# Table of contents

Summary ......................................................... 5

Introduction .................................................... 9

1. Financial system of a market economy ......................... 11
   1.1. The role of the financial system in economy .................. 11
   1.2. Financial system models ..................................... 12

2. Financial system in Poland .................................. 17
   2.1. Evolution of the size and structure of the financial system in Poland .................. 17
   2.2. Comparison of the development level of financial systems in Poland and in other countries 21

3. Regulations .................................................. 25
   3.1. Introduction to the regulatory system ........................ 25
   3.2. Regulations influencing the financial services sector ......... 25
   3.3. Regulations regarding the sector of banking and quasi-banking services .............. 29
   3.4. Regulations regarding non-bank financial institutions .......... 31
   3.5. Regulations regarding the capital market ...................... 32

4. System infrastructure ......................................... 35
   4.1. Regulatory and supervisory institutions ...................... 35
   4.2. Payment system ........................................... 38
       4.2.1. Large-value interbank settlements ....................... 38
       4.2.2. Retail payment systems ................................ 39
   4.3. Securities market infrastructure .......................... 41
   4.4. Market participants protection systems ..................... 45
   4.5. Institutions that improve information transparency
       — business information offices and rating agencies ............ 48
   4.6. Interbank intermediaries — brokers ........................ 50

5. Financial institutions ......................................... 51
   5.1. Banks ..................................................... 51
       5.1.1. Evolution of the size and structure of the banking sector .......... 51
       5.1.2. Movements in bank assets and liabilities structure .......... 54
       5.1.3. Movements in the structure of claims and liabilities towards the non-financial sector 56
       5.1.4. Banking sector performance and efficiency .................. 67
       5.1.5. Consolidation and concentration of the commercial banking sector ........ 69
       5.1.6. Novelties in the offering ................................ 72
       5.1.7. Expanding the distribution channels ....................... 79
       5.1.8. Outlook for the future .................................. 82
   5.2. Quasi-bank institutions and non-bank institutions providing financial services ........ 89
       5.2.1. Credit Unions .......................................... 89
       5.2.2. Non-bank institutions providing financial services ........... 91
       5.2.3. High risk capital sector (private equity/venture capital) ........... 97
   5.3. Collective investment institutions ........................ 102
       5.3.1. Evolution of the size and structure of the collective investment institutions sector .......... 102
       5.3.2. Asset structure ........................................ 109
       5.3.3. Investment performance ................................ 113
       5.3.4. Product novelties ....................................... 115
       5.3.5. Prospects ............................................. 115
   5.4. Insurance companies ....................................... 118
       5.4.1. Evolution of the size of the insurance sector ............... 118
       5.4.2. Concentration ........................................... 123
       5.4.3. Distribution channels ................................... 124
       5.4.4. Product offer .......................................... 124
       5.4.5. Perspectives ........................................... 125
5.5. Brokerage houses and offices ................................. 127
5.5.1. Evolution of the size and structure of the sector of brokerage activity ............... 127
5.5.2. Distribution channels ............................................. 130
5.5.3. Market perspectives ............................................... 130

6. Financial markets .................................................... 131
6.1. Money market ....................................................... 131
6.1.1. Evolution of money market size and structure ........................................... 131
6.1.2. Negotiable short-term debt securities market ........................................... 131
6.1.3. Deposit transaction market ........................................ 146
6.2. Capital market ....................................................... 160
6.2.1. Evolution of capital market size and structure ........................................... 160
6.2.2. Negotiable long-term debt securities market ........................................... 160
6.2.3. Negotiable equities market — stocks ....................................................... 181
6.3. Spot FX market ....................................................... 190
6.4. Derivatives market .................................................... 195
6.4.1. OTC derivatives ...................................................... 196
6.4.2. Stock exchange derivatives ........................................... 213

MONOGRAPHIC STUDIES

Monika Józefowska
Commercial Banks’ Policy towards Small and Medium-Sized Enterprises
1. Introduction .............................................................. 232
2. Overall survey characteristics ........................................ 232
3. Classification and support of SME customers ........................ 233
   3.1. Banking service packages ......................................... 234
   3.2. Separate organisational unit ....................................... 234
   3.3. Procedures concerning the provision of services to small and medium-sized enterprises ... 235
4. Obstacles and factor risk accompanying the financing of SMEs ............. 236
   4.1. Lending amount and purpose ....................................... 236
   4.2. Loan parameters ..................................................... 236
   4.3. Advantages and preferred types of security .......................... 237
   4.4. Reasons for refusals to grant a loan ................................ 238
   4.5. Obstacles in cooperation ............................................ 238
5. Comments ............................................................. 240

Malgorzata Pawłowska
Impact of Changes in the Banking Sector on its Competitiveness and Competition 1997–2003
1. Introduction .............................................................. 241
2. Definitions of basic structures on the market of financial institutions .......... 241
3. Results of survey of the level of competition among financial institutions .... 242
4. Structural and technological changes in the Polish commercial banking sector in 1997–2003 ... 243
5. Results of panel survey of the level of competition in the Polish banking sector, 1997-2003 .... 245
7. Conclusions ............................................................. 247

Calendar of events with bearing on domestic and foreign financial markets in 2002 and 2003 ............... 249
Summary

Financial system in Poland. In 2002 and 2003, the role of the financial system in Poland gradually increased. This is indicated by a rise in the ratio of financial institution assets to GDP. Despite the increase in assets and market development, the Polish financial system still exhibited a relatively low level of financial intermediation activity compared to European Union countries. The banking sector continued to be the mainstay of the financial system in Poland.

The assets of all sectors of the financial system increased; the rise was especially rapid in the case of institutions of collective investment (investment and pension funds) whose assets more than doubled in the period under consideration. This enhanced their significance on the financial market. The growth in non-bank financial institution assets should become an important stimulant to the development of financial markets. In the period under review, however, just as in the case of banks, Treasury securities constituted the largest share of securities portfolios held by non-bank financial institutions.

Financial markets in Poland were dominated by Treasury securities (Treasury bill and Treasury bond) markets. This largely resulted from the considerable borrowing needs of the central budget. For entities looking for external finance, non-government securities markets still did not present an appealing alternative to bank loans. Although the Polish stock market was among the largest in the region, its role and liquidity were considered unsatisfactory.

Regulations. Numerous amendments were introduced into legal regulations, which resulted from the necessity to adjust commercial law to the European law requirements as well as to the obligations stemming from Poland’s membership in the OECD. Amendments to accounting regulations were the result of the adoption of International Accounting Standards (IAS), which will be binding for all public companies in EU member states from 2005. The passing of the new Bankruptcy and Recovery Act in 2003 should have a favourable impact on the financial standing of enterprises because it reduces the cost of capital and stimulates the development of financial markets due to the introduction of netting (i.e. mutual offsetting of liabilities). Apart from adjusting the Act on the NBP to the provisions of the Statute of the European System of Central Banks and of the European Central Bank, the amendments introduced to the said Act in 2003 aimed to improve the competitiveness of Polish banks after Poland’s accession to the EU. The 2002 amendments to the Act on Mortgage Bonds and Mortgage Banks removed certain obstacles that impeded the development of the mortgage loan market. The package of insurance laws passed by the Polish Parliament in 2003 adjusted domestic regulations regarding insurance activity to EU directives.

In 2002 and 2003, the economic impact of the amendments introduced in 2001 to the Act on Public Trading in Securities was noticeable. These amendments also provided a legal framework for the establishment of a centralised corporate and municipal bond market. Since July 1, 2003, all public companies have been obliged to submit to the Warsaw Stock Exchange as well as publish declarations concerning their adherence to the corporate governance principles.

System infrastructure. The gradual phasing out of the paper-based system of transferring payment orders (SYBIR) and the development of systems enabling settlements in euro – the SORBNET-EURO (based on SORBNET) and EuroELIXIR systems – were important factors in the development of the payment system. With regard to securities settlement systems, the reduction of the amount of fees payable by market participants to the National Depository for Securities (Krajowy Depozyt Papierów Wartościowych – KDPW) and the settlement of stocks in the first foreign company listed on the Warsaw Stock Exchange (WSE) by the KDPW were significant developments. The degree of adjustment of the Polish securities settlement system to EU standards may be assessed as satisfactory.

The coming into force in 2003 of the Commercial Information Disclosure Act, which may contribute to improving the lenders’ security, was an important development with regard to institutions whose function is to enhance the transparency of the market.
**Banks.** As a result of consolidation, the number of commercial banks in Poland dropped further but the decrease was not as significant as that between 1999 and 2001. The number of cooperative banks also decreased rapidly (mainly due to mergers). Since their assets grew more rapidly than those of commercial banks, the asset share of cooperative banks in the banking sector assets increased. In 2002 and 2003, the proportion of commercial bank assets controlled by foreign investors in domestic banking sector assets was stable and amounted to around 68%. The profitability and performance indicators of the banking sector were highly sensitive to changes in the economic climate. In 2002, they decreased considerably due to the deterioration in the quality of the banks’ loan portfolio. In 2003, an improvement in the economic climate and the banks’ actions resulted in the improvement of most profitability and performance indicators.

Claims on non-financial customers remained the largest item in the structure of banking sector assets. The second most important item were securities, whose share rose due to the fact that banks intensified their purchases of Treasury securities. Whereas an increase in credit risk slowed down the growth in lending in 2002, in 2003 the growth in lending accelerated. Loans to corporates constituted the majority of claims on non-financial customers. However, their share decreased while the share of loans to households grew, primarily due to the dynamic growth in housing loans. The amount of mortgage secured loans increased sharply with regard to both loans to corporates and to households.

Liabilities to non-financial customers remained the most important item in the liabilities of the banking sector. Household deposits prevailed but their share decreased while the share of corporate deposits grew.

The development of the banking sector in the coming years will be largely conditioned by the impact of Poland’s accession to the EU. The increase in investment and GDP should translate to a rise in demand for financial services. Banks will be able to supplement their income by co-financing investments implemented within the framework of EU assistance programmes as well as providing services to local government authorities and small and medium-sized enterprises. Challenges to the banking sector will include adjusting to amendments to EU law and meeting the increasing competitive pressure.

**Quasi-banking institutions: credit unions.** Credit unions grew dynamically during the period under consideration. The unions provided services mainly to retail customers. Credit unions enjoyed competitive advantage e.g. over cooperative banks, as they did not have to adjust to the legal standards obligatory for credit institutions operating within the EU.

**Non-bank institutions: leasing, factoring, loan intermediaries and venture capital funds.** Services provided by non-bank financial intermediation institutions continued to complement the banks’ offering of services. Services offered by leasing and factoring companies as well as venture capital funds were targeted at juridical persons, whilst loan intermediaries provided services primarily to natural persons. The data concerning non-bank institutions providing financial services indicate that their significance has further strengthened. Considerable dependence on bank financing and the dominant ownership position of banks were important trends observed within the entire sector. A considerable impact of business climate on earnings and an increase in competitive pressure, resulting e.g. in consolidation in the leasing industry, were recorded in all industries.

**Collective investment institutions.** The assets of collective investment institutions (investment and pension funds) more than doubled in 2002 and 2003. This strongly enhanced their significance on the capital market. As regards investment performance, the years 2002 and 2003 were much better than 2000 and 2001. Until May 2003, good performance was fostered by a boom on the bond market, and further on – by the dynamically growing stock market. These trends influenced the demand for the products of specific investment fund types.

Based on international comparisons, a further rise in investment fund assets may be expected, which should increase much faster than the GDP.

The assets of pension funds grew steadily due to the influx of compulsory contributions. The required minimum rate of return principle had a strong impact on the structure of pension fund
assets. It prompted funds to copy one another’s strategies and shorten the investment horizon. Efficient portfolio management became difficult due to a lack of possibility to use derivatives.

The largest threats for the development of the sector of collective investment institutions have been the insufficient supply of financial instruments and the incompatibility between their characteristics and the requirements of such institutions.

**Insurance companies.** Until 2002, the growth in annual premium increases in the insurance sector exhibited a downward trend. This trend was reversed in 2003 due to an improvement in business climate. Sector assets and premiums rose. In 2002 and 2003, both the life insurance sector and the property & casualty insurance sector recorded positive earnings. This means that both sectors coped well with the impact of the economic slowdown and the September 11, 2001, terrorist attacks.

**Brokerage offices and houses.** In 2002 and 2003, the observable for several years downward trend in the number of entities engaging in brokerage activities continued. A prolonged market slump forced brokerage institutions to restructure, which enabled a considerable improvement in their earnings in 2003.

**Money market.** In 2002 and 2003, the dominance of Treasury bills on the short-term debt securities market strengthened. This was a result of the increased borrowing needs of the central budget, the rise in the share of short-term securities in financing those needs and the insufficient growth in demand for instruments with longer maturity periods. The Polish Treasury bill market remained the largest short-term Treasury securities (TS) market among the countries acceding to the EU. In 2002 and 2003, the trading in Treasury bills in the secondary market grew rapidly, which was the result of an increase in conditional transactions concluded by banks.

Money market bills remained the main instrument used in open market operations by the NBP. The value of NBP money market bills issued and outstanding exhibited large fluctuations due to changes in the scale of excess banking system liquidity. Due to the adjustment of monetary policy instruments to Eurosystem standards, the NBP has only issued bills with a fourteen-day maturity since January 2003.

The remaining segments of the short-term debt securities market remained at a low level of development. The growth of the short-term corporate bond (SCB) market slowed down. The number of issuers decreased and the outstanding value of the SCB issued fell. Nevertheless, SCB continued to account for around 50 percent of the non-government debt securities market. On the other hand, the issue of short-term bank debt securities rose, especially with respect to bank bonds targeted at retail customers.

FX swaps were the most liquid instrument on the Polish money market. Foreign banks, which used FX swaps primarily to finance their investment in Polish Treasury bonds, remained the most active participants in this market segment with an 85 percent share in turnover. Overnight transactions dominated on the interbank deposit market. The liquidity on the market for transactions with maturity longer than 6 months remained low. Further development of this market was impeded by low credit limits, set mutually by market participants. The conditional transaction market was not well developed. The fact that banks had to establish required reserves when conducting repo transactions with non-bank entities as well as regulatory restrictions on institutional investors led to the dominance of sell-buy-back and buy-sell-back transactions. Such transactions were usually collateralised by Treasury bills. In the euro area, conditional transactions are the basic instrument of bank liquidity management. This leads to the conclusion that the development of the interbank repo market will be one of the most important challenges in the coming years.

**Capital market.** The Treasury bond and stock markets remained the most important segments of the Polish capital market. The remaining segments were still relatively insignificant.

Treasury bonds continued to dominate on the long-term bond market. However, the outstanding value of non-government debt securities issued also increased in 2002 and 2003. In EU countries, the Treasury bond market is also the largest market segment but its prevalence over the remaining segments is not as significant as in Poland. The domestic Treasury bond market is the largest and the most liquid one in the region. The liquidity of this market as measured by its
turnover has increased significantly. This trend was strongly influenced by the policy of the Ministry of Finance, which consisted in increasing the volume of single issues.

In 2002, a new market for trading in Treasury securities was established – the Electronic Treasury Securities Market (Elektroniczny Rynek Skarbowych Papierów Wartościowych) maintained on the CeTO platform. Despite the establishment thereof, the unregulated market retained its dominant position. In 2002, the Ministry of Finance introduced the Treasury Securities Dealer system. This type of primary market currently provides the standard method of TS sale on world markets.

In 2002 and 2003, the non-government bond market developed at a moderate pace. The interest of enterprises in the issue of long-term corporate bonds (LCB) grew. This was evidenced both by a growth in the outstanding value of such securities and an increase in the number of issuers. The market remains small, however, even when compared to the short-term corporate bond market.

Favourable conditions have also contributed to the dynamic growth of the municipal bond market. The issues of such bonds were primarily of the non-public type. Despite its considerable growth rate, the municipal bond market remained a small and fragmented segment of the domestic debt securities market.

Regardless of the rapid growth in issue values, long-term commercial bank debt securities had the lowest share in the debt securities market. In the euro area, long-term debt securities issued by banks were the second largest segment of the bond market.

During the period under consideration, the issues of mortgage bonds were also insignificant in scale. Non-public issues of such instruments prevailed. In 2003, the first public issue of mortgage bonds took place.

The observed increase in the stock market capitalisation occurred primarily due to a rise in share prices. As a result of this rise, the capitalisation of the WSE increased despite the fact that the number of listed companies fell (in 2002 and 2003, 38 companies were delisted due to bankruptcy or upon a strategic investor’s motion while shares in 11 new companies were listed). In the future, the removal of stock from public trading by strategic investors may be an important factor detrimental to the development of the stock exchange market. In 2003, shares in a foreign company (Bank Austria Creditanstalt AG) were listed on the WSE for the first time. The structure of investors trading on the WSE stock market has changed. The share of individual investors, who hitherto dominated the market, has gone down significantly, and the shares of domestic institutional investors and foreign investors have increased. The Polish stock market is one of the largest in Central and Eastern Europe but is still relatively insignificant compared to EU countries’ markets with regard to both capitalisation and turnover.

**Spot FX market.** The Polish spot FX market was the largest FX market among EU candidate countries, with the average daily net turnover within the range of 4.0-4.5 bn zloty. However, the Polish market must be considered relatively shallow when compared to developed ones. In 2002 and 2003, the turnover on this market decreased as a result of the consolidation in the Polish banking sector and the gradual transfer of operations to foreign bank head offices where FX positions are managed at the group level.

In 2003, an important qualitative change took place on the zloty market – banks started to perceive the EUR/PLN pair as the main currency pair in this market.

**Derivatives market.** The dominance of the OTC segment in the derivatives market continued (FRAs were the most liquid instrument). OTC market turnovers were many times larger than those on regulated markets (WSE, Warsaw Commodity Exchange). The considerable activity of foreign banks had a large impact on the liquidity of most OTC market derivatives. WIG 20 index futures were the only liquid stock exchange instrument.

The activity of collective investment institutions on the derivatives market was limited. Sector regulations made it impossible for institutional investors to freely use derivatives in order to hedge their securities portfolios. Low corporate demand for derivatives was also detrimental to the development of the market.
**Introduction**

*Finances are the key to investment, and so, to economic growth. Effective financial systems support growth, partially through providing funds, and partially through allocating them to the sectors where they can be best used. Economic development must be accompanied by the evolution of financial systems that support it.*

*World Development Report 1989*


From 2004 on, the NBP is planning to publish annual reports on the development of the financial system. Such a periodicity will enable the readers an ongoing analysis of changes occurring in the Polish financial system.

The report aims to present the development of the financial system in Poland, as well as tendencies and obstacles in the process of development in individual sectors and financial markets. This is reflected in the structure of the report.

Chapter 1 briefly describes the functions performed by the financial system, as well as its two basic models: market-oriented and bank-oriented. Moreover, the most important factors influencing the development of the financial system have been indicated.

Chapter 2 presents the evolution of the size and structure of the Polish financial system, indicating a significant, persisting dominance of banks over other financial institutions. The decisive role of banks in the Polish financial system is also the source of the competitive edge of banking products over instruments offered by financial markets. In order to picture the level of development of the financial system in Poland, it has also been compared to financial systems in other countries in the region.

Chapter 3 describes changes in legal regulations implemented in the period under review and their impact on the sector of financial services, focusing especially on regulations pertaining to the banking sector.

Chapter 4 presents the most important components of the financial system infrastructure, from regulatory authorities, through the payment system and the securities settlement system, to the systems of protection for participants of particular financial system segments. The chapter also describes institutions that contribute to information transparency on the financial markets and financial intermediaries operating on them.

Chapter 5 presents a comprehensive analysis of changes that occurred in particular financial sectors in 2002-2003. To the extent possible, the analysis has been performed against changes that took place in other countries of the region and in selected EU Member States. Banks hold 3/4 of the financial system assets and they are analysed first. Movements in claims and liabilities of commercial banks, as well as indicators of large exposures and competition in that sector have been described in detail. Subsequent subchapters analyse quasi-bank and non-bank institutions providing financial services. The following sector under analysis features collective investment institutions, i.e. investment funds and pension funds. Within the framework of the analysis of financial institutions, changes that occurred in the insurance sector and brokerage houses and offices have been reviewed.
Chapter 6 analyses the directions of development on financial markets in 2002-2003. In the first place, the evolution of the money market and its segments (Treasury bills, money market bills, short-term bank and corporate debt securities, repo market) has been presented. The subsequent section describes movements on the Polish capital market, with a particular focus on the evolution of the market of Treasury bonds, local government bonds, NBP bonds, mortgage bonds and long-term debt bank and corporate securities. A separate part has been devoted to the shares market.

The chapter also describes movements on the foreign exchange market and presents the market of derivatives in Poland. Separate analyses pertain to exchange-traded and OTC derivatives, under the assumption that in terms of the analysis of development trends, such a classification is more favourable than that based on the risk criterion, which can be secured against (the risk criterion was adopted in the “Financial Market in Poland 1998–2001” report).

The report is supplemented by monographic studies, which enable a thorough analysis of selected problems that have been outlined in the report or those that may be discussed in subsequent issues of the report.
The financial system is that part of an economic system that enables the provision of services that determine the flow of the purchase power in the economy\(^1\). It includes the market financial system and the public (fiscal) financial system. This report deals with the market financial system, referred to as the "financial system" throughout the study.

The financial system in a market economy co-creates the purchase power and its flow among corporates. The system includes financial instruments, financial markets, financial institutions and principles that specify their operations\(^2\).

Scheme 1.1 presents major segments of the economic and financial system.

**Scheme 1.1. Financial system**

1.1. The role of the financial system in economy

The financial system performs crucial functions related to the transfer of capital from entities with capital surplus to entities searching for finance. Thus, the financial system is an intermediary between real economy entities. Apart from co-creating the purchase power and facilitation of its flow among corporates, there can be distinguished seven basic functions of the financial system in the market economy\(^3\):

- Saving, i.e. facilitating potentially profitable investments at a low risk level to entities depositing their savings on the financial market. This function is related to the transformation of savings into capital which subsequently feeds investment activity.

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2 Ibid, p. 11.
• Accumulation of funds. Financial markets offer the possibility of maintaining the value of funds held. This function may also be viewed as the accumulation of funds for future consumption.
• Ensuring liquidity of financial assets, i.e. facilitating acquisition of funds through low-risk transactions of exchanging securities and other assets for cash.
• Lending, i.e. the supply of consumer and investment loans.
• Payment, i.e. the provision of a payment mechanism for entities executing transactions.
• Facilitating options of hedging against various kinds of risk to contractors, consumers and the general government.
• Transmission of economic policy and achievement of its objectives, such as high employment rate, low rate of inflation and sustainable economic growth.

This list of crucial functions of the financial system should be supplemented with minimizing of transaction costs\(^4\), which is determinant to the efficiency of the economic system. Transaction costs are primarily related to the effort of reducing uncertainty in economic processes (by obtaining credible information regarding parties to a transaction). The problem of asymmetry of information also refers to transaction costs, since it affects the costs of acquisition and processing of information. Money, as well as financial markets and institutions that supply it and facilitate its flow, eliminate the necessity of compatibility of needs, and consequently establish grounds for acceleration of the economic growth. At the same time, when the demand for financial instruments and services is confronted with their supply, their valuation occurs, which is yet another function of the financial market.

Another function of the financial system which is frequently disregarded is the disciplining of financial market participants\(^5\). It pertains both to the private and public sector, which have to take into consideration the reaction of financial markets since it determines the efficiency of their policies.

Integrating the activities of business entities is an important task of the financial system. This is exercised through the performance of the foregoing functions. Relevant literature provides various classifications of those functions. One of the classifications, which vividly presents the tasks of the financial system, is its division into the monetary, capital and control functions\(^6\). The monetary functions include generating of money and its flow. They encompass the liquidity management, i.e. the management of the capital surplus and capital acquisition where there is a shortfall thereof. The capital functions facilitate acquisition, shifts and depositing of capital aimed at obtaining the maximum return. Unemployed funds are used for expanding business activity, while financial institutions (or the securities market mechanism) facilitate the transformation of risk, values and maturity of borrowings\(^7\). The control functions make it possible for creditors to monitor the use of extended loans, so as to raise their value and probability of repayment.

### 1.2. Financial system models

The financial systems that currently operate in the world may be divided into two basic types\(^8\):

- systems based on the banking system (the so-called continental, bank-oriented system),

\(^4\) It is worth bearing in mind that also certain costs (costs of financial intermediacy) are generated in the course of operation of individual components of the financial system.
\(^7\) Ibid., p. 29.
systems in which financial markets are strongly competitive towards the banking sector and play an important role in the redistribution of funds in economy (the so-called Anglo-American, market-oriented system).

Both models have their advantages and disadvantages. Experts in the field point to the following benefits of the bank-oriented system:

– banks collect information about companies and their management personnel, thus supporting the optimal capital allocation and appropriate corporate governance\(^9\);
– banks facilitate management of various types of risks related to their activities, such as, for instance, the liquidity risk, thus raising the effectiveness of investment activities\(^10\);
– thanks to banks, capital may be mobilized to obtain the economy of scale\(^11\).

As regards the market-oriented system, the following advantages are highlighted:

– analytical companies related to the operation of financial markets provide information to the whole market\(^12\);
– markets support corporate governance by facilitating takeovers and establishing a transparent relation between the remuneration of the management personnel in market companies and the results of their activities\(^13\);
– markets facilitate a comprehensive management of the financial risk\(^14\);
– by collecting various heralds and forwarding of these to investors, financial markets mitigate the inefficiency of banks’ operations and contribute to the economic development of a country.

At the same time, the literature point out mutual relations between the banking system and financial markets:

– banks are prepared better than financial markets to monitor companies which have drawn bank loans and to mitigate the moral hazard ever present in the financial system\(^15\);
– developed financial markets have the possibility of prompt forwarding of information, whereas banks, bearing in mind their long-term relations with customers, are rather not prone to share their information with the market;
– strong banks are more effective than fragmented financial markets as regards debt recovery\(^16\).

\(^13\) M.C. Jensen, K.J. Murphy: Performance pay and top-management incentives. “Journal of Political Economy” 98, 1990, pp. 225-264. In the context of numerous accounting scandals from the beginning of this decade, it is worth remembering that strong irregularities may arise as a result of financial options (the value of which stems directly from movements in the company’s quotations) being intensively used as components of top-management remuneration.
A financial system that is optimal for a given country depends on various factors, such as:

- The level of the country’s economic development. The financial system in countries with growing GDP per capita will represent a stronger tendency to evolve in the direction of the system based on market institutions. It follows i.a. from the fact that, on the one hand, financial markets offer a more varied and flexible way of financing business undertakings. On the other hand, they facilitate more effective deposits of funds held. The level of economic development also impacts access to modern technologies, which in turn foster the development of the market-oriented model.

- Legal regulations and effective application of law. Legislative systems that guarantee effective application of law pertaining to the capital market (e.g. protection of minority shareholders) create more favourable conditions for a system based to a large extent on market solutions. Efficient judiciary is a prerequisite for effective operation of the legal system.

- Proneness to risk-taking (cultural factors). More pronounced proneness to risk-taking on the part of the financial system participants creates more favourable conditions for the development of the system based on market institutions.

- Demand of corporates for a given type of financing.

Interdependencies between these factors and the evolution of financial systems have also determined the way in which savings of individual entities were transformed into capital. The traditional paradigm assumes that there is a distinct institutional difference between low-income and high-income households in terms of the shift of their funds. Funds of the former group were mainly managed by the banking system and routed to small firms, whereas funds of the latter, via financial markets, were forwarded to corporates\textsuperscript{17}.

The worldwide development of the financial system changed that situation. According to the emerging paradigm, funds from all types of households are in majority managed via financial institutions (banks, insurance companies, investment funds) which, apart from the lending performed by banks, also operate on the markets of debt securities, shares and on derivative markets established on that basis. The final recipients of funds are the corporate and household sectors.

Financial systems of particular countries may represent characteristics of both the market-oriented and the bank-oriented models. As a result, the distinction between these models becomes blurred. However, there are still considerable differences between bank-oriented systems, in which the culture and tradition of conducting business activity are determined by a lower proneness to risk-taking, and market-based systems, in which financial markets have a traditional, strong position in the whole financial system.

The first group of countries favours security at a lower rate of return, as guaranteed by the banking system. The other group of countries opts for higher profitability at a higher rate of risk, the former being obtained thanks to efficient financial markets. Moreover, differences also pertain to preferences in finance of specific business undertakings. In the bank-oriented system it is easier to obtain finance of traditional industries, whereas new technology industries have better conditions for development in the market-oriented system\textsuperscript{18}. It follows from the fact that access to information on business entities is easier in market-oriented systems, thus assessment of risk related to a particular project is facilitated. In the conditions of a limited access to information, the creditor demands a greater share in revenues, which weakens the incentives to undertake new and highly innovative activities\textsuperscript{19}.

\textsuperscript{19} Ibid., p. 15.
Both models of financial systems, presented in Figure 1.1, are present in developed economies.

As follows from Figure 1.1, financial markets do not play an important part in the German economy as compared to the banking system, while they are the most important component of the financial system in the American economy. Similarly to Germany, the bank-oriented system operates in Poland. However, the development level of the financial system, reflected in the proportion of the value of particular financial system assets to the GDP, is much lower in Poland than in developed countries. Still, a significant progress is visible. The development of the financial system in 1996-2003 (measured by the volume of domestic borrowings and equity market capitalization as compared to GDP) is presented in Figure 1.2.

The type of model functioning in a given country is also determined by preferences of households as regards the allocation of surplus capital. These preferences, broken down by various groups of countries, are presented in Table 1.1.

Figure 1.1. Domestic credit\(^1\) and equity market capitalization in relation to GDP in two financial system models, 2002

![Figure 1.1](image)

\(^1\) Excluding general government.


Figure 1.2. Domestic credit\(^1\) and equity market capitalization in relation to GDP in Poland

![Figure 1.2](image)

\(^1\) Excluding general government.

In view of the following circumstances in Poland:

– GDP per capita lower than in developed countries,
– a developing, but is still inadequate to the needs legal system,
– relatively extensive corruption,
– the average European level of proneness to risk-taking, significantly diverging from those in the USA or in Great Britain,

the conditions for the development of the market segment are not very favourable. This is reflected for instance in the structure of the Polish capital market, where the sole well-developed sector is the sector of Treasury securities (SPW). It complies with the standards of investment security and liquidity.

The analysis included in the subsequent part of this study serves as a basis to draw the following conclusions about the model of the Polish financial system:

– the system is still strongly based on the banking system, and only to a small extent on financial markets,
– the system is gradually evolving, what results in the development of financial markets, but the rate and sustainability of the evolution will be largely conditioned on the development of corporates and on the developments in real economy (economic growth rate).

In view of the changes in the worldwide financial system and stimulating activities on the part of national and international authorities, it may be stated that the development of financial systems leads to solutions to a greater extent than before based on financial markets.\(^{20}\)

The results of conducted surveys show, however, that although the mutual relations between the banking sector and the market sector do reflect the level of the country’s economic development thanks to the creation of appropriate initial conditions, unequivocal advantage of one model over the other is difficult to be confirmed.\(^{21}\)

---

\(^{1}\) 12 Member States.

\(^{20}\) For instance, the strategy with development guidelines for the EU adopted at the European Council Summit in Lisbon on March 2000. The Lisbon Strategy is a long-term large-scale social and economic programme that includes the implementation of many reforms and structural changes. It aims at making the European Union the most competitive economy in the world by 2010. Activities within the Lisbon Strategy focus to a large extent on the integration of markets that have not yet been fully liberalized, including financial markets.

\(^{21}\) R. Levine: Bank-based or market-based financial systems: which is better. Cambridge 2002 NBER Working Paper Series.
2 Financial system in Poland

2.1. Evolution of the size and structure of the financial system in Poland

The institutional structure of the Polish financial system still features the dominant position of the banking sector. However, since mid-nineties, a significant growth in the assets of non-bank financial institutions has been recorded. The evolution of the volume of assets in particular sectors and the number of financial institutions operating in Poland are depicted in Tables 2.1 and 2.2.

In the years 1996–2003 all the foregoing sectors raised the volume of their assets. Some of them, such as open pension funds, investment funds and insurance companies, recorded a significant growth. The data included in Table 2.2 clearly reflect the concentration process underway in the majority of sectors in the period under review. The phenomenon was particularly visible in 2002–2003, with the process of consolidation being extremely strong in the banking sector. Figures 2.1, 2.2 and 2.3 present movements in the structure of assets of the Polish financial system.

Since the beginning of the transformation, the banking industry has been dominating in the financial system in Poland. Although the banking system existing before 1989 was adjusted to function within the centrally-managed economy, banks still had appropriately qualified staff. In contrast, institutions on the capital market were created only after 1990. Since 1990 the banking sector has been a robustly developing and competitive financial sector in Poland. The range of offered products and services has been expanded, the sector’s capital volume, efficiency and stability have strengthened.

Table 2.1. Assets of financial institutions in Poland (bn zloty)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and cooperative banks</td>
<td>197.1</td>
<td>247.7</td>
<td>318.7</td>
<td>363.4</td>
<td>428.4</td>
<td>469.7</td>
<td>466.5</td>
<td>489.3</td>
</tr>
<tr>
<td>Credit unions (SKOK)</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.9</td>
<td>1.2</td>
<td>1.8</td>
<td>2.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>8.1</td>
<td>13.2</td>
<td>20.7</td>
<td>28.9</td>
<td>37.9</td>
<td>48</td>
<td>57.5</td>
<td>65.7</td>
</tr>
<tr>
<td>Investment funds</td>
<td>1.4</td>
<td>1.9</td>
<td>1.8</td>
<td>3.1</td>
<td>9.5</td>
<td>12.1</td>
<td>22.8</td>
<td>33.1</td>
</tr>
<tr>
<td>Open pension funds</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.3</td>
<td>9.9</td>
<td>19.4</td>
<td>31.6</td>
<td>44.8</td>
</tr>
<tr>
<td>Brokerage houses</td>
<td>1.8</td>
<td>3.0</td>
<td>3.2</td>
<td>3.6</td>
<td>3.9</td>
<td>2.9</td>
<td>2.8</td>
<td>3.7</td>
</tr>
</tbody>
</table>

1 Preliminary data
Source: NBP, Commission for the Supervision for Insurance and Pension Funds (KNUiFE), The Polish Securities and Exchange Commission (KPWiG) data.

Table 2.2. Number of financial institutions in Poland

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and cooperative banks</td>
<td>1,475</td>
<td>1,378</td>
<td>1,272</td>
<td>858</td>
<td>754</td>
<td>713</td>
<td>667</td>
<td>660</td>
</tr>
<tr>
<td>Credit unions (SKOK)</td>
<td>168</td>
<td>198</td>
<td>220</td>
<td>228</td>
<td>146</td>
<td>144</td>
<td>120</td>
<td>109</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>41</td>
<td>50</td>
<td>54</td>
<td>58</td>
<td>66</td>
<td>72</td>
<td>74</td>
<td>78</td>
</tr>
<tr>
<td>Investment firms</td>
<td>5</td>
<td>10</td>
<td>14</td>
<td>15</td>
<td>21</td>
<td>17</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Pension companies</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>21</td>
<td>17</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Brokerage houses</td>
<td>50</td>
<td>47</td>
<td>46</td>
<td>48</td>
<td>49</td>
<td>42</td>
<td>38</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: NBP, KNUiFE, KPWiG data.

See subchapters 5.1.1. and 5.1.5.
Figure 2.1. The structure of assets of the Polish financial system

Source: NBP, KNUJFE, KPWiG data.

Figure 2.2. The share of assets held by particular financial institutions in the structure of the Polish financial system, 1996

Source: NBP, KNUJFE, KPWiG data.

Figure 2.3. The share of assets held by particular financial institutions in the structure of the Polish financial system, 2003

Source: NBP, KNUJFE, KPWiG data.
The development of the financial system can be also analysed from the point of view of the financial instruments offered, and in this respect two basic groups of instruments can be differentiated:

– instruments of the banking system, not easily traded, such as bank loans or deposits,

– tradable instruments of the financial markets, such as short-term debt securities – Treasury bills or commercial papers, long-term instruments – bonds, and instruments related to shareholding – equities.

The analysis of the financial system development points to the continued dominant position of banking products, as regards both deposit instruments and instruments to obtain capital (cf. Figs. 2.4 and 2.5).

The underdeveloped market of non-government tradable instruments is attributable, i.a., to high borrowing needs of the public sector. A comparison between the markets of Treasury securities and non-government debt securities indicates a great disproportion between them. Treasury

**Scheme 2.1. Financial instruments in the financial system**

**Banking instruments**

**Money market instruments**

**Capital market instruments**

Source: own research.

**Figure 2.4. Assets of investment funds and bank deposits from non-financial sector**

Source: NBP.
The financial system in Poland

National Bank of Poland securities have an approx. 90% share of the Polish market of debt securities, whereas non-government debt securities constitute its marginal percentage.

The money market (the market of short-term debt securities with up to one-year maturity) is dominated by issues of Treasury bills. The relations between the major segments of the market, i.e. Treasury securities and short-term non-government debt securities are depicted in Table 2.3.

The Treasury securities have a similarly dominant position on the capital market, presented in Table 2.4.

Apart from large borrowing needs of the central budget, many other factors have determined the current shape of the capital market. The beginnings of the Polish stock exchange market were combined with the planned privatisation of the state-owned corporates. The assumed rate of privatisation was not

---

**Figure 2.5. Loans to corporates and the value of the market of corporate papers**

Data for 1999-2001 include the value of the market of short-term debt securities issued by banks. Data for 1999 include the value of bank bonds market.


**Table 2.3. Money market segments in Poland, 2003**

<table>
<thead>
<tr>
<th>Short-term debt securities – by issuer</th>
<th>Nominal value (bn zloty)</th>
<th>Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-bills</td>
<td>48.76</td>
<td>81.2</td>
</tr>
<tr>
<td>Non-government debt securities</td>
<td>11.29</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>60.05</td>
<td>100</td>
</tr>
</tbody>
</table>

The table does not include NBP money market bills or mortgage bonds.

Source: Ministry of Finance, Fitch Polska.

**Table 2.4. Major segments of the Polish capital market by value (bn zloty)**

<table>
<thead>
<tr>
<th>Capital market segment</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Treasury bonds (domestic market)</td>
<td>70.5</td>
<td>94.0</td>
<td>123.4</td>
<td>153.8</td>
<td>184.6</td>
</tr>
<tr>
<td>Market Treasury bonds in % of GDP</td>
<td>11.4</td>
<td>13.1</td>
<td>16.4</td>
<td>19.9</td>
<td>23.0</td>
</tr>
<tr>
<td>Shares quoted on the Stock Exchange</td>
<td>123.4</td>
<td>130.0</td>
<td>103.3</td>
<td>110.5</td>
<td>167.7</td>
</tr>
<tr>
<td>Shares quoted on the Stock Exchange as % of GDP</td>
<td>20.1</td>
<td>18.2</td>
<td>13.7</td>
<td>14.3</td>
<td>20.9</td>
</tr>
<tr>
<td>Non-government bonds (corporate, bank and local government bonds)</td>
<td>2.1</td>
<td>3.2</td>
<td>4.8</td>
<td>9.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Non-government bonds in % of GDP</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>1.2</td>
<td>1.3</td>
</tr>
</tbody>
</table>

The table does not include NBP bonds.

The data include all companies listed on the Stock Exchange.

Source: own calculations based on the data from the Ministry of Finance, the Warsaw Stock Exchange, Fitch Polska.
attained in the initial phase of the market functioning. The interest in the stock exchange market was relatively poor, except for the period of the WIG surge from mid-1993 and the recovery fostered by the privatisation of Bank Śląski. Only the year 1997 brought a significant rise in the number of listed companies and the privatisation of further large corporates. The decisive role of privatisation of state-owned corporates in the development of the market influenced the extent to which the capital market should perform specific functions in the economy. In the circumstances of a halt in the inflow of large offerings from the Polish Treasury companies, the development of the capital market was hampered. The private sector still takes advantage of the capital market to a very limited extent.

On the other hand, the segment of Treasury securities was undergoing a robust development. It was related to the increasing borrowing needs of the central budget and a simultaneous decrease privatisation revenues. Weakened development potential in other segments of the capital market was one of the side effects.

The reform of the pension system implemented in 1999 undoubtedly contributed to a growing interest in depositing savings with institutions other than banks. Pension funds appeared on the market and extended the group of institutional investors, which raised the demand for financial instruments.

The development of investment funds also provided an alternative to the services offered by banks. A lack of appropriate legal regulations hampered the development of that sector. Only the Act of 1997 on investment funds brought significant changes in the functioning of that segment of the financial market. The number of funds and their asset volume increased significantly. Due to changes in the saving habits of the public (a drop in demand for bank deposits), a further increase in the value of funds deposited with investment funds can be expected. A rise in their share in the total savings of Poles is anticipated.

The capital market was created in line with the solutions implemented in developed countries, what will facilitate its integration into the European structures. It should also be borne in mind that although the legislative framework for the Polish capital market complies with international standards, its efficiency and liquidity are still insufficient.

It can be stated that upon Poland’s accession to the European Union the domestic financial system will be well prepared for the participation in the global market as regards the legal and the institutional framework. However, its size (depth), which determines, for instance, the liquidity that influences the market’s attractiveness, is still considered unsatisfactory.

2.2. Comparison of the development level of financial systems in Poland and in other countries

The comparison covers Poland, Hungary, the Czech Republic and the Eurozone. In spite of the differences in their size, population and general economic potential, the first three countries, due to their common history, have shared certain similarities in many areas, including the transformation of their financial systems.

Financial systems of all the three countries feature a low level of financial intermediation (the volume of the financial system assets in relation to GDP is presented in Table 2.5). The banking industry remains the main element of financial systems in these countries. Securities markets still do not provide an attractive alternative for entities searching for external sources of finance. Capitalization of markets of shares and bonds amounts to a mere fraction of the capitalization of their counterparts in the Eurozone. Another common feature is that foreign investors are highly active on the Polish, Hungarian and Czech markets.

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24 Especially the function regarding allocation and transformation of capital and the informative and control functions.
25 The act was based on the concept of two separate legal persons (the investment fund and the investment firm); it also introduced four types of funds.
The Czech banking sector (Table 2.6), measured with the assets to GDP ratio, is of the greatest importance of the three compared countries. It follows, inter alia, from the fact that in the early stages of transformation of the Czech economy the inflation was maintained at a low level. On the other hand, high inflation in other countries of Central Europe contributed to the erosion in the value of their banking assets.

A tendency common for all the three banking systems is the decreasing number of banks (concentration in the sector).

Capital markets in Poland, the Czech Republic and Hungary perform some of the functions in the economy listed in the previous chapter. However, they still do not have a very important part as a source of financing investments – their efficiency and liquidity are still insufficient. As regards the degree of capitalization and the number of listed companies, the Polish market is definitely the largest of the three. However, the capitalization ratios measured as the percentage of GDP are similar in all the three countries. Table 2.7 presents data on the capital markets in the reviewed countries and the ratio of their adequacy to the existing needs.

The results of surveys on the adequacy of share markets to the financial needs of companies indicate that the possibilities to use the share market as compared to the real financial needs in the extent discussed here were greater in Poland than in the two remaining countries of the region. However, when compared to the USA (8.04 points) or the European Union countries (France – 6.45 points, Germany – 6.43 points) the situation was definitely less favourable (Table 2.7).

The development potential of a financial system is primarily determined by a country’s credibility. The countries under review have achieved a significant progress in recent years, which has placed them in the group of countries with low credit risk. Credibility of countries, as viewed by banks operating on international markets, is presented in Table 2.8.

### Table 2.5. Financial system assets to GDP, 2003

<table>
<thead>
<tr>
<th>Country</th>
<th>Financial systems assets in % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>78.5</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>141.4</td>
</tr>
<tr>
<td>Hungary</td>
<td>95.3</td>
</tr>
</tbody>
</table>

Source: NCBs.

### Table 2.6. Banking sector development level in selected countries of Central and Eastern Europe and in the Eurozone, 2003 (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Assets/GDP</th>
<th>Loans/GDP</th>
<th>Deposits/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>60</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>105</td>
<td>34</td>
<td>64</td>
</tr>
<tr>
<td>Hungary</td>
<td>78</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>Eurozone</td>
<td>243</td>
<td>93</td>
<td>81</td>
</tr>
</tbody>
</table>


### Table 2.7. Capital markets in 2003, selected figures (as at year-end)

<table>
<thead>
<tr>
<th>Country</th>
<th>Stock market capitalization (bn euro)</th>
<th>Stock market capitalization as % of GDP</th>
<th>Number of listed companies</th>
<th>Adequacy of stock markets to financial needs of companies (in points; 0 – no adequacy, 10 – high adequacy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>29.8</td>
<td>17</td>
<td>203</td>
<td>4.31</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>19.9</td>
<td>17</td>
<td>65</td>
<td>2.29</td>
</tr>
<tr>
<td>Hungary</td>
<td>15.0</td>
<td>18</td>
<td>49</td>
<td>3.35</td>
</tr>
</tbody>
</table>

Source: own calculations based on FIBV data, IMD World Competitiveness Yearbook. Lausanne 2003, annual reports from individual stock markets.
All the three analysed countries obtained more than 50 points, which places them in the low-risk group. The Czech Republic and Hungary have similar results. Poland, with a slightly lower score, shows a tendency to improve its credibility. The figures in Table 2.8 thus indicate a relatively stable political and financial situation in the analysed countries. This is confirmed by ratings of major rating agencies: Standard & Poor’s, Moody’s and Fitch, compiled in Table 2.9.

The ongoing functioning as well as prospects of a financial system are greatly influenced by the level of corruption in a given country. Corruption may have an impact both on the functioning of the banking system (e.g. on the level of loans classified loss), and on financial markets (e.g. manipulation and insider dealings). Corruption decreases the extent to which financial markets perform their functions, which in turn decreases the demand for their services. In recent years the situation has significantly worsened in this respect, which is reflected in the surveys of Transparency International. Their results are presented in Table 2.10.

Poland achieved the worst result in the 10-point scale, Hungary scored the best. The increasing corruption detected in the two countries is of the greatest concern.

In conclusion, this is what follows from the analysis of the development of financial systems in the reviewed countries:

- relatively good credibility ratings, which is a major factor determining the development potential of financial systems;
- presence of solid legal regulations for the functioning of the systems, which is a prerequisite for the security of performed transactions;

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**Table 2.8. Credibility of countries as viewed by banks operating on international markets according to Institutional Investor**

<table>
<thead>
<tr>
<th>Country</th>
<th>December 2002</th>
<th>December 2003</th>
<th>Change (in points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>60.1</td>
<td>61.1</td>
<td>+1.0</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>64.0</td>
<td>65.6</td>
<td>+1.6</td>
</tr>
<tr>
<td>Hungary</td>
<td>66.1</td>
<td>65.4</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

1 The methodology to prepare a ranking is the following: Institutional Investor asks banks operating on international markets to classify the credibility of individual countries according to their own methodology based on the scale of up to 100 points. Having been averaged, the results are published twice a year (in March and September). The larger the score, the higher the assessment of a given country.

2 It can be assumed that countries with over 50 points belong to the low-risk group, while the highest risk is related to operations in countries with fewer than 30 points, which is reflected in the profitability expected by investors.


**Table 2.9. Foreign currency ratings, selected Central European countries (as at year-end 2003)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Standard &amp; Poor’s</th>
<th>Moody’s</th>
<th>Fitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>BBB+</td>
<td>A2</td>
<td>BBB+</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>A-</td>
<td>A1</td>
<td>A-</td>
</tr>
<tr>
<td>Hungary</td>
<td>A-</td>
<td>A2</td>
<td>A-</td>
</tr>
</tbody>
</table>

Source: Standard & Poor’s, Moody’s.

**Table 2.10. Corruption (10-point scale, low scores show a high corruption level)**

<table>
<thead>
<tr>
<th>Country</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>4.1</td>
<td>4.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3.9</td>
<td>3.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Hungary</td>
<td>5.3</td>
<td>4.9</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Source: Transparency International, Corruptions Perceptions Index, data from various years.
– problems in areas of great significance for the system, such as the level of corruption, which shows difficulties in law enforcement;

– still a low percentage of financial institutions and markets in GDP, as compared to the European Union Member States. This stems from a relatively short record of the financial system as part of the market economy.
3 Regulations

3.1. Introduction to the regulatory system

The Constitution of the Republic of Poland specifies the principles of creation of legal regulations of the financial services sector. It introduces the principle of freedom of business activity as the basis for the economic system. As regards the provision of financial services, the freedom is expressed in the following:

– freedom to conclude contracts of any subject and of any contents,
– freedom to select business partners and a possibility to perform cross-border activities,
– freedom of competition.

Under the provisions of the Constitution, freedom of business activity may be limited solely by an act and solely on the grounds of a significant public interest. In order to guarantee financial stability, the public law introduces detailed regulations that mitigate the risk of business activities of entities within specific segments of the financial services sector. The provision of financial services is subject to control and supervision by the State, where “entities put funds entrusted to them by other entities (natural and legal persons) at risk of their operations”\(^{27}\).

Numerous changes were introduced to the legal regulations of the financial services sector in the period under consideration. This chapter presents an assessment of the effects of these changes.

3.2. Regulations influencing the financial services sector

Changes in the Foreign Exchange Law

The Foreign Exchange Law regulates the scope of freedom of business activity by specifying the rules of exchanging the Polish currency to foreign currencies and by specifying procedures for the issuance of permissions to perform market operations that are related to spending expressed in a foreign currency.

Changes in the provisions of the Foreign Exchange Law were related to the fulfilment of Poland’s obligations towards the Organization of Economic Cooperation and Development (OECD) and the European Union. They were also caused by the occurrence of new institutions and phenomena requiring legal regulations.

Until 2002, foreign exchange operations were regulated by the Foreign Exchange Law of 1998\(^{28}\). It brought Poland closer to the OECD standards. The adopted legal solutions, despite their...

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contribution to the liberalisation of foreign exchange operations, did not meet the standards binding in the European Union. Non-residents were not able to purchase short-term securities or financial derivatives in Poland without a foreign exchange permit. These restrictions did not adversely influence the development of the capital market, since they did not pertain to purchases by non-residents of Treasury securities and financial derivatives offered on stock exchange markets. Neither did they pertain to the purchase, by non-residents, of short-term securities and financial derivatives offered by authorized banks.

The new Act on foreign exchange implemented in 2002 was aimed to meet the obligations stemming from European Union law. The abolition of foreign exchange limitations pertained to EU Member States, to countries within the European Economic Area and other countries in the OECD.

The abolition of restrictions in the flow of capital to countries within the foregoing areas will make it possible for residents to freely invest on capital markets of these countries. Moreover, as a result of these changes, residents obtained the right to maintain accounts with foreign banks and to freely deposit funds on such accounts. The trade in lending was also liberalised by abolishing the restrictions imposed on residents related to contracting and extending short-term loans.

The liberalisation of foreign exchange raised the requirements concerning reporting and auditing, binding for the participants of foreign exchange.

As regards domestic foreign exchange operations, the Foreign Exchange Law does not abolish restrictions on foreign currency settlement of residents, which complements the currency principle stemming from the Polish Civil Code. The object of the restrictions is no different than that of the restrictions binding before 2002. However, their scope changed as regards foreign exchange operations with third countries, except for the countries with which Poland had concluded agreements on mutual protection and support of investments.

Changes in the Foreign Exchange Law did not significantly influence the development of the financial market since the existing level of liberalisation made it possible for foreign investors to invest in almost all market segments.

Changes in accounting regulations

Provisions of the amended Accounting Act took effect on January 1, 2002 and pertain to financial statements prepared for a financial year commencing in 2002.

The changes include the valuation of items in financial statements, preparation of consolidated financial statements for capital groups and reporting requirements. Many ordinances

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29 The term “non-resident” in relation to foreign exchange denotes a natural person with his/her place of residence abroad and a legal person with its registered office abroad, as well as any other entity with its registered office abroad and with the capacity to contract obligations and acquire rights on its behalf. Non-residents also include foreign branches, representative offices and companies established by residents abroad as well as foreign diplomatic representations, consulate offices and other foreign representations, special missions and international organizations that are endowed with immunity and diplomatic or consular privileges.


32 These obligations pertained to the implementation of Art. 56 and Art. 57 of the Maastricht Treaty of February 7, 1992 in the Polish law. The said regulations prohibit the limitation of capital and payment flow between the Member States and between the Member States and third countries. It is only possible to maintain restrictions as regards third countries if such restrictions existed as at December 31, 1993, under the national law or under acquis communautaire.

33 The European Economic Area includes, apart from the EU Member States, Island, Norway and Liechtenstein.

34 The term “resident” in relation to foreign exchange specifies a natural person with his/her place of residence in the country and a legal person with its registered office in the country, as well as any other entity with its registered office in the country and with the capacity to contract obligations and acquire rights on its behalf. Residents also include branches, representative offices and companies established by non-residents in the country as well as Polish diplomatic representations, consulate offices and other Polish representations and special missions that are endowed with immunity and diplomatic or consular privileges.

35 Art. 358 of the Polish Civil Code specifies that “with reservation to exceptions specified in the Act, financial obligations on the territory of Poland may be expressed solely in Polish currency”.

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were issued by the Minister of Finance on the basis of the provisions of the Act, including e.g. explanations of terms used in the Act and technical solutions related to accounting.

The executive ordinance\(^\text{36}\) binding from January 1, 2002 regarding the valuation of financial instruments is based to a great extent on the solutions included in the International Accounting Standards (IAS)\(^\text{37}\). It introduces new principles for the classification of financial instruments depending on the assumed period of their maintenance in the portfolio. According to these principles, financial instruments are divided into: instruments to be traded, cash advances and own receivables, maintained to their maturity and available for sale. What is also crucial is the introduction of two new methods of valuation: at fair value or at depreciated cost according to effective interest rate. The former one is understood as the price of transaction concluded on a perfectly transparent market between parties that have no links with one another. The latter involves the reduction of the instrument purchase price by performed repayments and discounts calculated according to the effective interest rate understood as the internal rate of return on the instrument.

New valuation principles were to contribute to a more credible valuation of operations presented in the financial statement, and thus to their greater transparency.

Changes introduced in the subsequent Ordinance of the Minister of Finance\(^\text{38}\) involved specifying the currently binding principles of consolidation of financial statements in more detail, and adjusting them to international standards. A clear division was made between the consolidation of statements and the valuation of shares in subsidiaries. Thresholds were specified, the exceeding of which exempted from the requirement to draw up a consolidated statement. The range of entities to be included in the consolidation and entities required to prepare such statements were specified. A consolidated financial statement does not show the financial consequences of transactions performed between capital-linked entities. It separates the equity capital belonging to a financial group from other capitals. The application of the above-described principles for balance sheet consolidation will provide a transparent picture of the financial condition of entities in a capital group. As a result, investors will be able to take decisions on the basis of more credible data.

Changes in the consolidation of statements should be treated as financially neutral. They involved solely the adjustment of the terminology to the Community law and sorting out unclear issues related to the applied methods and the entities covered by the consolidation.

Changes introduced in Poland are part of the process that is underway in the EU and that aims at the creation of a single financial market of the European Union. The unification of accounting standards in the EU should facilitate the preparation of financial statements for linked entities that operate on different markets. It should also improve their transparency. It will result in a greater efficiency of the supervision over financial institutions and facilitate the decision-making process for investors.

Activities aimed to establish an integrated financial market in the EU are performed under the Financial Services Action Plan\(^\text{39}\). The plan focuses on the creation of a single wholesale market (market of large-value transactions) and an open and secure retail market, on improving the transparency of the financial market, on introducing modern supervision standards and removing barriers (including tax barriers) that prevent the operation of a single financial market.

\(^\text{36}\) Ordinance of the Minister of Finance of December 12, 2001 regarding detailed principles of approval, valuation methods, scope of disclosure and methods of presentation of financial instruments (\textit{Dziennik Ustaw} of December 22, 2001, No. 149, Item 1674).

\(^\text{37}\) Internationally approved accounting standards that constitute the grounds for accounting principles used in various countries (cf. Box 5.1.8). In Poland, provisions of the Accounting Act are absolutely binding, and in the case of issues not regulated by the Act, the IAS standards shall be applied.

\(^\text{38}\) Ordinance of the Minister of Finance of December 12, 2001 regarding the principles of drawing up of consolidated financial statements of banks and consolidated financial statements of capital groups (\textit{Dziennik Ustaw} of December 28, 2001 No. 152, Item 1728).

\(^\text{39}\) The Plan was adopted by the European Council in Lisbon in March 2000. See also Box 5.1.9.
The ordinance on the implementation of the International Accounting Standards in public companies will become effective in the EU in 2005⁴⁰. The application of the IAS should increase the investors’ trust in the single financial market.

It is expected that the requirement of application of the International Accounting Standards⁴¹ in public companies may contribute to significant shifts in the structure of their balance sheets. Different principles of presentation of assets may change the way in which companies required to apply the IAS are perceived on the market.

Due diligence performed by one of auditing companies in companies listed on the Warsaw Stock Exchange examined the state of preparations for the implementation of the IAS⁴². The most frequently indicated obstacles included the lack of an up-to-date Polish language version of the IAS. Other barriers refer to a shortfall of specialized staff in companies and costs of changes in financial reporting systems. An aggregated assessment of the financial impact of introducing the requirement to apply the IAS on financial system entities seems to be a difficult task, as it has turned out that as many as 64% of the examined companies have not made relevant estimations within their own companies yet.

Currently, it is difficult to assess potential financial impact of the foregoing changes, since not all valuation methods have been implemented so far. Potentially, the implementation of new principles of valuation of financial instruments may increase the variability of financial performance and, in turn, of equity capitals of financial institutions. There is also a concern that the models applied in specific institutions to estimate fair value or effective interest rate will have parameters varied to such an extent that it will distort their comparability and transparency of the presented data⁴³.

**Amendments to the Bankruptcy Law**

The Bankruptcy Act effective from October 1, 2003 replaced two pre-war ordinances of the President of the Republic of Poland – the Bankruptcy Law and the Agreement Proceedings Law. The new regulations may influence the financial condition of companies by reducing the cost of capital acquisition. Efficient proceedings of the Bankruptcy and Recovery Act enable banks to perform more effective assessment of risk, which should bring about a fall in the costs of company financing⁴⁴.

A crucial issue for entities that execute transactions on the financial market is the guarantee of settlement of mutual claims. Thanks to the regulations of the Bankruptcy and Recovery Act such settlements are guaranteed through netting (mutual compensation of claims and liabilities in the case of insolvency of one of the parties to the transaction). Thanks to the netting, the solvent party is able to close transactions concluded, but yet not executed by the parties and the compensation of all mutual payments resulting from all executed transactions is possible.

In the case of bankruptcy of a contractor, ensuring the legal effect of netting translates into the possibility for banks to maintain a lower capital requirement for the calculation of the capital adequacy ratio. Thus, banks will be able to increase their credit exposures.

Another important regulation introduced to strengthen the security of trade⁴⁵ is the legal guarantee that an order placed by a participant of the financial market in the payment system will

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⁴⁰ Ordinance No. 1606/2002 of the European Parliament and of the Council of July 19, 2002 on the implementation of the International Accounting Standards requires listed parent undertakings to prepare consolidated financial statements in conformity with the IAS from January 1, 2005. The decision on the implementation of IAS 32 and IAS 39, pertaining, among other things, to the valuation at fair value, will be taken after January 1, 2005.

⁴¹ Starting from 2003, the newly created standards have been known as the International Financial Reporting Standards.


⁴³ In 2003, the General Inspectorate of Banking Supervision performed a survey in commercial banks on the assessment of the impact of changed accounting principles on the balance sheet value in 2002. The estimated balance of changes in the value of financial instruments amounted to 769 million złoty, whereas the balance of changes in the value of total assets amounted to 537 million złoty.


⁴⁵ For more about the systems of protection of market participants, see Chapter 4.4.
be performed even in the case the participant’s bankruptcy is announced. Provisions of the Act mitigate the system risk\textsuperscript{46}. It means that dealers who execute transactions on the Polish financial market may have higher investment limits, which can contribute to the development of some segments of the financial market.

3.3. Regulations regarding the sector of banking and quasi-banking services

In order to improve the competitive edge of Polish banks after the accession to the European Union in 2003, two agreements between the financial market regulators and participants have been concluded\textsuperscript{47}. As a result, a package of regulatory changes has been implemented, which covers:

\begin{itemize}
  \item amendment of the Act on the NBP,
  \item establishment of the EU Guarantee Fund,
  \item changes in the regulations regarding bank accountancy\textsuperscript{48} and the principles of creating provisions against the risk related to banking activities.
\end{itemize}

The Act on the NBP\textsuperscript{49} was amended in December 2003. One of the most fundamental changes involved putting the interest on the funds held by the banks with the NBP due to the required reserve\textsuperscript{50}, introduced on May 1, 2004. Non-interest bearing required reserves could influence the competitiveness of Polish banks. However, the impact of putting the interest rate on the required reserve on the interest margin in banks is estimated to be relatively small (0.1 – 0.2 percentage points). Following the amendment of the Act on the NBP, the amount of the calculated required reserve is decreased by a lump sum amount - an equivalent of 500 thousand euro. Such a solution is more favourable than the one in the euro area, where the required reserve calculated is decreased by a lump sum amount of 100 thousand euro.

The amendment of the Act made it possible for the NBP Management Board to diversify the interest rates on the required reserves depending on the type of operations performed by banks. As a result, a zero rate of the required reserve for funds from repo transactions on securities may be established, which will foster the development of the repo market.

The Ordinance of the Minister of Finance regarding detailed principles for creating provisions against the risk of banking activities has been aimed to release a part of provisions and thus increase loan accessibility\textsuperscript{51}. The period of admissible delay in the repayment of principal or interest, the exceeding of which caused the necessity to classify claims to a higher risk category, has been prolonged. Simplified principles of classification of retail claims have been introduced. Claims due to consumer loans may be classified into two categories, instead of the previously applicable four categories, which decreases the banks’ burden of establishment of specific provisions.

\textsuperscript{46} The risk lying in the fact that a lack of capacity of one system participant to fulfil its obligations towards one or more system participants may trigger the domino effect, i.e. loss of capacity of other system participants to fulfil their obligations.

\textsuperscript{47} The signatories to the agreement to amend the Act on the NBP and to establish the EU Guarantee Fund were the Deputy Chairman of the Council of Ministers, the Minister of Economy, Labour and Social Policy, the Minister of Finance, and the Polish Bank Association. The signatories to the agreement regarding amendments of ordinances on the banks’ detailed accounting principles and the establishment of provisions against the risk related to the activities of banks were the Minister of Finance and the Chairperson of the Commission for Banking Supervision.

\textsuperscript{48} The ordinance is discussed in the section on amendments in accounting regulations.

\textsuperscript{49} The Act on the National Bank of Poland of August 29, 1997 (\textit{Dziennik Ustaw} No. 140, Item 938, with later amendments).

\textsuperscript{50} In the years 2004-2006 some of the interest on the required reserves will be transferred to the EU Guarantee Fund. In 2004, 80% of the interest will be transferred to the Fund and 20% will constitute the banks’ earnings. In 2005, the Fund will receive 60% of the interest and 40% will constitute the banks’ earnings. In 2006, the Fund and the banks will receive 50% of the interest. After 2006, all interest on the required reserves will constitute the banks’ earnings.

\textsuperscript{51} Ordinance of the Minister of Finance of December 10, 2003 regarding the creation of provisions for the risk of banking activities (\textit{Dziennik Ustaw} No. 218/2003, Item 2147).
Bank Gospodarstwa Krajowego

Separate statutory regulations regarding the tasks, the scope of activity and the organization of the Bank Gospodarstwa Krajowego (BGK) stem from its role in the banking system. The BGK is a state bank that performs specialised functions within the scope of tasks commissioned by the state authorities. Due to the different principles of conducting banking activity, the BGK does not have the status of a credit institution in the understanding of provisions of the EU Banking Directive.

Under the Act, the BGK may provide services to the central budget. Regulations that enable the BGK to maintain the central budget’s account as well as the accounts of the state administration and state legal persons within the sector of public finance will become effective only upon Poland’s accession to the euro area. When the BGK takes over the banking services for the central budget, the fluctuations in the liquidity of the banking system should be diminished, which should in turn stabilise the interest rates on the inter-bank market.

The BGK is currently authorized to provide services to the central budget as regards current accounts of budgetary establishments, their auxiliary units and special funds, as well as the accounts of central or local legal persons. However, BGK is not the only bank providing such services. The dispersion of the funds of non-budgetary institutions and government agencies among various banks stems from the freedom to select a bank.

The Act on the BGK provides for the privilege of the BGK to file a motion with the Commission for Banking Supervision to exclude some or all of its activities, related to the provision of services to the funds created, entrusted or forwarded to the bank under separate acts, from the requirement to observe some of the prudential standards, which are imposed on banking institutions.

Mortgage banking

The amendment to the Act on Mortgage Bonds and Mortgage Banks took effect in 2002. The solutions implemented were aimed to develop the market of mortgage lending and to raise the potential interest in mortgage bonds. Limits related to the value of collateralised loan extended as against the value of immovables were increased. Due to the practical problems related to the creation of land and mortgage registers and making entries in such registers, the Act provided for a possibility to grant a loan by a mortgage bank even before the establishment of the mortgage. The Act expands the basis for the issue of public mortgage bonds with the receivables of mortgage banks due to loans outstanding to the local government units. Despite the liberalisation of regulations in this respect, no public mortgage bonds have been issued in Poland so far.

52 The Act on Bank Gospodarstwa Krajowego of March 14, 2003 (Dziennik Ustaw No. 65, Item 594 with later amendments).
53 When closing the “Freedom to provide services” negotiation chapter, Poland forwarded a motion to exclude the BGK from under the provisions of Directive 2000/12/EC of the European Parliament and of the Council of March 20, 2000 relating to the establishment and conduct of business of credit institutions. The motion was approved by the European Commission in November 2001.
54 In line with Art. 107 para. 3 of the Act on Public Finance of November 26, 1998 (consolidated text, Dziennik Ustaw No. 15/2003, Item 148, with later amendments). The selection of the BGK or the NBP as the bank to maintain accounts of budgetary establishments, their auxiliary units, special funds and auxiliary accounts is not subject to the public procurement provisions. Such an exemption is invalid where a commercial bank is selected for the provider of services. Thus, there is a full freedom to select a bank but the NBP and the BGK are definitely favoured.
56 Under Art. 20 of the Act on Mortgage Bonds and Mortgage Banks of August 29, 1997 (consolidated text, Dziennik Ustaw No. 99/2003, Item 919 with later amendments), the bank may provide the borrower with the funds specified in the loan agreement provided that:
1) a motion has been filed with court to enter the mortgage securing the claim,
2) additional security of the loan extended has been established for the time until the establishment of the mortgage, in particular in the form of a guarantee or endorsement of the National Bank of Poland, the European Central Bank, governments or central banks of EU Member States, the Organization of Economic Cooperation and Development, as well as of a bank holding equity no lower than the zloty equivalent of 10 million euro.
57 The term “public mortgage bonds” does not mean that such bonds are publicly traded in the understanding of the Act on Public Trading in Securities.
In order to secure against the interest rate risk and the FX risk related to mortgage lending, mortgage banks have been authorized to conclude transactions on the regulated market-traded and OTC derivatives markets.

3.4. Regulations regarding non-bank financial institutions

Business insurance

A package of four acts, to become effective on January 1, 2004 was adopted in 2003. The existing insurance law could not constitute the grounds for the activities adjusting it to the European law, i.e. due to its internal incoherence. Changes in the insurance law are of a systemic nature. They consist in eliminating the contradictions in the provisions of the Act and the Ordinances of the Minister of Finance and the Polish Civil Code, by moving civil law regulations regarding the insurance agreement to the Civil Code. The previous Insurance Business Act and the accompanying executive acts regulated civil law issues. This caused difficulties in the interpretation of provisions (e.g. both the Code and the Act regulated the issue of submission of the General Terms of Insurance by the insurance company to the insurer). Moreover, the Polish insurance law was adjusted not only to EU legal requirements, but also to the ratified international conventions (e.g. the Lugano Convention). In line with the provisions of relevant EU Directives, the guarantees of consumer rights related to insurance services were strengthened.

New regulations introduced the single passport principle. It enables the Polish insurers to conduct business activity on the territory of European Union Member States, and foreign insurance companies to launch their products on the Polish market (as branches of foreign insurance companies).

Changes in the Act on the organization and functioning of pension funds

Changes in the Act on the organization and functioning of pension funds were aimed to reduce the costs borne by the system users, to streamline the operation of the funds and to provide maximum return on investment. The investment portfolio of pension funds has been extended with new financial instruments, such as:

- publicly traded depositary receipts,
- investment certificates issued by specialised closed-end investment funds,
- mortgage bonds not traded publicly,
- revenue bonds.

Important changes pertained to the method and frequency of calculation of the minimum required rate of return and to the procedures of assigning the insured persons who have failed to conclude an agreement with a pension fund to particular Open Pension Funds, performed by the Social Insurance Board. The Social Insurance Board assigns Open Pension Funds in a drawing from

62 Act of August 27, 2003 amending the Act on Organization and Functioning of Pension Funds and other acts (Dziennik Ustaw No. 170, Item 651).
63 Revenue bonds are debt securities issued by local governments and commercial companies instituted to perform public utility duties. What is specific to the revenue bonds is that the issuer is not held liable for the debt with its whole property but only with a separated part thereof that is being created along with the achievement of the objective for which the bonds have been issued.
among the funds with rates of return higher than the average rates of return weighed in the last two financial periods and whose market share, measured with the net value of assets, has not exceeded 10%.

The changes mitigating the costs borne by Open Pension Funds’ Members may result in higher pensions paid out in the future. On the other hand, the widening of the investment portfolio should favour the development of selected segments of the financial market, due to its increased liquidity. It should also improve the security of investments through risk diversification.

3.5. Regulations regarding the capital market

The business-related impact of changes introduced in 2001 into the Act on Public Trading in Securities could be observed in 2002 and 2003. The amendment of the Act was aimed not only to adjust it to the EU regulations, but also to facilitate the flotation of securities. The objectives were reflected in the executive acts to the Act, regarding the issue prospectus and the scope of reporting by issuers65.

Amendments to the executive acts to the Act set forth in more detail the information requirements to be met by issuers, depending on the type of issued securities. The information requirements towards the issuers whose securities are listed in the Central Table of Offers (CeTO) have been eased. The CeTO Management Board has been authorized to specify the scope of reporting for the issuers whose securities are listed on that market. As a result of the changes, a centralized market of corporate and municipal bonds has been established.

Apart from the commonly binding legal acts that regulate the operation of the capital market, certain customs of no binding nature, adopted and accepted by the market participants, play an important role. An event of great significance that took place in the period under review was the development of two draft documents on the corporate governance:

– the Corporate Governance Code developed by the Committee of Good Practices of the Polish Forum of Corporate Governance66;
– the code developed by the Gdañsk Institute for Market Economics.

The corporate governance principles are standards that shape market practices within the scope of activities of public companies. Such standards are addressed to the company authorities, their members, and majority and minority shareholders.

Corporate governance includes the following components:

– independence of the Supervisory Board members67;
– openness of the principles and the amounts of managers’ remuneration;
– clarity of formulating decisions of the general shareholders’ meeting;
– changes of auditors (at least every 5 years);
– independence of the auditor for specific issues;
– respecting the equal rights of shareholders, especially in the case of shareholders buyout (all shareholders must have equal rights in order to sell the shares).

65 The Ordinance of the Council of Ministers of October 16, 2001 on the detailed requirements to be fulfilled by the issue prospectus and the prospectus summary (Dziennik Ustaw No. 139, Item 1568 with later amendments) and the Ordinance of the Council of Ministers of October 16, 2001 regarding current and periodical information submitted by issuers of securities (Dziennik Ustaw No. 139, Item 1569 with later amendments).
67 No links with the company, its shareholders or employees. Such links could significantly influence the capacity of an independent member to take unbiased decisions.
In 2002, the Supervisory Board of the Warsaw Stock Exchange approved the Principles of Good Practices developed by the Committee of Good Practices of the Polish Forum of Corporate Governance. A balanced approach was applied when implementing the Principles of Good Practices, consisting in the freedom of companies not to apply the specified corporate governance principles, provided that the very fact as well as the reasons for it are disclosed.

Since July 1, 2003, all public companies have been required to publish statements of compliance with the Principles of Good Practices and to submit them to the Warsaw Stock Exchange. The initial period of effectiveness of the Principles showed that the majority of companies declared their readiness to apply them. Only 18 out of 205 companies announced that they had not implemented and did not intend to implement the Principles in the future. At the same time no other company declared its compliance with all the requirements of the Principles of Good Practices. One of the most frequent departures was the absence of independent members from the supervisory boards.

Summary

The development of the financial services sector depends not only on the economic conditions but also on legal regulations that specify the operation of financial institutions.

The main reason for the changes introduced into the financial services sector was the necessity of adjustment of the economic law to EU legal requirements and to the commitments stemming from Poland’s membership in the OECD. The process of adjustment of the Polish law was very dynamic, since regulations regarding the financial services sector in the European law have been and still are frequently changed. This was reflected in numerous amendments to Acts or in the creation of new Acts to regulate the operation of the financial services sector in Poland.

The European Union intends to standardize the regulations regarding the conduct of business activity. This is one of the objectives of the Lisbon Strategy. In the case of Polish financial service sector companies it may, apart from its potential benefits, entail increased general expense, since the European regulations have been established for developed financial markets.

Efficient legal standards are crucial for the development of the sector. The World Bank report shows that Poland faces significant difficulties with the enforcement of contractual obligations.

Box 3.1

**IMPACT OF CAPITAL GAINS TAX ON FINANCIAL MARKET INSTITUTIONS**

The system of taxes on capital gains is a crucial determinant of investment decisions taken by entities. The taxation system should be neutral to all instruments available on the financial market. In November 2001 amendments to the Personal Income Tax Act were adopted, which put a 20 percent tax on savings deposits and funds on bank accounts. Exemptions due to the redemption of participation units in investment funds and due to sales of publicly traded securities were maintained.

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As a result, household savings have been transferred from banks to investment funds. Banks were forced to adjust their IT systems, since they became tax payers. For bank customers it resulted in reduced real interest rates on deposits. Moreover, putting tax on bank deposits interest increased the movements in the real interest received by the customer due to changes in inflation.

Changes in the tax law, unfavourable to bank account holders, resulted in the appearance of the so-called anti-tax bank bonds\(^1\) in 2002. The provisions of the Polish Bonds Act authorize banks to issue bonds to be publicly traded. Until the end of 2003 tax exemptions pertained to earnings from early sale and repurchase of bonds by banks, where such bonds have been obtained through public offering or on the regulated market. The changes in the Personal Income Tax Act resulted in the development of bonds issued by banks\(^2\).

\(^1\) See Chapter 6.2.2.4.
\(^2\) More about the impact of the tax on the banking system in sub-chapter 5.1.3.2.
The infrastructure of the financial system includes institutions and systems that support the execution of payments performed by market participants, organize trade in securities and facilitate settlement of concluded transactions. The most important entities are those that regulate and supervise the financial market. Other elements of great significance include systems that guarantee protection of market participants, institutions that improve information transparency and intermediaries in the interbank trade.

4.1. Regulatory and supervisory institutions

EU Member States apply various solutions as regards the supervision of financial markets. An integrated supervision model means that a single institution supervises all segments of the financial market. In a sectoral model, different institutions are responsible for the supervision and regulation of individual market segments.

The Polish financial market features the sectoral model - several institutions are involved in the regulation and supervision of specific sectors and markets. According to the currently binding legal framework, the Ministry of Finance is the main regulatory institution. The competence of the Minister of Finance includes submission of drafts of normative acts that set forth the principles of functioning of financial markets and organizations operating on these markets. Among remaining regulatory and supervisory bodies exist personal links which facilitate effective cooperation and efficient flow of information among various entities, the lack of which is a significant disadvantage to the sectoral model. Scheme 4.1 presents interrelations among regulatory and supervisory institutions on the Polish market. The Commission for Banking Supervision (KNB) includes, inter alia, the President of the NBP (as the Chairperson of the Commission), the General Inspector of Banking Supervision and the Chairperson of the Securities and Exchange Commission (KPWiG). The Chairperson of the Securities and Exchange Commission is a member of the Insurance and Pension Funds Supervisory Commission (KNUiFE), the meetings of which are also attended by the General Inspector of Banking Supervision in an advisory capacity. On the other hand, KPWiG

Scheme 4.1. Mutual links among the regulatory and supervisory institutions on the Polish financial market

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<tr>
<th>KNB</th>
<th>KPWiG</th>
<th>KNUiFE</th>
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<tr>
<td>President of NBP</td>
<td>Representative of the Chairperson of KNUiFE</td>
<td>Chairperson of KPWiG</td>
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<tr>
<td>Chairperson of KPWiG</td>
<td>Representative of the President of NBP</td>
<td>General Inspector of Banking Supervision</td>
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<td>General Inspector of Banking Supervision</td>
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Source: own data.
includes i.a. a representative of the Chairperson of KNUiFE and a representative of the President of the NBP, currently in the person of the General Inspector of Banking Supervision.

Not all sectors of the Polish financial market are subject to supervision and regulation since the need to supervise and regulate certain sectors stems from the asymmetry of information. On certain markets, parties to transactions do not have equal access to all crucial information that can influence their decision-making. This creates the need to protect them. Where contractors are entities of equal status, the need of protection does not arise (for instance, on the interbank market).

The National Bank of Poland

The National Bank of Poland is the central bank of the Republic of Poland. The main objective of the NBP activities is to maintain price stability.

Other tasks of the NBP include: organization of money settlements, supervision over payment systems, management of official reserves, control of the banks’ liquidity and creation of conditions necessary for the development of the banking system. The National Bank of Poland is also the only institution authorized to issue notes and coin that are legal tender in Poland.

The NBP undertakes activities for the stability of the financial system, is involved in the banking supervision, performs tasks related to the payment system and promotes the development of a secure infrastructure of the financial market.

The Commission for Banking Supervision

The Commission for Banking Supervision (KNB) has supervised the activities of banks since January 1, 1998. The supervision aims to maintain the security of funds deposited on bank accounts. The Commission for Banking Supervision is an independent institution, although it is linked with the NBP through its Chairperson – the President of the NBP, and through its executive body, i.e. the General Inspectorate of Banking Supervision, which is an organizational unit of the NBP. The General Inspector of Banking Supervision is a member of the Commission for Banking Supervision.

