and to introduce a regulation on limits on foreign exchange exposure by the commercial banks in mid-April 1993.

Monetary and Balance of Payments Research and Analysis

Monetary Research and Analysis

In order to support the formulation and execution of monetary policy with appropriate information and statistics, the National Bank of Poland had to develop a modern research department. To this end, a new Economics, Projections, and Analysis Department was created. The main priorities of this department were to improve its capacity quickly to research and analyze monetary and balance of payments develop-
ments. It began working on (1) building up a short-
term monitoring system of the liquidity of commer-
cial banks; (2) preparing a new reporting system for
commercial banks in cooperation with the supervi-
sion department; (3) working on the establishment
of a programming framework for monetary policy/formulation; and (4) improving its expertise
and technology for analyzing economic information.
The department had the task of coordinating its work
with another newly created department, the Mone-
tary and Credit Policy Department in charge of con-
ducting monetary operations. In addition, the Eco-
nomics, Projections, and Analysis Department began
building a small macroeconomic model to analyze
and test monetary policy options in Poland.

Balance of Payments Research

As was customary in many Eastern European
countries, the collection and production of balance
of payments statistics was concentrated in the cen-
tral bank. In the case of the National Bank, the pro-
duction of balance of payment statistics was as-
gned to the Foreign Department. Until Poland
ceased being a member of the International Mone-
tary Fund in 1950, the bank compiled balance of
payment statistics for publication by the Fund.17
Publication of these statistics was resumed in 1981.

In 1964, the banking system was reformed, and all
banking operations dealing with trade, services,
transfers, and loan and credit operations with foreign
countries were concentrated in the foreign trade bank,
Bank Handlowy. Also, at that time, the National Bank
staff engaged in collecting the statistics from the
banks were transferred to Bank Handlowy (about 40
people). The final compilation and analysis continued
to be done at the National Bank. As in many coun-
tries, a division of labor existed in Poland between
the National Bank and the Central Statistical Office
whereby the latter compiled physical merchandise
trade statistics and the former statistics on services.

The Foreign Department used to compile the bal-
ance of payments only on a cash basis. All receipts
and payments effected by the National Bank and
other banks involved in foreign transactions, that is,
Bank Handlowy and Bank Polska Kasa Opieki SA.
Most settlements were in the context of bilateral
payment agreements, and in nonconvertible curren-
cies. In addition to the semiannual and annual re-
ports published since 1981, the Foreign Department
used to make monthly reports available to the au-
thorities. Balance of payments on a transaction basis
was compiled only annually.

Implementation Experience

The Economics, Projections, and Analysis Depart-
ment's modernization process had a quick start and
began making significant progress as early as 1991.
A ten-day monitoring system was introduced and a
committee was created to prepare a comprehensive
monthly reporting system for monetary and pruden-
tial purposes. The main obstacle encountered by this
department in modernizing its functions was the lack
of good and consistent statistics. To build even a
simple macroeconomic model, it needed information
from the past to derive behavioral equations for test-
ing for the future. However, the Polish economy was
going through a major transformation in all sectors,
and there was no consistent series of economic vari-
ables to use for economic analysis. Thus, for almost
two years, the research and modeling activities of
the Economics, Projections, and Analysis Depart-
ment were seriously handicapped by the lack of past
empirical evidence and consistent data.

In the balance of payment statistics the National
Bank had to overcome serious problems of data col-
lection from several sources, and it took almost two
years to centralize the information in the Bank and
to adopt a modern collection system. In 1992, in the
area of capital account, it had to introduce new
forms of foreign bank accounts to capture private
capital in-and-out flows and information from enter-
prises on an accrual basis. Surveys to gauge inward
direct investments were also conducted initially in
1990 and 1991, and a new classification for residents
and nonresidents had to be introduced. In both cases,
the lack of modern technology and computer support
also militated against modernization in these areas.

Payments System

The National Bank inherited a poor payments sys-
tem, which was decentralized and overwhelmed
with a variety of independent accounts. In addition,
as previously indicated, the telecommunication
and postal service systems were inadequate and no clear-
inghouse was operating in the country. Each of the
49 National Bank branches maintained accounts for
the branches of commercial and savings banks in its
region. For example, the Gdansk branch of the Na-
tional Bank maintained 29 accounts, one for each
branch of each bank operating in that region. For a
variety of purposes, these branches were treated
almost as if they were separate institutions. The major
savings bank, Powszechna Kasa Oszczednosci BP;
the two specialized banks in foreign currency busi-
ness Bank Handlowy and Bank Polska Kasa Opieki
SA; and the specialized Bank for Food Economy, all
together these banks had 850 offices in Poland, each
with an account with the National Bank.

17 Poland rejoined the International Monetary Fund in 1986.
The Bank also maintained 12 computer centers and used to purchase time sharing from 35 privately owned computer centers. The need for all this computing power stemmed from the fact that the National Bank used to do all the internal account administration and general book accounting for each commercial and savings bank branch. The processing was done on a batch basis, with data transferred from the commercial banks to the National Bank via tape, floppy disk (tapes and diskettes were transported by courier to the centers), or telecommunications link. National Bank processing occurred overnight and paper output was delivered to the banks the next morning. Banks used their accounts to deposit and withdraw cash, to process interbank and interbranch transactions, and to maintain reserves and receive various types of refinancing credit. While the National Bank computing centers processed all branch bank accounting, the relationship of the bank branch to the National Bank branch revolved around the maintenance of the branch account with the National Bank. There was no communication between the computing centers and the National Bank branches as to branch accounting detail or payment information.

The Polish payments system depended primarily on credit (giro and debit check transfers) based on cash paper. A telegraphic transfer system was used at times for large intrabank transactions. As a result of the inefficiencies in the system and the large amount of paper documentation to be processed, the clearing of payment documents used to take between 7 and 15 days. Depending on the location of the branches and the National Bank, each local National Bank branch treated each separate commercial bank branch independently. Thus, commercial banks not only had to ensure that their aggregate balance with the National Bank was well managed, but that each branch account was as well. In practice, each commercial bank had an amount of refinance credit supplied to it by the National Bank. The banks allocated this amount to their branches, and each National Bank branch was notified of the allocations. If a commercial bank branch account with the National Bank was negative owing to an imbalance in its payment settlement, the National Bank branch automatically supplied the branch with refinancing in the form of payment credit at that minimum rate. If, however, the branch exceeded its refinance credit allocation, it was penalized at much higher rates. This penalty occurred even if other bank offices with accounts at the same National Bank branch had excess reserves or if the bank was in an overall surplus position.

This process led banks to move funds among their own branches across National Bank books if they saw that an imbalance would last more than a day, and to maintain excess reserves while at the same time paying for payment credit. A large and erratic float was continuously present in the Polish payments system.

For the final reconciliation, all National Bank branches sent data on payment advice to a central computing center in Warsaw. These advice were reconciled at a detailed level to ensure payment: advice sent were received and accounted for. However, no special effort was made to close open items until ten days had passed.

The modernization strategy, largely based on improved technology and transportation facilities, envisaged the creation of an interbank settlement department and of a national clearinghouse, the shortening of the settlement period to reduce risk and float, and the implementation of a National Bank wire for an electronic payment-by-payment, large-value transfer system, to complement the clearinghouse.

Implementation Experience

The modernization program of the payments system encountered several difficulties. Apart from the technological deficiencies, Polish authorities lacked experience with an efficient payments system in a market-based economy. It was not clear that a safe, effective, and efficient payments system was a necessary condition for the growth and development of a modern economy, with efficient money and capital markets, because the legacy of the old system allowed banks and branch banks to receive credit automatically upon request. Also, within the National Bank, it took time to appreciate fully that an efficient payments system is the main gear in the transmission mechanism of market-oriented monetary policy intervention. In the case of the National Bank, it was not until ten days had passed. The Bank took time to appreciate fully that an efficient payments system is the main gear in the transmission mechanism of market-oriented monetary policy intervention. In the case of the National Bank, in particular, the existence of a float, which was erratic and thus unpredictable, made the liquidity forecast exercise of the Monetary and Credit Policy Department very difficult. Further, the lack of a quick and safe payments system discouraged the development of interbank and capital markets at a very early stage of the economic transition of the Polish economy. As a result of the low priority placed initially by the Polish authorities on payments system issues and the lack of cooperation of the commercial banks in investing to centralize their accounts, to automate their operations, and to create a clearinghouse, the modernization of the payments system had a slow start. However, a major scam perpetrated by a private holding company called Art-B in July 1991 sent a strong alarm to the banking sector and to Polish officials about the importance of implementing the proposed action plan and the near-term actions elaborated in the technical assistance provided by the Exchange...
Affairs Department of the IMF. Beginning August 1991, the National Bank of Poland began to take steps to close the opportunities for the repetition of such scams, and a momentum was created to accelerate the modernization of the payments system.

The authorities realized that their payments system was inefficient and potentially open to significant settlement risk exposures. By granting immediate credit to a depositing bank without debiting the other bank, the system was open to abuse and potential losses for the National Bank, as the lender of last resort. As a result of the float, the National Bank was effectively extending interest-free credit to the depositing bank. This also greatly complicated the monetary policy actions of the Bank and greatly hampered the effectiveness of the daily liquidity forecast exercise of the Monetary and Credit Policy Department.

To address the above issues, the National Bank of Poland embarked on a major program of modernization of the payments system. It embraced a two-pronged strategy: (1) near-term improvements to address immediate problems by using existing technology, and (2) a medium-term strategy of automation and electronic-based payments. The near-term improvements envisaged a strategy with the following objectives:

- Establishing one account per bank at the National Bank. This would have the impact of facilitating National Bank operations with each bank, particularly credit and debit transactions. On the other hand, this would also require the consolidation for each bank of all branch accounts into one single account in the books of the commercial bank.
- Improving and encouraging the use of the telegraphic transfers for interbank payments, regardless of the location of the banks, and streamlining the processing of telegraphic transfers to the extent possible.
- Sending large-value government payments over the telegraphic transfer system.
- Having the computer centers send the advices of interbank debits and credits directly to the National Bank branch on the same day it sent copies of these advices to the bank branch to speed National Bank accounting.
- Organizing efficient local and other physical exchanges of paper checks and payment orders.
- Requiring banks to use banking mail or some other method of transporting paper documents that would guarantee delivery within established time frames. The cost could be shared between the sending and receiving banks.
- Establishing the necessary legal or regulatory structure to ensure efficient payments handling.
- Establishing incentives for an efficient debit payments process by eliminating the procedure that grants credits to the depositing banks before debits can be charged to the paying banks.

