Financial System Development in Poland
2006

Warsaw, 2009
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In 2006, the importance of the financial system in the Polish economy continued to increase. The value of assets of this sector as a share in GDP equalled 96.6%, which was higher by 11.6 pp. than in the previous year. All financial institutions recorded a rise in the value of assets (Table I). As in previous years, banks were the most important institutions in the Polish financial system. However, the share of the banking sector in financial system assets decreased, since the value of assets of non-banking financial institutions and particularly of investment funds continued to increase at a fast pace.

Table I. Assets of financial institutions in Poland, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>Amount (PLN billion)</th>
<th>Growth y/y (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and cooperative banks</td>
<td>489.0</td>
<td>538.5</td>
</tr>
<tr>
<td>Credit unions</td>
<td>3.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>65.7</td>
<td>77.9</td>
</tr>
<tr>
<td>Investment funds</td>
<td>33.2</td>
<td>37.5</td>
</tr>
<tr>
<td>Open pension funds</td>
<td>44.8</td>
<td>62.6</td>
</tr>
<tr>
<td>Brokerage entities</td>
<td>3.7</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>639.7</strong></td>
<td><strong>726.2</strong></td>
</tr>
</tbody>
</table>

Source: NBP, Polish Financial Supervision Authority (KNF), Chamber of Fund and Asset Management (IZFiA), National Association of Credit Unions (KSOK).

An analysis of the financial institutions and markets of various countries against their economic development shows that Poland – similar to other Central and Eastern European countries – was characterised by a relatively low level of development of the financial system. The banking sector continues to play a major role in the Polish financial system; yet in comparison with countries at a similar level of economic development, it was underdeveloped (Figure I). In addition, countries in our region showed a relatively low level of stock market capitalisation and the outstanding value of non-public sector debt securities. In countries with a similar level of economic development, stock market capitalisation exceeded the value of banking sector assets. In 2006, the Polish stock market remained the region’s largest market in terms of both capitalisation and the number of listed companies. However, the indicator which measures the capitalisation of the Polish stock market in relation to the GDP was still much lower than in countries with developed financial markets.

The good macroeconomic situation created favourable conditions for the development of the banking sector in Poland. In 2006, the growth rate of residential loans to households continued to increase. The improvement of the financial standing of enterprises contributed to the increase in the value of their bank deposits. Deposits of households increased at a faster pace than in the previous year, yet the increase pertained solely to current deposits.

The share of bank deposits in all financial assets of Polish households was higher than in developed countries. However, some changes in investment preferences of individuals were observed. The growth of stock prices increased the interest in units of investment funds and in unit-linked products. Throughout 2006, the inflow of resources to investment funds registered in Poland amounted to approximately PLN 25.5 billion, while the value of bank deposits of households increased by PLN 18.9 billion. The functioning of the reformed pension system was related to the constant inflow of funds to open pension funds. The shift of individual customers’ investment...
preferences towards market-based instruments is in line with trends observed in other financial markets.

In 2006, the value of resources obtained by enterprises from external sources increased significantly and was the highest in the current decade (PLN 68.3 billion). A major part of the resources came from bank credit, which was related to the lowered cost of credit and banks’ more lenient criteria and conditions for granting loans. This meant a discontinuation of the domination of capital market financing observed between 2001 and 2005. In 2006, the value of new stock issues of Polish enterprises amounted to PLN 5.3 billion and despite very good situation on the WSE throughout most of the year, was significantly lower than in 2004 and 2005, when companies obtained a total of around PLN 25 billion through the WSE. The placement of issues was made easier by the large inflow of resources to investment funds and open pension funds. Apart from bank credit, advances from direct foreign investors and leasing remained important external sources of capital for Polish enterprises.

The most important developments in the Polish financial system in 2006 and the most significant factors which may have substantial impact on the development of financial institutions and markets in the future are discussed below.

REGULATIONS

Regulations in Poland. In 2006, the Act on Financial Market Supervision was adopted, which changed the principles for the functioning of supervision in Poland. Pursuant to that Act, the Polish Financial Supervision Authority (KNF) was established, which replaced the Insurance and Pension Funds Supervisory Commission (KNUiFE) and the Securities and Exchange Commission (KPWiG) as from 19 September 2006. As from 1 January 2008, the KNF will also take over the responsibilities

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Note: The values of the regression functions presented in the Figure were evaluated for panel data using the Random Effects GLS method. The panel data covered information on the financial systems of 175 countries for the years between 1985 and 2005.

The following development measures were used for individual sectors of the financial system:

- Banking sector – credit for non-public sector to GDP
- Stock market – stock exchange capitalisation to GDP
- Debt securities of the public sector – outstanding value of debt securities of the public sector
debt securities of other sectors – outstanding value of debt securities of financial institutions and enterprises to GDP


The empirical values marked in the Figure with rhombi, circles and triangles describe the financial system in Poland, Hungary and the Czech Republic respectively, in accordance with the last data used in the regression – status as at the end of 2005.

Source: Own calculations based on data from the International Monetary Fund (World Economic Outlook, 09/2006) and the World Bank (Financial Structure Dataset, 03/2007).
performed so far by the Commission for Banking Supervision. Amendments to the Act on the EU Guarantee Fund were meant to make pledges and guarantees more accessible to prospective beneficiaries of EU aid and, due to that, to increase the absorption of structural funds in Poland. Amendments to the Act on Personal Income Tax removed the so-called interest relief.

**Regulations in the European Union.** In 2006, the Commission focused to a greater extent on the correct transposition of Community acts adopted so far into Member States’ national legislation and the enforcement of their proper application, rather than on new regulations. The following directives were published in June 2006: the Directive on the capital adequacy of investment firms and credit institutions, and the Directive relating to the taking up and pursuit of the business of credit institutions. Furthermore, the Commission issued implementing provisions to the Directive on markets in financial instruments (the MiFiD) to ensure uniform and coherent application of the Directive’s standards by all Member States. In November 2006, in the White Paper the Commission presented the EU strategy related to the further actions in the investment fund sector. In addition, changes in the Commission’s system of issuing implementing provisions with regard to financial services, which is very important for the further functioning of the Lamfalussy procedure.

**INFRASTRUCTURE**

**Payment system.** There was an increase in the number and value of orders executed within the zloty payment systems (SORBNET and ELIXIR) and the euro payment systems launched in 2005 (SORBNET-EURO and EuroELIXIR). In 2006, preparations were underway for the NBP to join the TARGET2 system. The date was set at 19 May 2008.

**Warsaw Stock Exchange (WSE).** In October 2006, the WSE development strategy was announced. Its aim is to “establish a regional Central European centre for trade in financial instruments with WSE as the key element of the centre”. Furthermore, in November 2006 the WSE IPO Partner programme was launched. Its participants include foreign investment firms which support the WSE in promotional activities targeted at markets in our region.

**National Depository for Securities (KDPW).** In 2006, work continued on the development strategy for the KDPW – the document entitled Strategic Objectives of the National Depository for Securities for the years 2006–2010 was published in September. Steps were also taken which were aimed at establishing a system for the settlement of dematerialised debt securities traded beyond the regulated market – the so-called Debt Securities Service System (System Obsługi Dłużnych Papierów Wartościowych – SODPW). Moreover, work continued on the modification of the clearing and settlement system, which envisaged the implementation of a new account structure and the introduction of additional functionalities for the system’s participants.

**European projects to enhance financial market infrastructure.** In 2006, the European market witnessed the implementation of projects which will influence the Polish financial market infrastructure in the future. They pertained to the payment system (the TARGET2 and SEPA projects) and to the securities settlement system (the TARGET2-Securities and the European Code of Conduct for Clearing and Settlement projects).

**FINANCIAL INSTITUTIONS**

**Banks.** As a result of impulses from the real economy, the growth rate of the banking sector accelerated markedly in relation to the previous years. The banking sector assets to GDP ratio amounted to 65.1%. Increasing competition, both within the banking sector and on the part of non-banking financial institutions and investment funds in particular, positively influenced the development of banks’ offer. Both traditional and electronic distribution channels were developed. Banks prepared to implement two EU directives: the CRD and the MiFiD. Changes to the structure of assets which took place in 2006 were the continuation of earlier trends. The further increase in
claims on non-financial customers was mainly due to the extended activity of banks in the segment of retail banking, particularly in the segment of residential loans to households. The demand for business borrowing increased as compared to 2005. The share of enterprises in bank liabilities towards the non-financial sector was also increasing. Their deposits played an increasingly significant role for the banking sector in obtaining resources. Although the deposits of households increased at a faster pace than in the previous year, yet the increase pertained solely to current deposits. The efficiency of the banking sector continued to improve. Net profit of banks reached the level of PLN 10.6 billion. The quality of liabilities also improved as compared to 2005. Due to the cooperative banks’ observance of the statutory obligation to achieve the minimum level of own funds, the further consolidation continued in this part of the sector. In 2006, concentration of the banking sector continued to decrease in Poland.

Credit Unions. In 2006, the development of credit unions was no longer as fast as in previous years, and the growth rate of the balance sheet total was lower than that of cooperative banks. Credit unions’ net profit was twice as high in 2006 as compared to 2005, and was accompanied by a marked improvement in efficiency indicators. In 2006, the number of credit union branches and participants continued to increase. Households remained the main customer group of credit unions.

Leasing. The leasing industry remained one of the fastest-developing segments of the financial market. In 2006, the value of leased assets increased significantly. The leasing of machines and equipment continued to grow in importance in the composition of leased assets, yet the means of transport still dominated.

Factoring. Despite a further increase in the value of invoices purchased (to 2.4% of GDP), the importance of factoring services in the Polish economy was still insignificant. A major role in the provision of factoring services was played by banks (a 44% share in the value of purchased invoices).

Financial intermediaries. Cooperation with banks and intermediation in the sale of credit products remained the traditional areas of activity of financial intermediaries. A factor conducive to the development of the financial intermediation market in 2006 was the high demand for residential loans. Moreover, the services of financial advisors enjoyed a growing interest.

Private equity/venture capital sector (PE/VC). In 2006, both the value of investments and the size of resources accumulated by PE/VC funds increased. Domestic investments dominated, but their industry composition changed. In terms of value, over a half of investments were carried out in the telecommunications industry. The inflow of EU funds, as well as the planned launch of NewConnect, the new WSE trading platform, may be conducive to the development of this sector.

Investment funds. In 2006, the investment fund sector continued to grow dynamically. Assets managed by investment fund management companies increased significantly, and the structure of the sector continued to diversify due to the start of operations of funds with new structures. Balanced and stable growth funds held the most assets. The highest growth rate of assets was recorded by closed-ended funds. A greater investment freedom and a limited group of unit purchasers of some of such funds allowed for adjusting the investment portfolio composition to the customers' individual needs. More and more frequently, Polish investment funds showed interest in investments outside OECD countries.

Open pension funds. Open pension funds recorded a significant increase in net assets, by more than 35%. Almost a half of that increase was due to the increase in the prices of securities held in the portfolios of open pension funds. As at the end of 2006, the value of assets managed by pension companies amounted to PLN 116.6 billion. For the first time, open pension funds became the main domestic investor in the Treasury bond market.

Insurance companies. In 2006, the gross written premium increased significantly. For the first time, the life insurance gross written premium was higher than in the segment of non-life insurance, which was mainly due to the high interest in unit-linked products. Insurance companies recorded their best historical earnings. Assets of the insurance sector increased to PLN 108.3 billion.
Brokers entities. In 2006, there was an increase in the number of brokerage entities. Another 4 foreign entities commenced operational activity on the Warsaw Stock Exchange. As a result of the increase in turnover in the secondary stock market and a revival in the primary market, the very good financial standing of brokerage offices and houses continued. The growing importance of the distribution of brokerage services via the Internet was also visible.

FINANCIAL MARKETS

Money market

As compared to the end of 2005, the value of traded Treasury bills increased slightly. In annual average terms, the value of traded NBP bills was higher by PLN 3.1 billion. The outstanding value of short-term debt securities issued by commercial banks and enterprises increased in 2006. FX swaps remained the most liquid domestic money market instrument. Commercial banks managed current liquidity mainly with the use of unsecured deposits.

Table II. Outstanding value of individual money market instruments as of year-end, 2003–2006 (PLN billion)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury bills</td>
<td>48.1</td>
<td>46.9</td>
<td>24.4</td>
<td>25.8</td>
</tr>
<tr>
<td>NBP bills</td>
<td>6.0</td>
<td>5.7</td>
<td>23.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Short-term commercial bank debt securities</td>
<td>3.0</td>
<td>2.9</td>
<td>2.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Short-term corporate bonds</td>
<td>7.5</td>
<td>6.6</td>
<td>5.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Unsecured deposits (interbank deposits)</td>
<td>20.6</td>
<td>23.6</td>
<td>30.3</td>
<td>34.9</td>
</tr>
<tr>
<td>Secured deposits (FX swaps and conditional transactions)</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

1 It is not possible to determine the values of the banks’ positions in respect of FX swaps and conditional transactions on the basis of data from the bank reporting system.

Source: NBP data, Fitch Polska SA.

Treasury bills. The share of Treasury bills in the structure of outstanding value of State debt securities reached the level characteristic of countries with developed financial markets. The limited issue of Treasury bills between 2005 and 2006 contributed to the decreased turnover in the secondary market. The majority of transactions in the secondary market were conditional transactions.

NBP bills. The increase in the value of NBP bills in annual average terms resulted from the greater scale of excess liquidity of the banking sector. In the fourth quarter, the relation of demand for NBP bills reported by banks to their supply offered in tenders increased significantly. The secondary market was characterised by low liquidity.

Short-term bank debt securities (SBDS). The outstanding value of short-term debt securities issued by commercial banks increased in 2006. This was mainly due to the issue of short-term bonds of the BGK. Some banks, with a view to enhancing the attractiveness of their deposit offer, sold bank securities which included derivatives.

Short-term corporate bonds (SCB). The value of short-term corporate bonds increased in 2006. However, the number of issuers dropped. Instruments with original maturity up to 1 month dominated among the SCBs issued. Banks and enterprises were the most important investors in that market.

Interbank (unsecured) deposits. The upward tendency of liquidity in the interbank deposits market, initiated in 2005, continued. A significant increase was recorded in the O/N deposits segment, which dominated that market.
**Summary**

**FX swaps.** The dynamic growth of the FX swap market, observed in recent years, subsided in 2006. The decline in turnover in the domestic market was mainly due to the lower activity of non-residents (a share in turnover of over 90%). The structure of turnover was still dominated by one-day USD/PLN transactions.

**Conditional transactions.** There was a further increase in turnover in the domestic market of conditional transactions, which was mainly due to the increase in the value of secured deposits of non-banking financial institutions placed in banks in the form of SBB operations. The interbank repo market remained underdeveloped. The structure of conditional transaction collateral was dominated by Treasury bonds.

**Capital market**

An increase in the size of a majority of segments of the capital market was recorded in 2006. The stock market was developing the fastest. WSE capitalisation increased by almost 50%. The outstanding value of marketable Treasury bonds increased likewise, but its growth rate was much lower than in previous years. The remaining segments of the capital market remained underdeveloped.

**Table III. Outstanding value of individual capital market instruments, 2003–2006 (PLN billion)**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt securities</td>
<td>203.9</td>
<td>248.7</td>
<td>303.2</td>
<td>343.3</td>
</tr>
<tr>
<td>Marketable Treasury bonds</td>
<td>184.5</td>
<td>226.6</td>
<td>278.4</td>
<td>317.0</td>
</tr>
<tr>
<td>Long-term corporate bonds</td>
<td>5.3</td>
<td>7.3</td>
<td>8.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Municipal bonds</td>
<td>2.8</td>
<td>3.1</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Long-term commercial bank debt securities†</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Mortgage bonds</td>
<td>0.8</td>
<td>1.0</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>NBP bonds</td>
<td>7.8</td>
<td>7.8</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Equities – stock</td>
<td>167.7</td>
<td>291.7</td>
<td>424.9</td>
<td>635.9</td>
</tr>
</tbody>
</table>

Note: The outstanding value of individual capital market instruments for debt securities was measured by the outstanding value of those instruments, and for equities – by the capitalisation of national and foreign companies listed on the WSE.