The tasks of the Commission for Banking Supervision include:

– setting forth the principles for the conduct of banking activity that ensure the safety of the funds held by customers at banks;
– supervising the banks in terms of their compliance with legislative acts, their articles of association and other legal regulations as well as with the binding financial standards;
– performing periodic assessments of the financial condition of the banks and evaluating the impact of the monetary, tax and supervisory policies on the development thereof;
– giving its opinion on the organizational structure of banking supervision and establishing procedures for the performance thereof.

Additionally, since September 1, 200271 banks that are parent undertakings of other entities or operate in a financial group or in a mixed-activity group have been subject to the consolidated supervision by the Commission.

Moreover, the Commission is also responsible for the ongoing supervision of banks’ activities72. It involves i.a. examination of solvency, payment liquidity and performance of banks, examination of security and timely repayment of loans and cash advances as well as assessment of the banks’ financial condition.

Thus, the Commission for Banking Supervision performs three basic functions: licensing, regulatory, and the one involving examination and administrative management. These functions are

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71 Provisions regarding the consolidated supervision were introduced in the amendments to the Banking Act of August 23, 2001 (Dziennik Ustaw No. 111, Item 1195).
expressed in the following activities, respectively: restriction of access to banking activities, development of prudential regulations and supervision of conformity with them, and performing supervisory activities.

The Securities and Exchange Commission

The Securities and Exchange Commission (KPWiG) is a central government authority. Its duties, performed with the help of the Office of Polish Securities and Exchange Commission, include:

– supervising the observance of the rules of fair trading and competition in the public trading in securities and commodities and providing public access to reliable information on the securities and commodities markets;

– inspiring, organizing and undertaking activities to ensure efficient operation of the securities and commodities markets and protection of investors;

– cooperating with the central government authorities, the National Bank of Poland and institutions and participants of the public trading in securities and commodities in the scope of shaping the economic policy to ensure the development of the securities and commodities markets;

– disseminating knowledge about the principles of operating of the securities and commodities markets;

– preparing drafts of legal acts relating to operating of the securities and commodities markets;

– undertaking other activities provided for by the Act on Public Trading in Securities and the Act on Commodity Exchanges.

The competence of KPWiG also includes the licensing of activities of market participants and issuance of permits for admission of securities to public trading. Moreover, KPWiG is entitled to supervise operation of investment funds and brokerage activities.

The Insurance and Pension Funds Supervisory Commission

The Insurance and Pension Funds Supervisory Commission (KNUiFE) is a central government authority. Its supervision covers insurance companies, insurance intermediaries, open pension funds and occupational pension schemes.

KNUiFE was established on April 1, 2002 and took over the responsibilities of the State Office for Insurance Supervision and the Office for Pension Funds Supervision. The supervision over the insurance market involves, among other things, protection of interest of the insured, issuance of permits to perform brokerage and agent activities, control of operation of insurance companies and insurance intermediaries. The supervision and regulation of the operation of pension funds involves, among other things, protection of interest of the Open Pension Funds’ Members and participants of occupational pension schemes, issuance of permits to establish a pension fund and a pension company.

KNUiFE participates in legislative works pertaining to regulations for the insurance and pension funds market in an advisory and consultative capacity.

The Office for Competition and Consumer Protection

The group of institutions that influence the functioning of the financial services market also includes the Office for Competition and Consumer Protection (UOKiK). The President of UOKiK is
4.2. Payment system

An indispensable element of operation of the financial system is the presence of certain mechanisms that enable the execution of payments due to business transactions concluded by the market participants. This function is fulfilled by the payment system that includes a system for large value payments and retail payment systems. The payment system also supports payment orders generated by securities settlement systems.

Scheme 4.2 presents the structure of interbank clearing and settlement and securities settlement systems in Poland.

### Scheme 4.2. Structure of interbank clearing and settlement and securities settlement systems in Poland

![Scheme 4.2. Structure of interbank clearing and settlement and securities settlement systems in Poland](image)

* Monetary settlements based on gross values are also possible. Cf. p. 65.


4.2.1. Large-value interbank settlements

The SORBNET system is the key element of the interbank settlement system and clearing systems in the Polish financial system.

The SORBNET system supports settlement through bank accounts held with the NBP. The participants of SORBNET include: the NBP, banks holding zloty current accounts with the NBP Head Office and settlement agents holding zloty bank accounts with the NBP Head Office. Thus the system supports the following:

– individual payment orders of banks, resulting from operations on the interbank market and operations with the central bank;

– orders of the National Clearing House (KIR);

76 Regulation No. 6/2000 of the President of the National Bank of Poland of April 6, 2000 on the method of performing interbank settlements (Dz. Urz. NBP, April 25, 2000).
– payment orders of the National Depository for Securities (KDPW);
– NBP’s orders;
– large-value customers’ orders.\(^{77}\)

Interbank settlements in SORBNET involve account debiting or crediting on the basis of correctly issued payment orders submitted to the NBP Head Office, processed as real-time\(^{78}\) gross settlements\(^{79}\). Settled payments are final and irrevocable. Payment orders are executed in the SORBNET system on the day specified as the execution date, provided that the debited account holds sufficient funds to process such orders.

SORBNET operates from 7:30 a.m. to 6 p.m. In 2002, 58 banks\(^{80}\) participated in the system, in 2003 – 55 banks. In 2002, the average number of orders processed per month was 40,107, while in 2003 – 62,675. The value of turnover in the SORBNET system amounted to 13,286 bn zloty in 2002 and 17,230 bn zloty in 2003.

Further development of SORBNET is related to the accession to the TARGET system\(^{81}\), which has been created in order to provide an efficient and secure mechanism for performing the ECB monetary policy operations and to improve the efficiency and security of settlement and cross-border payments in euro. Since 1999, the TARGET system has consisted of 15 national RTGS systems and the ECB payment mechanism\(^{82}\).

Facing the necessity to run the RTGS system for settlement of euro payments, on July 10, 2003 the NBP Management Board approved the strategy of development of the SORBNET system. The strategy provides for the maintenance and development of the SORBNET system for settlements in zloty until Poland’s accession to the Economic and Monetary Union. The system will also serve as the grounds for the preparation of SORBNET – EURO, a system to be launched in March 2005.

4.2.2. Retail payment systems

The National Clearing House (KIR) was established to create and standardize the interbank settlement system\(^{83}\). It began its operational activity in 1993. The KIR system includes the exchange of payment orders, their registration and establishment of mutual obligations, as well as forwarding of banks’ settlement results to the NBP. The National Clearing House consists of the Head Office and 17 Bank Regional Clearing Houses (BRIRs).

The National Clearing House features two settlement systems: SYBIR and ELIXIR. Additional cooperating systems IMBIR, SZAFIR, ZEFIR and eMIR have also been launched.

SYBIR (System of Bank Clearing Houses) is a system of a traditional clearing house developed to provide effective support of net interbank settlements\(^{84}\) performed on the basis of hard copy documents. The delivery of settlement packages is performed within 24 hours on the whole territory of Poland. Documents are exchanged among the banks’ branches via BRIRs.

On the other hand, ELIXIR is an Electronic Clearing House system. All information needed for the correct registration of the customer’s payment order is transformed into an electronic form and forwarded to the bank of the order’s recipient. ELIXIR is also a net settlement system. Three settlement sessions are held on each business day. In 2003, 55% of the total number of transactions was settled in the morning session.

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\(^{77}\) Of a value exceeding 1 million zloty.
\(^{78}\) I.e. on an ongoing basis on the same operating day, immediately following their submission to the NBP Head Office.
\(^{79}\) I.e. each payment order is processed separately.
\(^{80}\) As at year-end 2000.
\(^{81}\) Trans-European Automated Real Time Gross Settlement Express Transfer System.
\(^{83}\) The National Clearing House was established on November 22, 1991 by 16 banks and the Polish Bank Association as a joint stock company.
\(^{84}\) One net position is calculated for each participant. The position is a difference between all liabilities towards the remaining participants and all receivables from these participants.
An important element of the traditional clearing house are the banking postal services, used for delivering settlement packages and courier mail for the SYBIR system and for a rather already small number of branches using floppy discs for settlements in the ELIXIR system.

The IMBIR document scanning services enable to transform information from a hard copy bank document into an electronic message, following the settlement in the SYBIR system. The eMIR document scanning services modify the functioning of the SYBIR system; they enable the elimination of hard copy documents from the settlement flow and the full automation of processing before the execution of settlements. The ZEFIR system, on the other hand, facilitates the control of consistency and the correction of errors in transactions settled in ELIXIR, prior to their submission for entry into the bank IT accounting system.

SZAFIR is a public key certificate management system. Certificates are used for authorizing transactions sent via the ELIXIR interbank settlement system.

The National Clearing House was also involved in the settlement of transactions concluded on the domestic market with payment cards issued by Polish banks. There are three systems for clearing such transactions, namely the National Clearing System (KSR), the Europay Domestic Clearing and Settlement System (EDCSS) and the VISA National Net Settlement System (VNNSS). Before June 2003, settlements from the above mentioned SIS systems were performed via a single agent - one of the commercial banks. The agent received net amounts from the above systems, which were later settled in the SORBNET system via the National Clearing House. Since July 2003, settlements have been performed directly in the SORBNET system.

The total number of transactions settled via the National Clearing House increased by over 22% in 2003 as compared to 2002. This movement was accompanied by a drop in the average volume of daily turnover at the National Clearing House, caused by the fact that starting from January 1, 2003 large-value customers’ orders have been routed directly to SORBNET. Figure 4.1 presents the average daily volume of turnover and the share of the SYBIR system in the turnover of the National Clearing House.

The increased share of the ELIXIR system in the total number of transactions resulted from the withdrawal of some banks from hard copy-based settlements organized in the SYBIR system. This was due to the planned discontinuation of the SYBIR system operation and due to a gradual withdrawal of settlement participants from the system. After July 2003 banks used the possibility to partially or totally withdraw from the SYBIR system. Pursuant to Resolution No. 44/2003 of the Supervisory Board of the National Clearing House, June 30, 2004 was appointed for the last settlement day in the SYBIR system.85

Figure 4.1. Average daily turnover at the National Clearing House and SYBIR’s share in the National Clearing House turnover (gross)

![Figure 4.1. Average daily turnover at the National Clearing House and SYBIR’s share in the National Clearing House turnover (gross)](image)

Source: NBP.

In September 2003 works on the creation of the EuroELIXIR system for euro settlements were initiated. It was enabled by the NBP taking the decision to launch the SORBNET-EURO system. EuroELIXIR is designed for euro-denominated domestic settlements, for transfers of payments to and from the STEP 2 pan-European clearing house system and for the distribution among the participants of any euro payments routed from the euro area. The launch of the system for domestic and for cross-border payment orders has been scheduled for March 2005. Since November 2004, the ELIXIR system will implement the NBP-recommended settlement guarantee principle.\footnote{Guarantee of a timely completion of daily settlements in the case a participant with the largest net debit position does not have the capacity to pay his liabilities.}

Other adjustments in the payment system pertain to the changes in bank account numbers. The NRB standard\footnote{NRB – Bank Account Number.} was adopted to facilitate the identification of bank accounts in domestic settlements and to automate the settlement process. The NRB standard has been developed in conformity with the requirements of the international IBAN standard\footnote{IBAN – International Bank Account Number.} applied in cross-border settlements.

Since July 1, 2004, the NRB standard is used exclusively for the identification of bank accounts in domestic settlements in Poland, whereas IBAN is used exclusively in cross-border settlements.\footnote{Regulation No. 5/2002 of the President of the National Bank of Poland of May 6, 2002 on the method of numbering of bank accounts maintained by banks (Dz. Urz. NBP No. 8, Warsaw, May 29, 2002) and Regulation No. 10/2003 of the President of the National Bank of Poland of May 27, 2003 amending the Regulation on the method of numbering bank accounts operated by banks (Dz. Urz. NBP No. 10, Warsaw, May 29, 2003).} Thus a bank account numbering system complying with EU requirements has been introduced.

### 4.3. Securities market infrastructure

The infrastructure of the securities market includes institutions that organize trading in securities and entities that settle transactions. Two systems – a securities settlement system for Treasury bills and money market bills and a system that supports the market of Treasury bonds and securities listed on markets organized by the Warsaw Stock Exchange and the Centralna Tabela Ofert – can be distinguished.

#### Money market bills and Treasury bills

The National Bank of Poland is the issuing agent of Treasury bills\footnote{The issuer is an entity that issues securities on its own behalf. The Minister of Finance is the issuer of Treasury bills.} and the issuer of money market bills. The NBP is also a depository and settlement institution for these securities. On October 13, 2003, separate registers of money market bills and Treasury bills\footnote{CRBS – Central Register of Treasury bills. RBP – Register of the NBP money market bills.} were joined to create a single securities register (RPW).\footnote{Under Resolution No. 29/2003 of the Management Board of the National Bank of Poland (Dz. Urz. NBP No. 15, Warsaw, September 25, 2003).} Accounts and deposit accounts for Treasury bills and the NBP money market bills are maintained under the Securities Register, where also operations involving these securities are performed. Accounts of Treasury bills for the NBP, banks, the National Depository for Securities (KDPW) and the Bank Guarantee Fund (BFG) are maintained under the securities register. Treasury bill accounts for foreign depository and settlement institutions can also be maintained in the securities register, what is in line with the recommendation of the ECB to provide access to the securities register for other foreign settlement systems. Money market bill accounts are held for banks and the Bank Guarantee Fund. Apart from accounts, the issuing account for the Minister of Finance (reflecting the current state of issue of Treasury bills) and for the NBP (reflecting the current state of issue of money market bills) are maintained under the securities register.
The securities register is supported by the SKARBNET system (transactions involving Treasury bills) and the SEBOP system (transactions involving money market bills), held by the NBP. Participants of the securities register submit orders to the NBP via the electronic data exchange system. Orders, excluding orders related to operations to which the BFG is a party, are sent by the securities register participants to the NBP from 8 a.m. to 5 p.m. on the day of the operation execution. Both systems perform gross settlements of transactions according to the DvP principle. 

**Treasury bonds and securities quoted on the WSE and CeTO**

The market operated by the Warsaw Stock Exchange is an order-driven market. Transactions concluded on the WSE are executed in the WARSET system. Trading sessions are held at the stock exchange premises from Monday to Friday. Quotations on the cash market are held from 10 a.m. to 4:20 p.m., whereas on the futures market – from 9 a.m. to 4:20 p.m. The stock exchange holds trading in stocks, bonds, subscription rights, allotment certificates (PDAs), investment certificates and derivatives.

The off-exchange market is organized by CeTO, a company established in 1996 on the initiative of over 20 largest Polish banks and brokerage houses. CeTO handles mainly transactions involving Treasury bonds and Treasury securities on the ERSPW (Electronic Treasury Securities Market) trading platform established on April 26, 2002. The trading volume of transactions performed by banks on ERSPW is one of the criteria applied in the selection of participants of the Primary Dealers System (DSPW). The system was organized by the Ministry of Finance to improve the liquidity, transparency and efficiency of the Treasury securities market. CeTO also organizes the market of shares, bonds, mortgage debentures and investment certificates.

All transactions concluded on the WSE and CeTO are settled and cleared at the National Depository for Securities (KDPW). The Polish depository was established in 1991 as one of the WSE divisions. On November 7, 1994 it was separated from the WSE and the National Depository for Securities was established. The National Depository for Securities is an institution authorized to provide depository and settlement services for all securities in public trading.

The main tasks of the National Depository for Securities include:

– registration of securities admitted to public trading;

– supervision of the compliance of the volumes outstanding with the number of securities in trading;

– performance of the issuers’ obligations towards holders of securities;

– settlement of securities transactions in public trading.

The settlement of transactions is performed on the basis of the DvP principle, and executed at the clearing bank. The NBP is the clearing bank for zloty settlements, Kredyt Bank SA – for currency settlements. Money settlements are based on netting (net settlement) – a participant is required to pay liabilities stemming from concluded transactions in the amount of the surplus over their claims resulting thereof. The value of obligations is calculated on the basis of multilateral netting.

2002 and 2003 a few events important for the development of the National Depository for Securities took place. In April 2002, the system that secures settlement liquidity was improved through the introduction of repurchase agreements (repos). Also the portfolio of available borrowings of securities was extended to include the possibility of borrowing on-request without the intermediation of the National Depository for Securities and without establishing collateral.
The settlement of transactions concluded by the Primary Dealers on the electronic platform organized by CeTO was also commenced in April 2002. In October 2003, shares of Bank Austria Creditanstalt, the first foreign company listed on the Warsaw Stock Exchange, were admitted to the National Depository for Securities. It entailed opening of the first deposit account of the National Depository for Securities with a foreign depository and settlement institution, the Austrian OeKB98.

The number of direct participants of the National Depository for Securities decreased from 66 to 60 in 2003, as compared to 200299. Changes in the number and structure of participants resulted from changes in the type of participation and from the consolidation processes among brokerage houses and banks. 25 issuers were entered into the National Depository for Securities register in 2003100, which is a clear improvement as compared to previous years (2002 – 12 issuers entered, 2001 – 15 issuers). The number of issuers registered at the National Depository for Securities amounted to 272 at year-end 2002 and 284 at year-end 2003. A robust growth in the volume of trades executed at the National Depository for Securities was observed (the increasing trend is presented in Figure 4.2). The number of transactions settled at the National Depository for Securities also increased in 2003 (from 4.06 million to 4.64 million).

Adjustment of the Polish securities settlement system to European Union standards

In 2003 the European Central Bank published a report that summarized the assessment of securities settlement systems performed in the accession countries101. According to the assessment, the CRBS-SKARBNET system met seven, and The National Depository for Securities – eight out of nine ECB standards102.

After October 2003, the ECB recommendation regarding the provision of access to the securities market for other foreign systems may be considered as implemented, which means that only one ECB recommendation remains to be implemented at the CRBS-SKARBNET system and by the National Depository for Securities. The recommendation pertains to the adjustment of operating days and hours to those of the TARGET system.

The standard related to risk management procedures in institutions operating in Poland was considered as met. Delays in the settlement process may also be minimized by the establishment of the Central Counterparty (CCP). Such a solution is applied with increasing frequency on the European market. Box 4.2 presents the principles of CCP functioning.

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98 Oesterreichische Kontrollbank.
99 Direct participants (unlike issuers) are entities authorized to maintain securities accounts, entities that do not maintain securities accounts but are authorized to perform brokerage activities, and other financial institutions if they deposit funds on the securities market on their own account.
102 The standards pertain to the following: legal soundness, settlement in central bank money, no undue custody risk, regulation and control by competent authorities, transparency of risks and conditions for participation in the system, risk management procedures, intraday finality of settlement, operating hours and days, operational reliability of technical systems and availability of adequate backup facilities.
System infrastructure

In the period under review, the National Depository for Securities functioned as the CCP only on the derivatives market, where the clearing guarantee system included its equity. However, the National Depository for Securities declares willingness to function as the Central Counterparty on the Polish market not only for derivatives trades.

According to some expert opinions, the most effective clearing model involves centralized depositing of securities and funds \(^{103}\) (funds are deposited on the account in a central bank that maintains accounts for the majority of participants of the depository institution, whereas securities are held with the entity maintaining the depository).

\* \* \*

Securities and other tradable instruments subject to trading on non-regulated markets, such as most bank debt securities and corporate bonds, are not included in the centralized clearing and settlement system. Issues of such securities are performed via banks that operate depositories of such instruments and perform settlement of transactions involving such instruments.

4.4. Market participants protection systems

The stability and correct functioning of individual elements of the financial system are achieved not only by developing legal standards and establishing institutions to supervise and regulate activities of market participants and institutions. Additionally, specialized institutions are created, aimed to protect market participants in case a threat materializes.

The Bank Guarantee Fund

The mission of the Bank Guarantee Fund (BFG) includes protection of persons entrusting their funds to banks and activities for the security and stability of the banking system in Poland. BFG fulfils its mission by performing two basis tasks.

The first one is related to the safeguarding of the return of deposits and claims due to other banking operations to depositors. The protection covers funds of natural persons, legal persons, organizational units without legal personality, provided that they have legal capacity, school savings banks and workers’ benefit and mutual loan societies. All funds deposited in a bank by a single person, regardless of the number of accounts maintained, are treated as a single deposit. Guaranteed funds are paid out in the zloty, regardless of the currency of the deposit\(^{104}\). BFG guarantees pertain to funds on accounts:

- up to the amount of the zloty equivalent of 1 thousand euro – in 100% of their value,
- exceeding the equivalent of 1 thousand euro up to the equivalent of 22.5 thousand euro – in 90% of their value.

This level complies with the requirements for European Union Member States\(^ {105}\). Banks accumulate funds in the form of guaranteed means protection funds that are available to BFG for the payment of liabilities.

The other task involves financial assistance in the form of returnable loans to banks under the risk of insolvency. The support is granted with funds collected in the aid fund created from obligatory annual fees paid to BFG by banks and the NBP.

Moreover, BFG performs analyses of the banks’ financial condition, which are focused on initiatives aiming to prevent the development of occurring threats. The BFG examines the correctness of use of the granted aid and the implementation of the recovery programme.

No bank bankruptcy was recorded in 2002 or 2003. Thus, no payments were made from the guaranteed deposit protection fund. However, BFG provided financial aid to banks implementing recovery programmes. Returnable loans were extended to 5 banks in 2002 (1 commercial bank and 4 cooperative banks) of the total value of 132.8 million zloty. In 2003, 14 commercial banks were granted returnable loans of the total value of 751 million zloty.

Protection systems for capital market participants

The protection system for participants of the capital market includes two elements. One of them is the compulsory compensation system of the National Depository for Securities, the other – Settlement Guarantee Fund of the National Depository for Securities.

Compulsory Investor Compensation Scheme of the National Depository for Securities

Brokerage companies are required to pay annual contributions to the compensation system that aims to guarantee pay-outs of funds to investors and to compensate for the value of lost financial instruments deposited by investors in brokerage institutions. Payments from the system are


made in the case of declared bankruptcy of a brokerage house, of a valid rejection of a motion to declare bankruptcy due to the fact that assets held by a brokerage house are insufficient to cover the costs of proceedings, or in the case of the Commission’s statement on the lack of capacity of a brokerage house to fulfil its obligations.

Where a foreign investment company that pursues brokerage activities on the territory of Poland participates in a compensation system established in the country of its registered office and the system complies with the requirements specified in the Act “The Law on the Public Trading in Securities”, the institution is not required to participate in the domestic compensation system.

The value of investors’ funds secured in 100% increased from the zloty equivalent of 1 thousand euro in 2001 to the zloty equivalent of 3 thousand euro in 2003. Since January 1, 2003, the compensation system has also guaranteed the payment of 90% of investors’ funds exceeding the zloty equivalent of 3 thousand euro. At the same time, the maximum amount of funds covered by the system – the zloty equivalent of 4 thousand euro – was established. The amount has been regularly increased and its target level of the zloty equivalent of 22 thousand euro is to be reached in 2008.\(^{106}\)

**Settlement Guarantee Fund of the National Depository for Securities**

The settlement guarantee fund safeguards correct fulfilment of obligations stemming from transactions concluded on the regulated securities market. It consists in contributions paid by its participants and is divided into four functionally separated parts, each of them guaranteeing settlement of specific types of transactions. The fund comprises the Guarantee Fund for the Settlement of Stock Exchange Transactions, the Guarantee Fund for the Settlement of CeTO Market Transactions, the Guarantee Fund for the Settlement of the Stock Exchange Forwards Transactions, the Guarantee Fund for the Settlement of the CeTO Derivatives Transactions.

The amount of contributions to the clearing fund is established depending on the level of liabilities, which may arise in result of the participant’s activities on the regulated market, settled by the National Depository for Securities. The amount of contributions may also depend on the participant’s financial condition.

**Insurance Guarantee Fund**

The main responsibility of the Insurance Guarantee Fund (UFG)\(^{107}\) is payment of compensations and benefits arising from the compulsory civil liability insurance of vehicle owners and farmers owning farms. Personal injury compensation becomes payable where the owner of a vehicle that caused a damage remains unidentified. In the case a vehicle owner or a farmer who caused a damage does not have the compulsory civil liability insurance, the indemnity may be payable both for material damage and personal injury.

Compensation payments are made solely to the injured party or authorized natural persons. The Insurance Guarantee Fund does not pay any funds to wronged persons if those are able to satisfy claims under voluntary insurance agreements. In such cases the Insurance Guarantee Fund compensates for the damages not covered under voluntary insurance agreements.

The Insurance Guarantee Fund also satisfies claims where an insurance company is declared bankrupt and the debtor’s assets are insufficient the coverage of the claims. It pays out 100% of due compensations under compulsory civil liability agreements of vehicle owners, farmers and the insurance of farm buildings. In the case an obligation to conclude an insurance agreement results from provisions of other acts or international agreements ratified by Poland, and in the case of life insurance policies, the Insurance Guarantee Fund pays out funds in the amount of 50% of receivables (but not more than the zloty equivalent of 30 thousand euro).


\(^{107}\) The scope of tasks of the Insurance Guarantee Fund has been specified in the Act on Compulsory Insurance, the Insurance Guarantee Fund and the Polish Motor Insurers’ Bureau of May 22, 2003 (Dziennik Ustaw No. 124, Item 1152).
Moreover, the Insurance Guarantee Fund may grant returnable financial assistance to an insurance company that is taking over a portfolio of compulsory insurance, where the assets held do not guarantee full solvency of the company.

**Pension Guarantee Fund**

The Pension Guarantee Fund comprises a basic resource and an additional resource. The basic resource is administered by the National Depository for Securities, and consists of contributions of Pension Companies in the amount of 0.1% of net value of assets of Open Pension Funds managed by the Pension Companies and revenues from depositing of own assets. The contributions paid by Pension Companies and deposited on the account of the additional resource of the Pension Guarantee Fund constitute no less than 0.3% and no more than 0.4% of the fund’s net asset value. The funds on the account of the additional resource constitute a part of the fund’s assets and are converted into accounting units.

A payment from the basic resource of the Guarantee Fund is made in the following cases:

- in the case of a shortfall (if the funds accumulated on the reserve account of an Open Pension Fund, which constitutes a part of its assets, funds from the redemption of accounting units on the account of the additional resource of the Guarantee Fund and own funds are not sufficient),

- to Open Pension Funds’ Members to cover damage caused by the non-performance or improper performance of obligations by a pension company, where such damage was caused not only by fault of the injured party and the insurance company is not liable for it,

- to Open Pension Funds’ Members to cover damage caused by the non-performance or improper performance of obligations by a pension company, where the pension company is liable for the damage but the damage cannot be compensated for from the company’s bankruptcy assets.

**Credit Unions’ Savings Protection Scheme**

Credit Unions (SKOK) create a system of depository and lending institutions. The system includes the National Association of Credit Unions and the Mutual Insurance Association. These institutions constitute an important part of the Savings Protection Programme, designed to ensure secure operation of all Credit Unions, since the network of SKOKs is not subject to the Commission for Banking Supervision. The National Association of Credit Unions performs supervisory and stabilizing functions (with the use of the stabilization fund established from credit union deposits, a fund resembling required reserves) and safeguards the liquidity of the system (functioning as the central Credit Union). Under the Savings Protection Programme, Credit Unions are required to finance the stabilization fund. Contributions to the stabilization fund currently constitute 1.22% of the Credit Unions’ assets. The stabilization fund is aimed to safeguard the system against insolvency and to finance recovery programmes. Credit Unions are also obliged to maintain a liquidity reserve with the National Association, amounting to at least 10% of their savings-and-lending fund (i.e. savings accumulated by their members, membership contributions and borrowings from the National Association). Moreover, SKOKs have to insure

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108 Pursuant to the Ordinance of the Council of Ministers of March 30, 2004 on the Guarantee Fund (Dziennik Ustaw No. 56, Item 545).
109 Pursuant to the Act on the Organization and Functioning of Pension Funds of August 28, 1997 (Dziennik Ustaw No. 139, Item 934).
110 A shortfall occurs in an Open Pension Fund where the rate of return from the fund for a period of 36 months is lower than the minimum required rate of return.
112 The funds raised in order to implement Art. 43 of the Act on Credit Unions are deposited on the non-interest bearing account of the National Association of Credit Unions. Moreover, all net earnings of the National Association are assigned to the fund.
113 Interest rate up to 2%.
114 A membership contribution is required to become a Credit Union Member. The contribution is returned upon the withdrawal from SKOK.
funds deposited by their members in the Mutual Insurance Association. The insurance requirement pertains to funds of each Credit Union member up to the equivalent of 22,500 euro. Credit Unions pay monthly contributions to the Mutual Insurance Association representing from 0.02% to 0.06% of their Members’ deposits. The contribution rate level depends on the risk category assigned to the Credit Union in question.

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In 2003, the National Clearing House decided to implement, following the recommendation of the National Bank of Poland, a settlement guarantee mechanism in the ELIXIR system in November 2004. As a result, another mechanism to protect the financial market participants will be in operation.

4.5. Institutions that improve information transparency – business information offices and rating agencies

**Business information offices**

A few years ago, the Polish Bank Association took the initiative to create a system of debtor data exchange. As a result, databases of persons who default on their liabilities and of interbank business information were created. Since that time, numerous companies have been established on the Polish market which deal with the creation of business information databases and provision of business information, verify companies’ creditworthiness and draw up business reports on potential contractors.

There are three types of entities on the Polish market of business information. One of them may be established under the provisions of the Banking Act. Banks, jointly with banking chambers of commerce, can create institutions authorized to collect, process and provide information constituting a banking secret to banks to the extent required to perform banking activities. Information on receivables, turnover and balances of bank accounts may also be provided to other institutions statutory authorized to grant credits. Biuro Informacji Kredytowej (BIK), established by banks and the Polish Bank Association under the Banking Act, is such an institution. BIK collects, processes and distributes data regarding credit history of bank customers in the form of credit reports. BIK’s offer is to be expanded in the future to include the provision of data on corporates.

The Commercial Information Disclosure Act became effective on April 26, 2003. It created the grounds for the activities of a subsequent group of entities on the business information market. The Act sets forth the principles and procedures for making business information on payment capacity of other entrepreneurs and consumers available by entrepreneurs. The provisions of the Act do not pertain to providing access to data from commonly available registers or records and information on expired liabilities of entrepreneurs. Biuro Informacji Gospodarczej (BIG), established pursuant to the provisions of the Act, may deal exclusively with mediation in providing information on liabilities; they are not allowed to offer additional products. Business information on consumers’ obligations may be submitted to the offices solely by entrepreneurs entered onto the list of market industries included in the Act, whereas data on unreliable companies may be forwarded by any entrepreneur.

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115 The level specified by the National Association pursuant to Art. 35 para. 5 of the Act on Credit Unions. The protection of savings in credit unions has been made equivalent to that of deposit guarantees. More information available at www.tuwskok.com.pl.
117 These offices have a set of common features that differentiate them from other business information agencies operating on the market. Only entities operating pursuant to the Commercial Information Disclosure Act have the right and the obligation to use the phrase: “biuro informacji gospodarczej” in their company name.
118 Such as scoring (that expresses the probability that unpaid liabilities will be recorded on the customer’s credit accounts) or financial and business reports.
There was only one business information office in 2003 that operated in conformity with the requirements of the Commercial Information Disclosure Act. Krajowy Rejestr Długów BIG has operated since August 2003.

The establishment of business information offices should increase the security of business trading, at the same time constituting an important tool in combating dishonest contractors. Unlike other entities of the type, BIG offices only collect data on outstanding liabilities. Upon the payment of claims, they are required to remove information about the unreliable customer from their database. Thus, business information offices do not create debt histories. It may constitute a disadvantage to their operation, in particular given the characteristic dominance of negative information pertaining to debt collection on the Polish business information market. Although BIGs may also collect positive information that proves payment reliability of market participants, recording such information must follow from filing an explicit motion by a customer who fulfils all obligations.

Business information agencies, i.e. institutions dealing with professional collection of information about corporates, are another type of entities that contribute to the improvement of information transparency. Business information agencies obtain information from commercial courts, registers of business activity, companies’ financial statements, business press, as well as from banks, insurance companies, credit intermediaries and other financial institutions. Their databases are used by banks, consulting companies, investment funds, leasing companies, trading and manufacturing companies, as well as service providers. An example of business information agency operating in Poland is Coface Intercredit Poland. It provides, among other things, commercial reports on creditworthiness of companies from all over the world.

The business information market is still in the process of development in Poland. Thus, there is not much experience or trust in institutions offering business data. Popularization of recording positive information on debtors can contribute to the development of the market and to increased business and trading security.

Rating agencies

Rating agencies are independent specialized companies that deal with assessment of creditworthiness of a country or an economic entity – potential borrower. The assessment may pertain to the total capacity of the entity to pay liabilities or to pay a specific liability.

The ratings assigned by rating agencies are based on several objective criteria. These include assessment of a given entity in the context of the domestic developments, rating of its asset quality, financial condition, including the structure of equity, its long-term capacity to generate profit and maintain financial liquidity and management staff quality.

The rating process usually commences upon an application of the rated entity, because assigned rating facilitates access to sources of finance. A positive rating adds credibility to the entity’s market position and reduces costs of capital acquisition. An assigned rating is monitored by the agency until a given issue is repurchased. The confidence in ratings assigned by the agencies is mainly based on their reputation. Thus, the agencies are entitled to verify the assigned rating in the case such a decision is justified by certain circumstances or events.

Currently, there are approx. 45 rating agencies worldwide. Most of them operate on local markets, and some are present on international markets. The leading rating agencies are Moody’s Investors Service, Standard & Poor’s Rating Services and Fitch IBCA Ltd.

CERA, the Central European Rating Agency has operated in Poland since 1996. Fitch IBCA launched its presence on the Polish market in 2001 by purchasing over 50% shares in CERA. Since January 2002, CERA has operated under the new company name, Fitch Polska.

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119 There is a rule that a domestic entity cannot obtain a rating higher than that of the country of its registered office.
Both the Republic of Poland and many Polish banks have ratings assigned by the above-mentioned largest agencies. 12 Polish banks have been assigned ratings by Fitch Polska, also Moody’s has assigned ratings to 12 banks. Furthermore, Fitch Polska also performs domestic ratings (for liabilities in the national currency). A few corporates in Poland have assigned ratings\textsuperscript{121}. Polish cities, especially those planning or already operating active financial policy, apply for the assignment of the credit rating.

Ratings are still not very common on the Polish market, in particular as regards smaller companies. However, along the development of the capital market and the increasing importance of assessment of creditworthiness, the demand for professional rating services when making investment decisions will be growing. The demand for such services will also be fostered by new provisions of the currently developed Capital Adequacy Directive (CAD III)\textsuperscript{122}, under which the level of the regulatory capital in banks will depend on the borrower’s rating.

4.6. Interbank intermediaries – brokers

Brokers are intermediaries operating in the interbank trading. Their task involves ensuring that a transaction is concluded between parties. They facilitate conclusion of transactions and influence market liquidity. They must not perform transactions on their own account\textsuperscript{123}.

Of the three companies formerly operating on the Polish market, Prebon Yamane (Polska), Tullett & Tokyo and Harlow Butler, Tullett & Tokyo withdrew from the market. Harlow Butler currently operates under the company name ICAP Poland. Certain brokering functions are also performed by Reuter transaction systems\textsuperscript{124}. These include conversational dealing and electronic trading systems, which ensure smooth conclusion of transactions on the money, currency and derivatives markets.

\textsuperscript{121} Detailed information about ratings assigned by Fitch Polska SA available at www.fitchpolska.com.pl/index.html.
\textsuperscript{122} See section 5.7.8.
\textsuperscript{123} J. Zajac: Polski rynek walutowy w praktyce. Warsaw 1999 Liber, p. 12.
\textsuperscript{124} More about the use of Reuter system on the foreign currency market in chapter 6.3.
5.1. Banks

5.1.1. Evolution of the size and structure of the banking sector

The banking sector in Poland, like in other countries of Central and Eastern Europe, is the basic component of the financial sector. At the end of 2003, the share of the banking sector assets in the total assets of the Polish financial sector assets amounted to 78%. The Polish banking sector consists of commercial banks and cooperative banks. At the end of 2003, the share of commercial bank assets in the total balance of the entire sector amounted to 94.7%. The banking sector assets, having dropped temporarily in 2002, increased again in 2003 by 4.8% (up to 489 bn zloty).

Cooperative bank assets had grown quicker than commercial bank assets for a few years, leading to an increase of their share in the entire banking sector up to 5.3% by the end of 2003 (Table 5.1.1).

The number of commercial banks has been dropping for the past few years as a result of consolidation, especially in 1999 and 2002 (which is discussed in more detail further in this chapter). A quick drop in the number of cooperative banks can be observed as well. This is the result of mergers, which took place on account of the cooperative banks undertaking to reach the minimum level of the regulatory capital, i.e. an equivalent of 500,000 euro by the end of 2005.

In 2002 and 2003 the employment level in the Polish banking sector decreased. Mergers and take-overs, implementation of modern technologies (i.a. electronic banking development) and the banks’ activities aimed to cut their general expense, which is achieved in the quickest way by reducing the staffing, were the basic reasons for the drop in the employment level. Banks had the greatest number of employees in 1999. In subsequent years the employment at commercial banks decreased steadily, along its slight growth in the cooperative bank sector.

Figure 5.1.1. Banking sector assets and their changes

Source: NBP data.

125 Definition of ‘banking sector’ exclude NBP and banks which do not conduct operational activity.
126 As equivalent of full-time posts.
In comparison to financial systems of other countries in the CEC5 group\textsuperscript{127}, the level of financial deepening in the Polish economy is lower\textsuperscript{128} (Table 5.1.2). It diverges even more from the level of financial deepening in the euro area: in 2002, the average value of the banking sector assets in the euro area amounted to 257\% of GDP\textsuperscript{129}.

\begin{table}[h]
\centering
\caption{Number of banks and banking sector ownership structure}
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
\hline
1. Commercial banks & 83\textsuperscript{1} & 83 & 77 & 74\textsuperscript{1} & 71\textsuperscript{1} & 62\textsuperscript{1} & 60\textsuperscript{1} \\
1.1. With majority public-sector interest & 15 & 13 & 7 & 7 & 7 & 8 & 7 \\
1.2. With majority private-sector interest & 68 & 70 & 70 & 67 & 64 & 54 & 53 \\
1.2.1. Polish & 39 & 39 & 31 & 20 & 16 & 7 & 6 \\
1.2.2. Foreign & 29 & 31 & 39 & 47 & 48 & 47 & 47 \\
2. Cooperative banks & 1,295 & 1,189 & 781 & 680 & 642 & 605 & 600 \\
3. Banking sector (total (1)+(2)) & 1,378 & 1,272 & 858 & 754 & 713 & 667 & 660 \\
\hline
\end{tabular}
\caption*{1 Including two banks under organisation which did not file reports. 
2 Including one bank under organisation. 
3 Including two banks under organisation which did not file reports. 
4 Including three banks which did not conduct operational activity. 
5 Including two banks which did not conduct operational activity. 
Source: NBP data.}
\end{table}

\begin{table}[h]
\centering
\caption{Banking sector assets in CEC5 (% GDP)}
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
\hline
Czech & 119.0 & 113.0 & 111.0 & 113.6 & 114.9 & 111.0 & 104.9 \\
Hungary & 69.7 & 68.8 & 68.6 & 68.6 & 68.1 & 68.4 & 69.3 \\
Poland & 53.3 & 57.7 & 59.2 & 62.8 & 63.0 & 59.8 & 60.0 \\
Slovakia & 109.6 & 102.7 & 92.1 & 93.1 & 93.8 & 94.4 & 82.4 \\
Slovenia & 72.0 & 74.2 & 75.7 & 81.4 & 94.2 & 87.2 & 87.6 \\
\hline
\end{tabular}
\caption*{Source: NBP data, central banks of the Czech Republic, Slovakia, Slovenia and Hungary data.}
\end{table}

\begin{figure}[h]
\centering
\caption{Bank employees (excluding foreign field branches)}
\includegraphics[width=\textwidth]{bank_employees.png}
\caption*{Source: NBP data.}
\end{figure}

\begin{table}[h]
\centering
\caption{Banking sector assets in CECS (% GDP)}
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
\hline
Czech & 119.0 & 113.0 & 111.0 & 113.6 & 114.9 & 111.0 & 104.9 \\
Hungary & 69.7 & 68.8 & 68.6 & 68.6 & 68.1 & 68.4 & 69.3 \\
Poland & 53.3 & 57.7 & 59.2 & 62.8 & 63.0 & 59.8 & 60.0 \\
Slovakia & 109.6 & 102.7 & 92.1 & 93.1 & 93.8 & 94.4 & 82.4 \\
Slovenia & 72.0 & 74.2 & 75.7 & 81.4 & 94.2 & 87.2 & 87.6 \\
\hline
\end{tabular}
\caption*{Source: NBP data, central banks of the Czech Republic, Slovakia, Slovenia and Hungary data.}
\end{table}

In comparison to financial systems of other countries in the CEC5 group\textsuperscript{127}, the level of financial deepening in the Polish economy is lower\textsuperscript{128} (Table 5.1.2). It diverges even more from the level of financial deepening in the euro area: in 2002, the average value of the banking sector assets in the euro area amounted to 257\% of GDP\textsuperscript{129}.

\textsuperscript{127} Czech Republic, Poland, Slovakia, Slovenia, Hungary.
\textsuperscript{128} See chapter 2.2.
\textsuperscript{129} Structural Analysis of the EU Banking Sector Year 2002. European Central Bank, November 2003, p. 25.
The structural changes within the Polish banking sector, just like in the CEC5 countries, have been preceded by privatisation conducted at a high share of foreign capital, predominant in the CEC5 countries.\(^{130}\)

The share of bank assets with majority foreign capital in the entire banking sector assets reached almost 70% in 2000, and has been steady since then (Table 5.1.1). In 2003, foreign investors controlled 47 commercial banks in Poland, whose share in the banking sector assets amounted to 67.8%. In 2003, banks with majority foreign capital took 62.6% of deposits from non-financial entities and granted 69.7% of net loans. The share of banks under foreign control in the commercial bank assets in Poland was much higher than in most EU countries.

Considering the type of activity performed and the group of major customers, the commercial banks in Poland can be divided into a few sub-sectors, e.g. universal banks, retail banks, corporate banks and banks specialising in services to narrow market segments (e.g. mortgage banks, car finance banks). Recently, the retail banking segment developed the most rapidly. Banks

\section*{Box 5.1.1}

\begin{center}
\subsection*{MORTGAGE BANKS}
\end{center}

In 1998, after more than fifty years of absence, the institution of \textit{mortgage bank} was restored in the Polish banking system. The scope of activities of \textit{mortgage banks}, as stipulated in the Act on Mortgage Bonds and Mortgage Banks\(^1\), is highly limited (the principle of specialization) in relation to universal banks. Instead, they have the \textit{privilege of issuing mortgage bonds} — long-term debt securities. The basic activity of mortgage banks consists in granting loans secured by a mortgage and issuing respective mortgage bonds, as well as in granting loans to entities of high creditworthiness (e.g. the Polish Treasury, the National Bank of Poland, territorial local government units) or loans guaranteed by those entities, and issuing public mortgage bonds based on them. As assumed by the legislator, mortgage banks shall become the source of inexpensive, long-term loans.

In 2002 three mortgage banks conducted activity (Rheinhyp-BRE Bank Hipoteczny SA, HypoVereinsbank Bank Hipoteczny, Śląski Bank Hipoteczny SA). In 2003 the forth mortgage bank commenced operational activity (Nykredit Bank Hipoteczny SA).

The \textit{role of mortgage banks} in financing the property market in Poland has been relatively small to date; however, it is \textit{increasing}. In 2003, the share of mortgage banks in the market of mortgage property finance loans amounted to 0.5% (0.3% in 2002), this is stemming from the initial phase of their operational activity and barriers of legal nature, which they have been encountering. However, mortgage banks have been recording a high growth. In 2003, their assets went up nearly 70% (a growth by 34% in 2002). One mortgage bank recorded negative balance in 2002 (out of the three in operation), whereas in 2003 – two banks (out of the four in operation).

The mortgage banks operating in Poland are focused mainly on \textit{lending to corporates and financing non-residential property}. At year-end 2002, the share of non-residential property loans extended by mortgage banks in the total value of non-residential property loans granted in the entire banking system amounted to 5.9%, and to 4.2% as at year-end 2003. Property loans to corporates extended by mortgage banks constituted 4.6% of total property loans to corporates in the banking system. The share of mortgage banks in financing property developers was still higher: at year-end 2002 this share amounted to 6.8%, and at year-end 2003 it reached 14.1% of total loans granted to property developers in the banking system.

\begin{flushright}
\begin{footnotesize}
\begin{enumerate}
\item Act on Mortgage Bonds and Mortgage Banks of August 29, 1997 (Journal of Acts No. 140/1997, item 940 with later amendments), which became effective as of January 1, 1998.
\end{enumerate}
\end{footnotesize}
\end{flushright}

\begin{flushright}
\begin{footnotesize}
\begin{enumerate}
\item Only in Slovenia, the foreign investors’ share is low in comparison to other CEC5 countries. In 2001 the share of foreign investors in total assets amounted to: 95% in the Czech Republic, 76% in Hungary, 68.7% in Poland, 16% in Slovenia, and 79.6% in Slovakia. Cf. “Report on the stability of the financial system. June 2001 – December 2002”, Warsaw 2003 NBP, p. 20.
\end{enumerate}
\end{footnotesize}
\end{flushright}
which in the past were primarily focused on providing services to corporate customers are now increasingly involved in this market segment.

5.1.2. Movements in bank assets and liabilities structure

Asset structure

The years 2001-2003 were characterized by major movements in the structure of the banking sector balance sheet, related to the shares of the main asset categories. Receivables from non-financial customers remained the most important asset item, and its share increased steadily (from 42.3% in 2001 to 44.5% in 2003). It reflected the increasing role of banks in financing the real sector (the growing significance of financial deepening), in spite of the fact that in 2001 and 2002 banks tried to exercise a selective lending policy, primarily in relation to business entities, due to the observed deterioration in the loan portfolio quality.

The second most important asset item were securities, whose share in the period under consideration grew by 3 percentage points (to 24.1%). The increase in the significance of this item was caused by the growing supply of Treasury securities, which stemmed from the rising borrowing requirements of the government (increase in the budget deficit) and a drop in revenues from privatisation. Moreover, during the economic slow-down, the banks showed a high demand for low-risk assets. At dropping interest rates, the Treasury bonds held ensured the banks earnings from their increasing value.

The significance of claims on general government grew as well, which resulted from the increase in the demand for finance from, e.g. the Social Insurance Institution, the Labour Fund, as well as from municipalities and local government units. However, the weight of claims on the financial sector and the weight of vault cash dropped. During the analysed period, the share of claims on the financial sector dropped by nearly 4 percentage points, to 15.7% at year-end 2003. The share of vault cash and funds on the NBP account dropped from 6.1% in 2001 to 3.9% in 2003, which resulted from the change in bank customers’ behaviour, in particular households. The banks decreased the amount of funds on their current accounts with the NBP, as a result of the decreased required reserve rate. The drop in the interest in bank deposits lead to a growth in cash in circulation.

Table 5.1.3. Selected asset items of commercial banks (bn zloty)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims on the financial sector</td>
<td>84.5</td>
<td>70.7</td>
<td>70.3</td>
</tr>
<tr>
<td>Claims on non-financial customers</td>
<td>186.6</td>
<td>188.8</td>
<td>202.4</td>
</tr>
<tr>
<td>Claims on general government</td>
<td>11.0</td>
<td>14.2</td>
<td>19.1</td>
</tr>
<tr>
<td>Securities</td>
<td>94.7</td>
<td>103.9</td>
<td>111.8</td>
</tr>
</tbody>
</table>

Table 5.1.4. Selected asset items of cooperative banks (bn zloty)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims on the financial sector</td>
<td>6.9</td>
<td>7.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Claims on non-financial customers</td>
<td>11.2</td>
<td>12.6</td>
<td>14.7</td>
</tr>
<tr>
<td>Claims on general government</td>
<td>0.2</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Securities</td>
<td>1.0</td>
<td>1.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Total assets</td>
<td>21.5</td>
<td>23.4</td>
<td>25.7</td>
</tr>
</tbody>
</table>

131 See subchapters 6.1.2.1. and 6.2.2.1.
132 On September 30, 2003 the Monetary Policy Council reduced the required reserve rate on deposits from 4.5% to 3.5%. Art. 39a of the Act on the NBP provides for the possibility to reduce the calculated required reserve by a flat-rate equivalent of 500,000 euro.
In 2003, the increase in the total banking sector receivables amounted to 6.6% (to 313.3 bn zloty, from 293.8 bn zloty at year-end 2002).

In 2002 and 2003, the structure and growth in assets of cooperative banks were influenced by factors similar to those that impacted commercial banks. In 2003, the net claims on non-financial customers in the cooperative banks portfolios grew by about 17% (to 14.7 bn zloty, from 12.6 bn zloty at year-end 2002). The growth stemmed from a relatively higher involvement in financing small and medium-sized companies, which present a high demand for borrowing.

**Liabilities structure**

Along with the changes in the structure of assets, there were some movements in the volume and share of main categories of liabilities. The primary item of the banking sector liabilities were liabilities towards non-financial customers (with deposits as the principal component). In 2002 and 2003, they accounted for about 60% of the total liabilities (Table 5.1.8) and were the fundamental source of financing the commercial banks activities. Their volume – and what follows – their share were subject to fluctuations, primarily on account of the changes within the category (discussed further in this chapter). The trends in liabilities towards the financial sector and to the general government were similarly volatile.

### Table 5.1.5. Commercial banks assets structure (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vault cash</td>
<td>6.1</td>
<td>4.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Claims on non-financial sector</td>
<td>42.3</td>
<td>43.3</td>
<td>44.5</td>
</tr>
<tr>
<td>Claims on the financial sector</td>
<td>19.5</td>
<td>16.7</td>
<td>15.7</td>
</tr>
<tr>
<td>Claims on general government</td>
<td>2.3</td>
<td>3.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Asset share of securities, of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Treasury bonds</td>
<td>6.4</td>
<td>9.3</td>
<td>12.1</td>
</tr>
<tr>
<td>- Treasury bills</td>
<td>3.8</td>
<td>4.9</td>
<td>4.7</td>
</tr>
<tr>
<td>- money market bills</td>
<td>3.0</td>
<td>1.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Other assets</td>
<td>9.4</td>
<td>8.6</td>
<td>7.8</td>
</tr>
</tbody>
</table>

1 Preliminary data.  
Source: NBP data.

### Table 5.1.6. Selected items of commercial banks’ liabilities (bn zloty)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities towards the financial sector</td>
<td>66.0</td>
<td>62.1</td>
<td>71.8</td>
</tr>
<tr>
<td>Liabilities towards non-financial customers</td>
<td>276.7</td>
<td>268.1</td>
<td>276.7</td>
</tr>
<tr>
<td>Own issues of securities</td>
<td>2.7</td>
<td>3.7</td>
<td>5.2</td>
</tr>
<tr>
<td>Equity and subordinated loans</td>
<td>41.1</td>
<td>45.3</td>
<td>46.9</td>
</tr>
</tbody>
</table>

1 Preliminary data.  
Source: NBP data.

### Table 5.1.7. Selected items of cooperative banks’ liabilities (bn zloty)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities towards the financial bank</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Liabilities towards non-financial customers</td>
<td>16.3</td>
<td>17.5</td>
<td>19.2</td>
</tr>
<tr>
<td>Own issues of securities</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Equity and subordinated loans</td>
<td>1.9</td>
<td>2.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Liabilities to government institutions and local authorities</td>
<td>1.6</td>
<td>1.9</td>
<td>2.2</td>
</tr>
</tbody>
</table>

1 Preliminary data.  
Source: NBP data.
The share of operations with the central bank dropped during the analysed period, whereas liabilities resulting from own issues of securities, mainly aimed to minimise the effect of the outflow of household deposits, grew\(^{133}\).

Deposits from non-financial customers were the basic source of financing for cooperative banks as well, where these deposits had a much greater share of the liabilities structure (74.5% in 2003) than in the commercial banks. In 2003 the cooperative banks liabilities to non-financial customers grew, as compared to 2002, by 1.7 bn zloty, i.e. by 9.7%. In contrast to the commercial banks, in 2002 and 2003, a tendency to reduce the deposits did not occur in the cooperative banks, but the value of deposited funds grew.

5.1.3. Movements in the structure of claims and liabilities towards the non-financial sector

This chapter analyses in detail movements in the dominant items of the banking sector balance sheet structure, i.e. in claims on non-financial customers (assets) and liabilities towards that sector. Loans were the most important item of claims, whereas deposits constituted the strongest item of liabilities towards non-financial customers (Box 5.1.2).

Non-financial customers comprise households\(^{134}\) and business entities\(^{135}\). An analysis of the banks’ claims and liabilities to the non-financial customers in 2002 and 2003 confirms the characteristic asymmetry: loans to business entities prevailed among claims, household deposits – among liabilities. However, the proportions gradually changed. The share of loans to business entities dropped in favour of loans to households (primarily to private individuals), and the liabilities share of household deposits decreased in favour of deposits from business entities. Moreover, an increasing mismatch could be observed between the maturities of assets and liabilities, stemming from the increase in long-term claims share (mainly housing loans), with a simultaneous drop in the share of long-term liabilities (a drop in term deposits and a growth in current deposits).

Box 5.1.2

### Table 5.1.8. Cooperative banks liabilities structure (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003(^{1})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations with the central bank</td>
<td>1.0</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Liabilities towards non-financial customers</td>
<td>61.7</td>
<td>57.8</td>
<td>59.8</td>
</tr>
<tr>
<td>Liabilities towards the financial sector</td>
<td>14.7</td>
<td>13.4</td>
<td>15.5</td>
</tr>
<tr>
<td>Liabilities towards the general government</td>
<td>3.4</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Liabilities resulting from own issues of securities</td>
<td>0.6</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Equity (capital) and subordinated liabilities</td>
<td>9.1</td>
<td>9.8</td>
<td>10.1</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>9.4</td>
<td>9.3</td>
<td>9.2</td>
</tr>
</tbody>
</table>

\(^1\) Preliminary data.
Source: NBP data.

\(^{133}\) See subchapters: 6.1.2.3 and 6.2.2.4.

\(^{134}\) The category of households includes private individuals, sole proprietors and individual farmers.

\(^{135}\) In this report, the category of business entities includes enterprises and companies, cooperatives as well as non-profit institutions serving households (e.g. trade unions, political parties, associations and foundations, churches, private healthcare establishments and housing cooperatives).
5.1.3.1. Claims

A detailed analysis of the changes in the structure of particular claim items shall be presented in this part of the chapter.

In 2002 and 2003, the claims on non-financial customers grew, and at the same time a drop in the share of claims on business entities in favour claims on households was the primary trend observed. This change stemmed basically from the rapid growth in claims on private individuals; in the years 2001–2003 this asset category grew annually at a rate of over 10%. Movements of the main items of claims are presented in Tables 5.1.9 and 5.1.10 and in Figures 5.1.3 and 5.1.4.

Along the continued high growth rate in claims on private individuals, the low growth rate in claims on households in 2002 was noticeable. The low growth rate in claims on households stemmed from a large drop in claims on sole proprietors (about 33.1%)\(^2\), falling into this assets category.

Table 5.1.9. Claims on non-financial customers (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>42.35</td>
<td>41.30</td>
<td>43.67</td>
</tr>
<tr>
<td>– of which private individuals(^2)</td>
<td>26.69</td>
<td>29.34</td>
<td>32.00</td>
</tr>
<tr>
<td>Business entities</td>
<td>57.65</td>
<td>58.70</td>
<td>56.33</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

\(^1\) Preliminary data.
\(^2\) Share in total claims.
Source: NBP data.

Table 5.1.10. Movements in claims on non-financial customers (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>14.21</td>
<td>0.65</td>
<td>13.75</td>
</tr>
<tr>
<td>– of which private individuals</td>
<td>14.22</td>
<td>13.46</td>
<td>17.36</td>
</tr>
<tr>
<td>Business entities</td>
<td>2.06</td>
<td>5.09</td>
<td>3.26</td>
</tr>
<tr>
<td>Total</td>
<td>6.88</td>
<td>3.21</td>
<td>7.59</td>
</tr>
</tbody>
</table>

\(^1\) Preliminary data.
Source: NBP data.

Figure 5.1.3. Claims on non-financial customers

Source: NBP data.

\(^2\) Claims on sole proprietors grew by 14.9% in 2001, and by 0.4% in 2003, whereas claims on individual farmers grew by 12.2% in 2001, by 12.2% in 2002 and by 12.5% in 2003.
Among claims on the non-financial sector, loans constituted an unquestionable majority, both in the case of claims on business entities (a share of 96.7% as at year-end 2003) and in the case of claims households (a share of 99.3%).

### Loans to business entities

In the years 2002 and 2003, the growth rate of loans granted to business entities was low and amounted to 2.9% and 1.9%, respectively (Table 5.1.12). Taking into account the influence of FX movements on the value of claims (Box 5.1.3), the rate of changes in loans to business entities dropped to 0.8% in 2002 and recorded a drop of 1.8% in 2003.

Operating loans and investment loans were the most important categories in loans to business entities, and their total share amounted to 60%, with the both categories holding similar

### Box 5.1.3

**IMPACT OF FX MOVEMENTS ON THE STRUCTURE AND RATE OF CHANGES IN CLAIMS ON BUSINESS ENTITIES**

As results from the reporting data, about 30% of loans to business entities were denominated in foreign currencies, of which 60% in euro and 28% in US dollars (December 2003 data). In the analysed period, especially in 2003, considerable zloty exchange rate fluctuations occurred with respect to the aforementioned currencies. Therefore the impact of FX movements on the results of calculations presenting the structure and changes in loans to business entities was estimated. To this effect, foreign currencies loans were converted into currency units according to FX rates as at year-end 2002 and 2003, and then the currency units were converted into zloty at FX rates as at year-end 2001. The estimations were based on the assumption that the remaining foreign currency loans were denominated in Swiss francs and that the FX basket was the same in the case of each foreign currency loan category (export loans, investment loans, etc.). Data on the changes in the value of loans to business entities, taking into account the above-mentioned estimates, is presented in Table 5.1.13. A comparison between the data in Table 5.1.13 and that in Table 5.1.12 shows that taking into account the zloty exchange rate fluctuations caused a general drop in the rate of loan change. The growth rate of loans in 2002 dropped from 2.90% to 0.76%, whereas in 2003, instead of a loan growth of 1.92%, a drop by 1.79% occurred. The data regarding the FX structure of particular loan categories is presented in Table 5.1.14.
shares of approx. 30%. During the analysed period, the trends in movements in operating and investment loans had various directions. In 2002, investment loans grew by 18.5%, whereas operational loans dropped by 3.5%. In 2003, stagnation was observed in both categories (a drop by more than 3%, taking into account the influence of FX changes). The slowdown in the growth rate of operating loans resulted from a slump in the economic climate, loan rationing by the banks, as well as from the use of companies’ own funds. The observed changes in the growth rate of investment loans could have been the result of the hysteresis effect, i.e. the delayed reaction of enterprises in taking investment decisions. This was the reason for the growth in investment loans during the economic slump in 2002, and their further stagnation, despite some signs of the economic recovery.

Overdraft facilities accounted for about 16% total loans during the analysed period. The increase in this loan category in 2002 amounted to more than 11%, whereas in 2003 a slight drop was recorded. The increase in overdraft facilities in 2002 could have been related to the deterioration of the business climate and to the problems companies experienced with maintaining financial liquidity. This brought about the need to search for new sources of short-term financing, including the drawing of short-term bank loans.

Property loans to business entities were a very fast growing loan category. Their increase amounted to more than 15% in 2002 and 33% in 2003, and their share grew from 7.9% to more than 10%. The “other property lending” grew particularly rapidly (Box 5.1.4), although a strong growth in residential property loans was noted as well. They were mostly loans to property developers, i.e. entrepreneurs investing in housing premises and office space for sale.

Mortgage loans were the most dynamically growing loan category\(^{137}\). The growth rate of their real value amounted to around 70% in 2002, and to about 400% in 2003\(^{138}\) (Table 5.1.13). At the end of 2003, the share of mortgage loans in total loans to business entities reached 24.3%, while the share of property loans amounted to 10.3%. Therefore, the increase in mortgage loans stemmed from the fact that other types of loans drawn by corporates, including primarily investment loans, were also secured by the mortgage.

Export loans were among the loans whose volume and thereafter significance (share in total loans to business entities) decreased. Considering the high growth of the Polish export in that period, it may be stated that the exporting companies did not report demand for borrowing due to the improvement in their financial situation and the use of other sources of financing their activities (e.g. trade loan).

**Figure 5.1.5. Mortgage loans vs. loans to business entities**

![Figure 5.1.5. Mortgage loans vs. loans to business entities](Image)

Source: NBP data.

\(^{137}\) In NBP reporting, mortgage loans became a separate category in March 2002.

\(^{138}\) Such high ratios are partly the effect of a low base.
Box 5.1.4

MAIN CATEGORIES OF LOANS TO BUSINESS ENTITIES

Overdraft facility — the value of payables covered by the bank in accordance with an agreement and the borrower’s instructions.

Export loans — loans for financing export, i.e. for executing export contracts for the supply of goods or services, provided to a domestic supplier, as well as loans to foreign purchasers granted in order to finance an export agreement. These include loans to domestic suppliers for refinancing credit granted by him to foreign purchasers.

Operating loans — loans financing the basic activity of a company, used to finance liabilities to the suppliers at their maturity, payrolls, current expenditure, interest and capital instalments on term loans, i.e. all those payments that have to be executed in order to conduct current operations. In reporting, operating loans are listed as loans for financing the company’s current activity, other than overdrafts.

Investment loans — loans to finance the new or enlarging the existing production capacity of the borrower, as well as other ventures in the form of joint and accompanied investments, granted to finance ventures aimed at reproducing, modernizing or increasing the fixed assets, excluding property loans (listed separately).

Housing loans — loans granted for construction, adaptation, renovation or modernization of residential buildings or for the purchase of a construction plot, where the aforementioned activities are connected with business activities of these entities.

Other property loans — loans for the purchase, construction or reconstruction of a building and the purchase of a building ground or the hereditary right to a building ground.

Mortgage loans — loans secured with a mortgage on the property. In reporting regarding mortgage loans, the value of mortgage-secured loans in favour of the bank is revealed.

The shares of the individual types of loans and their movements are presented in Tables 5.1.11 and 5.1.12. Table 5.1.13 presents the movement rate of loans to business entities, taking into account FX movements in 2002 and 2003 (Box 5.1.3).

The movements in the FX structure of loans applied to all the mentioned categories but the most important changes were recorded in the case of property loans and export loans, with smaller changes in overdrafts, investment loans and mortgage loans. Table 5.1.14 presents the FX structure of particular loan categories.

Table 5.1.11. Structure of loans to business entities (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdrafts</td>
<td>12.80</td>
<td>16.94</td>
<td>16.54</td>
</tr>
<tr>
<td>Export loans</td>
<td>3.00</td>
<td>1.10</td>
<td>0.70</td>
</tr>
<tr>
<td>Operating loans²</td>
<td>65.05</td>
<td>34.22</td>
<td>33.57</td>
</tr>
<tr>
<td>Investment loans</td>
<td></td>
<td>34.12</td>
<td>33.87</td>
</tr>
<tr>
<td>Property loans</td>
<td></td>
<td>7.88</td>
<td>10.31</td>
</tr>
<tr>
<td>a) residential property lending</td>
<td>6.19</td>
<td>6.38</td>
<td>7.66</td>
</tr>
<tr>
<td>b) other property lending</td>
<td></td>
<td>1.50</td>
<td>2.65</td>
</tr>
<tr>
<td>Mortgage loans (in all loans – do not add up with other items)</td>
<td></td>
<td>4.74</td>
<td>24.32</td>
</tr>
</tbody>
</table>

Note: due to exclusion of some types of loans, the shares do not add up to 100%.

¹ Preliminary data.
² Before March 2002, operating loans and investment loans (except for loans for central government investment) were presented jointly as the ‘loans for financing the domestic economy’ category.

Source: NBP data.
Table 5.1.12. Movement in loans to business entities (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002¹</th>
<th>2003²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdraft</td>
<td>-6.65</td>
<td>11.54</td>
<td>-0.49</td>
</tr>
<tr>
<td>Export loans</td>
<td>-17.85</td>
<td>-47.61</td>
<td>-34.87</td>
</tr>
<tr>
<td>Operating loans</td>
<td>5.98³</td>
<td>-3.54</td>
<td>0.00</td>
</tr>
<tr>
<td>Investment loans</td>
<td>n/d</td>
<td>18.52</td>
<td>1.16</td>
</tr>
<tr>
<td>Property loans</td>
<td>n/d</td>
<td>15.39</td>
<td>33.32</td>
</tr>
<tr>
<td>a) residential property lending</td>
<td>n/d</td>
<td>9.51</td>
<td>22.42</td>
</tr>
<tr>
<td>b) other property lending</td>
<td>n/d</td>
<td>49.44</td>
<td>79.64</td>
</tr>
<tr>
<td>Mortgage loans (in all loans)</td>
<td>n/d</td>
<td>73.76</td>
<td>422.75</td>
</tr>
<tr>
<td>Total loans to business entities</td>
<td>8.53</td>
<td>2.90</td>
<td>1.92</td>
</tr>
</tbody>
</table>

¹ In March 2002, in the NBP reporting, the definition of business entities was changed, making it difficult to compare the data of 2001 and 2002. Therefore, the data regarding the growth rate of loans to business entities in 2002 is converted with reference to the first quarter of 2002, instead of the fourth quarter of 2001.
² Preliminary data.
³ Before March 2002, operating loans and investment loans (except for loans for central government investment) were presented jointly as the “Loans for financing the domestic economy” category.
Source: NBP data.

Table 5.1.13. Movements in loans to business entities at the assumption of steady FX rates (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002¹</th>
<th>2003²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdrafts</td>
<td>-6.65</td>
<td>10.75</td>
<td>-2.03</td>
</tr>
<tr>
<td>Export loans</td>
<td>-17.85</td>
<td>-50.51</td>
<td>-41.72</td>
</tr>
<tr>
<td>Operating loans</td>
<td>5.98³</td>
<td>-5.44</td>
<td>-3.34</td>
</tr>
<tr>
<td>Investment loans</td>
<td>n/d</td>
<td>15.12</td>
<td>-3.88</td>
</tr>
<tr>
<td>Property loans</td>
<td>n/d</td>
<td>13.47</td>
<td>27.81</td>
</tr>
<tr>
<td>a) residential property lending</td>
<td>n/d</td>
<td>8.66</td>
<td>18.87</td>
</tr>
<tr>
<td>b) other property lending</td>
<td>n/d</td>
<td>41.34</td>
<td>67.65</td>
</tr>
<tr>
<td>Mortgage loans (in all loans)</td>
<td>n/d</td>
<td>69.08</td>
<td>398.73</td>
</tr>
<tr>
<td>Total loans to business entities</td>
<td>8.53</td>
<td>0.76</td>
<td>-1.79</td>
</tr>
</tbody>
</table>

¹ In March 2002, in the NBP reporting, the definition of business entities was changed, making it difficult to compare the data of 2001 and 2002. Therefore, the data regarding the growth rate of loans to business entities in 2002 is converted with reference to the first quarter of 2002, instead of the fourth quarter of 2001.
² Preliminary data.
³ Before March 2002, operating loans and investment loans (except for loans for central government investment) were presented jointly as the “Loans for financing the domestic economy” category.
Source: NBP data.

Table 5.1.14. FX structure of particular categories of loans to business entities (%)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>zloty</td>
<td>foreign currencies</td>
</tr>
<tr>
<td>Overdrafts</td>
<td>90.09</td>
<td>9.91</td>
</tr>
<tr>
<td>Export loans</td>
<td>22.23</td>
<td>77.77</td>
</tr>
<tr>
<td>Operating loans</td>
<td>72.41</td>
<td>27.59</td>
</tr>
<tr>
<td>Investment loans</td>
<td>59.78</td>
<td>40.22</td>
</tr>
<tr>
<td>Property loans</td>
<td>76.72</td>
<td>23.28</td>
</tr>
<tr>
<td>a) residential property lending</td>
<td>89.13</td>
<td>10.89</td>
</tr>
<tr>
<td>b) other property lending</td>
<td>23.99</td>
<td>76.01</td>
</tr>
<tr>
<td>Mortgage loans (in all loans — do not add up with other items)</td>
<td>62.26</td>
<td>37.74</td>
</tr>
<tr>
<td>Total loans to business entities</td>
<td>70.91</td>
<td>29.09</td>
</tr>
</tbody>
</table>

¹ Preliminary data.
Source: NBP data.
Loans to households

The growth rate of loans for households in the analysed period was higher than that in the case of business entities. This trend had been observed for a few years now. As a result, a slow increase in the share of claims on households in the total claims was recorded. Tables 5.1.15 and 5.1.16 present the structure and changes in the main categories of loans to households in 2001 and 2003.

Table 5.1.15. Loans to households (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdrafts</td>
<td>15.88</td>
<td>15.97</td>
<td>13.67</td>
</tr>
<tr>
<td>Credit card lending</td>
<td>1.47</td>
<td>1.88</td>
<td>2.12</td>
</tr>
<tr>
<td>Operating loans</td>
<td>nd</td>
<td>7.11</td>
<td>6.28</td>
</tr>
<tr>
<td>Investment loans</td>
<td>nd</td>
<td>11.98</td>
<td>11.54</td>
</tr>
<tr>
<td>Property loans</td>
<td>16.59</td>
<td>23.96</td>
<td>31.34</td>
</tr>
<tr>
<td>Other loans</td>
<td>66.06</td>
<td>39.09</td>
<td>35.06</td>
</tr>
</tbody>
</table>

1 Preliminary data.
2 Other loans include i.a. instalment loans to private individuals and preferential loans to individual farmers. In 2002, the drop in the share of this category stemmed from the changes in reporting definitions.

Source: NBP data.

Table 5.1.16. Movement in loans to households (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdrafts</td>
<td>12.18</td>
<td>1.55</td>
<td>-2.50</td>
</tr>
<tr>
<td>Credit card lending</td>
<td>77.01</td>
<td>29.03</td>
<td>28.61</td>
</tr>
<tr>
<td>Operating loans</td>
<td>nd</td>
<td>nd</td>
<td>0.65</td>
</tr>
<tr>
<td>Investment loans</td>
<td>nd</td>
<td>nd</td>
<td>9.70</td>
</tr>
<tr>
<td>Property loans</td>
<td>46.44</td>
<td>45.88</td>
<td>49.05</td>
</tr>
<tr>
<td>Other loans</td>
<td>8.65</td>
<td>-40.23</td>
<td>2.19</td>
</tr>
<tr>
<td>Total loans to households</td>
<td>14.79</td>
<td>0.99</td>
<td>13.95</td>
</tr>
</tbody>
</table>

1 Preliminary data.
2 Other loans include i.a. instalment loans granted to private individuals and preferential loans to individual farmers. In 2002, the negative change in this category stemmed mainly from the changes in reporting definitions.

Source: NBP data.

In 2002 and 2003, property loans grew the most rapidly of all the categories of loans to households. Even in 2002, despite the deteriorating financial condition of many households on account of growing unemployment and a drop in the disposable income, property loans grew by 46%, and by 49% in the following year. As a result, the share of property loans in total loans to households grew from 17% at year-end 2001 to 31% at year-end 2003. Similarly to the market of loans to business entities, the value of mortgage-secured loans grew rapidly. The quick growth was triggered by the reduction in the interest rate on the loans (on account of a drop in interest rates), combined with a high demand for flats among households. This demand was additionally stimulated by promotional campaigns conducted by the competing banks.

In the analysed period a major growth in credit card lending was observed, although its share of total claims remained low.

139 About 60% of property loans to households were denominated in foreign currencies (57.76% in 2002, and 61.35% in 2003). Considering the estimates of the impact of FX fluctuations (see Box 5.1.3) changes the data presenting the rate of change in this category. Taking into account the impact of the Swiss franc and euro rate growth (the currencies prevailing among foreign currency loans for property purchase) in 2002 and 2003 the calculated growth rate of property loans will fall by almost 9 percentage points for 2002 (from 45.88% to 36.93%) and by 11 percentage points for 2003 (from 49.05% to 38.09%).

The share of foreign currency loans in total loans to households amounted to 23% in 2002 and 30% in 2003.

140 See chapter 5.1.6.

141 More on credit cards in chapter 5.1.6.
About two thirds of loans to households consisted in loans for private individuals. Tables 5.1.17 and 5.1.18 present the main categories of loans to private individuals: housing loans, instalment loans and – as a special category – consumer loans. They are loan categories separated from the total loans to private individuals and they partly overlap (e.g. an instalment loan may also be categorized as a consumer loan).

In 2002 and 2003, loans to private individuals grew at an annual rate of 14% and 18%, respectively. Housing loans grew at the fastest annual rate of almost 50% (Figure 5.1.6). The value of consumer loans grew quickly as well (by 20% in 2002 and 26% in 2003). The drop in instalment loans during the analysed period partly stemmed from changes in the definitions of loans to private individuals. These types of credits are discussed in Chapter 5.1.6.

Table 5.1.17. Share of main loan types in total loans to private individuals (%)

<table>
<thead>
<tr>
<th>Type of Loan</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer loans</td>
<td>nd</td>
<td>29.27</td>
<td>31.47</td>
</tr>
<tr>
<td>Housing loans</td>
<td>25.95</td>
<td>32.43</td>
<td>40.78</td>
</tr>
<tr>
<td>Loans financing instalment purchases</td>
<td>27.83</td>
<td>22.54</td>
<td>17.73</td>
</tr>
</tbody>
</table>

Table 5.1.18. Movements in main types of loans to private individuals (%)

<table>
<thead>
<tr>
<th>Type of Loan</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer loans</td>
<td>nd</td>
<td>19.97</td>
<td>26.38</td>
</tr>
<tr>
<td>Housing loans</td>
<td>46.95</td>
<td>42.32</td>
<td>47.78</td>
</tr>
<tr>
<td>Loans financing instalment purchases</td>
<td>-1.78</td>
<td>-7.76</td>
<td>-7.55</td>
</tr>
<tr>
<td>Total loans to private individuals</td>
<td>14.02</td>
<td>13.87</td>
<td>17.53</td>
</tr>
</tbody>
</table>

Figure 5.1.6. Property loans against loans to private individuals

Source: NBP data.

142 Instalment loans are defined as loans to private individuals with steady income, for the purpose of purchasing consumer goods.
143 The Act on consumer loans of July 20, 2002 (Dziennik Ustaw No. 100/2002, item 1081) defines the consumer loan as a loan to a natural person for purposes non-related to conducted business or professional activity for the purchase of consumer goods, mostly durable goods (e.g.: cars, household appliances, stereos and TV sets) or the purchase of services (travel, studies), where the loan amount is higher than 500 zloty, but lower than 80,000 zloty. The Act came in force on September 19, 2002.
5.1.3.2. Liabilities

Among liabilities towards non-financial customers, liabilities towards households prevailed, of which an unquestionable majority consisted in liabilities to private individuals. Nevertheless, the share of liabilities to households dropped steadily in favour of liabilities towards business entities. The structure and changes in the liabilities to non-financial customers is presented in Table 5.1.19 and 5.1.20, and in Figure 5.1.7.

Table 5.1.19. Liabilities towards non-financial customers (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>77.92</td>
<td>77.11</td>
<td>72.98</td>
</tr>
<tr>
<td>– of which private individuals</td>
<td>74.23</td>
<td>73.54</td>
<td>69.15</td>
</tr>
<tr>
<td>Business entities</td>
<td>22.08</td>
<td>22.89</td>
<td>27.02</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1 Preliminary data.
Source: NBP data.

Table 5.1.20. Movements in liabilities towards non-financial customers (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>11.44</td>
<td>-3.52</td>
<td>-2.01</td>
</tr>
<tr>
<td>– of which private individuals</td>
<td>10.89</td>
<td>-3.41</td>
<td>-2.65</td>
</tr>
<tr>
<td>Business entities</td>
<td>14.38</td>
<td>1.09</td>
<td>22.19</td>
</tr>
<tr>
<td>Total</td>
<td>12.07</td>
<td>-2.50</td>
<td>3.53</td>
</tr>
</tbody>
</table>

1 Preliminary data.
Source: NBP data.

Figure 5.1.7. Liabilities towards non-financial customers

Deposits predominated in total liabilities towards non-financial customers (Box 5.1.2). In 2002 and 2003, they constituted about 98% of total liabilities towards households and about 97% of liabilities towards business entities.

Household deposits

In 2002 and 2003, household deposits dropped. This trend resulted mainly from a sharp drop in term deposits, whereas the volume of demand deposits grew quickly. As a result, the share of term deposits in total household deposits dropped between 2001 and 2003 from 79% to 73% respectively, with a growth in the share of demand deposits from 20% to 27% (Table 5.1.21). The shifts between
term deposits and demand deposits stemmed from a drop in interest rates and the simultaneously diminishing difference between the interest on term deposits with different maturities. The small earnings on term deposits did not compensate the freezing of funds, what encouraged to holding them on current accounts. At the same time, a strong growth of cash in circulation could be observed, which stemmed from the drop in the alternative costs of maintaining cash.\textsuperscript{144}

The negative rate of change mostly applied to foreign currency deposits rather than zloty deposits. The ratio between these two groups of household deposits during the analysed period remained relatively steady (approx. 1:4), what was influenced by the change in the zloty FX rate against the US dollar and the euro – the basic currencies, in which the foreign currency deposits were placed. The data regarding the households deposits structure and changes\textsuperscript{145} is presented in Tables 5.1.21 and 5.1.22 and in Figure 5.1.8.

Table 5.1.21. Household deposits (%)

<table>
<thead>
<tr>
<th>Currency structure</th>
<th>2001</th>
<th>2002</th>
<th>2003\textsuperscript{1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zloty deposits</td>
<td>82.06</td>
<td>82.10</td>
<td>82.25</td>
</tr>
<tr>
<td>Foreign currency deposits</td>
<td>17.94</td>
<td>17.90</td>
<td>17.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term structure\textsuperscript{2}</th>
<th>Demand deposits</th>
<th>Term deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand deposits</td>
<td>20.28</td>
<td>79.24</td>
</tr>
<tr>
<td>Term deposits</td>
<td>23.45</td>
<td>76.24</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Preliminary data.
\textsuperscript{2} The missing share to 100% consists in blocked deposits and notice deposits.

Source: NBP data.