### Other Reforms in the National Bank of Poland

The modernization of the National Bank of Poland was not confined to the above activities but was extended to virtually all sectors, such as internal organization, internal audit, and data processing and automation.

#### Internal Organization

The National Bank gradually rationalized some activities inherited from the monobank system by divesting itself of commercial and nonbanking services to the nonbank public and accounting services to the branches of commercial banks. On the other hand, it was charged with new responsibilities under the 1990 National Bank of Poland Act, and new departments needed to be created and added to the existing structure. The reorganization of the National Bank took a few years, but it was planned with the objective of creating a new structure and allocation of functions to each department to ensure the full and satisfactory performance of the Bank. The main reforms were contained in a document called “Organizational Regulation of the National Bank of Poland,” June 1, 1990. The document addressed the main objectives of (1) disengagement from nontypical central bank activities; (2) reduction of bureaucratic/legalistic procedures; and (3) reorganizing structure. In the last context, a major restructuring of the National Bank took place with the streamlining of the departmental structure and the appointment of...
one first deputy president, largely responsible for monetary policy decisions and operations and for administrative matters. A second deputy president was also appointed, responsible for the main operational activities of the bank. An executive board comprising the directors of the main departments was also created to discuss the main policy decision of the National Bank. The new organization was more decentralized than the previous one, where the governor was chiefly responsible for decision making. More power was now delegated to the deputies and departments in order to respond more quickly and effectively to the new challenges of the Bank.

The main innovation brought into the National Bank was the decision to improve communication and to share information with its staff and among all its departments. Under the old system, departments did not commonly share information, but rather performed as if in competition with each other over the ownership of information. To rectify this attitude and to create a spirit of cooperation, access to all departments and regular meetings between department heads and the senior management of the bank were introduced. In addition, the introduction of a computer network system linking all main departments was instrumental in creating a different working atmosphere and a sharing of information. Finally, as part of the restructuring, a great emphasis was placed on training staff locally and abroad under bilateral and multilateral training programs offered by central banks and other institutions. Foreign language courses, particularly English, were offered to all staff members.

**Internal Audit**

Internal audit procedures were laid down in 1991. After overcoming an initial problem in recruiting qualified staff, the Internal Audit Department directly responsible to the President of the Bank, began conducting regular audits of the departments in 1992.

**Data Processing and Automation**

A major restructuring and modernization of the Bank Computing Center began in early 1992. The National Bank took the dual approach of focusing on data-processing oriented systems, such as accounting, the general ledger and book entry, and providing departments with network support by installing a Local Area Network system.

**Other Reforms**

Any central bank effective in implementing monetary policy needs appropriate internal structure and instruments, and as a counterpart, an efficient financial sector. The impact of the modernization of the National Bank would have been largely nullified if, at the same time, the Polish authorities had not implemented the necessary reforms to address the problem of the financial sector. As in many other Eastern European countries, Poland had to face the challenge of restructuring state-owned banks (and public enterprises, the banks' main customers) and supervising new banks and cooperative banks.

**State-Owned Banks**

In mid-1993 the Polish authorities introduced a Bank Restructuring Program as part of the broader institutional reform of the Polish financial sector. The ultimate objective of the reform was to recapitalize the state-owned banks in order to privatize them. As a first step to this end the Ministry of Finance commissioned an analysis of the financial portfolio of the nine commercial banks. The audits were carried out by national auditing firms and revealed a very high percentage of substandard and nonperforming loans, albeit not evenly distributed among the nine banks. The state of nonperforming loans in the private sector was as high as in the case of public enterprises. As a result of the audit, it was estimated that the capital adequacy ratio of the banks, after provisions, would have fallen well below the average standard of 8 percent. The Polish Government addressed the restructuring of the banks by using a decentralized approach. This consisted of recapitalizing the banks to such a level that they will be able to create adequate provisions for the bad loans, and introducing mechanisms that will encourage and even force the banks to undertake specific actions with respect to the bad debtors. The amount of ex-ante recapitalization is not dependent on the amount of bad loans to be recovered. This creates incentives for the bank to recover as much as of the bad debt as possible.20

Under the program, the nine banks separated the loans classified as doubtful and as loss making and created a unit in each bank to manage the bad loan portfolio. The Government required the bank to provision 100 percent coverage for loss and 50 percent for doubtful loans. The recapitalization occurred by issuing 15-year redeemable treasury bonds, denominated in zloty, indexed to a basket of foreign currencies, and bearing market interest rates. Before the

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20 The World Bank and IMF Conference Building Sound Finance in Emerging Market Economies, presented by Mr. Stefan Kavalec, Under Secretary at the Ministry of Finance in Poland (unpublished paper).
privatization of the banks, the bonds were to be serviced and redeemed by the Treasury. The choice of treasury bonds was facilitated by the existing liquidity in the Polish banking sector. Under the program, all restructured banks had to attain the 12 percent capital adequacy ratio by December 31, 1993. The total recapitalization cost for only seven banks was estimated at approximately US$630 million.

**Cooperative Banks**

A system of approximately 1,600 cooperatives operated in Poland, accounting for about 6 percent of total banking sector assets. In September 1992, the National Bank became responsible for the supervision of these cooperatives. This has not been an easy task considering that additionally the National Bank had to supervise 86 commercial banks. The National Bank participated in the preparation of a special law on restructuring the Bank of Food Economy and cooperative banks, which was passed by the Parliament in June 1994. The law has introduced some systemic solutions for consolidation of the cooperative banks and improvement of their financial standing. Pursuant to the law, credit decisions for the cooperative banks are made by a committee that includes representatives of the associate bank. Cooperative banks have also lost the authority to extend loan guarantees, which appeared to be a major problem in the past. To improve supervision of these cooperative banks, a plan of reform has been agreed upon with external support. Under the plan, all the cooperatives will be audited and ultimately supervised by a new body called the auditing union.
The progress made by the National Bank in its modernization process for 1990–95 has been remarkable. In a few years, it has virtually completed its transition from a monobank system to a modern, market-based central bank. This progress is even more remarkable when one considers the internal political problems and slow pace of reforms during more than a year when the bank lacked a President.

From a small basis and with serious and numerous issues to address, the National Bank has admirably managed to place itself as one of the first central banks of the old Soviet bloc capable of conducting open market operations in a market-based system by utilizing indirect instruments of monetary policy. However, the modernization of the Bank is not entirely over. Issues are still pending, and projects started in the early 1990s are to be completed. As in all market-based monetary systems, the Bank is in a continuous state of transformation and modernization to keep up with the changing environment and new developments in banking practices and technology. However, it is fair to say that it has recently graduated as a full-fledged central bank in a modern environment and market-based monetary system.

The rest of this chapter will describe the status of the main operational activities of the National Bank in 1995/96.

Monetary Operations

The National Bank of Poland has built from scratch in about five years a market-based monetary system where indirect instruments of monetary policy are used as the main policy tool of intervention. In retrospect, it is clear that the creation of the market-based system of monetary policy in Poland was the result of the concurrent development and progress in all departments of the National Bank and the restructuring and cooperation of the financial sector.

The development of the interbank market has enabled the National Bank to implement open market operations as the main indirect instrument of monetary policy. The current main objective of the National Bank is to monitor "bank reserves or to calibrate the level of market interest rate." This is done in line with, and in the context of, the main macroeconomic targets established by the Polish authorities for growth, inflation, and balance of payments outcome. The first National Bank market interventions began in December 1992 with the issuance of regulations by the Bank on open market operations activities. The first open market operations focused on repurchase agreements. They were very small and not very successful owing to the excess liquidity in the banking sector. In addition, it became clear that an efficient payments system to ensure safe and fast settlement was essential to the implementation of their operations. Thus, the beginning of full-fledged, open market operations could only start after the establishment of the national clearinghouse in 1993.

Since the beginning of 1993, the National Bank has begun open market operations—repo and reserve repo—with a group of primary dealers (commercial banks with a current account in the National Bank). The number of the primary dealers has increased in 1995 from 21 to 28. Open-market operations have grown in size and importance throughout the period. Except for a brief period in mid-1993, National Bank operations have mostly concentrated on reverse repo operations in an effort to reduce the excess liquidity in the banking sector, largely generated by capital inflows and government deficits. At the beginning, and particularly in 1994, the National Bank encountered some difficulties in implementing effectively its open market operations. The main problems were related to the size of the interventions and the lack of an appropriate portfolio of government securities for outright operations. Owing to seasonal factors, such as the bunching up of the National Bank financing of the government deficit, excess liquidity in the financial sector reached, at times, very high levels. Since the face value of the
collateral securities issued by the Government in physical form (by the law) used to be of a large amount and could not be divided into smaller amounts, the Bank was handicapped in its outright sales operations. As a result, the National Bank’s initial open market operations were concentrated on the very short term (one to three days and occasionally up to two weeks) and could not affect significantly the shape of the yield curve. To address the inability of being capable to withdraw excess liquidity for longer periods of time, it complemented its open market operations with outright sales of central bank bills (National Bank bills). The first outright auction took place in July 1994.

**Open Market Operations Target**

According to Article 5.1 of the National Bank of Poland Act, the main objective of the National Bank is to promote price stability. The intermediate target of monetary policy is the total money supply, including currency outside banks and all types of current deposits denominated in domestic and foreign currencies. The money supply target is specified in nominal terms as a percentage increase during the year.