† The data cover the liabilities of Polish banks resulting from the issue of own securities for the domestic market.

Source: NBP calculations based on MF, NBP, WSE and Fitch Polska data.

**Treasury bonds.** The Treasury bond market remained the largest and the most liquid segment of the debt securities market in Poland. The outstanding value of Treasury bonds issued on the domestic market increased by nearly 13% as compared with 2005. Fixed-rate bonds remained the main debt instrument issued by the Treasury. A drop in the interest in saving bonds was observed. The dynamic increase in Treasury bonds market turnover continued in 2006. It resulted mainly from the twofold increase in the value of conditional transactions. Despite the fact that non-residents remained the largest group of investors in the Treasury bonds market, their share in the market decreased. Pension funds became the largest domestic investor in the Treasury bonds market for the first time.

**Municipal bonds.** The municipal bonds market was one of the smallest segments of the capital market. After a period of a declining growth rate, the outstanding value of bonds issued by local government units increased in 2006. Low-value issues dominated. They were carried out as non-public offerings. Banks were the main group of purchasers of municipal bonds.

**Long-term corporate bonds (LCB).** The outstanding value of LCBs issued and the number of issuers increased in 2006. However, the significance of corporate bonds in the Polish capital market was still negligible. The market was dominated by issues under private placement, targeted at the non-regulated market. Banks and investment funds were the most important investors in that market. The development of the LCB market was limited by the low value of individual issues and the low liquidity of the secondary market.
**Long-term bank debt securities (LBDS).** Bank liabilities due to the issue of long-term debt securities in the domestic market increased significantly in 2006. This was mainly due to the issue of structured bank securities. Given the low interest rates, some banks offered bank securities which included derivatives, competing with investment funds for the savings of households.

**Mortgage bonds.** The outstanding value of the issue of mortgage bonds did not increase significantly and amounted to PLN 1.7 billion as at the end of 2006. However, the role of mortgage bonds in financing the lending of mortgage banks was less significant. Banks and international financial institutions were the main investors in the market of mortgage bonds sold under private placement.

**Stocks.** The capitalisation of domestic companies listed on the WSE increased significantly and as at the end of the year its relation to GDP amounted to more than 40%. In 2006, stocks of 38 companies (of the total value of nearly PLN 4 billion) were introduced on the WSE. Towards the end of 2006, the WIG index reached its historical high. The good situation was accompanied by a significant increase in stock turnover. The RPW-CeTO stock market remained underdeveloped and its importance for the Polish financial system was negligible.

**Spot FX market**

Average daily net turnover in the domestic zloty market increased to PLN 4 billion. Similarly as in 2005, the offshore market recorded a marked increase in the value of zloty exchange transactions. Increased turnover in the London market was due to the investments of foreign financial institutions in assets denominated in zlotys and the high hedge fund activity. The dominant currency pair in the domestic zloty market was EUR/PLN. In 2006, the share of EUR/PLN transactions in the currency composition of turnover in the interbank market stabilised at the level of over 90%.

**Derivatives market**

The Polish market of OTC derivatives remained much better developed than the stock exchange derivatives market. The dominance of the OTC market over the stock exchange market is a result of the Polish bank-oriented financial system, the large activity of foreign banks, and the flexibility of OTC instruments.

**OTC derivatives.** In 2006, the FRA transactions market remained the most liquid segment in the OTC derivatives market. Average daily turnover in the interest rate derivatives market (FRA and iRS) remained at a level similar to 2005. The OiS market developed rapidly. The forward contracts market was the most liquid one among the segments of the FX derivatives market. Forward transactions constituted the main instrument used by companies for FX risk management. In 2006, turnover in the domestic FX options market increased, which was mainly due to the increased values of transactions concluded by non-banking entities. A decline in turnover was recorded in the CiRS transactions market. The market of credit derivatives was only in the initial stage of development.

**Stock exchange derivatives.** The value of turnover in the futures market organised by the WSE increased by nearly 60%. As in previous years, the largest segment of the stock exchange derivatives market was the market of futures contracts for WIG20, which accounted for over 90% of turnover. Individual investors were the most active group of market participants. On the WCE, trade only concerned FX instruments, yet that market was still underdeveloped.
The Financial System development in Poland 2006 is a new edition of the annual report which describes changes that occurred in the financial system in a given year. The publication presents trends, barriers and probable scenarios of development of all financial markets and financial institutions operating in Poland. Also analysed are changes in the infrastructure and regulations relating to the financial system, as well as initiatives aimed at the integration of the European financial market. According to the assumed methodology, developments which occurred in the financial system in 2007 have not been included in this report, even if they were known to the authors at the moment of writing.

Chapter 1 presents the evolution of the size and structure of the Polish financial system, indicating a significant, persistent dominance of banks over other financial institutions. In addition, it analyses the relations between the changes in the national financial system and the structure of the financial assets of households and the external sources of financing for enterprises. Chapter 2 describes amendments to legal regulations relating to the financial system, both at the national and at the European Union level. It also presents the state of work of EU authorities on the selected legal acts, as well as the extent of their implementation by individual Member States. Chapter 3 describes the most important changes in the financial system infrastructure, including the participation of Polish payment systems in the European system.

Chapter 4 presents a comprehensive analysis of the changes that occurred with regard to individual financial institution groups in 2006. To the extent possible, the changes have been presented against the trends observed in other countries of the region and in the selected European Union Member States. Banks continue to dominate in the Polish financial system and, therefore, the banking sector is analysed first. Changes in commercial bank claims and liabilities as well as concentration and competition indicators for this sector have been analysed in detail. Subsequent sections analyse quasi-bank institutions and those which serve as intermediaries in the distribution of the financial products. The next group of financial institutions analysed are investment and pension funds. The chapter also presents the changes that occurred in the insurance sector as well as in the brokerage entities sector.

Chapter 5 analyses financial market developments. First, the evolution of the money market and its individual segments (Treasury bill, NBP bill, short-term corporate and bank debt securities as well as deposit transaction markets) has been presented. In the subsequent part of the chapter, the changes which occurred on the Polish capital market have been described. The development of the Treasury bond, municipal bond, NBP bond, mortgage bond as well as long-term bank and corporate debt securities markets have been analysed. A separate section has been dedicated to the stock market and the market of other equities. Chapter 5 also describes changes occurring on the FX market and describes the evolution of the derivatives market in Poland, which has been divided into the stock exchange and OTC segments.
1.1. Evolution of the size and structure of the financial system in Poland¹

The macroeconomic situation in Poland in 2006 created favourable conditions for the development of the financial system. GDP growth in that period amounted to 6.1% and was the highest since 1997. The increase in employment and salaries had an impact on the improvement of the financial standing of households and the increased demand for financial services. An improvement in the financial standing of enterprises and a larger absorption of EU funds were also recorded. This, together with significant capacity utilisation and a prospect for maintaining high economic growth, contributed to the growth of investment.

In 2006, the Polish economy, similarly to the economies of Central and Eastern Europe, was still characterised by a relatively low level of financial intermediation.² However, there was an upwards tendency in the importance of the financial system for the economy. The financial system assets to GDP ratio increased by 11.6 percentage points as compared to 2005 and amounted to 96.6% (Table 1.1).

In 2006, the value of assets of all financial institutions increased (by 22.3%, as compared to 15.1% in the previous year). The increase in banking sector assets accounted for over a half of assets increase. As in 2005, the most rapidly developing financial institutions were investment funds (their assets increased by 61.2%), though their growth rate was slightly lower than a year before. The decrease in the assets growth rate was noted also in the case of open pension funds and credit unions (Spółdzielcze Kasy Oszczędnościowo-Kredytowe – SKOK), while the assets of the banking sector, insurance companies and brokerage entities grew faster than in 2005 (Table 1.2 and 1.3).

In 2006, the banking sector continued to play the major role in the Polish financial system; however, the ratio of banking sector assets to total financial sector assets has been decreasing steadily. At the end of the analysed period, that ratio amounted to 66.7% (decrease by 3.5 percentage points as compared to the previous year). At the same time, the ratio of non-banking financial institutions assets to total financial sector assets went up to 33.3% in 2006 (for comparison – in 1999 it amounted to 9.7%). Figure 1.1 presents the evolution of the structure of assets in the Polish financial system, while Figure 1.2 shows the share of assets held by individual financial institutions in the assets of the Polish financial system in 2006.

### Table 1.1. Financial system assets as percentage of GDP in selected Central and Eastern European countries and the euro area, 2003–2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>75.9</td>
<td>78.6</td>
<td>85.0</td>
<td>96.6</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>124.4</td>
<td>119.2</td>
<td>126.4</td>
<td>126.1³</td>
</tr>
<tr>
<td>Hungary</td>
<td>93.0</td>
<td>100.0</td>
<td>114.7</td>
<td>129.5⁴</td>
</tr>
<tr>
<td>Euro area</td>
<td>351.2</td>
<td>367.4</td>
<td>400.3</td>
<td>n/a</td>
</tr>
</tbody>
</table>

¹ Preliminary data.
² The level of financial intermediation is measured by the ratio of financial system assets to GDP.
³ Source: For the euro area: EU Banking Structures. Frankfurt, October 2006, European Central Bank and Eurostat; for the remaining countries, data provided by national central banks, and Eurostat and Central Statistical Office (GUS) data.

³ The figures concerning the GDP might differ slightly from those presented in the previous report. This is a result of the correction of GDP estimates made by the Central Statistical Office (GUS) or Eurostat.
The main reasons for the increase in importance of non-banking financial institutions in the Polish financial system in recent years included the growth of stock prices on the WSE and the development of the capital part of the pension system. The growth of stock prices increased the interest in investing savings in investment funds and unit-linked products. It also contributed to the increase in the value of the investment portfolio of non-banking financial institutions which, contrary to the banks, invest a significant part of their assets in stocks. The functioning of the reformed pension system was related to the constant inflow of funds to open pension funds. As a consequence, interest in typically banking products gradually decreased for the benefit of other investment instruments, particularly those offered by investment funds (Figure 1.3).

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**Table 1.2. Assets of financial institutions in Poland, 1999–2006 (PLN billion)**

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and cooperative banks</td>
<td>363.4</td>
<td>428.5</td>
<td>469.7</td>
<td>466.5</td>
<td>489.0</td>
<td>538.5</td>
<td>586.4</td>
<td>681.4</td>
</tr>
<tr>
<td>Credit unions</td>
<td>0.9</td>
<td>1.2</td>
<td>1.8</td>
<td>2.5</td>
<td>3.3</td>
<td>4.2</td>
<td>5.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>28.9</td>
<td>37.9</td>
<td>47.2</td>
<td>57.6</td>
<td>65.7</td>
<td>77.9</td>
<td>89.6</td>
<td>108.3</td>
</tr>
<tr>
<td>Investment funds</td>
<td>3.2</td>
<td>7.1</td>
<td>12.1</td>
<td>22.8</td>
<td>33.2</td>
<td>37.5</td>
<td>61.3</td>
<td>98.8</td>
</tr>
<tr>
<td>Open pension funds</td>
<td>2.3</td>
<td>9.9</td>
<td>19.4</td>
<td>31.6</td>
<td>44.8</td>
<td>62.6</td>
<td>86.1</td>
<td>116.6</td>
</tr>
<tr>
<td>Brokerage entities</td>
<td>3.6</td>
<td>3.9</td>
<td>2.9</td>
<td>2.8</td>
<td>3.7</td>
<td>5.5</td>
<td>6.9</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>402.3</td>
<td>488.5</td>
<td>553.1</td>
<td>583.8</td>
<td>639.7</td>
<td>726.2</td>
<td>835.6</td>
<td>1,021.9</td>
</tr>
</tbody>
</table>

**Source:** NBP, Polish Financial Supervision Authority, Chamber of Fund and Asset Management (iZFiA), National Association of Credit Unions (KSKOK).

---

**Table 1.3. Growth in assets of financial institutions, 2003–2006 (y/y, %)**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and cooperative banks</td>
<td>4.8</td>
<td>10.1</td>
<td>8.9</td>
<td>16.2</td>
</tr>
<tr>
<td>Credit unions</td>
<td>32.0</td>
<td>27.3</td>
<td>26.4</td>
<td>13.0</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>14.1</td>
<td>18.6</td>
<td>15.0</td>
<td>20.9</td>
</tr>
<tr>
<td>Investment funds</td>
<td>45.6</td>
<td>13.0</td>
<td>63.5</td>
<td>61.2</td>
</tr>
<tr>
<td>Open pension funds</td>
<td>41.8</td>
<td>39.7</td>
<td>37.5</td>
<td>35.4</td>
</tr>
<tr>
<td>Brokerage entities</td>
<td>32.1</td>
<td>48.6</td>
<td>25.5</td>
<td>56.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9.6</td>
<td>13.5</td>
<td>15.1</td>
<td>22.3</td>
</tr>
</tbody>
</table>

**Source:** NBP, Polish Financial Supervision Authority, iZFiA, KSKOK.

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**Table 1.4. Number of financial institutions in Poland, 1999–2006**

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks(^2)</td>
<td>77</td>
<td>73</td>
<td>69</td>
<td>59</td>
<td>58</td>
<td>57</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Cooperative banks</td>
<td>781</td>
<td>680</td>
<td>642</td>
<td>605</td>
<td>600</td>
<td>596</td>
<td>588</td>
<td>584</td>
</tr>
<tr>
<td>Credit unions</td>
<td>228</td>
<td>146</td>
<td>144</td>
<td>120</td>
<td>109</td>
<td>83</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>Insurance companies(^3)</td>
<td>56</td>
<td>67</td>
<td>71</td>
<td>72</td>
<td>76</td>
<td>69</td>
<td>68</td>
<td>65</td>
</tr>
<tr>
<td>Investment funds (investment fund management companies)</td>
<td>66</td>
<td>85</td>
<td>108</td>
<td>124</td>
<td>137</td>
<td>154</td>
<td>190</td>
<td>241</td>
</tr>
<tr>
<td>Pension companies</td>
<td>21</td>
<td>21</td>
<td>17</td>
<td>16</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Brokerage entities</td>
<td>48</td>
<td>49</td>
<td>42</td>
<td>38</td>
<td>36</td>
<td>40</td>
<td>42</td>
<td>47</td>
</tr>
</tbody>
</table>

\(^1\) The Table presents the number of institutions the assets of which were taken into account in Table 1.2. It does not include foreign entities which can operate on the cross-border basis (without legal and organisational presence in Poland), branches of insurance companies from the EU Member States and the European Economic Area (EEA) countries, as well as branches of foreign brokerage entities.

\(^2\) Banks which conduct operating activities. The number of commercial banks in 2004–2006 also includes branches of credit institutions. In 2004, there were three, in 2005 seven, and in 2006 twelve branches of credit institutions.

\(^3\) Entities which conduct operating activities. The number of insurance companies in 2000–2006 also covers the main branches of foreign insurance companies (entities from countries other than the EU Member States and the EEA countries). In 2000, there was one, in 2001 and 2002 there were two, in 2003 there were three, while in 2004–2006 there was one main branch of a foreign insurance company operating in Poland.

**Source:** NBP, Polish Financial Supervision Authority, iZFiA, KSKOK.
Figure 1.1. Structure of assets of the Polish financial system, 1999–2006

![Structure of assets of the Polish financial system, 1999–2006](image1)

Source: NBP, Polish Financial Supervision Authority, iZFiA, KSKOK.

Figure 1.2. Share of assets held by different financial institutions in the Polish financial system as at the end of 2006

![Share of assets held by different financial institutions](image2)

Source: NBP, Polish Financial Supervision Authority, iZFiA, KSKOK.