Table 5.1.22. Annual movement in household deposits (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003\textsuperscript{1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zloty deposits</td>
<td>12.19</td>
<td>-3.47</td>
<td>-1.35</td>
</tr>
<tr>
<td>Foreign currency deposits</td>
<td>13.46</td>
<td>-3.70</td>
<td>-2.38</td>
</tr>
<tr>
<td>Demand deposits</td>
<td>8.14</td>
<td>11.60</td>
<td>15.03</td>
</tr>
<tr>
<td>Term deposits</td>
<td>13.54</td>
<td>-7.17</td>
<td>-6.46</td>
</tr>
<tr>
<td>Total deposits</td>
<td>12.42</td>
<td>-3.51</td>
<td>-1.54</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Preliminary data.

Source: NBP data.

Figure 5.1.8. Household deposits

\textsuperscript{144} The downward trend in the amount of cash in circulation, present from mid-90s, was halted.
\textsuperscript{145} In the analysed period about 95% of household deposits were private individuals deposits, thus the structure and evolution of this category were similar.
The factor behind the diminishing interest of households in bank deposits was the introduction of the capital gains tax, including tax on interest income from bank deposits.\textsuperscript{146} A low rate of return (taking into account the costs of maintaining the account, sometimes negative) encouraged to searching for alternative ways of depositing savings.\textsuperscript{147}

**Business entities deposits**

After a drop in 2002, business entities deposits grew sharply in the following year: term deposits by more than 25%, demand deposits by almost 20%. The share of demand deposits in the

**Table 5.1.23. Business entities deposits (%)**

<table>
<thead>
<tr>
<th>Currency structure</th>
<th>2001</th>
<th>2002</th>
<th>2003\textsuperscript{1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Złoty deposits</td>
<td>80.00</td>
<td>83.56</td>
<td>84.08</td>
</tr>
<tr>
<td>Foreign currency</td>
<td>20.00</td>
<td>16.44</td>
<td>15.92</td>
</tr>
</tbody>
</table>

**Terms structure\textsuperscript{2}**

| Demand deposits    | 32.48| 52.77| 51.76           |
| Term deposits      | 65.74| 46.24| 47.57           |

\textsuperscript{1} Preliminary data.

\textsuperscript{2} The missing share to 100% consists in blocked deposits and notice deposits.

Source: NBP data.

**Table 5.1.24. Movements in business entities deposits (%)**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003\textsuperscript{1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Złoty deposits</td>
<td>8.63</td>
<td>3.00</td>
<td>22.61</td>
</tr>
<tr>
<td>Foreign currency deposits</td>
<td>47.70</td>
<td>-18.94</td>
<td>17.99</td>
</tr>
<tr>
<td>Demand deposits</td>
<td>12.94</td>
<td>60.22</td>
<td>19.52</td>
</tr>
<tr>
<td>Term deposits</td>
<td>16.97</td>
<td>-30.64</td>
<td>25.36</td>
</tr>
<tr>
<td>Total deposits</td>
<td>14.70</td>
<td>-1.39</td>
<td>21.85</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Preliminary data.

Source: NBP data.

**Figure 5.1.9. Business entities deposits**

Note: according to the definition at the beginning of chapter 5.1.3 (in the footnote), in this paper, the “business entities” category includes: enterprises and companies, cooperatives, as well as non-profit organizations serving households.

Source: NBP data.

\textsuperscript{146} As of March 1, 2002 the provision of the Act on amendments to the act on personal income tax of November 21, 2001 and the act on flat-rate tax on some income generated by natural persons came in force (Dziennik Ustaw No.134, item 1509, with later amendments) which introduced a 20% tax on earnings on funds held on bank accounts. Funds deposited before December 1, 2001 on the basis of agreements with banks for a pre-defined time period were exempted from the tax. More on this subject in chapter 5.1.6.

\textsuperscript{147} See chapter 5.1.6.
total business entities deposits grew from 32% at the end of 2002 to 52% at the end of 2003, whereas the share of term deposits in the same period dropped from 66% to 48%. The reasons for the increase in corporate deposits in 2003 include i.a. the improved financial condition and liquidity of enterprises, connected with the economic revival. This brought about accumulation of funds, while investment decisions would be postponed for the period after entering the EU. The data on the structure and changes in business entities deposits are presented in Tables 5.1.23 and 5.1.24 and in Figure 5.1.9.

5.1.4. Banking sector performance and efficiency

During the analysed period, the financial performance of the banking sector showed multi-directed trends. In 2003, the banking sector pre-tax earnings amounted to 4,651.2 bn zloty and they grew by 21.5% as compared to 2002, whereas net earnings amounted to 2,512.2 bn zloty, which translated into a growth of 7.4%. Most of the profitability and efficiency ratios improved as well (Table 5.1.25). External factors, causing a decrease in the quality of the bank loan portfolios, such as a sharp economic slowdown, a drop in creditworthiness of business entities, and a difficult situation on the labour market, were the main reasons for the drop in profitability and efficiency ratios in 2002. The improved macroeconomic situation in 2003 positively influenced the conditions of banks operations and their performance.

Among the analysed profitability ratios, the drop in non-interest income of banks in relation to assets is worth noting (Table 5.1.25). The decrease was caused by a drop in gains on FX transactions and in net gains on financial operations. In the second half of 2003, net gains on financial operations of the banking sector were adversely influenced by the fall in the prices of Treasury bonds. The drop in non-interest did not compensate for the decreasing interest income, and further reduced the overall profitability of banks.

A drop in the banks’ interest income in relation to their assets was recorded in 2002. It was influenced by the growing competition in the sector, as well as by the cut of nominal interest rates. In spite of these trends, this ratio is on average twice as high in Poland as in European Union countries. A further drop in the interest margin in Poland is highly probable in the coming years.

In 2003, the commercial banks improved most of their profitability ratios (Table 5.1.26). The basic trend observed, was a gradual drop in the ratio of operational costs to average assets. However, the operational costs at commercial banks are still relatively high as compared to other EU countries, where the ratio is twice lower. In the analysed period a slight improvement in interest income was observed, stemming from the lower share of irregular loans in total loans.

Table 5.1.25. Selected profitability and efficiency ratios for the banking sector (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets\textsuperscript{2} (ROA)</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Return to Equity\textsuperscript{2} (ROE)</td>
<td>12.1</td>
<td>5.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Operational Costs/Assets</td>
<td>4.0</td>
<td>3.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Net Interest Income/Assets (NIM)</td>
<td>3.7</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Non-Interest Income/Assets</td>
<td>3.1</td>
<td>2.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Irregular loans/gross claims</td>
<td>18.6</td>
<td>21.4</td>
<td>20.9</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Preliminary data.
\textsuperscript{2} Net gain/loss to average asset value.
\textsuperscript{3} Net gain/loss to average core capital.
\textsuperscript{4} General expense and amortization.
\textsuperscript{5} Interest income less interest costs.
\textsuperscript{6} I.a. net fee income, earnings from shares and other financial instruments of floating rate on return, net gains/losses on financial operations, FX gains.
\textsuperscript{7} Irregular loans (the so-called low-quality loans, for which provisions are established) include substandard, doubtful loans, and loss loans.

Source: NBP data.
In commercial banks, which constituted almost 95% of the banking sector, the same trends as in the entire banking sector were observed in their profitability and efficiency. The performance in the cooperative banking sector, despite similar trends, was better (first of all the share of irregular loans was much smaller). The higher efficiency of cooperative banks stemmed from the fact that they were not involved in financing large enterprises, which had problems with repaying the incurred liabilities, as well as from the fact they were focused on providing services to the local market.

The diversity of the banking sector potential in CEC5 countries can be illustrated by the differences among the selected profitability ratios. Lower ROE and ROA ratios for the Czech Republic and Slovakia in 2000 resulted from the experienced financial crises. However, the falling ROA and ROE ratios for Poland resulted from a considerable slowdown in the economic growth and the deterioration of the financial condition of borrowers.

**Table 5.1.26. Selected profitability and efficiency ratios for commercial banks (%)**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets² (ROA)</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Return on Equity³ (ROE)</td>
<td>12.8</td>
<td>5.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Net Interest Income⁴/Assets (NIM)</td>
<td>3.5</td>
<td>3.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Irregular loans⁵/gross claims</td>
<td>18.6</td>
<td>22.0</td>
<td>21.8</td>
</tr>
</tbody>
</table>

¹ Preliminary data.
² Net gains/losses to average asset value.
³ Net gains/losses to average core capital.
⁴ Interest income less interest costs.
⁵ Irregular loans (the so-called low-quality loans, for which provisions are established) include substandard, doubtful loans, and loss loans.
Source: NBP data.

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets² (ROA)</td>
<td>1.6</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Return on Equity³ (ROE)</td>
<td>19.4</td>
<td>18.2</td>
<td>12.3</td>
</tr>
<tr>
<td>Net Interest Income⁴/Assets (NIM)</td>
<td>8.0</td>
<td>6.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Irregular loans⁵/gross claims</td>
<td>6.2</td>
<td>7.2</td>
<td>7.2</td>
</tr>
</tbody>
</table>

¹ Preliminary data.
² Net gains/losses to average asset value.
³ Net gains/losses to average core capital.
⁴ Interest income less interest costs.
⁵ Irregular loans (the so-called low-quality loans, for which provisions are established) include substandard, doubtful loans, and loss loans.
Source: NBP data.

In commercial banks, which constituted almost 95% of the banking sector, the same trends as in the entire banking sector were observed in their profitability and efficiency. The performance in the cooperative banking sector, despite similar trends, was better (first of all the share of irregular loans was much smaller). The higher efficiency of cooperative banks stemmed from the fact that they were not involved in financing large enterprises, which had problems with repaying the incurred liabilities, as well as from the fact they were focused on providing services to the local market.

The diversity of the banking sector potential in CEC5 countries can be illustrated by the differences among the selected profitability ratios. Lower ROE and ROA ratios for the Czech Republic and Slovakia in 2000 resulted from the experienced financial crises. However, the falling ROA and ROE ratios for Poland resulted from a considerable slowdown in the economic growth and the deterioration of the financial condition of borrowers.

**Figure 5.1.10. ROE for the banking sector in the Czech Republic, Hungary, Slovakia, Slovenia and Poland**

Source: NBP data, central banks of the Czech Republic, Hungary, Slovakia and Slovenia.
Although from 2001 the CEC5 countries exhibited multi-directed changes in interest margin\(^{148}\) (Figure 5.1.12), in the long run, the value of this ratio had a falling tendency. The growing competition in the banking sector and the increasingly lower interest rates influenced the drop in the interest margins. It should be noted here that the interest margins in banks of the CEC5 countries are still higher as compared to the margins in the banks of EU countries; e.g. the interest margin in Spain in 2002 amounted to 2.64%, and in Germany – to 1.14%.

5.1.5. Consolidation and concentration of the commercial banking sector

In line with the world market trends, the process of consolidation has strengthened in Poland in recent years. As a result of changes in the banking system (bank mergers, acquisitions and liquidations) the number of commercial banks conducting operational activity diminished from 83 (as at year-end 1997) to 58 (as at year-end 2003). In 2003, further mergers and acquisitions took place in the banking sector, however, to date, the process was the most intensive in the years 1999–2002.

In the first half of the 90s, take-overs of banks in poor financial condition by stronger banks were the major mechanism of consolidation. On the other hand, the mergers conducted in the years 1997-2002 were a consequence of the prior privatisation of domestic banks and winning over strategic investors, as well as global-scale mergers including parent banks (foreign investors in Polish banks). The main reason for mergers and acquisitions in 2003 was the restructuring of banks in bad financial condition. However, the consolidation processes in 2003 did not have a great impact on the condition of the banking sector or on its concentration.

\(^{148}\) The interest margin is the ratio of the difference of interest income and interest costs to assets.
The process of mergers and acquisitions in the years 2000–2003 is illustrated in Table 5.1.28. The process of mergers and acquisitions is one of the major factors triggering changes in concentration. The concentration ratios measured by the Herfindahl-Hirschman index (HHI) show some concentration growth in the years 1997–2001 and its fall in the period 2002–2003. In the years 1997–2001, the concentration measures CR5, CR10 and CR15 grew as well. A slower development of large banks and a more rapid development of small and medium banks caused the drop in the concentration index.

Table 5.1.28. Number of mergers and acquisitions (M&A) in Poland

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of M&amp;A</th>
<th>Number of banks involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>1998</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1999</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>2000</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2001</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>2002</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>2003</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: NBP data.

Table 5.1.29. Bank mergers and acquisitions

<table>
<thead>
<tr>
<th>Bank after merger or acquisition</th>
<th>Banks participating in the process of M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Powszechny Bank Kredytowy SA</td>
<td>Powszechny Bank Kredytowy SA merged with Bank Austria Creditanstalt Poland SA.</td>
</tr>
<tr>
<td>Wielkopolski Bank Kredytowy SA</td>
<td>Wielkopolski Bank Kredytowy SA took over Gliwicki Bank Handlowy SA.</td>
</tr>
<tr>
<td>Bank Współpracy Regionalnej SA</td>
<td>BWR SA took over BWR Real Bank SA (under the Resolution of the Commission for Banking Supervision), subsequently, the banks merged.</td>
</tr>
<tr>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>BIG Bank Gdański SA</td>
<td>BIG Bank Gdański SA merged with BIG Bank SA.</td>
</tr>
<tr>
<td>Bank Handlowy w Warszawie SA</td>
<td>Citibank (Poland) SA merged with Bank Handlowy w Warszawie SA.</td>
</tr>
<tr>
<td>Bank Zachodni - WBK SA</td>
<td>Wielkopolski Bank Kredytowy SA merged with Bank Zachodni SA.</td>
</tr>
<tr>
<td>ING Bank Śląski SA</td>
<td>ING Bank Śląski SA merged with the ING Bank N.V. branch in Warsaw and acquired Wielkopolski Bank Rolnicy S.A.</td>
</tr>
<tr>
<td>Gospodarzcy Bank Wielkopolski SA</td>
<td>Gospodarzcy Bank Wielkopolski SA merged with Bałtycki Bank Regionalny SA.</td>
</tr>
<tr>
<td>Nordea Bank Polska SA</td>
<td>Nordea Bank Polska SA merged with Bank Wsparciowosci Pracowniczej – UniBank SA.</td>
</tr>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Kredyt Bank SA</td>
<td>Kredyt Bank SA merged with Kredyt Bank SA.</td>
</tr>
<tr>
<td>Gospodarzcy Bank Wielkopolski SA</td>
<td>Gospodarzcy Bank Wielkopolski SA merged with Pomorsko-Kujawski Bank Regionalny SA.</td>
</tr>
<tr>
<td>Bank Inicjatyw Społeczno-Ekonomicznych SA</td>
<td>Bank Inicjatyw Społeczno-Ekonomicznych SA acquired Cukrobank SA.</td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>BRE SA</td>
<td>BRE SA acquired Bank Częstochowa SA.</td>
</tr>
<tr>
<td>Nordea Bank Polska SA</td>
<td>Nordea Bank Polska SA acquired LG Petro Bank SA.</td>
</tr>
</tbody>
</table>

1 Before March 12, 2002 Gospodarzcy Bank Południowo-Zachodni SA. Source: NBP data.

The process of mergers and acquisitions in the years 2000–2003 is illustrated in Table 5.1.29. The process of mergers and acquisitions is one of the major factors triggering changes in concentration. The concentration ratios measured by the Herfindahl-Hirschman index (HHI) show some concentration growth in the years 1997–2001 and its fall in the period 2002–2003. In the years 1997–2001, the concentration measures CR5, CR10 and CR15 grew as well. In the years 1997–2001 mergers and acquisitions conducted by large banks favoured the growth in the concentration measures level. A slower development of large banks and a more rapid development of small and medium banks caused the drop in the concentration index.

149 Herfindahl-Hirschman Index – calculated as the sum of squares of market share of particular commercial banks in net lending, net assets, and deposits, respectively. The higher the index value the greater the market concentration. 1 is the maximum for a fully monopolized market. The markets for which HHI is smaller than 0.1 are considered as potentially competitive. On the other hand, if the value of the index is higher than 0.2, the market is considered potentially non-competitive.

150 CR5, CR10, CR15 represent the market shares of the largest 5, 10 and 15 banks in gross lending, assets, and deposits, respectively.
Special attention should be given to the process of concentration, because from a certain level it can lead to diminished competition on the market and a growth in costs of providing financial services. A comparison of the concentration level in the Polish banking sector to that in other sectors of the region might tell us more about the nature of competition in these countries.

Concentration in other CEC5 countries in 2003, measured by the asset share of 5 largest banks (CR5) was higher (except for Hungary) than in Poland (Figure 5.1.15). The greatest impact on the consolidation processes in the banking sectors of the CEC5 countries was from privatising the banks with the share of foreign capital. The same foreign banks, which invested in Poland are the strategic investors in other CEC5 countries as well. KBC, HVB/BA-CA Group, Citibank, UniCredito Italiano are among the most active of them.

At the end of 2002, the value of the CR5 in the Polish banking sector was close to the respective concentration measures of the Spanish banking sector. This might mean that the level of competition in these countries may be comparable.

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**Figure 5.1.13. Herfindahl-Hirschman Index (HHI)**

Source: NBP data.

**Figure 5.1.14. CR5, CR10, CR15 for assets**

Source: NBP data.

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151 More about the impact of changes on the level of concentration in a monographic study Impact of Changes in Banking Sector on its Competitiveness and Competition, 1997-2003.

5.1.6. Novelties in the offering

The changes in the banks offer in the years 2002–2003 were related to adjusting the marketing strategy to the changing economic environment, as well as the desire to increase the income by broadening the customer base and the sale of new products. The banks reacted to such changes in the environment as introduction of the income tax on bank deposits (by offering the so-called anti-tax deposits – with long maturities), the economic slump and financial difficulties of many companies (by a more restrictive lending policy towards companies) or the falling interest rates (by decreasing their interest rates, promoting housing loans and sale of investment fund units). They targeted their offer to new market segments, e.g. to young people (housing loans), teenagers and pensioners (special bank accounts), small and medium-sized enterprises (service packages). At the same time, they focused on providing services to the wealthiest groups of customers (promotion of credit cards, development of private banking). The banks marketing policy was based on a deepened market segmentation, i.e. isolating comparably homogeneous customer groups and defining a specific product offer for each of them. The banks modernized their offer by applying modern technologies, particularly internet banking.

When analysing the bank product offering, classification may be based both on the loan type and the target customer. According to the classification by loan type, the bank product offering can be divided into three basic categories: financial services (loans), placing funds (deposits) and payment services (payments and settlements). In the classification by target customer, the bank product offering can be divided into products targeted at private customers (mainly households) and institutional customers (mainly corporates). The presented below outline of evolution of the Polish market of banking services in the years 2002–2003 utilized the elementary division into loan products and deposit products. The analysis refers mainly to the retail banking offering (services for private customers), although it includes the offering for small and medium-sized enterprises as well.\textsuperscript{153}

\textsuperscript{153} The small and medium-sized enterprises (SME) sector is not explicitly classified in the banking practice. Depending on the bank, SME are listed in retail banking, corporate banking or a distinction is made between the small and medium-sized enterprises, treating the former as retail customers and the latter as corporate customers.
Loans to private individuals

Housing loans were the most rapidly growing item in the development of the bank offering of financial services to private individuals. In the years 2002-2003, their growth rate was exceptionally high. This was connected mostly to the decrease in interest rates and the growth in demand for residential property, caused by i.a. the fear of the consequences of tax changes (increasing the VAT rate from 7% to 22%) and the growth in property prices, after Poland's accession to the European Union. A growing demand on the part of the customers was accompanied by an increase in competition among the banks, resulting in offering increasingly favourable loan terms and conditions. Apart from reducing the interest rates on zloty and foreign currency loans, the banks also used other incentives encouraging customers to draw housing loans. Within the framework of promotions, banks offered i.a. lower interest rates in the initial loan period (typically in the first year), grace period for capital repayments up to more than two years, and an interval in the capital repayment (e.g. of six months) in the case of financial difficulties on the part of the borrower. The promotions also included no fees and commissions for considering the loan application and granting the loan, denominating the loan to a different currency or early repayment of the loan. The banks significantly speeded up the process of considering the loan application and significantly prolonged the maximum repayment period (up to 32.5 years). Some of the banks introduced financing of up to 100% of the property value thanks to establishing the insurance of the borrower's own contribution. The banks also introduced simplified loan settlement systems, e.g. a simplified procedure of settling the construction investment outlays or a possibility to include the fee for granting the loan or the fee for the property appraisal in the loan amount. Many banks have decided to carry out independent, free of charge property appraisals, whereas in previous years an external expert's appraisal was required, which involved extra expenses on the part of the borrower. The banks enclosed insurance packages to the loan agreements, e.g. insurance against the risk of a job loss by the borrower, consisting in benefit payments made on a monthly basis during a pre-defined time period, facilitating the repayment of the loan. The promotion of housing loans assumed non-standard forms, e.g. the possibility to purchase goods from a special catalogue designed for the borrowers only.

Box 5.1.5

HOUSING LOANS TO YOUNG PEOPLE

At most banks, young borrowers (under 35 years of age) were treated more strictly than the older customers. They were often required to prove higher income and a higher education status. However, more and more banks perceive the young borrowers as customers with high potential. The banks aimed at maintaining a long-term relationship with them, mostly on the basis of a housing loan. The banks abolished their age limits, income thresholds and requirements of higher education in relation to young borrowers. Some special forms of promotion of housing loans included the possibility to apply for a housing loan after a year of working as the first workplace, even if the employment agreement was concluded for a period of shorter than 3 years (however, under certain additional conditions), as well as the possibility to guarantee the loan by the borrower's parents in order to obtain the status of a creditworthy customer. The offer to finance the purchase of a flat without the need to provide own contribution was especially convenient for young people, beginning their professional career and thus not holding any savings.
The customers were highly interested in the consolidation loan, secured by a mortgage, designed to repay all the previously incurred liabilities. This type of loan first appeared in the Polish banks offering in 2002. The consolidation loan enabled the customer to gather all the loan commitments in one bank, e.g. a mortgage loan, a car loan, a cash loan, credit card lending and overdraft facility. Thanks to lower interest rates on the consolidation loan than the interest rates on the previously incurred loans, the consolidation loan instalments could be much smaller than the sum of all the instalments paid to the other banks.

In the analysed period the interest in foreign currency loans diminished, basically as an after-effect of a significant appreciation of the euro against the zloty throughout 2003. As results from the information provided by the banks, many customers decided to denominate the loan to the zloty. The customers who wished to change the loan currency were offered to sign an annex to their loan agreement. Most of the new borrowers decided to draw a zloty loan, whereas loans in Swiss francs were most popular among foreign currency loans.

In the consumer loans category, marked out by the Act in force from September 2002, the most important item were the instalment car loans. The banks tried to attract the customers by shortening the period required to get the loan (the preliminary credit decision was made at once, the final decision on granting the loan within one or two days), by prolonging the repayment period (e.g. up to 8 years) by simplifying procedures, by including the fees and commissions and insurance into the loan amount, by abolishing the requirement to provide own customer contributions. Loans denominated in foreign currencies (euro, US dollar, Swiss franc) appeared in the bank offer, as well as loans for financing the purchase of vehicles, combining the features of a standard loan and a leasing agreement (the so-called balloon loans). In the years 2002–2003 the concentration of consumer loans in specialist retail banks (banks specializing in instalment loans, car finance banks owned by financial companies subordinated to automobile groups) was continued, with a simultaneous reduction of universal banks’ exposure to this market segment.

Searching for new sources of income, the banks developed their offering for the wealthiest customers. In the years 2002 – 2003, the promotion of credit cards to customers with adequately high income was intensified. The promotion campaigns consisted in simplifying the procedure of issuing credit cards, issuing cards free of charge or sale of cards on preferential terms in a limited time period (e.g. one year), as well as in facilitating the transfer of credit card accounts from other banks. Thanks to this, credit cards became easily accessible and cheaper. The banks offering was met with high customers’ interest, who gradually changed their attitude towards the management of cash and expenses. Customers showed interest in e.g. transferring the credit limit from an account to a credit card and effecting household bills payments using the credit card limit.

The banks in Poland offered all types of payment cards: debit cards, credit cards and charge cards, as well as prepaid cards. At the end of 2003, there were more than 15 bn cards in circulation, issued by commercial banks, by 11% fewer than at the end of 2002, despite the fact that starting from the second quarter their amount grew steadily. Debit cards prevailed on the market (88%). In 2003, the share of credit cards grew (to 7.8% from 4.8% at year-end 2002), and the share of charge cards decreased (from 6.1% to 4.2%). Almost all of the cards (98.6%) were provided with both payment and ATM functionalities. The number of transactions effected with payment cards grew steadily. In 2003, 541.4 bn transactions of the total amount of 130 bn zloty were executed.

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155 See footnote in chapter 5.1.3.1.
156 The balloon loan is a loan with defined low monthly instalments and a high last instalment – the so-called balloon instalment (e.g. 40% of the loan amount) which is equal to the value of the vehicle at the end of the loan period. The balloon instalment is paid from the funds from the sale of the car to a dealer or is refinanced from a new loan. The balloon loan allows the customer to own a car, while paying low instalments, equal to the amortization of the vehicle, and facilitates a regular exchange of an old car for a new one (e.g. once in every 2–3 years).
157 The drop in the number of cards issued resulted from a bank practice (introduced by some banks) to limit the issue of new cards to the customers who did not use the payment cards issued earlier.
Affinity cards, i.e. payment cards with the charity (social) element were popular among customers. Fees for issuing this type of payment cards, part of the commissions for the transactions or extra commissions (paid by the customer and the bank) are assigned to social welfare organizations, universities or charitable undertakings. Institutions such as Tatrzańskie Ochotnicze Pogotowie Ratunkowe, the Polish Red Cross, the Wrocław University, the Polish Artificial Heart construction programme, Wielka Orkiestra Świątecznej Pomocy, the 'Pajacyk' Campaign organized by the Polish Humanitarian Organisation were supported in this way. The number of loyalty programs for card holders e.g. discount programmes for purchases in selected shops, also grew. A special type of preferential programmes covered co-branded cards (debit and credit cards), issued by banks in cooperation with selected partners, e.g. mobile telephony carriers, motor vehicle fuel distributors, Internet services, digital TV operators, travel agencies, publishing houses and shopping malls. Co-branded cards provided their holders with the possibility to collect points that entitled them to receive presents or free shopping.

In the years 2002–2003, the credit card market was focused mainly on individual customers. Cards for small and medium-sized enterprises were less available and constitute only a few percent of all the cards issued.

Box 5.1.6

**DEVELOPMENT OF PRIVATE BANKING**

Along the development of the banking services market in Poland and the increase in wealth of the richest part of the society, some banks became more and more interested in private banking, i.e. a personalized and complex financial service system for wealthy private customers. Private banking was not only a highly profitable segment, but also became a strategic type of...
activity, since a considerable part of these customers were management board members of the banks' corporate customers. In order to select a group of the most wealthy customers, the banks used the criteria of held liquid disposable assets (the minimum was usually fixed at the level of 100,000 zloty to 500,000 zloty) or the level of monthly net income (e.g. above 10,000 zloty). The wealth thresholds used in Poland were many times lower than those in the West European countries (where they usually amounted to around 1 million euro). However, the banks took into account the lower level of domestic income per capita, the potential wealth growth of a particular customer in the future, and often also the customer's prestige in the society and the impact on the decisions made by other bank customers. On the Polish private banking market investment instruments other than deposits held a strong position. The rate of movement in the asset structure of private banking customers was much higher than in total retail banking. Private banking customers were offered more and more financial products related to the FX market (e.g. currency options), the capital market (e.g. euro bonds), as well as the so-called structured products¹ (e.g. investment deposits related to debt securities or stock market indices). Loans for the purchase of works of art (e.g. a loan in the amount of 50% of the sale price or the maximum estimated value of a work of art put at auction) were an exceptional offer for the wealthiest customers. The private banking offering could be also distinguished by the use of traditional professional terminology, usually nonexistent in standard bank offerings.

¹ The structured products are developed through the creation of a basket of different derivative instruments e.g. index options or currency options, in order to achieve the defined rate of return and hedge against risk.

Services for small and medium-sized enterprises

In the period analysed, especially in 2002, a low economic growth rate and financial difficulties experienced by many companies forced the banks to tighten the lending standards for business entities. At the same time, as a result of the growing competition in prices, the margin levels applied in cooperation with corporate customers dropped, thus inducing many banks to search for new sources of income. These factors caused a growing interest among the banks in providing services to small and medium-sized enterprises (SME), which were increasingly often perceived by the banks as one of the main market segments. Apart from an increased risk, stemming from i.a. a specific style of management in a small company (e.g. a family business), the lack of proper security, the lack of adequate financial data (e.g. related to simplified accounting principles) or a short credit history (in the case of new companies), the banks started to recognize the benefits connected with providing services to the SME sector, such as the large number of companies and their high share in GDP (a large group of customers and the dispersion of credit risk among many entities), the significant growth potential, the relatively high margins achieved by banks in this segment (on account of a higher risk), as well as the natural tendency on the part of the small and medium-sized enterprises to enter into a closer relationship with the banks (in order to obtain an easier access to loans and consulting).

The bank strategy towards small and medium-sized enterprises was based on a deepened customer group segmentation. Most of the banks separated the segment of medium-sized enterprises from the small ones, and treated the former as corporate customers and the latter as retail customers. The basic criterion for isolating market segments was the annual turnover level¹⁵⁸. The banks also used additional criteria, e.g. the industry a company operated or its subjectively estimated development potential. Some of the banks introduced a multilevel segmentation, using an additional division inside the groups of small and medium-sized enterprises. For example, one of the banks, in its offering to small companies, distinguished between companies with the highest turnover maintaining full accounting, companies with simplified book-keeping, natural persons

¹⁵⁸ The threshold of annual turnover distinguishing between the small and the medium-sized enterprises was equal to 10 million zloty. However, some banks fixed it at a different level, e.g. 5, 8 or 12 million zloty (see: M. Pokojska: Wbrew prostym podziałom. Gazeta Bankowa No. 33 (773), August 18, 2003).
conducting business activity, the smallest companies with annual turnover up to 50,000 zloty, and natural persons starting business activity. For each of the segments the bank prepared special product packages, which differed in the price and scope of services offered. The packages contained standard products (current account, bank deposits, credit cards, overdraft facility, access to the bank via phone customer service centre or the Internet), which could be supplemented by for e.g. an auxiliary account or foreign bank transfers. Considering the peculiar customer needs, the banks offered additional services, e.g. insurance products, leasing, factoring, the possibility to invest on the capital market or the possibility to obtain a bank guarantee. Apart from the standard packages, many banks offered personal consulting services (investments, taxes) to their most profitable and prospective customers-entrepreneurs. The banks started to perceive consulting as a more and more important factor in winning over new customers from the SME sector.

Some of the banks eased their requirements regarding granting loans for financing the current activity and investments. On granting an operating loan the minimum period of the company existence was reduced to '0-6 months', i.e. theoretically it was possible to obtain an operating loan by a company that has just started operation. On granting an investment loan, a few banks allowed the financing of 100% of the investment value, i.e. own contribution was not required. The longest loan periods available on the market amounted to 15 years, although 3 to 7 years was the standard investment loan repayment period. Sometimes the entrepreneurs incurring investment loans could count on a few-month grace period for capital repayment, however, provided that the investment generated a profit. Similarly as in the case of private individuals, the banks offered companies the so-called financial plans, combining the features of a revolving loan facility with those of, e.g., a mortgage loan. The offering for companies also included preferential loans, which were co-financed from various types of EU aid funds. The institutions granting loan subsidies included i.a. the European Commission (pre-accession EU funds – e.g. PHARE, SAPARD), the European Bank for Reconstruction and Development, and the European Investment Bank. The advantages of this type of loans include attractive interest rates, long loan periods and co-financing of part of the investment or interest costs.

In as far as settlement services are concerned, the banks, especially those which offered access to services via the Internet, cut down or eliminated the fees for opening and maintaining an account, as well as for executing payment transfers. Transfers to accounts of institutions of special importance to the companies, e.g. payments to the Social Insurance Institutions or the internal revenue office, were totally free of charge when offered in a package. The banks would offer payment cards and credit cards (often prepaid cards) to companies with a large number of employees, delegated to business trips or independently representing the company. The cards would facilitate the settlement of business travel costs or other expenses incurred by the employee. The banks introduced packages with reduced fees for depositing cash, also at night deposit facilities, designed for trade companies.

**Deposits and investing savings**

In the years 2002–2003, the overall amount of deposits accumulated in banks diminished, which – as was mentioned in chapter 5.1.3.2. “Liabilities” – was mainly related to the fall in interest rates on deposits (both nominal and real interest)\(^{159}\), as well as to the deterioration of the bank customers financial condition (a weaker inclination to save money, withdrawing deposits to finance current consumer spending). In this respect, the introduction of the 20% capital gains tax in March 2002 diminished the effective interest earned on deposits\(^{160}\).

The regulations establishing the capital gains tax provided for a tax exemption for funds accumulated on bank accounts before December 1, 2002 on the basis of agreements signed before that date for a predefined term. Therefore at the end of 2001 the banks started to offer the so called anti-tax deposits, enabling the customers to avoid the capital gains tax on the deposited savings. This

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\(^{159}\) The drop in deposits resulted from i.a. the effect of nominal illusion, i.e. the customers' consideration of the nominal interest rate level on the deposited funds as the measure of gained benefits, without taking into account the effect of inflation.

\(^{160}\) See also Box 3.1.
type of deposits, which were very popular among the customers, assumed various forms, most often they were rentier long-term deposits (15 years) with floating interest rates. An anti-tax deposit agreement concluded before December 1, 2001, after that date could not be altered, shortened, prolonged or rolled-over, otherwise it lost its tax exemption. Having entered into long-term agreements with customers, from the beginning of 2002 the banks started to reduce the interest rates on these anti-tax deposits, often to a level at which these deposits became less profitable than the deposits on the current offering, which took into account the capital gains tax\textsuperscript{161}.

Opening of anti-tax deposits in the last quarter of 2001 resulted in an increase in deposits, primarily term deposits (also at the expense of demand deposits). Later, bank deposits began to lose the competition with the offering of investment funds\textsuperscript{162}. The banks tried to discount the changing preferences of the customers, by involving themselves more and more in the sale of investment funds participation units, mainly of the investment funds with which they had capital links. Some banks even offered the offering of various investment funds. For example, Supermarket Funduszy Inwestycyjnych, established at the end of 2002 by mBank, made it possible to purchase participation units in a few dozens of investment funds, commission-free.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.1.16}
\caption{Average interest rate on term deposits from households}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.1.17}
\caption{Average interest rates on corporate term deposits}
\end{figure}


\textsuperscript{162} Cf. chapter 5.3.
As a reaction to customers expectations of higher earnings on the deposited funds, the banks put new types of deposits on their offers, e.g. progressive deposits, investment deposits and dual deposits. Bank customers were offered promotional terms and conditions, e.g. the possibility to withdraw the accrued interest at any time or even the entire deposit amount, without losing the right to the interest earned.

The essential feature of progressive deposits is the interest rate rising on a quarterly basis, provided that the deposit is prolonged. Moreover, the banks included savings accounts with progressively growing interest rates, in proportion to the funds accumulated on the account, at the same time providing free access to the accumulated funds.

Investment deposits combined the traditional term deposit with the so-called structured products. The depositor was offered a pre-defined minimum or higher interest rate, depending on the evolution of the index the deposit was based on. The indices serving as the basis for deposit interest rates included stock exchange indices of the European markets (e.g. Dow Jones Eurostoxx 50, FTSE Eurotop 100), the American markets (e.g. S&P 500), the Warsaw Stock Exchange (WIG20), as well as FX rates (e.g. of the US dollar).

In order to cover the loss on the liabilities side, brought about by the fall in deposits, the banks issued their own retail bonds. Until the end of 2003, the exemption from the capital gains tax provided an additional incentive to the purchasers of such securities. The banks often offered their own bonds in combination with traditional deposits. These were the so-called dual deposits, which consisted in a simultaneous investment in bank bonds and term deposits. One of the options of dual deposits combined term deposits with investment in a selected investment fund.

Apart from developing new savings products, the banks tried to attract depositors through promotions not connected directly with the terms of depositing funds. For example, in return for placing a deposit, banks offered a package of telecommunication services, a discount coupon for the purchase of tourist services or the possibility to win a prize.

5.1.7. Expanding the distribution channels

In the years 2002-2003, the importance of new banking products and services distribution channels increased steadily. Electronic banking developed most rapidly, not only in the case of Internet banks, but also as an additional channel of access to the services offered by traditional banks. Setting up of a network of bank kiosks was a new initiative. Apart from searching for new service distribution methods, the banks enabled sales of products of other financial institutions through their network of field branches, especially those of insurance companies and investment funds.

Electronic banking

Electronic banking became an additional distribution channel of products and services. Indirectly, it strengthens the competitive edge of banks in the scope of the services provided, and it also enables the reduction of general expense. Electronic money became an important element of electronic banking. This category relates to settlement instruments such as payment cards and electronic access channels.

In 2002 and 2003, most of the commercial banks in Poland (38 and 42 respectively) operated through branches. The remaining banks were branchless subsidiaries of foreign banks providing services solely through their head offices. At the same time, the banks conducted operational activity through electronic distribution channels, which do not require the presence of both parties to the transaction. If the electronic banking growth trend continues, increasing the number of

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163 See sub-chapter 6.2.2.4.
164 A form of banking services which enables the customer to access the account directly, via a computer (or another electronic appliance, e.g. an ATM or the phone). Cf. J. Grzywacz: Podstawy bankowości. Warsaw 2002 Difin, p. 71.
165 The definition of electronic money was introduced into the Banking Act.
traditional bank branches will not be necessary, considering the fact that new branches generate higher expenses than the maintenance of the electronic channel of services distribution. Therefore banks, through the established level of fees and commissions, try to increase customers' preference to use the electronic channels of access to banking services, instead of using the traditional customer service at banks' premises.

It should be noted that since 2001, the number of domestic bank establishments has been diminishing steadily, which is related to i.a. the development of electronic banking.

The customers take a growing interest in telephone banking, which includes account services and the purchase of banking products through the phone, as well as in mobile banking, which combines telephone banking with Internet banking, with the use of access to the Internet via the WAP protocol.

At present, Internet banking is one of the fastest growing commercial applications of the Internet. The banks offering Internet services can be divided into two groups: the physically existing banks with a network of traditional branches, which additionally create solutions based on Web pages and thus provide services via the Internet, and exclusively Internet banks. For the first group of banks, the internet services are alternative channels of distribution of products and services. This type of banks dominate on the market. The other group of banks, the so called virtual banks, provide services exclusively via the Internet and do not have traditional banking establishments. They offer a remote access to the account without the possibility to visit a traditional bank branch (there is no direct contact of the customer with the bank personnel). Banks of this type are also supported by phone distribution channels and networks of ATMs securing access to cash. In Poland, Powszechny Bank Gospodarczy (PBG) in Łódź was the forerunner of e-banking. In 1998, it launched the first virtual branch for individual customers and small companies. In 1999 the PBG was incorporated into Bank Polska Kasa Opieki SA (Pekao SA), and as a result a new version of the bank account, accessible via the Internet, was created for the Bank Pekao SA customers. In 1999, Wielkopolski Bank Kredytowy SA and Bank Przemysłowo-Handlowy SA commenced operating via the Internet.

In Poland, the first fully virtual bank that relied its distribution on the Internet was mBank. It was followed by Volkswagen Bank Direct and Inteligo. At present, there are three fully virtual banks in Poland, operated by BRE Bank SA, PKO Bank Polski SA and Volkswagen Bank Polska SA (mBank, Inteligo and Volkswagen Bank Direct, respectively). The offering of virtual banks includes attractive terms and conditions of bank accounts, such as free of charge account maintenance, free payment cards, free bank transfers, and free of charge ATM services. Moreover, the interest rates on funds on current accounts is higher than in traditional banks.

Direct access to banking services is also enabled through ATMs. Via ATMs, the customer may have access to the following banking services: cash deposits and withdrawals, placing deposits, checking the account balance and the account history.

Figure 5.1.18. Number of domestic commercial bank field branches

Source: NBP data.
Apart from the dynamically growing internet banking, in 2003 an innovation appeared on the banking services market in the form of banking products distribution via a network of the so-called kiosks. Eurobank, a debuting bank on the market, developed the concept of banking kiosks, i.e. a service desk in the form of a stand located in a hypermarket or a shopping mall, open seven days a week, serviced by a small team of employees, equipped with a computer, a safe and an ATM with a deposit functionality. A network of kiosks established in a short period of time, supplemented by traditional bank branches, made up the product distribution network of the new bank. As assumed by the founders of Eurobank, which offered the consumer loan as its first and leading product, the advantages of this method of distribution included easy access for potential customers, quick assessment of the customer’s creditworthiness and quick decision-making on granting the loan, and the simplified to a minimum formalities. The characteristic feature of the banking kiosks were also the much smaller than in the case of traditional bank branches maintenance costs.

**Co-operation between banks and insurance companies (bancassurance)**

In the years 2002–2003, the sale of insurance products by banks (the so-called bancassurance) continued to develop. Banks enclosed packages of insurance services to their traditional product offering. This trend was especially strong in the cases where the bank and the insurance company belonged to the same capital group. Thus, banks assumed the role of distribution networks for insurance products\(^{166}\).

Personal bank accounts increasingly often assumed the form of a package which, apart from settlement, savings and credits functionalities, included insurance services. Such services included primarily the insurance of payment cards (credit and debit) attached to the account as well as life insurance and insurance against the aftermath of unfortunate events. Standard insurance against an unauthorized use of a lost card\(^{167}\) was offered with basic payment (debit) cards, along additional options, e.g. insurance against the theft of cash withdrawn from an ATM, the insurance of goods purchased with the use of the card, the lowest price guarantee\(^{168}\).

The banks offered a much broader choice of insurance types to the credit card holders. The number and the scope of insurance policies depended upon the type of credit card and the service package attached. Some examples of services offered to the holders of the most expensive and the most prestigious cards include the assistance package, ensuring access to legal and medical help abroad; a foreign insurance package, up to an equivalent of 1 million euro, including accident insurance, medical treatment costs insurance and third party liability insurance; a travel insurance program for both the card holder and the family members.

Banks offered insurance with the extended loans on a growing scale. In the years 2002–2003, a high growth of housing loans was accompanied by the development of products in the field of property financing risk insurance. The standard insurance products offered by banks comprise loan insurance for the period until the day of obtaining the mortgage deed; the earlier mentioned loan insurance up to the amount of the required own contribution, which allows the borrower to incur a loan in an amount equal to 100% of the property value, as well as the insurance of the borrower against the risk of loss of permanent source of income. Apart from that, banks offered their customers property and casualty insurance of the purchased property. With granted consumer loans for car purchase, banks traditionally offered transport insurance packages, as well as life insurance for the borrower. Products combining insurance services with instalment loans and cash loans appeared in the banks’ offering. The deposit insurance policy, which combined the

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\(^{166}\) See chapter 5.4.3.

\(^{167}\) The Act on electronic payment instruments of September 12, 2002, which came in force on October 12, 2003 limited the responsibility of the bank customer up to an equivalent of 150 euro, for transactions executed by unauthorized persons, provided that the customer reported the card loss.

\(^{168}\) The lowest price guarantee provides protection to products bought with the card within a defined time period from the purchase date (e.g. up to 30 days in the case of debit cards, 60 days in case of credit cards). The card holder who finds the same product offered at a lower price, receives from the insurer a guarantee of covering the price difference (however, upon meeting certain additional requirements).
features of both an insurance product and an investment product (i.e. an investment of a given minimum amount combined with life insurance policy), was another bancassurance type of product, which made it possible to generate tax-free earnings. Banks also conducted sales of insurance products not linked with bank products, e.g. housing insurance, life insurance, non-occupational third party liability insurance or travel insurance packages.

5.1.8. Outlook for the future

The development of the Polish banking sector in the coming years will be considerably determined by the chances and challenges that go together with Poland’s accession to the European Union.

The expected increase in the economic growth rate in Poland, connected with EU membership, is the most important opportunity for the Polish banking sector. Accelerating the economic growth should be brought about by the following factors:

– the increase in international trade (free flow of goods within the EU, a common trade policy),
– intensified inflow of foreign direct investment (enhanced credibility and attractiveness of Poland as investment location),
– the development of infrastructure (thanks to the EU structural funds used).

The economic revival, as well as a gradual increase in both corporate and household net income should contribute to a growth in the total demand for financial services. The growth in corporate and consumer optimism, stemming from the improved financial condition, could increase the tendency to invest. It will probably influence the growth in demand for loans, because some of the investments will be financed by the banks. Further, the banks will co-finance the projects executed within the EU structural aid programs.

There are many other factors resulting from Poland’s membership in the EU that will have an impact on the Polish banking sector. The growing competition from the entities operating in other financial system sectors will be a major challenge for the banks. One should expect a widespread trend in Poland for non-bank financial institutions, such as credit intermediaries, leasing and factoring companies or investment funds to gradually substitute the banks on both the credit and deposit markets. Further, a tendency among business entities may be expected to replace the bank loan with direct financing on the capital market, especially in case of the largest corporates, which will be in a position to take advantage of capital access facilities available on the Single Market. The development of financial services for the SME sector will provide a chance for the banks in Poland.

The opportunities and threats to the banking sector in Poland may also by analysed through the prism of banking risk, especially credit risk, interest rate risk and FX risk.

The introduction of the euro in the future will have an impact on diminishing the interest rate risk and the FX risk. As an EU member, Poland will be required to adopt the single currency. It will be possible upon meeting the so-called convergence criteria (Box 5.1.7). The policy aimed at fulfilling these criteria will consist in i.a. limiting the range of the zloty exchange rate fluctuations towards the euro and maintaining the inflation at a low level, which will favour the reduction of market interest rates. These factors will increase the predictability of the zloty exchange rate and the interest rates movements, which will in turn bring about a drop in the respective risk types. Upon the introduction of the euro, the FX risk will disappear completely in relation to the other economies of the single currency area.

169 See chapters 5.2. and 5.3.
170 Compare the information on the diminishing volatility of the zloty exchange rate to the euro in 2003, included in chapter 6.3.
A transitional growth in FX rate is possible during the period of Poland’s participation in ERM II. The experience of other European countries shows that after the introduction of a fixed band of FX fluctuations, in the case of the occurrence of unfavourable internal factors (lack of political or economical stability) there is a threat of speculation on the domestic currency. In the first years of EU membership, Poland may experience a brief increase in credit risk. This may be connected to the intensive structural changes in the economy, which will be the consequence of joining the Single Market. Positive effects of eliminating the restrictions on the flow of goods, services and capital will be felt in most sectors. However, some of the companies may encounter difficulties connected with the implementation of EU regulations and standards, as well as with the growing market competition. This may cause a deterioration of the financial condition and solvency problems of some of the corporate borrowers.

Changes in the regulative environment

Accession to the European Union involves the need to conform the Polish banking law to the European law. Within the framework of the Single Market, there is a binding single definition of a bank, i.e. a credit institution, as well as a principle of mutual recognition of licenses for conducting lending activities (the single license principle). A bank that has obtained a license in the country of its registered office may provide services in other Member States directly (cross-border services) or by opening bank branches. This is related to i.a. the issue of organizing banking supervision and the international “competition” among supervisory institutions, brought about by the so-called regulatory arbitrage. If the regulations binding in other countries were less strict than in Poland, it could lead to worsening the competitive position of Polish banks vs. foreign banks. To avoid such a situation, in view of the approaching EU membership, the Polish banking supervision has modified some of the regulations. The agreement concluded between the Government of the Republic of Poland, the National Bank of Poland and the Polish Bank Association on October 10, 2003 included changes i.a. in the accounting system, in the system of prudential standards, in the tax regulations concerning banks as well as certain arrangements regarding the interest rates on the required reserves transferred.

Box 5.1.7

CRITERIA FOR JOINING THE EURO AREA

The convergence criteria, i.e. the Maastricht criteria, include the fiscal criteria, related to the size of the public finance sector deficit and the public debt, as well as the monetary criteria, concerning the price stability, the level of long-term interest rates, as well as the exchange rate stability. The inflation criterion is met if in the reference period the inflation in a country applying for the monetary union membership does not exceed the average inflation rate in three EU countries with the most stable prices by more than 1.5 percentage points. According to the interest rate convergence criteria, the long-term interest rate cannot exceed the average interest rate in three EU countries characterized by the lowest inflation by more than 2 percentage points. A country intending to enter the monetary union is also required to participate in the Exchange Rate Mechanism II (ERM II), for at least two years. During this period, the domestic currency exchange rate should stay within a determined fluctuation band in relation to the central parity, not wider than +/- 15%. Moreover, in the period of participation in the ERM II system, no serious tensions on the money market should take place, particularly those involving the central parity devaluation (see: Raport na temat korzyści i kosztów przystąpienia Polski do strefy euro. [A Report on the Costs and Benefits of Poland’s Adoption of the Euro] Warsaw 2004, the National Bank of Poland).
by banks to the NBP. As a result of the changes introduced to the classification of irregular claims in 2004, some of the specific provisions held by the banks may be released.

One must also consider the consequences of some of the new legal acts in the European Union, which will come into effect in the coming years. These are i.a. the Regulation on the European company, the application of the International Accounting Standards and the Capital Adequacy Directive III (Box 5.1.8).

The provisions regarding the European company will facilitate the possible take-overs of Polish banks by foreign banks and the transformation of the existing subsidiaries into company branches. They may also give rise to great challenges to the banking supervision, the central bank, and the deposit protection schemes, both in the case of the home country and the host countries.

In connection with the introduction of International Accounting Standards (IAS) in the European Union, the banks listed on the stock exchange will have to undertake adjustment activities in order to be able to prepare consolidated financial statements in accordance with the IAS from the beginning of 2005. Much uncertainty among the banks is caused by the anticipated implementation in the EU of standards regarding financial instruments (Box 5.1.8). The methods of valuation of financial instruments in banks’ portfolios (according to the so-called fair value), included in the standards, may bring about greater volatility of the financial results (depending on the market fluctuations), which will in turn influence the size of the banks’ equity173.

The coming into effect of the Capital Adequacy Directive III (CAD III)174 will have a significant impact on the activity of banks in Poland. Depending on the standpoint of the banking supervision, which is independent in this respect, the situation of small and medium-sized enterprises as borrowers may improve (due to the lower risk weight assigned to such entities). On the other hand, there will be no change in the weight risk assigned to most other enterprises (since they do not have a rating) in the first period of the new regulations in force. In the long run, the banks in Poland will most probably improve risk management, especially credit risk management, which may result from the aiming to use advanced methods of risk measurement, as provided for in the directive (internal rating based approach – IRB). This should positively influence the quality of loan portfolios, as well as the size of the regulatory capital required to cover individual exposures. When CAD III comes into force, the terms and conditions of financing the Polish banks on foreign markets will become less favourable. This will be the consequence of changing the principle of assigning risk weight for each country: from the criterion of membership in the OECD to individual evaluations of each country by a rating agency. However, because shortly after the directive comes into force, Poland is expected to enter the euro area, and in consequence Poland’s ratings will improve, the impact of the deterioration in creditworthiness should not have a lasting effect on the Polish banks.

Box 5.1.8

NEW REGULATIONS IN THE EUROPEAN UNION LAW

The Regulation on the Statute for a European company (SE) (Council Regulation 2157/2001/EC of October 8, 2001) will come into force in October 2004. Under the regulation, a company operating in more than one Member State will be entitled to be registered as a European company (Societas Europaea – SE). This will enable the economic entity to operate on the territory of the entire Community on the basis of uniform principles and a single management system. The main facilitations will apply to the freedom of transferring the company registered office to any Member State (without the need to close and start operation), the freedom of opening foreign branches, as well as the freedom to carry out international mergers and acquisitions.

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173 Cf. chapter 3.2.
174 Capital Adequacy Directive III.
Growth in competition resulting from Poland’s joining the Single Market

The banks in Poland will be subject to a growing competition pressure on the part of the European banks. The capital advantage of the major European banks will allow them to easily finance the largest Polish companies (without exceeding the concentration limits). The EU membership will favour foreign investment funds and venture capital funds entering the Polish market, which will offer forms of financing alternative to the bank loan\textsuperscript{175} to the domestic companies. At the same time, the free flow of capital and services will facilitate access to the European capital market to the large, well-managed Polish companies. Corporates in the EU countries, particularly the large ones, increasingly often raise funds to conduct business by issuing shares and securities. It stems from the gradual reduction in fund raising costs. This process is mostly an effect of the Community’s activity aimed at increasing the level of competition, eliminating barriers, and increasing the capital allocation efficiency in the Single Market. The adoption of the single currency and the regulatory changes aimed at establishing a Single Financial Market are elements of this activity.

\textsuperscript{175} Cf. subchapter 5.2.2.4.
Box 5.1.9

CREATING A SINGLE FINANCIAL MARKET IN THE EUROPEAN UNION

To achieve full integration of the European financial markets, the European Union has been implementing the Financial Services Action Plan (FSAP). It was adopted by the European Commission in May 1999, and in March 2000 it was adopted by the European Council as a significant part of the so-called Lisbon Strategy, aimed to make the EU the most competitive economy in the world by 2010. FSAP encompasses 42 tasks of regulatory nature (directives, regulations, decisions, recommendations and communications from the Commission). The deadline for the implementation of the legal acts comprising the FSAP in the Member States was initially set for the end of 2005; in practice, some of the dates reach out to 2006.

Filling in the gap in the field of financing small and medium-sized enterprises will be a challenge to domestic banks, including the cooperative banks. The banks with offices in small towns, and those operating on the scale of a district or a municipality may take advantage of their competitive edge stemming from their direct contact with the entities they provide services to, from their knowledge of the local conditions. The possibility of winning new customers among the beneficiaries of EU financial aid, e.g. the large number of farmers, who will be obliged to open a bank account in order to use the direct subsidies on production, is also considered to be an opportunity for the locally operating banks. The above factors, combined with the experience in the distribution of funds from public institutions, e.g. preferential loans for farmers, are good grounds for the development of the best-managed cooperative banks.

The development of retail banking, especially of such products as mortgage loans, is also considered to be an opportunity for the domestic banks. The downfall in interest rates observed in the years 2002-2003, induced borrowers to incur long-term mortgage loans. The unsatisfied demand for flats and the outlook for a long-term macroeconomic stability within the EU can additionally contribute to the shaping of favourable conditions for a dynamic development of mortgage banking.

The development of modern distribution channels and new forms of operating will be additional features that can influence the growth in competitive pressure on the Polish banking services market. Thanks to the growing popularity of Internet and telephone banking, bank customers will be able to use financial services offered by banks located abroad.

The domestic banks will try to increase their competitiveness by raising the quality of their services, adjusting their strategies to the changing behaviour of potential customers, lowering their margins, fees and commissions, and at the same time reducing their general expense. To this effect, the restructuring and consolidation processes will be continued, which may cause a growth in concentration, as well as a further reduction in the employment level in the banking sector.

Co-financing of the projects executed under the framework of EU aid programs

The execution of projects financed from the EU structural funds (Box 5.1.10) will be connected with an increased demand for bank loans adjusted to the needs of the EU programmes’ beneficiaries, basically the territorial local government units and small and medium-sized enterprises.

The banks in Poland are preparing an offer for the customers who use the structural funds. This offer includes, i.a.:

- consulting services and providing information on the principles of qualification of projects for co-financing from the structural funds;
- financial consulting which enables to financial engineering (Box 5.1.11);
- financial services which enable co-financing of the own contribution from a loan or through bond issue;
- bridge loans, which enable the beneficiary to cover the project execution costs until they are refunded from EU funds;
- financial services related to securing contracts and settlements connected with the project execution (loan promises, bank accounts designed for the project settlements, instruments hedging against FX risk, bank guarantees, L/Cs).

1 Subsidy limits from structural funds, increased by 10% (to 85% and 50%, respectively) are admissible in the countries in the capacity of the Cohesion Fund (countries, where the average income per capita does not exceed 90% of the EU average), including Poland.

Table 5.1.33. Estimate of transfers from the EU budget to Poland (million euro, at 2004 prices)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-accession aid</td>
<td>1,074</td>
<td>911</td>
<td>563</td>
</tr>
<tr>
<td>Agriculture</td>
<td>470</td>
<td>1,669</td>
<td>2,135</td>
</tr>
<tr>
<td>Structural funds</td>
<td>921</td>
<td>1,636</td>
<td>1,742</td>
</tr>
<tr>
<td>Cohesion Fund</td>
<td>28</td>
<td>326</td>
<td>586</td>
</tr>
<tr>
<td>EU internal policy</td>
<td>316</td>
<td>451</td>
<td>552</td>
</tr>
<tr>
<td>Lump sum for improved liquidity</td>
<td>490</td>
<td>609</td>
<td>498</td>
</tr>
<tr>
<td>Total</td>
<td>3,299</td>
<td>5,602</td>
<td>6,076</td>
</tr>
</tbody>
</table>

Source: own calculations on the basis of the European Commission data.
Institutions granting loan guarantees will play an important role in the absorption of appropriations from the EU budget. These will include the European Guarantee Fund, the Municipal Investment Development Fund, the National Loan Guarantee Fund as well as the regional and local guarantee funds. Under the agreement between the government, the National Bank of Poland and the Polish Bank Association of October 30, 2003, part of the funds coming from the interest on the required reserves held by banks with the NBP in the years 2004 – 2006 will be transferred to the European Guarantee Fund (Fundusz Pórczeƒ Unijnych – FPU)\textsuperscript{178}. This fund will be deposited with the Bank Gospodarstwa Krajowego and will provide guarantees to entities incurring loans for pre-financing and co-financing of EU projects. The European Guarantee Fund aims to accumulate funds amounting to 800–900 million zloty, which will make it possible to provide guarantees of up to 3.5 bn zloty. The role of the Municipal Investment Development Fund\textsuperscript{179} will be to grant preferential loans for financing the initial stage of preparing EU projects in small and economically weaker municipalities.

The government programme also provides for the development of a target loan guarantee model\textsuperscript{180}, where the National Loan Guarantee Fund will be the central fund, cooperating with six regional funds and a hundred local ones. The central fund will support the rest of the funds with capital resources and extend re-guarantees.

\textsuperscript{178} More on the subject in chapter 3.3. In the years 2004–2006, the European Guarantee Fund shall receive some of the interest earned on the required reserves. In 2004 the Fund will be supplied with 80% of the interest, and 20% shall become the revenue of the banks. In 2005 the Fund will be supplied with 60% of the interest, and 40% shall become the revenue of the banks, and in 2006 the Fund will be supplied with 50% of the interest, and the remaining 50% shall become the revenue of the banks. After 2006 all the interest payable on the required reserves shall constitute the revenue of the banks.

\textsuperscript{179} The Act on the Municipal Investment Development Fund of December 12, 2003 (Dziennik Ustaw No. 223/ 2003, item 2218).

\textsuperscript{180} The European Guarantee Fund is to be dissolved in 2010, and its resources together with the claims and liabilities will be transferred to the National Loan Guarantee Fund.
5.2. Quasi-bank institutions and non-bank institutions providing financial services

5.2.1. Credit Unions

Basic profile of activity

Credit unions (Spółdzielcze Kasy Oszczędnościowo-Kredytowe – SKOK) are financial institutions[^181] which operate under the Act on Credit Unions[^182] and under the cooperatives law. Credit Unions may be formed in an environment of people interrelated by place of work or residence. They are non-profit institutions, and membership in a particular credit union is the prerequisite for taking advantage of its services. Credit unions accept deposits, maintain accounts, grant loans and conclude insurance agreements[^183].

Credit unions offer their members most of the services provided by banks. Customers of credit unions may open personal accounts with attached payment cards. Credit unions may also maintain accounts of civil partnerships and natural persons conducting business activity. Since May 6, 2002, the National Association of Credit Unions has held its account with the NBP, thus the customers are provided with access to the electronic clearing system via the National Clearing House (KIR).

Development of the sector

Higher interest rates on deposits and lower interest rates on loans increasingly often prompt customers to choose the services of credit unions instead of those of commercial or cooperative banks. That is why credit unions, present on the market for over 10 years now[^184], have been developing rapidly recently (Figure 5.2.1).

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of credit unions</td>
<td>198</td>
<td>220</td>
<td>228</td>
<td>146</td>
<td>144</td>
<td>120</td>
<td>109</td>
</tr>
<tr>
<td>Number of credit unions inclusive of their branches</td>
<td>237</td>
<td>290</td>
<td>420</td>
<td>560</td>
<td>680</td>
<td>923</td>
<td>1,285</td>
</tr>
<tr>
<td>Number of members (in thousands)</td>
<td>194</td>
<td>259</td>
<td>306</td>
<td>394</td>
<td>525</td>
<td>703</td>
<td>924</td>
</tr>
</tbody>
</table>

Source: National Association of Credit Unions.

The value of loans extended has been growing steadily. Their annual growth in 2002 and 2003 amounted to 33% and 34%, respectively. Loans with maturities over 12 months are predominant in the credit unions’ portfolios. Their share, in the period under discussion, amounted to about 80%. Deposits have also recorded a steady growth. In 2003, they grew by 38%, whereas in 2002 by 44%. In 2002 and 2003, deposits with maturities up to 12 months dominated in the deposits maturity structure (75% and 81%, respectively).

Credit unions, as opposed to commercial banks, can rate the years 2001 and 2002 as successful. In 2003, their net profit also grew and amounted to 13 million zloty (11 million zloty in 2002), as a result of the economic recovery. In 2003, credit unions not only improved their performance but also reduced their past due loans ratio[^185].

[^181]: According to the negotiation standpoint assumed by Poland, credit unions have been excluded from the effect of EU banking directives.
[^182]: The legal grounds for the operation of credit unions are provided by the Act on Credit Unions of December 14, 1995 (Dziennik Ustaw No. 1/1996, item 2).
[^183]: Operations carried out by credit unions are denominated in zloty.
[^184]: Credit unions were established in 1992.
[^185]: It should be noted that in the case of credit unions, this category covers the total claims, i.e. the principle plus regular interest, penalty interest and statutory interest. That is why these volumes cannot be compared to the irregular loan ratio in banks.
The fact that credit unions operate predominantly in the retail customer segment, i.e. hold primarily consumer loans in their portfolios (mostly with maturities up to 3 years) is essential to their development. Thus they do not incur the risk connected with the loss of solvency or the company bankruptcy; however, they do bear the risk of a job loss by the borrowers – private individuals.

Credit unions operate in line with the standards determined by the National Association of Credit Unions. From May 2002, credit unions may use data collected at the Credit Information Office (Biuro Informacji Kredytowej – BIK). The access to BIK, on one hand, has contributed to the decrease in the growth rate of loans extended by credit unions; on the other hand, however, it had a fundamental impact on the drop in past due loans.

Figure 5.2.1. Credit union assets

Figure 5.2.2. Credit union deposits

Figure 5.2.3. Credit union lending

186 More details on the subject can be found in chapter 4.5.
None of the credit unions has gone bankrupt since 1992 (the beginning of the credit unions’ operation). This was not so much the result of skilful management of these entities under a downturn of the business cycle, but rather of the fact that the National Association of Credit Unions prompted the credit unions which exhibited better performance to take over the entities under a threat of bankruptcy. Implementation of the quality management system, in line with the ISO 9001:2000 standard, by the largest credit unions contributed to increasing the management efficiency at individual credit unions, as well as to the safety of their operations. The Cooperative Consumer Arbitration (Spółdzielczy Arbitraz Konsumencki – SAK), operating since October 2002, settles disputes related to payment claims due to the non-performance of statutory activities by credit unions.

The reason behind the growing popularity of credit unions is that many people consider the policy of commercial banks unfriendly to the retail customer. Therefore, services of the credit unions become an alternative to those of commercial banks. Thus, a further increase may be expected in the number of the credit unions’ customers by those taken over from commercial banks, dissatisfied with their services e.g. due to excessive costs. Further, credit unions should no longer be perceived as institutions whose customers do not use banks’ services due to a low income. They are institutions chosen by retail customers as more favourable for them. Moreover, the growing number of credit union establishments and financial independence of individual credit unions fosters the increase in competition among them.

As it has already been mentioned, credit unions do not have to conform to the legal standards binding for credit institutions operating in the EU. It may grant them a competitive edge over i.a. cooperative banks, which have to meet specific requirements regarding e.g. the minimum equity level.

5.2.2. Non-bank institutions providing financial services

Services provided by non-bank financial intermediaries are an alternative or a supplement to the bank offering. A steady growth in the sales volume of financial intermediaries indicates the growing importance of these forms of business financing. The offering of leasing and factoring companies is targeted at customers with legal personality (enterprises, companies, sole proprietors). The customers of loan brokers are individuals. The presence of brokers in the place purchase is aimed to make it easier for the consumer to take a loan decision, as well as to accelerate the loan procedure and limit it to the absolute minimum.

A strong dependence on bank financing and the banks’ dominant ownership share are common to financial intermediaries. The largest companies in particular industries are controlled by banks. This facilitates the access to financing, to the customer base, and to the modern methods of creditworthiness verification.

5.2.2.1. Leasing

Leasing may cover any type of goods, e.g. means of transport, equipment, office space. This is a form of financing corporate investment, alternative to the bank loan. The possibility to make an investment and purchase goods required to conduct the operation makes leasing exceptionally attractive for new, emerging business entities, as well as for small and medium-sized enterprises (SME). For this reason leasing companies target their offering mainly at this group of customers.

The significance of leasing services in the Polish economy is still small – the value of leased goods amounts to about 1.3% of GDP. In EU countries, the ratio of leased goods to GDP is similar, and in 2003 it amounted to about 1.9% of GDP.

From 2001, thanks to the amendments to the Civil Code, the leasing agreement under the Polish law is the so-called nominate contract (Box 5.2.1). The Civil Code stipulates the components

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189 The amendment to the Civil Code, in force from December 9, 2000, introduced Title XVII Leasing Agreement. Act on Civil Code of April 23, 1964, (Dziennik Ustaw No. 60/2003, item 535).
which have to be included in such an agreement, as well as the rights and obligations of both parties to the transaction – the financing party (the lessor), and the user (the lessee). Nominating the agreement provides grounds for introducing solutions typical for this service to other regulations, e.g. tax and accounting regulations.

Box 5.2.1

**LEASING: DEFINITION AND TYPES**

A leasing agreement is defined as any agreement, under which the financing party (earlier the lessor) undertakes to purchase an asset from a specific selling party, on the terms and conditions stipulated in the agreement and then to transfer it for use by the user (the lessee). In exchange, the user undertakes to pay financial remuneration to the financing party in agreed instalments.

Due to the tax and accounting differences in the approach to the leasing agreement, we can distinguish two basic forms of leasing: operating leasing (also known as the current leasing) and the financial leasing (also known as the capital leasing).

In the case of the operating leasing, the subject of the agreement is listed among the fixed assets of the financing party throughout the duration of the agreement, thus that party may make depreciation write-offs within the framework of conducted business activity. The leasing instalments are the financing party revenue and, at the same time, the operating expense of the user. Moreover, the operating leasing agreement is concluded for a period shorter than the useful life of the object of leasing.

The duration of a financial leasing agreement is similar to the useful life of the object of leasing. The leased good is listed among the fixed assets of the user, and the user makes the depreciation write-offs. The leasing instalments are the user’s operating costs, but limited to the amount of the payable interest. At the same time, the interest is the revenue for the financing party.

There are other forms of leasing in operation in trade, such as leaseback (the user resells his fixed assets to the financing party for cash, and then further uses it on the basis of the leasing agreement), FX leasing (the user undertakes to pay all the fees connected with the leasing agreement based on FX rates).

Leasing enables the entrepreneur a flexible attitude towards investment plans. A bank loan may be used to finance the company’s current activity (operating loan or overdraft facility), whereas leasing – to financing investment. In spite of its higher costs (higher interest rates on leasing instalments than on loans), leasing is an attractive financial offering due to convenient tax solutions, i.a. the possibility to write-off the leasing instalments as expenses and make depreciation write-offs of the good in use. Additional, different accounting principles with regard to operating and financial leasing influence the level of taxes paid by companies and enable the entrepreneurs to choose the most favourable variant of the leasing agreement.

Leasing companies conclude agreements of cooperation with banks. Such an agreement stipulates the system of financing, the types of security and the distribution of risk connected with the debtor’s default on repayment towards the user or the financing party. Moreover, it regulates the method of settlement and debt collection. There are only a few companies operating on the Polish market which do not have links with banks and belong to foreign capital groups. They buy leased goods with their own resources. It is also possible to finance operational activity by issuing short-term debt securities. The domestic leasing companies are taking the first steps to prepare such issues.

**Ownership structure**

For the past several years, trends of consolidation and significant changes in the ownership structure of the companies operating on the leasing services market have been observed. In 2000, there were 150 such companies; two years later their number decreased to a mere 40.
The ownership structure of the industry is influenced by the dependency of the companies on bank financing. Companies controlled by the banks hold the dominant position on the market. Out of the 35 companies which reported their financial results to the Leasing Companies Association (Związek Przedsiębiorstw Leasingowych – ZPL)\(^{190}\) in 2003, more than a half had capital links with banks (similarly to 2002; in 2001 the percentage amounted to almost 40%).

The development of the leasing services market depends upon the access to sources of financing. Thus an increase in the market share of the companies which have capital links with banks can be observed. The number of small and independent companies is falling. The "non-bank" companies are looking for investors among foreign entities.

**Size and structure of the sector**

The end of the 90s was characterized by a steady growth in the value of leased assets. A drop in this ratio was noted for the first time in 2000. For the leasing industry, 2001 turned out to be the most difficult year, when only about 6.5 bn zloty worth of fixed assets – the lowest value ever recorded – were leased out.

In 2002, the leasing services market picked up again. The introduction of new legal solutions, especially defining the leasing agreement and more favourable tax solutions (aiming at eliminating the double VAT on leased cars), favoured the expansion of leasing companies and the growing importance of this form of financing in the economy. According to the data provided by ZPL, in 2002 the market reached the volume of 8 bn zloty, and in 2003 – almost 11 bn zloty.

Table 5.2.2 shows the growth tendencies and movement in the structure of leased assets.

**Table 5.2.2.** Volume movement and structure of leased assets, net (%)

<table>
<thead>
<tr>
<th></th>
<th>Movement</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Movable leased</td>
<td>-11.4</td>
<td>42.0</td>
</tr>
<tr>
<td>– industrial machinery and apparatus</td>
<td>-12.1</td>
<td>12.0</td>
</tr>
<tr>
<td>– computers and office equipment</td>
<td>1.3</td>
<td>3.5</td>
</tr>
<tr>
<td>– rail, air, water transport means</td>
<td>-13.6</td>
<td>80.5</td>
</tr>
<tr>
<td>– means of road transport</td>
<td>513.9</td>
<td>269.8</td>
</tr>
<tr>
<td>– Of which: passenger cars</td>
<td>-10.4</td>
<td>51.6</td>
</tr>
<tr>
<td>– Other</td>
<td>11.6</td>
<td>-46.6</td>
</tr>
<tr>
<td>2. Real property leased</td>
<td>17.6</td>
<td>-57.5</td>
</tr>
<tr>
<td>3. Total movable and real property leased</td>
<td>-6.7</td>
<td>21.7</td>
</tr>
</tbody>
</table>

Source: own calculations based on ZPL data.

\(^{190}\) The Association comprised 26 companies in 2001, 29 in 2002 and 35 in 2003, which accounted for 80-90% of the market share.
The structure of leased goods is changing. The data presented in Table 5.2.2. indicates a clear domination of leased road transport means. In terms of the growth rate, this item is also one of the main ones. The volume of leased industrial machinery and apparatus as well as of office equipment (including hardware) is loosing its importance in the leased goods structure. The situation is similar in the case of real property leasing – the market share of companies specializing in real property leasing has been decreasing every year. The standstill in this segment can be explained by the saturation of the office space market, as well as by the economic slowdown.

The shifts in the structure also result from the above mentioned tax changes191 enhancing the appeal of vehicle leasing. The fact that entrepreneurs postpone investment decisions under uncertain economic prospects is also of some impact here – they do not declare additional demand for financing construction of new industrial facilities or purchases of machinery and apparatus.

Time that lapses from the moment the entrepreneur files the application to the time the agreement is signed and the required security also have an impact on the use of various forms of financing. The time of waiting for signing the agreement depends upon the asset leased and its value. In the case of vehicles, the agreement is finalized within 1-2 days, and it is secured with the object of leasing, which – in the event of insolvency of the lessee – goes back to the lessor. In the case of other goods, such as machinery and apparatus, the time required to finalize the transaction expands from a few days to even a few weeks. The lessor must assess the creditworthiness of the assets user and establish adequate security. Real property leasing is an extreme case, where the time required to finalize the agreement expands to even a few months.

Leasing industry outlook

Bank loans are the prime source of financing the operation of leasing companies. However, leasing companies, even those which have capital links with banks, look for other (cheaper) forms of financing, which would make them independent from bank loans. Two methods are possible: either to find a non-bank investor with adequate financial resources or to issue debt securities.

Changes in the macroeconomic environment, especially in the corporate investment policy are decisive for the further development of the sector. The growth in demand for goods and services, as well as the need to enhance the production capacity stemming thereof entails the necessity to overhaul production lines. Some of these changes may be financed via leasing. It shall be reflected in the structure of the leased goods, since the interest in machinery and apparatus leasing will grow.

Creating an offering for individuals might turn out to be a new challenge for the leasing companies. This form of leasing, popular in EU countries, is little-known on the Polish market. A rich offering of instalment loans, being a leasing substitute, as well as the lack of tax allowances, being an essential factor influencing the demand for corporate leasing services were the reasons for the lack of leasing offers for individuals. When Poland enters the EU, the Polish leasing companies will have to prepare an offer focused on individual customers, or otherwise foreign companies from the EU will do that.

5.2.2.2. Factoring

Factoring is an alternative to bank loans in the scope of financing current company activities. It happens to be erroneously associated with the sale of outstanding liabilities and treated in that way by some banks.

The importance of factoring for the Polish economy is still relatively small — the value of the purchased invoices amounts to about 1.5% of GDP. In contrast, this index in the Western-European economies oscillates around 10%. The scale of use of factoring by business entities depends on the legal solutions established in this area. The German system is considered the least friendly. The greatest share of factoring in economic turnover is observed in Italy and Austria.

191 Double VAT on leased cars was abolished under the Ordinance of the Ministry of Finance of October 2002.
Box 5.2.2

**FACTORING: DEFINITION AND TYPES**

Unlike the loan and leasing agreements, the factoring agreement is not a nominate contract under the Polish law. The definition of the factoring agreement is determined in a convention concluded in Ottawa in 1988. The convention states that factoring is an agreement concluded between the supplier and the factor. According to this agreement, the supplier assigns ownership in his receivables resulting from an agreement of sale of goods (products, commodities, services) to customers (debtors). However, factoring is not simple ‘debt redemption’, and liability claims are not the object of this agreement. Under a factoring agreement, the factor must perform at least two of the following activities:

– finance the supplier,
– execute settlements related to receivables,
– conduct collection of payments and debt collection,
– assume the debtor’s insolvency risk.

The scope of services offered and the form of payment are the criteria of differentiation between non-recourse and recourse factoring. In the case of non-recourse factoring, the factor assumes the total risk connected with the insolvency of the debtor and, in the case of default on repayment, collects the claims on his own account. In the case of recourse factoring, there is no such obligation in the factoring agreement. A mixed arrangement is also an option, whereby the risk is shared by both parties. In such a case the factor’s liability limit is established.

Factoring services provide for two forms of payment – discount payment and interest payment. In the first instance, the invoice amount is reduced by a discount, i.e. the fees and commissions payable in advance to the factor as well as the interest for the entire period from the date of the invoice purchase to its payment date. In the case of the interest payment, an advance (of about 80% of the invoice amount) is paid on the basis of the invoice, and later cleared at repayment of the debt or at debt maturity. The interest is calculated for the real time of using the financing (up to the debt repayment day), on a monthly basis.

**Industry profile and performance**

Banks or companies – banks’ subordinates mainly deal with factoring. Only three companies recognised on the market, two of which are members of the Factoring Institutions Conference (Konferencja Instytucji Faktoringowych – KIF), are not bank-dependent and have capital links with large international groups. Most of the agreements concluded involve non-recourse factoring, where the factor does not assume the risk of the debtor’s insolvency. Recourse factoring is more readily undertaken by non-bank companies.

The turnover and performance of factoring companies are closely related to the condition of the entire economy. In the economic slump, the contracting parties tend to prolong the terms of payment and fall into arrears, and the number and value of signed contracts diminish. Such a situation was observed in 2001 and in the first half of 2002. The factoring customers did not use their exposure limits assigned by the factors, and the time period from the invoice purchase date and to the invoice payment date was extended. It brought about a smaller than projected by companies growth rate of the value of purchased invoices. In 2002 the value of invoices purchased exceeded 10 bn zloty, which accounted for the annual growth of 2 bn zloty. The improvement of the economic situation in 2003 brought about better results of the factoring sector as well as

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192 On the basis of information provided by the Conference of Factoring Institutions established in November 2001. It includes 8 major institutions in the sector (of which 6 are bank-owned companies).
Optimistic prospects for the following year. Invoices of the total value of more than 12.2 bn zloty were purchased, which translates into a growth of more than 18%.

**Outlook for the future**

Opening the EU market gives the factoring companies an opportunity to launch cooperation with foreign factors under the so-called international (export) factoring. Even now, the Polish factors, being members of international organizations for factoring companies, undertake partner activity with companies from the EU.193

The planned accession of Poland to the EU could have given rise to concerns about the possible forcing out of domestic service providers by more experienced entities with greater resources. However, it seems that the market has stabilised (subsidiaries of EU entities also have their market shares) and a large number of newcomers is not expected. The growing competitive pressure, which will most probably take place, will positively influence the service quality offered to Polish companies.

Unadjusted legal regulations, including the fact that the factoring agreement has not been defined in the Civil Code, and the lack of possibility to write off documented losses as operational costs are the main obstacles to the development of factoring services.

**5.2.2.3. Loan brokers**

**Sector profile**

The activity of loan brokers is a form of outsourcing and a supplement to the traditional distribution channels of banking products, mainly instalment loans to individuals. The loan sold by an intermediary is in fact extended by a bank – the customer concludes a loan agreement with a bank. The role of the broker depends upon the type of cooperation agreement entered into with the bank: may act solely as a link between the lender and the borrower, but it may also be responsible for monitoring and possible past due claims collection.

The main advantages of loan brokers are flexibility, a close relationship with the customer, and, most of all, a relatively little formalized process of granting the loan. Therefore, the customers of intermediaries include persons, whose financial situation does not allow them to obtain a bank loan, or who want to obtain a loan within a shorter time period than is required by bank procedures.