Before initiating open market operations, the Bank had to choose a short-term target for its monetary policy. In view of the rapid changes in the economy and the volatile relationships between economic variables, the National Bank chose both reserve money and short-term interest rates as the operational targets of its monetary policy. The practical advantage derived from choosing short-term interest rates for this purpose was that market rate reactions provided the central bank with immediate information on the behavior of the market. In actual practice, the overnight interbank rate is playing the role of such a target. In January 1996, the National Bank coordinating committee has shifted to reserve money as the only operating target in view of the trend and stability of the money multiplier. Controlling inflation (as measured by the CPI) remains the final goal and total money supply is the intermediate target. The change was necessary owing to the rather unstable relation between short-term interest rates and broad money.

The major factors behind the setting of the basic level of National Bank repo rate are the preannounced pace of the downward crawl of the zloty, the short-term interest rates prevailing in the countries included in the basket for the calculation of the zloty rate, and current developments in the domestic money market.

**Open Market Operations Programming**

The program of daily open market operations interventions is based on a daily forecasting exercise of change in reserve market liquidity. Essentially, the National Bank forecasts three main flows, “independent liquidity,” “free reserve net,” and “maturing open market operations,” in order to arrive at the estimated change in reserve market liquidity in a day. On that basis, a decision is made on the type and volume of intervention in the market. Clearly, the National Bank has no direct control over the first flow comprising growth in (a) official reserves, (b) net credit to the budget, and (c) currency in circulation. Instead, the Bank can influence the “free reserves net” of the commercial banks and estimate the maturing open market operations.

**Open Market Operations Decision-Making Process**

The functioning of the open market operations system requires a developed interbank money market, an adequate interbank settlement system, and an internal open market operations structure within the central bank. In 1990–91 these preconditions for the functioning of the open market operations system were not fulfilled. Nonetheless, from the very start, the National Bank management aimed at developing open market operations into a primary instrument of monetary policy.

In 1992, the National Bank established a special three-level decision-making structure to design open market operations. The strategic decisions are taken by the open market operations coordinating committee headed by the First Deputy President of National Bank.22 The committee is composed of the directors of the departments, whose activities are related to the conduct of open market operations, and the deputy director of the Money and Credit Policy Department, who is directly responsible for open market operations. The committee usually meets twice a month. The members of the committee discuss the general economic situation to formulate the objectives of monetary policy for the near-term future. The Money and Credit Policy Department presents its forecasts on the liquidity of the banking system. The committee provides operating guides for the director of the Money and Credit Policy Department on the directions of open market operations and on the target repo rate level for the next two or three weeks.

The operational decisions are taken by the open market operations committee located within the Money and Credit Policy Department. The committee is composed of the director of the department, his deputies, and the heads of the divisions responsible

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22National Bank of Poland President decree on the establishment of the Open Market Operations Coordination Committee (January 1, 1993, amended in March 1993).
for the instruments being used in exercising National Bank monetary policy. The committee meets every Monday and decides on the size of open market operations during that week. The decisions are based on the liquidity forecasts prepared by the open-market operations planning and dealing operations division. The decisions on daily operations are taken by the director of the Money and Credit Policy Department supported by his deputies and specialists from open market operations planning and dealing operations divisions.

**Conduct of Open Market Operations**

The National Bank of Poland is carrying out open market operations through its money market dealers. As of October 1996 there were 29 banks fulfilling this role. In actual practice, National Bank dealers are the most active market players. The National Bank money market dealers are required to be active in the primary and secondary markets in treasury bills, to quote bid and offered prices for treasury bills, and to meet special requirements on supplying the bank with relevant information. The open market operations consist of repo and reverse repo operations and outright sales and purchases of treasury bills.

The first type of open market operation is carried out during special auctions organized practically every day. The time span of operations ranges from 1 to 14 days. The open market operations are exercised in three ways (depending on the situation prevailing in the market).

- The National Bank specifies the type and size of open market operations. During the auction, banks specify their bid or offered rates. The Bank decides on the cut rate (minimum for reverse repo and maximum for repo) and accepts every deal at this rate.

- The National Bank specifies the type of open market operations and the rate at which it accepts bank offers. The Bank accepts every bid at this rate.

- The National Bank specifies the type of open market operations, its size, and the interest rate. The Bank accepts every bid at this rate. If the amount of bids exceeds the size of the planned operation, the bids are reduced proportionally.

The second instrument of open market operations is outright sales or purchases of Treasury bills from or to a central bank portfolio.

**Settlement**

The efficient functioning of the emerging Polish money market demanded the creation of a new clearing settlement system to enable banks to enter short-term transactions. The development of the Polish interbank money market was possible owing to the changes that took place in the payment system.

Under the former system, banks' operational branches held their current accounts with National Bank regional branches. Consequently, bank reserves were dispersed. A settlement between banks took from 3 days to as long as 14 days. This was too long to facilitate money market operations. In 1992 the National Bank started to consolidate banks' current accounts. Only the headquarters of banks held reserve balances with National Bank regional branches. This enabled short-term transactions among banks holding their reserves with the same National Bank regional branch. Nonetheless, the market was still fragmented.

The key elements of the payment system reform were the establishment of the national clearinghouse in 1993 and the consolidation of bank reserve balances at the National Bank headquarters in Warsaw from April 1993 to June 1994. Under the new system, all commercial banks keep their reserve balances either with the National Bank or with a correspondent bank that is a member of the national clearinghouse. The new payment system facilitates immediate interbank payments in the form of shifting funds among banks' current accounts held at the National Bank headquarters. The selling bank notifies the National Bank to debit its account and wire the funds to the buying bank. Overnight operations are possible countrywide. The previously fragmented interbank money market has become fully integrated. Since the second half of 1994 banks have been authorized to use their obligatory reserves to make current settlements and to combine reserves bearing no interest and current accounts. This has clearly hastened the further development of the domestic money market (Table 2).

The multilateral netting system of the national clearinghouse allows the exchange of claims and the calculation of mutual positions within the banking system. The settlement institution for commercial banks is the National Bank. There are two settlement systems: the paper-based SYBIR, started in April 1993, and book-entry-based ELIXIR, launched in 1994. Currently, ELIXIR is designed for large wholesale transactions.

Under the SYBIR system a settlement among banks takes two days. Bank branches send payment documents to regional clearinghouses, which then exchange orders to debit or credit each bank's customer accounts. On the same day regional clearinghouses send the information to the national clearinghouse, which then nets the banks' positions. Banks receive information concerning their positions by the end of the day. The next day two settlement sessions take place in the Interbank Settlements Depart-
Table 2. Development of Money Market Assets, 1994–95
(In billions of złoty and percent of total)

<table>
<thead>
<tr>
<th></th>
<th>1994 December</th>
<th>1994 June</th>
<th>1995 December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interbank deposits</td>
<td>2.60</td>
<td>2.92</td>
<td>4.64</td>
</tr>
<tr>
<td>(7.8)</td>
<td>(8.0)</td>
<td>(10.8)</td>
<td></td>
</tr>
<tr>
<td>Treasury bills in the market</td>
<td>17.89</td>
<td>24.64</td>
<td>28.82</td>
</tr>
<tr>
<td>(54.1)</td>
<td>(67.4)</td>
<td>(67.1)</td>
<td></td>
</tr>
<tr>
<td>NBP bills outstanding</td>
<td>1.96</td>
<td>2.06</td>
<td>5.75</td>
</tr>
<tr>
<td>(5.9)</td>
<td>(5.6)</td>
<td>(13.4)</td>
<td></td>
</tr>
<tr>
<td>Treasury bills in NBP portfolio</td>
<td>9.64</td>
<td>4.19</td>
<td>0.03</td>
</tr>
<tr>
<td>(29.1)</td>
<td>(11.4)</td>
<td>(0.1)</td>
<td></td>
</tr>
<tr>
<td>Reserve-repo NBP</td>
<td>0.99</td>
<td>2.77</td>
<td>3.68</td>
</tr>
<tr>
<td>(3.1)</td>
<td>(7.6)</td>
<td>(8.6)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33.08</td>
<td>36.58</td>
<td>42.92</td>
</tr>
</tbody>
</table>

Source: National Bank of Poland.

ment of the National Bank. The session for credit documents (widely used in Poland) starts at 10:30 a.m., and the session for debit documents takes place at 7:00 p.m. Settlement of the ELIXIR results is made at the National Bank during three settlement sessions (morning and evening session, together with SYBIR results, and an afternoon session since September 1995). Introducing a third session for the ELIXIR system enables complete settlements between a bank’s customers in one day.

Book-Entry System

On July 1, 1995, the National Bank of Poland implemented a book-entry securities system called the SKARB-net. This system is a custody and transfer system, which supports primary and secondary market transactions in treasury bills issued by the Ministry of Finance. Since implementation of the system, five treasury bills of different maturities have been issued each week on this system. In addition, a small number of secondary market transactions have been cleared and settled each day.

This system was developed and is supported by National Bank technical staff from the Information Technology Department according to user requirements specified by the Monetary and Credit Policy Department and by representatives of the Ministry of Finance. The SKARB-net was developed in a client-server environment and operates on a local area network (LAN). The LAN system is the National Bank’s strategic automation platform. The terminals used to access the SKARB-net are located in the Monetary and Credit Policy Department of the Bank. The hours of operation are 8:00 a.m. to 3:00 p.m. All activity in the system is formed off line, that is, no participants have direct access to the system.

All banks in Poland are required to have a book-entry custody account on the SKARB-net. However, only 43 banks are currently authorized to be primary participants (to submit bids directly) in the primary market auction for the purchase of treasury bills in book-entry form. The remaining banks have access to the primary market through banks that are primary participants. In addition, 17 nonbanking institutions have been designated by the Ministry of Finance as primary market participants, with accounts on SKARB-net. Other nonbanking institutions have access to the primary market through their banking institutions.

Each banking participant has two SKARB-net sub-accounts, one for its own investments and one for its clients’ securities. Nonbanking participants have only one account, which is for their own investments.