Figure 1.3. Investment funds assets as percentage of bank deposits from non-financial sector

![Investment funds assets as percentage of bank deposits from non-financial sector](image3)

Source: NBP, Polish Financial Supervision Authority.
The number of commercial banks in Poland slightly increased in 2006. There were 50 banks incorporated as public limited companies, one state-owned bank and 12 branches of credit institutions. The number of cooperative banks decreased by 4 entities, the number of credit unions – by 5, and the number of insurance companies – by 3. There was an increase in the number of investment companies and brokerage entities (Table 1.4). In addition, in 2006 Polish financial supervision authorities received further notifications about the intention of foreign entities to conduct business in the territory of Poland.

1.2. Polish financial system as compared to the financial systems of selected European Union Member States

The level of financial intermediation in Poland, measured by the ratio of financial sector assets to GDP, amounted to less than 85% at the end of 2005. The relatively low level of financial intermediation is also typical of the economies of other new EU Member States (Figure 1.4). In the case of five countries analysed (Lithuania, Poland, Hungary, Czech Republic, Estonia), the ratio of financial system assets to GDP is three to almost six times lower than in the euro area countries.

The differences in the financial system development of new and old EU Member States are confirmed by, among others, the importance of banking sectors in those countries (Table 1.5). Despite a steady increase in their development indicators, the banking sectors of the new Member States still play a lesser role in the economy than in the countries which acceded to the EU before 1 May 2004.

Despite the fact that the Polish financial system is characterised by a low ratio of financial institutions assets to GDP, the structure of the system is similar to that in other EU Member States (Figure 1.5). In 2006, the share of non-monetary financial institutions in the total financial system assets in Poland was similar to the share of such institutions in the euro area countries. In all of those countries, the financial systems were dominated by monetary financial institutions. However, their share in the structure of the Polish financial system is lower than in the financial systems of the remaining new EU Member States taken into account in the analysis. This is a result of a faster

Figure 1.4. Financial system assets as percentage of GDP in selected European Union Member States, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithuania</td>
<td>67.5</td>
</tr>
<tr>
<td>Poland</td>
<td>84.3</td>
</tr>
<tr>
<td>Hungary</td>
<td>114.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>118.5</td>
</tr>
<tr>
<td>Estonia</td>
<td>159.9</td>
</tr>
<tr>
<td>Italy</td>
<td>244.3</td>
</tr>
<tr>
<td>Portugal</td>
<td>310.7</td>
</tr>
<tr>
<td>Austria</td>
<td>393.6</td>
</tr>
<tr>
<td>Germany</td>
<td>395.4</td>
</tr>
<tr>
<td>Euro area</td>
<td>400.3</td>
</tr>
</tbody>
</table>

Notes:
1. For Italy – data for 2004.
2. In order to increase comparability, the presented data include the most important categories of financial institutions: monetary financial institutions, insurance companies, investment funds and pension funds. The data do not include investment firms and other institutions which provide financial services. Therefore, they are not comparable with the data presented in Table 1.5.
Source: For the euro area: EU Banking Structures. Frankfurt, October 2006, ECB and the Eurostat; for the remaining countries, data provided by national central banks and entities which supervise financial markets as part of a survey conducted by the NBP, as well as Eurostat and GUS data.

5 In order to increase comparability between individual countries, part of data in this section refer to 2005.
increase in the importance of non-banking financial institutions in the Polish market, as compared to the markets of other new EU Member States.\(^4\)

\(^4\) In 1997, the share of the assets of monetary financial institutions in the assets of the financial system in the Czech Republic, Hungary and Poland amounted to 87\%, 88\% (1998) and 94\%, respectively, and in 2005, to 83\%, 80\% and 71\%, respectively.
In 2006, the Polish stock market remained the region’s largest market, in terms of both capitalisation and the number of listed companies. However, the ratio of the capitalisation of the Polish stock market to GDP was still significantly lower than the ratio for EU-15 countries. In addition, Polish stock exchange market was characterised by a lower liquidity ratio as compared to other countries of the region, as well as to other EU countries (Table 1.6).

In 2006, similarly as in the previous year, the Polish stock market experienced the highest increase in capitalisation from among the analysed countries of Central and Eastern Europe.
Capitalisation increased by 43% (by 12% in the Czech Republic, by 15% in Hungary). The increase in capitalisation in the analysed countries can be mainly attributed to the rise in stock prices. Moreover, the increase in the number of companies listed on the Warsaw Stock Exchange (WSE) also contributed to the increase in the Polish market capitalisation. In 2006, 38 companies (including 32 domestic ones) debuted on the WSE, which gave it the fifth place in Europe in terms of the number of debuting companies (third place in the previous year). The Czech Republic and Hungary recorded a decrease in the number of entities listed on the domestic stock exchanges.

1.3. Households and enterprises on the financial market in Poland

The financial system facilitates the flow of capital between the entities with funds surplus and those in need of funds. The circulation of funds in the financial system may take place through different channels. Bank-oriented financial systems are characterised by the dominant role of banks as institutions intermediating in the capital exchange between entities in the economy. In the case of market-oriented systems, capital is obtained through the financial market, where enterprises issue securities (stocks or bonds). Investors may purchase them directly on the financial market or through the intermediation of financial institutions (inter alia, investment funds, insurance companies, open pension funds) (Diagram 1.3.1). Taking into account the available voluntary and obligatory forms of investing savings in Poland, the financial assets of households include the following:

- deposits with banks and credit unions;
- participation units of investment funds (which corresponds to net assets of investment funds in terms of value);
- unit-linked assets and life insurance saving premiums;
- funds on accounts with open pension funds;
- Treasury securities;
- stock listed on the WSE;
- cash in circulation excluding bank vault cash;
- other financial instruments (e.g. non-Treasury debt instruments).

Investments of Polish enterprises are mostly financed from internal funds of those entities. The deficit of own funds is covered from external sources. Enterprises use both bank (loans) and non-bank sources of external financing to this end. The most important non-bank sources used by enterprises in Poland include:

- issue of stock on the WSE and outside the WSE;
- issue of debt securities on the domestic market and on foreign markets.

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5 The capitalisation of domestic companies expressed in EUR. The increase in capitalisation expressed in national currencies amounted to 42% for Poland, 6% for the Czech Republic and 15% for Hungary.
6 The saving premium is a part of the premium of saving life insurance which is allocated for the establishment of an insurance fund, reflected in the life insurance reserves established by the insurer.
7 The item “cash in circulation excluding bank vault cash” includes cash outside the financial system which is at the disposal of households, enterprises and other legal persons. Therefore, the share of this category in the assets of households may be overestimated.
8 Investments in non-Treasury debt securities were omitted in the part which follows due to their insignificant share in households’ assets. In 2006, the value of investments of individuals in corporate, local government and bank debt securities amounted to PLN 2.7 billion, which accounted for 8.2% of the total portfolio of non-Treasury debt securities and for approximately 0.5% of the assets of households.
10 The analysis only covered long-term corporate bonds since they are a source of investment financing. Short-term corporate bonds are used for liquidity management.
1.3.1. Financial assets of households

The decisions of households concerning financial investments are influenced by, inter alia, the following factors: the macroeconomic situation, the level of interest rates, tendencies in the capital market, legal regulations, knowledge about the financial market and familiarity with offered products, opinions of their closest circle and the media. The good macroeconomic situation contributes to the improvement of the current financial standing of households through increased employment and disposable income.

The amount of available savings is closely linked to the economic situation of the society. Their amount and the expectations of households with respect to the changes of own financial resources are procyclical in nature. This is confirmed by the results of the social attitudes surveys [11] (Figure 1.6).

The financial assets of households have been increasing systematically for several years – the value of assets held by households increased to PLN 633 billion as at the end of 2006, from PLN 280 billion in 2000. In the same period, the ratio of those assets to GDP increased from 37.7% to 60.5% (Figure 1.7). In 2006, the growth in household assets was the largest – they increased by over PLN 124 billion (PLN 74 billion in the previous year). Out of this amount, PLN 36 billion

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[11] Including the consumer optimism index (Wskaźnik Optymizmu Konsumentów – WOK), established on the basis of questions from a monthly opinion poll conducted by IPSOS since December 1991. The surveyed population is the population of Poland aged 15 and more. The poll is conducted on a representative sample of 1000 people. Respondents evaluate the situation of the country, their financial situation, the level of unemployment, inflation, willingness to buy durable consumer goods, and savings within the last 12 months and make a forecast of those phenomena for the following year. Since the beginning of the survey, the questions have been the same and have been presented in the same order. The question about savings appeared in the Ipsos surveys in October 1994.
accounted for the increase in the assets of investment funds, PLN 30 billion for the increase in funds
on accounts with open pension funds, and slightly less than PLN 19 billion accounted for bank
deposits (in 2005 – PLN 23 billion, PLN 23 billion and PLN 11 billion, respectively). Changes in
the value of savings deposited with collective investment institutions were a derivative of both the
increase in stock exchange indices and of the inflow of new funds. The increase in bank deposits
resulted from the improvement of the financial standing of households.

In 2006, deposits with banks, amounting to PLN 237 billion, remained the main item of the
financial assets of Polish households (Figure 1.8 and Table 1.7). The total share of that form of saving
in total assets amounted to almost 40% as at the end of 2006. Since 2005, a slow return to saving
at banks has been recorded as a result of the improved financial situation of customers and the
offering of new products (e.g. structured deposits12).

12 Structured deposits combine the features of a bank deposit and an investment in the capital, foreign exchange or
commodity market. Combining the traditional investment instrument with the instruments whose value depends on the
prices on those markets aims at achieving the required profile of payouts from investments. The return rate from the
deposit is not set earlier but the so-called minimum rate of return may be guaranteed.
Figure 1.8. Structure of the financial assets of households, 2000–2006, as at period-ends

- Bank deposits
- Funds on accounts with open pension funds
- Unit-linked assets and life insurance saving premiums
- Stock listed on the WSE
- Participation units of investment funds
- Treasury securities
- Cash in circulation (excluding bank vault cash)

Note: participation units of investment funds addressed to individuals.
Source: NBP, Polish Financial Supervision Authority, GUS.

Figure 1.9. Monthly changes in selected assets of households, 2002–2006

- PLN deposits
- Participation units of investment funds
- Unit-linked assets and saving premiums related to life insurance contracts signed
- Treasury bonds

Source: NBP, Polish Financial Supervision Authority, GUS, Analizy Online.

Figure 1.10. Inflow of funds to investment funds and the change in the value of time deposits of individuals, 2005–2006

- Inflow of funds to investment funds
- Change in the value of time deposits of individuals

Source: NBP, Analizy Online.
The participation units of investment funds were an item which grew dynamically in the financial assets of households. The continuous large interest in those instruments resulted from several factors: the boom on the stock market and the high rates of return realised on the invested capital, as well as the attractiveness of bank deposits and Treasury bonds decreasing as a result of falling interest rates (Figure 1.9). Greater possibilities of the distribution of participation units and the possibility to purchase them at bank branches, financial advisors and brokers, brokerage houses and offices points of sale, as well as through the Internet, were also very important.

At the end of 2006, the value of funds held by households in investment funds amounted to PLN 94 billion. The largest growth of funds’ assets was recorded in November, when it amounted to almost PLN 6 billion and resulted from, among others, the maturing of the so-called anti-tax deposits at banks (which may be demonstrated by the decrease of time deposits of individuals in that month by almost PLN 1.5 billion).

In 2006, the interest of households in investment in unit-linked products significantly increased. The value of unit-linked assets and savings premiums from signed life insurance contracts grew by over PLN 11 billion and amounted to PLN 53 billion. For the sake of comparison, between 2001 and 2005 households invested PLN 4.5–5 billion annually on average in insurance products.

Households also invest directly in the capital market. The exposure of individual investors on the stock market exceeded PLN 45 billion in 2006, while the year before it amounted to almost PLN 26 billion. The interest in this market is cyclical in nature and is closely linked with the tendencies observed on the stock exchange and the privatisation of large state-owned enterprises. The increase of the share of stocks in the structure of households’ assets, observed in the recent years, resulted from the rising prices on the stock exchange market.

The only category of financial assets of households whose value decreased were Treasury securities. They enjoyed great popularity among individual investors at the beginning of the decade, when their profitability was high and the gains were not subject to the personal capital gains income tax. As at the end of 2004, the value of Treasury bonds held by households exceeded PLN 20 billion. Since 2005, there were buyouts of bond series issued before December 2001, and the potential purchase of new issues with lower interest rates entailed the necessity to pay the income tax. Therefore, households preferred other forms of investment. This resulted in the decrease in the value of Treasury securities held by the sector to less than PLN 13 billion in 2006.

The issues effected before 1 December 2001 were exempt from the capital gains tax. The Act of 21 November 2001 amending the Act on Personal Income Tax and the Act on Flat Rate Income Tax on Certain Incomes Posted by Natural Persons (Dz.U. of 2001, No. 134, item 1509, as amended).

**Figure 1.11. Structure of the financial assets of households in Poland, the euro area and the United States**

![Diagram showing the structure of financial assets for Poland, the euro area, and the United States](image_url)

*Note: The euro area is represented by 7 countries: Belgium, France, Spain, the Netherlands, Luxembourg, Germany and Italy. For Poland, “Other” means cash in circulation excluding bank vault cash. Source: NBP, Institutional investors, global savings and asset allocation, CGFS Papers No. 27, February 2007, BIS.*
The funds on accounts with open pension funds constituted an important item of the financial assets of households. The savings in open pension funds are, however, different in nature than other forms of investment. Participation in pension funds is obligatory for economically active people born after 31 December 1968. Moreover, it is impossible to pay out the collected capital from those funds before reaching the retirement age. Funds collected on accounts with open pension funds are therefore non-liquid long-term savings. Their value increased from PLN 2.3 billion in 2000 to PLN 116.6 billion at the end of 2006. The value and share of this item in the financial assets of households will systematically increase due to the obligatory nature of contributions and constant inflow of new persons to the system, as well as the fact that after 2009, when the first retirement payouts are made from the second pillar, the number of people entitled to such payouts will increase relatively slowly.

The share of bank deposits in total financial assets of Polish households has remained at a higher level than in most developed countries (Figure 1.11). The tendencies observed in recent years show that in the future, along with the development of the financial system, the structure of financial assets of households will become increasingly similar to the structure in place in the euro area and the United States. This implies a great challenge for domestic banks which seek funds for financing the dynamically growing lending. The competition for savings, which are the cheapest source of financing, will create favourable conditions for the introduction of innovative instruments (such as the structured deposits mentioned earlier) by banks.

1.3.2. External sources of financing of Polish enterprises

The year 2006 saw a further improvement in the financial condition of enterprises, which had an impact on the increase in the basic indicators of their profitability and liquidity. As a result of  

14 Financial results of non-financial enterprises in the first three quarters of 2006, Warsaw 2006, GUS.
production growth, the capacity utilisation of enterprises remained on a record high level. This fact and the positive assessment of the future economic situation by enterprises resulted in a significant growth of the value of investments (Figure 1.12). In 2006, the investment growth rate amounted to 16.7% y/y. Therefore, despite better financial results, the demand of enterprises for external financing increased. In the analysed year, enterprises obtained PLN 68.3 billion from those sources, which was the highest value in the present decade. The majority of funds came from bank loans, which meant the halt of the previously observed tendency of the growing importance of financing in the capital market.

In 2003 and 2004, some enterprises used the improvement of the economic situation to restructure their debt at banks by repaying some loans (in particular currency loans). In 2006, enterprises obtained significantly more funds from bank loans than from market sources (Figure 1.13 and Figure 1.14). At the end of 2006, the debt of enterprises due to bank loans amounted to PLN 136.1 billion and was PLN 16.9 billion higher than in the previous year. The increase in the financing from this source resulted from the decrease in the cost of credit and more lenient criteria and conditions for granting loans by banks.