The loan brokers’ market is dominated by 5 nationwide companies, whose market share in 2003 amounted to more than 80%, which indicates a growth by more than 20 percentage points in the last 2 years. Most of the industry consists in companies which have capital links with banks. The banking sector aims at increasing control over the intermediaries and taking over their sales network. Some movement in the opposite direction can also be observed, where an intermediary takes over the bank and becomes the parent company of a capital group. As a result of this type of activity, out of the 10 largest entities in 2003, only 3 had no links with banks.194

**Sector size**195

The loan brokers’ market has been growing dynamically from the beginning of the 90s. The economic slowdown caused a downfall in the volume of loans granted. In 2002, the value of loans extended decreased by almost 2% (from almost 9.5 bn zloty to a little more than 9.3 bn

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193 Cross-border financing within the framework of factoring is practically possible only through partners from the same business organisation. There are a few organizations on the international market, which associate factors from different countries. The Polish companies belong to two of them: the largest Factors Chain and the oldest International Factors Group. The associations deal with the infrastructure development and the establishment of regulations which streamline foreign trade financing.

194 The last company from the first five was sold to a bank at the beginning of 2004.

195 On the basis of the Factoring Institutions Conference data (www.kpf.pl).
Additionally, the performance of intermediaries was adversely influenced by extending services to the less affluent people. Given the growing unemployment rate, it causes an increase in credit risk and a drop in the profitability of conducted activity. The growth in credit risk in turn impacts the increase in the percentage of irregular loans, and thus limits the lending.

The year 2003 was favourable for brokers. The value of loans extended grew by more than 1/3, up to about 12.5 bn zloty. These data do not fully reflect the growth in industry activity, due to the changes in the group of companies providing information. In spite of the fact that the data is not full comparable, it may be stated that the sector is growing rapidly and constitutes an additional distribution channel for bank loans.

The intermediaries keep extending their offering, while banks gain a source of income through closer relations with these companies (and the higher risk connected with granting the loan by an intermediary is offset by its higher price).

**Growth trends and outlook for the future**

The loan brokers tend to put variety into their offers. Apart from the traditional installment loan, they also offer housing loans, mortgage loans, credit cards and all types of insurance agreements. Developing closer cooperation with banks may lead to a situation, where opening up a bank account will be possible via third parties.

The growing competition and the economic condition forced brokers to implement loan portfolio management systems, purchase new technologies and search for additional sources of financing. A sound investor increases the chances for retaining the market share and further growth. The emergence of foreign competitors will make the pressure even stronger.

Loan brokerage is not a licensed activity, thus it is not subject to supervision. However, it is a form of outsourcing for the banks and will be subject to the new Banking Act, the amendments to which are currently in preparation. Bank outsourcing will be subject to banking supervision. On one hand, it may limit the scope of cooperation between banks and loan brokers; on the other hand, however, it will influence the tightening of their relations, e.g. by adjusting procedures to the bank requirements.

5.2.3. High risk capital sector (private equity/venture capital)

**Sector profile**

Venture capital may be briefly described as business of building business. It means providing equity for a pre-defined period of time (the average of 3–7 years) by external investors to small and medium sized enterprises which require funds for a dynamic growth but find it difficult to obtain e.g. a bank loan, since they have not been verified by the market yet and are perceived as high-risk investment.

Both parties to a venture capital investment expect measurable effects. Thanks to the acquired capital as well as strategic advisory services and know-how obtained from the investor, the company strives to strengthen its market position (e.g. measured by the sales growth after the launch of a new product). The provider of the equity, perceiving view of the company's development potential, expects a high rate of return on the investment.

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196 One of the major companies became the owner of a bank and ceased providing information to the industry association. On the other hand, a few smaller companies dropped out from the ranking (merger with another company or ceasing business activity). At the same time information on the lending volume was provided by a bank that sold loans through agents and service desks in shops.


This sector plays a significant role in the development of financial markets, as one of the methods of divestment by venture capital entities is the initial public offering of the company in which they have invested their capital. The first venture capital funds were established in Europe and in the United States in the 30s of the 20th century and aimed to i.a. support the development of the SME sector. For a long time, the American venture capital sector was best-developed in the world. In 2001, the ratio of private equity investment to GDP in the United States amounted to 0.41% and was by 0.14 percentage points higher than in Europe. Since 2002, the ratio of venture capital investment to GDP in Europe has been higher than in the United States (the arithmetic average calculated for 21 European countries in 2002 amounted to about 0.3%). The European leader is Great Britain, where private equity investment in 2002 accounted for 0.6% of GDP. Figure 5.2.5 presents a comparison between the European and American venture capital market.

**Figure 5.2.5. Private equity/venture capital investment to GDP in the United States and Europe**

![Graph showing Private equity/venture capital investment to GDP in the United States and Europe](image)


**Size of the sector**

In Poland the venture capital sector started to form at the beginning of the 90s. By year-end 2003, venture capital funds invested a total of 2.2 bn US dollars in about 600 companies. The ratio of venture capital investment to GDP in Poland stood at 0.08% in 2000, and only at 0.06% in 2002, which indicates that changes in the economic climate have an impact on the development of this sector. It was especially visible in 2000, which was a breakthrough for the venture capital sector around the world. Investments of the Polish venture capital funds (in the country and abroad) amounted to more than 800 million zloty in 2000. In 2001, on the other hand, on account of a slowdown in the economic climate in Poland and in the world, the value of investment of Polish funds (in the country and abroad) amounted to 552 million zloty. The venture capital market in Poland shows a long-term growth trend, however the value of annual domestic investment can still be compared only to the smallest EU Member States. It is worth mentioning that the predominant

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199 According to the European Venture Capital Association data, divestment via the stock exchange in 2003 amounted to 22% of the total divestment in Poland, calculated on the basis of the initial value (a drop by 10 percentage points in relation to 2002). In Europe this share in 2003 amounted to 12% (no change in relation to 2002).

200 They included Charterhouse Development Capital, established in 1934, and 3i, established in 1945, in Europe, and ARD (American Research and Development Corporation), established in 1946 in the United States.

201 On the basis of U.S. Department of Commerce, Bureau of Economic Analysis and National Venture Capital Association data.

202 These included, arranged according to the growing private equity investment to GDP ratio: Hungary, Greece, Slovakia, the Czech Republic, Portugal, Poland, Austria, Ireland, Norway, Switzerland, Germany, Denmark, Belgium, Spain, Island, Italy, Finland, the Netherlands, France, Sweden, and Great Britain.


204 K. Sobiarńska, P. Sieradzan, op.cit., p. 342.

205 „EVCA 2004 Yearbook”, op.cit.

part of funds invested in Poland comes from foreign institutional investors. The lack of domestic capital resources is a significant obstacle to the development of this market.

During the period under consideration the investment of funds with their registered offices abroad grew rapidly in Poland. It proves that the Polish venture capital market remained attractive for those investors, in spite of the slowdown in the economic climate.

The Polish companies managing the funds during that period concentrated on domestic investment activity, and did not invest abroad in 2003.\(^{207}\)

### Figure 5.2.6. Private equity/venture capital funds sources, 2003

![Diagram showing private equity/venture capital funds sources, 2003](image)

**Note:** data for Poland are based on the results of the survey conducted at the beginning of 2003 by PricewaterhouseCoopers in cooperation with EVCA. They do not include regional funds, which do not invest in Poland. The survey was conducted on 21 companies managing 52 PE/VC funds in the years 1990–2002, whose total equity amounted to 4.1 bn euro. The results do not include 11 funds, which did not respond to the questionnaire.


### Table 5.2.3. Private equity/venture capital investment in Poland (million zloty)

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>386.0</td>
<td>529.0</td>
<td>809.6</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– investments of private equity funds operating in Poland</td>
<td>337.0</td>
<td>422.0</td>
<td>585.5</td>
</tr>
<tr>
<td>– investments of foreign private equity funds</td>
<td>49.0</td>
<td>107.0</td>
<td>224.4</td>
</tr>
</tbody>
</table>

**Note:** the figures represent the value of investment commenced in the given year.

**Source:** EVCA, Polish Private Equity Association (www.psik.org.pl).

### Figure 5.2.7. Investment of private equity/venture capital funds with registered office in Poland

![Diagram showing investment of private equity/venture capital funds with registered office in Poland](image)

**Source:** Polis Private Equity Association.

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\(^{207}\) Polskie Stowarzyszenie Inwestorów Kapitałowych (PSIK), cf. www.psik.org.pl
In 2003 in Poland, investment of the greatest value was made in the sectors of telecommunications and media (46% of venture capital investment value) and in consumer goods (20%). Similar trends were observed in Europe. The characteristic feature of the venture capital sector in Poland was a relatively high percentage of investment in companies at the so-called seed stage (i.e. starting activity). In 2003 it amounted to 11.3% (2.2% in Europe)\textsuperscript{208}.

Support from venture capital funds facilitated the development of many well-known companies\textsuperscript{209}. In spite of that, the companies more often use other forms of raising funds for their development (own equity, bank loans, etc.). One of its main reasons is the still limited knowledge about venture capital. Other factors constraining the sector development primarily include\textsuperscript{210}:

- the lack of regulations regarding the appropriate legal form of this type of investment activity;
- legal limitations for pension funds investment in venture capital funds\textsuperscript{211};
- a relatively unsteady tax system and unfavourable venture capital investment tax regulations (the lack of tax incentives for the so-called business angels, i.e. wealthy private individuals, who invest in private equity funds).

In Poland, the barriers to the development of the venture capital market are similar to those in EU countries. They have been identified by the European Commission, which, within the framework of the Lisbon Strategy, in March 1998 adopted the document called “Risk Capital Action Plan” (Box 5.2.3).

Box 5.2.3

**RISK CAPITAL ACTION PLAN (1998-2003)**

One of the most important objectives of the Lisbon Strategy is the full integration of EU financial markets. The following are to serve this purpose: the Financial Services Action Plan (2000-2005), Risk Capital Action Plan (RCAP) as well as putting the recommendation of the Lamfalussy Report\textsuperscript{1} into effect. RCAP was of a special meaning to the private equity/venture capital sector. Its task was to create legal framework for the development of this sector, both at the EU level, as well as the level of individual Member States. Six categories of barriers limiting the development of the venture capital market in Europe have been distinguished:

- fragmentation of the Member States capital markets and the related low capitalization and liquidity;
- lack of appropriate legal and institutional regulations for the functioning of venture capital funds and institutional investors (investment funds and pension funds);
- unadjusted tax systems, which discourage potential investors from placing their funds with venture capital funds;
- a little number of small companies in the new technology sector, as well as unadjusted legal regulations (e.g. within the scope of intellectual property protection), which do not encourage innovative projects;

\textsuperscript{208} European Venture Capital Association (EVCA) data.

\textsuperscript{209} More on the subject in: Napęd w private equity. Gazeta Bankowa No. 38 (830) of September 20, 2004.


\textsuperscript{211} In EU countries the share of pension funds in venture capital investments is high. In 2003 it amounted to 19.4% of the total value of all investments (as much as 27.4% in Great Britain). Cf. Great Expectations. The Annual EVCA Symposium, Berlin, 2-4 June 2004. According to the Act on Organization and Functioning of Pension Funds of August 28, 1997 (Dzietnik Ustaw No.123/1997, item 776, with later amendments), open pension funds may deposit funds in closed-end investment funds, however, private equity/venture capital funds operating in Poland do not use this legal form. There is a 10-percent limit of exposure of open pension funds to the capital of a single investment fund.
Development outlook and trends

Poland has the growth potential for the private equity/venture capital sector development. The developments of the recent years have shown that the potential has been perceived mainly by foreign investors, what has found its expression in the growing annual value of their investment in Poland. The development of this sector is even more important, given the 3.5 million of small and medium-sized enterprises operating in Poland in 2003, which generated almost 50% of the GDP. Facilitating their access to finance through the support of private equity/venture capital funds could provide a strong impulse for the development of the sector. Moreover, the process of accession to the EU will bring about the inflow of new funds and increase capital needs of the developing companies. The accession-related adjustment of the legal regulations in the candidate countries to EU provides a good opportunity to create a sound private equity/venture capital sector.

A positive assessment should be made of the fact that the venture capital investment growth in Poland became one of the objectives of the Development strategy of Polish capital market Agenda Warsaw City 2010, developed by the Ministry of Finance at the end of 2003. The reduction of the corporate income tax (CIT) from 27% to 19% at the beginning of 2004 will also have an impact on the private equity/venture capital.

The European Commission has planned for 2004 to analyse the factors that may limit the development of the private equity/venture capital market in Europe, and subsequently develop further recommendations and suggestions aimed at eliminating those limitations. The plan takes into account the fact that 2010 is the deadline for the execution of the Lisbon Strategy.

Removing these limitations, which belongs to the RCAP tasks, is decisive for the development of the venture capital market and the SME sector, and at the same time provides a strong impulse for economic growth and creation of new jobs. The deadline for the RCAP execution expired at the end of 2003. The European venture capital market has been developing since 1998, when the execution of the RCAP began. The European Commission reports concerning the implementation of the Plan stress its positive results, at the same time pointing out the remaining development gap between the USA and European markets. Issues connected with tax systems diversity continued to be the weakest points of execution of the RCAP. The RCAP played an important role in increasing the entrepreneurs’ awareness of the importance of the venture capital market, as well as of the possibilities of using it to finance ventures.

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– an insufficient number of entrepreneurs and experts in the field of venture capital projects;
– cultural factors, e.g. the entrepreneur’s risk aversion, as well as insufficient emphasis on education in the field of entrepreneurship.

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Notes:
5.3. Collective investment institutions

Collective investment institutions are entities accumulating customers’ capital so that it can be managed as part of a joint investment portfolio. The term covers both the collective investment schemes and the entities managing them. This sector consist of investment funds, pension funds and capital funds linked to life insurance.

Some of the insurance companies that sell life insurance policies with a capital fund do not manage independently the funds that they collect. The funds invested on behalf of the customer are forwarded to investment funds, usually within the same capital group. Data on capital funds linked to life insurance are limited. The report will further on be focused on Pension Companies (Powszechne Towarzystwo Emerytalne – PTE) and Fund Management Companies (Towarzystwo Funduszy Inwestycyjnych – TFI)214.

Collective investment institutions are becoming an increasingly important element of the Polish financial system. Similar trends can also be observed in the Czech Republic and Hungary. These changes result in banks facing growing competition as concerns accumulation of savings and the market for external enterprise funding. The growing volume of assets of collective investment institutions allows the enterprises to make placements of shares on the stock exchange. An increase in the significance of these institutions is being reflected on the financial markets, where the banks have to take into account the impact of the collective investment institutions on the market-based valuations of financial instruments.

This increased significance of collective investment institutions has a positive impact on the economy. Collective investment institutions accumulate long- and medium-term savings, so they can constitute a source of supply of long- and medium-term capital, thus encouraging more investment in the economy.

5.3.1. Evolution of the size and structure of the collective investment institutions sector

Sector’s size and growth

The significance of the collective investment institutions increased greatly in the years 2002–2003. The assets managed by them increasesd more than doubled both in nominal terms and in relation to GDP. Due to the base effect, this growth is impossible to be maintained but the assets of the collective investment institutions will continue growing significantly. The strongest and the most sustainable factor that ensures this growth are the broadly understood old age pension savings, the volume of which will be expanding under the compulsory and voluntary old age pension capital formation system as well as in the institutions that will manage the money set aside for payments pensions215.

As a result a comparison between the evolution of the collective investment institutions in Poland and in the Czech Republic and Hungary is the conclusion that the Polish sector of those institutions has made certain progress in the catching-up process and will soon become in 2004 or 2005 the region’s leader as regards the ratio of pension and investment fund assets to GDP.

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214 PTEs – Pension Companies are institutions that manage the assets accumulated by Open Pension Funds (Otwarty Fundusz Emerytalny – OFE). TFIs – Fund Management Companies are institutions that manage the assets accumulated by investment funds. Each PTE can manage only one OFE, whereas a TFI can manage several investment funds. Both PTEs and TFIs are institutionally separated from the funds they manage. Each one has a separate legal personality as well as separate balance sheets and profit and loss accounts.

215 In Poland pension funds make investments at the stage of capital formation. No decision has been made yet as to the institutions from which it will be possible to get old age pension in return for the accumulated savings. These funds will not be paid out on a one-off basis, thus they are not likely to disappear from the market once payments are made by the Open Pension Funds.
The ratios of the collective investment institutions assets to GDP in the aforementioned countries were similar at year-end 2003. However, the paths leading to that state were different. Assets of investment funds in the Czech Republic were on the downward slope, which was caused by the prior artificial over-estimation of the assets by means of voucher privatization. The investment funds market in Hungary evolved systematically. In Poland the ratio of assets of investment funds to GDP increased more than seven times in the last four years.
Many changes have taken place in the TFI sector since the boom that commenced after tax on earnings from money capital was introduced in 2002. The main factor fostering the growth in the sector was falling interest rates, which facilitated high profits of bond funds thus making them appealing to new customers. Lower interest rates also encouraged bank customers to seek alternative ways of investing their capital.

The size of pension funds assets largely depends on the old age pension policy of given country’s. Participation in pension funds is not obligatory in the Czech Republic, but there are tax incentives for those who voluntarily save money for their old age pension. Both factors led to the growth of the sector of voluntary old age pension savings. The sector of voluntary old age pension savings in Hungary evolved much slower than that in the Czech Republic. Compulsory old age pension funds for people entering the labour market were introduced in 1998, and there was a possibility to switch over to the capital system for those who had already been working\textsuperscript{216}. It significantly accelerated the growth in Hungarian pension funds and in 1999 their assets in relation to GDP exceeded those of the Czech funds.

The pension system reform in Poland was launched in 1999 and participation in the capital old age pension system was obligatory for everyone under the age of 30. That is why the assets of Polish pension funds are growing faster than those of the Czech and Hungarian\textsuperscript{217}.

The assets of investment funds are also growing fast in Poland. However, their value per capita and in relation to GDP is still not very high, especially in comparison to other EU countries.

Extremely high assets of investment funds registered in Luxembourg and Ireland in relation to the population and GDP of these countries result from exceptionally liberal regulations. They are so liberal that institutions from other countries establish their investment funds there. In France, on

\begin{table}[h]
\begin{center}
\begin{tabular}{|l|c|c|c|}
\hline
Country & Assets (million euro) & Per capita (euro) & Assets/GDP (%) \\
\hline
Luxembourg & 953,302 & 2,147,077 & 4,623.73 \\
Ireland & 361,760 & 92,830 & 274.32 \\
France & 1,008,000 & 16,946 & 64.68 \\
Austria & 92,115 & 11,318 & 41.08 \\
Switzerland & 79,637 & 10,923 & 31.81 \\
Germany & 822,099 & 9,970 & 38.56 \\
Denmark & 48,934 & 9,106 & 26.05 \\
Belgium & 83,503 & 8,132 & 31.23 \\
Sweden & 70,713 & 7,923 & 29.55 \\
UK & 418,861 & 7,098 & 26.36 \\
Italy & 393,429 & 6,845 & 30.22 \\
Netherlands\textsuperscript{1} & 93,200 & 5,787 & 20.54 \\
Spain & 204,989 & 5,056 & 27.59 \\
Finland & 23,727 & 4,562 & 16.54 \\
Norway & 17,414 & 3,837 & 9.90 \\
Greece & 31,813 & 2,985 & 23.16 \\
Portugal & 27,763 & 2,675 & 21.28 \\
Hungary & 3,467 & 341 & 4.68 \\
Czech Republic & 3,338 & 327 & 4.41 \\
Poland & 7,068 & 183 & 4.09 \\
\hline
\end{tabular}
\end{center}
\caption{Assets of investment funds in selected European countries, 2003}
\end{table}

\textsuperscript{1} Data for 2002
Source: STFI, Eurostat, OECD.

\textsuperscript{216} Similarly to Poland, only a portion of the contributions is transferred over to the capital of the compulsory pension insurance in Hungary (7% of remuneration, 7.3% in Poland). A majority of the old age pension contributions in Hungary remain in the PAYG system.

\textsuperscript{217} This growth would have been higher had there been no delays in transferring contributions to the Open Pension Funds by the Social Insurance Board.
the other hand, the factor fostering the funds growth were favourable tax regulations introduced in 1978. A globally unique phenomenon observed in France is the relatively high market share of the money market funds.

Collective investment institutions and the financial market

There is increasing the importance of the collective investment institutions on the Polish capital market. It stems both from macroeconomic developments (increased GDP, falling interest rates, low inflation) and from system-related activities (reform of the old age pension system, tax levied on interest earned on bank deposits).

The result of the increase in the assets of the collective investment institutions is the significant, in terms of the Polish market, supply of medium- and long-term capital. This significant source of funds inflowing to the Polish capital market facilitates placing of new issues. However, the main borrower on the market is the central budget. Another liquid segment of the financial market, along the Treasury securities market, is the stock market. Investment and pension funds also use the bank deposits market, but treat it as a liquidity instrument rather than as a target investment.

The largest funds have already come across the liquidity barrier on the stock market. This problem has not yet appeared on the Treasury securities market but it may come to the surface within the next several years.

Table 5.3.3. Collective investment institutions on the Polish financial market

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFEs’ Treasury bills and bonds market share (%)</td>
<td>7.92</td>
<td>10.56</td>
<td>11.72</td>
</tr>
<tr>
<td>OFEs’ share in free float¹ at the Warsaw Stock Exchange (%)</td>
<td>15.14</td>
<td>21.71</td>
<td>23.22</td>
</tr>
<tr>
<td>Investment funds’ Treasury bills and bonds market share (%)</td>
<td>4.05</td>
<td>7.83</td>
<td>7.84</td>
</tr>
<tr>
<td>Investment funds’ share in free float at the Warsaw Stock Exchange (%)</td>
<td>3.72</td>
<td>4.10</td>
<td>7.87</td>
</tr>
</tbody>
</table>

¹ Free float is the total of shares in free trade. Shares in free trade do not include: shareholdings over 10%, held by a single shareholder or related shareholders (capital groups, family), Treasury shares, company’s equity to be amortized. Shares in free trade include: shares held by investment and pension funds and financial institutions managing portfolios as well as shares under depositary receipt programmes.

Box 5.3.1

LIQUIDITY AND LONG-TERM INVESTMENTS

The investment period of pension funds allows them for purchases of non-liquid securities. Neither does their investment policy hinder them from buying such instruments. They try to avoid speculation and prefer to follow the ’buy and hold’ strategy.

The possibility to withdraw from investment at any time reduces the risk thereof. The main disadvantage of investment in non-liquid instruments is the difficulty to withdraw therefrom. One of the advantages of investment in liquid instruments is the ability to determine the loss.

In France at year-end 2002, 35.4% of the assets of open funds were located in money market funds, and in the record year 1993 – nearly 50%. The main reason for such a great success of these funds was a series of events that took place at the turn of the 1980s. In 1989 the establishment of capital funds was permitted, and in the early 1990s pre-tax earnings from investment in shares and investment funds were exempted from the capital earnings tax, provided that they did not exceed 60 thousand US dollars a year. Before that, the funds had to pay out their earnings each year, on which the investors had to pay tax. The capital funds were able to reinvest the earnings, meaning that tax was not paid until the investor withdrew from the investment. Market conditions in that period favoured investments in money market instruments and the aforementioned tax incentives gave the money market funds a competitive edge over the banks. Despite the fact that in subsequent years the market and tax conditions were not so favourable for the money market funds, the public acquired the awareness of that substitute for bank deposits and got used to it.
Open pension funds do not make large investments in non-government debt securities. However, pension funds can become significant investors on the non-government debt securities market, as the Chilean experience indicates. Chile was the first country to introduce compulsory pension funds. Chile’s pension funds have a significant share of the mortgage bonds market (56.4% in 2000, which comprised 14.4% of their investment portfolio)\textsuperscript{219}. The share of the pension funds in the corporate debt securities market was also significant. It remained at well over 50% for many years, but dropped drastically in 2000 as a result of the growth in the corporate debt securities market by over 40%, and totalled 39.8% at year-end 2000. The share of these investments in the funds’ portfolios came up to 4.0% in 2000.

In order to attract OFEs, non-government debt securities must meet more requirements:

- The issued securities must meet the regulatory requirements concerning OFEs’ investment limits (cf. Box 5.3.2. The most important investment limits for Open Pension Funds).

- The issue must be appropriately large. The managing entities cannot afford to spend time analysing issues in which they can invest scarce – in relation to the size of the portfolio — amounts of capital.

- The credit risk cannot be too high. This is the most important element evaluated by the investors when purchasing debt securities. Its significance still increases in the case of investment in non-liquid instruments. The funds are interested in the objective of the issue, the transparency of the company and its credibility. These requirements determine that publicly traded companies, especially those whose shares already make up the funds’ portfolios, have the greatest chance for taking-up of their debt securities issues by OFEs. Issues made by such companies are eagerly taken-up by OFEs.

- If the instrument is not liquid enough, it must offer an additional premium for the lack of liquidity. Such a premium may take on two basic forms: increased security of the investment or a higher rate of return.

- There must be a possibility to perform a daily, credible valuation – it is one of the OFEs duties. Before acquiring a financial instrument, they must consider whether they will be

able to provide a credible valuation thereof on a daily basis. The valuation method must also be approved by KNUiFE.

There are also factors specific to the OFE market that have an impact on their investment decisions:

• The appeal of issues grows thanks to the involvement of the largest OFEs. Regulations make the funds reluctant to create portfolios that deviate in their nature from the market benchmark, where the largest funds have the dominant share. It has a particularly significant impact on decisions to purchase non-liquid instruments.

• The funds prefer to invest in instruments with long-term maturity dates. A fund must document each investment decision taken. The managing entity must prove to the supervisor that a decision was based on an analysis and not driven by intuition. Such an obligation discourages them from investing in short-term, rolled over non-government debt securities, since a roll-over transaction is treated as a new investment decision and the managing entity must perform new analyses prior to purchasing a new series of debt securities. The funds have a monthly inflow of about 1 bn zloty and the managing entity must find instruments worth investing in. Therefore they try to limit the additional pool of assets (freed thanks to the expiry of the maturity date) which must be re-invested.

• A significant factor is the possibility of increasing exposure to a given issue (on the primary and the secondary market). The assets of Open Pension Funds are constantly increasing as a result of the inflow of new funds. The OFEs manage their portfolios by maintaining a share of each issue in the portfolio. In order to maintain the assumed level of exposure to a given issue, the funds must make additional purchases. A frequently applied strategy is the initially small exposure to a given investment and, if the managing entity deems it successful, to increase the exposure.

A comparison between the describing expectations of the OFEs and the structure of issues of non-government securities (cf. Chapter 6) shows why OFEs are not important investors of on those markets. The reasons are as follow:

– majority of issues are not secured;
– majority of issues are executed by non-publicly traded companies on the non-public market;
– the value of majority of issues is small in relation to the needs of the OFEs;
– issues of short-term debt securities with maturity dates up to 90 days prevail;
– the issuers prefer not to disclose the objective of the issue.

From the point of view of OFEs, dissemination of ratings would only slightly increase the attractiveness of non-government debt securities. The funds are required to prepare their own analyses anyway and the benefits from the wide availability of ratings should be sought in their educational function in relation to the issuer.

OFEs’ investments in debt securities issued by the largest listed companies, if any, can be hindered by the large exposure limits. OFEs may invest a maximum of 5% of their assets in the securities of a single issuer. As regards such companies, OFEs prefer to use this limit for investing in their shares, since these are the largest issues and the most liquid shares available on the WSE.

Apart from acting as investors, pension and investment funds, being shareholders in publicly traded companies, play a positive role by ensuring the introduction and observance of the corporate governance. They promote the payment of dividends by the companies and try to make sure that a majority industry investor, if the company has one, does not transfer the earnings outside of the company in the form of expenditure borne on behalf of the company belonging to the main shareholder.
The increasing involvement of the collective investment institutions on the capital market may lead to certain difficulties related to its growth. An increasing impact of decisions of single institutions on the valuation of securities may pose a risk to the effectiveness of the capital market, since it may lead to ineffective valuation. One of the consequences of ineffective valuation may be the occurrence of a price bubble resulting from permanent inflow of capital onto the market (regardless of the attractiveness of investment)\(^{220}\).

**Concentration and competition**

The Polish investment fund and pension fund sectors are characterized by concentration which is higher than in the banking sector and definitely smaller than in the insurance sector\(^{221}\).

The TFI sector is characterized by smaller concentration than the PTE sector. The concentration of the TFI sector was increasing in 2002 and 2003. The reason for this is the fact that the largest entities were better prepared to take advantage of the opportunity brought about by an inflow of new funds into the sector.

Small changes were observed in the PTE sector in 2002 and 2003. Despite one merger that occurred during that period, the market concentration index decreased. The reason of the drop in market concentration was the diminishing market share of the largest entity on the market.

However, the current level of concentration in the PTE sector should be expected to remain sustained. Entities operating in this sector refrained from any consolidation efforts awaiting for the Act on Organization and Operation of Pension Funds to be amended\(^{222}\). It has introduced solutions that will significantly impact the earnings and expenditures of PTEs. Uncertainty about the final version of the act made it impossible to perform credible valuations of shares in particular pension companies, which is a prerequisite for introducing changes in the ownership structure. The new Act will cause a drop in the earnings of the majority of pension companies, which will translate into an increase in the minimum size of an OFE for its management to be profitable. Therefore, the new Act will most likely provide an impact for further market consolidation.

The competition in the TFI sector, stronger than in the sector of pension companies, is fostered by the significantly smaller barrier preventing market entry. Additionally, the sector of pension companies is regulated to a greater degree and thus more prone to the risk of changes in the regulations, which diminishes the tendency to competitive efforts.

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**Table 5.3.4. PTE and TFI concentration indices**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTE</td>
<td>17</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>TFI</td>
<td>17</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td><strong>CR(^{31}) (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTE</td>
<td>64.94</td>
<td>64.96</td>
<td>64.75</td>
</tr>
<tr>
<td>TFI</td>
<td>53.20</td>
<td>58.08</td>
<td>57.98</td>
</tr>
<tr>
<td><strong>HHI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTE</td>
<td>0.1654</td>
<td>0.1650</td>
<td>0.1646</td>
</tr>
<tr>
<td>TFI</td>
<td>0.1294</td>
<td>0.1419</td>
<td>0.1494</td>
</tr>
</tbody>
</table>

1 Market share of three largest entities measured by net assets.
2 Herfindahl-Hirschman index – calculates as the sum of squares of market share. The higher the index value, the higher the market concentration. The maximum value of 1 signifies a fully monopolized market. The markets of the HHI below 0.1 are considered to be potentially competitive. Where the index exceeds 0.2, the market is considered to be potentially uncompetitive.

Source: own calculations based on KNUFE and STFI data.

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\(^{221}\) Cf. Table 5.4.4.
\(^{222}\) The Act of August 27, 2003 amending the Act on Organization and Operation of Pension Funds and certain other acts (Ziennik Ustaw No. 170/2003, item 1631).
Market structure

What is of great importance to the future course of evolution of the collective investment services sector is the fact that capital groups having a large life insurance company within their structures are becoming ever more important shareholders. These groups have been dominating in the PTE sector since 1999 and constitute an increasingly important part of the TFI sector. As it turns out, the key to success is the ability to reach the customer, which is guaranteed by a large group of professionally trained agents who are able to offer a wide range of insurance, pension and investment products to their customers. A rich offer allows the agents to charge lower commission for a single contract, thus a capital group can achieve a significant synergy effect. This effect is amplified by savings obtained on promoting brands. For instance, high outlays on marketing campaigns when launching the reform of the pension system will make it possible to promote brands of several companies, to the advantage of the insurance companies and the TFIs operating under the same brand name as the pension funds.

In the second half of 2003 a slump on the debt securities market and a strong upward trend on the shares market that continued until the end of August were significant factors that had effect on the entity structure of the TFI sector. This change in trends resulted in a dynamic growth of the companies with attractive offerings of investment funds that invest part of their portfolios in shares. The companies that had no such offering or were in the process of developing one observed a drop in their assets in the second half of 2003, despite the fact that the market as a whole was growing dynamically.

2003 was a break-through year as regards the method of distributing units of participation in investment funds. The funds decided not only to pay the intermediaries commission on the funds obtained but also to share the management fee with them. Thus cooperation with TFIs became profitable for the banks and brokerage houses not linked by equity to a particular pension company. Some of the banks offer units of participation in funds belonging to several pension companies. It even happens that banks linked by equity with an TFI offer units of participation in competitive funds.

5.3.2. Asset structure

Investment funds

The managers of investment funds have limited capabilities when making investment decisions. This results from the articles of association of specific funds, which define their investment strategies. That is why the exposure of the investment funds sector to particular types of instruments depends on the decisions of the investment funds’ members concerning the choice of fund they want to invest in.

In 2002 and 2003 the asset structure of the investment funds underwent significant changes. These changes were closely related to the price trends on the bonds and shares markets. The change in the structure was caused not only by alterations in the valuation of the assets held but, above all, by the increased interest of the investment funds’ members in investment with funds which exhibited the best investment performance at that moment.

| Table 5.3.5. Assets of particular types of investment funds, net (bn zloty) |
|-----------------|-----|-----|-----|
| Fund type       | 2001| 2002| 2003|
| Domestic money market | 2.38| 4.16| 5.72|
| Domestic debt securities | 6.74| 15.45| 13.51|
| Foreign debt securities | 0.02| 0.37| 3.05|
| Steady-growth – Polish market | 0.28| 0.51| 5.04|
| Mixed – Polish market | 1.05| 1.01| 2.87|
| Domestic shares | 0.99| 1.00| 2.30|
| Foreign shares | 0.13| 0.08| 0.14|
| Other | 0.53| 0.45| 0.61|
| **Total** | **12.13**| **22.77**| **33.23**|

Source: STFI data.
In 2001–2002, due to a rise in the prices of bonds, domestic debt securities funds were the most popular. The end of the upward trend in the bond prices which occurred at the end of the second quarter in 2003 resulted in a smaller interest in saving through bond funds. In July, when the bond prices started to drop, the balance of inflows into bond funds was already negative. Starting from August 2003, the bond funds were shrinking by over 500 million zloty a month. This is the only type of funds whose assets were lower at year-end 2003 than a year earlier.

The investment funds’ members deposited their funds (both new ones and those withdrawn from debt securities funds) not with the safe money market funds but rather with the more aggressive funds: from steady-growth funds and foreign debt securities funds, through mixed funds, to the most risky domestic and foreign shares funds. This phenomenon resulted from the improved business climate on the stock exchange and low interest rates. The growing popularity of funds investing abroad stems from the drop in the zloty rate.

The funds that benefited the most are the steady-growth funds, whose investment portfolio structure is similar to that of the OFEs and which are promoted by pension companies as a form of accumulating extra savings for the old age pension (the so-called third pillar). Through monitoring the quotations of the units of participation in OFEs, the participants have already become used to the fluctuations in the rates of return of funds that have a similar asset structure, and observed that the units are gaining value in the long run. In such circumstances agents have an easier task of presenting the scale of investment risk to customers, stating that steady-growth funds invest in a less risky manner than OFEs (a slightly lower average proportion of shares in the portfolio).

In percentage terms, the assets of funds investing in foreign debt securities grew at almost the same level as those of the steady-growth funds, since their profits were boosted by the depreciation of the zloty.

On the Warsaw Stock Exchange a particularly large inflow of assets through investment funds was observed in August 2003. WIG 20 – the index of the 20 biggest Polish companies – recorded its maximum annual growth value most likely thanks to these funds.

The share of particular types of investment funds in the Polish market has been increasingly resembling the European market. The largest difference consists in the greater popularity of debt securities funds and hybrid funds (mixed and steady-growth funds) and a smaller popularity of share funds in Poland.
The structure of investment funds in the Czech Republic and Hungary in terms of fund types significantly differs from Europe's average. The Hungarian structure resembles the Polish one from the early 2002, whereas the Czech structure isn’t typical. The share of the money market funds is greater in the Czech Republic than in France, which is considered to be the model example of popularity of this type of funds. In Spain, a country similar size to Poland, the market share of each type of investment fund is similar to Europe's average. The only significant difference is a smaller share of the funds in the "other" category.

**Open pension funds**

Investment decisions of the management at OFEs were to a large degree determined by the effective investment limits and the minimum required rate of return principle, which forced the PTEs to closely watch the strategies pursued by competitors and to construct portfolios in such a way that their parameters would be similar to the portfolios of the largest funds. On this account an analysis of the aggregated investment portfolio of all OFEs serves well to present the most important trends observed on the market.
Pension funds invested their assets mainly in the Polish Treasury securities (61-71%) and shares listed on the Warsaw Stock Exchange (24-35%). There were two periods between 2001 and 2003 in which the exposure of shares decreased and increased. Due to the volatility of prices on the shares market being much greater than on the debt securities market, the value of exposure of shares is usually used as an indicator of the level of exposure to debt securities.

The value of foreign investments, which first appeared in OFEs' portfolios at the end of 2001, increased slowly but gradually and amounted to 1.44% of assets at year-end 2002. In early 2003 the largest fund started to withdraw from this type of investment, which initiated the reversal of the trend, and at the end of March 2003 foreign investment amounted only 0.7% of the funds' assets. However, at the end of 2003 foreign investment already amounted to 1.51% of OFEs' assets and will most likely continue their steady growth.

The main reason for the fact that the foreign investments limit was to a large degree not used by OFEs were fixed costs related to making of such investments. That is why the largest funds were first to invest abroad, followed by smaller ones some time later. Other elements, such as the exchange rate risk related to foreign investments and forecasts for the economic growth in Poland – better than in the majority of countries that constituted the potential site of OFEs' foreign investment – were also of great significance. OFEs could not hedge against the exchange rate risk on the term market, since – although the act provided for this – no appropriate ordinance had been issued. Had OFEs tended to invest abroad, the possibility for them to purchase indexed units would increase, which would significantly reduce the costs of foreign investments and allow for a better diversification of the foreign portfolio.

Box 5.3.2

**THE MOST IMPORTANT INVESTMENT LIMITS FOR OPEN PENSION FUNDS**

OFEs can invest assets without any limits solely in securities issued by the Polish Treasury or the National Bank of Poland and loans and advances granted to those entities, as well as in securities, loans or advances guaranteed by those entities.

In 2002 and 2003 OFEs could also invest in the following instruments:
- up to 20% of the assets in bank deposits and bank securities,
- up to 40% of the assets in shares listed on a regulated stock exchange market,
- up to 10% of the assets in National Investment Funds,
- up to 10% of the assets in shares of companies not listed on a regulated stock exchange market but traded publicly,
- up to 15% of the assets in publicly traded municipal bonds (5% in non-publicly traded bonds),
- up to 10% of the assets in secured and publicly traded commercial bonds (5% in non-publicly traded bonds),
- up to 5% of the assets in unsecured bonds and other debt securities issued by public companies,
- up to 30% of the assets in publicly traded mortgage bonds,
- up to 5% of the assets in foreign investments,
- up to 15% of the assets in open or specialized open investment funds,
- up to 5% of the assets in closed-end investment funds,
- up to 5% of the assets in mixed investment funds.

1 In October 2003 regulations expanding the OFEs' investment possibilities came into effect. See Chapter 3.4.
5.3.3. Investment performance

The only type of funds that recorded losses in 2002 and 2003 were the foreign stock funds. Both the remaining investment funds and pension funds made not only a nominal profit but also in real terms (adjusted by inflation).

The results illustrate the change in market trends which occurred in 2003. Investments in debt securities, which were profitable in 2001 and 2002, proved to be a failure in 2003.\(^223\) The situation on the shares market was different. The economic climate on the stock exchange improved significantly in 2003. The structure of the investment portfolio of steady-growth funds and pension funds proved to be appropriate for those volatile conditions – they had good investment results despite relatively low volatility of the annual interest rates.

A comparison of Table 5.3.6 and Figure 5.3.3 shows an interrelation between changes in the share of particular types of investment funds in the assets of all funds and the changes in the rates of return. It shows that high rates of return of a given type of fund quickly attract new customers. The mobility of investment fund customers is high, which leads to the strengthening of the power of trends on capital markets. At the initial stage of a trend development, the relations between the rates of return on different assets change, which has an impact on the rates of return on investments in different types of investment funds. Further on it is reflected in individual decisions made by the Investment Funds’ Members on switching over to a different fund. These decisions cause the investment funds to get rid of instruments that yielded unsatisfactory rates of return, and increase the demand for instruments whose prices went up. Thus, the market tendencies are being strengthened.

**OFEs' investment results and the risk level**

Open pension funds are institutions, whose investment performance is closely watched and frequently reviewed. Below is an analysis of the rates of return achieved by OFEs in relation to their investment risk.

As the analysis shows (cf. Fig. 5.3.6.), risk-bearing investments did not yield the expected profit in 2000 and 2001. Because all the funds made similar investments, they all had worse rates of return than the rate of return on investment in 13-week Treasury bills.

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\(^{223}\) The analysis concerns annual rates of return. It should be pointed out that 2003 varied significantly as regards the rate of return on investment in bond funds. The first half-year was very favourable for those investments; the prices of debt securities did not start to drop until July 2003.
However, taking greater risk in 2002 and 2003 made the funds achieve better rates of return (cf. Fig. 5.3.7.). All the funds achieved higher rates of return that the adopted risk-free rate of return. The funds that accepted greater risk usually yielded higher profits.

It must also be mentioned that in 2002 and 2003 the investment performance of the OFEs was better than in 2000 and 2001 and was achieved at a significantly lower inflation. Moreover, it entailed a much lower risk.

An analysis of the Sharpe index illustrates the effective management of OFEs’ assets.\(^{224}\)

\(^{224}\) The Sharpe index measures the efficiency of investment portfolio management by calculating the ratio of the difference between the achieved rate of return and the risk-free rate of return to the standard deviation of the rate of return on the portfolio (for more information see: H.B. Mayo: Wstęp do inwestowania. Warsaw 1997, pp. 807-872). The rate of return on 13-week Treasury bills was adopted as the risk-free rate of return.
Based on Figure 5.3.8 it can be concluded that, in the case of all funds, the positive value of the index achieved in 2002 and 2003 exceeded its negative value from the previous period. The period in question is too short to draw final conclusions. However, due to the fact that this period covered both a boom and a slump on the market, it can be said that the differences between the investment performance of particular OFEs result not only from the different levels of borne risk, but also from different levels of efficiency in managing the funds. Efficiently managed funds achieved better results not only due to the greater or smaller risk they took but also because they constructed investment portfolios where the profit to risk level ratio was more favourable.

5.3.4. Product novelties

2003 was a dynamic growth period of hybrid investment funds (steady-growth and mixed funds) as well as foreign bond funds. It seems that further dynamic growth of hybrid funds is possible because the participants have started to recognize the advantages of diversified investment portfolios.

Experience shows that the types of funds that yielded the highest profits in recent times should be expected to become the most popular. The delay in reaction (in relation to the moment when the market tendencies alter) has so far been 2–3 months.

TFIs are preparing to extend their offering with funds that invest on the property market. It may prove to be an important product if the economic climate on the stock exchange market is maintained and the rates of return on bond funds remain low.

5.3.5. Prospects

One should anticipate that the persons saving money for their old age pensions will be the main customers of companies providing collective asset management services.

This fast growth in investment fund assets had specific reasons, the potential stoppage of which will decelerate the growth of this market segment if no new, beneficial factors appear. It seems that the factor decisive to further growth is the achievement of significant profits by any type of funds. It is the vision of above-average\textsuperscript{225} profits that attracts people to save with investment funds. The chance that the investment funds spot in individual pension accounts (IPAs) may prove to be a hazard, should the battle for these savings be lost. Global experience shows that tax incentives on voluntary old age savings only slightly increase the aggregated volume of domestic savings, and mainly cause relocation thereof\textsuperscript{226}. Thus, if the investment funds lose the battle for

\textsuperscript{225} The investment funds in Poland compete mainly with the banks, thus above-average profits should be understood as profits higher than those earned on bank deposits.

the funds that will be collected in IPAs, the introduction of a tax incentive related to the IPA may have a negative impact on the volume of their assets.

Poland’s accession to the European Union and the related possibility to sell units of participation in foreign investment funds in Poland will surely increase public interest in this form of saving\(^{227}\). It will be encouraged by a better offer that will facilitate investment abroad\(^{228}\). The first step towards gaining customers by foreign funds will surely be the possibility offered by Polish funds to invest in units of participation in foreign funds within the same capital group. Additionally, banks with extensive retail networks may get involved in the distribution of foreign investment funds on terms similar to those applied in the case of distribution of the Polish funds.

Despite a significant growth, the investment fund assets to GDP ratio in Poland is still below the level observed not only in developed European economies, but also in the Czech Republic and Hungary.

**Figure 5.3.9. Investment fund assets to GDP vs. GDP per capita, 2003**

![Graph showing investment fund assets to GDP vs. GDP per capita](image)

Note: Four countries from Table 5.3.2 have not been included in the Figure, since the reviewed ratio for those countries is highly deformed by factors specific to the given country. Those countries include: Luxembourg, Ireland, France and Norway.

Source: STFI, Eurostat, OECD data.

Figure 5.3.9 shows that the ratio of investment fund assets to GDP increases in line with the growth in GDP per capita. Initially the growth of investment fund assets exceeds the growth of GDP, which has two basic reasons. Firstly, the rate of return on long-term investments made on the capital market exceeds the rate of return on GDP, meaning that money already accumulated by the funds grows faster than GDP. Secondly, the household savings rate increases along with the growth in wealth, meaning that the growth in the inflow of new financial resources into the funds is higher than the growth in GDP in the long run.

Where GDP amounts to approx. 20 thousand euro per capita, the growth of the investment fund assets to GDP ratio is decelerated. The reason for this situation should be sought in the fact that the richer a society is, the more inclined it is to use more advanced methods of investing.

As regards societies with low GDP per capita, the households usually save money in banks. The capital market develops in line with the growth in wealth, and so do savings of citizens and their knowledge of investing. Households start investing through collective investment institutions: investment funds, pension funds or life insurance companies offering policies with a capital fund.

\(^{227}\) Investment funds registered in EU countries may sell their units of participation in the entire European Union, provided that they operate in accordance with domestic regulations that comply with UCITS (Undertakings for Collective Investments in Transferable Securities). UCITS is a commonly used abbreviation for EU directives defining detailed operating rules of investment funds which have the so-called single passport. Foreign funds may distribute their products in Poland upon notifying the Polish Securities and Exchange Commission of the fact, whereas the Commission may only verify formal issues. It may not submit substantive reservations to the articles of association of these funds or their issue prospectuses.

\(^{228}\) As long as the interest rates in Poland are higher than on developed markets and foreign investments are burdened with the exchange rate risk, the growth in interest in foreign investment funds may be dynamic (low base effect) but they will not gain a significant share of the domestic market.
In wealthier countries there is an increasing number of people who have sufficient knowledge about the market in order to invest their savings themselves, or possess such large savings that they can use individual investment portfolio management services offered by investment banks or asset management companies. In line with the growth in wealth, foreign investment is also becoming widely available\textsuperscript{229}, e.g. via funds registered in Luxemburg or Ireland.

Of course, each country has different legal, historic and cultural conditions which cause the growth of investment funds to vary despite a similar GDP per capita. For instance, there is a tradition in the UK that people invest on their own account.

Poland will probably undergo a similar evolution. That is why the prospects of growth of the investment funds sector seem to be favourable. The elements that increase the uncertainty of this growth path include creation of a homogenous European market and the possibility that an offer of funds registered in other EU countries enters the Polish market. Inflows to investment and pension funds are greater in countries where the state guarantees payment of relatively smaller pensions\textsuperscript{230}. An important factor is also the size of the pension funds sector. Where this sector has not expanded, the investment funds often assume the function of institutions in which pension savings are accumulated. There is also an important manner in which the pension funds invest the accumulated assets\textsuperscript{231}.

Tax regulations are an important factor affecting investments. Under Polish tax law, different regulations are applicable in the case of investment in Polish investment funds and investment in foreign funds. Earnings from investments in Polish funds are subject to tax regulations on capital earnings, whereas the earnings from investments in foreign funds are subject to PIT and CIT. The interest in the offering of foreign funds from those who make their tax settlements under the PIT regulations can be expected to be low, since everyone paying PIT at a rate above 19% will pay tax on earnings from investments in foreign funds at a higher tax rate than in the case of investment in Polish funds.

Luxembourg’s investment funds pose certain threat of tax competition. However, the distribution of those funds in Poland will be conducted, at least in the next several years, by Polish institutions, which will provide the internal revenue offices with the necessary information, even if an investment fund member fails to do so.

The Polish funds should not be expected to launch aggressive sales campaigns abroad. However, a majority of Polish TFIs are members of international capital groups, which will gradually but surely expand their offering of investment in EU countries with the option of investing in the units of participation in Polish funds.

PTEs’ growth depends on the inflow of the obligatory contributions to the OFEs. KNUiFE forecasts that in 2007 the assets of the OFEs will exceed the amount of 100 bn zloty and in 2010 they will already exceed 160 bn zloty. KNUiFE estimates that the net flow of OFEs’ assets will balance out in 2031, after which the amounts paid out will exceed the inflows. The commission indicates, however, that the date is an estimate. The estimation was based on the assumed rate of return of OFEs at 4.5% and the real rate of growth in wages at 2.5%. This does not mean, however, that the assets of OFEs will start to drop after 2031 because their increase is defined not only by contributions but also by earnings on investments.

PTEs’ experience in managing old age pension savings may become an important argument in favour of letting them into other segments of the pension market. PTEs could deal with the management of the capital of the retired persons who have a capital accumulated in the obligatory pension system as well as with the management of IPAs. What might prevent the legislator from taking the decision to admit the PTEs to these markets is the fear that they would become very large financial institutions.

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\textsuperscript{229} This wider access ensues from higher financial resources at the disposal of individuals (transaction costs) as well as from better knowledge of investment.

\textsuperscript{230} In relation to the average remuneration in a given country.

\textsuperscript{231} Some of the pension funds invest their assets in units of participation in investment funds (this mainly applies to employee pension funds).
The product offering of the pension companies is strictly regulated by law, which means that the development of a new product is preconditioned by adopting new regulations. Such a new product are the B-type open pension funds, to be launched in 2005. B-type funds are an investment offer targeted at persons approaching their retirement, for whom the investment policy of standard OFEs is too aggressive. Initially the new funds were to be banned from investment in share-type instruments. Under the provisions of the Act, each pension company is authorised to manage only one pension fund until the end of 2004\textsuperscript{232}. After that date it may establish another, B-type fund. However, no draft act has been drawn up so far as to regulate the operation of the new funds, whereas the currently binding Act only provides for the establishment thereof.

Another issue related to the creation of B-type funds is the method of transferring savings to them. The question is whether this should be done automatically or be decided upon by the saving persons, or maybe a mechanism lying somewhere in-between should be applied. This will be of importance to those saving money in OFEs and to the central budget (the manner of transferring the accounts of the saving persons to the B-type funds will have a certain impact on the value of subsidies to minimum pension allowances from the central budget). The volume of transfers from the basic funds to the B-type funds will also have a significant impact on capital markets. The investment strategy of the B-type funds will most probably exclude the possibility of investing in share securities.

Another important issue is whether the switch to a different fund should be a one-off action or whether one can simultaneously be a member of two funds and gradually change the investment risk profile of one’s pension savings. An advantage of a gradual changer-over to another fund is the elimination of the risk of switching to another fund at a time unfavourable to the saving person. Due to the high volatility of prices of share securities, a one-off switch from a fund that invests approx. 30% of the assets in such securities to one that does not invest in such securities at all may result in significant differences in the accumulated capital, depending on the moment this switch is done. It seems justifiable to draft regulations which would protect people against the risk associated with switching funds at an unfavourable moment – by changing-over gradually.

When launching the B-type funds, the concept of creating several types of pension funds with varied investment strategies should be analysed. Such a solution would facilitate better tailoring of the investment strategy to the individual needs of customers as well as its adjustment to the time period left to retirement. However, running a larger number of funds may entail higher costs.

5.4. Insurance companies

5.4.1. Evolution of the size of the insurance sector

Number of insurance companies

After two years of stagnation, the number of insurance business entities increased in 2002 and 2003. However, the number of insurers offering life insurance has not changed in the last three years, and one life insurance company was put into liquidation.

<table>
<thead>
<tr>
<th>Table 5.4.1. Number of insurance companies in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Life Insurance</strong></td>
</tr>
<tr>
<td>companies</td>
</tr>
<tr>
<td>1999: 30</td>
</tr>
<tr>
<td>2000: 34</td>
</tr>
<tr>
<td>2001: 35</td>
</tr>
<tr>
<td>2002: 35</td>
</tr>
<tr>
<td>2003: 35</td>
</tr>
<tr>
<td>branches</td>
</tr>
<tr>
<td>1999: 0</td>
</tr>
<tr>
<td>2000: 1</td>
</tr>
<tr>
<td>2001: 1</td>
</tr>
<tr>
<td>2002: 1</td>
</tr>
<tr>
<td>2003: 1</td>
</tr>
<tr>
<td><strong>Property and casualty insurance</strong></td>
</tr>
<tr>
<td>companies</td>
</tr>
<tr>
<td>1999: 33</td>
</tr>
<tr>
<td>2000: 34</td>
</tr>
<tr>
<td>2001: 35</td>
</tr>
<tr>
<td>2002: 35</td>
</tr>
<tr>
<td>2003: 38</td>
</tr>
<tr>
<td>branches</td>
</tr>
<tr>
<td>1999: 0</td>
</tr>
<tr>
<td>2000: 0</td>
</tr>
<tr>
<td>2001: 1</td>
</tr>
<tr>
<td>2002: 1</td>
</tr>
<tr>
<td>2003: 2</td>
</tr>
</tbody>
</table>

Source: KNUIFE data.

\textsuperscript{232} Act on Organization and Operation of Pension Funds of August 28, 1997 (Dziennik Ustaw No. 123/1997, item 776 as amended).
Premium

The growth of gross premium written was on the downward trend in the years 1999–2002\(^{233}\). The main reasons for this phenomenon are of dual nature:

- Internal – resulting from the economic slowdown and increased unemployment, which in turn caused a decreased demand for insurance products. The deteriorated financial condition of households, accompanied by the lack of control and the failure to enforce the requirement of the valid third party liability motor insurance resulted in a smaller number of concluded insurance contracts and lower premiums due thereof. Also in the case of life insurance, the annual growth in premiums decreased as a result of worsened financial condition of households.

- External – indirectly related to the terrorist attack of September 11, 2001. This event had an impact on the rise in certain reinsurance rates, which caused an increase in prices of insurance policies covering different types of risks, such as aircraft insurance, air carrier insurance or material damage insurance. Higher insurance policy prices resulted in decreased demand for these products.

The downward trend in the growth of premiums both in the life insurance and in property and casualty insurance that had lasted for several years was halted in 2003. It mainly followed from a more favourable economic climate. The economic revival and improved situation on the labour market provide grounds for the expectations of an increase in premium growth for both types of insurance.

Figure 5.4.1. Annual premium growth in Poland

![Graph showing annual premium growth in Poland](image)

Source: KNUFE data.

The level of growth of the Polish insurance sector measured by the value of the premium per capita is similar to that in Hungary and Slovakia but much lower than in the Czech Republic. In each of these countries the value of the property & casualty insurance premium per capita is higher than the life insurance premium per capita. This is a characteristic feature observed also in other countries, which are to access the European Union in 2004 (Slovenia, Lithuania, Latvia)\(^{234}\), stemming from poorer financial conditions of the population and low insurance awareness. The value of the premium in Cyprus and Malta is almost equal for both types of insurance. From among the 15 EU countries, in majority of cases (10 countries), the life insurance premium per capita is higher than the property and casualty insurance premium. In 2003 the average property and casualty insurance premium per capita (976 US dollars) accounted for a little less than 70% of the average life insurance premium per capita (1,411 US dollars) in 15 EU countries\(^{235}\).

---

\(^{233}\) Gross premium written means the value of premiums payable to the insurance company in the given period.

The term “premium” will hereinafter refer to the gross premium written.

\(^{234}\) No data available for Estonia.

Assets

The insurance market in Poland is characterized by a faster growth in the assets of the life insurance sector as compared to the property and casualty insurance sector. The main reason for such development is a high demand for life insurance with an insurance capital fund in the 1990s. These insurance contracts are usually long-term ones, and the funds allotted for the payment of benefits are accumulated for the entire duration of the contract, thus increasing the asset value of the insurance company. The property and casualty insurance sector is dominated by motor insurance contracts that are concluded on a yearly basis. The short time period these agreements does not cause such a significant increase in the asset value, as it is observed in the life insurance sector.

Performance

In 2002 the insurance sector faced the problem of mass resignations from life insurance with an insurance capital fund. The failure to adjust the insurance and investment products to the needs and financial capacity of the customers during an economic slump resulted in numerous resignations from this type of insurance. At the same time financial problems of some foreign shareholders, caused by payments of benefits and indemnities not taken into account in the collected premium\(^{236}\), resulted in a reduced involvement in subsidiary investment (including Polish insurance companies) and in the implementation of expenditure discipline in Polish insurance companies in the area of administration and advertising. In result of these moves, the Polish insurance market observed the lowest annual premium growth in 2002. However, the recorded – in spite of that – growth in the asset and equity value, and the achieved profits, show that the Polish insurance market has managed with these problems. The financial condition of the life and property & casualty insurance companies improved significantly in 2003. The performance of the PZU Group, the largest property & casualty and life insurance company, accounted for a high share in that improvement.

\(^{236}\) Consequences of the terrorist attack of 11 September 2001
Ownership structure

The life insurance sector varies a lot as regards ownership of the companies. Entities from several countries are present in the sector, and their shares in the sector's ownership structure do not vary a lot. The life insurance sector's ownership structure did not change a lot in 2002 and 2003.

The ownership structure of the property insurance market presents different characteristics. It is predominated by entities with German capital, whose market share grew and totalled nearly double the share of the Polish shareholders at year-end 2003. The share of the domestic capital significantly decreased in 2003. It stemmed from the fact that new insurers were granted licences to run insurance business in 2003 as well as from the fact that the existing property and casualty insurers received capital injections from their foreign shareholders. At the same time, the core capital of one of the Polish insurance companies was reduced.

Table 5.4.2. Selected financial items, insurance companies (million zloty)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life insurance companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>9,257</td>
<td>9,902</td>
<td>11,167</td>
</tr>
<tr>
<td>Technical result¹</td>
<td>411</td>
<td>741</td>
<td>1,126</td>
</tr>
<tr>
<td>Net profit</td>
<td>402</td>
<td>540</td>
<td>1,139</td>
</tr>
<tr>
<td>Equity</td>
<td>3,762</td>
<td>4,499</td>
<td>5,483</td>
</tr>
<tr>
<td>Assets</td>
<td>26,971</td>
<td>33,136</td>
<td>38,991</td>
</tr>
<tr>
<td>Property &amp; casualty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>13,123</td>
<td>13,158</td>
<td>13,589</td>
</tr>
<tr>
<td>Technical result</td>
<td>-249</td>
<td>-98</td>
<td>77</td>
</tr>
<tr>
<td>Net profit</td>
<td>672</td>
<td>923</td>
<td>905</td>
</tr>
<tr>
<td>Equity</td>
<td>5,101</td>
<td>6,279</td>
<td>7,078</td>
</tr>
<tr>
<td>Assets</td>
<td>21,203</td>
<td>24,249</td>
<td>26,732</td>
</tr>
</tbody>
</table>

¹ “Technical result” is a profit or loss on insurance activity consisting in the premium, indemnities and benefits, sales costs, administration costs and costs of settlements with reinsurers.

Source: KNUiFE data.

Figures 5.4.5 and 5.4.6: Ownership structure of life insurance companies, 2002 and 2003.

Figures 5.4.7 and 5.4.8: Ownership structure of property & casualty insurance companies, 2002 and 2003.

Source: own calculations based on data from KNUiFE.

237 Calculated on the basis of the core capital.
**Product structure**

The life insurance product structure did not change in 2002–2003. The share of the following types of insurance increased in the property insurance sector: land motor vehicle comprehensive insurance\(^{238}\), natural perils insurance and loan insurance. The share of third-party liability insurance for land motor vehicles (mainly third-party liability car insurance) dropped.

**Figure 5.4.9. Life insurance product structure, 2003**

![Pie chart showing life insurance product structure, 2003](source: KNUFE data)

- Life insurance (48%)
- Endowment insurance (1%)
- Life insurance with a capital fund (32%)
- Pension insurance (0.2%)
- Accident insurance, if supplement the above insurance types (18%)

**Figure 5.4.10. Property & casualty insurance product structure, 2003**

![Pie chart showing property & casualty insurance product structure, 2003](source: KNUFE data)

- Land vehicles TPL insurance (34.4%)
- Comprehensive land vehicles insurance (30.3%)
- Natural perils insurance (11.7%)
- Theft insurance (7.5%)
- Work accident and occupational disease insurance (4.7%)
- TPL not classified elsewhere (3.9%)
- Loan insurance (1.5%)
- Disease insurance (1.1%)
- Sailing insurance (0.6%)

\(^{238}\) This insurance group includes mainly comprehensive car insurance.
Structure of the investment portfolio

A comparison of the structure of the aggregated investment portfolio of Polish insurance companies with the investment portfolio of German insurance companies shows that the investment policy of Polish insurers is more cautious. They invest only a small portion of funds in shares. They prefer investment in Treasury bonds, the share of which in the overall assets has been high for many years. Such investment policy has done its job for many years since income from bonds was “more reliable” than investments in shares, and the decreasing interest rates raised the appeal of investment in bonds. However, from July 2003 the prices for bonds started to drop, which may have become a source of losses. On the other hand, the German insurance companies adjusted their investment policy to the conditions on the German market. Low interest rates were an incentive for them to seek alternative sources of income. Hence the high investment portfolio share of stocks and other deposits.

Table 5.4.3. Comparison of investment of the life insurance sector in Poland in 2003 and in Germany in 2002 (%)

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits with linked entities</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Shares</td>
<td>66</td>
<td>26</td>
</tr>
<tr>
<td>Bonds</td>
<td>87</td>
<td>33</td>
</tr>
<tr>
<td>Mortgage secured loans and other loans</td>
<td>0.2</td>
<td>11</td>
</tr>
<tr>
<td>Other deposits</td>
<td>2.8</td>
<td>24</td>
</tr>
</tbody>
</table>

1 Exposure of the life insurance sector to financial instruments, excluding life insurance with a capital fund.
2 This position also includes participation units and investment certificates of investment funds.
Source: KNUiFE data, www.gdv.de

5.4.2. Concentration

Concentration of the Polish insurance sector (both property & casualty and life insurance) is systematically decreasing. However, in comparison to other sectors, the insurance sector is still characterized by a high level of concentration. The reason for this is a very high share of the PZU Group in the property & casualty and life insurance markets.

The insurance market concentration in the accession countries is higher than in EU countries, where the liberalized insurance market has been functioning for a significantly longer time period. A high index of concentration in the accession countries results from a small number of insurance companies (e.g. 5 life insurance companies in Estonia) or a high market share of 1 – 2 insurers (e.g. Poland, Slovakia). Concentration can be reduced by opening the market, which is confirmed by Hungary, where all the barriers that hindered foreign insurers from entering the market were eliminated in the early 1990s.

Table 5.4.4. HHI concentration index for particular markets

<table>
<thead>
<tr>
<th>Institutions</th>
<th>HHI calculated based on</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>Assets</td>
<td>0.0894</td>
<td>0.0877</td>
<td>0.0830</td>
</tr>
<tr>
<td>OFE</td>
<td>Net assets</td>
<td>0.1653</td>
<td>0.1650</td>
<td>0.1646</td>
</tr>
<tr>
<td>Fund management companies</td>
<td>Assets of investment funds managed by fund management companies</td>
<td>0.1262</td>
<td>0.1419</td>
<td>0.1494</td>
</tr>
<tr>
<td>Life insurance companies</td>
<td>Premiums</td>
<td>0.3196</td>
<td>0.2957</td>
<td>0.2532</td>
</tr>
<tr>
<td>Property &amp; casualty insurance companies</td>
<td>Premiums</td>
<td>0.3529</td>
<td>0.3387</td>
<td>0.3097</td>
</tr>
</tbody>
</table>

Note: Herfindahl-Hirschman index — calculated as the sum of squares of market shares. The higher the index value, the higher the market concentration. 1 is the maximum for a fully monopolized market. Markets for which the HHI is smaller than 0.1 are considered to be potentially competitive. Where the index value exceeds 0.2, the market is considered to be potentially uncompetitive.
Source: NBP, KNUiFE, STFI data.

239 Although the aggregated investment portfolios come from different periods (Poland – 2003, Germany – 2002), such a comparison is justified because no events occurred during the period in question, which could have caused a change in the structure of the aggregated investment portfolio of insurance companies. Moreover, on mature markets, the German market being one of them, the structure of the investment portfolio is stable.
5.4.3. Distribution channels

Experience of other countries shows that cooperation with banks has a good impact on distribution of insurance products. This is confirmed by good performance of insurance companies, which have recently tightened their cooperation with banks\(^{240}\). The course of development of banking and insurance groups in Poland is similar to that observed in other countries, due to the participation of foreign strategic shareholders.

Potential benefits from cooperation between insurance companies and banks include: strengthened potential of the entire group (synergy effect), reduced costs, enhanced brand awareness, increased customer’s satisfaction with comprehensive service.

As regards joint undertakings of banks and insurance companies, the probability of succeeding is directly proportional to the strength of capital links between the bank and the insurance company.

The anticipated upturn in competition, caused by opening of the market, should contribute to an improvement in the quality of customer service and to seeking new ways of reaching potential customers. Some of the insurers already apply new methods of reaching potential customers, such as the phone and the Internet. Indirect methods of concluding insurance contracts may only develop in relation to simple and standardized insurance contracts. Where assessment of the insurance risk requires data of a greater number of parameters, a direct contact of the potential customer with the agent or broker is necessary.

5.4.4. Product offer

In 2002 and 2003 property insurance companies expanded their product offers to include general third-party liability insurance\(^{241}\), loans insurance, financial risk insurance such as loss of employment, loss of profits, loss of permanent source of income, loss of market value and legal protection insurance. The percentage share of the above insurance groups in the premium of the entire property and casualty insurance sector is still small but it is growing. The ever greater popularity

\(^{240}\) See Chapter 5.1.7.

\(^{241}\) Insurance products that include third-party liability related to, for instance, jobs such as tax consultants, insurance intermediaries, architects, certified auditors, as well as the TPL insurance of a joint-stock company management members – the so-called Directors & Officers (D&O) insurance. In general, TPL insurance does not cover: TPL related to use of land motor vehicles, sea vessels and aircraft as well as carrier’s liability insurance. ”TPL insurance” will hereinafter mean “general third-party liability insurance”.

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Figure 5.4.11. HHI concentration index calculated according to the premium for life and property insurance sectors in selected countries in 2003

Note: The HHI index for Hungary is calculated based on premium paid, whereas for other countries – based on premium payable. The data for Denmark are for 2002, and the life insurance data includes old age pension insurance.

of this type of insurance results from the improving public knowledge of insurance types (as concerns legal protection insurance or general TPL insurance) as well as from the use of other financial instruments (e.g. guaranteeing a stream of income in the future while repaying a long-term loan).

Table 5.4.5. Share of groups with the highest premium growth in the property & casualty insurance sector (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>General third-party liability insurance</td>
<td>3.2</td>
<td>3.4</td>
<td>3.8</td>
</tr>
<tr>
<td>Loan insurance</td>
<td>1.0</td>
<td>1.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Financial risk insurance</td>
<td>1.0</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Legal protection insurance</td>
<td>0.01</td>
<td>0.03</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Source: KNUiFE data.

Table 5.4.6. Annual growth of the gross premium written in selected insurance groups (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>General third-party liability insurance</td>
<td>13</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Loan insurance</td>
<td>40</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>Financial risk insurance</td>
<td>25</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>Legal protection insurance</td>
<td>443</td>
<td>133</td>
<td>85</td>
</tr>
<tr>
<td>Property &amp; casualty insurance</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: KNUiFE data.

5.4.5. Perspectives

An increase in the number of branches of foreign insurance companies should be expected due to Poland’s accession to the European Union and the binding ‘single passport’ principle. However, it will not be a significant change, since the majority of large European insurance groups have been present on our market for several years.

Poland’s accession to the European Union should be perceived as a chance for enhancement of the economic climate on the insurance market. The level of premiums in relation to the GDP is much higher in the EU than in Poland. Our membership in the European Union should have a positive impact on the wealth of the Polish society, and thus on the rising insurance awareness. An important factor stimulating the growth of the sector would be the launch of new solutions in the area of voluntary old age pension savings and the voluntary health insurance, which is currently under public discussion.

Experience of other countries shows that the ratio of the premium to GDP is growing along with the growth of wealth measured by GDP per capita (cf. Figs. 5.4.12 and 5.4.13). This interdependence is particularly strong in the life insurance sector. Households in wealthier societies, holding some excess funds, are more inclined to buy an insurance product (life insurance, endowment insurance and life insurance with an insurance capital fund) than households in societies characterized by a lower income per capita. This interdependence is not linear. As concerns both life insurance and property & casualty insurance, where GDP per capita accounts for approx. 35 thousand US dollars, the trend is changed and the ratio of the premium to GDP starts to drop along with the increasing GDP per capita. From that level the insurance is "less attractive", since potential repercussions of a loss are not as severe as in the case of less wealthy households. This thesis is confirmed by the example of Luxemburg, which has not been included in Figs. 5.4.12 and 5.4.13\(^{242}\).

---

\(^{242}\) Factors specific to that country would distort the ratios presented in Figs. 5.4.12 and 5.4.13. Data concerning Luxemburg: life insurance premium/GDP = 2.09\%, property & casualty insurance premium/GDP = 2.4\%, GDP per capita = 62,500 US dollars.
The ratio of life insurance premium to GDP in a given country is also affected by the extent of social care provided by the state (especially as concerns old age pensions). For instance, Germany, Austria and Greece have an extensive social care system financed by the central budget. As a result, the necessity for the society to bear the costs of life insurance is smaller there than in the countries where the state’s social policy is less extensive (e.g. in the UK, where the state guarantees a low old age pension, private life insurance with an insurance capital fund, which in fact ensures the old age pension, is very popular). Ireland is an interesting example, with its GDP per capita and the premium/GDP ratio being among the highest in EU countries. However, the determinants of this phenomenon stem from the specific Irish circumstances:

- low tax rates that attract foreign investors, resulting in greater competition on the insurance market, and thus lower prices of insurance;
- low unemployment rate and a relatively young society, which induce employers to offer additional perks in order to retain their employees, such as e.g. life insurance with an insurance capital fund;
- tax-free income from life insurance, causing a shift in the society’s investment preferences towards life insurance with a capital fund;

243 In comparison to the societies in other EU countries.
extensive campaign encouraging the society to co-finance old age pensions, which increases the insurance awareness on a national scale\textsuperscript{244}.

The growing demand for more sophisticated and customized insurance products also impacts an increase in premiums. The development of insurance products for management, with very high insurance values, or the boom on the Polish life insurance market in the late 1990s are good examples here. Life insurance with an insurance capital fund, which replaced the once popular employee life insurance group schemes were very popular at that time.

Lower flexibility of the premium in relation to GDP per capita, a characteristic feature of property & casualty insurance products, is the result of the obligatory nature of certain types of third-party liability insurance products (e.g. concluded by selected groups of people, such as car owners, tax advisors, architects, notaries public, legal advisors, insurance intermediaries).

Due to this, the premium in the accession countries accounts for only a slightly smaller percentage of GDP than in other EU countries.

\textbf{Box 5.4.1}

A large development potential of the insurance market is related to health insurance\textsuperscript{1}. The demand for this type of insurance is small at the moment (most often – group insurance schemes offered by employers to their employees); however, as the basket of guaranteed free medical services shrinks, the demand for this type of insurance will grow.

The analyses and estimates of KNUiFE\textsuperscript{2} show that several hundred thousand people currently using the services of private outpatient clinics will become potential purchasers of health insurance policies. Along with the growth in the society's wealth, an increase in the demand for insurance products that guarantee a higher standard of medical services should be expected (e.g. improved conditions during hospitalization, possibility to choose a hospital, doctor or treatment).

\textsuperscript{1} E.g. in Germany supplementary health insurance is the second largest insurance group after life insurance.


\section*{5.5. Brokerage houses and offices}

\subsection*{5.5.1. Evolution of the size and structure of the sector of brokerage activity}

There are two types of institutions on the market conducting brokerage activity: brokerage offices and brokerage houses. For the purpose of this paper, "brokerage houses" will be understood as independent entities operating in accordance with the rules of the Code of Commercial Companies, whereas "brokerage offices" will be understood as banks conducting brokerage activity within the framework of financially and organizationally isolated units.

In 2002 and 2003 the downward trend in the number of entities conducting brokerage activity remained strong. In 2002 there were 44 of them (39 brokerage houses and 5 offices), and in 2003 –38 (33 brokerage houses and 5 offices). This reduction in the number of entities on the market was caused by increased competition and unfavourable economic climate in 2001 and 2002. Poor performance was mainly caused by a drop in turnover on the stock market, decreased income from fees and commissions and the lack of income from new issues. The condition of the brokerage entities in the last several years is illustrated by movements in the value of the return on revenue shown in Figure 5.5.1.

\textsuperscript{244} T. Szumlicz and M. Żukowski (ed.): \textit{Old age pension systems in the European Union}, Warszawa 2004, TWIGGER.
A long-lasting slump on the market forced the brokerage institutions to restructure their organisation. Their total pre-tax earnings in 2003 (238 million zloty) were much higher than in 2002 (30.7 million zloty). The increase stemmed mainly from cuts in their general expense. In the second half of 2003 the improved earnings reflected the favourable economic climate on the stock exchange. Also more revenue comes from intermediation in trading in participation units of investment funds.

The performance of brokerage institutions is not uniform. In 2003, 26 entities made a gross profit, whereas 12 recorded a loss (in 2002 the figures were 17 and 27, respectively). The differences are also visible between brokerage offices and brokerage houses. In 2003, a year evidently more favourable both for the offices and the houses, the offices achieved a better return on revenue ratio. Their advantage over the brokerage houses results from the fact that, as entities belonging to banks, they can use the banks’ extensive customer service network. Through integration of their networks with those of parent banks, they can reach a greater number of customers. They also provide services to the largest and most active investors, including institutional and foreign ones245 (it also refers to brokerage houses which are banks’ subsidiaries and operate within the same capital group).

The fees paid by brokerage institutions to the Warsaw Stock Exchange and the National Depository for Securities (KDPW) were systematically dropping until 2002. However, the share of fixed fees to the capital market institutions in the cost structure increased because other cost elements decreased at a faster pace.

The number of investment accounts maintained by the brokerage offices and brokerage houses decreased in 2003 in comparison to 2002. The drop confirms the consolidation trends and the rationalization of the activities of brokerage institutions that began in 2002. At the same time, the asset value on those accounts increased (mainly the value of assets held by enterprises and natural persons). The number of investment accounts and their asset value are presented in table 5.5.1.

Table 5.5.1. Number of investment accounts and their asset value

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of investment accounts maintained by brokerage offices and houses (as at year-end)</th>
<th>Asset value of securities accounts held by customers of brokerage offices and houses (million zloty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,175,988</td>
<td>32,561.4</td>
</tr>
<tr>
<td>2002</td>
<td>1,251,061</td>
<td>29,153.5</td>
</tr>
<tr>
<td>2003</td>
<td>1,176,625</td>
<td>33,747.6</td>
</tr>
</tbody>
</table>

Source: GUS data.

Stock exchange turnover share of brokerage offices and houses

Turnover on the share market increased in 2003 by 39% in comparison to the previous year, which reflected the boom on the stock exchange that started in the second half of 2003. The share of six largest brokerage entities in the stocks turnover on the Warsaw Stock Exchange increased

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from 61.69% in 2002 to 70.96% in 2003, which confirms the concentration on the brokerage services market. The shares of the largest entities in the stocks turnover in 2002 and 2003 are presented in Figs. 5.5.2 and 5.5.3.

**Figure 5.5.2. Shares of largest brokerage entities in stocks turnover on the Warsaw Stock Exchange, 2002**

![Pie chart showing shares of largest brokerage entities in stocks turnover on the Warsaw Stock Exchange, 2002]

**Source:** GPW data.

**Figure 5.5.3. Shares of largest brokerage entities in stocks turnover on the Warsaw Stock Exchange, 2003**

![Pie chart showing shares of largest brokerage entities in stocks turnover on the Warsaw Stock Exchange, 2003]

**Source:** GPW data.

**Table 5.5.2. Entities with the highest turnover share on the stock exchange (percentage of market share, trade volume in million zloty and in quantitative terms)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Stocks</th>
<th>Futures contracts</th>
<th>Options contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CDM Pekao</td>
<td>13.69% 6,532.35 million zloty</td>
<td>CDM Pekao 40.21% 1,603.16 million zloty</td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DM BH 18.56% 12,345.56 million zloty</td>
<td>DM BOŚ 39.96% 3,132.21 million zloty</td>
<td>DI BRE Banku 15.88% 1,343,721 contracts</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** WSE data.
Significant changes affecting the six largest brokerage institutions resulted mainly from the fact that some entities withdrew from the market (ABN Amro and CSFB discontinued operation). The leaders of particular stock exchange market segments are shown in Table 5.5.2.

5.5.2. Distribution channels

The brokerage services market experiences a change in the role of its distribution channels. It refers to the above-mentioned integration of the distribution network with the parent banks. The tasks of brokerage institutions are often performed by bank tellers. Another course of development of the distribution channels is the phone and the Internet. The latter seems to be gaining increasing interest on the part of customers. The number of entities that enable customers to execute investment decisions via the Internet grew to 16 in 2003 (from 12 in 2002). The number of on-line accounts increased from approx. 25 thousand in 2002 to approx. 40 thousand in 2003 (DM BZ WBK holds the greatest number of such accounts – 9.8 thousand). Majority of the offices record a steady increase in the number of customers using on-line accounts. The share of these customers in the total value of the offices’ turnover accounts for as much as 50% in some cases. On-line investors are also the most active group of customers.

5.5.3. Market perspectives

Because a majority of the companies that decided to be listed on the stock exchange performed one-off issues, the brokerage offices and houses earned their income mainly on the secondary market. The economic revival and the gain in stock market prices in 2003 may result in increased interest of enterprises in fund raising for their development on the capital market. Thus, the opportunities for the brokerage services market should be sought in new public offerings. In terms of public offerings, the year 2003 performance was better than 2002 (25 and 20 offerings, respectively). The year 2004 may be expected to be even better. As regards initial public offerings (IPOs), the year 2003 (with 6 issues) was also better than 2002 (with only 2 issues). If the scenario of conducting public offerings of 14 companies owned by the Polish Treasury were effected in 2004 and 2005, the number of stock exchange debuts in 2004 could be the highest in the last three years. Meanwhile, the lack of public offerings of the Polish Treasury companies may pose a threat to the market growth.