Treasury bills of 8-, 13-, 16-, 39-, and 52-week maturities are sold at auction each Monday. Primary market participants submit an unlimited number of competitive bids for one or more maturities either by fax or in person to the designated staff in the Monetary and Credit Policy Department. Bidders must specify whether the bids are being made for their own accounts or on behalf of their clients. Client bids are further designated as domestic banking, domestic nonbanking, or foreign. Bids are received until 11:00 a.m. The treasury bill auction operations staff at the National Bank review each bid for completeness, verify the authentication of the faxed bids by a comparison of signatures to a signature card file, and make a callback to the submitter to confirm the receipt and details of the bid.

Secondary Market Functionality

Secondary market transactions between banks are settled on a delivery-versus-payment basis. However, secondary market transactions involving nonbank participants are settled outside of the SKARB-net, and the securities movements for these transactions are effected free of payment within the SKARB-net.

Interbank Transactions

In an interbank secondary market transaction, the seller and buyer fax instructions to the book-entry unit of the National Bank’s Monetary and Credit Policy Department; the buyer also faxes a payment order. Instructions are authenticated and verified by
signature comparison and callback and then entered into the SKARB-net by an operator.

The SKARB-net transmits electronically the SORB\textsuperscript{23} payment information along with the control number for each matched transaction. The hardcopy payment order is forwarded to the Interbank Settlement Department. Staff from this department manually verify the information on the hardcopy of the payment order with the information passed electronically from the SKARB-net. If the information matches, the payment order is authorized for processing within SORB. On the settlement date noted on the instruction, which may be the trade T+0, T+1, or T+2, SORB records the buyer’s payment, and automatically sends a message to the SKARB-net to release the transaction. The securities are then, and only then, moved from the seller’s account to the buyer’s without further manual intervention.

**Nonbank Transactions**

If the seller or the buyer is a nonbank participant, the transaction is handled in a different manner. From a SKARB-net system point of view, no payment accompanies the transaction. The nonbank participant must make payment outside SORB, since only banks are allowed to have current accounts at the National Bank. The nonbank participant either makes or receives the payment through its clearing bank, which utilizes the national clearinghouse. These payments made through national clearinghouses are on a next-day, rather than same-day, basis. Instructions concerning the securities movement are not forwarded to the National Bank until the seller’s/buyer’s clearing bank has confirmed payment.

**Collateral Transactions**

Book-entry securities may be designated on the SKARB-net as collateral for a Lombard credit, for a repurchase agreement with the National Bank or another SKARB-net participant, or for other unspecified purposes.

**Bank Supervision**

After the establishment of temporary prudential regulations and conducting surveys to assess the soundness of the financial sector, the inspectorate quickly moved during 1993–95 to build on this foundation. The main benchmarks established during this period are summarized below.

\textsuperscript{23}SORB is the system that maintains the reserve and clearing accounts of all banks on the books of the National Bank.

**Commercial Bank Audits**

In accordance with the agreement of 1993, renewed in 1994, for on-call audit services, 19 diagnostic audits were conducted for banks in crisis or threatened by bankruptcy or liquidation.

The inspectorate obtained wide-spectrum audits that were used by the courts during liquidation or bankruptcy proceedings and were vital in negotiations with potential buyers of crisis banks. During the 19 audits, 24 inspectors of banking supervision underwent training in financial inspection of banks, methodology of outside audits, and international accounting standards.

**Banking Inspection Textbook**

The inspectorate is finalizing an on-site inspection manual. The manual encompasses almost all fields of banking and commercial banking risks. It will be distributed to banks, so that they may gain knowledge of the inspection techniques and procedures, and be familiar with the inspectorate requirements as well. The manual will facilitate on-site inspections in the future and introduce a certain standardization in mutual demands and expectations.

**Bank Liquidation Textbooks**

The inspectorate has formulated a procedure manual for bank liquidations. The manual introduces a standard set of instructions for proceedings in cases of a bank collapse, as well as a plan for bid offers for liquidators, bankruptcy trustees, and investors of banks in crisis. Standardization in the form of a matrix of principal financial data and other information pertaining to a bank will improve the central bank’s action in liquidation and sale of banks in crisis. The manual uses the experience of the Federal Deposit Insurance Corporation in the United States and the experience gained in restructuring and liquidation of cooperative and private banks in Poland.

**Performance Reporting for Bank Supervision**

The inspectorate has been conducting studies for reforming currency control reporting and developing an adequate computer processing infrastructure (programming and database, information reporting system) as well as for preparation of a standard analysis sheet modeled after the uniform report regarding bank performance. The new reporting standard, which will become obligatory before the end of 1996, will satisfy the goals and needs of several National Bank departments, including the inspectorate and the Money and Credit Policy Department.
Research in this matter is being conducted by a special interdepartmental team.

Training of Bank Supervision Personnel

In 1994–95, intensive training was provided for the inspectorate personnel and the staff of 39 National Bank branches for supervising cooperative banks. After training, inspectors controlling cooperative banks gradually began to participate in commercial bank inspections. In 1994 a total of 388 out of 468 workers employed within the entire inspectorate structure received training.

Of fundamental importance is the theoretical and practical training program dedicated to on-site inspections. Conducted since May 1993, the training program is a part of a program created at the National Bank to produce an inspection manual. In February 1994, a second training session was held for 27 supervision inspectors (25 were trained during the first session). An International Monetary Fund/Monetary and Exchange Affairs Department expert has been providing training seminars on the standard plan of accounts since 1993.

Publishing Activities of the Inspectorate

In order to acquaint the supervision inspectors with the protective regulations of the foreign countries, the methods of supervising banks in crisis, and the principles of cooperation with outside auditors and internal controls, the inspectorate issued a total of 25 publications during 1993 and 1994. Some of those publications have been distributed to banks and other institutions.

Standard Plan of Bank Accounts

In 1994, the inspectorate developed a standard plan of bank accounts with the help of experts from the International Monetary Fund. The final version was published on February 2, 1995.

On-Site Bank Inspections

Following the initial period of building up standard monthly reports and off-site analysis, the inspectorate began on-site inspections with the assistance of external auditor firms in 1992. Gradually, the inspectorate has built up its capacity and increased the number of inspectors. On-site inspections are critical for proper identification of activities and risks of a bank. The number of workdays committed to commercial bank inspections has significantly increased in recent years.

At the same time, the number of inspections also increased from 221 in 1993 to 296 in 1994 and 317 in 1995 (an increase of more than 40 percent over three years). National Bank inspectors also conducted a number of inspections in cooperative banks (1,146 in 1995). Comprehensive and problemsolving inspections in cooperative banks are part of the framework established by the National Bank. Again, it should be emphasized that the audits also include commercial banks.

Restructuring

In 1993–95 restructuring of the banking industry was marked by the following activities.

- Eleven stock company banks lost their independent legal status. The activities of these banks were absorbed without loss of deposits and without disturbing the system of settlements. In seven cases, financial assistance was granted to the absorbing banks by the National Bank in the form of low-interest, preferential loans (1 percent).
- Ten banks that found themselves in crisis relinquished the control of capital to other banks. In four of these cases the same form of financial assistance was granted by the National Bank. The National Bank assumed full control (in excess of 90 percent) of the capital in two of the cases.
- Eleven cooperative banks were liquidated through sales to other banks, and nine banks took advantage of the financial assistance from the National Bank.
- Thirty-seven cooperative banks were absorbed by other cooperative banks—31 received financial assistance from the National Bank.

A total of 48 cooperative banks have been absorbed by other banks, and 40 have received financial assistance from the National Bank.

Protective Regulations

Table 3 lists the legal acts of the President of the National Bank of Poland concerning banking supervision, published in the Official Journal of the Bank.

Other Regulations

Between July 1994 and April 1995, the inspectorate drafted a number of important regulations after being delegated to legislative duties by the authority of the Accounting Act of April 29, 1994, as well as the Bank Guarantee Fund Act of December 14, 1994. As far as the accounting question is concerned, the National Bank, as authorized by the Accounting Act, issued Order No. 1/95 by the President of the National Bank of Poland dated February 16, 1995, concerning specific methods of accounting for
Table 3. Legal Acts of the National Bank of Poland on Bank Supervision, 1992–95

(1) Order No. 11/92 of the President of the National Bank of Poland dated August 7, 1992, regarding the organization of bank supervision and methods of its execution (Official Journal of the National Bank, No. 11, item 21).

(2) Order No. 16/92 of the President of National Bank of Poland dated October 1, 1992, regarding procedures in the event of circumstances indicating that the financial means or other assets came from or are related to criminal activity, or exceed a certain amount (Official Journal of the National Bank, No. 9, item 20).

(3) Order No. 4/93 of the President of the National Bank of Poland dated March 19, 1993, regarding establishment of the norms for acceptable risks in connection with foreign exchange operations in banks (Official Journal of the National Bank, No. 4, item 7, and in 1994, No. 13).

(4) Order No. 5/93 of the President of the National Bank of Poland dated March 20, 1993, regarding the principles for announcing the verified balance statements and statements of profits and losses (Official Journal of the National Bank, No. 4, item 8, and in 1994 No. 8, item 13).

(5) Order No. 7/93 of the President of the National Bank of Poland dated May 20, 1993, regarding the norms for covering bank assets out of own funds (Official Journal of the National Bank, No. 6, item 11).

(6) Order No. 13/94 of the President of the National Bank of Poland dated December 10, 1994, regarding the principles for creation of the reserves for operational risks of banks (Official Journal of the National Bank, No. 23, item 36).

(7) Order No. 1/95 of the President of the National Bank of Poland dated February 16, 1995, regarding the particular principles of accounting and supply of supplemental information (Official Journal of the National Bank, No. 4, item 8, and No. 11, item 20).

(8) Order No. 4/95 of the President of the National Bank of Poland dated February 22, 1995, regarding the establishment of a standard plan of bank accounts (Official Journal of the National Bank, No. 6, item 11).

The list of regulations relating to the activities of bank supervision in banks, aside from the National Accounting Plan—91, should also include the following recommendations issued by the President of the National Bank of Poland:

- Recommendation No. 5 of September 18, 1990, regarding an assessment of the financial liquidity of banks and recommendations of the President of the National Bank of Poland from 1993 and 1994 (unpublished).