Stock issues on the WSE were the most important among the market sources of financing. Between 2003 and 2006, during the period of a favourable situation on the WSE, enterprises were willing to finance their operations by means of equity issues on the stock exchange. The large inflow of funds to collective investment institutions (investment funds and open pension funds) resulted in a significant demand of those institutions for equities, which in turn facilitated the placement of issues. In 2006, the value of new equity issues by Polish enterprises amounted to PLN 5.3 billion and, despite very favourable conditions on the WSE through the majority of the year, was significantly lower than in 2004 and 2005, when companies obtained a total of around PLN 25 billion through the WSE. In 2006, the number of primary and secondary offerings on the WSE remained at a level similar to that in the previous year. This means that in 2006, financing from the stock exchange was used by smaller entities. The high profitability and liquidity of enterprises listed on the WSE allowed them to finance their investments from internal sources in 2006. In the case of enterprises not listed on the WSE, the reasons for the insignificant use of the favourable conditions on the stock exchange could include the costs of entering the market and the lack of knowledge about the organisational and legal aspects of issuing stock. Due to the small scale of individual investments, entities from the SME sector are interested in obtaining relatively small amounts of money. Therefore, financing by equity issues on the stock exchange is too expensive for the majority of enterprises from that group due to high fixed costs.

Polish enterprises used bond issues on the domestic market to finance their activities only to a small extent. Between 2003 and 2006, the value of funds from this source was slightly increasing and amounted to PLN 2.8 billion in 2006. The small popularity of this source of financing could result from its being relatively unknown among enterprises, from excessively complex, in the view of enterprises, legal regulations concerning those instruments, and from the high costs of issues in the form of public offering.

Between 2003 and 2006, Polish enterprises obtained capital also through bond issues on foreign markets. The value of those issues was systematically decreasing, which was related to the increased availability of capital on the domestic market due to, among others, the increase in the

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16 The figure includes the change in the value of bank loans for enterprises, stock issues on the WSE, bond issues on the domestic market, bond issues on foreign markets, leasing and the change in the value of loans from parent undertakings.
17 More in: Sytuacja na rynku kredytowym – wyniki ankiety do przewodniczących komitetów kredytowych [Senior loan officer opinion survey – on bank lending practices and credit conditions], Warsaw 2007, NBP.
18 The figure includes new issues of stocks of domestic entities on the WSE within the framework of initial public offering (IPO) and secondary public offering (SPO).
19 More in: A. Grąt, P. Sobolewski [eds.], Wybrane determinanty rozwoju rynku akcji i korporacyjnych instrumentów dłużnych w Polsce [Selected determinants of the development of the stock market and the market of corporate debt securities in Poland], Warsaw 2004, NBP.
assets of collective investment institutions and a decreasing interest rate disparity. In 2006, the value of bond issues of Polish enterprises on foreign markets amounted to a total of around PLN 15 million.

An important source of capital for Polish enterprises between 2003 and 2006 were loans from direct foreign investors. The resulting debt amounted to PLN 52.7 billion at the end of 2003. At the end of 2006, the value of loans from parent companies remained at the level of PLN 73.0 billion and was by PLN 21.6 billion higher as compared to the end of 2005. However, this form of financing was used only by a relatively small group of enterprises.

Leasing was an important non-bank source of financing. In 2006, the value of leased assets amounted to PLN 21.7 billion and was the highest in the present decade. At the end of 2006, the size of the leasing market in Poland, measured by leasing instalments remaining to be repaid, was estimated at approximately PLN 30 billion. The increased interest in leasing in the recent years resulted from the favourable economic situation in Poland and a higher demand of SMEs for external financing. Small and medium-sized enterprises constitute the main group of recipients of leasing companies’ services.

Bank loans will remain the most important source of external financing of enterprises in Poland, especially those from the SME sector. The Capital Requirements Directive includes numerous

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20 The category only includes long-term loans, excluding trade credit.
incentives for increasing the competition between banks for customers from this segment. Due to high fixed costs, market financing is relatively too expensive for the majority of small and medium-sized enterprises. A significant growth of the importance of leasing may be expected in this group of enterprises.

However, the tendencies observed in the recent years point to a gradual increase in the importance of market sources of financing for enterprises. The growth of the role of the capital market will be supported by the structure of assets of households gradually becoming similar to the structure in more developed countries – the increase in the share of funds invested through collective investment institutions. Among the market sources of financing, stock issues will remain the most important source. The importance of issues of debt securities may increase but that will be a relatively slow process. That source will be used mainly by large enterprises which cannot rely on long-term loans from parent companies.
2 Regulations of the financial system

The development of the financial system depends not only on economic conditions, but also on regulations concerning the sector of financial institutions. This chapter presents the most important amendments in Polish law, and also the changes in Community law, as measures taken in the European Union, aimed at creating a single European financial market, set the course for future changes in regulations regarding the financial system in Poland. The EU Member States are obliged to provide compatibility of national regulations with the requirements of EU law. Therefore, amendments introduced to the Polish law must be compatible with the requirements of Community law and often adjust national law to EU law.

2.1. Changes of the regulations of the financial system in Poland

In 2006, the most important amendments that affected Polish financial services sector legislation include:

- adoption of the Act on Financial Market Supervision,\textsuperscript{21}
- amendments to the Banking Law,\textsuperscript{22}
- amendments to the Act on the EU Guarantee Fund,\textsuperscript{23}
- adoption of the Act on Financial Support to Families for the Purchase of Their Own Apartment,\textsuperscript{24}
- amendments to the Act on Personal Income Tax,\textsuperscript{25}
- adoption of the Act on Legal Costs in Civil Cases,\textsuperscript{26}
- adoption of Recommendation \textsuperscript{R} and Recommendation \textsuperscript{S} by the Commission for Banking Supervision (KNB),\textsuperscript{27,28}


\textsuperscript{22} Act of 18 October 2006 on Amendments to the Banking Law Act (Dz.U. of 2006, No. 190, item 1401). The provisions of the Act entered into force on 19 October 2006.

\textsuperscript{23} Act of 27 April 2006 on Amendments the Act on EU Guarantee Fund (Dz.U. of 2006, No. 120, item 823). The provisions of the Act entered into force on 7 October 2006.

\textsuperscript{24} Act of 8 September 2006 on Financial Support to Families for the Purchase of Their Own Apartment (Dz.U. of 2006, No. 183, item 1354). The provisions of the Act entered into force on 26 October 2006.


\textsuperscript{27} Recommendation \textsuperscript{R} on the principles for the identification of impaired balance-sheet credit exposures, the establishment of valuation allowances due to loss of value of balance-sheet credit exposures and provisions for off-balance sheet credit exposures, Commission for Banking Supervision, Warszawa 2006. The Recommendation has been in force since 1 July 2006.

\textsuperscript{28} Recommendation \textsuperscript{S} on good practices regarding mortgage-secured credit exposures. Commission for Banking Supervision, Warszawa 2006. The Recommendation has been in force since 30 June 2006.
Moreover, in 2006, legislative work related to further amendments to the Banking Law, acts regulating the capital market and the Act on Investment Funds was continued. These amendments are needed to adjust national law to EU requirements.

2.1.1. Regulations regarding the entire financial services sector

**Act on Financial Market Supervision**

The Act on Financial Market Supervision has changed the rules of supervision in Poland. The new solutions are aimed at integrating the supervisory bodies overseeing the financial market. One entity is now responsible for the tasks and powers that formerly belonged to three bodies supervising the individual sectors of the financial market. The Polish Financial Supervision Authority (KNF), which on 19 September 2006 replaced the Insurance and Pension Funds Supervisory Commission (KNUiFE) and the Securities and Exchange Commission (KPWiG), was entrusted with conducting integrated supervision. Pursuant to the provisions of the Act on Financial Market Supervision, since 19 September 2006 the KNB has been chaired by the Chairman of the KNF or by the Deputy Chairman designated by him. On 1 January 2008, the KNF is to take over the powers of the Commission for Banking Supervision (KNB).

The introduction of the Act on Financial Market Supervision was not related to adjusting Polish law to EU requirements. Community law does not provide detailed solutions concerning the organisation of entities that supervise individual sectors of financial services or the rules regarding the division of their powers. Each Member State can choose a supervision model which best corresponds to its specific market and legal systems.

The provisions of the Act on Financial Market Supervision introduce changes in financing supervision over the banking sector. From 1 January 2008, banks will be obliged to make payments for supervision. This new solution creates a uniform system of financing supervision activity, as all supervised entities will be charged with its costs.

2.1.2. Regulations regarding the banking services sector

**Amendments to the Banking Law**

Amendments introduced to the Banking Law were to allow for the division of banks operating as joint-stock companies. Pursuant to the new provisions, it is possible to divide a bank, providing that permission is given by the supervisory body. The supervisor can refuse to give such permission, should a division be unfavourable to the prudent and stable management of the divided bank or banks to which the assets of the divided bank are transferred, and should such division result in serious damage to the national economy or to essential national interests. This measure was not introduced as a result of adjusting Polish regulations to the European law.

**Amendments to the Act on the EU Guarantee Fund**

The Act on the EU Guarantee Fund (FPU), adopted in 2004, is a result of an agreement of 30 October 2003 concluded between the government, the National Bank of Poland and the Polish Bank Association. On the basis of the agreement, some funds from the interest on the reserve requirement held by banks in 2004–2006 were transferred to the FPU. Guarantees and pledges given by the FPU were meant to increase the financial absorption of funds from the EU budget.

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29 Ordinance of the Minister of Finance of 18 September 2006 on keeping the register of insurance intermediaries and the manner of dissemination of information from that register (Dz. U. of 2006, No. 178, item 1316). The provisions of the Ordinance entered into force on 17 October 2006.

The main reason for amendments to the Act on the EU Guarantee Fund was the poor use of instruments offered by the Fund. The most important measures aimed at reducing barriers in using FPU services include:

- widening the catalogue of entities which may obtain FPU pledges and guarantees,
- introducing new instruments: a completion guarantee (i.e. a guarantee granted to the entity which decides to co-finance a project from EU funds), re-guarantee (i.e. a guarantee granted to collateralise the completion guarantee granted by a bank other than the Bank Gospodarstwa Krajowego (BGK)) and a guarantee for the proper execution of the contract (i.e. a guarantee granted to secure the proper execution of the contract concluded to implement the project),
- increasing the maximum amount of pledges and guarantees from EUR 100,000 to EUR 500,000, and for liabilities of local government units – up to EUR 5 million,
- pooling of funds for projects which did not receive EU financing.

The amendments to Act on the EU Guarantee Fund are meant to make pledges and guarantees more accessible to prospective beneficiaries of EU aid and thus to increase the absorption of structural funds in Poland. The new measures should strengthen the cooperation between the BGK and the commercial bank sector, whose clients use FPU services directly.

**Act on Financial Support to Families for the Purchase of Their Own Apartment**

The Act on Financial Support to Families for the Purchase of Their Own Apartment enables married couples and single-parent families to benefit from interest subsidies on loans for the purchase of a dwelling, the construction and purchase a one family house, or to make a building contribution to a housing cooperative. The Act precisely stipulates what requirements should be met by a flat or a house whose purchase could be subsidised. Such preferential loans can be given by banks and credit unions which sign a relevant contract with the BGK. The Subsidy Fund (at the BGK) will cover 50% of interest calculated on the basis of the reference rate defined in the Act, which is the 3M WIBOR average quarterly rate increased by 2 percentage points. To receive interest subsidies one must finance a flat of usable surface area up to 75 sq. m. or a one family house of usable surface area up to 140 sq. m. The construction or purchase costs of real property, financed with the loan, cannot exceed the average of the two most recently published so-called ratios of the replacement cost of one square metre of living space.

**Amendments to the Act on Personal Income Tax**

The most important amendment introduced to the Act on Personal Income Tax was the removal of the so-called interest relief. This measure was a result of adjusting Polish regulations to European law. Since 1 January 2007, taxpayers cannot deduct the costs of interest paid on loans taken to satisfy one’s housing needs from the taxable base. Pursuant to the principle of the protection of vested rights, regulations were introduced which allow the deduction for those taxpayers who were granted a loan for housing purposes specified in the Act until the end of 2006.

**Act on Legal Costs in Civil Cases**

The fact of abolishing the relation between the amount of payment for the entry in the Land and Mortgage Register and the property value was of great importance to persons taking out mortgage loans. The new regulation introduced a fixed payment of PLN 200 for the entry of ownership, use or limited property right (including mortgage) in the Land and Mortgage Register.

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31 The amendment consists in removing from the Polish regulation provisions which violate Articles 39, 43 and 56 of the Treaty establishing the European Community (TEC). See justification to the Bill Amending the Act on Personal Income Tax (Sejm form No.732), www.sejm.gov.pl.
irrespective of the property value. Therefore, the borrower’s costs related to establishing collateral for the bank were reduced.

Recommendations of the Commission for Banking Supervision

In Poland, the functioning of the banking sector is regulated by generally applicable legal acts and non-binding recommendations of the Commission for Banking Supervision. In 2006, the Commission for Banking Supervision adopted two Recommendations:

- Recommendation R on the principles for the identification of impaired balance-sheet credit exposures, the establishment of valuation allowances due to loss of value of balance-sheet credit exposures and provisions for off-balance sheet credit exposures,
- Recommendation S on good practices with regard to mortgage-secured credit exposures.

The Commission for Banking Supervision adopted Recommendation R to specify good practices in the field of identification of impaired loan exposures, the establishment of valuation allowances and provisions for off-balance sheet credit exposures. The guidelines included in Recommendation R indicate the expediency of applying accounting standards which better present credit risk (IAS 37 and IAS 39, and IFRS 4 and 7). The most important principles of credit risk management in banks, described in Recommendation R include:

- assessing the possible danger of impairment of all credit exposures by the identification of objective evidence of the loss of value,
- establishing valuation allowances for credit exposures, which are the difference between balance sheet value and the estimated recoverable value of the credit exposure,
- gathering data on losses due to loan exposures, which are one of the factors used in threat identification and in the identification of expected future cash flows of the exposure portfolio.

The Recommendation is addressed to banks operating in Poland which draw up consolidated or separate financial statements under IAS/IFRS. Therefore, entities which apply the guidelines of Recommendation R constitute a significant part of the Polish banking sector. The provisions of the Recommendation do not apply to branches of credit institutions, which are subject to rules specified by supervisors from their home states.

Due to the dynamic growth of loans for housing purposes given to households, particularly those denominated in foreign currencies, the Commission for Banking Supervision (KNB) undertook actions aimed at reducing the potential credit risk and promoting the provision of relevant information to customers concerning the currency risk related to taking out loans in foreign currencies. These actions resulted in the publication of Recommendation S.

An essential element of Recommendation S is the instruction for banks to require higher creditworthiness when a customer applies for a residential loan in a foreign currency than when he/she applies for a PLN loan of the same value. Moreover, a bank must present a PLN loan offer as the first one. When a customer wishes to take out a foreign currency loan, the bank should inform him/her about the currency risk and show him/her a simulation of the value of loan instalments assuming zloty depreciation. Other important instructions described in Recommendation S, which are to improve the management of risk related to foreign currency mortgage loans include:

- the adoption of a risk management policy for the portfolio of mortgage-secured credit exposures,
- the appointment of persons responsible for the risk management policy of mortgage-secured credit exposures,
- the introduction of appropriate tools for the correct measurement of the risk related to mortgage-secured credit exposures,
– conducting regular analyses of the exchange rate risk and the interest rate risk incurred by a debtor,
– the introduction of internal lending limits related to the entire portfolio, to each type of mortgage-secured credit exposures and to entities and groups of entities,
– conducting thorough analyses of the maturity structure of the sources of financing and adjusting it to the structure of assets,
– the introduction of appropriate procedures and tools aimed at verifying and updating the value of real estate which constitutes collateral for the bank’s credit exposures.

The new measures did not affect the growth rate of mortgage debt, but they did lead to a change in the currency composition of residential loans, i.e. an increase in the share of loans denominated in PLN.32

2.1.3. Regulations concerning non-banking financial institutions (insurance)

The adoption of implementing rules to the Act on Insurance Mediation33 was significant for the insurance market. Pursuant to the solutions adopted in the Directive on insurance mediation34 Member States have been obliged to establish a central register of insurance intermediaries. Information gathered in the register is public and available to third parties.

The Ordinance of the Minister of Finance on maintaining a register of insurance intermediaries and the manner of dissemination of information from that register, which entered into force on 17 October 2006, specifies the detailed principles and the manner in which the Polish Financial Supervision Authority keeps the register of insurance intermediaries, as well as the cooperation principles between the Polish Financial Supervision Authority and the Polish Chamber of Insurance related to the dissemination of information from the register. The Ordinance also regulates the rules of exchanging information among individual insurance companies concerning, inter alia, unreliable insurance agents.