As a result of the increasing competition which generates an excessively low rate of return, a growing number of foreign entities decided to discontinue their business activity. Companies like Raiffeisen, Robert Fleming, and Wood&Company closed their offices in Poland. In 2003 Societe Generale and Credit Suisse discontinued their operation, and ABN Amro withdrew from asset management activities. HSBC Securities Polska also announced closing down its business on the Polish stock market. New entities may appear on the brokerage services market in connection with Poland’s accession to the European Union. Introduction of the “single passport” principle for brokerage institutions as of May 1, 2004 will facilitate the launch of business operation by foreign entities in Poland. However, an immediate increase in competition should not be expected on that account. The notifications of commencement of brokerage services submitted to the Polish Securities and Exchange Commission ensue mainly from long-term business plans of foreign entities and may not translate into prompt commencement of operational activity.

The development plans of brokerage offices and houses assume further expansion of on-line services, offering possibilities of investment abroad and integration of distribution networks with parent banks.

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246 IPO – Initial Public Offering, i.e. the first offering of securities of a given company on the public market.
248 Asset management companies conduct business consisting solely in commissioned management of blocks of securities and advisory services related to trading in securities.
6.1. Money market

The money market includes short-term debt securities and deposit transactions with a maturity of up to and including one year.

6.1.1. Evolution of money market size and structure

In 2002 and 2003, the Treasury bill market was the most important segment of the short-term debt securities market. Issues of short-term bank and corporate bonds remained small. FX swaps were the most liquid investment instrument but unsecured deposits continued to play the most important role in domestic bank liquidity management. The conditional transactions market remained the least developed segment of the deposit transactions market.

### Table 6.1.1. Outstanding value of individual money market instruments as at year-end (bn zloty)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury bills</td>
<td>35.2</td>
<td>42.0</td>
<td>48.1</td>
</tr>
<tr>
<td>Money market bills</td>
<td>14.3</td>
<td>7.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Short-term corporate bonds</td>
<td>n/d</td>
<td>8.0</td>
<td>7.3</td>
</tr>
<tr>
<td>Short-term commercial bank debt securities</td>
<td>1.8</td>
<td>2.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Unsecured deposits (interbank deposits)</td>
<td>15.3</td>
<td>10.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Secured deposits (FX swaps and conditional transactions)</td>
<td>n/d</td>
<td>n/d</td>
<td>n/d</td>
</tr>
</tbody>
</table>

1 The amount of deposits accepted. Due to changes in reporting principles and to enable comparisons, the data presented do not include O/N deposits, i.e. are underestimated by around 5–7 bn zloty. For 2003, figures are for end of June.

### 6.1.2. Negotiable short-term debt securities market

6.1.2.1. Treasury bills

Treasury bills are short-term debt securities issued by the Ministry of Finance. Basic types of bills include 13-, 26- and 52-week instruments. From July 1995, they are issued as dematerialised bills in the electronic book-entry form. Treasury bills are sold at a discount and their yield is calculated on a 360-day basis (their face value is 10,000 zloty).

**Market size**

At the end of 2003, Treasury bills accounted for around 18% of the entire domestic debt securities market. This market segment was second only to Treasury bonds in its size.

With regard to issued amounts, the Polish Treasury bill market is the largest among EU candidate countries, just as the entire Polish Treasury securities (TS) market.

The general government sector debt management strategy assumes that the role of Treasury bills in financing the borrowing requirements of the central budget will decrease, whilst that of
bonds will rise\textsuperscript{249}. The objective was to extend average debt maturity and reduce refinancing risk. In 2003, this objective was not achieved. The downward trend in the role of Treasury bills in financing the borrowing requirements of the central budget, which could be observed in the 1990s, was halted in the first years of the present decade. The primary reasons included a significant increase in the borrowing requirements of the state and the insufficient growth in demand for instruments with a longer maturity; additionally, in the last quarters of 2003, the interest rate risk increased, fuelling the demand for instruments with a short maturity period.

The share of Treasury bills in the outstanding value of domestic Treasury securities issued in Poland is twice the corresponding ratio in the euro area and similar to the ratio recorded in EU accession countries\textsuperscript{250}.

\textbf{Figure 6.1.1. Outstanding amounts of treasury bills (quarter-end)}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.1.1.png}
\caption{Outstanding amounts of treasury bills (quarter-end)}
\end{figure}

Source: own calculations based on NBP and Ministry of Finance data.

\textbf{Figure 6.1.2. Share of Treasury bills in domestic TS market}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.1.2.png}
\caption{Share of Treasury bills in domestic TS market}
\end{figure}

Source: own calculations based on ECB, NBP and Ministry of Finance data.


\textsuperscript{250} In 2002, the average share of short-term securities in the total outstanding value of tradable general government sector debt securities issued in national currencies in the ten countries acceding to the EU was 22.4%. The ratio for Poland was 21.8%. The Czech Republic, Hungary and the Slovak Republic were countries where Treasury bills were used on a relatively large scale in financing the borrowing requirements of the state. The share of Treasury bills in the market debt of the general government sector in those countries amounted to 42.2%, 29.7% and 24.6%, respectively. The countries that used bills to a smaller extent included Estonia (0.0%), Latvia (13.4%) and Slovenia (14.2%). Estonia, the only country of those acceding to the EU, had a budget surplus and therefore did not have to issue Treasury securities (calculations based on ECB paper: Bond markets and long term interest rates in European Union accession countries, October 2003). Web page: www.ecb.int
Primary market

Treasury bills are sold during weekly auctions (held on Mondays) organised by the NBP. From January 1, 2003, the instruments are sold to a selected group of banks – Primary Dealers (Dealerzy Skarbowych Papierów Wartościowych – DSPW) and Bank Gospodarstwa Krajowego. The Primary Dealers System is based on agreements concluded between the issuer of Treasury securities (the Ministry of Finance) and selected banks (Box 6.1.1).

This type of primary market organisation has been adopted in most EU countries. The Czech Republic and Hungary adopted a similar system in the second half of the 1990s. The main objective of the Primary Dealers System is to improve the efficiency, liquidity and transparency of the Treasury securities market.

In 2003, the value of Treasury bills issued amounted to 57 bn zloty (compared to 45.7 bn zloty in 2002). In 2002 and 2003, the Ministry of Finance issued primarily 52-week Treasury bills. 13- and 26-week bills were placed on the market depending on ongoing needs (13-week bills in order to determine interest rates on 3-year savings bonds and 26-week ones in order to reduce the concentration of bill redemption in specific periods). The Ministry of Finance also occasionally issued Treasury bills with other maturities.

Box 6.1.1

THE PRINCIPLES OF OPERATION OF THE PRIMARY DEALERS SYSTEM IN 2003

The principles of the Primary Dealers System organization were stipulated by rules adopted on December 6, 2002.

The Primary Dealers’ basic duties included:
– participation in TS auctions and purchasing no less than 2% of Treasury bonds and 2% of Treasury bills sold during each quarter;
– participation in daily TS fixing sessions organised by the NBP;
– publishing quotations and concluding TS transactions on the organised electronic secondary market.

The Primary Dealers were entitled to:
– exclusive bidding during all TS auctions;
– regular participation in meetings with Ministry of Finance representatives in order to solve problems regarding the organisation and operation of the TS market as well as discuss issue policy, plans of financing the borrowing requirements of the central budget and the economic climate on financial markets, and also conducting individual transactions with the issuer.

The Primary Dealers and candidates for the Primary Dealers are subject to annual scoring procedures according to the Dealer Activity Index (DAI) qualification criteria. The assessment includes e.g.: the share of turnover on the current account held with the NBP in the total turnover on all banks’ current accounts (excluding settlements conducted via the National Clearing House), turnover on the primary and secondary Treasury bond and bill markets, activity on the CeTO electronic trading platform as well as trading on the derivatives market.

The rules of operation of the Primary Dealers System were amended on December 5, 2003. The most important changes included an increase in the minimum compulsory purchase value to 3% of Treasury securities sold during each quarter and an increase in the weight of the activity on the CeTO electronic trading platform in the Primary Dealers’ annual assessment.

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251 The Primary Dealers System established in the U.S. in 1960 has become the standard way of organising the primary market all over the world. Among countries with developed market economies, only a few (e.g. Germany and Japan) have not adopted this system in its standard form.

252 The issued amount was calculated according to the face value of Treasury bills.
The current level of the NBP reference rate and expectations concerning its future level are the main factors influencing the yield on Treasury bills. Other factors only provide adjustments regarding the direction and scale of Treasury bill deviation yield from the reference rate. Factors adjusting the yield on Treasury bills include expectations concerning the future supply of Treasury securities.

From 1998 to the third quarter of 2003, except for short periods, the yield on Treasury bills was below the NBP reference rate. The rate was steadily lowered and investors expected further cuts. The result was that the yield on 52-week Treasury bills remained below the reference rate. Problems with financing the budget deficit, which emerged in 2003, as well as an increase in risk as perceived by investors caused this relationship to be reversed. The yield on Treasury bills gradually rose and exceeded the NBP reference rate.

Table 6.1.2. Treasury bills by maturity (%)

<table>
<thead>
<tr>
<th>Treasury bills</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-week</td>
<td>0.4</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>13-week</td>
<td>8.1</td>
<td>3.9</td>
<td>4.9</td>
</tr>
<tr>
<td>26-week</td>
<td>14.2</td>
<td>5.0</td>
<td>6.1</td>
</tr>
<tr>
<td>39-week</td>
<td>4.2</td>
<td>1.7</td>
<td>0.0</td>
</tr>
<tr>
<td>52-week</td>
<td>67.5</td>
<td>89.4</td>
<td>82.9</td>
</tr>
<tr>
<td>Other</td>
<td>5.6</td>
<td>0.0</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: own calculations based on Ministry of Finance data.

**Yield on Treasury bills on the primary market**

The current level of the NBP reference rate and expectations concerning its future level are the main factors influencing the yield on Treasury bills. Other factors only provide adjustments regarding the direction and scale of Treasury bill deviation yield from the reference rate. Factors adjusting the yield on Treasury bills include expectations concerning the future supply of Treasury securities.

From 1998 to the third quarter of 2003, except for short periods, the yield on Treasury bills was below the NBP reference rate. The rate was steadily lowered and investors expected further cuts. The result was that the yield on 52-week Treasury bills remained below the reference rate. Problems with financing the budget deficit, which emerged in 2003, as well as an increase in risk as perceived by investors caused this relationship to be reversed. The yield on Treasury bills gradually rose and exceeded the NBP reference rate.

**Figure 6.1.3 Average yield on Treasury bills on the primary market vs. the NBP reference rate**

Note: The NBP reference rate as at month-end.

Source: NBP data.

**Figure 6.1.4. The demand/supply ratio of Treasury bills on the primary market, subsequent quarters**

Source: own calculations based on NBP data.
Secondary market

Until 2001, turnover on the secondary Treasury bill market rose slowly. In 2002 and 2003, the liquidity of the market grew dynamically. As a result, the liquidity ratio of Treasury bills rose from 2.88 in 2001 to 6.58 in 2003. High turnover on the Treasury bill market did not result from the investors’ robust activity on the outright transaction market but rather from the increasing popularity of conditional transactions. Sell-buy-backs and repos constituted 87% of gross turnover in 2002, and 93% in 2003.

Figure 6.1.5. Value of turnover of Treasury bills, subsequent quarters

Note: Turnover includes conditional transactions, for which initial and final exchange values have been taken into account.
Source: own calculations based on NBP data.

Secondary market organisation

Treasury bills are mostly traded on the non-regulated market. In April 2002, an electronic platform for trading in Treasury bills and bonds was launched – the Electronic Treasury Securities Market (Elektroniczny Rynek Skarbowych Papierów Wartościowych – ERSPW) on the CeTO platform. The ERSPW is a regulated off-exchange market. Its establishment was an integral part of the developments related to the creation of the Primary Dealers System. In 2003, the trading in the electronic Treasury bill market only amounted to 0.3% of the total Treasury bill trading.

Investors

As in previous years, domestic investors were dominating on the Treasury bill market.

Figure 6.1.6. Investors on the Treasury bill market by nominal outstanding value

Source: NBP data.

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253 The liquidity ratio is calculated as the ratio of average monthly gross turnover to the average monthly outstanding value of bills issued.
254 These operations are discussed in more detail in section 6.1.3.2.2.
255 This system and the operation of the electronic market are discussed in more detail in the section on Treasury bonds.
**Development trends**

The importance of Treasury bills in financing the borrowing requirements of the central budget depends on the state’s financial stability. The higher the uncertainty linked to the conducted fiscal policy, the more difficult it is to place instruments with longer maturities on the market. In the short-term, problems with adjusting budget revenue to expenditure increase the demand for short-term debt securities. Similar phenomena are observed in other countries in the region.

![Figure 6.1.7. Interdependency between central budget balance and the proportion of Treasury bills in the TS market in accession countries, 2002](image)

Source: own calculations based on ECB data: Bond markets and long term interest rates in European Union accession countries, October 2003; Web page: www.ecb.int

In 2002 and 2003, the share of Treasury bills in the outstanding value of TS issued was relatively steady. In the short term, this share will probably remain at a relatively unchanged level. It will be influenced by two counteracting factors:

- possible budget tensions, which will favour the increased role of Treasury bills in the borrowing policy of the central budget;
- relatively high proportion of Treasury bills in TS (compared to EU countries), which will be in favour of limiting the role of this instrument.

In the long term, the trend towards diminishing the importance of this instrument should return. Poland’s accession to the EU and its subsequent entry into the euro area should accelerate the adjustment of the structure of the Polish TS market to the European one. It should be expected that similar adjustment processes will also take place in other countries in the region.

**6.1.2.2. NBP money market bills**

NBP money market bills are short-term discount debt securities. The issue of money market bills is a basic open market operation performed on the interbank money market by the NBP. With the use of this instrument, the NBP absorbs excess liquidity in the banking system and controls short-term interest rate levels.

Money market bills are dematerialised bearer securities. They only exist as electronic book entries in the Securities Register (Rejestr Papierów Wartościowych – RPW)\(^{256}\) maintained by the NBP. The face value of a single bill is 10,000 zloty. The minimum yield on money market bills is determined by the level of the NBP reference rate set by the Monetary Policy Council. The yield on open market operations directly influences the level of interest rates on deposits with similar maturity on the interbank deposit market.

**Market size**

The value of money market bills issued and outstanding depends on the scale of excess liquidity within the banking system. This value was subject to significant fluctuations in 2002 and

\(^{256}\) This issue is discussed in more detail in Chapter 4.
2003. This was the result of movements in excess liquidity, primarily stemming from changes in the balances in banks’ current accounts and time deposits of the Ministry of Finance with the NBP as well as from the purchase and sale of foreign currencies by the NBP and from an increase in notes and coins in circulation. Based on forecasts regarding these items, the central bank makes case-by-case decisions concerning the value of bills offered during auctions.

In the period from December 2001 to December 2003, the outstanding value of money market bills issued decreased by 8.27 bn złoty in balance sheet terms. The fact that the outstanding value of bills issued was lower than in 2001 (Figure 6.1.8) resulted from the decreased operational excess liquidity within the banking system. Operational liquidity was limited by the outright transactions conducted (the outright sale of bonds from the NBP portfolio), an increase in the amount of notes and coins, net sales of foreign currencies by the central bank and an increase in the amount of funds held with the NBP by the Ministry of Finance (the average amount of deposits in 2002 and 2003 was 7.26 bn złoty and 6.06 bn złoty, respectively, whereas in 2001 it amounted to 3.65 bn złoty).

In the period under consideration, as in previous years, the demand for money market bills from commercial banks significantly exceeded their supply. The NBP reduced the orders submitted, especially during the auctions preceding MPC meetings. In some cases, the scale of demand for money market bills related to interest rate cut speculations exceeded the amount of funds held by commercial banks in their current accounts with the central bank.

**Figure 6.1.8. Money market bills issued and outstanding**

Source: NBP Securities Register.

**Primary market**

Only Money Market Dealers and the Bank Guarantee Fund may purchase money market bills on the primary market. In 2002, only bills with a 28-day maturity were issued. From February 2002, regular money market bill issues were introduced – issues are conducted weekly on Fridays. Due to the adjustment of monetary policy instruments to Eurosystem standards, from January 2003 the NBP reduced the maturity of basic open market operations to two weeks. Since that date, only 14-day bills have been issued. The changes introduced facilitated the ongoing management of liquidity by commercial banks, enabled the improvement of forecasts of banking system liquidity and increased the stability of short-term interbank market interest rates. In January 2002, the NBP

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258 Until the end of January 2002, auctions were held on an irregular basis.

259 Where a Friday was a statutory holiday, auctions were held on Thursday.

260 Pursuant to Resolution No. 30/2003 of the Management Board of the NBP on the Issue of Money Market Bills of the National Bank of Poland, bills with maturities of 1, 2, 3, 4, 5, 6, 7, 14, 28, 91, 182, 273 and 364 days may be issued.
redeemed 91-day bills of a value of 7.5 bn zloty from PKO BP and since then has not issued bills with such a maturity\textsuperscript{261}.

**Secondary market**

Secondary trading in money market bills takes place on the non-regulated interbank market. In the secondary market participate entities that are entitled to purchase bills on the primary market as well as other domestic banks. Non-bank domestic entities or non-residents cannot purchase money market bills. The secondary market of money market bills is characterized by low level of liquidity, which was especially noticeable in 2002. Compared to 2001, the number of transactions decreased but their average value rose. Banks are most active on the secondary market when money market dealers resell purchased bills to other banks, it is immediately after the settlement of auctions. Purchasers of bills on the secondary market usually hold them to redemption. Both outright and conditional (repo, sell-buy-back) transactions are conducted on the interbank market. The share of conditional transactions in total net turnover in 2003 accounted for around 7\%\textsuperscript{262}.

**Development trends and prospects**

In the coming years, the NBP will continue to adjust its monetary policy instruments to Eurosystem standards\textsuperscript{263}. Thus the maturity of basic open market operations will be further reduced from 14 to 7 days. It will be easier for commercial banks to project the amount of funds in current accounts one week ahead.

The Monetary Policy Council intends to maintain limited operational excess liquidity in the Polish banking system until Poland enters the euro area\textsuperscript{264}. This means that money market bills will continue to be issued by that time and the liquidity situation will change abruptly when Poland adopts the euro. The excess liquidity in the domestic banking system will be absorbed by banks from the euro area, where structural liquidity shortfalls exist. Banks conducting operating activity in Poland will lend excess funds from the interbank market to other euro area banks. The NBP will then cease to engage in operations aimed at absorbing liquidity, such as the issue of money market bills. Not only the central bank but also commercial banks have to prepare for those developments.


\textsuperscript{262} This is the ratio of the face value of repo transactions to the total net value of money market bill transactions. Estimates based on reports submitted by a group of banks – money market dealers – to the NBP in 2003.

\textsuperscript{263} A detailed description of euro area monetary policy instruments can be found in: The implementation of monetary policy in the euro area (Frankfurt: ECB, 2004).

6.1.2.3. Short-term commercial bank debt securities

Short-term bank debt securities (SBDS) are issued by commercial banks in order to raise additional funds and diversify the sources of funds. SBDS include:

– bank securities issued pursuant to the Banking Act\(^{265}\);
– bank bonds issued pursuant to the Bonds Act\(^{266}\).

The types of securities listed above may also be issued as long-term instruments – their classification to a given category depends on their original maturity. This section discusses instruments with maturities of up to and including one year, i.e. short-term instruments.

**Market size**

The outstanding value of SBDS at the end of 2003 accounted for about 1% of the entire Polish debt securities market, and 69% of total debt securities issued by banks\(^{267}\).

**Box 6.1.2**

**BANK SECURITIES**

Only banks may issue bank securities. The definition of such securities as well as the terms and conditions for their issuance are stipulated by the Banking Act. The name of bank securities must include the words 'bankowy papier wartościowy' ('bank security'). They may be registered or bearer securities.

Banks and banking groups may only issue bank securities pursuant to published terms and conditions. No approval from the Securities and Exchange Commission is required in order to offer issued securities for sale, e.g. using mass media. However, issuers are required to advise the President of the NBP of the intended issue of bank securities 30 days prior to the issue date, indicating the terms and conditions and the amount of the issue. The President of the NBP may stipulate by resolution the amount, terms and conditions of the issue which shall require his or her approval.

Bank securities may be issued in material or dematerialised form. Pursuant to the provisions of the Banking Act, bank securities may not be traded via brokerage house.

Where an issuer bank declares bankruptcy, the funds transferred to the bank due to the purchase of such securities are guaranteed by the Bank Guarantee Fund on terms corresponding to those of deposits.

**Table 6.1.3. Bank liabilities related to short-term debt securities issued**

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term commercial bank liabilities related to debt securities issued, bn złoty</td>
<td>2.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Share of short-term securities in bank liabilities related to debt securities issued, %</td>
<td>89.6</td>
<td>69.2</td>
</tr>
</tbody>
</table>

Source: NBP data.

\(^{265}\) The Banking Act of August 29, 1997 (consolidated text as published in Dziennik Ustaw No. 72/2002, item 359, with later amendments).

\(^{266}\) The Bonds Act of June 29, 1995 (consolidated text as published in Dziennik Ustaw No. 120/2001, item 1300, with later amendments).

\(^{267}\) Available data on the issues of bank debt securities do not enable international comparisons concerning the development of markets for such securities in Poland and the EU.
Despite the steady and relatively robust development of the SBDS market, these instruments remain insignificant for raising funds by commercial banks. At the end of 2003, the funds raised by banks through issues of own SBDSs constituted 1% of total bank liabilities.

The way an issue is organised depends on the type of security. Bank securities have been issued by banks with relatively small office networks or those specialising in a specific banking segment (e.g. banks where car manufacturers have majority interest). Such issues have mainly been targeted at wholesale investors. In contrast, bonds have been issued by banks with developed office networks. Such issues have been targeted exclusively at retail investors.

Bank bonds are primarily offered through public issues\(^{268}\). Banks sell bank securities through their own or the issuing agents’ office networks.

Whereas bank securities were the main type of SBDS until 2001, in 2002 and 2003 they were overtaken by bonds. Banks responded to the introduction of the capital gains tax by issuing “anti-tax” bonds. These securities were designed to enable purchasers to avoid paying tax on interest income.

**Secondary market**

There is no organised secondary market for bank securities. The terms and conditions of transferring the ownership title to a bank security are stipulated in the contents of the document. Until the end of 2003, where bank securities were issued in dematerialised form, only the issuer bank maintained the depository for such securities\(^{269}\).

The absence of an organised secondary market or a common platform for trading bank securities has been caused by the fact that the entire market infrastructure is concentrated at arranger banks. They issue bank securities and organise secondary trading as well.

The operation of the secondary market in short-term bank bonds is discussed in section 6.2.2.4 alongside with long-term bank debt securities.

**Investors**

The largest group of purchasers of short-term bank securities constituted banks organising issues (which purchased securities e.g. in order to resell them) and other banks. At the end of 2003, they held 36.4% of the total amount issued. Among non-bank purchasers, enterprises were the largest group (30.6%). They used this financial instrument in order to invest temporary fund surpluses. Households held 13.3% of the total amount of bank securities, which made them the second largest group of non-bank purchasers.

The NBP has no information concerning the distribution of purchasers of short-term bank bonds in 2002 and 2003.

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\(^{268}\) In 2002, 86% of bank bonds denominated in zloty were offered through public issues; in 2003, the figure was 94%.

\(^{269}\) The Banking Act does not stipulate the party maintaining the depository for bank securities where they are issued in material form.
6.1.2.4. Short-term corporate bonds

Short-term corporate bonds (SCB) are securities issued mainly for short-term financing purposes. Since there is no legal act which would stipulate uniform principles of issuing and trading such securities, they are issued pursuant to one of the following three legal acts:

1. Bill of Exchange Act,
2. Civil Code,

As a result, SCB have various names: corporate bills of exchange, commercial papers or short-term corporate bonds. Regardless of the legal grounds for their issue, these instruments fulfil the same functions and have several common features, such as:

- maturities shorter than 1 year;
- sale at a discount;
- high face values;
- launching and placement in tranches within the framework of the issue programme;
- no restrictions regarding the purpose of funds raised by the issue.

It should be noted that since the 2000 amendment of the Bonds Act, most SCB issues have been based on this legal act – in 2003, such issues accounted for 76% of the total amount of such instruments issued. The regulations of the Bill of Exchange Act have been used in around 20% of all SCB issues, while issues pursuant to Civil Code regulations have been very rare.

SCBs are bearer securities but they may be registered instruments at the investor’s request. Non-public issues of such instruments dominate on the market. Maturities range from seven days to one year but in practice, SCBs with maturities of up to 90 days prevail. They are launched in separate (e.g. 30-day) tranches within the framework of issuance programmes which last several months. This enables the issuer to utilise part of the funds from the issue – the amount is adjusted to its current financial requirements. SCBs may also be used for long-term financing. This is possible by repeating the issue in a regular manner. Liabilities related to the redemption of SCBs are then met from the income on subsequent issues (the so-called rolling over). It should be noted that in practice large proportions of issues are being rolled over.

SCB yields are usually related to the WIBOR (Warsaw Interbank Offered Rate) and in some cases to the yield on Treasury bills with a suitable maturity or to loan interest rates. SCB yields are usually 1–2 percentage points higher than Treasury bill yields.

The face value of SCBs depends on the issuer’s individual requirements and is stipulated in the agreement concluded between the bank and the enterprise. The face value of a single security usually amounts to a minimum of 10,000 zloty.

The first SCB issue was arranged in 1992 by Polski Bank Rozwoju for the Próchnik company. The character of SCBs, presenting an alternative to bank loans from the issuer’s point of view and an attractive instrument for investing available funds from the investor’s point of view, attracted
considerable interest in this market between 1998 and 2001. In 2002 and 2003, this trend was reversed and interest in the SCB market waned.

A comparison of growth in outstanding value of SCBs issued with growth in corporate bank deposits may indicate that if the enterprises’ financial standing improves, which is reflected by an increase in their bank deposits, the need for external funding through SCB issues is reduced (Figure 6.1.11).

**Figure 6.1.10. Growth in net outstanding value of short-term corporate bonds issued vs. growth in short-term loans to corporates**

![Chart showing growth in net outstanding value of SCBs issued vs. growth in short-term loans to corporates]

Note: growth in net outstanding value of SCBs issued was calculated as the change in the percentage ratio of outstanding value of SCBs as at the end of a given quarter to the outstanding value of SCBs at the end of the preceding quarter; growth in short-term loans to corporates was calculated correspondingly.

Source: NBP data, Fitch Polska SA.

**Figure 6.1.11. Growth in outstanding value of short-term corporate bonds issued vs. growth in corporate bank deposits**

![Chart showing growth in outstanding value of SCBs issued vs. growth in corporate bank deposits]

Source: NBP data, Fitch Polska SA.

**Market size**

The outstanding value of SCBs issued dropped from 7.99 bn zloty in 2002 to 7.34 bn zloty in 2003, which translates to a decrease of 8.14%. At the same time, the number of issuers of such securities decreased (Table 6.1.5).

**Table 6.1.5. Outstanding value of SCBs issued (end of December)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding value (bn zloty)</td>
<td>n/d</td>
<td>7.99</td>
<td>7.34</td>
</tr>
<tr>
<td>SCB issuers</td>
<td>309</td>
<td>272</td>
<td>232</td>
</tr>
</tbody>
</table>

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers serving as depositaries, Fitch Polska SA.

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278 Ibid., p. 20.
Nevertheless, SCBs continued to account for around 50% of the total non-government debt securities market. An increase in credit risk impeded the development of the SCB market during the period when the economic climate was less favourable. Additionally, cases where Polish enterprises (e.g. Stocznia Szczecińska, Elektrim) defaulted on their liabilities related to debt securities issued as well as the fact that the Italian foodstuffs manufacturer Parmalat defaulted on the repayment of liabilities related to issued bonds could have had a certain impact on the market.

**Primary market**

Only those enterprises whose legal form is listed under Art. 2 of the Bonds Act\(^{279}\), i.e. entrepreneurs with legal personality, partnerships limited by shares or public law entities\(^{280}\), are eligible to issue SCBs in the form of short-term bonds.

In 2002 and 2003, SCBs were mainly issued by non-financial entities\(^{281}\) (these instruments may also be issued by non-bank financial institutions). During the period under analysis, SCBs with maturities from one to three months were the most common type issued.

In 2002 and 2003, the amounts of individual issue programmes ranged from 300,000 to 1 bn zloty. The largest issuance programmes were executed by the following companies: Telekomunikacja Polska (ceiling of the programme: 1 bn zloty), FCE Credit Polska (1 bn zloty), Volkswagen Leasing Polska (1 bn zloty), and Fiat Polska (1 bn zloty).

During the period under analysis, the lowest face value of a single instrument was 1,000 zloty, and the highest – 10 million zloty (instruments with a maturity of six months issued by Polskie Sieci Elektroenergetyczne). However, the most common face values of SCBs issued were 10,000 zloty, 100,000 zloty and 500,000 zloty.

The analysis of companies that issued SCBs in 2002 and 2003 indicates that enterprises from various industries (e.g. telecommunications, pharmaceuticals, foodstuffs, energy supply) were interested in this form of funding. SCBs were also issued by hypermarket chains. Among non-bank financial intermediaries, SCBs were mainly issued by leasing and factoring companies. Enterprises often issue securities within their capital group or to a limited group of investors.

During the period under analysis, no issue of such instruments was a public one; most were not secured. SCBs were primarily issued by unlisted companies. At the end of 2003, only 17 of the 232 SCB issuers were companies listed on the WSE.

SCB issues are arranged and conducted by banks – the so-called issuing agents. Due to the banks’ experience in this regard, each of them has its own preferences regarding issue parameters, e.g. its legal grounds. Based on its experience, the bank advises the issuer on the manner in which securities are to be issued. Banks may additionally act as depositaries, institutions organising the primary and secondary markets and underwriters. Such matters are stipulated in detail in the agreement between the bank (issuing agent) and the issuer.

A distinct group of market leaders, who arrange a significant part of issues, has formed among banks — issuing agents (Figure 6.1.12). This group invariably consists of five banks which hold 70% of market share measured by outstanding values (as of year-end 2003).

**Secondary market**

The secondary SCB market in Poland may be described as fragmented. Around a dozen of small centres operate on this market, which are organised by banks – issuing agents, and there is

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\(^{279}\) Ibid.

\(^{280}\) It explains why no “small” enterprises have issued such securities.

\(^{281}\) According to the classification used by individual banks, large enterprises accounted for over 90% of SCB issuers during the period under analysis. The share of medium-sized enterprises in the issue of those instruments was negligible. The share of auxiliary financial institutions was also insignificant, particularly when compared to the amount of SCBs issued by other financial intermediaries.
Financial markets

The liquidity of the SCB market is low because purchasers hold SCBs to maturity, i.e. treat them as deposit instruments.

**Investors**

The group of potential SCB purchasers is very large. Statutory investment limits in such instruments concern only insurance companies and pension funds. In practice, such institutions do not fully use their possibilities up to the imposed limits. It may stem from the characteristics of SCB issues – the analysis of the short-term corporate bond market indicates that issues under a given programme are fragmented and targeted at a limited group of investors who are often members of the issuer’s capital group. This is an obstacle to potential investors. The fact that 90% of SCB issuers in 2002 and 2003 were unlisted companies could have also dampened the interest of collective investment institutions in such instruments, due to a higher risk of investing in securities issued by such enterprises.

At the end of 2003, enterprises and banks, who jointly held 80% of total SCBs issued, were the dominant group of investors on the SCB market (Figure 6.1.13). Due to the fact that SCB issues were non-public, the group of investors was selected by the issuer or issuing agent, and could include the agent itself.

The following factors hampered the development of the SCB market in Poland in 2002 and 2003:

– an increase in credit risk, which reduced the banks’ interest in organizing SCB issues;

**Figure 6.1.12. Share of issuing agents in organizing short-term corporate bond issues, 2003**

<table>
<thead>
<tr>
<th>Issuing Agent</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Handlowy</td>
<td>24.48%</td>
</tr>
<tr>
<td>BRE Bank</td>
<td>7.53%</td>
</tr>
<tr>
<td>PKO BP</td>
<td>16.14%</td>
</tr>
<tr>
<td>ING BŚ</td>
<td>9.99%</td>
</tr>
<tr>
<td>Bank BPH</td>
<td>11.12%</td>
</tr>
<tr>
<td>Other</td>
<td>30.74%</td>
</tr>
</tbody>
</table>

Source: NBP data submitted by corporate bond issuing agents.


283 Insurance companies may invest up to 10% of assets covering technical provisions in SCBs, provided that the share of the insurance company in the core capital of the enterprise – issuer of the securities does not exceed 10%. At the same time, an insurance company may invest up to 5% of assets covering technical provisions in securities issued by a single issuer (Art. 64, para. 1, subpars. 3, 4 and 5 of the Insurance Activity Act of July 28, 1990 as published in *Dziennik Ustaw* No. 11/1996, item 62, with later amendments). Pursuant to Para. 1, items 11 and 12 of the Ordinance of the Council of Ministers of May 12, 1998 on the determination of the maximum percentage of assets of an open pension fund that may be invested in individual investment categories as well as additional restrictions regarding the investment activities of pension funds, the ceilings for pension companies were: 5% of assets – where assets are invested in fully secured bonds issued by entities other than municipalities, municipal associations or the city of Warsaw, and not admitted to public trading, 10% of assets – where assets are invested in fully secured bonds issued by entities other than municipalities, municipal associations or the city of Warsaw, and admitted to public trading, 5% of assets – where assets are invested in bonds and other debt securities issued by public companies other than listed above, and not admitted to public trading. The enumeration in Art. 141 of the Act on the Organisation and Operation of Pension Funds of August 28, 1997 (*Dziennik Ustaw* No. 139/1997, item 934) of investment types in which pension funds may invest their assets indicates that such institutions may not invest in unsecured debt securities of unlisted companies, and such issues have prevailed on the Polish market. It may be expected, however, that even if pension funds were entitled to invest in such securities, they would not be attracted to them (see Chapter 5.3).
– the lack of uniform legal grounds for issuing SCBs;
– the dominance of non-public issues, which limited the group of investors and translated into the continued fragmentation of the secondary market;
– the limited popularity of rating\textsuperscript{284}, which made it difficult for potential investors to estimate the risk involved in investing in securities issued by a given issuer;
– an underdeveloped infrastructure (e.g. no single clearing house and depository)\textsuperscript{285}.

Despite the fact that enterprises use short-term debt securities to finance their operational activity, bank loans and trade credits still play greater role in this respect\textsuperscript{286}.

\textit{Development trends and prospects}

It should be noted that in 2001, small enterprises in Poland accounted for 99% of the total number of operating enterprises, whereas the shares of medium-sized and large enterprises were 0.81% and 0.17%, respectively\textsuperscript{287}. The availability of financing through the issue of SCBs in the form of bonds is very limited for small enterprises. This is a result of legal regulations that only allow entities which posses legal personality to issue bonds. On the other hand, a demand barrier emerges – potential investors are not interested in purchasing bonds of little-known enterprises operating on a small scale. This is understandable, when considering the increase in investment risk on the corporate debt securities market in the period under analysis. The insufficient scale of potential issues, which makes them unprofitable, is another factor which makes issues difficult for small enterprises. Data collected during a survey of small and medium-sized enterprises conducted by the Ministry of Economy in the second half of 2002 indicate that as many as 80% of enterprises

\textsuperscript{284} S. Antkiewicz, “Perspektywy rozwoju papierów komercyjnych”, Magazyn Finansowy No. 47, February 25, 2002.
\textsuperscript{285} S. Antkiewicz, “Niepewna przyszłość”, op.cit.
\textsuperscript{286} For example, at the end of 2002 the structure of current asset financing at medium-sized enterprises was as follows: short-term loans accounted for 20.2%, liabilities related to deliveries and services – 46.9%, tax, duty and social security liabilities – 9.7%, advances, bonds and other securities – 1.0%, other liabilities (own funds and deferred income as well as expense provisions and provisioning against doubtful claims) – 11.2%. Source: Central Statistical Office (GUS) data, NBP calculations.
\textsuperscript{287} Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2001-2002 (Warszawa: Polska Agencja Rozwoju Przedsiębiorczości, 2003), p. 31. In the European Union, microenterprises (i.e. enterprises employing up to 9 persons) accounted for 89.1% of the total number of firms, small enterprises (i.e. enterprises employing from 10 to 49 persons) – for 9.1%, and medium-sized enterprises (i.e. employing from 50 to 249 persons) – for 1.5%; Commission of the European Communities, Creating an entrepreneurial Europe. The activities of the European Union for small and medium-sized enterprises (Brussels 2003), p. 16.
did not even use bank loans – SMEs were not even able to meet the banks’ requirements regarding collateral or other types of guarantees, not to mention the use of finance from the debt securities market. The composition of Polish entities may impede the development of the SCB market in the future.

The unsatisfactory development level of the corporate debt securities market in Poland is not an exception. The level of development of the European SCB market is also insufficient. In order to enable a more dynamic development and the establishment of a single European short-term corporate bond market, the STEP initiative (Box 6.1.3) has been launched.

Box 6.1.3

**STEP (SHORT-TERM EUROPEAN PAPER) INITIATIVE**

The STEP initiative, which was put forward by ACI – The Financial Markets Association, aims to integrate the EU short-term debt securities market. The creation of a common issue standard should contribute to the establishment of a single wholesale short-term debt securities market in the European Union.

The proposal developed by the ACI-STEP Task Force recommends the introduction of a special STEP label for the issues that meet the requirements stipulated by ACI. It is planned that an independent entity would be responsible for granting the label to individual issues. ACI has asked the European Central Bank to assume this role for the first two or three years. A STEP-labelled issue would e.g. have to meet the following requirements:

- an information memorandum must be published, which is drawn up according to a specified standard and includes all required information;
- the memorandum must be drawn up in English and published on the Web site of the entity granting the STEP label;
- the memorandum must be updated at least once a year;
- the minimum amount of issue must equal 150,000 euro;
- the instrument must be dematerialised;
- instruments must have ISIN codes;
- transactions on the secondary market must be settled within one day using an approved securities settlement system.

The granting of the STEP label would not involve assessing the creditworthiness of the issuer but only the verification that the formal requirements listed above have been met. Moreover, it is planned that issue statistics and the index of yields on these debt securities on the primary market will be published in order to enhance the transparency of the market.

The European Central Bank is currently analysing the ACI proposal, including the legal and organisational feasibility of the European System of Central Banks performing specific tasks within the framework of this project.


6.1.3. Deposit transaction market

The deposit transaction market enables commercial banks and other entities to manage their financial liquidity in an efficient way. Participants in this market can invest temporary financial surpluses or borrow funds. In terms of the credit risk of such instruments, deposits may be divided into unsecured and secured ones.

288 The development of the European corporate debt securities market is discussed in more detail in the “Corporate bonds” section in Chapter 6 of this paper.
6.1.3.1. Unsecured deposits

The unsecured deposit market, hereinafter called the interbank deposit market, is used for current liquidity management by commercial banks. A developed interbank deposit market is an important element in the financial system of every country, since it enables the efficient transmission of monetary policy impulses. The liquidity of this market favours the development of other financial market segments.

Funds are constantly moved among commercial banks on the interbank deposit market. Banks can invest surplus funds held in their current accounts with the central bank or, where shortfalls occur, borrow funds from other banks. A bank may be forced to replenish the funds in its current account because there is no overdraft facility and the average amount of required reserves must be maintained on a monthly basis\(^{289}\).

Market size

The Polish interbank deposit market may be considered well-developed, despite the fact that the steady growth of debt related to interbank deposits came to a halt in 2001. Further development of this market is impeded by low credit limits imposed bilaterally by banks. The banks’ average debt on the deposit market decreased significantly compared to 2001 (15.5 bn zloty) and amounted to 10.4 bn zloty in the first half of 2003. These figures do not include the debt related to O/N deposits, which amounts to around 5–7 bn zloty according to NBP estimates. The decrease in debt related to interbank deposits between 2001 and 2003 (Figure 6.1.14) results from mergers in the banking system and the increasingly widespread use (due to increased credit risk) of substitutes for such deposits – FX swaps (deposits collateralised by foreign exchange deposits) and conditional transactions (deposits collateralised by securities). Conditional transactions and FX swaps have an additional advantage – due to the existence of collateral, they do not lead to credit limits being used up quickly\(^ {290}\).

Figure 6.1.14. Debt related to interbank deposits

Note: due to changes in reporting principles and to enable comparisons, the data presented are for the period until June 2003 and do not include O/N deposits.

Source: NBP data.

\(^{289}\) From October 31, 1994, funds in commercial banks’ current accounts held with the NBP may be used both for interbank settlements and to meet reserve requirements.

\(^{290}\) With an FX swap, the exposure to the counterparty amounts to around 10% of the face value of the transaction, whilst where an unsecured deposit is made, the exposure equals the entire face value of the loan extended.
The decrease in debt was accompanied by a rise in net turnover, which had continued for several years (Figure 6.1.15). In 2003, the average daily net turnover on the interbank deposit market was 7.7 bn zloty, i.e. by 0.3 bn zloty more than in 2001. This was a result of the banks’ more efficient management of funds in current accounts held with the central bank. This is also evidenced by the much lower surplus of the average amount of funds in current accounts held with the NBP compared to the compulsory level of required reserves (Figure 6.1.16). Nevertheless, the liquidity of the interbank deposit market is low, particularly with regard to deposits with maturities exceeding 3 months. In the euro area, the turnover on the interbank deposit market is also highest for transactions with maturities of up to 1 month291. However, due to the much higher number of participants, the European unsecured deposit market for maturities exceeding 3 months is more liquid than that in Poland.

Current accounts held with the central bank are used not only to effect high-amount payments related to interbank transactions but also to clear items related to the settlement systems maintained by the National Depository for Securities and the National Clearing House (SYBIR and ELIXIR) as well as the NBP (RPW). The amount of funds that banks are able to deposit changes on a daily basis, therefore O/N transactions account for the largest share of turnover. A significant part of transactions are concluded using the so-called switches292, which make it possible to partially overcome the low limit obstacle. Deposits with longer maturities have higher risk weights and cause credit limits to be used up quickly. The low liquidity of transactions with 9- and 12-month maturities makes market participants reluctant to use rates that are not sufficiently credible in their opinion (9- and 12-month WIBOR rates) to determine the yield curve. They use implied rates derived from FRAs instead.

Figure 6.1.15. Monthly net turnover on the interbank deposit market

![Figure 6.1.15. Monthly net turnover on the interbank deposit market](image)

Source: NBP data.

Figure 6.1.16. Deviation of the amount of funds in current accounts held with the NBP from the obligatory required reserve amount

![Figure 6.1.16. Deviation of the amount of funds in current accounts held with the NBP from the obligatory required reserve amount](image)

Source: NBP data.

292 A switch is a way of concluding a transaction between two banks where one of them has already used up its limit imposed on the counterparty. The transaction is executed through an intermediary – a third bank, which has not used up its limits regarding both parties.
Market structure

Deposits with maturities ranging from one day to one year are placed on the market. For each of the maturities mentioned, banks quote the interest rates (on an annual basis) at which they wish to accept deposits (the BID side) and lend funds to other banks (the ASK – OFFER side). The spread quoted is lowest for long-term deposits, and amounts to around 15 basis points for 1Y deposits and 50 basis points for one-day ones. The narrowing spreads observed in recent years indicate that the market is becoming more liquid. The wider spread for deposits with short maturities is a result of the higher volatility of short-term money market interest rates. During the required reserve settlement period, when banks were reluctant to conclude transactions, the spread for O/N deposits would widen to as much as 1.5 percentage points.

In 2002, the maturity structure of deposits did not change in a fundamental way compared to previous years (Figure 6.1.17). O/N deposits accounted for 25% to 35% of deposit-related debt. On average, deposits with maturities of up to and including two months accounted for 65% of interbank deposits. The share of deposits with maturities exceeding six months in total debt remained low (around 15%).

Two indices are in use for O/N, T/N, SW, 1M, 3M, 6M, 9M, and 1Y maturities in Poland – WIBID (Warsaw Interbank Bid Rate) and WIBOR (Warsaw Interbank Offered Rate). WIBOR represents the actual cost of raising funds on the interbank market and forms the basis for determining loan interest rates as well as serves as the reference rate for derivatives – FRA, IRS and CIRS contracts. The WIBID and WIBOR indices are fixed daily at 11 a.m. pursuant to fixing rules developed by the Polish Bank Dealers Association (Polskie Stowarzyszenie Dealerów Bankowych Forex Polska). The Association also organises the fixing process. The indices are calculated as the arithmetic mean of the rates quoted by fixing participants after the highest and the lowest quotes have been discarded. Figure 6.1.18 presents the values of O/N and 1M WIBOR as well as NBP rates.

Notes: 1. Due to changes in bank reporting principles, the most recent data available to the NBP regarding the maturity structure of debt related to interbank deposits is of October 2002.
2. The ranges presented are closed on the right. The range labelled as “<1M” includes all deposits with maturities of up to and including one month (including T/N and S/N ones) except for O/N deposits.
Source: own calculations based on NBP data.

Two indices are in use for O/N, T/N, SW, 1M, 3M, 6M, 9M, and 1Y maturities in Poland – WIBID (Warsaw Interbank Bid Rate) and WIBOR (Warsaw Interbank Offered Rate). WIBOR represents the actual cost of raising funds on the interbank market and forms the basis for determining loan interest rates as well as serves as the reference rate for derivatives – FRA, IRS and CIRS contracts. The WIBID and WIBOR indices are fixed daily at 11 a.m. pursuant to fixing rules developed by the Polish Bank Dealers Association (Polskie Stowarzyszenie Dealerów Bankowych Forex Polska). The Association also organises the fixing process. The indices are calculated as the arithmetic mean of the rates quoted by fixing participants after the highest and the lowest quotes have been discarded. Figure 6.1.18 presents the values of O/N and 1M WIBOR as well as NBP rates.

\[ 293 \] Standard maturities of interbank deposits are: one-day – O/N; T/N and S/N, one-week - 5W, two-week – 2W, three-week – 3W, one-month – 1M, two-month – 2M, three-month – 3M, six-month – 6M, nine-month – 9M and one-year – 1Y. All deposits except for O/N and T/N start on the second working day following the day on which the transaction is concluded. O/N (overnight) deposits start on the day on which the transaction is concluded. T/N (tomorrow next) deposits start on the first working day following the day on which the transaction is concluded (and mature on the next working day).

\[ 294 \] The spread is the difference between OFFER and BID quotes.
Interest rates on interbank deposits with short maturities (up to 2W or 1M, depending on the current reference rate) are determined by the demand for funds at a given time and by their supply, i.e. reflect changes in the banking system liquidity. The expectations of market participants concerning the future level of interest rates are the most important factor determining interest rates on deposits with longer maturities. Interest rates on long-term deposits are more stable. The O/N deposit rate is the most volatile one. It usually rises at the end of the month, during the required reserve settlement period. At some points, the O/N WIBOR rose above the NBP lombard rate, which in theory determines the maximum cost of raising funds on the market. This was caused by the lack of TS in the portfolios of banks which wanted to borrow funds. Some banks, unable to present an adequate collateral in order to obtain a lombard loan and wanting to meet reserve requirements, had to borrow funds at rates higher than the lombard rate from other commercial banks, which had the security required as well as unused credit limits.

Bank dealers arrange interbank deposit market transaction terms and conditions via an electronic communications system and via brokers who assist in finding an intermediary for switch transactions, if necessary. Interbank deposits, like other OTC market transactions, are effected by domestic banks on the basis of bilateral agreements – a framework agreement and a supplementary one. The templates for such documents, which are included in the Recommendation regarding the conclusion of selected transactions on the Polish interbank market, have been drawn up by the Polish Banking Association and the Polish Bank Dealers Association (Box 6.1.4).

**Box 6.1.4**

**RECOMMENDATION REGARDING THE CONCLUSION OF SELECTED TRANSACTIONS ON THE POLISH INTERBANK MARKET**

The Recommendation pertains to foreign exchange and interest rate transactions (both spot and forward) as well as option contracts. It includes agreement templates stipulating the obligations arising from transactions concluded on the non-regulated over-the-counter (OTC) market.

The updated version of the Recommendation from September 2003 includes a template for a Securing Agreement, which clearly defines collateral types and the principles of establishing such collateral for OTC market transactions. Such legal constructs as netting by novation, termination events and methods of close-out netting have been described in detail. The practical application of these constructs only became possible after the Bankruptcy and Recovery Act had been passed on February 28, 2003.

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In the European Union, some transactions on the interbank deposit market are concluded via electronic transaction platforms. In 2003, a certain platform organiser offered to develop an electronic trading system for interbank deposits in zloty. Such a solution would have the following advantages: instant settlement of O/N transactions making possible to obtain liquidity quickly, an increase in the number of potential counterparties to transactions on the zloty deposit market when reserve requirements regarding deposits with non-residents are abolished in the future, and enabling access to the euro and US dollar deposit market. However, some banks (especially small ones) operating on the interbank deposit market did not express interest in participation in the system. In their opinion, the automatic debiting of the current account with the NBP as a result of making an O/N deposit combined with the manual handling of remaining payments in the queue could cause liquidity management problems in such banks.

**Market participants**

The interbank deposit market is open only to domestic banks and branches of foreign banks operating in Poland, since only these institutions have current accounts with the central bank. As of end December 2003, 55 banks participated in the SORBNET system where current accounts are maintained.

**Development trends and prospects**

As it has already been mentioned, low credit limits set bilaterally by market participants are the most important obstacle to increasing the liquidity of the interbank deposit market. The fact that limits are being used up quickly constrains the scope of applying of this instrument. It is difficult to achieve agreement between banks concerning bilateral increases of transaction limits because decisions regarding such issues are often made not by bank management boards in Poland but abroad – at the level of the groups to which banks operating in Poland belong. Raising such limits will become possible when the quality of the banks’ loan portfolio improves and their creditworthiness is enhanced. It also appears that the 2003 amendments to the Bankruptcy and Recovery Act\(^{296}\) regarding netting may slightly improve the liquidity of this market. Legally binding netting makes it possible to count net exposure due to transactions with a given party towards the credit limit, thus enabling the conclusion of a higher number of transactions with the limit value unchanged. Thus it may be expected that the turnover on the interbank deposit market will be rising slowly until the Polish market is integrated into the single European money market.

6.1.3.2. Secured deposits

Secured deposits include FX swaps (deposits collateralised by foreign exchange deposits) and conditional transactions – repo and sell-buy-back/buy-sell-back (deposits collateralised by securities).

6.1.3.2.1. FX swaps

An FX swap is an agreement under which the parties undertake to swap currencies within two working days and at the same time to swap them back at a later date. Thus an FX swap is a combination of two opposite foreign exchange transactions which are settled on different dates. The exchange rates for both transactions are agreed on the transaction conclusion date. In fact, only the difference (so-called swap points) is quoted\(^{297}\). Forward/forward FX swaps are also used. In such transactions, both the final and initial exchanges take place on a date later than the second working day.


\(^{297}\) Swap points are the difference between the forward and spot exchange rates on the market. Since the forward exchange rate does not reflect any expectations regarding the future level of the spot exchange rate, this difference is proportional to the difference in interbank deposit rates on the money markets for the currencies involved in the transaction.
An FX swap is considered a money market instrument, since – from an economic point of view – it consists of two secured deposit transactions in the currencies which are involved in the swap. On efficient financial markets, the price of FX swaps is limited to the difference between interbank deposit rates in both currencies. FX swaps link money markets of two currency areas. They present an alternative to unsecured deposits. Investors concluding FX swap transactions are not exposed to FX risk298 but to interest rate risk only. For a foreign bank investing in Polish Treasury bonds, the purchase of zlotys in the initial exchange of an FX swap is a short-term loan in Polish currency, used to finance the purchase of such bonds. A domestic bank – the counterparty to the FX swap – has foreign exchange collateral for the loan extended.

**Market size**

FX swaps are the most liquid instruments of the Polish money market. In 2003, the average daily turnover on the interbank FX swap market was 11.8 bn zloty299, i.e. over three times that on the spot FX market. The high liquidity of the FX swap market is reflected by low transaction costs (narrow spreads). The dynamic development of the market started in 1999 after the zloty had become externally convertible. The foreign exchange law restrictions in force until September 30, 2002 regarding the participation of foreign banks in the interbank deposit market favoured the widespread use of FX swaps300. The FX swap market made it possible for non-residents to invest and borrow zlotys in Poland. Foreign exchange restrictions were not the only regulatory factor favouring the development of this market. As opposed to standard deposit transactions, domestic banks do not establish required reserves against deposits accepted as FX swaps, since such swaps are off-balance-sheet transactions301.

Apart from the foregoing reasons, the dynamic development of the market was helped by the diverse applications of FX swaps. Foreign banks use this market largely to finance the purchase of Polish Treasury bonds. They use a strategy of rolling over T/N swaps302. In the initial exchange of these transactions, they purchase zlotys, so in fact they roll over a zloty loan every working day303. The zlotys obtained this way are used to finance their positions in Treasury bonds until the date on which they sell them. This strategy limits the FX risk of investing in securities denominated in zloty. FX swaps also make it possible to speculate on interest rate movements in Poland or spot exchange rate movements. By combining spot transactions and FX swaps in an appropriate manner, investors may sell or purchase zlotys by way of synthetic forwards304. Correspondingly, banks may close their FX positions resulting from outright-forward transactions concluded with corporate customers.

Foreign banks also use FX swaps to implement the carry trade strategy. Such a strategy can be described as taking out a short-term loan in a currency with lower interest rates – usually US dollars – and then converting this currency into zlotys on the spot market and making a deposit using an FX swap. Thus, carry trade makes it possible to gain from interest rate disparity (the difference between rates on zloty and e.g. US dollar deposits), provided that there is no depreciation of the zloty exchange rate that would offset the profit from the difference in interest rates. The liquid FX swap market enables banks to hedge against the risk related to concluding FRAs, since a combination of two FX swaps with different maturities is a synthetic money market rate forward contract (Diagram 6.1.2).

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298 The risk related to the conversion of interest is negligible.
299 The figure represents the average daily face value of concluded transactions after the effect of double reporting has been offset. Only the zloty value of the initial or final exchange is taken into account. This way of presenting turnover on the FX swap market is in line with the methodology developed by the Bank for International Settlements.
300 Pursuant to Art. 9, para. 5 of the Foreign Exchange Act of December 18, 1998 in force at the time, non-residents could not place zloty deposits with maturities shorter than three months and with amounts higher than 500,000 zloty with banks operating in Poland without a foreign exchange permit issued by the NBP.
301 Pursuant to Art. 38 of the Act on the National Bank of Poland of August 29, 1997, deposits accepted by domestic banks from non-residents are included in the provisioning base.
302 T/N swaps are one-day transactions where the initial exchange takes place on the working day following the day on which the transaction is concluded, and the final exchange – on the following working day.
Until 2001, not all the domestic banks operating on the interbank deposit market participated in FX swap and FRA markets. The absence of certain entities in individual segments of money and derivatives markets created opportunities for arbitrage transactions. Differences often emerged between interest rates on loans on the interbank deposit and FX swap markets. Arbitragers also made profits from differences between forward rates implied by swap quotes and FRA forward rates\(^\text{305}\).

In 2002 and 2003, despite the fact that the Foreign Exchange Act was liberalised and opportunities for arbitrage were reduced, the turnover on the FX swap market continued to rise and in 2003 was around 28% higher than in 2001 (Figure 6.1.18). During the same period, the share of transactions concluded with non-residents increased by about 5 percentage points on average. Currently such transactions account for around 85% of net turnover. The trends observed result primarily from the increased involvement of non-residents on the Treasury bond market.

**Market structure**

Both liquidity and involvement of non-residents in turnover are features typical for other FX swap markets apart from the Polish one. In the Czech Republic and Hungary, FX swap markets are also primarily used by foreign banks in order to speculate and take out short-term loans in domestic currencies against which foreign currencies are pledged (Table 6.1.1). Transactions with non-bank customers are of marginal significance. USD/domestic currency transactions dominate on interbank markets in those countries. It should be noted that the euro is the main currency on spot FX markets in the Czech Republic and Hungary. This currency structure of turnover on the FX swap market results from the widespread practice of using US dollars as collateral for loans in other currencies in such transactions. Foreign banks which conclude transactions on various markets use a single currency as collateral because it facilitates the implementation of their investment strategy. Taking the above factors and the experience of the Czech Republic and Hungary into account, it appears that USD/PLN transactions will continue to dominate on the Polish FX swap market in the immediate future, even after the euro becomes the most important currency in the Polish spot market and the EUR/PLN exchange rate is perceived as the measure of the value of the zloty.

As opposed to the interbank deposit market, which is liquid for transactions for up to three months, the FX swap market is also moderately liquid for longer maturities of up to one year. Transactions for up to and including seven days dominate (Figure 6.1.20). These are mainly T/N swaps, rolled over on a daily basis and used by foreign banks to borrow zlotys in order to finance their investments. Standard amounts for such swaps are 25 and 50 million US dollars or euro. Transactions with longer maturities are used for speculations on interest rates and in arbitrage strategies. Banks prefer to extend long-term loans by way of FX swaps rather than on the interbank deposit market, since they receive collateral in foreign currency. This collateral significantly reduces the usage of credit limits. The average daily value of concluded FX swaps with maturities exceeding three months is three or four times higher than turnover on the deposit market, and amounts to around 300 million zloty. For maturities exceeding seven days, the most frequently concluded transactions are those of values of 10 and 25 million US dollars or euro. Most transactions on the interbank market (around 90%) are concluded via an electronic communications system. At the moment, market participants do not use transaction systems that match offers automatically (such a system has been offered by one firm).

**Participants**

Turnover on the FX swap market is considerably concentrated. The share of the five most active domestic banks in net turnover is around 65%. The introduction of centralised risk management influences the activity of domestic banks. One bank with foreign capital involvement has limited its activities on the Polish FX swap market, transferring most of its zloty operations to London. Non-residents play a very important role on the FX swap market. Its liquidity is created by banks based in London and Frankfurt. Transactions on the customer market equal less than 1% of turnover on the interbank market. Non-financial corporations, which hedge against FX risk, mainly use outright forward transactions for this purpose. They rarely resort to synthetic forwards by taking appropriate positions in spot and FX swap transactions.

**Figure 6.1.20. Maturity structure of turnover on the FX swap market in Poland, 2003**

![Pie chart showing maturity structure of turnover on the FX swap market in Poland, 2003.]

Note: The ranges presented are closed on the right.

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.
**Development trends and outlook**

In the nearest future, the FX swap market will remain the most liquid segment of the Polish money market. Financial market participants prefer liquid instruments which can be applied in diverse ways, and FX swaps exhibit such characteristics. The liquidity of this market will be determined by the involvement of foreign banks in the Treasury bond market as well as consolidation and market risk management centralisation processes in the banking sector.

**6.1.3.2.2. Conditional transactions**

Conditional transactions include two types of operations collateralised by securities: repos (repurchase agreements) and sell-buy-back/buy-sell-back (SBB/BSB) transactions. The ownership of financial instruments serving as collateral is usually transferred for the duration of those operations. Such transactions are usually collateralised by Treasury securities. Other debt securities are sometimes used for this purpose.

A repo transaction is an agreement whereby one party sells certain securities and at the same time commits itself to repurchase identical securities on a specified date, at a price agreed beforehand. Various variants of repos can be distinguished depending on the manner in which securities are stored and in which operations involving them are settled (entries in depository accounts). SBB/BSB operations consist of two separate obligations: to sell/buy debt securities on the spot market and to buy/sell identical papers on the forward market at prices agreed on the date on which the transaction has been concluded. The remaining differences between repo and SBB/BSB transactions executed in Poland are presented in Table 6.1.7. In practice, both types of operations are used for the same economic purposes and the main reason for distinguishing between them in Poland is the fact that banks are obliged to establish required reserves for repo transactions with non-bank entities.

The cost of a loan on the conditional transaction market is equal to the difference between the purchase price and the repurchase price of the securities serving as collateral. The loan interest rate corresponding to this difference is referred to as the repo rate. As opposed to the interbank deposit market, loans on the conditional transaction market are secured and thus lead to smaller credit exposures to the counterparty and lower use of credit limits. The risk in conditional transactions results solely from the volatility of collateral value. Therefore in developed markets, where transactions with maturities longer than several days are common, the value of funds transferred is usually lower than the market value of securities transferred. The difference between these values is the so-called haircut, which should cover accrued interest and the potential decrease in the price of securities.

**Table 6.1.7. Most important differences between repos and SBB/BSB transactions**

<table>
<thead>
<tr>
<th></th>
<th>Repo</th>
<th>SBB/BSB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary transfer of ownership in securities</td>
<td>Yes – stipulated in one agreement¹</td>
<td>Yes – formally stipulated in two agreements</td>
</tr>
<tr>
<td>Payment when purchasing the security</td>
<td>Agreed purchase price without accrued interest (clean price)</td>
<td>Agreed purchase price plus accrued interest (dirty price)</td>
</tr>
<tr>
<td>Payment when repurchasing the security</td>
<td>Agreed repurchase price without accrued interest (clean price)</td>
<td>Agreed repurchase price plus accrued interest (dirty price)</td>
</tr>
<tr>
<td>Settlement of coupons paid during transaction</td>
<td>The temporary owner transfers coupon payments to the party which has undertaken to repurchase the securities on the date of their receipt</td>
<td>Coupon payments are transferred on repurchase date (deducted from repurchase price)</td>
</tr>
<tr>
<td>Required reserve on transactions with non-bank undertakings</td>
<td>Reserve rate – 4.5% from November 1, 2003 – 3.5%</td>
<td>Exempt from required reserve</td>
</tr>
</tbody>
</table>

¹ Sometimes securities may be blocked in a party’s depository account. The temporary holder’s possibilities of disposing of the securities on the domestic repo market are limited – it can only sell them where the bankruptcy of the counterparty is declared.


The obligation refers to ‘equivalent securities’ and not the same securities. ‘Equivalent securities’ are construed as securities bearing the same ISIN code.


308 Cf. R. Steiner, Mastering…, op. cit. pp. 78–92.
Conditional transactions are used for two basic purposes: to raise funds and to obtain specific securities\textsuperscript{309}. Most often, the party initiating the transaction wishes to borrow money on the repo market. Such transactions are described as cash-driven deals or general repos because the type of securities serving as collateral is not limited to a specific issue. Because of the collateral, the cost of such loans is lower than that of loans on the interbank deposit market. Transactions defined as securities-driven deals or specific repos serve to acquire specific securities in order to close a short position on the spot market, settle forward contracts or short sell. In such situations, the party selling securities for which there is significant demand may raise funds at a very low cost. The repo rate in such transactions is lower than that for general repos. Because conditional transactions link the cash loan market to the Treasury securities market, their widespread use in Poland might be a factor enhancing the liquidity of the outright transaction market in Treasury bills and bonds.

\textit{Market size}

The BSB/SBB transaction segment is much better developed in Poland (Figure 6.1.21), due to the fact that banks have to establish required reserves when conducting repo transactions with non-bank entities as well as because of statutory restrictions on institutional investors with regard to repos. In 2003, the average daily turnover on the SBB/BSB market was around 3.9 bn zloty, while the average daily value of repos was 0.22 bn zloty. Repos are only conducted between banks and account for 43\% of conditional transactions on the interbank market.

However, transactions between banks and non-bank entities dominate on the domestic conditional transaction market. In 2003, the customer market grew considerably (Figure 6.1.22). Compared to 2002, the liquidity of the market doubled – the average daily net turnover rose to 3.56 bn zloty. This dynamic increase in turnover resulted from the considerable interest of institutional investors in short-term BSB transactions. Pension funds, investment funds and insurance companies invest their short-term excess funds in BSB – an instrument which is secured and more liquid than time deposits. Non-financial institutions also use the SBB/BSB market to manage their liquidity increasingly frequently.

Transactions on the interbank market account for less than 6\% of net turnover and are concluded occasionally. Banks seldom use such operations to manage their liquidity. Moreover, the reason for concluding certain conditional operations is borrowing specific securities in order to correct maturity mismatches in the banks’ trading books (securities-driven deals). This is an important difference between the Polish interbank money market and the euro area interbank money market (Figure 6.1.23). Conditional transactions, mainly repos with maturities ranging from

\textbf{Figure 6.1.21. Monthly turnover in SBB/BSB and repo segments}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6_1_21.png}
\caption{Monthly turnover in SBB/BSB and repo segments}
\end{figure}

\begin{itemize}
\item SBB/BSB transactions
\item Repo transactions
\end{itemize}

Source: own calculations based on NBP Securities Register and KDPW data as well as reports submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

Liquidity on the unsecured deposit market is the highest for one-day O/N transactions. This turnover structure results from the fact that transactions with longer maturities involve higher credit risk. In Poland, despite the fact that the financing possibilities of small and medium-sized banks on the interbank deposit market are limited due to low credit limits, such banks only use conditional transactions concluded with other banks in order to secure their liquidity to a small extent.

**Market structure**

Since the SBB/BSB operations, which dominate on the Polish market, are treated as pairs of separate transactions by depository systems, it is difficult to obtain comprehensive and uniform data concerning the maturity structure of conditional transactions. Information from the Securities Register only includes repos collateralised by Treasury bills (over 40% share of turnover on the interbank market). Transactions with maturities of several days dominate among such operations (in 2003, one-day repos accounted for 57%, and operations with maturities of more than one and up to seven days – for 32% of turnover). The share of transactions with maturities longer than one month was only 2.5%. Short-term transactions also prevail on the SBB/BSB market – transactions with maturities of up to seven days account for 82% of turnover. These are primarily secured deposits from institutional investors with several-day maturities. Maturities of such deposits depend on the investment settlement cycle on the stock and bond market – available funds are invested on the SBB market from the date of purchase to the date of transaction settlement.

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**Figure 6.1.22. Monthly net turnover on interbank and customer conditional transaction markets**

Source: own calculations based on NBP Securities Register and KDPW data as well as reports submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

**Figure 6.1.23. Turnover between resident banks on the deposit transaction market in Poland and in the euro area**

Note: Net turnover on the deposit transaction market consists of the face value of unsecured deposits, repos and SBB/BSB transactions as well as FX swaps concluded between banks – Polish and euro area residents, denominated in zloty and euro, respectively.


T/N to one month, prevail on the single market in which banks from various countries participate. Liquidity on the unsecured deposit market is the highest for one-day O/N transactions. This turnover structure results from the fact that transactions with longer maturities involve higher credit risk. In Poland, despite the fact that the financing possibilities of small and medium-sized banks on the interbank deposit market are limited due to low credit limits, such banks only use conditional transactions concluded with other banks in order to secure their liquidity to a small extent.
In 2003, as much as 80% of the total value of conditional transactions was collateralised by Treasury bills. Money market bills, which can only be purchased by banks, were also often used to collateralise repos (Figure 6.1.24). Taking into account the fact that domestic banks hold Treasury bills and bonds with respective values of 24 and 55 bn zloty\footnote{KDPW and RPW data as of end December 2003}, the share of Treasury bonds in the conditional transaction structure should be assessed as low. Treasury bills also dominate as collateral for the intraday credit facility\footnote{From October 13, 2003, banks can utilise the intraday credit facility pledging Treasury bonds as collateral. Banks have rarely used this opportunity, however.}. Settlement procedures and the level of settlement fees are among possible reasons for the dominance of Treasury bills as collateral. Treasury bills and bonds are settled using two different systems – the NBP Securities Register and the National Depository for Securities, respectively. The organisation of liquidity management at banks is another factor. Most often, the dealers who manage the bond portfolio and those who secure the bank’s liquidity are two different groups; in conjunction with the absence of appropriate asset management procedures, it results in a limited possibility of using Treasury bonds for liquidity transactions. Moreover, short-term debt securities are preferred in conditional transactions due to the fact that their prices are less sensitive to interest rate movements and thus the potential decrease in collateral value is lower. The distribution of Treasury bonds within the banking system (Figure 6.1.25) may be another reason here. Most banks which exhibit liquidity shortfalls hold small Treasury bond portfolios. They often hold larger Treasury bill portfolios, which they use mainly in order to draw upon the intraday credit facility at the NBP. Most Treasury bonds are held by the banks that hold large amounts of deposits and rarely raise funds on the repo or BSB/SBB markets. On the other hand, small and medium-sized banks, which ought to prefer raising funds on the conditional transaction market due to low credit limits, do not use this instrument because of their limited bond portfolios\footnote{A similar situation occurred in Hungary — cf. D. Szakály, H. Tóth, Repo Markets, Experiences and opportunities in Hungary (Budapest: National Bank of Hungary, 1999), p. 53.}. If the use of Treasury bills related to the intraday credit facility\footnote{The average amount of Treasury bills pledged as collateral against this instrument, which makes intraday settlement more efficient, was over 5 bn zloty at year-end 2003.} and BSB transactions with non-bank entities is taken into account, the Treasury bill portfolios of some banks are also too small to actively participate in the interbank repo market. This explains the low share of conditional transactions and the dominance of unsecured deposits in the turnover on the deposit transaction market. The excess liquidity of the banking system may also constitute an obstacle to the development of the repo market. Given the structural excess liquidity, the banks that raise funds on the market do not have to rely on secured transactions to a large extent.

\textbf{Market participants}

Around a dozen domestic banks regularly conclude conditional transactions. The remaining banks would have to adjust their procedures and operating systems in order to participate in this...
market and efficiently utilise its capabilities. The increasing activity of institutional investors, who invest their excess liquidity, is a favourable phenomenon. The limited Treasury bill portfolios held by banks force them to use Treasury bonds in BSB transactions. Due to the method of calculating the purchase/sale price (Table 6.1.6), strip bonds are preferred. Companies are also more interested in investing their temporary excess liquidity in BSB transactions. Such operations are often collateralised by commercial bonds, since the yield on such investments is higher due to the issuer’s higher credit risk.

Most conditional transactions between financial institutions are concluded on the non-regulated OTC market. Repos and SBB/BSB transactions collateralised by Treasury securities may also be concluded on the CeTO electronic platform. The turnover on this market is small, however.

The development of the conditional transaction market was fostered by the creation of uniform legal grounds – the Recommendation regarding the conclusion of REPO and BUY/SELL BACK transactions on the Polish financial market315. This document stipulates basic terms and conditions of transaction conclusion and settlement, the use of collaterals and the consequences of a party defaulting on the agreement. The provisions of this recommendation constitute a standard, which is universally applied by market participants. The guarantee of effective netting by novation where the bankruptcy of a counterparty is declared was an important regulatory development316.

Development trends and outlook

In the coming years, the turnover on the market of conditional transactions should grow steadily. The introduction of the zero required reserve rate in transactions with non-bank entities will be of great importance for the future development of the repo market, since it will nullify the economic advantage of SBB/BSB operations and will favour the uniformisation of conditional transactions. It appears, however, that BSB transactions will continue to be concluded on the customer market. The provisions regulating the operation of pension funds do not allow them to borrow securities from other entities in repo transactions317. Only BSB investments are possible.

The development of the interbank repo market is certainly the greatest challenge for the Polish money market, which will soon be integrated into the European money market. Any adjustments regarding legal framework and infrastructure may only contribute to increasing the liquidity of this market. Market participants themselves have much greater roles to play. Some banks need to change their operating procedures, ways of securing liquidity and asset management policies.

315 Rekomendacja dotycząca zawierania transakcji REPO i BUY/SELL BACK na polskim rynku finansowym (Warsaw: Związek Banków Polskich, 2001).
6.2. Capital market

6.2.1. Evolution of capital market size and structure

The Treasury bond and stock markets are the most important segments of the Polish capital market. The remaining segments are still relatively insignificant.

Table 6.2.1. Outstanding value of individual capital market instruments (bn zloty)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt securities</td>
<td>138.26</td>
<td>172.29</td>
<td>202.05</td>
</tr>
<tr>
<td>Marketable Treasury bonds</td>
<td>123.5</td>
<td>153.9</td>
<td>184.5</td>
</tr>
<tr>
<td>Municipal bonds</td>
<td>1.6</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Long-term corporate bonds</td>
<td>n/d</td>
<td>3.901</td>
<td>5.502</td>
</tr>
<tr>
<td>Long-term commercial bank debt securities</td>
<td>0.06</td>
<td>0.09</td>
<td>0.75</td>
</tr>
<tr>
<td>Mortgage bonds</td>
<td>0.1</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>NBP bonds</td>
<td>13.0</td>
<td>13.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Equities – stocks</td>
<td>103.4</td>
<td>110.6</td>
<td>167.7</td>
</tr>
</tbody>
</table>

1 End January 2003 data (considered representative for 2002).
2 End January 2004 data (considered representative for 2003).
3 Warsaw Stock Exchange capitalisation.
Source: own calculations based on Ministry of Finance, NBP and WSE data.

6.2.2. Negotiable long-term debt securities market

6.2.2.1. Treasury bonds

Treasury bonds are debt securities with maturities longer than one year, issued by the Polish Treasury represented by the Minister of Finance. Compared to instruments issued by the non-public sector, Treasury bonds can be characterized by the following features:

– lower credit risk;
– highly liquid and of various maturities;
– a well-developed primary and secondary market infrastructure;
– widely used in repo and sell-buy-back transactions;
– constitute a base for derivatives;
– serve as benchmarks for determining the yield on non-government securities.

Depending on the possibility of trading, Treasury bonds can be divided into the following categories:

– marketable bonds – ownership of such instruments may be freely transferred on the secondary market;
– non-marketable bonds – ownership of such instruments cannot be transferred freely and thus they cannot be traded on the secondary market.

Market size and structure

At the end of 2003, the Treasury bond market constituted 69% of the entire Polish debt securities market and 93% of the long-term securities market. In euro area countries, the share of the Treasury securities sector is not that high – the respective figures were 43% and 48%.

[318] The figures refer to securities issued by domestic entities.
The share of marketable bonds in domestic government debt rose from 66.7% in 2001 to 73.5% in 2003. In 2002 and 2003, marketable bonds had the highest growth rate among the securities issued by the Polish Treasury. This resulted from the fact that the Ministry of Finance implemented its policy of converting non-marketable debt to marketable instruments.

In 2002 and 2003, government debt rose rapidly. The rise in the borrowing needs of the state accompanied by a decrease in privatisation receipts contributed to a fast increase in the size of the TS market. The rapid development of the market resulted mainly from an increase in the fixed-rate bond segment. The significance of floating-rate and non-marketable bonds decreased in 2002 and 2003.

### Table 6.2.2. Government debt structure in 2001 and 2003 (as at year-end, bn zloty)

<table>
<thead>
<tr>
<th>Item</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>Growth rate (previous year = 100)</th>
<th>2002</th>
<th>2003</th>
<th>2003/2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government debt</td>
<td>283.9</td>
<td>322.9</td>
<td>379.2</td>
<td>115.5</td>
<td>115.6</td>
<td>133.5</td>
<td></td>
</tr>
<tr>
<td>I. Domestic government debt</td>
<td>185.0</td>
<td>219.3</td>
<td>251.2</td>
<td>118.5</td>
<td>114.5</td>
<td>135.7</td>
<td></td>
</tr>
<tr>
<td>1. Outstanding value of TS</td>
<td>176.0</td>
<td>212.4</td>
<td>246.0</td>
<td>120.6</td>
<td>115.8</td>
<td>139.7</td>
<td></td>
</tr>
<tr>
<td>1.1. Marketable TS</td>
<td>157.9</td>
<td>195.9</td>
<td>232.6</td>
<td>123.4</td>
<td>118.7</td>
<td>146.6</td>
<td></td>
</tr>
<tr>
<td>– marketable bonds</td>
<td>123.5</td>
<td>153.9</td>
<td>184.5</td>
<td>124.6</td>
<td>119.9</td>
<td>149.4</td>
<td></td>
</tr>
<tr>
<td>– fixed-rate bonds</td>
<td>97.5</td>
<td>133.8</td>
<td>169.0</td>
<td>137.2</td>
<td>126.3</td>
<td>173.2</td>
<td></td>
</tr>
<tr>
<td>– floating-rate bonds</td>
<td>25.9</td>
<td>20.1</td>
<td>15.5</td>
<td>77.4</td>
<td>77.4</td>
<td>59.9</td>
<td></td>
</tr>
<tr>
<td>1.2. Savings bonds</td>
<td>6.1</td>
<td>7.7</td>
<td>7.4</td>
<td>127.4</td>
<td>96.5</td>
<td>123.0</td>
<td></td>
</tr>
<tr>
<td>1.3. Non-marketable TS</td>
<td>11.3</td>
<td>8.8</td>
<td>6.0</td>
<td>77.6</td>
<td>68.1</td>
<td>52.8</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Finance data.

### Figure 6.2.1. Structure of Treasury bonds issued

*Fixed-rate bonds constitute the bulk of the market. In 2002 and 2003, the importance of fixed-rate bonds to the financing of the budget deficit continued to rise. The share of these instruments in the marketable bond segment was 79.0% at the end of 2001, 86.9% at the end of 2002, and 91.6% at the end of 2003. High share of fixed-rate bonds in the outstanding value of securities issued means that the structure of the Polish Treasury bond market is beginning to resemble structures typical for developed markets. In 2003, 96% of public debt in the European Union was financed by fixed-rate instruments.*

The increase in the share of fixed-rate bonds was fostered by a gradual decrease in inflation and interest rate cuts introduced by the central bank. Fixed-rate bonds are sensitive to inflation rate movements. Significant inflation rate changes cause problems with securities valuation and an increase in investment risk.
Marketable floating-rate bonds

There are two types of marketable floating-rate bonds: wholesale and retail bonds, with face values of 1,000 zloty and 100 zloty, respectively.

In 2002 and 2003, similarly to 2001, the following types of bonds were being offered on the market:

- 3-year retail bonds;
- 10-year wholesale bonds;
- bonds denominated in US dollars (issued in order to raise funds for the early redemption of the debt to Brazil, redeemed in November 2003) \(^\text{319}\).

The interest on marketable floating-rate Treasury bonds denominated in zloty is based on the yield on Treasury bills or on the WIBOR plus premium.

The demand for floating-rate securities decreased together with a drop in inflation and interest rate cuts introduced by the NBP. The share of floating-rate bonds in marketable bonds decreased from 21.0% at the end of 2001 to 8.4% at the end of 2003.

Savings bonds

In 2002 and 2003, as in previous periods, investors held 2-year fixed-rate bonds and 4-year inflation-indexed bonds.

Characteristic features of savings bonds include the following:

- they are only offered to private persons (residents);
- interest on these may be capitalised;
- they are not traded on the secondary market;
- they may be presented for early redemption.