- Recommendation of August 2, 1993, concerning the procedures for granting credit, loans, guarantees, and similar obligations on behalf of shareholders and persons performing functions of the administration and the Board of Directors, and other entities possessing capital or personal ties with banks.

- Recommendation dated September 9, 1994, regarding the methods and terms of delivering appendix B, form No. 3, and form No. 7 to the General Inspectorate of Bank Supervision of the National Bank of Poland.

banks and preparation of supplemental information. The order defines the scope of the term "bookkeeping," provides the required principles for keeping the account books in banks and describes principles of inventory methods, valuation of assets and liabilities, and calculating profits. In addition, it describes the scope and principles for preparation of financial statements and general principles for examining financial statements and safekeeping of data.

The inspectorate also drafted a proposal for an order of the President of the National Bank regarding consolidated balance statements for commercial banks under the universal banking system.

The Bank Guarantee Fund

In 1993, the National Bank initiated work toward a proposal for a Bank Guarantee Fund Act. The development of the proposal took many months of work and was preceded by extensive comparative studies on the subject of the systems of protection and safety of deposits and the systems of protecting the stability of banking system through the guarantee fund. The Bank used the experience of Spain, the Scandinavian countries, and France in preparation for the project, and conducted an analysis of the cost to the banking system by burdening the banks with contributions on behalf of the fund. During the negotiations between the governmental departments and the legislative sessions of parliamentary committees, the proposal underwent significant modifications. The Bank Guarantee Fund came into force on February 17, 1995. It comprises two main bodies: the supervisory board and the management board. The former consists of nine members appointed by the Minister of Finance, the President of the National Bank of Poland, and the Polish Banks’ Union (three members each). The chairman of the supervisory board is appointed by the Prime Minister upon motion by the Minister of Finance and the President of
the National Bank, and in consultation with the Sejm committee. The Bank Guarantee Fund's supervisory board appoints the five members of the management board. The financial institutions covered by the Bank Guarantee Fund are expected to pay obligatory charges in the amount not exceeding 0.4 percent of the sum of risk-weighted assets. The financial institutions covered are "banks which do business in the Republic of Poland under the Banking Act of January 31, 1989 with the exception of cooperative banks and the Bank for Food Economy." The Bank Guarantee Fund scheme covers 100 percent of the zloty equivalent of ECU 1,000 and 90 percent in excess of the zloty equivalent of ECU 1,000, but not in excess of the zloty equivalent of ECU 3,000.

Central Bank Accounting

The major achievement of the Accounting Department was reached in mid-1994 with the daily consolidation of the National Bank account from its 49 branches. As of April 1994 the Accounting Department receives a daily balance sheet in the new modern format from each of the 49 branches and is in a position to provide the Monetary and Credit Policy Department on a daily basis with the balances it needs, above all for the assessment of the liquidity situation of the banking system. After a three-month start-up phase, the data were transmitted by both e-mail and fax. Since July 1994 the daily transaction transmission has been effected using just the e-mail system, to which only the National Bank has access. The process allows for initial data reconciliation at the computer center and afterwards in the Accounting Department. Using modern display screens, the Accounting Department is able to verify that the transactions are entered in the summary accounts of the new chart of accounts that has been under development since 1991.

While the daily consolidation of the National Bank accounts remains the major landmark, other benchmarks were established by the Accounting Department during the last four years. The most important one remains the divestiture from commercial bank type activity, which was completed in May 1993 with the creation of the Polish Investment Bank, which inherited more than 600,000 commercial accounts. In addition, the Accounting Department has also modernized existing accounting and has applied new accounting techniques related to introduction of obligatory reserves, system of securities circulation, implementation of new monetary policy instruments, and adjustment of foreign securities valuation to international standards. A new chart of accounts, profit and loss account statements, revision of the accounting arrangements for central and local budgets, and new organization of the Accounting Department were also introduced.

Foreign Exchange Operations

On May 16, 1995, a new exchange system was introduced permitting the zloty to fluctuate within a band of ±7 percent around the central rate and reverting the bid-ask spread to its previous margin. The central rate continued to crawl against the basket by 1.2 percent a month. On December 21, 1995, the band was moved upward by 6 percent, and the monthly rate of crawl was reduced to 1 percent on January 8, 1996. All transactions are taking place at the market-determined rate. The currency band system should be able, at least on the basis of other countries' experience, to help the Polish authorities to ease external inflow pressures via the appreciation of the currency, but it would also reduce the usefulness of the exchange rate as a nominal anchor. In the short run, the appreciation of the zloty should help alleviate inflation, and could also allow for a marginal reduction in domestic interest rates. Within the existing arrangements, an interbank market in foreign exchange is now functioning in Poland under the supervision of the Bank. A major step for the development was the introduction of the prudential regulations and limits on foreign exchange exposure by the commercial banks introduced in mid-April 1993. The regulation envisaged an initial grace period of about four months to allow the banks to adjust their balance sheets to the new regulation. The commercial banks report monthly to the inspectorate and every ten days (with daily positions) to the Foreign Exchange Control Department of the National Bank. As a result, commercial banks with a license for dealing in foreign exchange were authorized to trade with each other without passing through the National Bank, as was done in the past. The National Bank has a very sophisticated trading desk through which it monitors daily activities in the market and provides on-screen quotations for buying/selling foreign exchange with the National Bank, after the daily fixing session at 2:00 p.m. About 60 banks trade in the foreign interbank market. The volume of

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24 Article 3a, Chapter 1 of the Act of December 14, 1994 (Bank Guarantee Fund).
25 Privatized during 1996.
transactions varies every day; occasionally it reaches about US$0.5 billion.

In support of the above exchange arrangements and in line with the process of trade liberalization and full convertibility, Poland notified the International Monetary Fund that as of June 1, 1995, the country has accepted the obligations of Article VIII, Sections 2, 3, and 4, of the Fund’s Articles of Agreement. This important step was greatly facilitated by the passage of a new Foreign Exchange Law, and supporting regulations.

Monetary Research and Analysis

The Research Department is now a well-organized modern unit providing useful support to policy determination and implementation of the National Bank. Modern econometric techniques and research tools are utilized by the department, supported by a modern computer LAN. Virtually all objectives set by the Research Department have been achieved: an accelerated information system was created; a summary monetary survey based on a ten-day reporting by a sample of banks plus all the Bank’s branches monthly reporting system for the commercial banks was set up in close collaboration with the inspectorate in order to collect information for monetary statistics and analysis as well as banking supervision; a monthly National Bank statistical bulletin has been regularly published since 1991, comprising coherent monetary statistics for the Bank, the commercial banks, and the integrated monetary survey; and a framework for monetary programming was set up in conjunction with the weekly liquidity forecast exercise in April 1991.

Payments System

A remarkable improvement in the payments system has taken place over the last four years. Even though the work has not been fully completed, the National Bank has created the structure and framework for the next step of expanding the limited capabilities in the current interbank settlement system and to create a large-value real-time gross settlement system that supports on-line transmission and receipt of transactions by commercial banks for their own accounts and on behalf of third-party customers.

During the last four years, the Bank has managed to improve its payments system network to facilitate the transmission mechanism of monetary policy operations. Particularly following the regulatory changes introduced to prevent reoccurrence of the Art-B scandal in 1991, the National Bank established the following benchmarks.

- It implemented a communications infrastructure (Telbank) providing network connectivity between the National Bank main office in Warsaw and all regional National Bank branches. This same infrastructure is being expanded to include commercial banks in the network.
- It established an interbank settlement function within the National Bank to facilitate transfers of reserve/clearing balances between accounts on its books in 1991.
- It established a national clearinghouse for overnight exchange of payment orders between commercial banks throughout Poland with next-day net settlement of clearing obligations on the books of the Bank in April 1993.
- It provided needed liquidity for clearinghouse application (ELIXIR), operated by the national clearinghouse with net settlement on the books of the National Bank in April 1994.
- It implemented an automated book-entry securities system to provide custody for and transfer of dematerialized securities issued by the Ministry of Finance. Original issue and secondary market activities are supported by this system on July 1, 1995.
- It developed for implementation in early 1996 of an automated system for on-line initiation and receipt of transactions by commercial banks to transfer reserve/clearing account balances on the books of the National Bank.

The above steps have tremendously boosted interbank transactions and shortened settlement between banks and clients to a few days. In some cases same-day settlement is also possible. An important area of data improvement has been the interbank settlement (the float). When the liquidity framework was initially constructed (April 1991) the float was very large and erratic, while the data were only available monthly. This information is now available daily. Through the introduction of the clearinghouse and interbank settlement functions the float dropped by more than 70 percent, from Zl 7.5 trillion to less than Zl 2 trillion in only a few months during mid-1993.

Under the old interbank settlement system, the commercial bank’s current account was held at a National Bank branch and settlement occurred through interbank clearing accounts on the books of the National Bank. For credit transfers, the originating bank would send a list of transfers to its National Bank branch, which would debit the originating bank and credit an interbank clearing account. When receiving branches received the credit transfers and credited customers, they sent a list to their National Bank regional branch. This branch credited the receiving branch and debited an interbank clearing account. Since the National Bank debits the sending bank before it credits the receiving bank, it has credit...
float on its books. Entries are reversed in the case of debit transaction and the National Bank has negative float. Credit transactions are much larger in value than debt transactions and the National Bank held large values of funds on its books (credit float) through these interbank settlement accounts, bearing no interest for banks. This old settlement system was used until the end of June 1994. Since then, all the banks have been settling their payment transactions through the national clearinghouse directly or through correspondent banks.

With the consolidations of accounts, the one current account per bank at the National Bank, introduction of the national clearinghouse and net settlement being booked directly to the Bank’s current account, funds passing through the National Bank’s interbank accounts have declined. This means that less money has to be sent to the National Bank to effect the same level of payments and the remaining funds can be used by banks.

The management of the national clearinghouse bank current accounts by the Interbank Settlement Department has facilitated the start-up of the clearing system. Interbank payment instructions can be received via fax, telex, diskettes, and paper orders delivered by couriers. Staff must follow appropriate security for verification before current accounts can be posted, resulting in posting delays. Given the “no overdraft” policy of account management, the National Bank is encouraged to proceed with automation efforts to expedite the posting of interbank entries to the current account processing system known as SORB.