Such provisions should increase the legal safety of insurance companies as well as enhance the transparency of the insurance services market. Pursuant to the provisions of the Act on Insurance Mediation,35 an insurance company is liable for damages caused by an insurance agent who represents it.

2.2. Measures of the European Union regarding the regulation of the financial services sector

The European Commission’s policy concerning financial services for the years 2005–2010 is set out in the White Paper on Financial Services Policy, published in December 2005. In line with the guidelines presented in that document, in 2006 the Commission focused to a greater extent on the correct transposition of Community acts adopted so far into the national legislation of Member States and their practical application, rather than on new regulations. Moreover, drafts that had been worked upon in previous years needed to be completed.

2.2.1. Financial Services Action Plan

The formal deadline for completion of the Financial Services Action Plan (FSAP) was reached on 31 December 2005. Yet, the programme was continued, because deadlines for the transposition

32 More in Chapter 4.1.
of some directives go beyond 2005, and, moreover, Member States do not always implement Community legal acts in national legislation on time. Twice a month, the European Commission publishes tables presenting the rate of transposition of the FSAP directives (Figures 2.2.1 and 2.2.2).

The deadline for transposition of five FSAP directives is set in 2006–2007. In 2006, the deadline for adjusting national legislation to three directives expired. All Member States should have transposed the Directive on takeover bids\(^{36}\) until 20 May 2006, and the Directive relating to the taking up and pursuit of the business of credit institutions and Directive on the capital adequacy of investment firms and credit institutions – until 31 December 2006.\(^{37}\) In January 2007, the deadline

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Regulations of the financial system

for adjusting national legislation to the Directive on markets in financial instruments (MiFID)\(^{38}\) and the Transparency Directive.\(^{39}\) As of the end of 2006, Poland did not notify any of these directives to the European Commission.

\[\text{2.2.2. Regulations regarding financial services}\]

In 2006, the European Parliament and the EU Council adopted the following legal acts regarding financial services:

\begin{itemize}
\item a directive relating to the taking up and pursuit of the business of credit institutions,
\item a directive on the capital adequacy of investment firms and credit institutions,
\item a directive on statutory audits of annual accounts and consolidated accounts,\(^{40}\)
\item a regulation on information on the payer accompanying transfers of funds,\(^{41}\)
\item a directive amending the Directive on financial instruments, as regards certain deadlines,\(^{42}\)
\item a decision on the preparation of financial statements by third country issuers of securities under IAS.\(^{43}\)
\end{itemize}

The content of the following three directives: the Directive relating to the taking up and pursuit of the business of credit institutions, the Directive on the capital adequacy of investment firms and credit institutions and the Directive on statutory audits of annual accounts and consolidated accounts was agreed upon in 2005, and their official adoption and publication took place in 2006. The above-mentioned legal acts were discussed in the previous edition of this document.\(^{44}\)

In addition, the European Commission adopted the following implementing acts:

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\[\text{Table 2.2.1. Most important Polish legal acts which are to implement regulations of EU directives, whose deadline for transposition into national legislation in the Member States expired in 2006}\]

<table>
<thead>
<tr>
<th>EU Directive</th>
<th>Most important Polish legal acts which include regulations of the respective EU Directive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive on takeover bids</td>
<td>Amendments to the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies</td>
</tr>
<tr>
<td>Directive relating to the taking up and pursuit of the business of credit institutions</td>
<td>Amendments to the Banking Law</td>
</tr>
<tr>
<td>Directive on the capital adequacy of investment firms and credit institutions</td>
<td>Amendments to the Act on the Trading in Financial Instruments Amendments to the Act on the Bank Guarantee Fund</td>
</tr>
</tbody>
</table>

Source: NBP study.

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\[\text{---}\]

\[\text{---}\]
– a directive laying down implementing measures for the third Directive on money laundering;  
– a directive laying down implementing measures for the Directive on markets in financial instruments;  
– a regulation laying down implementing measures for the Directive on markets in financial instruments;  

In 2006, the European Commission also issued three Communications on financial services. They were related to deposit-guarantee schemes, investment research and financial analysts and Credit Rating Agencies.

2.2.2.1. Changes in the legislation process concerning financial services

New comitology procedure

In June 2006, the EU Council adopted a decision which introduced a reform of the comitology system. It amended the Decision of 1999 defining procedures of implementing acts issued by the European Commission. The new provisions entered into force on 18 July 2006. The amendment of Council Decision of 1999 consists in adding to three already used procedures (management, advisory and regulatory) a new comitology procedure referred to as the regulatory procedure with scrutiny. The legislator shall apply the new procedure if a basic act has been adopted under the co-decision procedure, and the proposed implementing act is meant to amend non-essential elements of the basic act.

The aim of the adopted document was to provide equal rights for the European Parliament and the EU Council in respect of supervision over implementing rules to basic acts adopted under the co-decision procedure and issued by European Commission. Within the regulatory procedure with scrutiny, the European Parliament and the EU Council were given the right to oppose the draft implementing act submitted by the European Commission if it exceeds the implementing powers

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49 The European Commission communications are non-binding acts. They present the EC position related to a specific field as well as future actions in a given scope.


52 Communication from the Commission on Credit Rating Agencies (OJ 2006 C59, p. 2).


54 Comitology is a system of adopting implementing acts by the Commission in cooperation with committees consisting of representatives of all Member States.
When adopting a basic act according to the co-decision procedure, 1 the European Parliament and the EU Council decide whether the act requires EU implementing measures. If it does, the EU Council gives the European Commission the power to issue such measures, yet in exceptional cases the Council can reserve this right. The European Commission exercises its implementing powers with the aid of Level 2 Committees (European Banking Committee, European Insurance Committee), 2 and the ECB (European Central Bank). 3

Regulatory procedure with scrutiny

**COMMITTEE PHASE**

- The Commission requests the Level 3 Committee to give technical advice related to the implementing measure.
- The Level 3 Committee consults the interested parties, prepares draft technical advice and submits it to the Commission.
- The Commission considers the Committee’s advice, prepares a draft implementing measure and submits it to the Level 2 Committee to receive its opinion.

**SCRUTINY PHASE**

- The Commission submits a draft implementing measure to for scrutiny by the EU Council and the EP.
- **Within 3 months** 4 the EU Council or the EP: does not oppose the draft, opposes the draft.
- **Within 2 months** 5 the EU Council: opposes the draft, does not oppose the draft, takes no action.
- **Within 4 months** 4 EP: opposes the draft, does not oppose the draft.
- The Commission does not adopt the measure.

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2 Qualified majority of votes – three conditions must be met for a decision to be made: a) at least 232 out of 321 possible votes must be cast in favour (since Bulgarian and Romanian accession on 1 January 2007 – 255 out of 345 possible votes), b) majority of Member States must be represented, c) at least 62% of the population of the EU must be represented.

3 By simple majority of votes – a majority of votes (50%+1) of the Members of the European Parliament participating in the vote is necessary to make a decision. A quorum exists when at least one third of the Members are present.

4 The time limits of 2, 3 or 4 months can be extended by 1 month when justified by the complexity of the implementing measure, or can be shortened where justified on grounds of efficiency.

5 In such situation the European Committee can present an amended draft implementing measure or draft basic act.

Source: prepared by the NBP.
provided for in the basic act, is incompatible with the aim or the content of the basic act, or violates the principles of subsidiarity or proportionality.\textsuperscript{55}

The reform of the comitology system is essential to continue the functioning of the Lamfalussy procedure. The new procedure is to be applied with measures implementing directives on financial services, which are subject to the Lamfalussy procedure. In accordance with the statement by the European Parliament, the EU Council and the European Commission,\textsuperscript{56} the regulatory procedure which is already in force must be replaced so that the regulatory procedure with scrutiny could be applicable to instruments which are already adopted. Moreover, the European Parliament and the EU Council agreed that the European Commission’s power to issue implementing measures should not be limited in time. In the past, according to the sunset clause,\textsuperscript{57} this power could be suspended on the last day of the four-year period following the day when the basic act had come into force.

As a consequence of introducing the new comitology procedure, it is necessary to adjust fundamental Community legal acts currently in force to the new solutions. In December 2006, the European Commission issued the Communication\textsuperscript{58} with the list of 26 legal acts, including

\begin{itemize}
  \item European Securities Committee, European Insurance and Occupational Pensions Supervisions Committee
  \item European Banking Supervisors
  \item European Securities Regulators
  \item Committee of European Insurance and Occupational Pension Supervisors
\end{itemize}

which operate within the Lamfalussy process. The Committees include representatives of the Member States, which provide all EU countries with possibility to affect the contents of implementing measures.

Since July 2006 implementing measures to basic acts adopted within the Lamfalussy process have been passed pursuant to the regulatory procedure with scrutiny. This new procedure replaced the regulatory procedure, which had been in force previously.

\textsuperscript{55} The subsidiarity principle concerns competences shared between EU institutions and Member States. It transfers the decision-making process to lowest possible administration level. It implies that in reference to issues that are not exclusively within the EU scope of competence, it undertakes actions only if an expected result cannot be achieved at the lower level. The proportionality principle implies that within their scope of competence EU institutions can undertake only those actions which are necessary and indispensable to implement planned objectives set out in Community law. More in: J. Barcz (ed.), Prawo Unii Europejskiej. Zagadnienia systemowe, Warsaw 2006, Wydawnictwo Prawo i Praktyka Gospodarcza, pp. 54–57.


\textsuperscript{57} The sunset clause implies a temporary limit on the applicability of legal provisions. Within financial services, the possibility to incorporate the sunset clause into the basic act, which is adopted under the Lamfalussy procedure, was a necessary requirement for the European Parliament to accept the four-tier process of law-making, called the Lamfalussy procedure. The sunset clause provides that after four years after the basic act enters into force, the provisions that give the Commission right to issue implementing acts to a given legal act cease to be in force. However, at the request of the European Commission, the EU Council and the European Parliament after the prior review can, pursuant to co-decision procedure, extend the period of the applicability of the provisions before the expiry date of the four-year period since the basic act entered into force. The sunset clauses have been so far incorporated into the following nine directives which had been adopted within the FSAP: Directive on the capital adequacy of investment firms and credit institutions (2006/49/EC), Directive relating to the taking up and pursuit of the business of credit institutions (2006/48/EC), Directive on statutory audits of annual accounts and consolidated accounts (2006/43/EC), Directive on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (2005/60/EC), Directive on transparency and information requirements (2004/109/EC), Directive on markets in financial instruments (2004/39/EC), Directive on the prospectus (2003/71/EC), Directive on insider dealing and market abuse (2003/6/EC) and Directive on financial conglomerates (2002/87/EC).

13 directives concerning financial services, into which the regulatory procedure with scrutiny must be immediately introduced and the provisions providing for a time-limit on the delegation of implementing powers to the Commission should be repealed. Since the draft amendments are technical in nature, their implementation into Member States’ national law will not be required.

2.2.2.2. Regulations regarding the banking services sector

Regulation on information on the payer accompanying transfers of funds

In November 2006, the Regulation on information on the payer accompanying transfers of funds was adopted. It will enter into force on 1 January 2007. The Regulation ensures uniform implementation and application of Special Recommendation VII on electronic transfer, which was adopted by the Financial Action Task Force on Money Laundering (FATF), and prevents discrimination of cross-border payments. The document applies to money transfers sent or received by payment services providers located within the EU. The Regulation’s provisions specify the duties of payment services providers and information which should accompany money transfers made within the EU and money transfers sent outside the EU.

The adopted legal act supports actions taken at the European level that are meant to prevent using the financial system for money laundering and financing of terrorism. The Regulation’s provisions enable close monitoring of information on the payers of money transfers, which is an important and valuable tool used in detecting and prosecuting money laundering and financing terrorism, and preventing it.

Implementing measures to the Directive related to combating money laundering and terrorist financing

In August 2006, the Commission, aided by the Commission on Money Laundering and Financing of Terrorism, adopted the Directive providing implementing measures to the third Directive on combating money laundering and terrorist financing. The Member States are obliged to transpose the implementing rules into national law by 15 December 2007.

The document’s objective is to ensure coherent implementation and application of the Directive related to combating money laundering and terrorist financing. The adopted Directive provides a more precise definition of a politically exposed person and specifies the conditions that enable to apply simplified customer due diligence to products or transactions.

Communication related to deposit-guarantee schemes

In November 2006, the Commission issued a Communication concerning the review of the Directive on deposit-guarantee schemes. The document includes conclusions from consultations as well as answers to questions and comments made by entities concerned. The Communication states that at present the Commission cannot justify introducing amendments to the Directive on deposit-guarantee schemes. However, the document presents proposals for non-legislative changes which could be implemented within a short period of time, and Commission initiatives for the coming years which could influence deposit-guarantee schemes.


Within a short time, a number of actions are to be undertaken. Some of their objectives are as follows: to facilitate concluding agreements between deposit-guarantee schemes when a bank which opens its branch in another Member State wants to join the deposit-guarantee scheme in the Member State to top up the guarantee, to reduce the waiting time for a depositor for the payment of funds if a bank goes bankrupt and to improve information exchange between deposit-guarantee schemes of the home and host Member State. Long-term initiatives are, *inter alia*, developing reports on cooperation with third countries related to crisis management, lender of last resort arrangements, a review of the Directive on the reorganisation and winding up of credit institutions, and further research concerning guarantee schemes in the EU insurance sector.

### 2.2.2.3. Regulations concerning the capital market

#### Change in the deadline for adjusting national legislation to the MiFID

In April 2006, a Directive amending the Directive on markets in financial instruments (MiFID) was signed and entered into force. Pursuant to the new Directive, the deadline, initially set to 30 April 2006, for transposing the MiFID into Member States’ legislation was extended until 31 January 2007, whereas new regulations are to be applied from 1 November 2007, not from 1 November 2006. Therefore, the date of repeal of the Directive on investment services (iSD), which is to be replaced by the MiFID, was postponed until 1 November 2007.

The extension of the deadlines was a result of the difficulties of the Member States in transposing the Directive on markets in financial instruments into national legislation on time and of the investment firms and other entities subject to that directive in adjusting to these new regulations, as Member States were not able to fully prepare and adopt national legislation until the Commission passed implementing rules to the MiFID. For investment firms and other entities whose activity is subject to the directive, the application of new solutions means, *inter alia*, the introduction of significant changes in current systems and procedures, as well as creating new information systems, reporting procedures and data documentation.

#### Implementing measures to the MiFID

On 10 August 2008 the Commission, following consultation within the comitology system, adopted implementing measures to the MiFID to ensure uniform and coherent application of the Directive’s provisions by all Member States. The implementing measures took the form of a regulation and a directive. The Community Regulation is applied directly in each Member State, whereas the provisions of the Directive must be transposed into national legislation, like the MiFID, until 31 January 2007. The new provisions will be applied from 1 November 2007.

The Regulation provides detailed obligations for investment firms concerning records of clients’ orders and transactions, and reporting requirements related to transactions involving financial instruments. Some of the specific issues include: the content of transaction reports, reporting channels, criteria used when determining the most relevant market for financial instruments in terms of liquidity, as well as all requirements and procedures related to the exchange of information between relevant supervisory bodies. In the context of transparent trading of stocks on regulated markets, requirements related to disclosing information before and after concluding transactions have been specified, along with criteria used to establish the level of transactions carried out by investment firms outside the regulated market or Multilateral Trading Facility (systematic internaliser activity), as well as technical details regarding the publication of share price quotes by those companies. Moreover, the Regulation introduces conditions for the admission of financial instruments to trading on the regulated market and provides a definition of commodity derivatives.