The deterioration of the economic climate on the bond market in the second half of 2003 caused a drop in demand for 2-year fixed-rate bonds. The amount of such bonds presented for early redemption also increased. As a result, this market segment shrank at the end of 2003 compared to the previous year.

### Table 6.2.3. Wholesale bond structure (%)

<table>
<thead>
<tr>
<th>Item</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year zero-coupon bonds</td>
<td>24.3</td>
<td>28.3</td>
<td>30.6</td>
</tr>
<tr>
<td>5-year fixed-rate bonds</td>
<td>33.1</td>
<td>42.5</td>
<td>44.0</td>
</tr>
<tr>
<td>10-year fixed-rate bonds</td>
<td>10.0</td>
<td>12.3</td>
<td>15.3</td>
</tr>
<tr>
<td>20-year fixed-rate bonds</td>
<td>—</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Other fixed-rate bonds</td>
<td>22.3</td>
<td>8.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Floating-rate bonds</td>
<td>10.3</td>
<td>7.4</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Total wholesale bonds</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: own calculations based on KDPW data.

### Table 6.2.4. Outstanding value of savings bonds issued by the government

<table>
<thead>
<tr>
<th>Year</th>
<th>2-year bonds (m zloty)</th>
<th>Share of 2-year bonds in domestic TS (%)</th>
<th>4-year bonds (m zloty)</th>
<th>Share of 4-year bonds in domestic TS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>431.2</td>
<td>0.4</td>
<td>227</td>
<td>0.0</td>
</tr>
<tr>
<td>2000</td>
<td>1,460.9</td>
<td>1.3</td>
<td>492.6</td>
<td>0.4</td>
</tr>
<tr>
<td>2001</td>
<td>5,168.7</td>
<td>4.6</td>
<td>889.6</td>
<td>0.5</td>
</tr>
<tr>
<td>2002</td>
<td>6,670.3</td>
<td>5.9</td>
<td>1,047.8</td>
<td>0.5</td>
</tr>
<tr>
<td>2003</td>
<td>6,338.4</td>
<td>5.6</td>
<td>1,111.2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: own calculations based on Ministry of Finance data.

Non-marketable (passive) bonds

In 2002 and 2003, the policy of converting non-marketable debt to marketable instruments continued. At the same time, the Polish Treasury ceased to issue non-marketable bonds.

Table 6.2.5. Outstanding value of non-marketable bonds issued by the government

<table>
<thead>
<tr>
<th>Year</th>
<th>Total non-marketable bonds (m zloty)</th>
<th>Share of non-marketable bonds in domestic TS (%)</th>
<th>Restructuring bonds (m zloty)</th>
<th>Bonds to increase the capital of KGŻ (m zloty)</th>
<th>Bonds denominated in US dollars (1991, m zloty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>15,224.0</td>
<td>13.4</td>
<td>6,161.1</td>
<td>911.6</td>
<td>8,151.4</td>
</tr>
<tr>
<td>2000</td>
<td>13,525.8</td>
<td>10.2</td>
<td>6,402.6</td>
<td>788.3</td>
<td>6,335.0</td>
</tr>
<tr>
<td>2001</td>
<td>11,300.1</td>
<td>6.4</td>
<td>6,148.0</td>
<td>795.2</td>
<td>4,357.0</td>
</tr>
<tr>
<td>2002</td>
<td>8,765.7</td>
<td>4.1</td>
<td>5,486.2</td>
<td>765.1</td>
<td>2,514.4</td>
</tr>
<tr>
<td>2003</td>
<td>5,965.4</td>
<td>2.4</td>
<td>4,444.2</td>
<td>705.7</td>
<td>815.4</td>
</tr>
</tbody>
</table>

Source: own calculations based on Ministry of Finance data.

Primary market

The organisation of the primary market is adjusted to the amounts of transactions performed.

From 2003, marketable wholesale bonds, similar to the Treasury bills, are sold at auctions to a selected group of Primary Dealers (Dealerzy Skarbowych Papierów Wartościowych – DSPW)\(^{320}\). Organisation of the wholesale Treasury bonds sales has also changed – buy-back and switching\(^{321}\), non-competitive auctions as well as private placement\(^{322}\) have been introduced. The introduction of buy-back and switching auctions was intended to reduce refinancing risk and increase the amount of the so-called benchmark issues. The sales of bonds at buy-back and switching auctions amounted to 9.1% of the total amount of bonds sold at auctions (15.9% in 2002).

Since August 2003, the sales of retail bonds, both marketable and savings ones, have been conducted via points of sale at PKO BP offices. Both floating-rate and fixed-rate bonds are offered to retail investors. Marketable retail bonds are offered to domestic and foreign private persons and legal entities (except for financial institutions). Contrary to savings bonds, retail bonds cannot be presented for early redemption.

Issue amount

In 2003, the Ministry of Finance issued bonds amounting to 67.8 bn zloty, of which wholesale bonds accounted for 62.5 bn zloty. This translated into a 1.1% decrease in the total value of securities issued compared to 2002 and a 47.2% increase compared to 2001.

Figure 6.2.2. Treasury bonds issued, gross

Source: own calculations based on NBP, KDPW and Ministry of Finance data.

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\(^{320}\) Functioning of the DSPW is discussed in section 6.1.2.1.

\(^{321}\) It is repurchasing bonds before maturity and offering investors new Treasury securities at the same time.

\(^{322}\) Direct sales of securities to a selected investor or a group of investors without putting them on the market.
The Polish Treasury’s 3-year issue policy is fixed annually\textsuperscript{323} and set down in a document entitled \textit{Strategia zarządzania długiem sektora finansów publicznych} (“General Government Sector Debt Management Strategy”). In 2003, the Ministry of Finance prepared a new document concerning the strategy for 2004–2006 in the form of an attachment to the 2004 Budget Act. The document puts a greater emphasis on the need to reform public finances and to adjust the domestic TS market to European standards. This adjustment is to be implemented by, among other things, limiting the number of issues and increasing the amount of single issue to at least 5 bn euro\textsuperscript{324}. 

Box 6.2.1

**GENERAL GOVERNMENT SECTOR DEBT MANAGEMENT STRATEGY FOR 2004-2006**

Fundamental assumptions of the strategy include:
– maintaining the amount of public debt at a safe level;
– limiting central budget deficit in subsequent years;
– reforming public finances by implementing a comprehensive programme of budget fund allocation changes;
– limiting new endorsements and guarantees only to supporting investments;
– restraining the debt accumulation process in the general government sector outside the Treasury and local government units;
– minimising debt servicing costs;
– adjusting the Polish Treasury securities market to EU standards;
– enhancing the Primary Dealers system;
– improving central budget liquidity management;
– continuing the conversion of non-marketable debt to marketable instruments;
– financing foreign debt repayments (taking into account the reduction of costs and risk);
– early redemption of part of foreign debt;
– coordinating foreign debt management with other foreign exchange flows;
– reducing the amount of debt issued on the domestic market by using funds from international financial institutions.

As a result of the strategy adopted and an increase in borrowing needs of the central budget, the amounts of Treasury bonds offered for sale at auctions grew. In 2001, the average value of bonds offered at a single auction was 1.0 bn zloty; in 2002 and 2003, this figure increased to 1.8 bn and 2.2 bn zloty, respectively.

Since May 2003, the excess demand for Treasury bonds in relation to their supply on the wholesale primary market has started to decrease. The relative drop in demand on the primary market preceded the reversal of price trends on the secondary market by around 3–4 months.

**Secondary market**

\textit{Turnover}\textsuperscript{325}

The period of 2002-2003 was characterized by high growth rate in the turnover of the Treasury bonds. In 2002, the average annual turnover grew by 129%, and in 2003 – by 82%.

\textsuperscript{323} The rationale behind drawing up 3-year strategies annually is to correct the adopted assumptions on a current basis. 
\textsuperscript{324} More information can be found in the Ministry of Finance document: \textit{Strategia zarządzania długiem sektora finansów publicznych w latach 2004–2006}, September 2003, p. 46. 
\textsuperscript{325} Turnover means gross turnover, unless otherwise indicated.
The fast growth in Treasury bond turnover in 2002 and 2003 was assisted by the following factors:
- decreasing interest rates (growing prices), which brought additional profits to holders of fixed-rate Treasury bonds;
- development of conditional transactions (repos and sell-buy-backs) in which bonds are used;
- increase in issue amounts, which enabled new large investors to enter the market;
- launch of the electronic TS market.

Together with the turnover, the liquidity ratio also rose, from 0.64 in 2001 to 1.12 in 2002 and 1.67 in 2003\(^{326}\).

Note: including non-regulated, electronic and stock exchange markets.

Source: own calculations based on KDPW data.

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\(^{326}\) Liquidity is measured as the ratio of the average monthly turnover of Treasury bonds to the average monthly amount of bonds held by investors.
An increase in the amount of a single bond issue causes more than proportional increase in the turnover of this bond. This means that the larger single issues are, the higher the liquidity of the bond market becomes. In 2002 and 2003, the amount of the largest single bond issues was growing. While at the end of 2001 the largest issue on the market amounted to 6.7 bn zloty, in 2002 it was 13.4 bn zloty and in 2003 it was 22.8 bn zloty.

**Organisation of trade**

Apart from the secondary markets operating to date (the non-regulated and stock exchange ones), the Electronic Treasury Securities Market (Elektroniczny Rynek Skarbowych Papierów Wartościowych – ERSPW) was established on the CeTO in April 2002. Its participants are banks with the status of Primary Dealers. The objective of establishing that market, apart from improving the valuation of Treasury securities, was enhancing the liquidity and transparency of trading. Facilitating market access to non-financial investors and streamlining transaction settlement were also of significant importance.

The electronic market took over only small part of turnover from the non-regulated market. The majority of transactions continued to be concluded on the non-regulated market. The banks’ reluctance to fully disclose the costs of bond purchase and sale to customers and partners to transactions may be one of the reasons for the slow development of the electronic market.

Other important reasons for the turnover concentrating on the non-regulated market include:

- a system of primary market organisation whereby banks are original purchasers of Treasury securities;
- lower trading costs (no obligatory brokerage office intermediation, stock exchange or CeTO fees);
- higher liquidity of the non-regulated market, facilitating the execution of large orders at a smaller impact on prices than in the case of the ERSPW;

**Table 6.2.6. Individual markets’ share in the total value of turnover on the Treasury bond market (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-regulated market1</th>
<th>WSE</th>
<th>CeTO2</th>
<th>Transactions conducted within the framework of NBP open market operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>92.5</td>
<td>6.4</td>
<td>1.1</td>
<td>–</td>
</tr>
<tr>
<td>1999</td>
<td>95.6</td>
<td>4.2</td>
<td>0.2</td>
<td>–</td>
</tr>
<tr>
<td>2000</td>
<td>97.6</td>
<td>1.8</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>2001</td>
<td>98.0</td>
<td>0.6</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>2002</td>
<td>94.2</td>
<td>0.2</td>
<td>5.0</td>
<td>0.6</td>
</tr>
<tr>
<td>2003</td>
<td>94.1</td>
<td>0.4</td>
<td>5.4</td>
<td>0.1</td>
</tr>
</tbody>
</table>

1 Including repo and sell-buy-back transactions.
2 The Electronic TS Market was launched on the CeTO in April 2002, therefore the 2002 data cannot be compared to previous years.

Source: own calculations based on NBP and KDPW data.
The parallel functioning of three (non-regulated, electronic and stock exchange) markets where Treasury bonds are traded causes trends towards specialisation. Mostly institutional investors conclude transactions on the non-regulated and electronic markets, while individual investors prefer the stock exchange market.

Investors

Domestic investors (whose market share in 2003 was 78.1%) dominate on the Treasury securities market\(^{327}\). In 2002 and 2003, as in previous years, domestic banks were major purchasers of Treasury bonds. Until 2002, the share of banks in the purchaser structure was falling. This was caused by the growing importance of new institutional investors (insurance companies, pension and investment funds). In 2003, the banks’ share in the purchaser structure rose again.

In the period under consideration, the involvement of foreign investors in the Treasury bond market increased. Even the decrease in bond prices in the second half of 2003 did not reverse this trend.

The continuing interest rate disparity and the related so-called convergence play (i.e. waiting for bond prices to rise to the levels found in EU countries) were the main reasons for foreign investors’ interest in Polish bonds. Other reasons include:

- The depreciation of the zloty vis-à-vis the euro, which lowered the market entry cost.
- Periodic sales of bonds by domestic non-bank financial institutions, which led to price decreases and created favourable conditions for the purchase of bonds on the secondary market if foreign investors perceived the drop in prices as temporary. Due to technical conditions (increasing interest rate risk combined with no possibility of hedging the portfolio), collective investment institutions were forced to reduce their bond portfolios.
- The largest and most liquid bond market in the region.

\(^{327}\) The ratio represents the domestic investors’ share in the market of bonds issued for trading on the domestic market as at year-end of 2003.

<table>
<thead>
<tr>
<th>Table 6.2.7. Average amounts of single Treasury bond transactions on secondary markets (m zloty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Non-regulated market</td>
</tr>
<tr>
<td>Electronic TS market</td>
</tr>
<tr>
<td>Stock exchange</td>
</tr>
</tbody>
</table>

Source: own calculations based on KDPW data.

Source: NBP data.
Table 6.2.8. Foreign investors on the bond market (as at year-end)

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount of Treasury bonds held by foreign investors (bn złoty)</th>
<th>Foreign investors' share in domestic bond market %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>6.6</td>
<td>9.4</td>
</tr>
<tr>
<td>2000</td>
<td>15.7</td>
<td>12.7</td>
</tr>
<tr>
<td>2001</td>
<td>19.9</td>
<td>16.1</td>
</tr>
<tr>
<td>2002</td>
<td>30.3</td>
<td>19.7</td>
</tr>
<tr>
<td>2003</td>
<td>40.3</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Source: own calculations based on NBP, KDPW and Ministry of Finance data.

Table 6.2.9. Average annual yields of 10-year Treasury bonds in Poland and in the euro area (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Poland</th>
<th>Euro area</th>
<th>Spread between bond yields in Poland and the euro area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>10.72</td>
<td>5.03</td>
<td>5.69</td>
</tr>
<tr>
<td>2002</td>
<td>7.34</td>
<td>4.92</td>
<td>2.42</td>
</tr>
<tr>
<td>2003</td>
<td>5.78</td>
<td>4.16</td>
<td>1.62</td>
</tr>
</tbody>
</table>

Source: own calculations based on ECB and NBP data.

Table 6.2.10. Domestic debt of the government sector related to debt securities in 15 EU countries and selected new Member States

<table>
<thead>
<tr>
<th>Country</th>
<th>Domestic debt of the government sector (bn euro, year-end 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>1,075.3</td>
</tr>
<tr>
<td>France</td>
<td>818.0</td>
</tr>
<tr>
<td>Germany</td>
<td>813.3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>405.1</td>
</tr>
<tr>
<td>Spain</td>
<td>317.3</td>
</tr>
<tr>
<td>Belgium</td>
<td>255.3</td>
</tr>
<tr>
<td>Holland</td>
<td>203.5</td>
</tr>
<tr>
<td>Greece</td>
<td>133.8</td>
</tr>
<tr>
<td>Sweden</td>
<td>111.2</td>
</tr>
<tr>
<td>Austria</td>
<td>108.7</td>
</tr>
<tr>
<td>Denmark</td>
<td>84.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>62.4</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td><strong>52.2</strong></td>
</tr>
<tr>
<td>Finland</td>
<td>52.2</td>
</tr>
<tr>
<td>Hungary</td>
<td>30.2</td>
</tr>
<tr>
<td>Ireland</td>
<td>28.3</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Notes: Luxembourg issued no Treasury securities.
Debt amounts were converted to euro at an exchange rate of 1.2595 USD/EUR.
Source: Bank for International Settlements, for the Czech Republic – own calculations based on the Czech Ministry of Finance data.

Table 6.2.11. Public debt as percentage of GDP in selected European countries

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Poland</strong></td>
<td>36.6</td>
<td>36.7</td>
<td>41.2</td>
<td>45.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>18.2</td>
<td>28.9</td>
<td>25.2</td>
<td>37.6</td>
</tr>
<tr>
<td>Hungary</td>
<td>55.4</td>
<td>53.5</td>
<td>57.1</td>
<td>59.0</td>
</tr>
<tr>
<td>Slovakia</td>
<td>49.9</td>
<td>48.7</td>
<td>43.3</td>
<td>42.8</td>
</tr>
<tr>
<td>Cyprus</td>
<td>61.7</td>
<td>64.4</td>
<td>67.1</td>
<td>72.2</td>
</tr>
<tr>
<td>Estonia</td>
<td>5.0</td>
<td>5.7</td>
<td>4.7</td>
<td>5.8</td>
</tr>
<tr>
<td>Italy</td>
<td>111.2</td>
<td>110.6</td>
<td>108.0</td>
<td>106.2</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>5.5</td>
<td>5.5</td>
<td>5.7</td>
<td>4.9</td>
</tr>
<tr>
<td>Euro area</td>
<td>70.4</td>
<td>69.4</td>
<td>69.2</td>
<td>70.5</td>
</tr>
<tr>
<td><strong>UE</strong></td>
<td>62.9</td>
<td>62.1</td>
<td>61.5</td>
<td>63.0</td>
</tr>
</tbody>
</table>

Note: apart from the Central European countries (Poland, the Czech Republic, Hungary and Slovakia), the table includes countries with the highest and lowest public debt in EU accession countries and in euro area countries.

1 According to the Polish methodology, the public debt was higher and amounted to 50.1% of GDP in 2003 (preliminary data), while in 2002 it was 49.7% of the GDP.
Source: ECB data.
Development trends and outlook

The Polish Treasury securities market was the largest among EU candidate countries. It was also the most liquid\(^{328}\). In the enlarged EU, it will be the 13th market in terms of size.

The size of the bond market in the coming years will depend on the borrowing requirements of the central budget. The increase in borrowing needs of the central budget in 2002 and 2003 occurred in favourable market conditions (significantly reduced interest rates and Poland’s prospective accession to the European Union). As a result, the growing supply of Treasury securities encountered no demand barriers. However, in the second half of 2003 factors detrimental to the bond market emerged (falling prices on bond markets around the world, a significant increase in the borrowing requirements of the central budget). These factors drove up the yield on bonds and therefore increased the cost of servicing the public debt. At the same time, however, they enhanced the appeal of Treasury bonds to new investors.

The range of potential investors also widened. The statutes of many long-term investment institutions (investment and pension funds) limit their investment to instruments issued in the EU. Poland’s accession to the EU will enable such funds to invest in Polish Treasury securities.

The functioning of the market in the coming years will depend on many interconnected factors:

– the government’s fiscal policy influencing the supply of bonds;
– the state’s financial rating;
– trends in global bond markets;
– the cost of financing bond purchases (short-term interest rates).

6.2.2.2. Corporate (commercial) bonds

Long-term corporate bonds (LCB) are securities issued pursuant to the provisions of the Bonds Act\(^{329}\) by legal entities engaging in business activity as well as limited partnerships. Corporate bonds may be fixed- or floating-rate instruments, where the interest rate is calculated on the base rate plus margin. They have a maturity of at least one year. Special types of bonds include:

– convertible bonds, which link the features of debt securities with additional privileges – the right to convert them into company stock; they involve higher risk;
– revenue bonds, which were introduced by the 2000 amendment of the Bonds Act; they are issued e.g. by public utility companies and secured by future proceeds from fees paid by entities using the services or facilities financed by the issue\(^{330}\).

The issue of bonds enables enterprises to raise funds in order to implement long-term investments. At the same time, it stabilises the financial standing of the issuer, since the bondholder has no right to demand an early redemption of the debt if the issuer meets its obligations on time\(^{331}\). Additionally, attractiveness of financing the borrowing needs by using LCB compared to bank loans may increase due to the fact that there is no requirement to specify the purpose of issue. Thus the issuer may use the funds raised in that way to repay other liabilities.

Market size

The outstanding value of long-term bonds issued by corporates remains small compared to the outstanding value of short-term bonds issued. However, the interest in issuing such instruments grew considerably in the last two years (Table 6.2.12). At the end of January 2003, the outstanding

\(^{328}\) In 2002, daily turnover on the Polish market was five times higher than in Hungary and the Czech Republic. Calculations based on ECB paper: Bond markets and long term interest rates in European Union accession countries, October 2003.


\(^{331}\) W. Bieł, Rynek papierów wartościowych (Warszawa: Difin Centrum Doradztwa i Informacji, 2004), p. 50.
value of LCB issued amounted to 3.90 bn zloty and grew to 5.54 bn zloty at the end of January 2004, which translates to an annual increase of over 40%.\textsuperscript{332}

At the same time, the number of issuers of such securities increased. In 2003, the outstanding value of convertible bonds issued decreased compared to the previous year and amounted to 0.71 bn zloty. In the period under consideration, convertible bonds were issued by Softbank, TRAS Tychy, Bauma and Comarch.\textsuperscript{333}

\textit{Primary market}

In 2002 and 2003, LCB were issued by enterprises\textsuperscript{334} and non-bank financial intermediaries. In the period under consideration, such instruments were issued by a total number of 19 entities.\textsuperscript{335} Around 20 issuance programmes were launched on the market. The review of industries to which the issuers of corporate bonds belonged indicated that mainly telecommunications companies were interested in this form of funding, followed by financial intermediaries with capital links to banks. Together, issues in these two issuer groups accounted for over 50% of total LCB issued in the period under analysis. The amounts of individual issuance programmes ranged from 500,000 to 1.1 bn zloty. The largest issuers were: Telefonia Dialog (an issuance programme for 3-year floating-rate bonds with a 1.1 bn zloty ceiling for the outstanding amount), Telekomunikacja Polska (1 bn zloty), Polskie Koleje Państwowe (1 bn zloty) and Agencja Rozwoju Przemysłu (600 m zloty). Among the bonds traded on the market at the end of the

\begin{table}[h]
\centering
\begin{tabular}{lrr}
\hline
 & 2001 & 2002\textsuperscript{1} & 2003\textsuperscript{2} \\
\hline
Outstanding value (bn zloty) & n/d & 3.90 & 5.54 \\
LCB issuers & 51 & 53 & 59 \\
\hline
\end{tabular}
\caption{Outstanding value of LCB issued and number of issuers}
\end{table}

\begin{itemize}
\item \textsuperscript{1} As of end January 2003.
\item \textsuperscript{2} As of end January 2004.
\end{itemize}

Source: NBP, Fitch Polska S.A. data.

\textsuperscript{332} The paper compares the outstanding values of LCB issued for January 2003 and January 2004 as representative for 2002 and 2003 figures.


\textsuperscript{334} The classification of LCB issuers as small, medium-sized and large enterprises is difficult because individual banks define such enterprises in different ways. Nevertheless, it can be stated that (according to the banks’ classifications) in 2002 and 2003, 63% of corporate bonds were issued by large enterprises and 16% by medium-sized ones, while issues by other non-bank financial intermediaries and financial auxiliary institutions accounted for 21% of bonds.

\textsuperscript{335} Based on NBP data submitted by banks – Primary Dealers and/or Money Market Dealers serving as depositaries.
period under analysis, the amount of 3-year Telekomunikacja Polska bonds was the highest. Their face value was also the highest (500,000 złoty). The lowest face value of LCB was 1,000 złoty. In the period under consideration, LCB were issued as unsecured instruments. Most of them were floating rate bonds for which the WiBOR was the base rate. The maturities of corporate bonds issued in 2002 and 2003 varied considerably (from one year to 35 years). LCB with the longest maturity were issued by the Tele-Tech Investment company. They were denominated in euro and the programme amount was 87.6 million euro. It was also the only issuance programme during the period under consideration, under which instruments denominated in a currency other than the złoty were issued on the Polish market. At the end of 2003, the outstanding value of LCB denominated in euro was 73.71 million euro, which amounted to 6.28% of the total outstanding value of LCB issued during the period under analysis.

As in the case of the SCB market, the predominant part of issues in 2002 and 2003 took place outside the stock exchange. During the period under consideration, LCB were mainly issued by unlisted companies. Among 19 companies which issued such instruments, only three (Telekomunikacja Polska, Polskie Przedsiębiorstwo Wydawnictw Kartograficznych and Browary Strzelec) were listed on the WSE.

Bank Handlowy w Warszawie SA, BRE Bank, PKO BP, ING BŚ and Bank Millennium were the five most important organizers of long-term corporate bond issues. Four of the five banks which dominated in the LCB sector also dominated in the SCB one.

Some enterprises use the services of several banks at the same time to organize LCB issues. This aims to ensure better access to funds (each bank organizes its own market and offers bonds to selected investors in private placement). This can also stimulate competition between banks and prompt them to reduce their fees. Moreover, in the case of high-amount issuance programmes the risk is distributed. An example here was the issue of Polish State Railways (Polskie Koleje Państwowe) bonds with a ceiling of 1 bn złoty in October 2002, which was organized by a consortium of banks (Bank Millennium, BRE Bank, Deutsche Bank and WestLB).²³⁶

**Secondary market**

The LCB secondary market is primarily non-regulated. Issues are organized similarly to short-term corporate bond issues. The transactions concluded are settled by banks, which maintain depository accounts for bond purchasers as well as conduct operations related to the offering and redemption of a given issue.²³⁷ The issues of two companies’ bonds on the CeTO public market in 2003 were exceptions to this rule. The companies were Ventus and BZ WBK Leasing. The total turnover of both companies’ bonds in 2003 was only 7.47 million złoty.

**Investors**

In 2003, enterprises and banks, which together held in their portfolios 66% of total LCB issued, were the most important investors on the LCB market. The interest of pension funds (2%), investment funds (5%) and insurance companies (9%) in this market remained low (Figure 6.2.9).²³⁸ In 2002 and 2003, listed companies constituted only around 16% of LCB issuers and over 90% of LCB issues were unsecured.

²³⁶ In June 2002, the Polish Banking Association together with the Non-Government Debt Securities Task Force, consisting of 24 banks operating in Poland, developed and approved a Recommendation concerning the standard documentation of non-public issues of short- and medium-term non-government bonds conducted via several dealers. The document includes templates of three basic agreements regulating mutual relationships between the entities participating in the issue, the settlement of transactions concluded by investors and the rights and obligations of those entities. These agreements include a contract of agency, deposit agreement and dealer’s agreement as well as sub-agency and sub-deposit agreements. Despite the existence of framework agreements, banks do not use them.


²³⁸ The reasons for that have been described in section 5.3.
Tax regulations could have been one of the reasons for the large demand for corporate bonds among enterprises, because shareholders of joint stock companies or private limited companies may use bonds for the purpose of the so-called “thin capitalisation.” It means issuing bonds, which are then obtained by the owners of the company. The fact that the owner contributes capital to the company means that on the one hand, the owner receives remuneration (interest on bonds) and on the other hand, the company receives tax benefits – its fiscal burden is reduced. This is because the company may recognize the interest paid as a tax-deductible expense.

The factors which could limit the growth in issued LCB amounts in the period under analysis were:

– the lack of liquidity on the secondary market;
– the continuing prevalence of non-public issues, which limited the group of investors;
– the continuing prevalence of unsecured issues, which meant that the risk of investing in bonds was higher;
– the limited interest of institutional investors;
– the small number of entities which had a rating assigned;
– the absence of a centralised deposit and settlement system.

Development trends and outlook

Corporate interest in raising funds by issuing bonds is growing in Europe (Table 6.2.13). The market developed rapidly after 1999, the year of a wave of mergers and acquisitions on the global market. In 2000 and 2001, the European non-financial sector debt securities market was dominated by companies from the telecommunications, new technologies and media industries. The market has become much deeper and currently the sector includes many industries with varied creditworthiness and financial requirements. At the same time, its level of development varies widely between individual euro area countries. These differences result from fiscal and institutional regulations as well as the historically shaped market structure, which is peculiar to every country. Among euro area countries, France, Portugal, Finland, the Netherlands and Belgium have well-developed non-financial sector debt securities markets.

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340 However, tax regulations limit the use of thin capitalisation. More information in: W. Bień, op.cit.
The amount of funds raised by EU corporations through bond issues has caught up with that raised in the United States. In the first quarter of 2001, the amount of corporate bonds denominated in euro exceeded the amount of issues in US dollars for the first time. The liquidity of this market is rising constantly. The improvement in the financial standing of the non-financial sector in 2001 contributed to this development. At the end of 2003, the annual growth rate of the debt securities market in the euro area amounted to 7.3%. Debt securities of the non-financial private sector recorded the highest growth (with an annual growth rate of 9.8% in 2003 compared to 3.5% in 2002). In 2003, the outstanding value of long-term debt securities issued in the euro area amounted to 90.5% of the total outstanding value of debt securities issued.

In 2003, the share of debt securities denominated in euro in total issues by euro area residents was 94%. At the same time, the interest of non-residents in issuing debt securities denominated in euro grew (in 2003, such issues grew by 17.4% compared to the previous year).

The development of the European corporate bond market may significantly influence the development of the Polish market for such instruments. The attractiveness of the European market resulting from its higher liquidity and higher credibility of issuers (due to ratings) may heighten the interest of Polish investors, and particularly of collective investment institutions, in investing funds in more liquid bonds issued abroad. Therefore the removal of barriers which make such institutions reluctant to invest in Polish LCB is important in Poland. It includes, i.a., enhancing the transparency of issuers, centralising trading in order to make the daily valuation of LCB more feasible, making ratings more popular as well as better adjusting issue characteristics to the requirements of potential investors. This is particularly important due to the increasing significance of collective investment institutions on the Polish capital market in recent years. The increasing supply of medium- and long-term capital caused by the growing assets of such institutions may constitute an important factor in the development of long-term corporate bond market in Poland. However, changes on the supply side of the market are required.

### Municipal bonds

Municipal bonds are debt securities issued pursuant to the Bonds Act by local government units (LGU).

#### Market size

In 2002 and 2003, the average annual growth in the outstanding value of bonds issued by local government units amounted to 27%. During this period, conditions for the development of the debt securities market, including the municipal bond market, were favourable. Interest rate cuts enhanced the attractiveness of debt securities issues and low inflation encouraged investment in such instruments.

At the end of 2003, securities accounted for 15.1% of the domestic debt of local government units, while the share of loans was 79.9%. Increased interest of local government units in using the capital market to raise funds can be observed. However, despite its rapid development, the

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344 Collective investment institutions include pension funds, investment funds and capital funds related to life insurance.
345 This issue is discussed in greater detail in section 5.3.
346 The Bonds Act of June 29, 1995 (consolidated text as published in Dziennik Ustaw No. 120/2001, item 1300 with later amendments).

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| Table 6.2.13. Outstanding value of debt securities issued by euro area residents, bn euro |
|----------------------------------|---|---|
|                                 | 2002 | 2003 |
| Non-monetary financial corporations, of which: | | |
| – short-term securities | 561.5 | 678.1 |
| – long-term securities | 7.4 | 8.9 |
| Non-financial sector, of which: | | |
| – short-term securities | 536.0 | 580.7 |
| – long-term securities | 90.2 | 92.0 |
| Non-financial sector, of which: | | |
| – short-term securities | 445.8 | 488.7 |

municipal bond market remains a small segment of the domestic debt securities market (around 1% of debt securities issues in total and 1.4% of securities issued by the government and local government sectors). At the end of 2003, the five largest issues of such instruments accounted for 30.9% of the municipal bond market (at the end of 2002 it was 27.3%).

The financial standing of issuers and legal regulations may hamper the development of the market. Pursuant to the Public Finance Act[^347], the debt of local government units may not exceed 60% of their revenue. In 2003, the debt of LGU amounted to 21.8% of their revenue (19.2% in 2002). Although the average debt to revenue ratio was low, the financial standing of

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individual local government units varied. Some units were not in debt but some approached statutory debt limits or even exceeded them. The fact that many municipalities are small and cannot issue debt securities for economic reasons constitutes another restriction. Securities issues only become profitable after a certain minimum scale has been reached. According to a CeTO analysis, an issue of municipal bonds may be cheaper than taking out a loan if the amount of the issue is at least 2 million zloty. The average amount of a municipal bond issue in 2003 was 3.5 million zloty.

**Primary market**

**Issue organization**

Due to the large number of municipal bond issues of small amounts, such issues are usually non-public. As at year-end 2003, bonds issued in non-public issues accounted for 91% of all municipal bonds.

The public market, which accounts for 9% of municipal bond market, is concentrated around the CeTO. As of year-end 2003, five bond issues by three towns (Ostrów Wielkopolski, Poznań and Rybnik), amounting to 287 million zloty in total, had been placed on this market. The issues introduced to trading on the CeTO had much higher amounts than the non-public ones. The average amount of issue registered on the CeTO was over sixteen times higher than the average amount of non-public issues.

**Secondary market**

The secondary market is organized by entities (usually banks) which have placed the issues on the market earlier. The NBP has no information about turnover on the non-public market.

Trading in municipal bonds on the CeTO was very rare. In 2003, it amounted to 1 million zloty (25 transactions) and in 2002 – to 12.5 million zloty (4 transactions).

Reasons for the low liquidity of municipal bonds include:

- low issue amounts;
- floating interest rate (floating-rate bonds are usually less liquid than fixed-rate coupon bonds).

**Investors**

Domestic institutional investors (primarily banks) are the most important municipal bond purchasers. At the end of 2003, they held 90.8% of municipal bonds. The banks’ dominance to a large extent results from the fact that they are issuing agents and organizers of the non-public secondary trading in bonds. Due to the low liquidity of municipal bonds, mutual investment institutions are not interested in purchasing these securities.

**Development trends and outlook**

The relatively limited possibilities of issuing securities by local government units are the most important obstacle to the development of the municipal bond market. The issue of debt securities becomes profitable when it reaches a certain minimum scale and most local governments are small units with limited financial capabilities. In the euro area, the municipal bond market is also one of the smallest segments of the debt securities market. This also applies to other countries in our

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348 As at year-end 2003, the share of non-government public sector debt securities in the total outstanding value of debt securities issued in the euro area was 2.6%. Non-government public sector securities are, however, a concept broader than municipal securities, since they include securities issued by social security funds.
region. In the Czech Republic, the share of municipal bonds in financing local government debt is around 25% lower than in Poland\textsuperscript{349}. Wider knowledge about the possibilities of using bonds to finance investment requirements of local government units and an increase in municipality revenues are factors which may contribute to this market segment becoming more significant. Interest in municipal bond issues may also be fuelled by the need to raise funds for local contributions to investments co-financed from European Union funds.

6.2.2.4. Long-term commercial bank debt securities

Long-term bank debt securities (LBDS) are securities issued by commercial banks with maturities exceeding one year. LBDS are issued as bank bonds and bank securities.

\textit{Market size}

The outstanding value of LBDS at the end of 2003 was equal to around 0.3\% of the entire Polish debt securities market\textsuperscript{350}. In the euro area, own issues of long-term debt securities by monetary financial institutions accounted for 31.6\% of the total debt securities market\textsuperscript{351}.

The rather low utilisation of LBDS issues by commercial banks was mainly caused by the sufficient amount of deposits coupled with relatively high credit risk, which limited growth in lending. At the end of 2003, funds raised by commercial banks through LBDS issues constituted 0.3\% of bank liabilities.

In 2003, the amount of LBDS issued grew considerably. The growth was fuelled by the fact that from 2004, the capital gains tax exemption for individual investors conducting transactions on the regulated market was to be removed. Banks took advantage of a loophole in the tax system, which existed in 2002 and 2003, and issued the so-called ‘tax-free’ bonds. The tax-free design of such bonds consisted in the early redemption of bonds and including the interest due in their price (the difference between bond sale and purchase prices was not subject to tax). The banks’ interest in LBDS issues was also heightened by the decrease in household deposits as well as the development of housing construction lending and the related increase in long-term financing requirements. At the end of 2001, the total outstanding value of bonds issued by banks\textsuperscript{352} was 306 million zloty, at the end of 2002 it was 1,857 million zloty, and at the end of 2003 – 2,903 million zloty.

\textbf{Figure 6.2.13. Outstanding value of long-term debt securities issued by commercial banks}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Outstanding value of long-term debt securities issued by commercial banks}
\end{figure}

\begin{flushright}
Source: NBP data.
\end{flushright}

\textsuperscript{349} At the end of 2002, the share of securities in local government debt in the Czech Republic was 11.3\%.
\textsuperscript{350} The figures refer to securities denominated in zloty, issued by domestic entities. The European Investment Bank has issued debt securities on the Polish market. According to KDPW data, the face value of EIB bonds amounted to 1,785 million zloty at the end of 2003.
\textsuperscript{351} Calculations based on: ECB, \textit{Monthly Bulletin}, 08/2004. Data on monetary financial institutions also include issues by euro area central banks. These issues are relatively small, however.
\textsuperscript{352} Total amount of bonds, i.e. long- and short-term ones.
Primary market

In 2002 and 2003, significant changes occurred in the structure of securities issued. Whereas until 2001 bank securities dominated, in 2002 and 2003 public issues of bank bonds became the most important commercial bank securities. Until 2001, bonds were not issued in a public offer. Since public issues of bank bonds were mostly targeted at individual investors, deposit rates constituted reference levels for bank bond rates.

The organization of the LBDS primary market is analogous to that for SBDS, which is discussed in section 5.1.2.3.

Secondary market

The most important secondary bond trading markets are: CeTO and WSE\textsuperscript{353}. At the end of 2003, bonds issued by three banks (two issues) were registered on the CeTO and bonds issued by one bank (four issues) on the WSE.

Until 2003 there was no public trading in bank bonds. A significant change occurred in 2003. The turnover of these securities amounted to 7.6 bn zloty\textsuperscript{354}. High turnover of bank bonds does not mean that the market is highly liquid – it was mainly caused by early redemptions of bonds by their issuers.

The NBP has no information about the turnover on the non-public market.

Investors

LBDS are mainly purchased by residents, primarily households. Non-residents accounted for only 0.5% of purchasers.

Development trends and outlook

In 2003, the amount of LBDS issued grew significantly. It is not likely that this rapid growth will sustain in the coming years, since the issue growth in 2003 was influenced by a one-time factor (the introduction of capital gains tax).

In the long term, Poland’s accession to the European Union and especially its entry into the euro area should stimulate the development of the domestic LBDS market. There is also a great probability of growth in long-term loans, mainly housing loans and those related to financing infrastructure projects. Both factors will influence the rise in the demand for long-term bank financing, thus intensifying the banks’ need to seek new sources of funding. Foreign financing (bond issues or funds obtained from parent companies) may compete with domestic issues.

### 6.2.2.5. Mortgage bonds

Mortgage bonds are issued by mortgage banks. Mortgage bonds may be registered or bearer securities. The basis for issuing that kind bonds are mortgage bank liabilities. In the content of such instrument, a mortgage bank commits itself to make certain payments. These include primary (the

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<table>
<thead>
<tr>
<th>Year</th>
<th>LBDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>7.5</td>
</tr>
<tr>
<td>1999</td>
<td>4.4</td>
</tr>
<tr>
<td>2000</td>
<td>4.0</td>
</tr>
<tr>
<td>2001</td>
<td>3.3</td>
</tr>
<tr>
<td>2002</td>
<td>2.9</td>
</tr>
<tr>
<td>2003</td>
<td>14.9</td>
</tr>
</tbody>
</table>

Source: own calculations based on NBP data.

\textsuperscript{353} There is no public secondary trading in bank securities.

\textsuperscript{354} Turnover figures presented refer to short- and long-term bonds.
Financial markets

National Bank of Poland

face value of the mortgage bond according to which it is redeemed) and secondary ones (interest payable on dates specified in the issue terms and conditions).

Mortgage bonds involve low investment risk due to numerous safeguards provided in the statutes. Therefore in countries with developed financial markets, such instruments are purchased by institutional investors whose investments are subject to many safety limits.

Market size

By the end of 2003, four mortgage banks were authorised to operate: HypoVereinsbank Bank Hipoteczny SA, Rheinhyp BRE Bank Hipoteczny SA, Śląski Bank Hipoteczny SA and Nykredit Bank Hipoteczny SA.

During the period under analysis, the outstanding value of mortgage bonds issued by mortgage banks, both in zloty and in foreign currencies, steadily increased.

Rheinhyp BRE Bank Hipoteczny SA dominates on the mortgage bond market. At the end of 2003, its market share was 91%. In 2002, the bank conducted three non-public mortgage bond issues amounting to 10 million US dollars, 10 million euro and 50 million zloty. In 2003, the bank conducted two public issues amounting to 400 million zloty in total and one non-public issue amounting to 20 million euro.

Both public issues were part of a 5-year Mortgage Bond Issuance Programme, which amounted to 500 million zloty in total. The Programme and all mortgage bonds issued to date by Rheinhyp BRE Bank Hipoteczny SA have obtained investment ratings: Baa1 from Moody’s Investors Service Limited rating agency and A from Fitch Ratings. Mortgage bonds were introduced into public trading on the CeTO regulated OTC market. The issue drew considerable interest from investors, which is evidenced by the fact that it was oversubscribed by 70 percent.

Table 6.2.16 presents basic data on non-public and public issues of mortgage bonds in Poland.

Market organisation

Issues are arranged by banks with capital links to mortgage banks. They act as dealers, paying agents and depositaries at the same time. BRE Bank additionally organizes the secondary market for mortgage bonds issued by Rheinhyp BRE Bank Hipoteczny SA.

Table 6.2.15. Outstanding value of mortgage bonds issued by mortgage banks in Poland between 2001 and 2003 (end December, million zloty)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>115.1</td>
</tr>
<tr>
<td>2002</td>
<td>245.1</td>
</tr>
<tr>
<td>2003</td>
<td>803.8</td>
</tr>
</tbody>
</table>

Source: NBP data.

Table 6.2.16. Mortgage bond issues in Poland

<table>
<thead>
<tr>
<th>Bank name</th>
<th>Issue date</th>
<th>Maturity</th>
<th>Issue amount (million)</th>
<th>Issue currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2002-05-20</td>
<td>6-year</td>
<td>10</td>
<td>USD</td>
</tr>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2002-05-20</td>
<td>7-year</td>
<td>10</td>
<td>EUR</td>
</tr>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2002-07-29</td>
<td>4-year</td>
<td>50</td>
<td>PLN</td>
</tr>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2003-04-10</td>
<td>5-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2003-05-20</td>
<td>6-year</td>
<td>20</td>
<td>EUR</td>
</tr>
<tr>
<td>Rheinhyp BRE Bank Hipoteczny SA</td>
<td>2003-10-23</td>
<td>5-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td>HypeVereinsbank BRE Bank Hipoteczy SA</td>
<td>2002-04-29</td>
<td>5-year</td>
<td>22</td>
<td>PLN</td>
</tr>
<tr>
<td>Śląski Bank Hipoteczny SA</td>
<td>2003-05-16</td>
<td>5-year</td>
<td>10</td>
<td>PLN</td>
</tr>
<tr>
<td>Śląski Bank Hipoteczny SA</td>
<td>2003-05-16</td>
<td>5-year</td>
<td>8</td>
<td>PLN</td>
</tr>
<tr>
<td>Śląski Bank Hipoteczny SA</td>
<td>2003-01-24</td>
<td>4-year</td>
<td>3</td>
<td>EUR</td>
</tr>
</tbody>
</table>

Source: NBP data.
**Secondary market**

Secondary trading in mortgage bonds may take place both on the public and non-public markets. Public trading is organized by the CeTO but its liquidity is low. In 2003, the turnover amounted to 59 million zloty.

The NBP has no information about turnover on the non-public market.

**Investors**

Purchasers of mortgage bonds on the primary market include banks, insurance companies, open pension funds\(^{355}\), investment funds and asset management companies.

The CeTO does not publish information about purchasers of mortgage bonds on the public market.

Compared to 2001, the composition of investors on the non-public mortgage bond market has changed significantly. Until 2002, such instruments were only purchased by domestic banks. In 2002, these entities still had the highest market share (70%) but a second group of investors (financial auxiliary institutions) appeared\(^{356}\).

In 2003, the composition of investors on the non-public mortgage bond market changed considerably. The share of domestic banks decreased significantly while that of foreign investors rose. The market shares of insurance companies and financial auxiliary institutions also dropped. On the other hand, the involvement of undertakings belonging to the ‘other financial intermediaries’ category grew significantly\(^{357}\). Also enterprises invested in mortgage bonds for the first time.

**Figure 6.2.14. Investors on the mortgage bond market (non-public issues, December 2002)**

![Figure 6.2.14. Investors on the mortgage bond market (non-public issues, December 2002)](image)

- Monetary financial institutions (70.2%)
- Insurance companies (8.4%)
- Other financial intermediaries (4.7%)
- Financial auxiliaries (13.3%)
- Non-profit institutions serving households (3.5%)

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers serving as depositaries.

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\(^{355}\) Open pension funds could only purchase mortgage bonds issued on the public market. At the end of 2003, open pension funds held mortgage bonds amounting to 85 million zloty, which was equal to around 21% of the total amount of public issues by Rheinhyp BRE Bank Hipotecny SA.

\(^{356}\) These are financial institutions which do not engage in financial intermediation on their own behalf but only contribute to creating conditions for such intermediation. This sub-sector includes e.g.: clearing houses and centres, the KDPW, the Bank Guarantee Fund, financial funds and foundations and asset management companies. This classification is in line with the sectoral classification according to ESA 95 European standards. Cf. *Instrukcja wypełniania formularzy sprawozdawczych dla potrzeb Europejskiego Banku Centralnego*, www.nbp.pl.

\(^{357}\) These are financial institutions whose core operations include financial intermediation performed by contracting liabilities other than cash, deposits and/or deposit substitutes at institutions other than monetary financial institutions. This category includes e.g.: credit unions, financial leasing companies, factoring companies, brokerage houses and investment funds. More information can be found in: *Instrukcja wypełniania formularzy sprawozdawczych dla potrzeb Europejskiego Banku Centralnego*, www.nbp.pl.
The Polish mortgage bond market has a considerable development potential. The supply of such bonds may rise due to an increase in demand for mortgage loans\(^{358}\). The outstanding value of mortgage bonds issued by banks in European Union Member States was 1.5 trillion euro at the end of 2002\(^{359}\). The level of market development is the highest in Germany, Denmark and Sweden. The shares of those countries in the total European Union mortgage bond market value are 73%, 9% and 4%, respectively.

Despite the large development potential of the mortgage bond market, its growth may come to a halt. This could be the result of competition from large commercial banks on the housing loan market. Universal banks have the largest share of the housing loan market while the share of mortgage banks remains low (Table 6.2.17).

Amendments to the Act on Mortgage Bonds and Mortgage Banks\(^{360}\) removed one of the most important obstacles that impeded the development of this financial market segment – the limits concerning the financing of real property were eased. Currently the amount of a single loan may not exceed 100% (formerly 80%) of property value.

Market participants still indicate several important problems. The main obstacle is the long wait for a land and mortgage register entry. In large cities, one has to wait seven months on average. In contrast, in Germany entries are made within several days to several weeks and in France – within about a month. This is a significant problem since mortgage banks may only issue mortgage bonds on the basis of their mortgage secured loan portfolios.

For the development of secondary mortgage bond market, institutional investors are required. In Poland, this condition has been met because investment funds, open pension funds and insurance companies have sizeable financial assets at their disposal and are willing to invest a certain amount

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**Development trends and outlook**

The Polish mortgage bond market has a considerable development potential. The supply of such bonds may rise due to an increase in demand for mortgage loans\(^{358}\). The outstanding value of mortgage bonds issued by banks in European Union Member States was 1.5 trillion euro at the end of 2002\(^{359}\). The level of market development is the highest in Germany, Denmark and Sweden. The shares of those countries in the total European Union mortgage bond market value are 73%, 9% and 4%, respectively.

Despite the large development potential of the mortgage bond market, its growth may come to a halt. This could be the result of competition from large commercial banks on the housing loan market. Universal banks have the largest share of the housing loan market while the share of mortgage banks remains low (Table 6.2.17).

**Table 6.2.17. Housing loans granted by commercial and mortgage banks (year-end, million złoty)**

<table>
<thead>
<tr>
<th>Banks</th>
<th>2002</th>
<th>2003</th>
<th>Share of total housing loans in 2003 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>27,237.30</td>
<td>38,243.80</td>
<td>98.27</td>
</tr>
<tr>
<td>Mortgage banks</td>
<td>336.52</td>
<td>674.48</td>
<td>1.73</td>
</tr>
<tr>
<td>Total banks</td>
<td>27,573.82</td>
<td>38,918.28</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: NBP data.

Amendments to the Act on Mortgage Bonds and Mortgage Banks\(^{360}\) removed one of the most important obstacles that impeded the development of this financial market segment – the limits concerning the financing of real property were eased. Currently the amount of a single loan may not exceed 100% (formerly 80%) of property value.

Market participants still indicate several important problems. The main obstacle is the long wait for a land and mortgage register entry. In large cities, one has to wait seven months on average. In contrast, in Germany entries are made within several days to several weeks and in France – within about a month. This is a significant problem since mortgage banks may only issue mortgage bonds on the basis of their mortgage secured loan portfolios.

For the development of secondary mortgage bond market, institutional investors are required. In Poland, this condition has been met because investment funds, open pension funds and insurance companies have sizeable financial assets at their disposal and are willing to invest a certain amount

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\(^{358}\) See section 5.1.

\(^{359}\) Annual Report 2003, European Mortgage Federation. The European Mortgage Federation includes European Union Member States as well as Switzerland and Norway.

\(^{360}\) The Act on Mortgage Bonds and Mortgage Banks of August 29, 1997 (consolidated text as published in Dziennik Ustaw No. 99/2003, item 919, with later amendments).
of them in such instruments. Mortgage bonds are an attractive financial instrument for pension funds due to their long maturities and type of security\textsuperscript{361}. This results from the long-term investment strategies of such entities (‘buy and hold’) as well as statutory safeguards imposed on them.

6.2.2.6. NBP bonds

In September 1999, the NBP issued non-marketable bonds with a face value of 13.03 billion zloty in relation to the reduction of reserve requirements. The bonds (with maturities ranging from six to ten years) were floating rate inflation-indexed ones. They were purchased by commercial banks. The banks whose required reserves amounted to less than 5 million zloty were exempt from the obligation to purchase the bonds.

In 2002 and 2003, the NBP took action aimed at reducing the outstanding value of these bonds and changing their character. The objective was to enhance the banks’ competitiveness. Interest rates on non-marketable bonds were lower than market rates and due to a significant reduction in inflation, the banks’ income from interest on such bonds decreased.

In February 2002, 6–8 year inflation-indexed bonds amounting to 7.82 bn zloty\textsuperscript{362} were exchanged for 10-year marketable bonds with interest rates corresponding to the yield on 52-week Treasury bills. 10-year bonds may be purchased by residents – juridical and natural persons – on the secondary market. The fact that NBP bonds became marketable made them the object of market transactions. All transactions involving NBP bonds (amounting to 5.5 bn zloty in 2003) were related to repos. The situation was similar in 2002 but the average monthly volume of transactions involving such papers was slightly over half of the 2003 one.

In April 2003, the NBP redeemed the remaining non-marketable bonds with the face value of 5.21 bn zloty.

6.2.3. Negotiable equities market – stocks

Before 2002, the negotiable equities market included allotment certificates and subscription rights\textsuperscript{363} alongside shares.

On May 27, 2003, the first listing of a new instrument – priority rights – took place on the WSE. Priority rights are securities entitling the holder to purchase shares of a given company before other purchasers, at a predetermined price. The time limit for the exercise of priority rights is also predetermined and ends on the day the rights expire.

Market size

The size of the equity market was influenced by processes related to the introduction of companies to the market and their delisting as well as changes in the valuation of listed shares. Initially, the latter factor contributed to a decrease in market capitalisation. The slump on the equity market lasted from the second quarter of 2000 until the end of the first quarter of 2003. The decrease in share prices was the result of both domestic and external factors. The former included the deteriorating economic situation, weak company earnings, increases in the prices of Treasury securities linked e.g. to a series of interest rate cuts, the rising risk related to fiscal policy execution and prospects as well as the political risk. Among the external factors, bursting of the ‘speculation bubble’ on global stock markets, investors’ undermined trust in the valuation of listed companies linked to the surfacing of so-called creative accounting scandals at US companies and an increase in bond prices influenced the situation. These factors contributed to drops in global stock exchange indices and thus to drops in WSE indices as well.

\textsuperscript{361} As at year-end 2003, open pension funds invested 85.13 million zloty in mortgage bonds issued in public issues, which was equal to 0.19% of their total investment portfolio.

\textsuperscript{362} Non-marketable bonds amounting to 5.21 bn zloty remained.

The slight increase (by 7%) in stock exchange capitalisation in 2002 was the result of five new companies having been listed. They were relatively small firms, not owned by the Polish Treasury. Despite the fact that new firms appeared on the WSE, in 2002 the number of listed companies decreased for the first time in the history of the exchange (19 companies were delisted due to bankruptcy or upon a strategic investor’s motion).

In 2003, the situation on the stock market changed. Market capitalisation grew by 52% compared to 2002. The WIG index rose by 45%. The mood of the stock exchange was lifted by the improved economic climate in Poland (and thus enhanced company earnings), the positive outcome of the EU referendum and the decrease in prices on the Treasury bond market. The stock exchange was also influenced by an improvement in global stock market moods. The upward trend in global stock markets was strongly impacted by an improvement in the global economic situation, especially in the United States, which resulted in positive performance of listed companies.

The increase in stock exchange capitalisation in 2003 resulted, among other things, from the listing of six new companies, including in particular the first foreign company, Bank Austria Creditanstalt AG (BACA), which is currently the largest company listed on the WSE. All newly listed companies were privately owned. In 2003, 19 companies were delisted due to bankruptcy or upon a strategic investor’s motion.

The situation on the CeTO was similar to that on the WSE. In 2002, capitalisation rose slightly (by 6%), while in 2003 the increase was significant – by 64%. It resulted from the same factors as in the case of the WSE.
In 2002, the number of companies listed on the CeTO remained unchanged, as opposed to the WSE. In 2003, one new company was introduced to trading. During the period under analysis, four companies were delisted due to liquidation and bankruptcy. One company was delisted from the CeTO due to its transfer to the WSE. CeTO Management Board reacted to these adverse trends by e.g. launching a system of authorised advisers in November 2002, whose task is to prepare companies for listing on the OTC market. This did not lead to desired effects, however.

**Figure 6.2.17. CeTO capitalisation**

![CeTO capitalisation chart]

**Table 6.2.19. Basic CeTO market statistics**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of listed companies</th>
<th>Capitalisation (million zloty)</th>
<th>ITO index (points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>25</td>
<td>375</td>
<td>11,500.1</td>
</tr>
<tr>
<td>1999</td>
<td>24</td>
<td>323</td>
<td>15,548.8</td>
</tr>
<tr>
<td>2000</td>
<td>21</td>
<td>275</td>
<td>15,254.1</td>
</tr>
<tr>
<td>2001</td>
<td>21</td>
<td>193</td>
<td>9,114.9</td>
</tr>
<tr>
<td>2002</td>
<td>21</td>
<td>204</td>
<td>9,775.8</td>
</tr>
<tr>
<td>2003</td>
<td>22</td>
<td>335</td>
<td>9,703.5</td>
</tr>
</tbody>
</table>

Source: CeTO data.

**Box 6.2.2**

**STOCK EXCHANGE INDICES**

The WSE published six types of indices: WIG – Warsaw Stock Exchange Index (Warszawski Indeks Giełdowy), WIG20, WIRR – Warsaw Parallel Market Index (Warszawski Indeks Rynku Równoległego), NIF – National Investment Fund Index (Indeks Narodowych Funduszy Inwestycyjnych), MIDWIG, and TechWIG. On December 22, 2003, the stock exchange first published the WIG-PL index. This index is based on the same calculation method as the WIG (the base date is the first stock exchange session and the base value is 1,000.00 points). It can only include domestic companies, so BACA is the only company not included in the index.

Apart from the indices listed above, the stock exchange also published five sectoral sub-indices.

On June 13, 2003, the INDEXator – a new system of calculating and publishing stock exchange indices – was launched. The frequency of updating the WIG20 (every 15 seconds) and NIF (every 2 minutes) indices increased.

In 2002, due to the unfavourable climate on the stock market, returns on most stock exchange indices were negative. Only the WIG and NIF indices yielded small positive returns – 3.2% and 1.3%, respectively.

In 2003, due to an improvement in stock market trends, most indices (except for the NIF at -1.8%) yielded positive returns. The highest returns were recorded for companies included in the WIRR (100.7%) and TechWIG (60.6%) indices.
Secondary market

Company stocks are listed on the Warsaw Stock Exchange (WSE) and the Central Table of Offers (CeTO). The former organizes the stock exchange market, the latter – the OTC market.

Transactions on the WSE may only be concluded by institutions with the status of stock exchange members. At the end of 2002, there were 24 brokerage houses and offices with that status; at the end of 2003, there were 21 of them. Selected brokerage houses and offices perform the function of market-makers and issuer’s market-makers, which consists in ensuring the adequate liquidity of listed stocks. Market-makers act on the basis of agreements with the WSE and on their

WIGOMETR – THE MARKET TREND INDEX

On April 4, 2003, the WSE started to publish the WIGOMETR market trend index. Its value is calculated on the basis of the results of a weekly survey conducted among capital market professionals. Survey participants state their expectations regarding the change in the WIG20 index as at the end of the week following the survey completion (increase, decrease, no change). In order to present the WIGOMETR, the stock exchange uses an index calculated as the balance of positive and negative expectations. This index is in the range from -100 to +100 points. A positive value means that persons who expect a rise in the WIG20 index prevail among survey respondents.
own account. At the end of 2002, this function was performed by six, and at the end of 2003 by nine brokerage houses and offices. Issuer’s market-makers, on the other hand, act pursuant to an agreement concluded with the issuer of a given stock. At the end of 2002 and 2003, this function was performed by 13 brokerage houses and offices.

On September 1, 2003, the WSE introduced post-auction trading after the close of continuous trading, enabling investors to conclude transactions after the closing price has been determined. The post-auction trading lasts 10 minutes – from 4.10 p.m. to 4.20 p.m. All post-auction trades are concluded at the closing price for a given security. The new solution has given stock market investors more time to conclude transactions at the fixing price.

**Turnover**

In 2002, stock turnover on the WSE fell by 21% as a result of the slump on the market. The reversal of the negative trend, which occurred in 2003, resulted from an improvement in the stock exchange market (an increase in turnover by 39% compared to 2002). The decision of the Minister of Finance that the capital gains tax exemption would not be extended and the reduction of fees related to stock market transactions also had some impact on the rise in turnover, which was particularly noticeable at the end of 2003.

**Table 6.2.20. Number of companies listed on particular WSE markets, 1998–2003**

<table>
<thead>
<tr>
<th>Market type</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>117 + 15 NFI</td>
<td>119 + 15 NFI</td>
<td>121 + 14 NFI</td>
<td>123 + 14 NFI</td>
<td>118 + 14 NFI</td>
<td>112 + 14 NFI</td>
</tr>
<tr>
<td>Parallel</td>
<td>51</td>
<td>61</td>
<td>67</td>
<td>61</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td>Free</td>
<td>15</td>
<td>26</td>
<td>23</td>
<td>32</td>
<td>27</td>
<td>23</td>
</tr>
</tbody>
</table>

1 National Investment Funds.
Source: WSE data.

**Figure 6.2.20. Stock turnover on the WSE**

![Stock turnover on the WSE chart](chart.png)

Note: turnover calculated as the sum total of daily turnover during a month.
Source: WSE data.

**Table 6.2.21. Stock turnover on the WSE**

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stock market turnover1</td>
<td>53,287</td>
<td>70,831</td>
<td>103,658</td>
<td>60,548</td>
<td>47,729</td>
<td>66,443</td>
</tr>
<tr>
<td></td>
<td>– trading day average (million złoty)</td>
<td>249.4</td>
<td>357.3</td>
<td>676.4</td>
<td>321.8</td>
<td>255.7</td>
</tr>
<tr>
<td>2. Turnover ratio (%)2</td>
<td>58.2</td>
<td>46.1</td>
<td>42.9</td>
<td>30.8</td>
<td>22.9</td>
<td>29.2</td>
</tr>
<tr>
<td>3. Transactions per session</td>
<td>14,365</td>
<td>17,417</td>
<td>14,919</td>
<td>12,512</td>
<td>11,358</td>
<td>12,228</td>
</tr>
</tbody>
</table>

1 Excluding block transactions.
2 Turnover ratio for shares is the ratio of the volume of stock turnover to the average number of shares traded and introduced into trading during the period under analysis.
Source: WSE data.
of December 2003. Most of the stock trading on the WSE concentrates around shares of the twenty largest companies (80% of total turnover in 2003). This means that the valuation of most companies listed on the WSE may be significantly distorted by speculation activities on the shallow market.

From 2001, turnover at the CeTO declined steadily. In 2002, the decrease amounted to 54%. In 2003, the drop in turnover was much smaller and amounted to 5%.

In 2002 and 2003, the average daily turnover was in the 70,000 zloty range. The high incidence of block transactions was typical for the OTC stock market. In 2002, their share of total turnover was 81%, and in 2003 – 73%.

In order to stop the downward trend in WSE turnover, the institutions responsible for market infrastructure (WSE, KDPW) reduced fees\(^\text{364}\) on turnover. Moreover, membership fees were reduced on the CeTO\(^\text{365}\) Amendments to the Trading Regulations and Detailed Rules of Trading significantly lowered the cost of participation in the CeTO market.

**Participants**

During the period under analysis, the composition of investors trading on the WSE stock market changed.

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\(^{364}\) In 2002, the WSE Supervisory Board reduced operating fees charged on stock turnover to stock exchange members from 0.069% to 0.059% of transaction amount. The KDPW also reduced its fees. It charges 1.70 zloty plus a transaction fee equal to 0.0085% of transaction amount for registering spot market transactions.

\(^{365}\) The first reduction (to 38,000 zloty) was introduced in 2002 and pertained to the annual membership fee collected from CeTO members. In 2003, more changes regarding the amounts and types of market fees were introduced. The annual membership fee was replaced by a monthly lump sum transaction fee amounting to 2,500 zloty. This fee allows members to conclude transactions on securities or financial instruments up to the total amount of 500,000 zloty per month. The lump sum fee is only charged during months when a CeTO member actively participates in the market. In July 2003, the lump sum transaction fee was reduced to 1,000 zloty.
The share of domestic institutional investors in stock turnover rose steadily – from 22% in 2000 to 39% in 2003. This resulted from the fact that investment funds and open pension funds considerably increased their involvement in stocks. In contrast, interest in the stock market among individual investors decreased steadily from 2000. This trend was halted in 2003, when the share of individual investors in turnover in the spot market did not decrease compared to the previous year. This resulted from an improvement in stock market situation. The share of foreign investors in WSE turnover was higher than their share in stock exchange capitalisation. This means that foreign investors are more active market participants than domestic ones.

**Investors**

According to the Central Statistical Office (GUS) data, the share of foreign investors in investment accounts maintained with brokerage offices and houses decreased gradually from the beginning of 2002 onwards, falling to the level of 13.83% in the fourth quarter of 2003 (Figure 6.2.23). Such a low involvement in the Polish stock market of this category of investors was last recorded in the first quarter of 1999, i.e. after the Russian crisis. It must be noted, however, that the amount of shares in investment accounts maintained with brokerage offices and houses was less than 22 bn zloty at the end of 2003, while the stock market capitalisation was almost 168 bn zloty.

**Figure 6.2.23. Investors on the stock market by the value of shares on investment accounts maintained with brokerage offices and houses**

Source: own calculations based on GUS data.

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366 This issue is discussed in greater detail in section 5.3.
On the other hand, NBP data indicate a much higher share of foreign investors in the Polish stock market (Figure 6.2.24). This is because these data also include shares held by strategic investors and registered shares. A comparison of GUS and NBP data leads to the conclusion that strategic investors hold a significant share of stocks, which are obviously excluded from trading.

**Development trends and outlook**

The Polish stock market is the largest among EU accession countries. This is evidenced by basic indicators describing market size: capitalisation, turnover in absolute terms and number of listed companies.

The role of the market in the economy as measured by its capitalisation to GDP ratio is similar for all countries in the region. Solely the liquidity ratio of the Warsaw Stock Exchange is lower than for other stock exchanges in the region but higher than e.g. in Vienna.

Compared to most European Union markets, the WSE remains a small market, both with regard to capitalisation and turnover.

**Table 6.2.23. Selected stock exchange indicators**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of listed companies&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Liquidity ratio (%)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Capitalisation (bn euro)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Turnover (bn euro)&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budapest</td>
<td>58</td>
<td>48</td>
<td>49</td>
<td>Budapest</td>
<td>45.9</td>
<td>50.4</td>
<td>48.4</td>
</tr>
<tr>
<td>Dublin</td>
<td>87</td>
<td>76</td>
<td>66</td>
<td>Dublin</td>
<td>29.8</td>
<td>61.3</td>
<td>57.1</td>
</tr>
<tr>
<td>Prague</td>
<td>102</td>
<td>79</td>
<td>65</td>
<td>Prague</td>
<td>38.0</td>
<td>41.3</td>
<td>39.9</td>
</tr>
<tr>
<td>Warsaw</td>
<td>230</td>
<td>216</td>
<td>203</td>
<td>Warsaw</td>
<td>36.7</td>
<td>29.8</td>
<td>26.8</td>
</tr>
<tr>
<td>Vienna</td>
<td>113</td>
<td>129</td>
<td>125</td>
<td>Vienna</td>
<td>28.9</td>
<td>19.6</td>
<td>21.3</td>
</tr>
<tr>
<td>Budapest</td>
<td>11.6</td>
<td>12.4</td>
<td>15.0</td>
<td>Budapest</td>
<td>5.4</td>
<td>6.2</td>
<td>7.3</td>
</tr>
<tr>
<td>Dublin</td>
<td>84.6</td>
<td>57.1</td>
<td>67.7</td>
<td>Dublin</td>
<td>25.2</td>
<td>34.9</td>
<td>38.6</td>
</tr>
<tr>
<td>Prague</td>
<td>10.6</td>
<td>15.1</td>
<td>19.9</td>
<td>Prague</td>
<td>4.0</td>
<td>6.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Warsaw</td>
<td>29.4</td>
<td>27.5</td>
<td>29.8</td>
<td>Warsaw</td>
<td>10.8</td>
<td>8.2</td>
<td>8.0</td>
</tr>
<tr>
<td>Vienna</td>
<td>28.3</td>
<td>32.0</td>
<td>45.0</td>
<td>Vienna</td>
<td>8.2</td>
<td>6.3</td>
<td>9.6</td>
</tr>
</tbody>
</table>

<sup>1</sup> The number of listed companies includes domestic and foreign companies.
<sup>2</sup> Liquidity ratio calculated as the ratio of turnover to capitalisation.
<sup>3</sup> Capitalisation of domestic companies.
<sup>4</sup> Turnover of domestic companies, single-counted.

Source: own calculations based on NBP and WSE data.
Development trends on the Polish stock market will also be strongly influenced by the processes currently underway in the European Union and the related measures implemented within the framework of the Lisbon Strategy, which aims, among other things, to integrate financial markets within the EU. Due to Poland’s future membership of the European Union, the capital market is also subject to integration measures. As a result of the principle of the ‘single passport’ for issuers in the EU, the number of foreign companies listed on the WSE may increase and therefore its capitalisation may rise. This process may be supported by retaining the restrictions on foreign investments by open pension funds (due to large demand). On the other hand, however, there is a significant threat that the largest domestic companies will want to list their stocks on European markets. This does not have to be a widespread phenomenon, since these companies are easily recognisable in Poland and have many local investors, both individual and institutional (open pension funds).

The delisting of companies by strategic (mainly foreign) investors has become a particularly important problem. This process has intensified in recent years. Strategic investors, when delisting a company, usually want to reduce its general expense, limit the amount of information available to competitors and change its name into one that is uniform within the whole group.

In the coming years, the development of the Polish stock market may be threatened by the delisting of banks from the WSE by their foreign owners, related to changes in the form of their operation on the Polish market (from sub-branches to branches). The share of banks in WSE capitalisation at the end of 2003 was around 40% and the share of turnover in bank stocks in the total turnover in 2003 was 25.3%. This threat may not materialise, since most banks were introduced to the WSE as a result of privatisation and maintaining the bank listed on the stock exchange was one of the conditions for the taking up of shares by current investors.

The decreasing supply of new stocks was an important problem for the market. This was a result of the halted privatisation of Treasury companies\(^{367}\) and the reluctance of private enterprises to raise funds on the WSE. Such attitudes were in part related to unfavourable stock market trends and low company valuations. Poland’s accession to the EU may accelerate economic growth and thus lead to higher valuations of companies wishing to raise funds on the capital market. The increase in the number of future initial public offerings\(^{368}\) announced at the end of the period under consideration may confirm the future importance of this factor. The privatisation of Treasury companies may be an important source of stock supply. It largely depends on political considerations – apart from the unfavourable economic climate, insufficient political will was the main reason for the absence of new companies on the stock exchange during the period under consideration.

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\(^{367}\) Since 2001, none of the new companies listed on the stock exchange has been a Treasury company.

\(^{368}\) An initial public offering (IPO) is the first public offering of company stocks.
Organizing the entry of small companies with large growth potential onto the capital market will remain a major challenge. The small and medium-sized enterprise sector is a potential source of stock supply on the capital market. However, this would require an increase in the role of the private equity and venture capital sector, which is still not very well developed in Poland\textsuperscript{369}.

With regard to demand, the development of the domestic collective investment institution sector will be the most important factor in the development of the stock market (see section 5.3). As the amount of funds invested in such entities grows, they become important investors on the stock market. Given a constant inflow of funds, especially to open pension funds, the lack of supply of investment instruments may cause a price bubble. The bursting of such a bubble might stop the development of the Polish stock market. From this point of view, the decision to extend foreign investment options for open pension funds will be important. On the one hand, it may reduce current demand on the domestic market, but on the other hand, it will be a "safety valve" in case the growth in stock supply lags behind the growth in funds invested in such institutions.

A drop in market liquidity may be a side effect of the increased presence of institutional investors\textsuperscript{370} (both domestic and foreign ones). This phenomenon may be particularly noticeable if the supply of new share issues is small and companies are delisted. The decrease in market liquidity will discourage other potential investors.

In this context, the declining role of individual investors should be analysed. From 2000, their share in stock market turnover decreased steadily. This trend was only halted in 2003. The capital gains tax on stock investment, which has been in force from the beginning of 2004, may limit the activity of individual investors on the stock market. Continuing problems with enforcing the rights of individual investors may also be an important factor. The gradual accumulation of wealth in the society will trigger opposite trends. Examples from other countries show that as households become better off, they are also more inclined to actively invest their funds on the stock exchange.

The presence of foreign investors will also be an important factor. As on the bond market, long-term investment institutions from other EU countries should enter the Polish market after the accession. Until now, they were not able to invest in Poland due to internal investment rules. For those investors, the future of the WSE may turn out to be an important matter. Potential future capital or functional links between the WSE and one of the major European stock exchange centres might facilitate investment in the WSE to these entities.

### 6.3. Spot FX market

FX transaction is an agreement between two parties to exchange the zloty for another currency at a spot rate agreed at the time of its conclusion. The term “spot rate” pertains to transactions which are settled on the second working day following their conclusion. On that day, each party is obliged to transfer a specified amount of currency to the counterparty's account.

The spot FX market covers not only transactions but also market players and institutions which form the market infrastructure – brokers and suppliers of transaction systems.

All residents’ payments related to import and export of goods and services are settled in the FX market. FX market links the domestic capital and money markets with the global financial market. Non-residents’ investments in financial instruments denominated in zloty are made via the spot FX market\textsuperscript{371}. However, transactions related to capital flows and foreign trade do not comprise the largest share of spot market turnover. Speculation is the dominant motive for trading. Banks – FX market dealers – buy and sell the zloty depending on the expected exchange rate movements.

\textsuperscript{369} This issue is discussed in greater detail in section \textsuperscript{5.2.3}.

\textsuperscript{370} This is because institutional investors (including e.g. insurance companies and open pension funds) purchase stocks as long-term investment.

\textsuperscript{371} Positions in financial instruments denominated in zloty may also be financed via the FX swap market. See section 6.1.3.2.1.
Speculation has the huge impact on the FX market liquidity. Market liquidity is a fundamental measure of market development. It determines the smoothest of flows execution and the possibility of closing FX positions at any moment without significant impact on the exchange rate.

This section looks at the domestic interbank and customer FX market. Domestic market covers all transactions involving the purchase and sale of the zloty where at least one party is a bank operating in Poland. The National Bank of Poland has no information concerning the value of transactions on the zloty conducted between non-residents. The turnover in the off-shore market, which is concentrated in London, is unknown. FX transactions which do not involve the zloty (e.g. exchange of euro and US dollar) are also conducted in spot market in Poland.

**Market size**

With average daily net turnover in the range of 4–4.5 bn zloty, the Polish spot FX market is the largest FX market among EU accession countries (Table 6.3.1). FX markets in these countries are classified into so-called emerging markets, whose characteristics include limited turnover and a limited number of participants. The local character of such markets is evidenced by the lack of continuous, around-the-clock quotes. Wide spreads between bid and offer rates also confirm their low liquidity. In the interbank market, spreads between the bid and offer rates for the zloty, the Czech crown and the Hungarian forint range from 20 to 30 basis points. For the most liquid currency pairs in the world (e.g. EUR/USD, USD/JPY, GBP/USD), the spread is only 1 to 3 basis points.

The impact of low liquidity on the zloty exchange rate was clearly visible in 2002 and 2003 during periods of awaiting the inflow of funds related to privatisation or compensation paid to Polish workers for forced labour in Germany during the II World War. The low turnover means that an order with a value of, for example, 100 million US dollar would be executed several hours and would cause a significant movement in the spot rate.

From 2001, a gradual decrease in the volume of interbank trading could be observed (Figure 6.3.1). The average daily net turnover in the interbank market dropped from 3.84 bn zloty in 2001 to 3.17 bn zloty in 2003. The liberalisation of the Foreign Exchange Law, which took effect on October 1, 2002, did not stimulate the development of the spot market. The decrease in liquidity in 2002 and 2003 resulted from the consolidation in the Polish banking system and the gradual transfer of operations abroad to head offices of foreign-owned banks where FX positions are managed at the group level. At the end of 2001 one of the most active players in the zloty market

<table>
<thead>
<tr>
<th>Turnover (foreign currencies/domestic currency)</th>
<th>Poland</th>
<th>Czech Republic</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td>of which: EUR/domestic currency, %</td>
<td>24</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>of which: USD/domestic currency, %</td>
<td>72</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Transactions with residents</td>
<td>546</td>
<td>315</td>
<td>303</td>
</tr>
<tr>
<td>Transactions with non-residents</td>
<td>532</td>
<td>327</td>
<td>317</td>
</tr>
<tr>
<td><strong>Interbank market</strong></td>
<td>858</td>
<td>502</td>
<td>463</td>
</tr>
<tr>
<td>of which: EUR/domestic currency, %</td>
<td>14</td>
<td>91</td>
<td>90</td>
</tr>
<tr>
<td>of which: USD/domestic currency, %</td>
<td>82</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td><strong>Customer market</strong></td>
<td>220</td>
<td>140</td>
<td>157</td>
</tr>
<tr>
<td>of which: EUR/domestic currency, %</td>
<td>62</td>
<td>68</td>
<td>74</td>
</tr>
<tr>
<td>of which: USD/domestic currency, %</td>
<td>32</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td><strong>Turnover (foreign currencies/foreign currencies)</strong></td>
<td>828</td>
<td>366</td>
<td>305</td>
</tr>
</tbody>
</table>

1 For the Czech Republic, data are for April 2003.

372 The analysis does not include the retail market – transactions in exchange offices.
373 This figure refers to foreign currencies/PLN transactions.
Financial markets

National Bank of Poland transferred its operations from the domestic market to London. This event had a significant impact on the liquidity in domestic zloty market.

The large impact of foreign banks on turnover is characteristic for the interbank zloty market as well as for the forint and the Czech crown markets. Transactions between domestic banks and non-residents account for over 60% of the overall turnover (Figure 6.3.1). Taking into account transactions in off-shore market (conducted without residents) it is obvious that decisions made by foreign banks largely shape the zloty exchange rate.

The value of transactions not involving the domestic currency is much higher in Poland than in the Czech Republic or Hungary (Table 6.3.1). The average daily net turnover in the foreign currency/foreign currency segment is in the range of 3.2–3.4 bn zloty, over 90% of which are EUR/USD transactions. Relative high turnover on the EUR/USD currency pair results from the basket nature of the zloty, which entails the necessity of balancing zloty FX positions against US dollar and euro\(^{374}\), as well as from active, in the case of some entities, short-term speculation in the most liquid segment of the global FX market.

**Market structure**

Banks usually conclude transactions using the electronic conversational system – Reuters Direct (around 60% of total turnover). The standard value of transaction on the zloty in this system is 3 million US dollars or euro. Just as in global FX market, domestic banks are increasingly taking advantage of the matching system, which automatically matches the buy and sell orders. Transactions conducted via this system account for around 35% of net turnover and the standard value in the zloty market is 1 million euro or US dollars. Occasionally, dealers agree transaction terms on the phone or using the services of a voice broker.

**Figure 6.3.2. Zloty exchange rate, 2001-2003**

\(^{374}\) More information on this subject can be found further in this section.
Since April 12, 2000, the zloty exchange rate has been a free floating one and has depended solely on the supply demand for the Polish currency (Figure 6.3.2). The zloty fixing rates published daily by the NBP are for informational purposes only. Despite the fact that the central parity and official basket have been abandoned, the zloty still exhibits a basket nature in the sense that market participants assess its strength by analysing the average deviation of the zloty from the central parity calculated for April 11, 2000 EUR/PLN and USD/PLN exchange rates. This is linked to the absence of a dominant currency pair in the Polish market. In the Czech Republic and Hungary, euro/domestic currency transactions dominate both in the interbank and customer markets. In Poland, the USD/PLN pair is the most liquid segment of the interbank market (Table 6.3.1). This distinguishes the zloty market from the FX markets of other countries planning to enter the euro area. In the customer market, on the other hand, a higher turnover is recorded in the EUR/PLN segment. This results from the strong links between the Polish and EU economy, which in turn are reflected by the foreign trade currency structure. The share of the euro in trade payments is growing steadily (in the first three quarters of 2003, it was 63.9% for exports and 59.3% for imports)\textsuperscript{375}.

Figure 6.3.3. USD/PLN, EUR/PLN and EUR/USD three-month historical volatility

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure633.png}
\caption{USD/PLN, EUR/PLN and EUR/USD three-month historical volatility}
\end{figure}

Note: three-month historical volatility is the standard deviation of the distribution of daily rates returns observed during 66 trading days.
Source: NBP data, Reuters.