**Monetary Reform**

On January 1, 1989, the National Bank of Poland introduced a monetary reform of the accounting unit of the zloty. A new zloty was introduced by moving the decimal four places to the left (for example, the exchange rate of the zloty vis-à-vis the U.S. dollar moved from about Zl 25,000 to Zl 2.5). This has simplified considerably statistics, bookkeeping, and accounting transactions. The old currency was allowed to circulate until December 31, 1996.
VI Lessons to Learn from the Polish Experience

The previous chapter provided information on the process followed by the National Bank of Poland to move from a monobank to a market-based system of monetary policy intervention. As indicated earlier, the National Bank has not entirely completed its job. Several projects are still ongoing and, additionally, the central bank is continuously in a process of modernizing its functions to keep pace with the evolution and innovations in the financial sector and in the world economy at large. An ex-post analysis of the Polish experience, the path followed by the National Bank during the last five years, is a useful exercise because it provides information and insight into crucial operational areas of the Bank, which could be used by other countries undergoing a similar transformation.

This last chapter analyzes the major factors that contributed to the modernization of the National Bank of Poland, as well as those that delayed its process, and provides the conclusion and challenges ahead.

Positive Factors

Willingness of the Polish Authorities

There is no doubt that one of the major factors behind the transformation of the National Bank of Poland into a market-based central bank has been the willingness and desire of the Polish authorities to establish such a central bank. In line with Poland’s general trend of moving toward a market-oriented economy, the unified goal of the Polish authorities was the main force beyond the modernization of the Bank. Compared with some other countries, where the issue of a market-based system and central bank independence is sometimes controversial and subject of lengthy discussion, in the case of Poland there was no such hesitation in 1989–90.

National Bank of Poland Act

The willingness of the Polish authorities to move toward a market-based system was demonstrated and enshrined in the January 1990 National Bank of Poland Act, which gave the Bank the broad powers to execute an independent monetary policy and laid the foundation for a “divorce-type” relation between the National Bank and the Ministry of Finance. Clearly, appropriate legislation is the foundation for a modern financial sector. In the case of Poland, the National Bank of Poland Act was crucial and well timed, being enacted at the very beginning of the transformation process.27

Establishment of Infrastructures

As discussed in the previous chapter, the development of the interbank money market and the conduct of open market operations through the money market dealers was the final result of a long process during which two major infrastructures had to be created: (1) the financial sector and (2) the open market operations system in the National Bank.

The development of the interbank market in Poland was an example of good cooperation between the commercial banks and the National Bank. The early creation of the Union of Polish Banks in 1991 was a major step toward creating a self-governing body with the authority of representing the banking community. The Union of Polish Banks was instrumental in conveying the views of the banking sector to the National Bank about new rules and innovations; in publishing banking information, such as the almanac of Polish banks in 1992 and other relevant information; and in working with the National Bank in the establishment and functioning of a joint telecommunications company (Telbank) and the first clearinghouse. While the divestiture of commercial activities from the National Bank gave the impetus to the creation of new banks that could compete in the Polish market, the Union of Polish Banks and the National Bank have worked closely in establishing a modern financial sector when open market operations are conducted by the National Bank.27

27The 1990 National Bank of Poland Act, albeit comprising important and crucial articles to establish the National Bank’s independence, had some weaknesses and has required continuous amendments.
Bank. The intervention of the Ministry of Finance in the recapitalization of banks, based on the portfolio's survey, and in the privatization process has also been crucial.

Internally, the National Bank of Poland had to build its own infrastructure. As discussed earlier in the report, the creation of a clearinghouse and of an efficient payments system were necessary to conduct same-day or next-day settlement between market participants and the National Bank. At the same time, an efficient and modern Accounting Department had to provide the daily information to the National Bank concerning its position vis-à-vis the financial sector; and the Research Department had to work with the Monetary and Credit Policy Department in the daily liquidity forecast to assess the need for intervention by the Bank. The banking supervision had to be built to monitor the soundness of the financial sector and avoid systemic default risks. Other departments in the National Bank had to be built to provide the technical, computer, and human resources to the central bank for the conduct of its daily operations.

**Sequence of Reforms**

Internally, the National Bank had to plan its reforms. The sequence of the implementation of the modernization action plan has been crucial for the final success of the plan. The implementation of its institutional reform was well sequenced so as to provide an immediate impact with short-term measures while working on a longer-term horizon.

**National Bank of Poland Interventions**

Even though market forces have played an important role in developing the current monetary system, the National Bank at times had to intervene to stimulate the private sector and market forces. Two clear cases were the creation of the first clearinghouse and the interdealer brokerage system. In the first case, it became clear in 1990–91 that the commercial banks were lacking initiative in creating a "private" clearinghouse, although they agreed on the importance of such an establishment. Thus, it had to take the lead in this area to create the clearinghouse, where the Bank is still one of the shareholders.

To stimulate brokerage activities and interbank transactions, the National Bank provided a screen-based interdealer brokerage system—called Telegazette in 1992—for central bank bills and treasury bills with supporting facilities to clear and settle government securities transactions. Dealers appointed by the National Bank could telephone to the Bank their buying and selling interest. National Bank personnel would display bids and offers to the other dealers in possession of the screen display system. After establishing a functioning market, the Bank has all but closed its facility; currently, there is one private sector interdealer broker functioning in the market.

**Simultaneous Technical Assistance in All Areas**

The Polish experience has been unique in several aspects, particularly regarding the format of the modernization plan. The National Bank of Poland with the support of the International Monetary Fund and other multilateral institutions, such as the World Bank, European Union, European Bank for Reconstruction and Development, and bilateral sources, has been the first country leaving the Soviet bloc that has successfully attempted to modernize simultaneously all its main central bank functional departments. This was necessary as a result of the great emphasis placed by the Polish authorities in establishing a market-oriented system in a very short period of time. As previously explained, the transition from direct controls to indirect monetary management requires a wide range of reforms in the financial sector and in the central bank.

In view of the close links existing between operational areas of any central bank in a market-oriented system, progress has to be made simultaneously in all key functional areas in order to avoid undue delays. It is very clear in the case of the National Bank of Poland that an interbank market could not have developed without a sound financial sector, thus, the need for the recapitalization of banks and the strengthening of the Banking Supervision Department. The use of indirect instruments required, among all other things, an efficient payments system to ensure quick and safe settlements, with small float, an effective accounting system, and a modern Research Department and liquidity forecast management unit. From there, a clearinghouse and an Interbank Settlement Department, a consolidation of commercial bank and central bank accounts, and the creation of a research unit to monitor and forecast daily, weekly, monthly, and cyclical variations in economic variables were needed. The modernization of the National Bank dealing rooms for the domestic and foreign market supported by a modern Computer Department were also essential. And, ultimately, the management of human resources to hire, train, and retain the appropriate staff for the institution was also an essential component of the National Bank modernization process, which had to be developed at the very early stage of the plan.

**What Went Wrong?**

It is very difficult in a case of a success story to identify what went wrong. However, it is possible to
analyze ex post what the actions/nonactions are that should/could have been avoided, and that, to some extent, delayed the modernization process.

**Legislation**

The National Bank of Poland Act of 1990 had several shortcomings that have required continuous amendments to facilitate the operation of the National Bank. In particular, the act was in some respects too specific and rigid, and it did not provide the Bank with the needed flexibility to issue regulations to change the modalities of its operations. In many instances, the law has required the Bank to seek parliamentary approval for the conduct of its monetary policy intervention or other operations, such as change in the reserve requirement, credit activity, and provision for the creation of an interbank market in foreign exchange. The act was also complicated by the existence of other legislation, such as the Foreign Exchange Law and the Commercial Law, which had, at times, conflicting articles. Nevertheless, the act opened the door to the process of ensuring adequate autonomous independence and autonomy for the National Bank in formulating and implementing monetary policy and other complementary central banking functions, while balancing such autonomy through institutional arrangements for the accountability of the Bank for its actions to the Parliament.

**Licensing of Too Many Banks**

The nine state-owned commercial banks were created on February 1, 1989. By the end of 1990 there were already 75 banks operating in Poland, in addition to 1,562 small cooperatives. Clearly, the large number of banks created a considerable problem and a tremendous task for the Supervision Department of the National Bank, particularly considering that these banks were licensed at the very beginning when the Supervision Department was in the process of building up its capacity and bank branch accounts were not consolidated into an account at the Bank.

The lesson to learn is that strict licensing rules should be adopted during the transition period to ensure that the Supervision Department of the central bank is in a position to effectively perform its functions. In the case of Poland, international auditors were hired to complement the work of the inspectorate and to train its staff.

**Providing Appropriate Remuneration to Staff**

The National Bank learned, the hard way, that during the transition period, when new commercial banks began their activities in Poland, a strong demand for qualified staff attracted its well-qualified staff to the private sector. Because of the higher salary and benefits, a number of staff, particularly from the bank supervision area, left the Bank for the newly established commercial banks. This created some serious problems for the National Bank, since some departments lost their best staff and new people had to be hired and trained. Also the Bank incurred considerable financial losses since most of the staff had been trained at its expense. Ultimately, the Bank managed to establish its own policy, separated from the public sector, and now provides salaries and benefits that compete with those of the commercial banking sector. This was a key change to attract and retain its qualified staff and ensured that the resources invested in training its staff are not lost to other sectors of the economy.

**Reshuffling Senior Management**

Ex post, it is clear that the reshuffling and the period during which no formal President was appointed in the National Bank delayed the modernization process of the central bank. Stability in the senior management position is important in providing continuity to the modernization process and in reducing disruptions during the transition period.

**Extending Credit Facilities**

The Art-B scam provides a clear case for introducing tight control over credit facilities at the early stage when the payments system is inefficient and when float occurs, supervision is precarious, and appropriate account procedures are not in place. The basic rule in interbank transactions should be that banks should first be debited before being credited. This will avoid systemic risks of fraud and lack of confidence in the banking system.