The introduction of specified and fully harmonised requirements concerning reporting activity related to transactions in financial instruments and pre- and post-trade transparency rules concerning

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trade in stocks is meant to ensure efficient functioning of securities markets within the EU and to facilitate their integration. Uniform requirements on reporting transactions should reduce differences in reporting obligations of entities currently conducting cross-border activity in a number of Member States. These harmonised regulations should also increase cooperation between relevant supervisory bodies and improve the effectiveness of their actions. Moreover, further specification of market transparency requirements is to provide investors with relevant information activity concerning the scale of transactions and the venue where they were concluded, e.g.: regulated market, Multilateral Trading Facility (MTF) or investment firms conducting systematic internaliser activity. Greater transparency of information should increase the level of competition between trading systems and, as a result, provide investors with greater range of trading venues and reduce their costs.

The Directive specifies organisational requirements and conditions which investment firms must meet. As far as organisational requirements are concerned, the following issues have been specified in detail: risk management, dealing with complaints, personal transactions, outsourcing, safeguarding client assets, as well as the identification, management and disclosure of conflicts of interest. Standards concerning relations between an investment firm and its client have been introduced in relation to the manner of providing investment services and additional services\(^{64}\) and conducting investment activity. The Directive specifies requirements concerning dealing with client orders and drawing up and submitting reports on services provided to clients. The best execution rule (i.e. execution of orders taking into account price, costs and the speed at which orders are executed, probability of execution and settlement, size and type of order as well as its influence on the market and other hidden transaction-related costs) was also specified. The document determines the scope of information delivered to customers and received from them, e.g. according to their category under the MiFID (retail client, professional client or eligible counterparties). Moreover, it presents what information an investment firm should receive from clients when conducting suitability and appropriateness tests.\(^{65}\) The document also describes situations when investment firms pay or are paid material inducements (fees, commissions, non-monetary benefits). In addition, for the purpose of the MiFID the definition of investment advice has been expounded.

The establishment of specific standards for business activities conducted by investment firms is to provide enhanced protection for investors. The new measures should ensure a high level of integrity, competence and soundness of investment firms and entities which provide services for regulated markets or Multilateral Trading Facilities. Moreover, the introduction of uniform organisational requirements should provide investment firms with equal access to all EU markets and eliminate obstacles related to authorisation procedures which hinder cross-border investment activity.

**Measures regarding third country issuers of securities**

In December 2006, the Commission issued a decision whereby third country issuers are obliged to draw up financial statements in accordance with International Accounting Standards. The Commission also issued a Regulation amending the Regulation adopted in 2004,\(^{66}\) which introduced implementing measures to the Directive related to the prospectus.\(^{67}\) The Decision extended by two years (until 1 January 2009) the possibility for third country issuers of securities whose securities have been admitted to trading on regulated markets to draw up annual and half-yearly consolidated

\(^{64}\) The list of ancillary services is included under Section B of Annex I of the MiFID. Ancillary services include, inter alia: safekeeping and administration of financial instruments for the account of clients, granting credits or loans to an investor to allow him to carry out a transaction in financial instruments, financial analysis and advice to undertakings on capital structure, industrial strategy and mergers and the purchase of undertakings.

\(^{65}\) Suitability tests, which an investment company is required to conduct when providing investment advice or portfolio management services, are to verify knowledge, experience, financial situation and investment targets of a client. Appropriateness tests are meant to test whether a client is knowledgeable and experienced enough to know the risk related to a product or service purchased by him.


financial statements in accordance with the accounting standards of a third country provided that one of the following conditions is met:

- the financial statements contain an explicit and unreserved statement that they comply with IFRS,
- the financial statements are prepared in accordance with the Generally Accepted Accounting Principles of either Canada, Japan or the USA,
- the financial statements are prepared in accordance with the Generally Accepted Accounting Principles of a third country, and the issuer has provided evidence that satisfies the competent EU authority that the third country competent authority has made a public commitment and has adopted a work schedule aimed at converging national accounting standards with IFRS.

Under the new rules introduced by the Regulation, third country issuers of securities submitting the prospectus to a Member State competent authority before 1 January 2009 have been exempted from the obligation to restate historical financial information or to provide a narrative description of differences between IFRS and the accounting principles in accordance with which financial information is drawn up. The exemption can be applied provided that one of the three conditions is met.

The measures are meant to ensure that issuers of securities will be treated on equal terms, irrespectively of the location of issuer’s registered office (whether in the EU or a third country). The introduced changes will enable a progressive convergence of third countries’ accounting standards with IFRS and the exemption of additional requirements related to financial statements prepared for EU issuers accessing the financial markets of a third country.

**Communication on rating agencies**

In March 2006, a Communication presenting the position of the Commission on regulating rating agencies was published. The document states that existing Community legal acts related to rating agencies (Directive on insider dealing and market abuse, Directive on the capital adequacy of investment firms and credit institutions and Directive on markets in financial instruments) as well as the Code of Conduct Fundamentals for credit rating agencies (“IOSCO Code”) published by the International Organisation of Securities Commissions (“IOSCO”) are the perfect framework for rating agencies. Therefore, the Commission does not see the need for new legislative initiatives.

**Communication on investment research and financial analysts**

In December 2006, the European Commission issued a Communication on investment research and financial analysts.

The document is the Commission’s response to the report made by the Forum Group on Financial Analysts and the results of public consultation. The Communication presents European legislation related to investment research and financial analysts. In particular, legislation related to conflicts of interest concerning investment research, as well as the issues of analyst registration, independent research, issuer relations with analysts and investor education have been analysed. The document states that the Commission will not adopt any specific legislation, yet it will continue to monitor the application of legislation related to investment research and financial analysts.

**2.2.3. Green and White Papers regarding financial services**

**White Paper on the enhancement of the EU framework for investment funds**

In November 2006 the Commission published a White Paper on the enhancement of the EU framework for investment funds.69

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68 Green and White Papers are documents published by the European Commission. They are intended to stimulate a debate and launch a process of consultation on a particular topic. White Papers include an official set of proposals for measures in a specific area. After the publication of a Green Paper, a White Paper concerning specific issues may be published.

The White Paper was preceded by consultations with government experts, trade associations, investors and other market participants, which concerned suggestions made by the Commission in July 2005 in the Green Paper which covered similar topics. The White Paper includes issues discussed in the European Parliament’s report on asset management and in three reports made by the Expert Group on Market Efficiency and the Expert Group on Alternative Investment Funds (hedge funds and private equity). A detailed impact assessment was carried out of intended actions on market efficiency and integration and on the protection level, selection possibilities and investors’ costs.

The White Paper presents the EU strategy related to actions in the investment fund sector. The solutions presented in the document are meant to increase efficiency of the European investment fund market and to strengthen investor protection.

The document states that there are insufficient grounds to introduce any significant amendments to the UCITS Directive. Nevertheless, the White Paper assumes gradual introduction of amendments to the UCITS Directive, indicates non-legislative initiatives aimed at improving legal regulations of UCITS funds, and also presents initiatives that should be taken in relation with non-harmonised investment funds. The European Commission intends to propose amendments to the present Directive related to: fund notification procedures made by host supervisors, cross-border mergers of funds, asset pooling, the management company passport, strengthening the cooperation of supervisors and the simplified prospectus. A number of non-legislative actions have been announced: publication of a Communication presenting rulings of the European Court of Justice on taxation of cross-border mergers of funds, revision of the Recommendation on the simplified prospectus and vade-mecum on the application of relevant provisions of MiFID to selling investment fund units by intermediaries. The document announces that research will be undertaken on the private placement of units of non-harmonised investment funds as well as the strategies of non-harmonised and harmonised investment funds. Moreover, a report assessing the need and possible options for developing the single market framework for certain retail-oriented non-harmonised funds is to be published. In addition, an expert group which will advise the Commission on issues related to open-ended real estate funds is to be established.

The Commission does not intend to introduce any amendments to the UCITS Directive concerning fund registration performed by the supervisory authority of the home country, EU depositary passport or the distribution of information and servicing fund orders. However, the Member States have been obliged to introduce improvements at national level and to take into account good practices applied in other EU countries.

Measures presented in the White Paper are particularly aimed at:

- increasing the use of common market freedoms granted to the investment fund sector under the UCITS Directive, which will enable investment funds to provide services on the European market and to global investors more efficiently,
- providing investors with the possibility to make informed investment decisions and to make use of professional and objective help of qualified intermediaries,
- deciding whether to establish a single market framework which would enable cross-border sale of certain types of non-harmonised funds to retail investors,
- commencing work on common EU private placement regime to facilitate selling non-harmonised units and financial instruments to institutional investors in other Member States.

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72 Non-harmonised investment funds are those funds which do not meet the UCITS Directive’s requirements, whereas the UCITS funds are referred to as harmonised funds.
The deadline for the completion of the initiatives presented in the White Paper is set for 2007–2008. The suggested measures should simplify regulations related to investment funds and provide them with new possibilities of cross-border activity.

2.2.4. Planned measures of the European Union regarding regulation of the financial services sector

Measures related to financial services planned for the coming years are mainly the implementation of initiatives which had been introduced in the previous years. The European Commission will continue its work on preparing a draft directive on the solvency regime in the insurance sector as well as developing the White Paper on mortgage loans, comprising proposals to facilitate the creation of an integrated market for mortgage credit. The measures of the European Parliament and the EU Council will focus on adopting three draft directives, i.e. the Consumer Credit Directive, the Directive on the supervisory approval process for mergers and acquisitions and the Directive on payment services. The Consumer Credit Directive will harmonise banks’ rights and obligations concerning this type of credit, which may improve market transparency and increase competition among market participants. It appears that, taking into account significant disproportions in the development of the EU loan market, the process will be a long-term one. The Directive on the supervisory approval process for mergers and acquisitions is to enhance this process and increase transparency in case of cross-border mergers and acquisitions. According to the Commission, taking into account the present degree of concentration, consolidation will improve the effectiveness of the European banking system as well as intensify competition both among banks and other financial sector institutions. Implementing measures proposed in the Directive on payment services are to establish modern and coherent law related to payment execution in the EU, and therefore provide appropriate conditions to introduce SEPA instruments. Moreover, the European Commission announced new initiatives related to securities, investment funds and taxation of financial services. The main EU legislative initiatives planned for 2007 and Polish legal acts which will require adjustment to new Community rules are presented in Table 2.2.2. It should be noted that most likely not all presented initiatives will be completed in 2007.

Community directives do not regulate, inter alia, substantive matters related to the issue of securities and rules of transferring rights resulting from these issues. There are no clear regulations concerning, inter alia, settlements of disputes between parties, which hinders trading on international securities markets. Therefore, a draft convention, which will supplement European standards, is being prepared by the International Institute for the Unification of Private Law (UNIDROIT) working group (Box 2.2.2).


In 2004–2006, UNIDROIT presented successive draft conventions on Harmonised Substantive Rules regarding Intermediated Securities. The project’s aim is to significantly reduce legal risk resulting from different regulations related to the transfer of rights arising under a security which are in force in each Member State. The project covers the following issues: rights and obligations of parties resulting from a contract of maintaining securities accounts, legal effects arising from registering securities on the intermediary’s account and the purchase of securities by third parties. An important element of the project is regulating contracts for establishing security, including the right to use the security and compensation if the counterparty is insolvent.

The project’s regulations regarding security refer to Directive on financial collateral arrangements\(^1\), using the nomenclature and regulations used in the Directive. Adoption of the convention provisions would enable to use the Directive also in non-EU countries. Therefore, the EU Council authorised the European Commission to negotiate, on the behalf of the Community, those decisions of the draft convention which will affect the legislation applicable in the European Union\(^2\), including in particular issues on financial collateral arrangements which are regulated by the Directive.

The introduction of legal measures proposed in the convention should contribute to reducing the costs of cross-border transactions and increasing international capital flows between world financial centres owing to the establishment of a uniform system where that rights and obligations of counterparties of a transaction are respected. After the adoption of the convention it will be necessary to introduce amendments into Polish legal regulations in force (the Civil Code, the Act on Trading in Financial Instruments, the Act on Settlement Finality in Payment and Securities Settlement Systems and the Rules of Oversight of these Systems, the Act on certain forms of financial collateral).

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<table>
<thead>
<tr>
<th>Area</th>
<th>EU initiatives</th>
<th>The most important changes likely to be introduced into Polish law as a step towards adjusting it to EU regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>Continuation of work on the Solvency II Directive</td>
<td>Amendment of the Act on Insurance Activity</td>
</tr>
<tr>
<td>Retail financial services</td>
<td>Continuation of work on adopting the proposal for a Directive on consumer credit</td>
<td>Amendment of the Act on Consumer Credit</td>
</tr>
<tr>
<td>Securities</td>
<td>Adopting draft implementing measures for the Directive on transparency and information requirements</td>
<td>Amendments to the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies</td>
</tr>
<tr>
<td>Investment funds</td>
<td>Preparation of draft amendment to the Directive on undertakings for collective investment in transferable securities (UCITS) 1</td>
<td>Amendments to the Act on Investment Funds, amendments to the Act on Capital Market Supervision</td>
</tr>
<tr>
<td></td>
<td>Preparation of implementing measures to the Directive on undertakings for collective investment in transferable securities (UCITS) 2</td>
<td></td>
</tr>
<tr>
<td>Payment services</td>
<td>Continuation of work on adopting the Directive on payment services 4</td>
<td>Amending regulations concerning electronic payment instruments, banking law, prevention of money laundering</td>
</tr>
<tr>
<td>Cross-border mergers and acquisitions</td>
<td>Adopting the Directive on the supervisory approval process for mergers and acquisitions 5</td>
<td>Amending the Commercial Companies Code, amendments to the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies, amendments to banking law</td>
</tr>
<tr>
<td>Taxation</td>
<td>Preparation of draft Directive on the modernisation of VAT provisions relating to financial services including insurance</td>
<td>Amendments to the Act on the Goods and Services Tax</td>
</tr>
</tbody>
</table>


Source: prepared by the NBP.
The infrastructure consists of the institutions and systems that facilitate the execution of payments by the market participants, organise the trade in financial instruments and facilitate the settlement of the transactions. The systems ensuring the protection of the market participants and the institutions enhancing information transparency are important elements as well. An important role is also played by entities which regulate and supervise the functioning of the financial system.

As in the previous edition of this study, this chapter presents only the most important changes concerning the financial market infrastructure in 2006 and the directions of work in the field of its development and of the European financial market integration. A detailed description of individual entities, the systems of the financial market infrastructure and their functions can be found in the report entitled Financial System Development in Poland 2002–2003.\(^75\)

### 3.1. Regulatory and supervisory institutions

Since 19 September 2006, the institutions which regulate and supervise the operation of the financial system include the Ministry of Finance, the National Bank of Poland, the Commission for Banking Supervision (Komisja Nadzoru Bankowego – KNB) and the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego – KNF).

**Polish Financial Supervision Authority**

The Act on Financial Market Supervision,\(^76\) aimed at establishing integrated supervision over the financial market in Poland, entered into force on 19 September 2006. It established the Polish Financial Supervision Authority, which took over the tasks of the Insurance and Pension Funds Supervisory Commission (Komisia Nadzoru Ubezpieczeń i Funduszy Emerytalnych – KNUiFE) and of the Securities and Exchange Commission (Komisja Papierów Wartościowych i Giełd – KPWiG), and as from 1 January 2008 is to take over the tasks of the Commission for Banking Supervision as well. Since 19 September 2006, the KNF has been exercising supervision of the capital market, insurance undertakings and pension funds, and supplementary supervision of financial conglomerates.\(^77\) It is also to supervise banks and electronic money institutions as from 1 January 2008.

The KNF comprises the Chairperson, two Vice-Chairpersons and four members:

- the minister competent for financial institutions or his/her representative;
- the minister competent for social security or his/her representative;
- the President of the NBP or a delegated Deputy President of the NBP;
- a representative of the President of the Republic of Poland.

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\(^77\) Pursuant to the provisions of the Act of 15 April 2005 on Supplementary Supervision of Credit Institutions, Insurance Undertakings and Investment Firms in a Financial Conglomerate (Dz.U. of 2005, No. 83, item 719 as amended), supervision of a financial conglomerate is exercised by the Member State of origin of the leading entity (which presides over the financial conglomerate). Currently there is no conglomerate in Poland whose leading entity would be seated in the territory of the Republic of Poland.
The KNF is supervised by the President of the Council of Ministers. He/she also appoints the Chairperson (for a term of five years) and appoints and dismisses the two Vice-Chairpersons upon his/her motion. The KNF executes its tasks with the aid of the Office of the Polish Financial Supervision Authority. The operation costs of the Office and the Authority are covered from payments of the entities under supervision.