In 2003, a significant qualitative change occurred in the zloty market. Until the second half of 2003, FX dealers calculated deviations from parity using a basket similar to that which had been used before the zloty was floated — 50% US dollar, 50% euro. In the long term, such a balanced basket ensured the lowest variance (volatility) of daily returns and exhibited the lowest correlation with the EUR/USD exchange rate\textsuperscript{376}. Most banks active in the zloty market usually took positions in US dollars first. Then, using EUR/USD transactions, they converted part of the exposure to euro\textsuperscript{377} in order to minimise effects of EUR/USD exchange rate fluctuations. The EUR/PLN volatility was usually higher than that of the USD/PLN rate (Figure 6.3.3). The referendum regarding Poland’s accession to the European Union in June 2003 marked a watershed in the investors’ perception of the zloty (Figure 6.3.3). FX market participants considered Poland to be much closer to entering the euro area. The distributions of USD/PLN and EUR/PLN daily returns changed\textsuperscript{378}. The USD/PLN volatility grew while that of the EUR/PLN rate decreased. The nominal EUR/PLN exchange rate is steadily becoming a better indicator of the strength of the zloty. The EUR/domestic currency exchange rate, as in the Czech Republic and Hungary, is becoming independent from the EUR/USD fluctuations (Figure 6.3.4). On the other hand, the correlation between USD/PLN and EUR/USD exchange rates has increased considerably.

\textsuperscript{377} An FX dealer who wanted to minimise the risk related to EUR/USD exchange rate movements converted around half of the US dollar position to euro.
The qualitative change in the zloty market is also reflected by the reduction of the US dollar share in the basket ensuring the minimum volatility of the zloty exchange rate. Market participants are increasingly often using a basket consisting of 70% euro and 30% US dollars. However, the proportion of the euro to the US dollar ensuring minimum volatility is not constant and thus it is difficult to determine whether such basket composition will be used universally. In the long term, the Polish currency may lose its basket nature and movements in the EUR/PLN exchange rate will be a measure of zloty appreciation/depreciation. This phenomenon would be paradoxical, since the EUR/PLN would become more important, and the USD/PLN which dominates in turnover and is quoted much more frequently would be perceived as a resultant exchange rate, i.e. one which depends more on the EUR/PLN than on the factors shaping the zloty. Therefore it seems that in the immediate future, the turnover currency composition in the interbank market may change, with the EUR/PLN pair gaining a larger share.

**Market participants**

Around seven domestic banks, which account for over 85% of turnover, perform the function of zloty market-makers, which publish quotes and conclude transactions on a continuous basis. The remaining domestic banks are price takers on the FX transactions between residents are concluded on the basis of bilateral agreements – a master agreement and a schedule to it (containing supplementary conditions and information) – drawn up by the Polish Banking Association and the Polish Bank Dealer Association (Polskie Stowarzyszenie Dealerów Bankowych Forex Polska). Active foreign participants in the zloty market include Deutsche Bank, Citigroup, UBS, JP MorganChase, ABN Amro, HSBC, Bank of America and BNP Paribas.

**Development trends and outlook**

It appears that turnover in the interbank spot FX market will continue to decline at a moderate pace in the coming years. This will result from the risk centralisation implemented by global financial institutions – owners of banks operating in Poland (transferring trading activities abroad) and the probable mergers in the Polish banking system (reducing transactions between resident banks). The development of the customer market will depend on Poland’s economic growth, foreign trade volumes and changes in the restrictions regarding

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**Figure 6.3.4. Three-month rolling correlations of USD/PLN and EUR/PLN with EUR/USD**

![Graph showing correlations](image)

Note: absolute correlation coefficients values are presented. The correlations of USD/PLN and EUR/PLN vis-à-vis the EUR/USD exchange rate are negative and positive, respectively. An absolute correlation coefficient value close to one signifies a strong relationship between exchange rate movements, while a value close to zero signifies a very weak relationship.

Source: NBP data.
investment in foreign assets imposed on collective investment institutions. A reduction in turnover in the already shallow zloty market may mean that the exchange rate will become more sensitive to short-term capital flows. This has adverse consequences because it influences the scale of deviations of the market exchange rate from the equilibrium rate. This is especially important in view of Poland’s future participation in the Exchange Rate Mechanism II (ERM II), when the zloty will be maintained within the specified fluctuation band. International markets will probably perceive the zloty as a peripheral currency of the euro area even before Poland enters ERM II. The share of the euro in the currency structure of turnover may be expected to increase in the immediate future, and the EUR/PLN will become the main currency pair in our market.

6.4. Derivatives market

Financial derivatives are traded on the stock exchange and over-the-counter (OTC) markets. In Poland, the OTC market is developed much better than the stock exchange market. OTC market turnover is many times higher than turnover in the derivatives listed on the WSE (Table 6.4.1). The WIG20 index futures market is the only liquid stock exchange market. The domination of the OTC market may result from the Polish financial system model. In a bank-oriented system, non-regulated markets, in which banks directly participate, are much more liquid. Banks which hold speculative derivatives portfolios play the role of market-makers on such markets. It is precisely speculative transactions that generate liquidity in the most developed OTC markets (FRA, IRS and FX option markets). Moreover, enterprises which manage financial risk choose the derivatives offered by banks much more frequently than those offered by stock exchanges. The outright-forward transaction market, in which transactions with customers account for the overwhelming part of the banks’ turnover, is the best example here. The advantage of OTC market products is that they are not standardised and may be better adjusted to the customers’ individual requirements. The lower cost of closing positions on liquid markets often makes OTC instruments a cheaper way of hedging than contracts listed on the stock exchange. The considerable activity of foreign banks, which are almost absent from Polish exchanges, also has a large impact on the liquidity of most OTC market derivatives.

<table>
<thead>
<tr>
<th>Table 6.4.1. Average monthly net turnover on the domestic derivatives market, million zloty</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OTC market</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>116,481</td>
<td>112,015</td>
</tr>
<tr>
<td>IRS</td>
<td>82,180</td>
<td>71,810</td>
</tr>
<tr>
<td>Interest rate options</td>
<td>7,550</td>
<td>11,532</td>
</tr>
<tr>
<td>Outright-forward FX transactions</td>
<td>12,516</td>
<td>12,966</td>
</tr>
<tr>
<td>IRS</td>
<td>857</td>
<td>901</td>
</tr>
<tr>
<td>FX options</td>
<td>13,148</td>
<td>14,596</td>
</tr>
<tr>
<td><strong>Stock exchange market</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WIG20 futures</td>
<td>3,135</td>
<td>4,735</td>
</tr>
<tr>
<td>TechWIG futures</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>MIDWIG futures</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Stock futures</td>
<td>56</td>
<td>73</td>
</tr>
<tr>
<td>PLN/USD futures</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>PLN/EUR futures</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>WIG20 options</td>
<td>–</td>
<td>2</td>
</tr>
</tbody>
</table>

Notes: OTC market turnover calculated according to face value; stock exchange market turnover calculated according to settlement amounts. The stock exchange market only includes instruments listed on the WSE. No information on instruments traded on the Warsaw Commodity Exchange is available. Interest rate option figures are estimates, while WIG20 option figures are average four-month turnovers. Source: own calculations based on WSE data and NBP data submitted by banks – Primary Dealers and/or Money Market Dealers.
Financial markets

Stock exchange instruments prevail in the turnover on global markets (Table 6.4.2). Interest rate derivatives listed on stock exchanges are the most popular. Among FX derivatives, OTC market transactions dominate.

6.4.1. OTC derivatives

FX and interest rate derivative transactions are concluded on domestic OTC futures, option and swap markets. FRA and IRS contracts are basic interest rate derivatives. The interbank FRA market is one of the most liquid segments of the Polish financial market. Taking the number of participants, turnover and the structure of offered contracts into account, FRA and IRS markets should be considered relatively well-developed. Non-bank entities also hedge against interest rate risk using interest rate options offered by several banks. Some domestic banks occasionally conclude forward contracts on Polish Treasury bonds. Until the end of 2003, no Overnight Index Swap (OIS) transactions were concluded on the Polish financial market381. This instrument is very popular in the euro area (EONIA swaps).

CIRS transactions are used to manage foreign exchange and interest rate risk. Outright-forward contracts are the most frequently used FX derivatives among non-bank entities. Banks, on the other hand, prefer synthetic FX contracts. A combination of transactions concluded on the very liquid FX swap market (described in section 6.1.3.2) and the spot market makes it possible to generate a synthetic forward foreign exchange rate contract. The liquidity of FX option markets – both the interbank and the non-bank customer one – is also growing gradually.

6.4.1.1. FRA contracts

FRA (forward rate agreement) traded on the OTC market is a bet on the level of the WIBOR reference rate on a predetermined future date. In fact, the bet concerns the direction of interest rate movement compared to the market forward rate on the date on which the transaction is concluded. The FRA purchaser agrees to pay interest calculated according to the fixed FRA rate (the market forward rate on the day of transaction conclusion). The FRA seller in turn agrees to pay interest depending on the reference rate. The parties settle the difference in interest, which is proportional to the face value of the contract and the difference between the FRA and WIBOR rates on the fixing date (the date on which the reference rate is determined, i.e. two working days before the settlement date). If the WIBOR is higher than the FRA rate on the fixing date, the seller of the contract makes a payment (the so-called interest difference) to the purchaser on the settlement date. In the opposite case, the seller of the FRA will receive payment.

An OIS (Overnight Index Swap) is a short-term swap where interest accrued at a fixed interest rate is exchanged for interest accrued at a floating interest rate determined on the basis of daily O/N reference rates. The net settlement (without exchanging the face value of the OIS transaction) is effected on maturity on the basis of calculations regarding interest payments on the face value agreed. Parties to an OIS transaction exchange the difference between interest calculated according to the agreed fixed interest rate and interest calculated according to the reference rate.

Table 6.4.2. Monthly net turnover on the global derivatives market, bn US dollars

<table>
<thead>
<tr>
<th></th>
<th>April 1998</th>
<th>April 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC market</td>
<td>10,045</td>
<td>13,397</td>
</tr>
<tr>
<td>Interest rate derivatives</td>
<td>5,433</td>
<td>9,536</td>
</tr>
<tr>
<td>FX derivatives</td>
<td>4,613</td>
<td>3,861</td>
</tr>
<tr>
<td>Stock exchange market</td>
<td>28,147</td>
<td>42,491</td>
</tr>
<tr>
<td>Interest rate derivatives</td>
<td>27,901</td>
<td>42,296</td>
</tr>
<tr>
<td>FX derivatives</td>
<td>246</td>
<td>195</td>
</tr>
</tbody>
</table>

Notes: the following numbers of working days were assumed (both for the stock exchange and OTC markets): April 1998 – 20.5; April 2001 – 19.5. FX swaps not included in OTC FX derivatives.

The market for FRAs denominated in zloty emerged in the second half of 1998. Initially, only domestic banks participated in it, but a few months later they were joined by London banks, which accepted the WIBOR as the reference rate despite the fact that they had no access to the zloty interbank deposit market. The development of the FRA market would be impossible without the development of the FX swap market. Given the lack of liquidity on the long-term interbank deposit market, a liquid FX swap market makes it possible to hedge against the risk generated by concluding an FRA using synthetic deposits – two FX swaps. In subsequent years, both domestic and foreign banks considerably increased their activity on this market. At the end of 2003, the involvement of domestic banks in this market as measured by the face value of contracts concluded (the sum total of face values of contracts concluded both with residents and non-residents) exceeded the end-2000 involvement by as much as 400 bn zloty (Figure 6.4.1). Currently, the FRA market is one of the best developed segments of the Polish derivatives market.

In 2002, the market for FRAs denominated in zloty developed rapidly. The average daily turnover in the FRA market grew from 1.89 bn zloty in 2001 to 3.91 bn zloty in 2002. The liquidity of the market rose due to the increased activity of banks, mainly domestic ones, and the emergence of new participants (including two large entities), which started to perform the function of market-382. The hedging consists in simultaneous acceptance and placement of synthetic deposits with different maturities (concluding two opposite FX swap transactions) – see section 6.1.3.2.1.
Financial markets

The rise in turnover was also helped by speculation on the amount of subsequent key NBP interest rate cuts. The dynamic increase in market liquidity was halted in 2003 (Figure 6.4.2). This mainly resulted from the lack of active participation of new undertakings, uncertainty and reduced expectations regarding changes in interest rates introduced by the Monetary Policy Council. Additionally, considerable uncertainty on the debt market and high interest rate volatility in the fourth quarter of 2003 led many participants to withdraw from the FRA market temporarily.

The increase in market liquidity and efficiency was reflected by the narrowing of the spread between forward rates in the FRA market and implied forward rates based on FX swap quotes (Figure 6.4.3). This is also confirmed by the average values of relative spread383, which between 2001 and 2003 amounted to 2.49%, 1.80% and 1.53%, respectively. This trend limited the amount of arbitrage transactions in FRA and FX swap markets. In 2002 and 2003, the opportunities for speculation based on the asset swap strategy384, which utilises differences in movements of yields on Treasury bills and FRAs, also diminished. Playing on the spread between the yield on Treasury bills and the synthetic WIBOR based on FRA contracts makes it possible to achieve profit even when the yield curve for WIBOR rates is flat, as well as to offset losses resulting from the decrease in the prices of debt securities385. The utilisation of such strategies stimulates the liquidity of the debt securities market when interest rates rise. Before FRA transactions appeared on the Polish market, a rise in interest rates was usually accompanied by a significant decrease in turnover on the Treasury bill market.

Figure 6.4.3. Spread between the forward rate in a 3x6 FRA and the implied forward rate based on FX swap quotes

Note: 3x6 FRA is a WIBOR 3M forward contracts, which will be executed in three months time.
Source: Reuters.

Figure 6.4.4. Difference between expected and actual WIBOR 3M

Source: Reuters.

383 Relative spread is the ratio of spread to forward rate in FRA quotes.
384 The asset swap strategy consists in concluding two opposite transactions in two markets – in the Treasury bill market and in the FRA market (FRAs are in fact synthetic Treasury bills).
Market structure

3- and 6-month WIBOR are the most popular FRA reference rates. The liquidity squeeze on the interbank market, which occurred in November 2001, contributed to reducing the liquidity of the WIBOR 1M FRA segment in 2002\[386]. Market participants were reluctant to sell FRAs for which the fixing date was at the end of the month, i.e. during the final required reserve settlement period.

On the Polish interbank market, the most often concluded transactions involve those regarding contracts with maturities of up to one year (1x2, 2x3, 1x4, 2x5, 3x6, 6x9, 9x12, 1x7, 3x9, 6x12). The spread between bid and offer quotes rarely exceeds 5 basis points for the most liquid segments (1x4, 2x5, 3x6, 6x9, 9x12). In 2001, the spread was around 10 points. This narrowing of spread reflects the development of the market and its increasing liquidity. As the market developed, transactions with maturities exceeding one year (12x15, 12x18, 18x24) started to appear. Occasionally, broken-dated FRAs are also concluded. However, trade in such instruments, as in FRA IMM transactions\[387], exhibits low liquidity. Currently, the standard face value of transactions on 3- and 6-month WIBOR is 100 to 150 million zloty. For contracts where the WIBOR 1M is the reference index, face values are two or three times higher.

Market participants

Mainly banks participate in the FRA market. Transactions with non-bank entities are rare and account for a few percent of turnover. Non-residents play an important role on the interbank market. The liquidity of this market is ensured by the participation of foreign banks (mainly London-based investment banks). In 2003, as in previous years, transactions concluded with foreign accounts for over 60% of the total amount (Figure 6.4.2). The FRA market enables flexible short-term interest rate risk management by hedging short-term debt securities portfolios. However, banks use FRAs mainly in order to speculate by e.g. utilising the spread strategies mentioned above.

At the end of 2002, a proposal concerning the organisation of an electronic trading platform for FRAs denominated in zloty was put forward. The creation of such a platform with anonymous quotes would certainly strongly stimulate the development of the domestic FRA market, since it would facilitate a significant increase in the group of foreign participants. However, the electronic market was not established due to the excessively high (in domestic banks’ view) fees proposed by the organiser and, which is probably more important, the insufficient number of potential active participants and market-makers.

Development trends and outlook

The further development of the market may be impeded by the low credit limits granted to counterparties by domestic banks. This is a significant barrier, since the market is highly concentrated. The share of the five most active domestic banks in net turnover is around 75–85%. However, the problems posed by this obstacle may not prove that important due to the amendments which have been introduced to the Bankruptcy Law. The fact that legally binding netting has been ensured where a counterparty declares bankruptcy should cause credit limits to be used up less quickly given the same amount of transactions concluded. Depending on the bank’s strategy, the limits ‘freed up’ in this way may be used to increase activity and exposure on the derivatives market. Further domestic bank mergers may be another factor limiting market development. The development of the FRA market could be stimulated by the emergence of new participants and the increased activity of current players. However, as it has already been mentioned, the number of active market participants did not increase in 2003 despite the fact that some domestic banks still use FRAs very rarely. Their passive attitude limits the efficiency of the money market and prevents them from effectively hedging themselves against interest rate movements.

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386 The liquidity squeeze on the interbank market was caused by intense speculation on interest rate cuts and the related large demand for loans on this market, which were used to finance the purchase of NBP money market bills. Under such circumstances, not only the O/N and T/N rates rose but also the rate for one-month loans (1M WIBOR) went up.

387 For FRA IMM contracts, the fixing date is the third Wednesday of one of the months in the March, June, September, December cycle.
The activity of collective investment institutions on the FRA market is limited by provisions which regulate the scope of their investment. It appears, however, that the planned amendments to those provisions will not increase the interest of pension funds and insurance companies in FRAs. Due to their investment horizons, such institutions will prefer other OTC market derivatives – IRS contracts.

FRAs could also be widely used by non-bank entities. This instrument does not require capital investment. It may be easily adjusted to the customer’s requirements, which enables efficient hedging against short-term interest rate risk and facilitates financial planning. It may be especially useful for enterprises which raise funds by issuing short-term bonds. However, hedging against interest rate risk is still not very popular among entrepreneurs. Since changes in financial management methods at Polish enterprises will probably progress fairly slowly, no rapid development of the customer market should be expected in the immediate future.

Taking the factors and circumstances presented above into account, it seems that both the interbank and customer FRA markets will develop at a moderate pace in the coming years.

6.4.1.2. Interest rate swaps (IRS)

IRS (interest rate swap) is an agreement between two parties under which they undertake to exchange interest payments calculated according to different principles on an agreed face value during a predetermined period. The purchaser of an IRS (fixed-rate payer) pays interest according to a set fixed rate, whereas the seller (floating-rate payer) makes payments according to a floating rate (the reference rate stipulated in the agreement – in Poland, the WIBOR). Interest is usually paid in arrears, as in the case of a generic deposit. In such transactions, the principal, i.e. the face value which is the basis for calculating interest payments, is usually not exchanged.

IRS transactions are concluded both on the domestic interbank market and on the London market. In this report, the domestic interbank market as well as transactions concluded between resident banks and non-bank customers are analysed. Interest rate swaps are practically the only instrument on the Polish financial market which enables hedging against the risk related to changes in the prices of long-term debt securities. The domestic IRS market, which emerged in 1999, is relatively well-developed. The liquidity of this market is ensured by the participation of foreign (mainly London-based) banks.

Figure 6.4.5. IRS market – amounts outstanding

Note: gross face value of IRS contracts sold and bought by domestic banks.
Source: NBP data.

388 For more information on the use of FRAs to hedge against interest rate movement risk, see e.g. P. Tomala, ‘Emisja papierów komercyjnych – FRA jako zabezpieczenie przed nagląm wzrostem oprocentowania’, Rynek Terminowy No. 16/2002, pp. 44–47.
389 The NBP has no information on the amount of transactions concluded between non-residents. Based on contacts with banks it may be stated, however, that the London IRS market is well-developed and liquid.
390 In September 2003, the Warsaw Commodity Exchange introduced futures contracts on Treasury bonds. However, the limited turnover on this market makes it impossible to effectively hedge debt securities portfolios. The Warsaw Stock Exchange intends to introduce bond futures into trading in the second half of 2004.
Market size

In 2002 and 2003, the Polish IRS market developed rapidly. The involvement of domestic banks in the IRS market, which is a measure of its size, almost tripled (Figure 6.4.5). The rapid growth in the gross position of domestic banks resulted from the rising number of transactions concluded and from the fact that IRS contracts are concluded for periods exceeding 12 months, which causes bank involvement to increase, since bank balance sheets accumulate off-balance claims and commitments related to contracts which do not mature within one year. As in previous years, transactions concluded with non-residents accounted for as much as 84% of the nominal gross position. The average monthly face value of transactions concluded in 2003 was around 11.5 bn zloty, twice the 2001 amount (Figure 6.4.6). The increase in turnover, which began in the second half of 2002, was caused by speculation on subsequent NBP interest rate cuts and the rising number of asset swaps. Banks very often speculated on changes in the spread between yields on Treasury bonds and IRS contracts. Interest in asset swaps is also rising among non-bank entities. Moreover, the order which was introduced in legal documentation, stipulating the detailed terms and conditions of such transactions, made it possible to increase the trading with foreign banks. The record transaction values in October 2003 were probably the result of an increase in interest rates, which was an incentive to hedge Treasury bond portfolios on the IRS market.

The maturity structure of transactions changed considerably (Figure 6.4.7). The average contract maturity increased in 2002 and 2003. Transactions with maturities exceeding three years were concluded increasingly often. This resulted from the intensification of the convergence play and the increasing duration of Treasury bond portfolios held by financial institutions. Contracts with maturities exceeding 10 years also appeared. This was largely linked to the new benchmark issue of 20-year Treasury bonds and the extension of the Polish yield curve as well as the more favourable attitude of non-residents towards Polish banks as transaction partners. The issue of 20-year bonds was preceded by 20Y IRS transactions on the London market. Fifteen-year contracts, usually linked to spread strategies, became more frequent on the domestic market.

391 The total gross face value of contracts purchased and sold from/to residents and non-residents.
392 Non-bank customers conclude IRS transactions, adjusting them to the held assets (mainly securities) in order to maximise the investment yield. Thus such transactions are used to create synthetic financial instruments with desired payment profiles. More information about the possibilities of using IRS contracts: I. Tymuła, Swapy finansowe (Warszawa: Biblioteka Menedżera i Bankowca, 2000).
393 An investment strategy assuming that as Poland’s entry into the Economic and Monetary Union approaches, the yield on Polish Treasury bonds and IRS contracts (synthetic bonds) will converge to the levels found in euro area countries.
394 The first auction of 20-year fixed-rate Treasury bonds took place on April 17, 2002.
395 20Y IRS is an interest rate swap with a 20-year maturity.
396 The spread strategy consists in concluding several IRS contracts with various maturities. Such transactions are concluded by entities which expect non-parallel shifts in the yield curve.
Financial markets

National Bank of Poland

Figure 6.4.7. Maturity structure of IRS contracts in 2001 and 2003

Note: contract maturity ranges are closed on the right.
Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

Market structure

Contracts between domestic banks are concluded for periods ranging from one to fifteen years. However, the liquidity of the market segment for contracts with maturities longer than 10 years is low. In interbank market transactions, the WIBOR 6M is the reference rate for floating rate interest payments. One-year interest rate swaps, where the WIBOR 3M is the reference rate, are an exception. Fixed interest rate payments are made annually and payments which depend on the reference rate are made every six months (every three months for 1Y IRS). 25 or 50 million zloty is the standard contract amount, although transactions with a face value of 100 million zloty are sometimes concluded. Market spreads between bid (the fixed rate at which the bank undertakes to pay interest) and offer (the fixed rate at which the bank wishes to accept interest payments) quotes are around 5 basis points.

The parameters of transactions concluded with corporates are agreed on a case-by-case basis and differ from interbank market standards. The product is adjusted to the customer’s requirements and its asset and liability structure as well as tax optimisation policy. Among non-generic interest rate swaps, the amortising IRS\(^397\), which is usually used to secure loan repayment, attracts the greatest interest among customers. Drawdown swaps are also concluded\(^398\). All such contracts are priced on a case-by-case basis.

Market participants

The long horizon of IRS contracts makes the risk of the counterparty’s default much higher than in the case of short-term FRAs. This instrument is only available to institutions which exhibit high creditworthiness. Not all domestic banks may actively participate in this market. Only three domestic banks are market-makers and the five most active banks account for over 90% of turnover. Banks operating in Poland use the IRS market to speculate on interest rate changes and to hedge their bond portfolios. Spread transactions exploiting changes in differences between yield curves for bonds and interest rate swaps are also popular. Such strategies stimulate the liquidity of the market for their underlying instrument (Treasury bonds) even when interest rates rise.

London-based banks play an important role in the zloty IRS market – they are market-makers in this financial market segment. In 2003, transactions concluded between resident banks and foreign banks accounted for over 80% of the total amount (Figure 6.4.6). Foreign banks use IRS contracts to speculate on the Polish yield curve. They prefer calendar spread strategies (2Y IRS vs. 5Y IRS or 5Y IRS vs. 10Y IRS) geared to non-parallel shifts in the swap curve.

\(^{397}\) This is an IRS contract where the face value on which interest payments are calculated is amortised. The face value is reduced according to the plan stipulated in the agreement.

\(^{398}\) These are IRS contracts where the face value of the transaction increases with time according to the plan stipulated in the agreement. Such transactions are concluded by enterprises which gradually fund large, long-term investment projects with loans.
Rigorous credit requirements limit the number of non-bank counterparties. Large, prosperous enterprises which can be accepted as parties to a swap transaction are not numerous in Poland. The instrument makes it possible to achieve the desired interest profiles on assets and liabilities and to adjust financial flows. Nevertheless, IRS transactions are still used by an insufficient number of corporate customers. This is evidenced by the low (less than ten percent) share of contracts concluded by domestic banks with non-bank customers in net turnover.

Institutional investors (investment and pension funds, insurance companies) holding large debt securities portfolios do not use this instrument to hedge their portfolios. Sectoral regulations prevented pension funds and insurance companies from taking advantage of IRS contracts. The Securities and Exchange Commission, which supervises investment funds, does not approve of such institutions concluding IRS contracts. This attitude is related to difficulties with the reliable valuation of such instruments (which is a certain disadvantage compared to stock exchange instruments) and the fact that they can be used for speculation and not for hedging assets. The increasing average maturity of Treasury bonds and the lack of access to risk-hedging derivatives limit the possibilities for efficient management of large debt securities portfolios as well as prevent institutions from taking full advantage of market volatility and maximizing the rate of return on their portfolios. However, significant losses potentially incurred by institutional investors due to a surge in interest rates may be the most important adverse effect of not using derivatives. Participation in the IRS or bond futures markets seems to be the best protection for institutional investors against such a situation.

Box 6.4.1

**BOND FUTURES AND IRS CONTRACTS**

Bond futures are a financial instrument with a function similar to that of IRS contracts. Futures contracts are traded on the stock exchange market. Trading on the stock exchange involves a deposit system, daily valuation and position settlement; transactions are also controlled by a clearing house, which significantly reduces credit risk and default risk. The bond futures market may be used by smaller enterprises and banks whose creditworthiness is lower. The WSE plans to introduce bond futures contracts in 2004. The manner of settlement and public quotes of futures contracts enable reliable valuation of such instruments as long as the market is liquid.

**Development trends and outlook**

The IRS market cannot develop dynamically due to a small number of participants. Further development of this market will depend on the involvement of institutional investors and the establishment of a liquid bond futures market. The activity of entities which speculate on interest rates – foreign banks and large domestic banks – will be of fundamental importance. Other barriers to the development of the interest rate swap market include:

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399 At the end of 2003, the value of Treasury securities in open pension fund portfolios was 27.2 bn zloty, which corresponded to almost 62% of their net assets. Insurance companies held Treasury securities and other fixed income securities amounting to 39.3 bn zloty (around 67% of assets) in their portfolios. Insurance and Pension Funds Supervisory Commission data.

400 From 2004, the provisions of the Insurance Activity Act of May 22, 2003 (Dziennik Ustaw No. 124/2003, item 1151) and of the Act Amending the Act on the Organisation and Operation of Pension Funds of August 27, 2003 (Dziennik Ustaw No. 170/2003, item 1651), which will enable these institutions to use derivatives in order to limit investment risk, will take effect.


402 The need for such a market is discussed in e.g.: R. Głuch, “System Dealerów Skarbowych Papierów Wartościowych”, Rynek Terminowy No. 17/2003, pp. 54–57.
• the number of counterparties from the non-financial sector, which is limited by creditworthiness considerations;
• the lack of appropriate IT systems at some domestic banks, which would enable monitoring of positions and risk generated by transactions;
• low credit limits, which restrict market liquidity;
• insufficient awareness of enterprise managers or owners regarding the possibilities linked to derivatives.

Taking the factors listed above into account, it appears that in the coming years the market will develop slowly or stagnate.

6.4.1.3. Interest rate options

Interest rate options are agreements under which the purchaser of options has the right to receive (call option) or make (put option) payments calculated according to a fixed interest rate (strike rate) in return for payments calculated according to an agreed reference rate (e.g. the WIBOR). The price for acquiring this right is the so-called option premium, which is payable on the date of option purchase. In practice, the option issuer pays the purchaser a settlement amount proportional to the face value of the option and the difference between the strike rate and the reference rate. The settlement amount is paid where:

– in the case of a call option, the agreed fixed rate is lower than the agreed reference rate on the set date;
– in the case of a put option, the agreed fixed rate is higher than the agreed reference rate on the set date.

Where the condition above is not met, the purchaser does not exercise the option right. Interest rate options make it possible to hedge against adverse changes in interest rates by guaranteeing maximum (minimum) interest flows. Purchasing a call option makes it possible to set the maximum acceptable interest rate level and thus hedge against an increase in loan servicing expenses related to an increase in the floating interest rate. Purchasing a put option hedges against a decrease in interest rates below the strike rate and thus guarantees interest income at a set level.

The single option transactions described above are referred to as IRGs (interest rate guarantees) – they are options on FRAs with predetermined interest rates. Such options have only one strike date and may be used to hedge one interest period only. This limits their popularity. Non-bank customers usually want to use a single option instrument to hedge flows during several interest periods. The cap and floor option strategies are used for this purpose – these are series of subsequent IRGs, which are called caplets and florets, respectively.

The cap and floor options guarantee financial flows according to the set maximum (minimum) rate during a given period. For example, the purchase of a one-year cap option for the WIBOR 3M reference rate guarantees compensation (payment of the settlement amount) to the purchaser if the WIBOR 3M is higher than the set strike price (the maximum rate referred to as the cap) during specified interest periods. By purchasing this instrument, borrowers limit the maximum value of regular payments related to the repayment of the obligation. Correspondingly, a floor guarantees the minimum value of payments received, regardless of the decrease in market interest rates. The collar strategy combines the cap and floor options – the purchase of a collar strategy is equivalent to the purchase of a cap option and the issue of a floor option.

Apart from the options described above, corporate customers are increasingly using more complex strategies, which allow them to accurately adjust the hedge to their financial flows or reduce its price. Domestic banks already offer e.g. barrier strategies, such as knock-in cap, knock-in floor, knock-out cap and knock-out floor as well as options on interest rate options (caption,

floortion) and options granting the purchaser the right to conclude an IRS transaction in the future on terms and conditions specified earlier (swaption)\textsuperscript{404}.

\textbf{Market size}

The interest rate option market is the least developed segment of the OTC derivatives market. Only transactions with non-bank customers are concluded on the domestic interest rate option market. Domestic banks do not conclude such transactions between themselves at all, but they are concluded between London-based banks. Only three domestic banks regularly sell interest rate option strategies to non-bank customers. The exposure resulting from the issue of such instruments is secured by concluding transactions with an opposite payment profile with a foreign bank (back-to-back hedging) or by buying (selling) the underlying instrument for such options (delta hedging). Several other banks occasionally issue options and neutralise their positions by concluding opposite transactions with parent companies. The largest London-based banks also offer varied option strategies to Polish enterprises.

No domestic bank holds a speculation portfolio of such instruments. Managing such a portfolio is not very profitable due to the very low number of transactions and the considerable expenditure related to the purchase of professional software, operational training and risk monitoring. Some domestic banks act as purchasers on the market. They buy option strategies from other banks (foreign or large domestic ones) in order to limit their exposure to interest rate risk. Monthly turnover on the option transaction market (as measured by option face value) ranges from 0.1 to 0.3 bn zloty. Short-term transactions with maturities of up to one year prevail.

\textbf{Market structure}

It is difficult to indicate the most popular instruments on the market. Due to the customer-oriented character of the market, trading in standard cap and floor options is limited. Non-bank customers buy products which are precisely adjusted to their requirements. Large enterprises, which employ qualified risk-management specialists, often look for the cheapest quote for the option strategies developed. Non-bank undertakings can resell the strategies which they purchased earlier but this incurs considerable expenses due to the low liquidity of the market, therefore most positions related to option transactions are held until their expiration.

\textbf{Market participants and outlook}

It should be expected that in the immediate future, the number of domestic banks offering interest rate options will not increase. The interbank market will probably not emerge, i.a. due to the planned adoption of the common currency. The period remaining until the adoption of the euro is too short for the market to develop, since domestic banks will participate in the euro area interest rate option market in the not-too-distant future. The risk management centralisation process observed around the world will probably result in the increased sales of instruments by the largest London-based banks, which already have a large share of this market. Domestic banks will only act as intermediaries in the issue of options for non-bank customers.

The number of corporate customers who can use interest rate options is limited. The face value of such transactions is an obstacle. Some banks cannot sell instruments with low face values because this makes it difficult to hedge the option strategy issued and increases its cost. Moreover, the limited appeal of interest rate options among small and medium-sized enterprises results from the widespread practice of not hedging against interest rate risk. The knowledge about interest rate risk and the methods of neutralising it is still insufficient. Therefore it seems that in the coming years the interest rate option market will develop at a moderate pace and will only be open for large

\textsuperscript{404} A detailed description of such strategies is outside the scope of this paper. For more information on this subject, see e.g.: K. Ravindran, Customized derivatives: a step-by-step guide to using exotic options, swaps and other customized derivatives (New York: McGraw-Hill, 1997).
firms. Even when investment restrictions change, collective investment institutions will not use interest rate options. The strike periods of the strategies offered are too short compared to their investment horizon and closing the positions taken earlier in such instruments is costly due to low market liquidity.

6.4.1.4. Outright-forward FX transactions

Outright-forward FX transaction is an agreement under which the parties undertake to exchange specified amounts of currencies on a date later than the second working day. Currencies are exchanged at the forward exchange rate agreed by the parties on the transaction date.

Market size

The domestic outright-forward FX transaction market may be divided into interbank and customer segments. The interbank market exhibits very low liquidity. Banks prefer synthetic forward transactions generated by taking positions on more liquid markets – the spot and FX swap markets. In 2002 and 2003, the average daily net turnover on the interbank market was in the 100–150 million zloty range (Figure 6.4.8). Transactions with non-residents dominate on the interbank market. The currency structure is different from that on the interbank spot FX market. The USD/PLN and EUR/PLN currency pairs account for 37% and 63% of turnover, respectively. The dominance of the euro probably results from the closing of the FX position arising from customer transactions.

The turnover on the customer market is much higher. This is also typical for other countries in the region (Table 6.4.3). The estimated daily amount of transactions concluded by domestic banks with non-bank undertakings is around 600–650 million zloty, of which the turnover on the EUR/PLN market amounts to 64%, just as on the interbank market. The large share of the euro in the domestic customer market results from the dominant role of this currency in the settlement of foreign business transactions. Forward contracts enable enterprises to hedge future foreign exchange flows. Apart from institutions which hedge their positions, entities speculating on the zloty exchange rate form another very active group of players.

Figure 6.4.8. Monthly net turnover on the interbank outright-forward FX market

![Bar chart showing monthly net turnover on the interbank outright-forward FX market.](image)

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

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405 Some publications classify not only contracts with settlement dates later than the spot one (proper forward transactions) but also contracts with earlier settlement dates ("today" and "tomorrow"), which are sometimes referred to as short date forwards or ante-spot transactions, as outright-forward ones. For the purposes of this paper (and in line with the FX market turnover reporting standard), transactions with settlement dates earlier than the spot date are classified as spot transactions.

406 The forward exchange rate depends on the spot exchange rate and deposit rates for the currencies being exchanged for deposit maturity corresponding to the settlement date of the forward transaction.
Market structure

The market forward exchange rate is usually quoted in swap points\(^{407}\). On the interbank market, an outright-forward is a delivery-settled FX transaction, i.e. it is settled by delivering currencies on the settlement date. No NDF (non-deliverable forward)\(^{408}\) contracts, which are settled through netting on the basis of the difference between the transaction rate (forward rate) and the reference rate determined on the date of contract expiration, are concluded. NDF transactions were very popular on the Polish market until 1998, when a more restrictive Foreign Exchange Act was in force\(^{409}\). On the other hand, non-deliverable forwards are very popular among non-bank customers\(^{410}\). Customers may choose the manner of transaction settlement (delivery-settled or non-deliverable) even during the transaction term (between the date of contract conclusion and the settlement date). Thanks to the financial leverage, non-deliverable forwards make it possible to speculate on the FX market without having the amount in foreign currency corresponding to the face value. The maturities of concluded transactions rarely exceed one year. Contracts with maturities of up to six months prevail.

Market participants

On the interbank market, domestic banks conclude transactions almost exclusively with foreign banks. Despite the growing awareness of potential losses resulting from exchange rate volatility, non-bank entities relatively rarely use forward FX transactions in order to manage their FX risk. Small and medium-sized enterprises are only starting to appreciate the advantages of efficient FX risk management. Large enterprises with higher creditworthiness also use another instrument – FX options and strategies geared to the customer’s requirements.

Development trends and outlook

It appears that the liquidity of the zloty outright-forward market as well as the level of its development as a segment of the Polish non-regulated market will remain low. Banks will trade in synthetic forward contracts concluded on liquid markets, where closing positions is easier and cheaper due to narrower spreads. The market segment under consideration is a good example showing that demand for a given financial instrument from non-bank entities is not always enough for the market to be liquid. Activity on the part of both domestic and foreign banks is also required. In the coming years, no significant increase in demand for forward contracts from corporate customers should be expected. Enterprises are aware of the FX risk they incur and attempt to limit

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\(^{407}\) Swap points are the difference between the forward and spot exchange rates. The amount depends on the maturity of the forward transaction and the difference between deposit rates for the currencies involved in the exchange. For foreign exchange rates where the zloty is the quoted currency, one swap point equals 0.01 groszy.

\(^{408}\) NDF contracts were concluded on the interbank market in the initial development stage of the Polish foreign exchange market, which enabled non-residents to actively participate in the market without investing the Polish currency. The interbank NDF market ceased to exist in 1999.

\(^{409}\) Cf. O. Szczepańska, D. Tymoczko, "Liberalizacja przepływów kapitałowych w Polsce i transakcje terminowe jako operacje omijające obowiązujące ograniczenia dewizowe," Bank i Kredyt No. 4/1999.

it. Apart from forward contracts, they also use other instruments (FX options and CIRS contracts) in risk management. Natural risk neutralisation by adjusting foreign exchange flows and limiting imports is also widespread. Moreover, corporates which use FX derivatives have certain accounting and taxation difficulties regarding transactions involving such instruments\(^{411}\).

6.4.1.5. Cross Currency Interest Rate Swaps (CIRS)

A cross currency interest rate swap (CIRS, CCIRS) is an agreement under which the parties undertake to periodically exchange interest payments in two different currencies, which are calculated on an agreed face value of a CIRS contract according to an agreed (floating or fixed) interest rate. Payment exchange conditions are stipulated so that the value of exchange is zero on the date of transaction conclusion. Three types of CIRS transactions can be distinguished with regard to the manner of calculating interest payments:

- with the exchange of payments calculated according to a floating interest rate in one currency for payments calculated according to a fixed interest rate in another currency (float-fixed);
- with the exchange of payments calculated according to fixed interest rates in both currencies (fixed-fixed);
- with the exchange of payments calculated according to floating interest rates in both currencies (float-float).

Float-float cross currency interest rate swaps, which are referred to as basis swaps\(^{412}\), are mainly traded on the interbank market – both domestic and in London. Apart from the exchange of interest payments, a standard CIRS contract includes an exchange of the face value in one currency for its equivalent in another currency at the same exchange rate both at the beginning and at the end of the transaction. CIRS contracts where the principal is only exchanged together with the last payment, which incur a much higher FX risk, as well as contracts without principal exchange are also concluded. Sometimes netting is used when settling interest payments – one party pays the difference arising from the interest calculated.

CIRS contracts are also used by non-financial entities which raise funds in foreign currencies and generate income in złoty. Non-financial undertakings conclude float-fixed and float-float swaps. The purchase of an appropriate CIRS transaction enables firms to hedge against FX risk and interest rate risk resulting from the mismatch between assets and liabilities.

**Market size**

The domestic CIRS market exhibits low liquidity – the average monthly turnover in 2003 was 900 million złoty (Figure 6.4.9). Transactions with foreign banks prevail (59% of net turnover). Contracts between domestic banks are rarely concluded. Non-residents determine the liquidity of the interbank market, where mainly basis swap contracts are sold. Non-residents also conclude CIRS contracts on the London market. Brokers who match parties to transactions and publish informative contract quotes on their web pages play an important role on the interbank market. Brokers quote transactions with maturities ranging from one to ten years. The spread between quotes is relatively wide and ranges from 10 to 15 basis points, depending on transaction maturity (the spread is narrower for long-term transactions). The existence of the interbank basis swap market makes it easier for domestic banks to hedge their positions arising from the conclusion of CIRS contracts with non-bank entities.

Monthly turnover on the customer market ranges from 0.2 to 0.6 bn złoty. Large enterprises which raise funds on international markets are typical counterparties to such transactions. CIRS contract terms and conditions are often adjusted to the customers’ specific requirements – e.g. the

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\(^{412}\) R. Flavell, Swaps and other derivatives (Chichester: John Wiley & Sons Ltd, 2002), pp. 205–224.
average yield on Treasury bills is the floating reference rate. Sometimes the so-called notional reset is performed in order to limit credit risk – the face value in one currency is periodically adjusted and the difference is transferred to the appropriate party. Thus the currency with a variable face value constitutes a pledge which is increased or reduced depending on the market exchange rate.

Figure 6.4.9. Average monthly turnover on the CIRS contract market (foreign currency/PLN)

![Graph showing average monthly turnover on the CIRS contract market (foreign currency/PLN).](image)

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

**Market structure**

Transactions with maturities of up to and including 3 years account for most of the turnover. Contracts with maturities longer than five years are concluded very rarely. This maturity structure reflects two factors: the fact that credit limits are used up quickly when concluding transactions with long maturities and the structure of Polish enterprises’ foreign debt. The WIBOR 3M and WIBOR 6M are domestic reference rates in CIRS transactions. Interest payments depending on the floating rate are made every three or six months; flows depending on the fixed rate are effected every twelve months. The information collected from banks participating in the market indicates that the shares of transactions involving the euro and the US dollar are similar. On the interbank market, transactions involving the exchange of zloty flows for US dollar flows (WIBOR 3M vs. LIBOR 3M) prevail. Non-financial entities usually exchange interest payments denominated in zloty for payments denominated in euro, which is closely connected to the currency structure of eurobonds issued by such entities.

Figure 6.4.10. Maturity structure of CIRS contracts in 2003

![Pie chart showing maturity structure of CIRS contracts in 2003.](image)

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.
Market participants and outlook

CIRS contracts are sold/purchased by nine domestic banks, four of which may be considered active market participants. Some domestic banks use CIRS contracts to neutralise their positions resulting from the mismatch between assets and liabilities – foreign currency loans extended and zloty deposits accepted. There are few such transactions but their face values are very high. Among non-residents, the largest London-based investment banks participate in the cross currency interest swap market. The customer market is an elite one. Due to the high credit risk related to this instrument, only large enterprises with high creditworthiness may be parties to such transactions. Corporate demand is limited. No surge in interest in CIRS contracts should be expected from institutional investors, either. Pension funds may only invest 5% of their assets abroad and the issue of their use of derivatives in order to hedge against FX risk and interest rate risk has not yet been regulated. Thus the increase in speculative transactions on the interbank market will probably be the main factor increasing market liquidity.

6.4.1.6. FX options

An FX option is an instrument giving the purchaser the right to exchange a specified amount of a given currency for another currency at a predetermined exchange rate. For European options, this right may only be exercised (the option may be exercised) on a specified date (expiration date). On the other hand, the right arising from American options may be exercised on any date between the transaction date and the expiration date. Two basic option types are distinguished:

– call options, which give the right to purchase a specified currency; a call option is exercised if the exchange rate of this currency is higher than the strike price;

– put options, which give the right to sell a specified currency; a put option is exercised if the exchange rate of this currency is lower than the strike price.

The price of acquiring the right to purchase/sell the currency is a premium payable to the option issuer on the transaction date. The premium amount depends on the relationship between the strike price and purchase price (intrinsic value) as well as on option maturity and exchange rate volatility (time value, extrinsic value). For the purchaser of a single call or put option, the maximum expense is capped by the premium paid, while the potential loss for the issuer is unlimited.

Trading on the interbank market is not limited to single call and put options. Banks which hold option portfolios usually trade in standard market strategies – combinations of purchased and sold options with various parameters. Premiums payable for individual strategies are not quoted on the interbank market. The ‘price’ of an option strategy is a parameter which is not directly observed on the financial market and is used to price FX options in the universally used Garman-Kohlhagen model. This parameter is the implied (market) volatility, i.e. the probable exchange rate volatility reflecting the dealers’ expectations regarding FX market situation. Banks and brokers quote the volatilities of the following basic interbank market strategies: straddle, butterfly and risk reversal. Based on the quotes for those three strategies, the implied volatility of single European call and put options as well as the entire volatility surface may be determined. Other strategies which are often sold on the interbank market include the strangle, the calendar spread and the delta spread.

Single call and put options are also rarely sold on customer markets. Non-financial entities prefer option strategies with varied payment profiles. Such strategies are better adjusted to the

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415 The volatility surface represents market volatility depending on the period for which the option is issued and the strike price.

customers’ individual requirements and may be priced more attractively than single options. Enterprises increasingly frequently hedge their foreign currency payments using exotic options 417.

**Market size**

The liquidity of the FX option market is much higher than that of the interest rate option market. The fundamental reason for the more rapid development of FX options is that several domestic banks hold speculative portfolios involving such instruments. Turnover on this market is growing steadily. In 2002, the average monthly net turnover on the domestic zloty FX option market was 13.15 bn zloty; in 2003, it was 14.6 bn zloty (Figure 6.4.11) 418. The emergence of another active domestic player on interbank and customer markets at the beginning of 2002 had a significant impact on the market development.

Most turnover (over 70%) is concentrated on the interbank market. In 2003, the average monthly turnover was 10.28 bn zloty. Foreign banks are very important market participants. Transactions with non-residents account for over 90% of interbank turnover. The standard transaction amount on the interbank market is 5 or 10 million US dollars (euro) 419. The turnover on the customer market is lower. However, the monthly amount of transactions concluded in this market segment has been growing steadily; it ranged from 3 to 5 bn zloty in 2003. This is a result of the heightened interest of enterprises in option strategies and changes in the customer acquisition strategies used by some banks. Banks try to acquire more customers and also sell derivatives to small and medium-sized enterprises.

**Figure 6.4.11. Average monthly turnover on the zloty FX option market**

![Average monthly turnover on the zloty FX option market](image)

Note: according to the Bank for International Settlements standard, the figures presented cover the face value of each option included in the strategies.

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

**Market structure**

Banks which hold option portfolios quote volatilities for the following zloty exchange rates: USD/PLN, EUR/PLN, CHF/PLN, GBP/PLN, CZK/PLN and HUF/PLN. However, option transactions regarding the exchange rates of the zloty against the euro and the US dollar account for more than 95% of turnover both on the interbank and customer markets. The EUR/PLN pair has a slightly larger share of turnover (over 55%). Due to the structure of payments in foreign trade and debt servicing, non-bank entities more often hedge against changes in the exchange rate of the zloty against the euro, and a significant part of positions resulting from customer transactions is closed on the interbank market. Changes in the basket structure of the zloty favour not only speculation

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417 A description of various exotic options may be found e.g. in: A. Napiórkowski, “Charakterystyka, wycena i zastosowanie wybranych opcji egzotycznych”, Materiały i Studia No. 136 (Warszawa, NBP: 2002).
418 Zloty exchange rate options are also traded on the London market. This is a relatively liquid market but the NBP has no detailed information about the amount of transactions concluded between non-residents.
419 This figure refers to the face value of each option included in the strategy sold.
on the EUR/PLN exchange rate volatility but also speculation on changes in the spread between the implied volatilities of EUR/PLN and USD/PLN options. Various exotic EUR/PLN exchange rate options and currency spread strategies are used for these purposes, respectively420.

Strategies with 1M, 2M, 3M, 6M and 12M expiration periods are quoted on the interbank market. 11 a.m. Polish time is the standard expiration time for zloty options. In informative quotes, the spread is very wide and amounts to one percentage point. Short-term transactions with strike dates one month after the purchase/sale date prevail (Figure 6.4.12). Transactions with maturities exceeding one year are concluded occasionally.

Figure 6.4.12. Turnover on the zloty FX option market by maturity, 2003

Source: NBP data submitted by banks – Primary Dealers and/or Money Market Dealers and candidates for dealers.

Banks which perform the function of market-makers – the ones which publish quotes and conclude most transactions – manage the entire option portfolio. They do not hedge the risk resulting from simple options but control the parameters (sensitivities)421 of the entire portfolio. The option portfolio is hedged dynamically by neutralising the overall FX position resulting from option transactions (so-called delta hedging)422. Most transactions on the interbank market are concluded with simultaneous closing of the exposure to short-term FX risk (option with spot hedge) through an appropriate spot transaction or with simultaneous closing of the exposure to both FX and interest rate risk (option with forward hedge) by taking a position in an outright-forward transaction or in a synthetic forward transaction concluded on more liquid spot and FX swap markets. Such hedged transactions facilitate the management of the entire option portfolio.

Market participants

Among the banks participating in this market, two groups may be distinguished: the quoting banks and the banks which ask for prices (market users). The market-maker function is performed by two domestic and several London-based banks. Market users include two domestic and several foreign banks. Additionally, some domestic banks which operate as intermediaries offer options to non-bank customers. The position resulting from the sale of an option strategy/option is closed by concluding an opposite transaction with the parent undertaking. This phenomenon is not peculiar to the Polish market and results from the risk management centralisation process. Sometimes domestic banks act as other banks’ customers on the option market in order to hedge their own FX exposures.

420 Cf. G. Taraszkiewicz-Siodecki, op cit.
421 Sensitivities (referred to as “Greeks”) indicate how the option value changes depending on marginal changes in various parameters (exchange rate, time to option expiration, interest rates). The basic sensitivity is delta, which specifies the change in option value depending on the change in the forward exchange rate.
422 More information on managing the FX option portfolio can be found in: N. Taleb, Dynamic Hedging (New York: John Wiley & Sons, 1999), and in: P. Mielus, Rynek opcji walutowych w Polsce, pp. 119–150.
Enterprises hedging against movements in the zloty exchange rate are the most important group of non-bank market participants. Non-bank customers often prefer complex strategies and various exotic options (mainly barrier, Asian and binary options\textsuperscript{423} and all variants thereof). The advantage of such products, which are currently offered by several domestic banks, is that their payment profiles may be adjusted to the individual requirements of the enterprise. However, undertakings which wish to use exotic options should be familiar with such instruments and be aware of the risk they generate. Price is not the only factor which should be taken into account when choosing the hedging instrument. Purchasers of low-cost strategies are often exposed to considerable losses when the exchange rate changes in an unfavourable way. Corporate customers not only buy options but also issue such instruments relatively often. Private banking customers who speculate on the exchange rate and volatility of the zloty also participate in the option market.

\textit{Development trends and outlook}

It appears that the liquidity of the zloty FX option market will not change significantly in the coming years. Managing an option portfolio requires the use of expensive professional software and qualified personnel as well as the development of risk management procedures. These factors are an important obstacle for most domestic banks and therefore it should not be expected that the number of active participants of the interbank market increases, the more so that this would entail an overhaul of the entire product strategy for some institutions. The exotic option market will develop both qualitatively (a more comprehensive range on offer) and quantitatively. Despite the high prices of exotic options (resulting from low market liquidity and the difficulties related to hedging positions), enterprises will gradually recognise the advantages of such instruments.

\textbf{6.4.2. Stock exchange derivatives}

From the point of view of institutional investors, futures contracts have a certain advantage over OTC market derivatives resulting from the existence of a clearing house and margins. Such margins, which are deposited by both parties, are a guarantee that they will meet their obligations under the contract. This is especially important for pension funds and insurance companies. Moreover, the amounts of futures contracts are lower than those of similar instruments on the OTC market, therefore they may be used by smaller undertakings, which do not have substantial funds at their disposal.

There are two exchanges in Poland where financial derivatives are traded: the Warsaw Stock Exchange (WSE) and the Warsaw Commodity Exchange (WCE). The WSE offers such products as stock index futures (on WIG20, TechWIG and MIDWIG indices), FX futures (on USD/PLN and EUR/PLN exchange rates\textsuperscript{424}), single stock futures, MiniWIG20 index participation units, warrants and stock index options (WIG20). On the WCE, FX futures on the USD/PLN, EUR/PLN, CHF/PLN, EUR/USD, EUR/CZK and EUR/HUF exchange rates as well as interest rate futures (on WIBOR 1M and WIBOR 3M rates as well as 2-, 3- and 5-year Treasury bonds) and FX futures options are traded.

There are several fundamental differences between the FX derivatives offered by both exchanges pertaining to contract face values, settlement manner and the method of calculating the margin. On the WSE, futures contracts may only be settled by transferring the difference between the contract price and the market price. On the WCE, they may also be settled by the physical delivery of the underlying instrument.

The stock index futures market is the best developed segment of the regulated derivatives market. In 2003, the share of stock index futures in the total turnover on the WSE futures market was 98\% and the turnover figures rose by 51\% compared to 2002 (18\% compared to 2001). Stock futures had the second largest share (1.5\%); turnover in this segment rose by 32\% (90\% compared to 2001). The turnover of FX futures also rose (9\% compared to 2002, 50\% drop compared to 2001), whereas the turnover of MiniWIG20 index participation units dropped by 45\% (467\% compared to 2001) despite its dynamic growth (by 928\%) in 2002.

\textsuperscript{423} Cf. A. Napio\l{}kowski, op. cit.
\textsuperscript{424} PLN/EUR and PLN/USD labels are used in contract standards.
On the WCE, investors were most interested in FX futures contracts, particularly on EUR/USD, EUR/PLN and USD/PLN exchange rates. Virtually no turnover was recorded on the short-term interest rate futures market.

Transactions on both exchanges may only be concluded by institutions with the status of exchange members. At the end of 2002, there were 24 brokerage houses with that status on the WSE; at the end of 2003, there were 21 of them. At the WCE, there were 14 brokerage houses and offices with the status of public members in 2002; in 2003, there were 17 of them. Thus exchange transactions may only be concluded via brokerage houses and offices. Transactions concluded on the WSE are settled by the National Depository for Securities (KDPW) and transactions concluded on the WCE – by its own Clearing House. This House performs settlements for clearing members and settles transactions registered on their behalf.

In 2002, derivatives were traded on the WSE in the continuous trading system, from Monday to Friday from 9 a.m. to 4.10 p.m. In 2003, trading in contracts was extended by adding a 10-minute post-auction trading. On the WCE, futures are traded in the open-outcry system, from Monday to Friday from 9.15 a.m. to 4.10 p.m.

### 6.4.2.1. Interest rate futures

An interest rate future is an agreement between two parties who undertake to settle the differences between the future price of a purchased (sold) contract and its price on the transaction date.

The short-term interest rate futures market was established on the WCE in February 1999. Such instruments were also offered for a short time by the currently defunct Polish Financial Exchange (Polska Giełda Finansowa).

| Table 6.4.4. Contract standard for Treasury bond futures listed on the WCE – selected features |
| Contract features | 2-year Treasury bond futures | 5-year Treasury bond futures | 10-year Treasury bond futures |
| Underlying instrument | fixed-rate bonds (8% p.a.) | fixed-rate bonds (6% p.a.) | fixed-rate bonds (6% p.a.) |
| Contract size | 200,000 zloty | 100,000 zloty | 100,000 zloty |
| Minimum price movement | 0.005 percentage points | 0.01 percentage points | 0.01 percentage points |
| Delivery months | March, June, September, December – not more than one year ahead | March, June, September, December – not more than one year ahead | March, June, September, December – not more than one year ahead |
| Settlement | physical delivery of underlying instrument | physical delivery of underlying instrument | physical delivery of underlying instrument |

Source: WCE data.

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425 Labels as per contract standards.
426 Pursuant to WCE Rules, two types of WCE membership (public and non-public) are distinguished. A non-public WCE member has only the right to conclude transactions on its own behalf, i.e. it cannot accept and execute customers’ orders. A public WCE member may also conclude transactions on its customers’ behalf, i.e. engage in brokerage activities.
427 Pursuant to WCE Rules, there are three categories of clearing members, which differ with regard to their rights.
428 Open-outcry is a system whereby transactions are concluded directly on the trading floor.
Interest rate futures contracts are traded on the WCE. Until 2002, only short-term interest rate futures (on the WIBOR 1M and WIBOR 3M) were offered by the WCE. In September 2002, the WCE introduced futures contracts on 2-, 5- and 10-year Treasury bonds. These are the first such instruments on the Polish market and the first ones settled by the physical delivery of the underlying instrument. A market-maker (PKO BP) operates on the market in order to ensure liquidity.

These instruments were primarily targeted at enterprises, institutional investors and banks. In countries with developed financial markets, futures contracts on Treasury bonds are used mainly by pension and investment funds, insurance undertakings, banks and enterprises. Such entities use those contracts primarily in order to hedge their investment portfolios, loans and debt securities issued against adverse interest rate movements.

**Market size**

The WCE has not succeeded in creating a liquid market in futures on short-term interest rates and futures on Treasury bonds. The primary reasons include:

– lack of participation on the part of banks, which are reluctant to conclude transactions with small amounts (the conclusion of large transactions on a low liquidity market would have impact on contract prices)\(^{429}\);

– strong competition from the FRA and IRS market, which offers forward contracts hedging against interest rate risk;

– no demand from enterprises, which still do not manage their financial risk in a systematic way despite taking out bank loans (no professional risk management personnel);

– no demand from institutional investors (primarily due to the regulations in force)\(^{430}\).

The Warsaw Stock Exchange also plans to introduce synthetic bond futures. In order to ensure liquidity, the WSE intends to allow banks and other KDPW members to participate directly in this market by introducing appropriate amendments to Stock Exchange Rules\(^{431}\).

<table>
<thead>
<tr>
<th>Instrument</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIBOR 1M futures</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>WIBOR 3M futures</td>
<td>237</td>
<td>534</td>
<td>51</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>2-year bond futures</td>
<td>–</td>
<td>–</td>
<td>9</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>5-year bond futures</td>
<td>–</td>
<td>–</td>
<td>49</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>10-year bond futures</td>
<td>–</td>
<td>–</td>
<td>42</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

Source: WCE data.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIBOR 1M futures</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>WIBOR 3M futures</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>2-year bond futures</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5-year bond futures</td>
<td>–</td>
<td>–</td>
<td>12</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>10-year bond futures</td>
<td>–</td>
<td>–</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Source: WCE data.

\(^{429}\) Unfortunately, this market cannot be compared to the FRA market, since the WCE does not publish turnover data.

\(^{430}\) The Act Amending the Act on the Organisation and Operation of Pension Funds and Other Acts of August 27, 2003 (Dziennik Ustaw No. 170/2003, item 651) enables open pension funds to use derivatives for hedging purposes but so far no secondary legislation has been issued related to the Act.

Table 6.4.7. Contract standard for Treasury bond futures to be listed on the WSE from 2004 – selected features

<table>
<thead>
<tr>
<th>Contract features</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying instrument</td>
<td>fixed-rate bonds (6% p.a.)</td>
</tr>
<tr>
<td>Contract size</td>
<td>100,000 zloty</td>
</tr>
<tr>
<td>Minimum price movement</td>
<td>10 zloty</td>
</tr>
<tr>
<td>Delivery months</td>
<td>two nearest of the March cycle: March, June, September, December</td>
</tr>
<tr>
<td>Settlement</td>
<td>physical bond delivery</td>
</tr>
</tbody>
</table>

Source: WSE data.

Development trends and outlook

Interest rate futures contracts are the most popular derivatives in the world. On Eurex\(^{432}\), the largest European derivatives exchange, long-term Treasury bond futures are the most popular contracts. Therefore the domestic bond futures market has some development potential. For institutional investors, such contracts may be a convenient debt securities portfolio management tool. Pension and investment funds invest a large part of their assets in Treasury securities and therefore their investment portfolios exhibit considerable exposure to interest rate risk. Until the end of 2003, open pension funds could not conclude transactions on the derivatives market\(^{433}\). Foreign institutional investors who are active on the Polish Treasury bond market may also be interested in bond futures. The active participation of institutional investors, who ensure adequate liquidity, is necessary for this market to develop.

Figure 6.4.13. Volume structure of interest rate futures on the Eurex exchange

Table 6.4.8. Annual turnover (number of contracts sold) in interest rate futures on Eurex and Euronext exchanges

<table>
<thead>
<tr>
<th>Underlying Instrument</th>
<th>Exchange</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro-Bund</td>
<td>Eurex</td>
<td>191,263,413</td>
<td>244,414,274</td>
</tr>
<tr>
<td>Euro-Bobl</td>
<td>Eurex</td>
<td>114,678,996</td>
<td>150,087,139</td>
</tr>
<tr>
<td>3-month EURIBOR</td>
<td>Euronext LIFFE</td>
<td>105,762,494</td>
<td>137,692,241</td>
</tr>
<tr>
<td>Euro-Schatz</td>
<td>Eurex</td>
<td>108,760,955</td>
<td>117,370,528</td>
</tr>
<tr>
<td>Long Gilt</td>
<td>Euronext LIFFE</td>
<td>7,789,011</td>
<td>10,150,267</td>
</tr>
</tbody>
</table>

Notes:
- Euro-Bund – German long-term Treasury debt securities with the interest rate of 6%.
- Euro-Bobl – German medium-term Treasury debt securities with the interest rate of 6%.
- Euro-Schatz – German short-term Treasury debt securities with the interest rate of 6%.
- Long Gilt – British long-term Treasury debt securities with the interest rate of 6%.

Source: Eurex and Euronext data.

\(^{432}\) Eurex consists of Deutsche Börse AG and SWX Swiss Exchange.

\(^{433}\) The law allowed those entities to conclude transactions on the derivatives market in order to hedge against FX risk but no appropriate secondary legislation was issued.
In countries with developed financial markets, investors also exhibit considerable interest in short-term interest rate futures. 3M EURIBOR futures are the most popular among them. They are usually used for active liquidity management. Therefore it may be expected that the WIBOR futures market will start to develop slowly despite the existence of the well-developed FRA market. The two markets supply complementary instruments used to hedge against adverse interest rate movements; on the OTC market, participants usually have substantial funds, while entities with much smaller funds at their disposal may participate in the stock exchange market. The latter group includes first of all enterprises which have taken out loans or are issuing short-term debt securities (hedging) and other entities with available funds (active management).

6.4.2.3. Foreign exchange rate futures

A foreign exchange rate future is an agreement between two parties which undertake to settle the differences between the future spot foreign exchange rate and the forward exchange rate on the transaction date.

Both institutional investors and enterprises may participate in this market. Foreign exchange rate futures may be used to hedge against adverse exchange rate movements.

The FX futures market was established on the WSE in September 1998. Later, such instruments were also introduced to trading on the WCE. For a short time, FX futures were also offered by the currently defunct Polish Financial Exchange.

In 2002 and 2003, FX futures were traded on two exchanges (WSE and WCE). The range of such instruments on offer on the WSE only includes EUR/PLN and USD/PLN futures. The WCE offers a wider range: EUR/PLN, USD/PLN, CHF/PLN, EUR/USD, EUR/HUF and EUR/CZK FX futures are traded there. The contracts regarding the last two exchange rates were introduced in May 2003. In the period under consideration, all FX futures were settled on a non-deliverable basis.

Market size

In 2002, the investors’ interest in FX futures declined considerably. The number of contracts sold on the WSE dropped by 58% compared to 2001. The number of open positions also decreased (from 478 to 126). 5,957 futures contracts on EUR/PLN and USD/PLN exchange rates totalling 481 million zloty were sold. In total, 3,742 transactions were concluded. In 2003, basic market indicators increased slightly. The annual number of FX futures contracts sold grew by 3% compared to 2002 and amounted to 6,145 contracts totalling 523 million zloty. The number of open positions also increased to 250.

The different tax treatment (tax discrimination) of FX futures contracts could have been the reason for the slow development of this segment of the futures market. Pursuant to the Act on Public Trading in Securities in force, such instruments are not securities. Therefore transactions involving them were subject to tax. In contrast, transactions concluded on the stock index futures market were subject to a zero tax rate as securities (until 2004).

Since FX futures contracts were introduced on the WSE, investors have been most interested in EUR/PLN futures. In 2003, their share of total turnover was 68%. The average number of transactions per session grew from eight in 2002 to ten in 2003 but did not reach the 2001 level (sixteen). The average number of transactions involving USD/PLN futures in 2003 was six.

Table 6.4.9. Annual turnover and open positions in FX futures, WSE and WCE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WSE</td>
<td>7,967</td>
<td>230</td>
<td>14,325</td>
<td>478</td>
<td>5,957</td>
<td>126</td>
<td>6,145</td>
<td>250</td>
</tr>
<tr>
<td>WCE</td>
<td>30,682</td>
<td>521</td>
<td>2,302</td>
<td>61</td>
<td>7,076</td>
<td>169</td>
<td>19,579</td>
<td>273</td>
</tr>
</tbody>
</table>

A – number of contracts sold
B – open positions as at year-end
Source: WSE and WCE data.

434 In 2004, the WCE plans to introduce the option of transaction settlement through physical foreign exchange delivery.
The situation on the other exchange (WCE) was different. In 2002, the turnover of FX futures tripled compared to 2001. In the following year, the number of contracts sold grew further. The number of open positions also increased. The increased interest in such instruments resulted, among other things, from the growing awareness of the risk incurred by enterprises given the low exchange rate of the zloty against the euro. As a result, such undertakings started to hedge on the futures market. Some transactions were also of speculative nature.

Foreign exchange rate (EUR/USD, EUR/PLN and USD/PLN) futures were the most popular futures contracts (Table 6.4.10).

Investors were not interested in the newly introduced futures on the exchange rates of the Czech crown and Hungarian forint against the euro. No transactions were recorded in this market segment.

**Table 6.4.10. Annual turnover and open positions in FX futures, WCE**

<table>
<thead>
<tr>
<th>Underlying instrument</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>USD/PLN exchange rate</td>
<td>2,596</td>
<td>10</td>
</tr>
<tr>
<td>EUR/PLN exchange rate</td>
<td>866</td>
<td>86</td>
</tr>
<tr>
<td>USD/EUR exchange rate</td>
<td>937</td>
<td>21</td>
</tr>
<tr>
<td>CHF/PLN exchange rate</td>
<td>2,677</td>
<td>52</td>
</tr>
</tbody>
</table>

A – number of contracts sold
B – open positions as at year-end
Source: WCE data.
Market organisation

In order to ensure market liquidity, a single entity (CDM Pekao) performed the function of market-maker on the WSE in 2002 and 2003. Price fluctuation limits were imposed on FX futures trading. The maximum admissible change was ±5%, relative to the previous settlement price. No such price fluctuation limits are in force at the WCE.

Investors

On the WSE, individual investors were the most important group; on the WCE, enterprises which wanted to hedge against FX risk dominated. Some transactions were conducted by short-term investors and were speculative ones.

Development trends and prospects

Despite efforts by both the WSE and the WCE, no liquid FX futures market has been established in Poland due to the following reasons:

– lack of participation on the part of banks, which are reluctant to conclude transactions with small amounts (due to low market liquidity, the conclusion of a large transaction would have impact on prices);
– strong competition from the OTC market, which offers forward contracts hedging against FX risk (the OTC market is more liquid, more efficient and cheaper);
– no demand from enterprises, which still do not manage their financial risk in a systematic way;
– no demand from non-bank financial institutions.

The FX futures market may develop further if several conditions are met. The increased awareness of exposure to FX risk among enterprise managers will fuel the demand for financial instruments which are used for effective hedging against potential losses. Moreover, if institutional investors are allowed to hedge portfolios composed of foreign assets, this market segment will develop and an increase in foreign investment will become possible. It may also be expected that after the capital gains tax has been introduced (the tax rate is the same as e.g. for other derivatives), the share of individual investors in FX futures turnover on the WSE will increase.

6.4.2.4. Index and stock derivatives

Stock index and single stock futures make it possible to efficiently hedge investment portfolio value against adverse equity price movements. The stock index derivatives market was established in 1998 and the stock futures market in 2001.

Stock index futures

A stock index future is an agreement between two parties which undertake to settle an amount proportional to the difference between the future index value and contract value on the transaction date.

In 2002 and 2003, WIG20, TechWIG and MIDWIG stock index futures were traded on the WSE. WIG20 stock index futures were the most rapidly developing market segment from the establishment of the stock exchange futures market.

Market size

In 2002, the number of stock index derivatives sold and the turnover fell slightly. The decrease was primarily caused by very small fluctuations of the WIG20 index. On the other hand, 2003 was one of the best years in the history of the Polish futures market to date. The significant upswing on the stock market contributed to dynamic increases in the futures market. Most market size

435 From February 6, 2004, the maximum admissible change will be ±3%.
436 This issue is discussed in greater detail in section 5.3.2.
indicators reached record highs. The number of WIG20 futures contracts sold in 2003 grew by 35% compared to 2002 (by 13% compared to 2001). The monthly number of such instruments sold also reached an all-time high (559,880 contracts). The nominal monthly turnover of WIG20 futures was the highest recorded (17.8 bn zloty).

In 2002 and 2003, investors continued to migrate from the spot market to the WIG20 futures market. This was evidenced by the ratio of turnover in these contracts to the turnover of stocks included in the WIG20 index (the so-called liquidity ratio).

MIDWIG futures were introduced on the WSE in February 2002. The number of contracts sold during the year was 7,672, and the annual turnover amounted to 144 million zloty. The number of contracts sold in 2003 grew by 23% and amounted to 9,418 while the highest nominal monthly turnover was 47 million zloty. The increase was caused by a rise in stock prices (the MIDWIG index grew by 33.6%). In 2003, the liquidity ratio for MIDWIG futures was 4.1%.

On the other hand, the investors’ interest in TechWIG futures declined considerably. In 2002 and 2003 the decrease in the number of contracts sold, which had begun in the second half of 2001, continued. In 2003, the number of contracts sold fell by 66% (87% compared to 2001). The total number of transactions concluded plummeted from 10,547 in 2002 to 2,965 in 2003. The downward trend in this segment of the futures market was caused by the 2001 problems of IT companies, which prompted investors to get rid of their shares quickly. The investors are still distrustful of investment in ICT companies’ securities.

Table 6.4.11. Ratio of turnover on WIG20 futures to the turnover on stock included in the WIG20

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover (million zloty)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WIG20 stocks</td>
<td>WIG20 futures</td>
</tr>
<tr>
<td>1999</td>
<td>39,126.5</td>
<td>6,014.6</td>
</tr>
<tr>
<td>2000</td>
<td>83,784.6</td>
<td>57,501.0</td>
</tr>
<tr>
<td>2001</td>
<td>52,583.7</td>
<td>95,932.1</td>
</tr>
<tr>
<td>2002</td>
<td>43,276.9</td>
<td>75,241.0</td>
</tr>
<tr>
<td>2003</td>
<td>55,121.7</td>
<td>113,661.9</td>
</tr>
</tbody>
</table>

Source: own calculations based on WSE data.

Table 6.4.12. Number of contracts sold and the annual turnover of stock index futures on the WSE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIG20 futures</td>
<td>57,390</td>
<td>1,490,005</td>
<td>95,932</td>
<td>3,646,528</td>
<td>75,241</td>
<td>3,057,237</td>
<td>113,662</td>
<td>4,118,952</td>
</tr>
<tr>
<td>TechWIG futures</td>
<td>540</td>
<td>17,925</td>
<td>636</td>
<td>33,444</td>
<td>130</td>
<td>12,927</td>
<td>43</td>
<td>4,379</td>
</tr>
<tr>
<td>MIDWIG futures</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>144</td>
<td>7,672</td>
<td>215</td>
<td>9,418</td>
</tr>
</tbody>
</table>

A – turnover (million zloty)
B – number of contracts sold
Source: WSE data.

Table 6.4.13. Average number and amount of open positions in stock index futures on the WSE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WIG20 futures</td>
<td>8,055</td>
<td>160.6</td>
<td>13,443</td>
<td>178.8</td>
<td>20,100</td>
<td>249.6</td>
<td>20,480</td>
<td>272.3</td>
</tr>
<tr>
<td>TechWIG futures</td>
<td>622</td>
<td>8.7</td>
<td>424</td>
<td>4.0</td>
<td>340</td>
<td>1.2</td>
<td>184</td>
<td>0.9</td>
</tr>
<tr>
<td>MIDWIG futures</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>170</td>
<td>1.4</td>
<td>109</td>
<td>1.2</td>
</tr>
</tbody>
</table>

A – average number of open positions during the year calculated according to data for the end of subsequent months
B – average amount of open positions during the year calculated according to data for the end of subsequent months (million zloty)
Source: WSE data.

437 Ratio of turnover in such contracts to the turnover in stocks included in the MIDWIG index.
In 2002 and 2003, the average number of open positions on the WIG20 futures market grew steadily. For other stock index futures, the numbers decreased – the largest drop was recorded with regard to TechWIG futures.

**Figure 6.4.16. WIG20 futures listed on the WSE**

![Graph showing WIG20 futures Listed on the WSE](image)

Source: WSE data.

**Figure 6.4.17. TechWIG futures listed on the WSE**

![Graph showing TechWIG futures Listed on the WSE](image)

Source: WSE data.

**Figure 6.4.18. MIDWIG futures listed on the WSE**

![Graph showing MIDWIG futures Listed on the WSE](image)

Source: WSE data.

**Market organisation**

In order to ensure market liquidity, some brokerage offices are involved in transactions as market-makers. At the end of 2002, this function was performed by six, and at the end of 2003 by nine brokerage houses. Price fluctuation limits were imposed on stock index futures trading. The maximum admissible change was ±10% relative to the previous settlement price. From February 6, 2004, the maximum admissible change will be ±5%.
Development trends and outlook

On European derivatives exchanges, the stock index futures market is growing rapidly.

Table 6.4.14. Turnover (number of contracts sold) in main stock index futures in Europe

<table>
<thead>
<tr>
<th>Underlying instrument</th>
<th>Exchange</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>DJ EURO STOXX50</td>
<td>Eurex</td>
<td>86,354,731</td>
<td>116,035,326</td>
</tr>
<tr>
<td>CAC40</td>
<td>Euronext Paris</td>
<td>26,411,321</td>
<td>29,319,624</td>
</tr>
<tr>
<td>DAX30</td>
<td>Eurex</td>
<td>19,996,503</td>
<td>27,181,218</td>
</tr>
<tr>
<td>FTSE100</td>
<td>Euronext LIFFE</td>
<td>17,238,726</td>
<td>20,252,114</td>
</tr>
<tr>
<td>DAX</td>
<td>OM</td>
<td>12,457,089</td>
<td>14,567,900</td>
</tr>
<tr>
<td>SWI</td>
<td>Eurex</td>
<td>7,019,626</td>
<td>8,969,235</td>
</tr>
<tr>
<td>SME</td>
<td>Euronext Amsterdam</td>
<td>4,231,053</td>
<td>5,215,465</td>
</tr>
<tr>
<td>AEX</td>
<td>IDEM</td>
<td>4,877,668</td>
<td>4,263,886</td>
</tr>
<tr>
<td>WIG20</td>
<td>WSE</td>
<td>3,057,237</td>
<td>4,118,952</td>
</tr>
<tr>
<td>IBEX35</td>
<td>MEFF</td>
<td>3,896,643</td>
<td>3,545,942</td>
</tr>
</tbody>
</table>

Source: WSE, Eurex, Euronext, IDEM and OM data.

In 2003, WIG20 futures were ranked ninth among European exchanges in terms of the number of contracts sold (in 2002, they were ranked 11th). The WSE was the fifth largest European stock exchange (the seventh in 2002) with regard to the number of main stock index contracts sold and the seventh largest (the same as in 2002) in terms of turnover. The rapid growth of this futures market segment will continue.

Individual investors dominate on the stock index futures market. Some of them migrated from the spot market to the futures market. The main reason here is the possibility of generating higher profits than on the spot market, even given a downward trend (the financial leverage effect). The trend towards the prevalence of the futures market over the spot market will probably be sustained.

Stock futures

A stock future is an agreement between two parties, one of which undertakes to buy and the other to sell a specified amount of the underlying instrument (stocks in specified companies) on an agreed date and at a predetermined price.

Such instruments make it possible to generate profit when single stocks increase or decrease in price. They can also be used to speculate on an increase (by purchasing a contract) or a decrease (by selling one) in the price of a given company stock as an alternative to a short sell. Stock futures may be used to hedge against a decrease in the price of owned stock (by selling a contract) or against an increase in the price of stock the investor intends to buy in the future (by purchasing a contract).

At the beginning of 2002, futures on shares in eight companies (KGHM Polska Miedź, PKN Orlen, Telekomunikacja Polska, Elektrim, Agora, BRE Bank, Bank Pekao and Prokom) were traded on the WSE. In March 2002, the WSE introduced BPH PBK stock futures, and in March 2003 launched trading of BZ WBK and Bank Millenium stock futures. New contract standards were designed analogously to the standards for those already traded. In December 2003, the WSE suspended trading in Elektrim stock futures.

Market size

From the moment when particular stock futures were introduced, the interest in such instruments grew steadily. In 2002, the number of contracts sold and turnover grew by 52% and 44% respectively compared to 2001. In 2003, only turnover increased (by 32%). The other figures remained virtually unchanged and the average number of transactions per session decreased slightly. In 2003, the liquidity ratio for stock futures was 3.7%.

439 A short sell is a transaction consisting in the sale of a security which the investor does not hold but borrows it from someone else in order to generate profit from a decrease in its price.