**Conclusion and Challenges Ahead**

The modernization of the National Bank of Poland has been successful. One last relevant point to be made is that it has also been able to use effectively the sizable technical assistance and training provided by several multilateral institutions, such as the International Monetary Fund and the World Bank, institutions like the European Union and European Bank for Reconstruction and Development, and other countries. The EU and U.S. technical assistance to the National Bank, in particular, has been used diligently by the Bank as a tool to learn about other countries’ experience and how to adapt their experience to the case of Poland. The Bank’s staff have effectively used external help as a “jump start”
for their activities and rather than as a substitute for their temporary lack of expertise.

For the future, the National Bank of Poland has to continue building upon the existing foundation and continuously modernize its functions to keep up with changes in the economic environment, particularly the financial sector. From the original action plan laid out in early 1990, it is still in the process of achieving some of the original objectives. Further strengthening of its supervision capabilities, finding a permanent solution for the control and monitoring of the activities of the cooperatives, and completing the National Accounting Plan-91 for commercial banks are examples of these objectives. In the payments system, the National Bank has to finalize the implementation of the real-time gross-settlement system for large-value payments, and establish its legal authority to exercise primary oversight not only over monetary payments, but also over the payments systems as a whole. This will include responsibility for payments clearing, and settlement in any form, including electronic transactions. In the area of legislation, a revised National Bank of Poland Act conferring more authority and independence on the Bank has to be approved. In the area of capital markets, development has been taking place at a fast pace, particularly with the reopening in July 1991 of the Warsaw Stock Exchange. The weekly auctions of 8-, 13-, 26-, 39-, and 52-week treasury bills and fixed, floating, and index-linked bonds provide investors with an opportunity to diversify their portfolio investments.

While much has been done to date, the authorities—the National Bank and the Ministry of Finance—recognize that further progress in developing treasury debt markets is required. Only a small percentage of the outstanding stock of treasury bills turns over during the course of a month. Furthermore, bond trading on the exchange is thin and the market is illiquid. While the Bank and the Ministry of Finance believe that the introduction of the book-entry system is a major step to facilitate secondary market trading, they are concerned that this alone will not be sufficient to guarantee liquid and efficient secondary markets.

An International Monetary Fund advisory mission of the Monetary and Exchange Affairs Department in August 1995 identified several shortcomings. The mission was of the view that by working together, the Bank and the Ministry of Finance should be able to address most of the above problems over a few years. It will require, however, some further development efforts on their part. Also, the improvement in the payments system will be instrumental in the immediate future.

Among the challenges that the National Bank could be confronting in the future from external sources is the potential erosion of its independence. In Poland, there are signs that some parties would like to diminish its role as a monetary and supervisory institution. The recent debates in December 1995 in the Parliament over the amended National Bank of Poland Act and a parliamentary draft law on banking supervision are worrisome examples. The author believes that the Bank's independence should be strengthened even further rather than weakened. Monetary policy objectives should be consonant with the macroeconomic targets of the country but should be set by the National Bank independently of political pressures. In the area of banking supervision, the removal of the function out of the Bank and the creation of a separate governmental agency should be strongly resisted at this juncture of the modernization process of the financial sector. It is true that the experience in some industrial countries shows that the supervisory functions do not necessarily have to reside within the central bank. However, in these countries supervision capabilities are strong and well established. In the case of emerging economies, it is advisable that, at the beginning, while a central bank is building up its supervisory capabilities, the supervisory functions be placed in the central bank. The information available in a central bank and related synergies provide the best environment for a supervision department to develop and mature. In the case of the National Bank, the information and experience of all its departments have considerably helped the inspectorate to move from the embryonic stage of 1989–90 to the ongoing developing phase, which will ultimately terminate in a number of years when the inspectorate can perform its functions effectively and efficiently. Thus, it would be disruptive to remove the supervisory function out of the National Bank prematurely. Apart from the location of the supervisory function, it would be a mistake to consider a Supervision Law that also goes against the international trend toward independent supervision and close cooperation with the monetary authorities.

It would be a mistake to weaken the existing power of the National Bank over monetary policy. Experience has shown that independent and strong central banks are excellent instruments to guarantee price stability with economic growth. Thus, acceptance of a central bank's independence by political forces is equivalent to a public declaration of commitment to fight inflation and preserve the purchasing power of the domestic currency. It is a strong signal that is well perceived and welcomed by domestic and foreign economic operators and investors.

To conclude, the National Bank of Poland should be proud of the progress made so far and should be ready to face the challenges ahead. The experience and the excellent management, dedication, and skills shown by its staff during the last five years, coupled with the political support and high levels of modernization achieved, augur well for the future.
Appendix  Structural Policy and Operational Objectives of the National Bank of Poland

The new approach focused on delivering a comprehensive technical assistance program in all interrelated operational areas of the central bank, while introducing regulation and procedures to improve the existing structures. The comprehensiveness of the technical assistance delivered was dictated by the close links between operational areas in a market-oriented central bank and the need for making progress simultaneously in all areas in order to avoid undue delays (for example, payments system, monetary operations and foreign exchange, monetary statistics and bank supervision, accounting and monetary statistics, and balance of payment statistics).

The new type of technical assistance from the Monetary and Exchange Affairs Department was initiated with cooperation from six central banks to help the National Bank, each in a specific area. The cooperating central banks agreed to make expert staff available for short-term visits to Poland as Monetary and Exchange Affairs Department consultants. In addition, they provided managerial and technical support to their experts and allowed them time off from their normal duties to prepare for and to follow up on their visits to Poland. Many experts also arranged training opportunities abroad for National Bank staff at their own institutions and elsewhere.

In addition, the above innovations have also had the effect of changing somewhat the extent and the content of the Monetary and Exchange Affairs Department technical assistance in two respects. First, by emphasizing the comprehensive and dynamic approach, its technical assistance has widened to the point of embracing simultaneously all functional operations of the central banks. Under the traditional approach, the Monetary and Exchange Affairs Department/Central Banking Department used to focus or provide training on one or two subjects. Second, by preparing an action plan with the authorities during the diagnostic mission, its technical assistance is now a component of a major and broader restructuring plan of the country’s economy.29

Initial Action Plan to Modernize the National Bank of Poland, 1991–92

1991

Payments System

(1) Form a senior-level Payments System Policy Committee, chaired by the First Vice-President, with representation from the accounting, legal, bank supervision, foreign monetary and credit policy, information technology, and economic research departments, plus the new interbank settlements department.

(2) Form a new Interbank Settlements Department to manage daily interbank clearing and settlement services, coordinate contacts with the Payments Association and any other groups formed to address payment issues, support the Payments System Policy Committee, and manage the National Bank-wire system.

(3) Stimulate the formation of the Polish Payments Association to coordinate the National Bank actions and take unilateral action if bankers cannot reach agreement. Monthly meetings with bankers on clearinghouse, development of standards for payment instruments, and so forth.

(4) Centralize commercial bank branch accounts into one account per bank at the National Bank head office. Preparatory work to begin immediately.

(5) Implement the remaining near-term improvements.

28Monetary management and money market development, the Bank of England; monetary and balance of payments research and analysis, The Netherlands Bank; banking supervision, the Bank of France; central bank accounting and internal auditing, the Austrian National Bank; foreign exchange operations, the Deutsche Bundesbank; and the payments system, the U.S. Federal Reserve. In the area of public debt management, the Banca d’Italia provided one expert for one visit.

29As a result of the Polish experience, the Monetary and Exchange Affairs Department technical assistance has also become more policy oriented and an integral component of a larger restructuring plan for the entire economy, which is often supported by the use of Fund resources under structural adjustment programs.
Send advice of interbank debits and credits directly to the National Bank branch on the same day they are sent to the bank branch.

- Require banks to organize efficient local and other physical exchanges of paper checks and payment orders.
- Eliminate the procedure that grants credits before debits can be charged to the paying banks.

**Monetary Operations**

1. Establish a working group on monetary programming.
2. Eliminate interest on excess reserves.
3. Establish framework for monetary programming and reserve forecasting.
4. Introduce longer maturity National Bank bills (91 days, 182 days), and post bill rediscount rate differentiated by maturity.
5. Introduce refinancing auctions and related adjustments to other monetary policy instruments, and greater flexibility in interest rates.
6. Review secondary market developments and prepare plans for new institutional arrangements for the secondary markets; and discuss plans with the commercial banks.

**Bank Supervision**

1. Analyze the various surveys, especially foreign exchange exposures; prepare consolidated returns for banks having branches and affiliates abroad; and discuss legal matters.
2. Analyze the first reports designed with the new accounting plan; follow up on the survey; organize off-site monitoring; prepare "notes for National Bank management"; and prepare annual statements for banks.
3. Organize on-site missions; prepare preliminary proposals for prudential regulations; begin diagnostic studies of individual banks using the new account system; and conclude discussions of legal matters.
4. Follow up on on-site missions; continue diagnosis of individual banks; finalize prudential regulations; and study interest rate risk.

**Balance of Payments**

1. Create Foreign Department's own PC software for the pilot balance of payment statistics project, and start estimating cross-trade.

3. Introduce new monthly reports on foreign accounts.
4. Introduce (preliminary) analytical balance of payment statistics model and review direct investment survey.
5. Implement the new classification of services and capital accounts in the context of the new balance of payment statistics mainframe system.

**Central Bank Accounting**

1. Stop immediately the opening of new foreign exchange and zloty accounts for nonbanks.
2. Ensure adequate telecommunication lines between the National Bank head office and branches.
3. Prepare organizational procedures for the consolidation of accounts and the implementation of the new plan of accounts by the Bank.
4. Follow up on the preparation of the consolidation project.
5. Consolidate (daily) accounts in a main book at the National Bank headquarters (Central Accounting Department); a precondition is the centralization of the banks' branch accounts (first stage).
6. Begin preparation of organizational procedures and related accounting regulations for the main book to interface with the National Bank-wire (second stage), and for the future centralization in the general ledger (third stage).
7. Publish the ten-day returns (summary balances) derived from the main book.