The Member States of the European Union (EU) have developed different solutions as to financial market supervision (Table 3.1). There are three main models of supervision:78

- Sectoral model – there are several (two to four) institutions supervising one segment of the financial market (or more segments);

Table 3.1. Models of financial market supervision in the EU Member States

<table>
<thead>
<tr>
<th>EU Member States</th>
<th>Sectoral model</th>
<th>Model by objectives</th>
<th>Single supervisor model</th>
<th>Number of authorities responsible for supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Belgium</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Finland</td>
<td>X</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>X</td>
<td>X</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Greece</td>
<td>X</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Spain</td>
<td>X</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>X</td>
<td>X</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Ireland</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>X</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>X</td>
<td>X</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Portugal</td>
<td>X</td>
<td>X</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Italy</td>
<td>X</td>
<td>X</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Cyprus</td>
<td>X</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Estonia</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Lithuania</td>
<td>X</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Latvia</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Malta</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Poland</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Slovakia</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Slovenia</td>
<td>X</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Hungary</td>
<td>X</td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes:
1. Arrows indicate changes to supervision models occurring after 2000; the X indicates the supervision model currently functioning in a given country.
2. In Poland, the reforms leading to the single supervisor model will be fully completed by 1 January 2008.
3. France, Italy and Portugal appear in both the column “Sectoral model” and in the column “Model by objectives” since they have implemented a combination of the two models.

Source: Recent developments in supervisory structures in EU and acceding countries, Frankfurt October 2006; ECB.

78 There have also been cases of mixed solutions. Recent developments in supervisory structures in EU and acceding countries. Frankfurt October 2006, ECB.
Model by objectives – there are two supervisory institutions, of which one is responsible for retaining financial stability and the other for the security of the customers of financial institutions;

Single supervisor model – one institution supervises the functioning of the whole financial market.

An analysis of the changes to supervisory structures taking place in EU Member States after 2000 reveals that certain countries depart from the sectoral model of supervision. While the sectoral model is still present in several EU Member States, it has been modified in a number of countries. There are also cases when countries switch from the sectoral model to the model by objectives (the Netherlands).

A characteristic feature of the supervision models currently present in the EU is the participation of central banks in the exercise of supervision even when the central bank holds no direct supervisory powers. In twelve EU Member States, central banks are directly involved in supervision. In the majority of the remaining countries there are formal agreements ensuring cooperation of supervisory institutions with the central bank.

Council for Financial Market Development (Rada Rozwoju Rynku Finansowego)

The main institution regulating the financial market is the Ministry of Finance, whose responsibilities include preparing draft regulations setting forth the principles of functioning of the market and its institutions. In 2006, the Minister of Finance established the Council for Financial Market Development. The body issues opinions and advice in matters related to the development of the Polish financial market. The work of the Council is directed by the Minister of Finance. The Council is composed of the representatives of financial market participants and supervisory institutions. The formula of the Council’s operation assumes establishing working groups and teams as well as holding consultations with the market. The task of the working groups and teams is to prepare proposals of amendments to regulations aimed at improving conditions for financial system development in Poland and adapting them to EU legislation. Three working groups were established within the Council in 2006: a working group for the information memorandum, a working group for securities lending and short selling, and a working group for omnibus accounts.

3.2. Payment system

In 2006, the zloty payment systems operating in the Polish market (SORBNET and ELIXIR) and the euro payment systems (SORBNET-EURO and EuroELIXIR) functioned smoothly. The number and the value of orders executed via the systems increased.

3.2.1. Large value interbank settlements

As at the end of 2006, the following entities participated in the SORBNET system, which is used for zloty payments settlement: 55 banks, the NBP, the National Depository for Securities (Krajowy Depozyt Papierów Wartościowych – KDPW), and the National Clearing House (Krajowa Izba Rozliczeniowa – KIR). 2006 saw the increase in both the value of turnover in the system and the number of orders (Figure 3.1). In Q4 of 2006, the SORBNET system executed an average of 5,385 orders a day with the average value of an order of ca. PLN 30.4 million. The structure of the value of turnover by types of operation was dominated by settlements which resulted from the execution of customer orders (Figure 3.2), mainly interbank ones. A systematic increase in turnover generated by those orders has been visible since 2003 (average daily turnover increased from the level of PLN 31 billion in Q1 of 2003 to PLN 68 billion in Q4 of 2006). This was triggered, inter alia, by the
Figure 3.1. Quarterly value of gross turnover and the number of orders processed in the SORBNET system, 2003–2006

Source: NBP.

Figure 3.2. Share of main types of operations in the structure of gross turnover in the SORBNET system in Q4 of 2006

Source: NBP.

Figure 3.3. Quarterly value of gross turnover in the SORBNET-EURO system in 2005 and 2006

1 Excluding the value of intraday credit. The SORBNET-EURO system started its operation on 7 March 2005.

Source: NBP.
increasing volume of transactions concluded by non-residents in the market of instruments denominated in zloty, which are settled in the SORBNET system through correspondent banks.

As at the end of 2006, the NBP, KDPW, KIR and 37 banks participated in the SORBNET-EURO system, which forms part of the pan-European TARGET system and serves large value cross-border and domestic payments in euro. In 2006, the value of turnover in this system increased significantly (Figure 3.3). In Q4 of 2006, cross-border orders predominated: they constituted 89% of total turnover and 95% of the total number of orders. In the same period, cross-border orders from 75 countries and orders sent to 22 countries were executed via the SORBNET-EURO system. The majority were orders received from and sent to a number of countries, which was a result of the level of economic cooperation between Poland and those countries. The largest number of orders came from Italy and Spain (orders from France and Italy dominated in terms of value). The largest number of orders – in terms of both number and value – were directed to Germany and Italy. In Q4 of 2006, the SORBNET-EURO system executed an average of 456 orders per day, and the average value of an order amounted to EUR 339.8 thousand.

In 2006, preparations were underway for the NBP to join the TARGET2 system (the date was set at 19 May 2008). The preparations consisted, inter alia, in setting general assumptions of NBP’s participation in TARGET2 and the participation of NBP representatives in the work of the ESCB on the system. The NBP was the first TARGET participant from among the central banks of countries which joined the European Union in May 2004, which should be conducive to the smooth joining in TARGET2 in 2008.

3.2.2. Retail payment systems

All interbank settlements in zloty resulting from customer orders conducted through the KIR are executed in the ELIXIR system. As at the end of 2006, 55 banks (including the NBP) participated directly in the exchange of payment orders in that system. In the analysed period, the total number of transactions settled through the KIR increased by 14.3% as compared to 2005, and the value of turnover – by 14.1% (Figure 3.4). In Q4 of 2006, the ELIXIR executed an average of 4,002 thousand orders per day and the average value of an order amounted to PLN 2,715.

2006 saw the first instance of the practical application of the settlement guarantee mechanism in the ELIXIR. This was necessary due to the failure of one of the banks to provide sufficient funds for the performance of a settlement.

As at the end of 2006, 33 banks (including the NBP) participated in the exchange of payment orders in the EuroELIXIR system. In the period under analysis, the value of turnover in the system increased considerably (Figure 3.5). In Q4 of 2006, cross-border orders (incoming and outgoing) constituted 75.9% of orders and 73.6% of the value of turnover. In the same period, the EuroELIXIR system executed an average of 7,463 orders per day and the average value of an order amounted to EUR 4,640.

On 1 January 2006, the maximum amount of cross-border transactions settled through the EuroELIXIR was increased from EUR 12,500 to EUR 50,000 (which was analogous to the change in the amount of payment orders settled through STEP2). Moreover, apart from the NBP, since February 2006 the role of the intermediary in transferring orders to STEP2 has been also played by one of commercial banks. It has a status of a direct participant of STEP2 and serves as the system’s entry point in the Polish market.

81 More information on the TARGET2 system can be found in section 3.4.
82 The participation in the TARGET system is mandatory for the euro area countries. However, pursuant to the decision of the European Central Bank, the new Member States which have not adopted the common currency yet may participate in the system as well.
83 The exploitation of SYBIR (a system of the traditional clearing house used to service net interbank settlements which used paper documents) ended on 30 June 2004.
84 More information on the settlement guarantee mechanism in the ELIXIR system can be found in: Financial system development in Poland in 2004, Warsaw 2005, NBP, Chapter 3.
85 Entities which serve as STEP2 entry points make it possible to provide payments to entities which do not hold the status of the system’s participants. They distribute payment orders received from abroad through domestic payment systems. Thanks to the existence of EuroELIXIR entry points other participants of the system do not have to register as direct participants of STEP2 and pay the related fees.
Financial intermediation agencies

The Polish financial services market in 2006 saw the further increase in the growth of the network of financial intermediation agencies which service mass payments. The number of transactions executed by those agencies increased (with a slight decrease in the value of transactions, Table 3.2), and so did the number of entities and the number of points of service which accepted payments to bank accounts. The number of those entities (including natural persons acting as sole

Table 3.2. Value and number of transactions executed by financial intermediation agencies in 2005 and 2006

<table>
<thead>
<tr>
<th></th>
<th>Value of transactions (PLN million)</th>
<th>Number of transactions (’000 000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 of 2005</td>
<td>1,878.3</td>
<td>15.2</td>
</tr>
<tr>
<td>H2 of 2005</td>
<td>1,622.9</td>
<td>14.8</td>
</tr>
<tr>
<td>H1 of 2006</td>
<td>1,899.5</td>
<td>18.0</td>
</tr>
<tr>
<td>H2 of 2006</td>
<td>2,273.1</td>
<td>21.3</td>
</tr>
</tbody>
</table>

Source: NBP.

The activity of the financial intermediation agencies is not supervised by any institution. The examples of the largest entities of this type include, among others, Dolnośląska Agencja Finansowa Elixir Sp. z o.o., (which changed its name to Expert as of 1 January 2007) and Okienko Kasowe SA.
proprietors) increased to 169 in H1 of 2006, and the number of points of service - to 7,600 (as at the end of H1 of 2005 there were 128 entities and 6,100 points of service).

The overwhelming majority of mass payments in Poland are made in cash. This results from the relatively limited use of banking services, the public being used to cash payments, and from the low level of computerisation of Polish society. Polish Post holds the largest share in the cash payments market. Yet apart from the development of financial intermediation agencies on the Polish mass payments market, 2006 also saw an increase in the activity of certain banks. Apart from the already operating agencies of Bank PKO BP and a network of cash desks of Citibank and Raiffeisen Bank, Bank BiSE and Bank BPH launched their own networks of cash desks.

3.3. Financial instruments market infrastructure

The financial instruments market infrastructure consists of institutions that organise trading in financial instruments and the entities which settle the transactions. The following entities operate in Poland: the Warsaw Stock Exchange (WSE), markets organised by the MTS-CeTO company, Warsaw Commodity Exchange (WCE), the Securities Register (Rejestr Papierów Wartościowych – RPW, including the SKARBNET and SEBOP systems), which services the Treasury bill and money market bill transactions, the National Depository for Securities system (Krajowy Depozyt Papierów Wartościowych – KDPW), which services the market in Treasury bonds and financial instruments available in the markets organised by the WSE and MTS-CeTO, and the Clearing House of the Warsaw Commodity Exchange (Izba Rozliczeniowa Warszawskiej Giełdy Towarowej), which settles the forward transactions concluded on this exchange.

Warsaw Stock Exchange

In October 2006, the development strategy of the WSE, included in the document entitled WSE Plan of Activity until 2008, was announced. Meeting the main objective, determined as “establishing a regional Central European centre for trade in financial instruments with WSE as the key element of the centre” is to be achieved by implementing four programmes:

- Programme I: Strengthening and internationalising the stock exchange market;
- Programme II: The stock exchange market as an essential instrument of shaping the base of economic growth;
- Programme III: Modernisation and enhancing the competitiveness of the market through cooperation with domestic market participants;
- Programme IV: Regional competence.

Actions taken in the framework of Programme I are to focus on, among others, extending the product offer of the WSE, winning foreign issuers and increasing the exposure of foreign investors in the stock exchange market. The main objectives of Programme II include establishing a trading platform for enterprises with high growth potential and increased investment risk, as well as increasing WSE capitalisation by winning domestic issuers. Programme III will focus on amending regulations pertaining to the stock exchange market, including the development of new principles of corporate governance. An analysis of costs incurred by investors and issuers entering the Polish stock exchange market will also be performed. The implementation of Programme IV is to involve the launch of an information and analysis platform which will provide information on foreign companies listed on the WSE. The availability of information about the WSE in other countries of the region is also to be enhanced.

In November 2006, the WSE launched the WSE IPO Partner programme. Foreign investment firms participating in the programme support the WSE’s promotional activities targeted at markets

87 The NewConnect will be non-regulated market, with less entry and information requirements than the stock exchange market.

88 Work on new corporate governance principles started at the end of 2006.
of the region. In 2006, the WSE IPO Partner programme was joined by four entities: three from the Ukraine and one from Estonia.

2006 was the fourth subsequent year when listed companies were obliged to produce a statement on the observance of corporate governance principles included in the Principles of Good Practice in Listed Companies. Similarly to the previous year, all listed companies met this obligation. The number of companies which declared not to observe any of the principles decreased from 8 in 2005 to 5 in 2006 (which constitutes 2% of all companies listed on the WSE).

In addition, in October 2006 two chambers of commerce for institutional investors, namely the Chamber of Fund and Asset Management (IZFA) and Commercial Chamber of Pension Companies (IGTE) prepared the Code of Good Practices of Institutional Investors. It sets forth the good practices of institutional investors in the most important areas of their activity. All members of the abovementioned organisations (18 out of the 26 investment fund management companies present in the Polish market and 11 out of 15 pension companies) made a commitment to observe the code.

Markets organised by the MTS-CeTO company

In 2006, there were no changes to the operation of markets organised by the MTS-CeTO company:

- the MTS Poland market – a non-regulated market, part of the Treasury Securities Dealer System;
- CeTO Securities Market (RPW CeTO) – a regulated OTC securities market where stocks and corporate, municipal and Treasury bonds as well as mortgage bonds and investment certificates are traded.

As at the end of 2006, the RPW CeTO market had 11 member institutions, and one entity held the status of the participant\(^89\) (similarly as in 2005). The MTS Poland market saw an increase in the number of its participants to 29 (from 25 in 2005). Among the participants there were 12 foreign entities (7 in 2005). Two of them also acted as Treasury Securities Dealers\(^90\) in 2006.

Warsaw Commodity Exchange

In 2006, there were no significant changes to the functioning of the Warsaw Commodity Exchange, at which currency futures contracts and options for those contracts as well as interest rate and Treasury bond futures are traded.

Securities Register

In 2006, there were no significant changes to the functioning of the Securities Register. As at the end of 2006, 54 participants held Treasury bill deposit accounts with the Securities Register, while 48 banks and the Bank Guarantee Fund took part in money market bill trading. Table 3.3 presents the data concerning the number and value of Treasury bill and money market bill transactions processed by the Securities Register.

Table 3.3. Number and value of Treasury bill and money market bill transactions registered in the Securities Register in 2005 and 2006\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>Number of transactions ('000)</th>
<th>Value of transactions (PLN billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>Treasury bills</td>
<td>74.3</td>
<td>28.2</td>
</tr>
<tr>
<td>Money market bills</td>
<td>4.3</td>
<td>4.3</td>
</tr>
</tbody>
</table>

\(^1\) The nominal value of transactions and their number include the primary market, the secondary market and redemption.

Source: NBP.

\(^89\) The participants of the RPW CeTO market may trade in financial instruments only on their own account.