440 The liquidity ratio is the ratio of turnover in individual stock futures to the turnover in respective stocks.
Market organisation

In order to ensure market liquidity, some brokerage offices that act as market-makers are involved in transactions. At the end of 2002, this function was performed by four, and at the end of 2003 by six brokerage houses. Price fluctuation limits were imposed on stock futures trading. The maximum admissible change was ±10% (extendable to 15%) relative to the previous settlement price.\footnote{From February 6, 2004, the maximum admissible change will be ±5%.}

In order to enhance the appeal of stock futures, the WSE introduced changes in contract standards in June 2002, which made the expiration cycle of such instruments uniform with the expiration cycle of stock index contracts.\footnote{Three nearest months of the March, June, September, December cycle.} Another change involved the reduction of the minimum tick value from 10 to 5 grosz.

Development trends and outlook

In view of the development of single stock futures markets on most European exchanges, this trend may be expected to occur in Poland.
6.4.2.5. Warrants

A warrant is a financial instrument, the price of which depends on the price or value of the underlying instrument. It is an unconditional and irrevocable obligation on the part of the issuer to pay the entitled owners the settlement amount (difference between the price of the underlying instrument and the strike price). Such instruments also make it possible to generate profit when the underlying instrument decreases in price.

Option warrants are traded on the WSE. Two types of such instruments (European and American) are listed\(^{443}\). In 2002 and 2003, two undertakings – BRE Bank and Beskidzki Dom Maklerski (BDM) – issued warrants. The former issued European warrants on several most liquid company stocks as well as on the TechWIG stock index, while the latter issued American warrants on stocks and on WIG20 futures. Compared to 2001, the number of issuers decreased from three to two. Centralny Dom Maklerski Pekao (CDM) ceased to issue warrants. All warrants issued by CDM were delisted in December 2001.

### Market size

The warrant market is not very well developed. In 2002, the total turnover\(^{444}\) was 8 million zloty, which meant a 58% decrease compared to 2001. In 2003, the turnover grew considerably (by 82% compared to 2002) and amounted to 15 million zloty. The average session turnover also increased in 2003, reaching 62,000 zloty. The most important factors detrimental to further development of this market are:

- lack of interest on the part of institutional investors;
- wide spreads between call and put warrants (this is both a cause and an effect);
- very low issue amounts;
- limited number of large issuers;
- short expiration periods.

<table>
<thead>
<tr>
<th>Exchange</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEFF (Madrid)</td>
<td>12,645,186</td>
<td>12,492,568</td>
</tr>
<tr>
<td>Euronext (total)</td>
<td>7,579,175</td>
<td>7,004,235</td>
</tr>
<tr>
<td>Euronext LIFFE (London)</td>
<td>3,935,121</td>
<td>6,349,198</td>
</tr>
<tr>
<td>OM (Stockholm)</td>
<td>1,290,181</td>
<td>1,424,890</td>
</tr>
<tr>
<td>BSE (Budapest)</td>
<td>452,638</td>
<td>618,261</td>
</tr>
<tr>
<td>DEM</td>
<td>59,868</td>
<td>468,083</td>
</tr>
<tr>
<td>WSE</td>
<td>92,097</td>
<td>93,055</td>
</tr>
</tbody>
</table>

Source: WSE, Euronext, IDEM, BSE, MEFF and OM data.

### Table 6.4.17. Basic indicators concerning warrant trading on the WSE

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactions per session</td>
<td>5</td>
<td>51</td>
<td>76</td>
<td>29</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Total turnover (million zloty)</td>
<td>2</td>
<td>15</td>
<td>72</td>
<td>20</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Average session turnover (thousand zloty)</td>
<td>11</td>
<td>59</td>
<td>287</td>
<td>82</td>
<td>34</td>
<td>62</td>
</tr>
</tbody>
</table>

Source: WSE data.

\(^{443}\) European warrants may only be exercised on a predetermined expiration date set by the issuer. American warrants may be exercised on any date up to and including the expiration date.

\(^{444}\) Total gross turnover is the total number of warrants sold (double counted) multiplied by the premium.
In 2002, warrants on the WIG20 index issued by BRE Bank attracted the most interest from investors. Their share in total warrant turnover was 40%. In 2003, stock warrants were the most popular instruments; their underlying instruments are stocks in several most liquid companies. The share of these instruments in the total turnover was 54%. The fact that BDM started to organise the market for the instruments it issued contributed to a certain increase in interest in stock warrants. From 2001, the interest in warrants on WIG20 futures grew steadily. On the other hand, the share of stock index warrants declined significantly in 2003. One of the reasons for the drop was the introduction of WIG20 options into trading on the WSE. Therefore BRE Bank, which was the issuer of warrants on the WIG20 index, ceased to issue this instrument.

**Market organisation**

No price fluctuation limits have been imposed for warrants. The information submitted by the WSE indicates that warrants were mainly purchased by individual investors.

**Development trends and outlook**

Warrants are popular financial instruments in European Union countries. They are issued e.g. on company stocks, stock indices and foreign exchange rates.

The pronounced growth in the warrant market and the trends present in countries with developed financial markets suggest that this market has a development potential. The growth of the competing market (i.e. stock index option market) may be an obstacle here. The impact of the introduction of the new instrument on the WSE was noticeable – the turnover in stock index warrants decreased. A similar situation may recur after particular stock options and futures options are introduced, since warrants are very similar to options.

**Figure 6.4.20. Warrant turnover breakdown by underlying instrument, 2001–2003**

![Chart showing warrant turnover breakdown]

Source: WSE data.

**Figure 6.4.21. Numbers of warrants sold at the Spanish MEFF exchange, 1999–2003**

![Chart showing numbers of warrants sold]

Source: MEFF data.
6.4.2.6. Stock index options

On September 22, 2003, a new futures market instrument (WIG20 options) was introduced on the Warsaw Stock Exchange. The instrument grants the right to buy (call option) or sell (put option) the WIG20 index\(^{445}\) on a specified date at a predetermined price. The price of the option is the premium paid by the purchaser to the option issuer.

### Table 6.4.18. WIG20 index option standard – selected features

<table>
<thead>
<tr>
<th>Option features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying instrument</td>
<td>WIG20 stock index</td>
</tr>
<tr>
<td>Option style</td>
<td>European – options may only be exercised on expiration date</td>
</tr>
<tr>
<td>Quotation</td>
<td>index points</td>
</tr>
<tr>
<td>Multiplier</td>
<td>10 zloty per index point</td>
</tr>
<tr>
<td>Option value</td>
<td>product of option price and multiplier</td>
</tr>
<tr>
<td>Tick size</td>
<td>0.01 points if the option is quoted at up to 5 points, 0.05 points if the option is quoted at above 5 points</td>
</tr>
<tr>
<td>Expiration months</td>
<td>two nearest months of the March, June, September, December cycle.</td>
</tr>
<tr>
<td>Strike price</td>
<td>product of strike and multiplier</td>
</tr>
<tr>
<td>Settlement</td>
<td>cash, in zloty</td>
</tr>
</tbody>
</table>

Source: WSE data.

### Market size

On the day of their introduction, options attracted considerable interest from investors on the WSE. The situation changed later, however, and the market did not develop in the manner suggested by the first trading day. From September 22 to December 31, 2003, the turnover of call options was 11 million zloty and that of put options was 8 million zloty. The total numbers of call and put options sold were 11,478 and 9,169 contracts, respectively. In total, 4,524 transactions involving call options and 3,563 transactions involving put options were concluded. The liquidity ratio for call and put options amounted to 0.03\(^{446}\)%. It is very low compared to the liquidity ratio of WIG20 futures (207%). The very short history of this market segment should be taken into account, however.

### Market organisation

No price fluctuation limits have been imposed on trading in options. In order to ensure market liquidity, a single entity (Internetowy Dom Maklerski) performed the function of market-maker in 2003.

According to the standard in force from December 22, 2003, four series of options for each option type (call and put) are introduced on the first day of trading in options with a new expiration date: one series of at-the-money options, two series of out-of-the-money options and one series of in-the-money options. Additional option series may be introduced in certain circumstances\(^{447}\). The standard makes it possible to introduce options in certain circumstances.

When concluding a transaction, an option issuer must deposit a margin according to the principles set by the KDPW, which settles and guarantees transactions. The margin obligation results from the adopted obligation to pay the settlement amount determined on the option expiration date. This obligation is undertaken in exchange for the premium received from the purchaser. An investor who purchases an option does not have to deposit any margin because he or she does not undertake any obligation. In order to calculate the margin amount, the KDPW uses

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\(^{445}\) Meaning the purchase of a synthetic portfolio consisting of stocks included in the WIG20 index.

\(^{446}\) The liquidity ratio is the ratio of turnover in options to the turnover of the stocks included in the WIG20 index.

\(^{447}\) New series of options may be introduced when one of the following occurs:

- for call options, the closing value of the WIG20 index rises above the lower of the two highest strike values or the closing value of WIG20 falls below the lowest strike value;
- for put options, the closing value of the WIG20 index falls below the higher of the two lowest strike values or rises above the highest strike value.
the Portfolio Risk Calculation Model\textsuperscript{448}. The margin may include cash and securities (stocks, bonds).\textsuperscript{449} The KDPW sets the minimum margin which the customer must maintain on the margin account. Where the margin amount falls below the minimum level, the customer must replenish the security.

**Market participants**

WIG20 options do not attract much interest from investors. Insufficient market liquidity is one of the reasons. This may change, however, when the number of market makers becomes larger.

In 2003, individual domestic investors dominated on the WIG20 option market. The shares of foreign investors and institutional domestic investors were similar.

**Figure 6.4.22. Investors on the WIG20 option market, 2003**

![Figure 6.4.22](image)

Source: WSE data.

**Development trends and outlook**

On other European stock exchanges, turnover in stock index options is many times higher than on the WSE. Therefore the Polish option market may be considered to have some development potential. Individual investors as well as domestic and foreign institutional investors are interested in such transactions. When more market-makers emerge, the importance of this segment of the futures market will grow.

**Table 6.4.19. Annual turnover (number of contracts sold) in main stock index options**

<table>
<thead>
<tr>
<th>Underlying instrument</th>
<th>Exchange</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAC40</td>
<td>Euronext Paris</td>
<td>84,342,670</td>
<td>73,668,131</td>
</tr>
<tr>
<td>DI EURO STOXX50</td>
<td>Eures</td>
<td>39,477,430</td>
<td>61,794,673</td>
</tr>
<tr>
<td>DAX30</td>
<td>Eures</td>
<td>44,027,830</td>
<td>41,521,920</td>
</tr>
<tr>
<td>FTSE100</td>
<td>Euronext LIFFE</td>
<td>13,263,116</td>
<td>14,619,893</td>
</tr>
<tr>
<td>AEX</td>
<td>Euronext Amsterdam</td>
<td>9,133,875</td>
<td>14,120,099</td>
</tr>
<tr>
<td>OMX</td>
<td>OM</td>
<td>4,916,726</td>
<td>6,371,381</td>
</tr>
<tr>
<td>SMI</td>
<td>Eures</td>
<td>4,230,082</td>
<td>3,983,918</td>
</tr>
<tr>
<td>IBEX35</td>
<td>MEFF</td>
<td>5,366,944</td>
<td>2,981,593</td>
</tr>
<tr>
<td>MIB30</td>
<td>IDEM</td>
<td>2,588,407</td>
<td>2,505,351</td>
</tr>
<tr>
<td>WIG20</td>
<td>WSE</td>
<td>–</td>
<td>20,647</td>
</tr>
</tbody>
</table>

Source: WSE, Eurex, Euronext, IDEM and OM data.

\textsuperscript{448} Sixteen scenarios involving changes in the price of the underlying instrument and movements in its volatility are generated in the model. For each scenario, the theoretical option value is calculated, which is at the same time the required margin amount.

\textsuperscript{449} Resolution No. 115/01 of the Management Board of the KDPW on security submitted in non-cash form of March 2, 2001.
6.4.2.7. Index participation units

An index participation unit is a security which represents the prices of all stocks included in the WIG20 index. The purchase of an index participation unit corresponds to the purchase of a portfolio of shares in the 20 companies included in the index.

This instrument makes it possible to generate profit even when the prices of stocks included in the index decrease; thus it is an alternative to a short sell.

Market size

Index participation units (MiniWIG20) were introduced on the WSE in November 2001. In 2003, the number of such units sold decreased considerably. The turnover also dropped from 62 million zloty in 2002 to 34 million zloty in 2003. By mid-2002, the number of open positions averaged 38,000 units; afterwards, it dropped to 20,000. The number of transactions concluded also fell from 3,554 in 2002 to 2,484 in 2003.

![Figure 6.4.23. MiniWIG20 index participation units on the WSE](source: WSE data)

Development trends and outlook

MiniWIG20 index participation units were primarily targeted at small and medium investors with limited funds. They enable investment equivalent to the purchase of the WIG20 portfolio without the need to purchase single stocks included in the stock index, therefore the cost of acquiring this instrument is much lower than the cost of purchasing stocks. Investment in MiniWIG20 is relatively safe because the price of the unit depends on movements in the entire index and not on changes in the price of single stocks. Unit price corresponds to index value and reflects its movements, which facilitates investment analysis. No margin must be deposited when purchasing MiniWIG20 units, which is necessary when purchasing WIG20 futures. Such margin must be deposited by the unit issuer.

Index participation units are an instrument similar to ETF (Exchange Traded Funds), i.e. stock index funds listed on stock exchanges. The most popular instruments of this type in the world include units issued for Standard&Poor’s and Dow Jones Industrial Average indices, which are traded on U.S. stock exchanges. In Europe, Mini BEL20 index participation units attracted considerable interest from investors. They are traded on the Euronext in Brussels – the first European exchange to list such instruments. Polish index participation units are modelled after Mini BEL20.

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450 In 2003, these instruments were converted to ETF (Exchange Traded Funds).
Despite the advantages listed above, the instrument has not attracted much interest from investors. The most important reasons for the slow development of this market segment include:

- Competition from the WIG20 futures market. WIG20 futures were introduced in 1998. Investors had ample time to gain experience and knowledge related to the functioning of this market segment. On the other hand, index participation units are a younger instrument.

- The risk that an index participation unit will be exercised. MiniWIG20 are similar to American-style options, which means that they may be exercised on any date up to and including the expiration date. The seller of an index participation incurs the risk of being forced to close the position. Such a situation occurs when a MiniWIG20 buyer cannot sell it due to the lack of demand and submits it for exercise. The KDPW then makes a random choice of an investor from among the issuers of index participation units who is then obliged to transfer the settlement amount to the entity exercising the unit. The selected investor is obliged to redeem his or her transaction (the position becomes closed). Such a situation may prove disadvantageous for two reasons: the expected profit is not generated and the original investment horizon is shortened.

- No interest on the part of arbitragers. The price of the index participation unit is not equal to the WIG20 price. This results from the fact that the market is shaped by market-makers, who hedge their positions on the WIG20 futures market. Therefore the price of MiniWIG20 is similar to that of WIG20 futures.\textsuperscript{451}

1. Introduction

This study has been prepared based on the results of the survey conducted among banks, concerning the financing of small and medium-sized enterprises (SME) in Poland\textsuperscript{452}. The objective of the survey was to specify the banks’ role in this process and their strategy with respect to this sector. We also focused on the evaluation of cooperation between credit institutions and the SME sector as well as the existing obstacles, both on the side of companies and the economic environment (including, in particular, the legal and regulation environment).

The population of the survey included all commercial banks and a selected group of cooperative banks. The survey questionnaires were distributed at the beginning of March 2003. In total, 42 commercial banks and 36 cooperative banks returned completed questionnaires. Given their different natures, analysis was performed separately for commercial and cooperative banks. An analysis of feedback from commercial banks is presented below.

2. Overall survey characteristics

In March 2003, the group of commercial banks included 60 institutions, of which:

– 43 banks provided positive feedback through returning completed survey questionnaires – the analysis was conducted on the basis of responses from 42 banks (the responses provided by one of the banks were contradictory and consequently were not taken into account in further analysis);

– 14 banks provided negative feedback – the main reasons for their inability to complete the survey questionnaires included a short period of conducting operating activity and a focus on a different group of customers;

– 3 banks did not conduct operating activity in the period covered by the survey.

Finally, the survey sample included 42 banks. The share of assets of this group in the commercial banks’ assets stood at almost 94\% at the end of 2002.

The obtained feedback facilitated creation of an approximate picture of the banks’ attitude towards cooperation with the small and medium-sized enterprises and financing thereof. In the course of the analysis it was found out that the entire population could be divided into four groups,

\textsuperscript{452} The survey has been prepared by the Interdepartmental Working Group of the National Bank of Poland as part of the Financing of Small and Medium-Sized Enterprises in Poland project. The survey was conducted at the turn March and April 2003 by the NBP Financial System Department.
based on the criterion of the banks’ engagement in the cooperation with the SME sector. The following groups have been distinguished:

– universal banks, which view the SME sector as an important though not the only target group;
– specialist banks, which focus on the provision of services solely to this sector;
– “neutral” banks, whose attitude towards the SME sector has not been defined;
– “negative” banks, which are neither engaged nor interested in the cooperation with the SME sector.

Table 1 sets forth the size of particular groups and their shares in commercial banks’ net assets and claims on enterprises and cooperatives.

Table 1. Groups’ shares in selected commercial banks’ balance sheet items (as at 31 December 2003)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of banks</th>
<th>Share in commercial banks’ assets (%)</th>
<th>Share in claims on enterprises and cooperatives (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>10</td>
<td>80.28</td>
<td>81.37</td>
</tr>
<tr>
<td>Specialist</td>
<td>7</td>
<td>4.38</td>
<td>6.69</td>
</tr>
<tr>
<td>Negative</td>
<td>13</td>
<td>2.79</td>
<td>2.14</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>6.52</td>
<td>3.37</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>93.97</td>
<td>93.57</td>
</tr>
</tbody>
</table>

Source: NBP data.

3. Classification and support of SME customers

The banks have been viewing the SME sector as one of great growth potential. It is also the strong competition on the market of corporates and retail customers that enforces the search for markets less saturated with banking services. Hence a significant part of domestic banks have comprehensive services to small and medium-sized enterprises on their offer453.

When creating a specialist service package, it is important to precisely define the group of customers it will be addressed to, i.e. the target group. The banks often employ several criteria simultaneously while assigning their customers to the SME group. They use the criteria defined both in the Business Activity Law454 and in internal regulations. The most frequently applied criteria include the amount of pre-tax earnings or the level of trade in a given year (23 and 13 indications, respectively, out of 42 responses). The size of employment and the type of the bookkeeping system applied in a company (full/simplified bookkeeping) are also taken into account. The fact that banks adopt different number ranges for a given criterion (based on experience, specialization and the policy oriented on a specific type of customer) is significant while making comparisons. When comparing offerings of different banks it may turn out that the same company is classified as a small or a medium-sized enterprise. Consequently, the SME group is not homogeneous and the figures provided by different banks cannot be aggregated455.

A bank’s interest in the provision of services to the SME sector can be manifested by:

– offering a special service package;

453 24 banks (including one bank focused exclusively on SME customers), whose assets represented almost 90% of the entire sector’s assets, and the share in claims on enterprises and companies amounted to more than 90% of the value for all commercial banks, offered services to the SME. Those banks included representatives of all the groups: universal, specialist and 7 banks of the neutral group.


455 No uniform definition of SME was imposed on the banks, as the analysis was more of qualitative rather than quantitative nature.
– having an organisational unit in its structure that specialises in the provision of services to the SME sector;
– functioning of separate procedures related to the provision of services to the SME sector (including fast and simple lending procedures).

3.1. Banking service packages

The significant growth potential displayed by the small and medium-sized enterprise sector drives the increase in banks’ interest in providing services to that sector; in the case of many banks, it becomes a part of their strategy. In terms of the operating activity, it encourages banks to develop special service packages or even address their entire offer to this group of customers. More than 50% of the banks under survey (all universal and specialist banks and 7 neutral banks) declared they had special packages on their offer. Figure 1 sets forth the reasons for which banks adopt different strategies.

Figure 1. Does the Bank have a special service package for the SME customers on its offer? Why?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank is interested in this group of customers</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Element of bank's strategy</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Customers with great potential</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: NO – 19 responses, YES – 23 responses; more than one answer was permissible.

Special service package is an offering of provision of comprehensive support to an enterprise, comprising basic types of services, such as the maintenance of current accounts, taking deposits, granting loans, handling operations in domestic and foreign trade as well as tax, investment and financial advisory services and direct banking. The offer is often supplemented by factoring, forfeiting and leasing services.

During the period covered by the survey, services consisting in current account maintenance and handling domestic trade operations proved the most popular among bank customers. According to the survey results, more than 75% of customers from the SMP sector used those services. Other elements of the package were of lesser interest (up to 25% of customers).

As part of additional services, the banks act as intermediaries in providing the small and medium-sized enterprises with financial aid from external sources – more than a half of respondents, i.e. 23 banks, declared their cooperation with domestic funds, 15 of which also cooperated with foreign institutions. Domestic sources most frequently included funding provided by government agencies, e.g. the Agency for Restructuring and Modernisation of Agriculture, the Industrial Development Agency, the State Fund for the Rehabilitation of the Disabled Persons and the National Credit Guarantee Fund of the Bank Gospodarstwa Krajowego. Of the international financial institutions, the European Bank for Reconstruction and Development and EU funds (under PHARE and SAPARD programmes) were the most frequently indicated sources of funding.

3.2. Separate organisational unit

The fact that banks’ offerings include special packages does not automatically mean that they view the SME sector as an important and desired customer. A bank’s particular interest in this

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456 However, this criterion becomes irrelevant in the case of the bank specializing in the provision of services to SME.
customer group may be assumed on the basis of the bank delegating, within its structure, a special unit (department, office or division), whose task is the provision of comprehensive services to and monitoring of a designated sector. Most of the domestic banks which declare their activities being oriented on the provision of services to the SME sector (15 banks, out of 23 offering special packages) have such a special unit. It particularly refers to universal banks, which constitute the top-10 of the Polish banking system in terms of the level of assets, but also to the niche banks, classified as specialist.

In the case of no special unit being created, the SME sector is most frequently assigned to the group of corporate customers. A failure to delegate a separate unit supporting the SMEs in the banks which engaged in the cooperation with them meant that all their activities were focused on the provision of services to that sector.

3.3. Procedures concerning the provision of services to small and medium-sized enterprises

Delegating a department or division within a bank’s structure to provide services to the SMEs meant, in principle, application of special procedures concerning the provision of such services. The differences most frequently followed from the type of methods used for evaluating customer’s credibility, the scope and level of detail of the documentation necessary to use the banking services and the applied fees and commissions. Other distinguishing features included the manner of supporting a given company and the conditions for the application of simplified procedures, e.g. related to lending (cf. Fig. 2).

The survey failed to provide a reply to the question whether the abovementioned dissimilarity of procedures translated into the criteria becoming more lenient or more stringent. It may be presumed that, e.g. while evaluating creditworthiness, banks adopt simplified methods and use the information provided by the customer\textsuperscript{457}. Thus, the scope of the required documents may prove larger than in the case of other customers (e.g. corporates). At the same time, a part of the banks under survey (15 banks – mainly the universal and specialist banks) point to the application of quick and simplified lending procedures. Of this group, 12 banks declare that they simultaneously operate special procedures when providing services to the small and medium-sized enterprises.

Figure 2. If applied, what do special procedures of providing services to SMEs refer to? (the respondents were to provide 3 most significant differences)\textsuperscript{458}

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{figure2}
\end{figure}

\textsuperscript{457} Due to, i.a., a lack of well-developed system of lending information offices in 2003 (this issue is referred to further on in the analysis).

\textsuperscript{458} 20 banks declared application of special procedures.
4. Obstacles and factor risk accompanying the financing of SMEs

4.1. Lending amount and purpose

Even in the period of slowdown in economy, banks did not record any significant downfall in the number of loan applications submitted by the SME customers. 70% of the surveyed banks responded that in 1999–2002 the number moderated or slightly shifted (upwards or downwards). Similar responses concerned the loan amount per one loan agreement. When compared to 2001, those amounts were moderately higher or remained unchanged in 2002.

The most frequent purposes of financing the SMEs included ongoing activities (also through the authorised overdraft) and undertaken investments. Other types of loan (including business start-up loan, export/import finance loan, real property or loans to farmers) proved less popular in the period under analysis and were used by not more than one fourth of customers from a given sector.

4.2. Loan parameters

The interest rate on bank loans is a resultant of many factors, i.e. the assessment of the related risk. From the banks’ perspective, however, assessment of the related risk is based on the condition of a given industry, the lending policy adopted by a given bank, the size of the potential borrower and their significance to the bank.

Based on the responses provided, it proved impossible to unequivocally determine whether the interest rate on loans granted to the small and medium-sized enterprises was higher than that offered to corporates (cf. Fig. 3). The predominance of negative responses may suggest a lack of diversity in the key interest rates, however, it does not exclude differences in the adopted risk margin. Consequently, the final interest rate on loans granted to small and medium-sized enterprises could have proven higher.

It is worth noting that 6 universal and 3 specialist banks declared application of higher interest rates on loans granted to the SME customers. It most probably stemmed from the use of simplified lending procedures, poor quality of financial data and limited ability to verify them. The scope of cooperation with the customer is also significant – the narrower the scope of cooperation, the smaller ability of the bank to generate additional income on other products used by a given entity, accompanied by full engagement in the preparation of loan agreement. Moreover, corporates have better opportunities of selecting a bank and negotiating the price.

Figure 3. Is the interest rate on loans bearing the same parameters higher in the case of SMEs than in the case of corporates?

Note: Not all banks have responded, thus the figures do not total 42 and 29.

* following the exclusion of responses the ‘negative’ group.
The assumption that banks apply higher rates in the case of the small and medium-sized enterprises is supported by the fact that they view this group of borrowers as more risky. Apart from the abovementioned factors, the availability of economic data on the condition of this sector and the type of bookkeeping system employed by the companies undoubtedly have an impact on the higher risk level\textsuperscript{459}.

Given the foregoing, the fact that the bankers failed to provide their opinion on the profitability of the financed investment projects implemented by the small and medium-sized enterprises is intriguing. About 25% of respondents (a half of which were universal and specialist banks) pointed to higher profitability of such programmes when compared to other available projects. At the same time, 50% of those surveyed were not able to assess it. It may have followed from the lack of data, as a comprehensive assessment of efficiency is usually performed only with respect to selected, the so-called strategic customers. Moreover, the group of undecided banks was dominated by those showing no interest in the SME sector and those, whose strategy has not been defined.

4.3. Advantages and preferred types of security

Many issues are taken into account by a bank when considering a loan application, including the risk associated with a given undertaking, the condition of the industry and that of the individual customer. The most important factors directly referring to the debtor include the creditworthiness, a clean record of irregular exposures and a positive assessment of past borrowing history. Therefore, the favoured customers include those, who do not generate problems related to servicing previously contracted liabilities towards a bank. Factors such as the to-date cooperation with an enterprise (i.e. its scope, duration and the account balance), the capital security and guarantees and endorsements held by the customer are of secondary importance. Quality certificates held or the owners’ experience in company management are still less significant. Table 2 sets forth a detailed rating of particular factors.

As regards legal security, banks favour potential borrowers holding guarantees. However, this element did not rank highest among those with a positive impact on a loan application assessment.

Other preferred forms of security include capital security, mortgage and endorsement. Pledge, transfer of ownership and loan insurance were also viewed as a reliable security. Blank promissory notes ranked relatively low. A small number of banks still use deposits transferred to a dedicated bank account to secure a loan (cf. Table 3).

<p>| Table 2. Assessment of impact of selected factors on favourable consideration of loan application (number of indications of a given factor) |</p>
<table>
<thead>
<tr>
<th>Factors</th>
<th>No impact</th>
<th>Slight impact</th>
<th>Moderate impact</th>
<th>Large impact</th>
<th>Very large impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Favourable assessment of creditworthiness</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>38</td>
</tr>
<tr>
<td>2. Loan guarantees and endorsements held</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>3. Capital security held</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>4. Sufficient level of trade</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>5. Quality certificates held</td>
<td>7</td>
<td>18</td>
<td>12</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>6. Type of business activity</td>
<td>2</td>
<td>6</td>
<td>19</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>7. Low amount of potential loan</td>
<td>9</td>
<td>10</td>
<td>16</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>8. Clean record of irregular exposures</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>9. Assessment of customer’s past borrowing history</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>10. Owners’ experience in company management</td>
<td>3</td>
<td>5</td>
<td>13</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>11. Assessment of to-date cooperation with customer</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>27</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: Not all banks have assessed each factor, thus the number of responses cannot total 42.

\textsuperscript{459} In this context, the responses provided by cooperative banks, which are not convinced about increased risk related to the SME projects, seem interesting. The discrepancy in opinion may follow from a lack of possibility of comparison with other customers, as SMEs are natural and – most frequently – main partners of cooperative banks.
4.4. Reasons for refusals to grant a loan

The difficulties related to obtaining adequate security result in a large percentage of rejected loan applications. Out of 30 banks that provided an answer to the question concerning the percentage of rejected loan applications, 19 banks responded that it amounted to 20%. The most important reasons for rejecting loan applications included the lack of creditworthiness and the failure to provide relevant security. Excessive indebtedness towards a bank (including outstanding liabilities) and the provision of unreliable data were indicated in subsequent places (cf. Fig. 4).

The first three categories show that the main reason for rejecting a loan application from an enterprise is the inability of a potential borrower to repay contracted liabilities. A high rank of the failure to provide reliable data shows how important such information is to banks. It seems that the establishment of offices of business information was a necessity.

4.5. Obstacles in cooperation

Many obstacles hinder the cooperation between banks and small and medium-sized enterprises. These fall into two basic groups: (1) internal obstacles concerning the situation of a customer and following from internal regulations of a bank, and (2) external obstacles related to regulations and the legal environment.

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Table 3. Favoured types of security (number of indications of a given type)

<table>
<thead>
<tr>
<th>Types of security</th>
<th>Poor</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Loan guarantee</td>
<td>2</td>
<td>6</td>
<td>31</td>
</tr>
<tr>
<td>2. Loan enforcement</td>
<td>2</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>3. Capital security</td>
<td>4</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>4. Blank promissory note</td>
<td>30</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>5. Registered pledge</td>
<td>5</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>6. Mortgage</td>
<td>2</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>7. Transfer of ownership</td>
<td>9</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>8. Loan insurance</td>
<td>7</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>9. Deposit</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Not all banks have assessed each type of security, thus the number of responses cannot total 42.

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This group encompassed 5 universal banks, 7 neutral banks, 6 negative banks and 1 specialist bank.

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The question was of the Yes/No type and concerned the obstacles in the cooperation with SMEs. The respondents were to choose up to 5 of the listed reasons. In the next question they were expected to determine, according to their experience, the obstacles originating in the economic environment. In this case, the banks were unanimous. The three main obstacles were indicated by more than 75% of the banks under survey.
Commercial Bank Policy towards Small and Medium-Sized Enterprises

Internal obstacles

The main problems the banks encounter in their relations with the SMP sector are related to the financial standing of customers (cf. Fig. 5). A lack of reliable data necessary to assess the condition of companies does not allow banks for a comprehensive verification of submitted applications or appropriate assessment of risk. The Act on Offices of Business Information passed by the Sejm has launched the establishment of private companies of that type, which facilitate a more comprehensive assessment of customers\textsuperscript{462}. In this way, creditors have been provided with a new source of information on their existing and potential debtors. The establishment of a system that provides customer information has made the work of bank loan examiners easier. It should also facilitate access to financing for the entrepreneurs who do not have a history of long-term cooperation with a bank, but conduct profitable and prospective activity marked by favourable financial standing.

More information on potential customers ensures a more comprehensive risk assessment. However, it does not have a detrimental impact on customers’ ability to repay liabilities during the term of the loan agreement. In the case of changes in customers’ financial liquidity, banks’ relations with entrepreneurs may become significantly disrupted. In extreme cases, a bank may suffer severe losses.

In this context, the customer’s ability to provide security that satisfies their creditor is of great significance. It is the failure to provide security that constitutes the second obstacle most frequently indicated by the banks under survey. It is particularly acute in the case of small companies and entrepreneurs starting up their activity. A lack of or too short credit history additionally hamper negotiations with a bank.

External obstacles

Even the best database will not eliminate all the problems the banks and enterprises encounter in their relations (cf. Fig. 6). The risk of default on repayment of liabilities is never eliminated and it can only be reduced as a result of certain activities. The fact that such risk exists is accepted by banks, which search for the most efficient forms of hedging against it. Unfortunately, the entrepreneurs view the high costs of establishment of certain forms of legal security as an obstacle impossible to overcome. To some extent, such situation could be improved by the establishment of an efficient system of guarantee and endorsement institutions. However, this will not be achieved without an active government policy in this respect.

Work of courts and institutions related to enforcement of liabilities seem to constitute the greatest hindrance encountered by the Polish banks. Appropriate security does not provide the banks operating on the Polish market with the guarantee of loan repayment. The banks directly

\textsuperscript{462} Act on Disclosure of Business Information of February 14, 2003 (Dziennik Ustaw No. 50/2003, item 424).
Commercial Bank's Policy towards Small and Medium-Sized Enterprises

National Bank of Poland

suffer from the fact that the whole process is time-consuming and expensive. Consequently, the ability of granting additional loans is limited and the price of loans already extended rises. Moreover, it results in the necessity of maintaining specific provisions in the amount corresponding to the value of irregular exposures, which has a negative impact on banks’ earnings.

The abovementioned issues prove most troublesome to banks while establishing cooperation especially with the SME sector and are related to lending activities of financial institutions.

The stability of business environment including, in particular, legal environment that institutions operate in, is another extremely important issue. As a result of unclear and frequently changing legal provisions business activities are marked by increased uncertainty and the decision-making process is hampered. This uncertainty increases the risk of conducting business activities for both borrowers and creditors. Banks consider this problem a serious obstacle in conducting lending activities.

5. Comments

• Most banks declare their interest in the small and medium-sized enterprise sector. However, this is not a decisive prerequisite for isolating divisions within banks’ structures responsible for the provision of comprehensive services to this group of customers.

• Available packages offer a wide spectrum of services, a mere 10% of which is used by as few as one fourth of customers they are addressed to. It may mean that banks’ customers are not prepared to take full advantage of the provided offering. However, banks should also display interest in attracting long-term customers with special offerings they will take full advantage of.

• Most banks perceive SMEs as a group of higher risk. The risk is further increased by the inability to verify data on this sector. Nonetheless, some banks view the SME sector as one of significant growth potential, constituting their target group.

• Functioning of state authorities, such as courts, offices etc., creates a serious obstacle in the financing of SMEs. The cooperation between banks and the small and medium-sized enterprises is further hampered by costly and time-consuming activities related to establishment of any type of security.

• A more active state policy towards SMEs would facilitate the cooperation between banks and SMEs. It refers, first and foremost, to the creation of a network of guarantee and endorsement institutions.

Figure 6. Obstacles in the cooperation between banks and SMEs following from banking system and economic environment (most frequently indicated)

Note: The question is was an open one – the respondents defined the types of obstacles themselves.
Impact of Changes in the Banking Sector on its Competitiveness and Competition 1997–2003

Małgorzata Pawłowska

1. Introduction

World financial markets have experienced a significant increase in competition over the past few years. Banks face the challenge of implementing solutions that would enhance their efficiency and, consequently, increase their competitiveness. The most efficient banks with the greatest market share impose their price levels, based on relatively low costs, on other banks. Under the pressure of competition, other banks are forced to adjust their prices to those levels and, consequently, make efforts aimed at the reduction of costs related to their activities. Increased competition on the market is manifested by narrowing margins; i.e. the spreads between interest-bearing deposits and interest-earning loans. In order to offset the consequences of the narrowing margins, banks engage in other activities, including those aimed at increasing their non-interest income. At the same time, banks endeavour to shape new paths of development in order to increase their efficiency and search for the optimum structure of their assets, liabilities and capital. One of the objectives of those strategies is to expand their product offering through the use of new distribution channels as well as through mergers and acquisitions. Technological development, which accelerated in 1997–2003, was an additional factor with an impact on the pace and direction of changes in the banking sector.

This article attempts, on the basis of previous empirical analyses, to assess the level of competition and show the impact of structural and technological changes that occurred in the Polish banking sector (the development of new distribution channels, such as Internet and telephone banking) on the level of competition in the Polish banking sector. As it is stated in literature, the level of competition in the Polish banking sector was rather low as compared with Western European countries, given the high margins and stringent regulations. The empirical survey of the level of competition in the Polish commercial banks, which has been described below, revealed the existence of monopolistic competition. This means that the level of competition among the commercial banks operating in Poland does not diverge much from that observed among credit institutions in Western Europe, where monopolistic competition also prevails. Moreover, it should be noted that the level of competition in retail banking may differ from that observed in corporate banking.

2. Definitions of basic structures on the market of financial institutions

The idea of competition among banks may have a variety of definitions. According to the theory of perfect competition, the more there are the market players that offer homogenous products, the more the market resembles the free competition model. The market sets a price equally acceptable for the borrower and the depositor. This can be achieved through liberalisation of services offered by banks, which consists in removal of any obstacles hampering access to the domestic market of financial services. Table 1 sets forth the organisational and product-based structure of the market, based on product characteristics and the number of market players.

The survey of the level of competition among financial institutions in countries undergoing
transformation revealed that the organisational and product-based structure of the banking
sectors in Central Europe denotes the existence of monopolistic competition and is just the same
as that observed in the developed EU countries. The distinctive features of the abovementioned
organisational and product-based structure include many players offering heterogeneous products
and a high level of competition. Thus monopolistic competition comprises the features typical of
both perfect competition and monopoly, the market is provided with heterogeneous products and,
consequently, each company is a monopolist given the product it manufactures, but the companies
manufacturing similar products can also be freely accessed.

3. Results of survey of the level of competition among financial institutions

Literature has recently investigated the relation between the concentration, competitiveness
and efficiency. Most of the presented works demonstrated that in a competitive environment only the
most efficient banks survive. The survey also encompasses the relationship between the concentration
of systems (mergers and acquisitions) and the level of competition. According to the surveys
conducted to date, unambiguous findings that mergers and acquisitions enhance efficiency can only
apply to individually analysed cases. The efficiency of M&As is conditioned upon many immeasurable
factors. There are studies, however, according to which technical efficiency is increased as a result
of the process of consolidation. Measures of efficiency of commercial banks – technical efficiency
and scale efficiency – are viewed as some of the factors of banks’ competitiveness.

Mergers and acquisitions also entail certain risk. It refers not only to the entities undergoing
the process of consolidation, but also to the entire system, given the increased size of an institution
and the potential establishment of international links. There are two contradictory theories
concerning the impact of concentration on the stability and security of banking systems. According
to one of them, a less concentrated banking sector (with a large number of small banks) is more
vulnerable to crises than a banking sector comprising several large banks. This has been proved by,
inter alia, Beck, Demirguc-Kunt, Levine (2003) on the basis of an empirical analysis. Moreover,
they have demonstrated that concentration of the banking system has a stabilizing effect, whereas
the probability of a crisis is much smaller in a concentrated banking system. According to the other theory, a more consolidated banking system increases banks’ sensitivity to crises, since large banks
have extensive branch networks which are more difficult to monitor. Moreover, banks with a
significant market share usually offer higher interest rates, what in turn is viewed as generating
higher risk for companies.

Table 1. Organisational and product-based structures on the market of financial institutions

<table>
<thead>
<tr>
<th>Type of products</th>
<th>Number of market players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One</td>
</tr>
<tr>
<td>Homogenous products</td>
<td>Monopoly</td>
</tr>
<tr>
<td>Heterogenous products</td>
<td>Monopoly</td>
</tr>
</tbody>
</table>


466 Technical efficiency refers to the quality of reproducing input into output: a given unit is technically efficient if it
achieves the highest possible output at a given volume of input, or achieves a defined value of output at the lowest
possible input.
Most of the recent works prepared on the basis of empirical analyses demonstrate that there is no unambiguous link between the increased system concentration and the level of its competition471.

Literature defines two groups of methods used for measuring the level of competition on the banking market; namely the structural and non-structural approach472. In the case of structural methods, changes in competition are linked to movements in concentration. Non-structural methods, on the other hand, do not provide for the impact of concentration on the level of competition.

Non-structural methods were used, inter alia, by Gelos and Roldos (2002)473. The authors attempted to determine whether consolidation had a negative impact on the level of competition on emerging markets (including the Polish market). The results of the survey showed that despite the fact that the number of banks decreased in the analysed period, i.e. in 1994–2000, the level of competition on emerging markets was not thereby lowered. Moreover, an empirical analysis474 proved that the model of competition observed in the banking sectors of emerging markets is identical to the one in developed economies and represents monopolistic competition.

Bikker and Groeneveld (1998)475 revealed similar findings based on panel survey of the level of competition and concentration in particular EU countries. The results of the survey showed that the structure of competition in most of the EU banking systems denotes the existence of monopolistic competition.

Hempell (2002)476 presented similar conclusions after he had conducted survey of the level of competition in the German banking sector. According to his work, the German banks were operating under conditions of monopolistic competition. A change in level of concentration resulting from mergers and acquisitions did not change the level of competition observed on the German banking market in 1993–1998.

Therefore, based on empirical analyses set forth in the abovementioned works, it proves impossible to determine (ex post) the level of competition in a banking sector at a given level of concentration. It seems difficult to determine the optimum level of concentration for a relevant level of competition. Moreover, the level of competition may significantly alter in subsequent periods, regardless of the direction of changes in concentration477.

The survey conducted on the basis of empirical analyses showed that banking sectors in most of the Western European countries do not operate in the environment of perfect competition that the authors of the Lisbon Strategy aspire to. On the other hand, however, the level of competition on particular markets is heading towards perfect competition. It has also been manifested by the results of the presented empirical analysis (Chapter 5 contains more information on the results).


Operating in the environment of growing competition pressure, banks must be aware of the fact that the market undergoes constant changes. The changes affect its economic climate, pace of

474 The analysis was carried out based on the BankScope database which containing data on the balance sheets and profit and loss accounts of commercial banks in particular countries. It was created by Bureau van Dijk.
476 H.S. Hempell: Testing for Competition among German Banks, op. cit., p. 35.
477 Ibid, p. 15.
development and demand for particular banking services. The meaning of changes is so significant that contemporary commercial banks attempt to generate scenarios which may occur in subsequent years. They devise the so-called competitive strategies in order to cope with the constantly growing competition. Banks undertake more and more conscious activities to improve their position against competitors, they fight to increase their market share and reduce the incurred costs. This can be achieved, inter alia, through the economy of scale (participation in the consolidation process) and through the adoption of new technologies.

**Structural changes in the Polish commercial banking sector, 1997–2003**

The elements of strategies adopted by banks to enhance their efficiency include mergers and acquisitions. In line with the tendencies observed on the world markets, the consolidation processes resulting in a change of concentration have strengthened in Poland over the past few years. Table 2 sets forth the levels of relevant concentration measures HHI, CR5, CR10, CR15 (cf. Chapter 5.1.5).

While investigating the volatility of the measures of concentration, it should be noted that they show an upward tendency in part of the period under analysis (1997–2001). The increase was fostered by M&As executed by large banks. In 2002–2003, on the other hand, the measures of concentration decreased. The decrease followed from a slower development of large banks.

**Table 2. Indices of concentration, commercial banks, 1997–2003**

<table>
<thead>
<tr>
<th>HHI indicates (%)</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans (gross)</td>
<td>0.051</td>
<td>0.045</td>
<td>0.066</td>
<td>0.061</td>
<td>0.076</td>
<td>0.077</td>
<td>0.071</td>
</tr>
<tr>
<td>Assets</td>
<td>0.074</td>
<td>0.067</td>
<td>0.079</td>
<td>0.076</td>
<td>0.089</td>
<td>0.087</td>
<td>0.083</td>
</tr>
<tr>
<td>Deposits</td>
<td>0.088</td>
<td>0.077</td>
<td>0.082</td>
<td>0.080</td>
<td>0.094</td>
<td>0.093</td>
<td>0.087</td>
</tr>
</tbody>
</table>

**CR5 (%)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans (gross)</td>
<td>40.37</td>
<td>36.07</td>
<td>43.01</td>
<td>43.71</td>
<td>53.95</td>
<td>53.43</td>
</tr>
<tr>
<td>Assets</td>
<td>48.08</td>
<td>44.60</td>
<td>49.58</td>
<td>48.32</td>
<td>57.10</td>
<td>56.17</td>
</tr>
<tr>
<td>Deposits</td>
<td>51.53</td>
<td>47.40</td>
<td>49.72</td>
<td>49.14</td>
<td>57.80</td>
<td>56.89</td>
</tr>
</tbody>
</table>

**CR10 (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans (gross)</td>
<td>60.71</td>
<td>56.83</td>
<td>65.09</td>
<td>63.99</td>
<td>77.30</td>
<td>77.31</td>
</tr>
<tr>
<td>Assets</td>
<td>68.41</td>
<td>64.78</td>
<td>70.43</td>
<td>69.35</td>
<td>80.92</td>
<td>80.44</td>
</tr>
<tr>
<td>Deposits</td>
<td>69.94</td>
<td>66.80</td>
<td>70.84</td>
<td>70.01</td>
<td>62.20</td>
<td>81.39</td>
</tr>
</tbody>
</table>

**CR15 (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans (gross)</td>
<td>74.19</td>
<td>72.06</td>
<td>78.06</td>
<td>78.22</td>
<td>83.15</td>
<td>84.13</td>
</tr>
<tr>
<td>Assets</td>
<td>80.39</td>
<td>78.07</td>
<td>82.17</td>
<td>81.94</td>
<td>86.02</td>
<td>86.68</td>
</tr>
<tr>
<td>Deposits</td>
<td>81.14</td>
<td>79.01</td>
<td>83.33</td>
<td>83.23</td>
<td>86.96</td>
<td>87.31</td>
</tr>
</tbody>
</table>

Source: Own calculations.

**Technological changes in the Polish sector of commercial banks, 1997–2003**

Rapid technological development was another factor with a bearing on the pace and direction of changes in the Polish banking system. Progress in new technologies and their practical application in the provision of financial services have proved particularly significant to the shape of contemporary developed financial markets. The years 1997–2003 saw the development of electronic banking technology. New markets emerged that did not require direct confrontation of parties to transactions, using network connections instead. These services enable customers to access their bank accounts electronically, via computer or telephone. It is of great importance to banks’ customers, in particular to enterprises, as they are enabled efficient management of their financial liquidity using current and complete information. They are also enabled direct cash-management. Moreover, the use of modern techniques in banking activity enables banks to boost their labour productivity and improve management, which has a fundamental importance, given the circumstances of multiple increase in

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turnover and growing competition. Banks have been able to raise the quality of performed operations, streamline their settlement procedures and accelerate the trade in cash, all of this thanks to new technical solutions. The use of up-to-date techniques has undoubtedly provided banks with prospects for further growth. It should be noted, however, that the results of such progress may vary. Banks with low capital may face a problem, as technical progress calls for significant investment outlays. Moreover, introduction of new technical solutions is followed by a change in general expense structure. In principle it consists in a reduction of personnel expense and a rise in property and equipment expense, which does not result in a change in the level of general expense. On the other hand, a certain period of time must elapse before the financial consequences of outlays on IT systems are felt, therefore actual income on investment will be visible in subsequent analyses.

Technical solutions have also become one of the important internal factors enabling banks to streamline their management system, improve work quality and create new distribution channels. In the years 1997–2003, Internet banking proved one of the fastest developing distribution channels in the Polish commercial banks. Banks that had electronic means of distribution of retail products on their offering significantly improved their efficiency and competitiveness.

Appropriate use of the held technologies enabled banks to raise their efficiency and competitiveness. The development of modern IT technologies and the rate of implementation of state of the art IT and telecommunication systems had an unquestionable impact on the increase in competition in the banking system.

5. Results of panel survey of the level of competition in the Polish banking sector, 1997-2003

The panel survey based on the methodology used by Gelos and Roldos (2002) has been conducted to assess the level of competition in the Polish banking sector. Competition in the banking sector is measured by the value of elasticity of revenue function marked by \( H \) and commonly referred to in literature as the Panzar-Rosse H-statistic (1987). Based on the value of H-statistic, monopoly, oligopoly, monopolistic competition and perfect competition are isolated from the market organisational and product-based structure (Table 3).

**Table 3. Interpretation of the Rosse-Panzar H-Statistic**

<table>
<thead>
<tr>
<th>H-statistic value</th>
<th>Market structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H \leq 0 )</td>
<td>Monopoly or oligopoly</td>
</tr>
<tr>
<td>( 0 &lt; H &lt; 1 )</td>
<td>Monopolistic competition</td>
</tr>
<tr>
<td>( H = 1 )</td>
<td>Perfect competition</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on: H.S. Hempell, Testing for Competition among German Banks: op.cit., p. 8.

**Results of estimates the Rosse-Panzar H-Statistic with respect to Poland**

In order to assess the level of competition on the Polish banking market, panel survey has been conducted to establish the value of elasticity of revenue function based on annual data covering the period 1997–2003. Moreover, groups have been isolated from the structures

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479 Ibid, p. 245.
481 \( H = \sum \frac{w_i}{w} \frac{\partial R_i}{\partial w} \), where: \( R_i \) – revenue function, \( w_i \) – input price.
484 The panel data encompassed all commercial banks operating in a given period. Relevant figures from balance sheets and profit and loss accounts of commercial banks were used to establish the H-statistic.
of commercial banks, depending on the type of customer. Three values of H-statistic for all commercial, retail and corporate banks have been estimated as a result of the survey. Table 4 sets forth the values of the H-statistic, which specifies the level of competition in particular bank groups.

On the basis of the values set forth in Table 5, it can be assumed that the level of competition in particular market sectors denotes the existence of monopolistic competition and is higher in the retail banking sector.

In order to analyse changes in the level of competition in the Polish banking sector during the period marked by the increase and decrease in concentration measures (sub-chapter 3), the value of the H-statistic for two periods has been calculated and two values of the H-statistic: H1 for 1997–1999 and H2 for 1999–2003, respectively (cf. Table 5) have been estimated.

Using the H-statistic contained in Table 5, it can be ascertained that the level of competition in commercial banks was higher in 1999–2003 as compared with that observed in 1997–1999. As results from the comparison of the concentration measures and the level of competition on the Polish banking market, it can be assumed that an increase in concentration in the Polish banking sector did not entail a decrease in the level of competition (cf. Tables 2 and 5). Based on the survey of the H-statistic (level of competition) and particular measures of concentration, it cannot be unequivocally stated that an increase in concentration resulted in a decrease in competition. Moreover, there are countries, whose banking systems are more concentrated than that in Poland (for instance, the Scandinavian countries) and the level of competition is still high. It seems that the to-date detrimental to competition results of consolidation were offset by an increase in the market share of the foreign capital, which had an impact on the increase of banks’ technical efficiency. Gelos and Roldos (2002) have come up with similar findings. The authors stress the fact that the process of consolidation has not yet been completed, in particular in Central Europe and, consequently, no final comments can be made485.

The survey of competition reveals that its level may undergo slight changes in the years to come – it may decrease or increase, regardless of the direction of movements in the measures of concentration. Similar findings were presented by Hempell (2002)486 as well as Bikker and Groeneveld (1998)487.

Empirical analysis employed to assess the level of competition in the Czech and Hungarian banking sectors revealed that their organisational and product-based structure in 1997–2001 denoted the existence of monopolistic competition. The results show that the level of competition in the Polish banking sector resembles that observed in Central Europe and in EU countries.

486 H.S. Hempell, Testing for Competition among German Banks, op.cit., p. 35.
While analysing the value of margin in 1997-2003, it is worth noting that growing competition in the sector and falling inflation and interest rates were the factors, which fostered its reduction. It should be stressed, however, that the value of this index is on average twice as low in EU countries.

Consequently, the share of foreign capital in commercial banks, which indirectly contributed to an increase in know-how and to the implementation of new IT technologies, influenced the growth in the level of competition in particular market segments.

6. Results of survey of technical efficiency, 1997-2003 – non-parametric approach

During the period under analysis, banks’ efficiency was also impacted by advancing consolidation processes. The survey of technical efficiency and economy of scale of the Polish commercial banks was conducted using the non-parametric DEA method. Grigorian and Manole have proved that the DEA method is useful while estimating the efficiency of banking sectors undergoing transformation. The survey of technical efficiency of Polish banks in the years 1997-2003 revealed a slight increase in technical efficiency of the banking sector during that period. It should be noted, however, that in comparison to 2001, its efficiency decreased in 2002. It may indicate that the potential benefits resulting from M&As executed in 2002 could not compensate for the impact of the real economy on the banking sector or the deterioration of the quality of loan portfolio. However, the efficiency measures increased again in 2003. The increase followed, inter alia, from the economic recovery and better performance of banks. During the period under analysis, the increase in technical efficiency measures was accompanied by an increase in the level of competition in the sector of commercial banks.

7. Conclusions

- Polish financial institutions react to the changes observed in their environment by searching for new customers as well as expanding their product offering and territory of operation. Apart from rapidly developing IT technologies in commercial banks, M&As seem to be one of the reasons for the increase in technical efficiency and the level of competition in the Polish banking sector in 1997-2003. Therefore the development of modern IT technologies can be viewed as a source of competitive edge. Appropriate use of modern technologies enables banks to enhance their efficiency and, consequently, adopt the lowest cost strategy.

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Table 6. H-statistic value for the Czech Republic and Hungarian banking sectors, 1997–2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Czech Republic</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997–2001</td>
<td>0.58</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Table 7. Net interest margin of the Polish banking sector, 1997–2003 (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIM</td>
<td>5.23</td>
<td>4.58</td>
<td>4.01</td>
<td>4.26</td>
<td>3.38</td>
<td>3.30</td>
<td>3.23</td>
</tr>
</tbody>
</table>

Source: Own estimates.

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488 The DEA method defines performance as the ratio of output to input. Linear programming is used to create the efficiency curve for a given facility. Facilities are viewed technically efficient if they are on the curve. If they fall below the curve, they are technically inefficient.


• The survey of the Polish banking sector reveals that its market structure is identical to that observed in most of the developed countries and is marked by monopolistic competition.

• Moreover, the empirical analyses employed to assess the level of competition and technical efficiency on the Polish banking market show that the consolidation process has not resulted in a decrease in competition in the Polish banking sector (similarly to the case of developed countries491). On the contrary – the level of competition in commercial banks has increased recently.

• The results of the analyses show that the level of competition in the Polish banking sector resembles that observed in EU countries. It stems from the fact that Polish banks are well advanced in the use of modern IT technologies. They also offer modern banking products, whose quality does not differ much from that offered in EU countries.

• Poland’s accession to the EU will surely cause an increase in the competitive pressure on commercial banks operating in Poland. It appears that Polish banks are well prepared to compete with other banks on the common European market. However, due to the growing competitive pressure, banks will be forced to enhance their efficiency through the cost reduction and product offering expansion. The achievement of those objectives is fostered by the development of modern technologies and relevant specialization (the ability to fill up a market niche).

491 In Scandinavian countries, for instance in Finland, a very high level of concentration has no impact on the level of competition on the financial market.
Calendar of events with bearing on domestic and foreign financial markets in 2002 and 2003

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
</tr>
<tr>
<td>3 January</td>
<td>The Eldorado company debuts on the Warsaw Stock Exchange (WSE).</td>
</tr>
<tr>
<td>4 January</td>
<td>Elektrim bankruptcy petition.</td>
</tr>
<tr>
<td>6 January</td>
<td>Devaluation of the Argentinian peso against the US dollar.</td>
</tr>
<tr>
<td>17 January</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 150 and 200 basis points. The manner of executing open market operations is modified (regular basic operations and fine-tuning operations)1.</td>
</tr>
<tr>
<td>30 January</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
</tr>
<tr>
<td>1 February</td>
<td>Weekly sale of 28-day money market bills as part of open market operations is launched.</td>
</tr>
<tr>
<td>7 February</td>
<td>Moody's rating agency maintains its long-term rating for Poland at Ba1.</td>
</tr>
<tr>
<td>8 February</td>
<td>The Warsaw Stock Exchange (WSE) and Euronext sign a letter of intent concerning mutual membership and access to spot and futures market.</td>
</tr>
<tr>
<td>4 January</td>
<td>Elektrim bankruptcy petition.</td>
</tr>
<tr>
<td>8 February</td>
<td>The Warsaw Stock Exchange (WSE) and Euronext sign a letter of intent concerning mutual membership and access to spot and futures market.</td>
</tr>
<tr>
<td>11 February</td>
<td>The Argentinian peso is floated.</td>
</tr>
<tr>
<td>19 February</td>
<td>Futures contracts on MIDWIG index debut on the Warsaw Stock Exchange (WSE).</td>
</tr>
<tr>
<td>26 February</td>
<td>The Ministry of Finance issues euro-denominated bonds of the value of 750 million euro.</td>
</tr>
<tr>
<td>28 February</td>
<td>The Sejm accepts the government economic strategy.</td>
</tr>
<tr>
<td>March</td>
<td></td>
</tr>
<tr>
<td>14 March</td>
<td>The Sejm adopts the 2002 budget.</td>
</tr>
<tr>
<td>27 March</td>
<td>The Exchange Supervisory Board cuts trading fees on shares (from 0.069% to 0.059%) and futures (commission charged per one contract: PLN 3). Changes in the table of fees for the registration of transactions with the National Depository for Securities: futures contracts – PLN 1.5; spot market – PLN 1.7; index units – PLN 1.7; transaction fee – 0.0085%.</td>
</tr>
<tr>
<td>April</td>
<td></td>
</tr>
<tr>
<td>1 April</td>
<td>The Warsaw Stock Exchange (WSE) reduces exchange transaction fees on shares and futures.</td>
</tr>
<tr>
<td>5 April</td>
<td>Changes to the Rules governing the trading on CeTO exchange. CeTO creates a market segment for bonds to be sold in public offering exclusively to large (qualified) investors.</td>
</tr>
<tr>
<td>9 April</td>
<td>CeTO launches the Electronic Treasury Securities Market (ERSPW).</td>
</tr>
<tr>
<td>17 April</td>
<td>First auction of 20-year fixed-rate Treasury bonds.</td>
</tr>
<tr>
<td>20 April</td>
<td>Banking operations in Argentina are suspended.</td>
</tr>
<tr>
<td>25 April</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points. First quotation of bonds convertible into ComArch shares on the Warsaw Stock Exchange (WSE).</td>
</tr>
<tr>
<td>26 April</td>
<td>First day of banks trading in Treasury bonds on CeTO-managed Electronic Treasury Securities Market (ERSPW).</td>
</tr>
<tr>
<td>May</td>
<td></td>
</tr>
<tr>
<td>14 May</td>
<td>First quotation of investment certificates issued by Pioneer Arbitracyjowy Specjalistyczny Fundusz Zamknięty.</td>
</tr>
<tr>
<td>23 May</td>
<td>Telnax shares debut on the Warsaw Stock Exchange (WSE).</td>
</tr>
<tr>
<td>29 May</td>
<td>The Insurance and Pension Funds Supervisory Commission (KNUIFD) resolves to approve of the merger of PTE Skarbiec-Emerytura and PTE BIG Bank Gdańsk (the manager of OFE EGO) through the transfer of all assets of PTE BIG Bank Gdańsk to PTE Skarbiec-Emerytura.</td>
</tr>
</tbody>
</table>

### Calendar of events with bearing on domestic and foreign financial markets in 2002 and 2003

<table>
<thead>
<tr>
<th>Month</th>
<th>Home</th>
<th>Event</th>
<th>Abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>June</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 June</td>
<td>NBP establishes the Financial System Department.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 June</td>
<td>Meeting of the Cabinet Council devoted to presentation of the government’s stand on the monetary policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 June</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points.</td>
<td>The WorldCom booking scandal comes to light.</td>
<td></td>
</tr>
<tr>
<td><strong>July</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 July</td>
<td>The Ministry of Finance, Marek Belka, resigns.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 July</td>
<td>The WorldCom booking scandal comes to light.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 July</td>
<td>The Sejm passes the new Foreign Currency Act.</td>
<td></td>
<td>Financial crisis breaks out in Uruguay</td>
</tr>
<tr>
<td>31 July</td>
<td>Standard &amp; Poor’s lowers Poland’s credit rating to A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>August</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 August</td>
<td>Ordinance of the Minister of Finance on the manner of payment of fees to the Polish Securities and Exchange Commission.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 August</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>September</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 September</td>
<td>Changes to the WSE Rules, facilitating adoption of the corporate governance rules for listed companies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 September</td>
<td>Additional issue of 10-year Treasury bonds of the value of 400 million US dollars on the American market.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 September</td>
<td>2003 draft budget. Amendment of the Act on Mortgage Bonds and Mortgage Banks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 September</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 September</td>
<td>The National Depository for Securities (KDPW) exempts banks and brokerage houses from fees on index certificate-related transactions. The resolution was binding until the end of 2002. Changes to the KDPW Rules.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>October</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 October</td>
<td>New Foreign Currency Act comes into force.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 October</td>
<td>Polish Securities and Exchange Commission (KPiW) accepts the Good Practice Code.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 October</td>
<td>Treasury bills debut on the CeTO-managed Electronic Treasury Securities Market (ERSPW).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 October</td>
<td>The Irish vote YES in the Nice Treaty referendum.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 October</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points.</td>
<td></td>
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<tr>
<td>30 October</td>
<td>The Ministry of Finance issues 8-year British pound-denominated bonds of the value of 400 million British pounds.</td>
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<td><strong>November</strong></td>
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<tr>
<td>6 November</td>
<td>FED reduces key rates by 50 basis points.</td>
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<td>13 November</td>
<td>The Ministry of Finance selects 12 banks to act as Treasury securities dealers.</td>
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<td>15 November</td>
<td>CeTO introduces authorised advisors system.</td>
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<td>20 November</td>
<td>The Commission for Banking Supervision issues a permit for Nykredit AS, a Danish mortgage bank, to establish a specialist mortgage bank in Poland.</td>
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<tr>
<td>27 November</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 25 basis points.</td>
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<td>29 November</td>
<td>OTOB Vienna Stock Exchange introduces futures and options on CECE indices (the Czech CEX, the Polish PTX and the Hungarian HTX) into public trading.</td>
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<td><strong>December</strong></td>
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<tr>
<td>4 December</td>
<td>PKB Bank Polski SA launches the sale of Treasury bonds on terms and conditions enabling to avoid payment of the 20% tax on capital gains.</td>
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<tr>
<td>5 December</td>
<td>European Central Bank reduces key rates by 50 basis points.</td>
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<tr>
<td>6 December</td>
<td>The Minister of Finance issues the Regulations on fulfilling the function of the Primary Dealers.</td>
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<tr>
<td><strong>January 2002</strong></td>
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<tr>
<td>10 December</td>
<td>TP SA bonds debut on CeTO. They are the first corporate bonds listed on this market.</td>
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<tr>
<td>12 December</td>
<td>NBP selects 12 dealer banks to participate in the open market operations.</td>
<td>EU Summit in Copenhagen – the accession negotiations with 10 candidate states are completed.</td>
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<tr>
<td>18 December</td>
<td>The Sejm adopts the 2003 Budget Act.</td>
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<tr>
<td><strong>January 2003</strong></td>
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<td>6 January</td>
<td>The Minister of Economy, Jacek Piekota, and the Minister of the Treasury, Wiesław Kaczmarski, are dismissed. Sławomir Czyżyński is appointed new Treasury Minister.</td>
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<tr>
<td>8 January</td>
<td>Changes in the government; the Ministry of Economy, Labour and Social Policy is established.</td>
<td>Under the pressure of IMF, the Central Bank of Argentina abolishes most of the foreign currency restrictions introduced a year earlier.</td>
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<tr>
<td>13 January</td>
<td>Completion of the merger of PTE Big Bank Gdańsk and PTE Skarbiec-Emerytura.</td>
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<tr>
<td>16-17 January</td>
<td>The Ministry of Finance announces it does not intend to prolong the exemption from the tax on stock exchange gains. The Vice-Ministers of Finance, Irena Ołdąg and Tomasz Michalak, resign.</td>
<td>The Central Bank of Hungary intervenes on the foreign currency market in order to lower the forint exchange rate. The key interest rate is reduced twice by the Central Bank of Hungary. Restrictions concerning deposits from foreign banks in Hungary are introduced. The first mutual fund named Sadko is launched in Russia.</td>
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<td>27 January</td>
<td>Sale of 10-year Eurobonds of the value of 1.25 bn euro.</td>
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<td>30 January</td>
<td>The Monetary Policy Council (MPC) reduces interest rates by 25 basis points.</td>
<td>Zakłady Miejskie Duda shares debut on the Warsaw Stock Exchange (WSE).</td>
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<tr>
<td>January</td>
<td>BIG Bank Gdańsk changes its name to Bank Millennium.</td>
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<td><strong>February</strong></td>
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<tr>
<td>3 February</td>
<td>Swiss Exchange Groups assumes control over the European electronic Virt-x stock exchange.</td>
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<tr>
<td>11 February</td>
<td>PKO Bank Polski SA becomes a new and the only issue agent of Treasury bonds and it is entitled to sell Treasury bonds to individual investors.</td>
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<tr>
<td>12 February</td>
<td>Unsuccessful auction of 20-year Treasury bonds.</td>
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<td>14 February</td>
<td>The WSE and the Moscow Interbank Currency Exchange (Mices) sign the memorandum of cooperation.</td>
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<tr>
<td>26 February</td>
<td>The WSE receives the decision of the French Ministry of Economy, Finance and Industry under which it has been included in the group of markets recognised under the French regulations. Given the above, the WSE products can be offered in France and transactions can be executed on the Polish market through the mediation of French brokers.</td>
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<tr>
<td>27 February</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 50 basis points, the reference rate by 25 basis points. The deposit rate remains unchanged.</td>
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<tr>
<td>28 February</td>
<td>The Minister of Finance, Grzegorz Kolodko, presents assumptions of the public finance reform (lower taxes, abolition of all tax allowances and exemptions, tax on capital gains). The Sejm passes the new Bankruptcy and Recovery Act.</td>
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<tr>
<td><strong>March</strong></td>
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<tr>
<td>3 March</td>
<td>SLD-UP-PSL coalition collapses.</td>
<td>European Central bank reduces key rates by 25 basis points.</td>
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<tr>
<td>6 March</td>
<td>The Sejm adopts the Act on Bank Gospodarstwa Krajowego (BGK) under which the BGK, following Poland’s accession to the EU, is to take over from NBP, inter alia, servicing of the central budget accounts.</td>
<td>Beginning of the invasion on Iraq.</td>
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<tr>
<td>14 March</td>
<td>European Central bank reduces key rates by 25 basis points.</td>
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<tr>
<td>20 March</td>
<td>Beginning of the invasion on Iraq.</td>
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<td>21 March</td>
<td>Kompania Węglowa acquires TP SA shareholding of the value of approx. 550 m. złoty.</td>
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<tr>
<td>24 March</td>
<td>Debut of stock futures (BZ WBK, Bank Millennium) Treasury Minister Sławomir Czyżyński resigns.</td>
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<tr>
<td>27 March</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 25 basis points.</td>
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<td><strong>April</strong></td>
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<tr>
<td>8 April</td>
<td>The government accepts the EU Accession Treaty.</td>
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<tr>
<td>9 April</td>
<td>The European Parliament accepts the EU Accession Treaty.</td>
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<td>10 April</td>
<td>First public issue of mortgage bonds of RHEINHYP-BRE Bank Hipoteczny of the value of 200 m. złoty (CETO). The Minister of Economy, Labour and Social Policy, Jerzy Hausner, proposes a public finance reform competitive to that proposed by Grzegorz Końdocz.</td>
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<td>11 April</td>
<td>Zurich PTE SA operates under new company name Generali PTE SA.</td>
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<td>12 April</td>
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<td>EU referendum in Hungary</td>
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<tr>
<td>16 April</td>
<td>Polish government delegation signs the EU Accession Treaty.</td>
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<tr>
<td>25 April</td>
<td>The Monetary Policy Council (MPC) reduces the interest rate on lombard loan by 50 basis points, the rediscount and reference rate by 25 basis points. The deposit rate remains unchanged.</td>
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<tr>
<td>April</td>
<td>NBP buys inflation-indexed bonds of the value of approx. 5 bn złoty from other banks.</td>
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<tr>
<td>May</td>
<td>Issue of 10-year euro-denominated bonds of the value of 800 m euro.</td>
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<tr>
<td>8 May</td>
<td>Zurich OFE begins to operate under the company name Generali OFE.</td>
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<td>12 May</td>
<td>Government’s approval of the draft of the amended Code of Commercial Companies. Launch Rybnik municipal bonds on CETO.</td>
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<tr>
<td>22 May</td>
<td>The Sejm adopts the package of 4 insurance acts.</td>
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<td>29 May</td>
<td>The Monetary Policy Council (MPC) reduces all interest rates by 25 basis points.</td>
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<tr>
<td>June</td>
<td>The EU ministers of finance decide to introduce tax on interest as of 2005.</td>
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<td>3 June</td>
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<tr>
<td>5 June</td>
<td>The European Central Bank reduces key rates by 50 basis points.</td>
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<td>7–8 June</td>
<td>EU accession referendum in Poland. 77.45% of voters say YES; attendance stands at 58.85%.</td>
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<tr>
<td>11 June</td>
<td>Minister of Finance, Grzegorz Końdocz, resigns. Andrzej Raczko is appointed the new Minister of Finance.</td>
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<tr>
<td>13 June</td>
<td>The government led by Leszek Miller wins a vote of confidence granted by the Sejm.</td>
<td>Referendum on the Czech Republic's accession to the EU.</td>
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<tr>
<td>17 June</td>
<td>The government decides that CIT rate amounts to 19% as of 2004.</td>
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<td>18 June</td>
<td>The government adopts a bill whose provisions provide for the issue of bonds to repay the debt owed to open pension funds.</td>
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<tr>
<td>25 June</td>
<td>The Monetary Policy Council (MPC) reduces key rates by 25 basis points. Poland offers 7-year bonds of the value of 25 bn yen and the interest coupon of 0.84% on the Japanese market. This is Poland’s first issue of the so-called Samurai bonds; i.e. bonds issued by non-residents in Japan.</td>
<td>Decision to close Nasdaq Europe with the registered office in Brussels by 5 January 2004.</td>
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<tr>
<td>26 June</td>
<td>FED reduces interest rates by 25 basis points. Clearnet and London Clearing House agree on a merger.</td>
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<td>30 June</td>
<td>30 June: Standard &amp; Poor's rating agency lowers Poland's creditworthiness outlook from stable to negative, given unfavourable prospects for public finance.</td>
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<td>June</td>
<td>Devaluation of the Hungarian forint. The central bank raises its key rate by 100 basis points.</td>
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<td>July</td>
<td>Adoption of directive on issue prospectus.</td>
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<td>2 July</td>
<td>The government presents assumptions of the 2004 budget (planned budget deficit is to amount to 45.5 bn złoty).</td>
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<tr>
<td>10 July</td>
<td>The Bank of England reduces key rates by 25 basis points.</td>
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<td>22 July</td>
<td>The Sejm passes the act under which the State Treasury shall acquire Social Insurance Board’s debt owed to Open Pension Fund and resulting from the failure to transfer insurance contributions.</td>
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<td>23 July</td>
<td>Government’s approval of tax reform under which most of the tax allowances will be abolished.</td>
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<tr>
<td>August</td>
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<td>6 August</td>
<td>Hoop shares debut on the Warsaw Stock Exchange (WSE).</td>
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<td>Government adopts the Act on Individual Pension Accounts. It provides for the exemption of individual pension savings from the tax on capital gains. The Act is to come into force on 1 April 2004.</td>
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<td>13 August</td>
<td>Cooperative Savings and Credit Unions introduce mortgage loans.</td>
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<td>22 August</td>
<td>Historically the biggest ever futures volume (43,991 futures contracts).</td>
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<td>26 August</td>
<td>Jan Czekaj becomes a new member of the Monetary Policy Council.</td>
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<td>27 August</td>
<td>The government adopts the medium-term public finance strategy. The first acquisition of company portfolio in the history of Polish insurance companies. The Insurance and Pension Funds Supervisory Commission (KNiUF) approves of the transfer of portfolio between Inter-˚ycie and Wüstenrot ˚ycie.</td>
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<td>September</td>
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<td>1 September</td>
<td>Launch of post-session transactions for instruments in continuous trading on the Warsaw Stock Exchange (WSE).</td>
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<td>3 September</td>
<td>New York Attorney General, Eliot Spitzer, accuses American mutual funds of fraudulent practices.</td>
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<td>9 September</td>
<td>The government agrees to introduce a 19% flat rate tax on income from sole proprietors (tax settlement according to PIT).</td>
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<td>11 September</td>
<td>BZ WBK Leasing bonds admitted to trading on CeTO.</td>
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<td>14 September</td>
<td>Swedish vote NO in the referendum on the introduction of euro.</td>
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<td>16 September</td>
<td>The merger of Towarzystwo Ubezpieczeniowe Compensa SA and Bankowe Towarzystwo Ubezpieczeni i Reasekuracji Heros SA.</td>
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<td>17 September</td>
<td>The fourth mortgage bank, Nykredit Bank Hipotecny, launches its activities. Poland records its best ever result in 2003 in terms of direct foreign investments. The Exchange Supervisory Board changes the WSE Rules and enables foreign currency trading. Rating agencies warn of a probable deterioration in Poland’s rating. A significant drop in the złoty exchange rate.</td>
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<td>19 September</td>
<td>The Managing Board of the Polish Bank Association adopts “The Recommendation Concerning the Execution of Selected Transactions on the Polish Interbank Market”.</td>
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<td>22 September</td>
<td>The introduction of options on WIG20 index to trading on the Warsaw Stock Exchange (WSE).</td>
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<td>30 September</td>
<td>The Monetary Policy Council decides to reduce the required reserve rates from 4.5% to 3.5% as of October 31.</td>
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<td>October</td>
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<td>1 October</td>
<td>The Polish Bankruptcy and Recovery Act comes into force.</td>
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<td>2 October</td>
<td>MTS S.p.A. and Centralna Tabela Ofert SA (CeTO) announce they have signed a letter of intent concerning the launch of the Polish Treasury bonds market according to MTS system. Under the abovementioned letter of intent, MTS acquires a minority stake in CeTO and provides its Telematico platform used for the trading in securities. For the first time in history, Moody’s rating agency raises Russia’s investment rating from Ba2 to Baa3.</td>
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<td>8 October</td>
<td>The government adopts the programme for restructuring public expenditure prepared by Jerzy Hausner. Centralna Tabela Ofert assigns Bank Pekao SA the status of a regulated market member. The bank will be able to trade, on its behalf and at its account, in debt instruments listed on CeTO.</td>
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<td>14 October</td>
<td>The shares of Bank Austria Creditanstalt, the first foreign company, debut on the Warsaw Stock Exchange (WSE). The Sejm enacts the reduction in CIT to 19%.</td>
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<td>28 October</td>
<td>The Polish Securities and Exchange Commission (KPWiG) approves the changes to the WSE Rules. They concern, inter alia, facilitating the settlement of the rate of securities in foreign currencies.</td>
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<td>30 October</td>
<td>New regulations in the financial sector:</td>
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<td>- the decision concerning the change in the rules governing the classification of irregular loans;</td>
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<td>- the decision concerning the introduction of interest rate on required reserve as of 1 May 2004;</td>
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<td></td>
<td>- the decision on the establishment of the EU Guarantee Fund.</td>
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<tr>
<td>November</td>
<td>1 November: The Ministry of Treasure sells 7.5% of TP SA shares to institutional investors.</td>
<td>Jean-Claude Trichet becomes the President of the European Central Bank.</td>
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<td>5 November: The Senate rejects the amendment providing for postponing the introduction of the capital gain tax by 12 months.</td>
<td>The American Securities and Exchange Commission (SEC) adopts new and more stringent rules governing the corporate supervision for NYSE and Nasdaq listed companies.</td>
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<tr>
<td></td>
<td>6 November: The Ministry of Treasure sells 7.5% of TP SA shares to institutional investors.</td>
<td>The Bank of England raises the key rate by 25 basis points.</td>
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<td></td>
<td>12 November: Amendments to the Act on Personal Income Tax (introduction of a 19% tax on income earned by persons engaged in business activity and settling their tax payment on the basis of PIT).</td>
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<td>14 November: Impel shares debut on the Warsaw Stock Exchange (WSE).</td>
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<td></td>
<td>19 November: Impel shares debut on the Warsaw Stock Exchange (WSE).</td>
<td>Several dozen of Wall Street FX dealers arrested on the charge of abuse.</td>
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<td>27 November: The Senate rejects the amendment to the Act on the National Bank of Poland under which the government would be able to release a part of NBP devaluation reserve if it exceed 5% of the total currency reserve.</td>
<td>Central Bank of Hungary raises interest rates by 300 basis points.</td>
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<tr>
<td></td>
<td>28 November: Amendments to the Act on Personal Income Tax (introduction of a 19% tax on income earned by persons engaged in business activity and settling their tax payment on the basis of PIT).</td>
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<tr>
<td>November</td>
<td>1 November: The Ministry of Treasure sells 7.5% of TP SA shares to institutional investors.</td>
<td>Jean-Claude Trichet becomes the President of the European Central Bank.</td>
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<td>12 November: Amendments to the Act on Personal Income Tax (introduction of a 19% tax on income earned by persons engaged in business activity and settling their tax payment on the basis of PIT).</td>
<td>The American Securities and Exchange Commission (SEC) adopts new and more stringent rules governing the corporate supervision for NYSE and Nasdaq listed companies.</td>
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<td>16–17 December: The Monetary Policy Council passes the new NBP accounting policies under which the ability to use of funds gathered on the devaluation provision account is limited.</td>
<td>The Bank of England raises the key rate by 25 basis points.</td>
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<td>18 December: First issue of private placement bonds by the Ministry of Finance. 7-year bonds of the value of 400 m. złoty were acquired by Bank Pekao SA.</td>
<td>Record high EUR/USD exchange rate – 1.2438 USD.</td>
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<td>22 December: The Exchange launches publication of the new WIG-PL index.</td>
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<td>23 December: The last day the investors are able to purchase shares on the Warsaw Stock Exchange without the obligation to pay the tax on profit on sale in 2004. First quotation of Treasury bonds related to Social Insurance Board’s debt owed to the Open Pension Funds on the regulated CeTO market.</td>
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<td></td>
<td>29 December: The Minister of Finance approves the merger of Zurich Towarzystwo Ubezpieczeń SA and Generali Życie Towarzystwo Ubezpieczeń SA.</td>
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<td>30 December: The Redan company shares debut on the Warsaw Stock Exchange (WSE).</td>
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<td>31 December: Fabryka Farb i Lakierów Śniadka shares debut on the Warsaw Stock Exchange (WSE).</td>
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