**Internal Audit**

1. Address staffing problems.
2. Use the training opportunities offered by cooperating central banks.

**Foreign Exchange Operations**

1. Modify Foreign Exchange Law and National Bank regulations to encourage the development of an interbank market in foreign exchange.
2. Integrate Kantor (bureaux de change) and bank markets for foreign exchange.
3. Finalize computerized position, keeping system, and benchmark portfolios.

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30 The related adjustments include raising of interest rates on current account credit, establishing strict limits (e.g., proportional to capital) on access to bill rediscount facilities, raising interest on payment credit to at least 200 percent of the rate on current account credit, and introducing weekly adjustments in bill rediscount rates.

31 Specifically, Articles 7 and 13 of the Foreign Exchange Law or its interpretation may need to be changed.
(4) Replace position limits on nostro accounts by exposure limits based on prudential considerations.
(5) Finalize written guidelines on operating procedures for dealing and investment, and follow up on the implementation of the interbank market.

1992

Payments System

(1) Publish rules governing interbank net settlements.
(2) Approve National Bank participation in National Clearinghouse Association.
(3) Publish procedures for operation of consolidated current accounts.
(4) Form National Bank working group on payment system for the development of coordinated long-range tactical plan, taking into account linkages that exist between the safety and soundness of the banking industry, the execution of monetary policy, treasury debt management, payment and accounting aspects of foreign operations, foreign exchange clearings, and interbank settlement.
(5) Align settlement procedures for check payment instruments to eliminate remaining debit float.
(6) Develop position paper on the National Bank's objectives for and role in the modernization of the Polish payments system, and draft tactical plans. This tactical plan should address:
  - Any remaining float-related matters.
  - Operating procedures for current accounts.
  - Strategy for improving real-time interbank settlement, including an approach to a National Bank-wire implementation.
  - Strategy for clearing and settlement of securities' transactions.
(7) Implement consolidated current accounts and begin operation of clearinghouses for paper payment instruments.
(8) Align settlement procedures for transfer payment instruments to reduce or eliminate credit float.
(9) Publish position paper and draft tactical plans for public comment.
(10) Publish final policy position paper, and finalize technical plans coordinated with other National Bank departments for the implementation of the direction adopted.

Bank Supervision

Accounting Plan

(1) Follow up on the implementation of the Now Accounting Plan.
(2) Organize meetings to clarify accounting issues with commercial banks in the following areas: foreign exchange operations, loan classification.
(3) Organize similar meetings on leasing, interbank market operations, and loan syndication.
(4) Expand the Accounting Plan to include other operations in the areas of foreign exchange, leasing, interbank market operations, and loan syndication.
(5) Create working groups to resolve specific accounting issues and to study implementation of proposals: internal groups within the National Bank (Banking Supervision Department and Economics, Projections, Analysis and Research Department); National Bank and commercial banks; Ministry of Finance, National Bank and commercial banks.

Prudential Regulations

(1) Finalize and enforce the solvency ratio.
  - Introduce liquidity ratio guidelines.
  - Introduce large-risk exposure rules or guidelines.
  - Issue loan classification and provisioning rules.
(2) Analyze structural and dealing positions of commercial banks in foreign exchange, from risk-management point of view.
(3) Study interest rate risk.
(4) Study sovereign risk.
(5) Study credit risk by sectors of activities.
(6) Study credit risk by regions—July/December.

Organization and Management of the Banking Supervision Department

(1) Assess the procedures used to grant licenses to commercial banks.
(2) Assess the process of off-site analysis and appraisal of financial position of banks based on monthly reports received by the Banking Supervision Department; formulate new recommendations for this exercise.
(3) Assess existing procedures for on-site inspections and make recommendations to improve them.
(4) Select a core of agents for on-site inspection and begin in-house training courses for them.
(5) Establish a methodology for on-site inspections.
(6) Assess basic training to be given to the Banking Supervision Department staff by external consultants.
(7) Create a "document file" for collection and preparation of translations of material related to banking supervision from foreign languages into Polish.

(8) Visit the regional banking supervision units to assess the quality of their activities.

(9) Analyze the conditions under which the National Bank can request investigations to be conducted by external auditors.

(10) Formulate a strategy to be implemented for the banks experiencing serious difficulties.

**Domestic Public Debt Management**

(1) Distribute medium-term securities to households and other nonbank investors. Implement a new strategy by selling medium-term government securities "on tap" through "issuing agents" (to be established) according to the rules (to be established) and under the supervision of the National Bank. Also, the Bank’s branches could sell securities directly to the household sector.

(2) Implement technical improvements in auction procedures: introduce minimum or exclusive price, speed up process of entering data in the computer, change method of calculation of yield, and ensure coincidence of redemption dates and the settlement dates for new issues.

(3) Extend treasury bill maturity and begin technical preparation for the auctions of medium-term government securities.

(4) Introduce a receipt in substitution for the physical issuance of treasury bills.

(5) Initiate a secondary market. Issue regulations for (a) the establishment of appropriate primary and secondary dealers, (b) trading in the wholesale market, and (c) supervision of the market.

(6) Develop a book-entry system.

**Monetary Operations**

(1) Negotiate with the Ministry of Finance the conversion of part of outstanding National Bank credit to Government into marketable securities to be used in monetary operations.

(2) Introduce reverse repo auctions.

(3) Tighten access to current account credit and require government securities as collateral for such credit (charge a higher rate for unsecured credit).

(4) Initiate more active use of repo/reverse repo auctions, taking into account the results of treasury debt sales, in order to achieve short-term operating targets for the bank’s current account balances (set on a rough basis initially).

(5) Formulate and analyze plans to promote market makers in government securities, and consider the associated technical and regulatory arrangements, including National Bank dealer financing facilities.

(6) Review operational procedures and methodology for short-term reserve money programming, in coordination with monetary analysis and programming work of the economics, projections, analysis, and research department, for longer time horizon.

(7) Authorize primary dealers in government securities with clearly stated privileges and obligations.

**Foreign Exchange**

**Reserves Management**

(1) Install LAN for the Foreign Department’s personal computers, acquire back-up hardware.

(2) Implement reverse repurchase agreements.

(3) Implement treasury bill lending.

(4) Decide on supporting software by National Bank management.

(5) Start purchase of U.S. treasury notes.

(6) Prepare for investment in German capital market—the Deutsche Bundesbank is ready to organize a one-week training program for three Foreign Department members.

**Foreign Exchange Market**

(1) Issue decree allowing use of buy/sell rates by the National Bank and commercial banks, and begin quoting buy/sell rates.

(2) Request reinterpretation by the Ministry of Finance of Article 7 of Foreign Exchange Law to permit interbank dealing between commercial banks.

(3) Abolish regulatory distinction between private and commercial foreign exchange funds.

(4) Place prudential limits on banks:
   - Overall currency exposure.
   - Exposure against zloty.

(5) Require daily reporting on major banks’ best available information on previous day’s closing positions.

(6) Change procedures for exchange rate quotation so as to use same day’s international cross rates and develop procedures for the daily announcement of foreign exchange rates.

(7) Promote establishment of market makers in domestic interbank foreign exchange market; adopt appropriate codes of conduct.

(8) Organize seminar for senior management on reserve management objectives and constraints.
**Monetary Research and Balance of Payments**

**Monetary and Financial Analysis**

1. Consolidate balance sheet of the banking system, including:
   - Setting up a system of verification of the new reporting forms.
   - Improving the organization of processing the forms.
   - Assisting with upcoming statistical problems in this area.
2. Set up a framework for monetary programming.
3. Expand the accelerated information system and ensure consistency with the new monthly reporting system of banks.
4. Improve economic analysis performed by the Economics, Projections, Analysis, and Research Department staff.
5. Define further information needs for economic analysis, including setting up new tables for the Polish money market, capital market, government finance, prices, wages, production, etc.
6. Review and finalize the remaining outstanding issues.
7. Expand the set of internal tables on the basis of the new reporting forms.
8. Analyze monetary and financial developments to improve internal briefings and external reporting.
9. Study seasonal effects on monetary flows.

**Monetary Programming and Policy Research**

1. Set up an interdepartmental working group between the Monetary and Credit Policy Department, the Foreign Department, and the Economics, Projections, Analysis, and Research Department.
2. Improve forecast methods and begin estimations of equations.
3. Analyze the differences between forecasts and actual results.
4. Implement the monetary programming framework.

**Statistical Issues**

1. Set up an interdepartmental working group between the Banking Supervision Department and the Economics, Projections, Analysis, and Research Department for the coordination of the interpretation of the plan of accounts and future amendments of the plan.
2. Set up an interdepartmental working group on statistics of common interest.
3. Continue to improve the accuracy of the reporting forms received from banks.
4. Improve and expand the statistical database with monthly information on the budget flows (expenditure, revenue, etc.).
5. Create tables with consistent time series (building blocks) based on the new reporting forms for banks.

**Automation Facilities**

Install new automation facilities with technical coordination from the Banking Computer Center.

**Balance of Payments**

Review progress of implementing new balance of payment statistics format.

**Central Bank Accounting**

1. Divest the National Bank of Poland from commercial activities. Transfer all existing private accounts to commercial banks.
2. Implement the new plan of accounts of the National Bank following the divestiture of commercial activities.
3. Consolidate all central bank transactions at National Bank headquarters every ten days.

**Internal Auditing**

Create a separate unit reporting directly to the President; streamline and facilitate the operational tasks of the new separate unit.

**Information Technology**

2. Form an Automation Steering Committee.
3. Complete a general work plan.
4. Develop detailed work plans for:
   - Installation of hardware and environmental software for the ES9000.
   - Connection to the Telbank.
   - Overall plans for phasing out processing for non-National Bank initiatives.
   - Overall plans for phasing out old National Bank head office equipment being replaced by the ES9000.
5. Complete project plans for initial application development. This will proceed in stages with plans for Accounting, Foreign Operations, General Ledger, National Bank-wire, and Book-Entry Systems.
6. Begin the Economics, Projections, Analysis, and Research Department/Money and Credit Policy Department—LAN project.
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