\(^90\) Treasury Securities Dealers are the sole entities (apart from Bank Gospodarstwa Krajowego) authorised to submit bids on the tenders of Treasury securities.
National Depository for Securities

As at the end of 2006, there were 60 direct participants of the National Depository for Securities (62 entities in 2005): 36 banks, 17 entities rendering brokerage services, 3 other financial institutions and 4 foreign participants (3 credit institutions and one investment firm). In 2006, the number of issuers registered with the National Depository for Securities increased to 361 (333 at the end of 2005). The number of transactions settled in the National Depository for Securities increased to 14.5 million (from 7.4 million in 2005). Similarly to 2005, the value of operations recorded in the National Depository for Securities increased significantly, which resulted from the increase in prices and turnover in the stock market and from the increase in turnover in the Treasury bond market (Figure 3.6). In 2006, the National Depository for Securities held operational links with 5 foreign clearing and settlement institutions: KELER, OeKB, Clearstream Banking Luxembourg, CDCP and Euroclear.91

In 2006, work continued on the development strategy of the National Depository for Securities. The document entitled Strategic Objectives of the National Depository for Securities for the years 2006-2010, which replaced the Strategic Objectives of the National Depository for Securities by 2010, published in 2005,92 was published in September 2006. The new strategy was supplemented, inter alia, with two strategic objectives: the participation of the National Depository for Securities in establishing a regional centre for capital turnover, and changing the corporate structure of the National Depository for Securities. The latter concerns the potential establishment of a holding structure in order to separate deposit services from the risk sustained by the Central Counterparty in the future. The strategic objective of KDPW’s capacity to cooperate with other European systems was also modified. The new strategy envisages cooperation with other euro clearing and settlement systems, not only with the main European one, and creating conditions for remote participation of financial institutions in the KDPW as well as eliminating legal and fiscal obstacles in that respect.

In 2006, the KDPW took actions aimed at establishing a system for the settlement of dematerialised debt securities traded beyond the regulated market – the so-called Debt Securities Service System (System Obsługi Dłużnych Papierów Wartościowych – SODPW). According to the assumptions of the project, the KDPW would service transaction settlements and the execution of issuers’ benefits, while the register of securities would be maintained as usual by banks participating in the SODPW. Launching the SODPW would translate into the centralisation of non-Treasury debt securities settlement, which would allow for establishing a single liquid secondary market for those instruments. In 2006, work also continued on the modification of the clearing and settlement system, which envisaged the implementation of a new account structure, changes to the data exchange system and the introduction of additional functions for the system’s participants.

91 The connection with Euroclear was not used in 2006.
92 More information on the subject can be found in: Financial system development in Poland in 2005, Warsaw, 2006, NBP, Chapter 3.
Warsaw Commodity Exchange Clearing House

In 2006, there were no significant changes to the functioning of the Warsaw Commodity Exchange Clearing House, which is a separate organisational unit and fulfils the functions related to the settlement of forward and future transactions concluded on this exchange. In 2006, there were five clearing members operating on the Warsaw Commodity Exchange (against two in the previous year), but two of them did not operate.

3.4. European projects to enhance financial market infrastructure

The European market witnesses the implementation of projects which will influence the functioning of the Polish financial market infrastructure. These initiatives are undertaken and implemented by institutions which regulate the European financial market, as well as by the market participants themselves. They pertain to the payment system (TARGET2 and SEPA) and to the securities settlement system (TARGET2-Securities and the European Code of Conduct for Clearing and Settlement).

TARGET2

In 2002, the European Central Bank decided to reform the TARGET system. The reform assumed the development of a new version of the system, i.e. TARGET2. The TARGET2 system will integrate individual payment systems by transferring all settlements from domestic RTGS systems to the Single Shared Platform (SSP). The objective of the development of the TARGET2 system is to eliminate the weaknesses of the TARGET system: the differentiated level of services offered to the system’s participants and differentiated structure of fees collected from participants for domestic and cross-border payments, difficulties experienced by central banks in recovering the costs of operation of the domestic parts of the system, problems with the modernisation of the system and the difficulties with the inclusion of new countries in the system. Participants of TARGET2 will also be granted new liquidity management tools as well as full access to information on settlements. The new system will ensure standardisation of settlement procedures for external systems, e.g. retail payment systems or securities settlement systems.

The launch of TARGET2 was scheduled for the second half of 2007. The Member States which declared their willingness to accede TARGET2 will do that in three stages (Table 3.4).

Table 3.4. Deadlines for migration of individual Member States to SSP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Belgium</td>
<td>Denmark</td>
<td>Emergency deadline</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Finland</td>
<td>ECB</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>France</td>
<td>Estonia</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>Ireland</td>
<td>Greece</td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>Portugal</td>
<td>Italy</td>
<td></td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Spain</td>
<td>Poland</td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td>The Netherlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: From TARGET to TARGET2. Innovation and transformation. Frankfurt October 2006, ECB.

93 Trans-European Automated Real Time Gross Settlement Express Transfer. TARGET was launched in January 1999 in order to settle transactions made within the framework of the common monetary policy of the European System of Central Banks. TARGET allows for the settlement of all types of euro payments, both interbank and customer payments. In 2006, TARGET comprised 17 national RTGS systems (euro area countries, Denmark, Sweden, United Kingdom, Poland and Estonia) and the ECB payment mechanism. The individual RTGS systems are connected by the Interlinking system based on the SWIFT network (electronic bank communication system). In the domestic part of the Interlinking system each central bank (a participant of the TARGET system) holds correspondent accounts for the remaining central banks.

94 Participation in TARGET2 will be mandatory for countries which have adopted the common currency.
**Single Euro Payments Area**

The objective of the Single Euro Payments Area project is to create an integrated and efficient market for non-cash euro retail payments. The main coordinator of the project is the European Payments Council (EPC), established in 2002 by European banking circles. The Council works on devising principles and procedures related to pan-European payment instruments, as well as on the issues of payments handling and processing standardisation. In 2005, the EPC devised documents describing the operation of new pan-European payment instruments: SEPA Credit Transfer, SEPA Direct Debit, as well as new principles for the operation of credit card payment systems (SEPA Cards Framework).

The implementation of SEPA was scheduled for three stages. The stage of designing standards for, *inter alia*, payment instruments, establishing security requirements they need to comply with and for settlement infrastructure lasted from 2004 until June 2006. During the second stage, which will last until the end of 2007, financial market participants are to prepare to apply the new instruments and settlement standards. The aim of the last stage, scheduled to end at the end of 2010, is the implementation and gradual replacement of domestic payment instruments with SEPA instruments. Entities operating in the European payment market should thus be ready to service new SEPA instruments already in 2008. The conditions for SEPA introduction are to be ensured by the Payment Services Directive proposed by the European Commission in December 2005. The Directive should establish a single legal framework for all retail payments made within the EU.

The SEPA project is targeted mainly at euro area countries, yet it is also available to other European countries in respect of euro payments. It is expected that in the long run the project would bring about benefits in the form of lower prices of payment services and lower costs of payment infrastructure operation (owing to the unification of settlement principles), as well as an increase in the competitiveness of European banks (owing to the extension of the recipient base).

In Poland, the centre for SEPA programme coordination (SEPA Poland) was located in the Polish Bank Association (Związek Banków Polskich – ZBP). The basic elements of SEPA Poland’s structure are the following working groups: SEPA Direct Debit Working Group, SEPA Credit Transfer Working Group, SEPA Cards Working Group, Single Euro Cash Area (SECA) Working Group, and SEPA Infrastructure Working Group. Their task is to prepare the implementation of individual payment instruments. Representatives of banks and of the NBP participate in the work of the working groups, and representatives of consumers, payment system users and bank infrastructure suppliers are invited for consultations. SEPA working groups and its Office were organised in ZBP in 2006, and work also started on the schedules of introducing individual SEPA solutions.

**TARGET2-Securities**

The TARGET2-Securities (T2S) project was presented by the European Central Bank in July 2006. Its main objective is to optimise cooperation between securities settlement systems and TARGET2. The T2S platform is to allow euro settlements of securities transactions in central bank money (the transfer of funds related to a transaction is based on changing balances in central bank ledgers). Transaction settlement would take place according to the same procedures, at the same technical platform and at the same time as cash settlements in TARGET2 (Diagram 3.1).

According to the initial assumptions, the T2S platform would be applied to transaction settlement, while the remaining functions such as executing rights on securities or deposit functions would be performed by central depositories for securities. At the beginning of an operational day, the participating central depositories would provide to T2S the information on the balance of

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95 The EPC is composed of 66 members (banks and banking associations) from 27 Member States (including Poland). The implementation of the SEPA project is also actively supported by other entities operating on the European financial market, including the European Central Bank and the European Commission (initiator of the SEPA project).

96 One of the EPC’s decisions was to adopt a retail settlements model based on the pan-European Clearing House (PE-ACH) which initially is to cover cross-border settlements, and later also local settlements. The PE-ACH status was granted to STEP2, acceded by Poland in 2005.

97 Launching TARGET2 means that members of the central depository for securities will be able to settle euro transactions in central bank money through one cash account in TARGET2. Currently they need to hold a cash account in an RTGS system of the country where the central depository for securities is seated.
securities in accounts they maintain. During the operational day, real-time transaction settlement would take place in T2S on the basis of the DvP\(^98\) principle. At the end of the day the settlement results would be transferred to central depositories.

The project is currently consulted with the participants of the European financial market. The 2006 consultations covered, inter alia, the scope of settled securities and services provided, the frequency and type of settlements, account structure, passing on settlement instructions, separating deposit and settlement activity, as well as the time for project implementation.

The final decision on implementing the project is to be made in 2007. As the T2S project was still being prepared in 2006, it is difficult to state the scope and nature of work for the central depositories which would decide to participate in the project. The introduction of the solution prepared by the ECB could result in enhanced settlement efficiency\(^99\) due to the high degree of technical harmonisation, particularly in the case of cross-border settlements.

The representatives of settlement infrastructure institutions of the European financial market, as well as members of EU committees dealing with the issues related to that market are not unanimous as to the assessment of the T2S project. The discussion touches upon, inter alia, the functions of T2S which so far have been performed by central securities depositories, the danger of limiting competition for clearing and settlement services market, and the potentially negative impact on harmonisation activities carried out by entities present in this market.\(^100\)

**European Code of Conduct for Clearing and Settlement**


\(^98\) Delivery versus Payment – simultaneity of payment and transfer of financial instruments.


\(^100\) More information on the subject can be found in: Clearing platforms face shake-up., Financial Times, 17 January 2007, p. 13 and TARGET2 Securities: Euroclear Group’s Response to the ECB Questionnaire, 8 September 2006, Euroclear, p. 29.
Central Securities Depositories Association – ECSDA) signed the *European Code of Conduct for Clearing and Settlement*. The Code was prepared by the above organisations in response to a proposal from the European Commission. Earlier on, the Commission decided to refrain from regulating the issues of clearing and settlement of securities by way of a directive, giving precedence to initiatives from the market.

The Code is aimed to boost transparency and strengthen competition in the market for clearing and settlement services. It comprises three sections devoted to: the transparency of prices and of the provision of services, facilitating operational cooperation between the signatories of the Code, and separating services rendered by those institutions along with adjusting accounting principles in that respect. The Code introduces, *inter alia*, the obligation to publish transparent information on all rendered services and their prices, information on the principles of awarding discounts, and examples of fees established for different categories of customers on a website. It also obliges its signatories to provide mutual access to the systems they maintain on the basis of transparent, non-discriminatory criteria, as well as not to offer services in packages (trading in financial instruments, clearing and settlement services, collateral management, loan services and securities lending).

Signatories were to achieve compliance with the first part of the Code by the end of 2006, their deadline for adapting to the second part elapses in mid-2007 and to the third part – by the end of 2007. Both the National Depository for Securities as an ECSDA member, and the WSE as a FESE member committed themselves to observe the Code.

### 3.5. Market participant protection systems

In 2006, there were no changes to the principles of the functioning of the Bank Guarantee Fund, the Insurance Guarantee Fund, capital market participant protection systems, the Pension Guarantee Fund and the Credit Unions’ Savings Protection Scheme. In accordance with statutory provisions, on 1 January 2006 the upper limit of funds covered by the mandatory system of National Depository for Securities compensations was increased to the zloty equivalent of EUR 15,000.

In 2006, there was a discussion in the EU on reviewing the Deposit Guarantee Schemes Directive. It resulted in an European Commission Communication, issued in November 2006, which states that currently the European Commission sees no reason to introduce changes to the directive regulating deposit-guarantee schemes. It presents proposals for non-legislative measures and European Commission initiatives for the coming years which could influence deposit-guarantee schemes.

### 3.6. Institutions that enhance information transparency

**Credit Information Bureau**

The main activities of the Credit Information Bureau (*Biuro Informacji Kredytowej – BIK*) include the collection, processing and distribution of data regarding individual bank customers’ credit histories in the form of credit reports. The BIK may also process and disclose the information about the natural persons who repaid their debts i.e. create a positive credit history.

In 2006, the number of entities participating in the Bureau’s information exchange system increased. The BIK cooperated with 43 banks (37 banks in the previous year) and the National Association of Credit Unions. In 2006, the database of the Bureau contained information about 35.5 million credit

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101 *European Code of Conduct for Clearing and Settlement*. 7 November 2006, FESE, EACH, ECSDA.


104 More information on the subject can be found in Chapter 2.
accounts. The number of credit reports made available by the BIK in 2006 increased by 29% as compared to the previous year (Figure 3.7). This proves an increasing need for services of this kind. In 2006, the BIK worked on the system of information on companies. The first agreement on collecting, processing and making information available via the system was signed in December 2006.

**Rating agencies**

Only one rating agency was registered in Poland, namely Fitch Polska. In 2006, it assigned ratings to one bank, one voivodeship, two Polish cities and four bond issues (including one issue of revenue bonds). As at the end of 2006, 12 banks, 3 voivodeships, 15 cities, 7 companies (including one leasing company) and the Republic of Poland as a country had a rating assigned by Fitch Polska.

**Figure 3.7. The number of credit reports made available by the BIK between 2001 and 2006**

![Credit reports made available by the BIK between 2001 and 2006](chart)

Source: Credit Information Bureau.
4.1. Banks

High economic growth rate, stable inflation and higher income of households contributed significantly to the development of the banking sector in Poland in 2006 (Figure 4.1.1). The banking sector assets to GDP ratio increased from 59.8% in December 2005 to 65.1% as at the end of 2006. This indicates a significant acceleration of the growth rate in relation to previous years. Within the past eight years, the average growth rate of banking sector assets (of 10.1% a year) exceeded the average economic growth rate (of 7.2%).

The dynamic development of the Polish banking sector was mainly due to the increased activity of banks in respect of retail banking, particularly in the segment of residential loans to households. The demand of enterprises for loans also increased as compared to 2005. Increasing competition both within the banking sector and from non-banking financial institutions positively influenced the quality of banks’ offer. This was visible, inter alia, in launching subsequent product innovations and adapting the offer to the needs of specific groups of customers as much as possible. Some retail banks competed with investment funds for deposits by offering structured deposits to their customers. On the one hand, banks put emphasis on popularising electronic distribution channels, while on the other, at the same time many of them extended their existing networks of traditional branches. Banks also sought alternative (to interest-based) sources of revenues by developing their cooperation with non-banking financial institutions, particularly with investment funds, issuers of bank payment cards, and insurers. The accompanying increase in the role of fees and commissions may have positively influenced the stability of banks’ revenues and

Figure 4.1.1. Banking sector growth rate as compared to economic growth, 1999–2006

Note: GDP growth rate is presented in nominal terms in order to retain its comparability with the changes to the value of the banking sector’s assets under analysis.
Source: NBP, GUS.

105 Unless stated otherwise, data on the banking sector in 2006 were taken from the reporting database on 1 March 2007. Data for previous years may differ from those presented in the previous study, as they take into account the adjustments submitted by banks.
106 Assets of the banking sector do not include assets of banks which do not pursue operating activity and banks which are being wound down.
thus triggered the further increase in the attractiveness of institutions of this kind for investors. As in 2005, also the quality of the loan portfolio improved, and banks posted record-high earnings.

In 2006, banks also adjusted their internal procedures to meet the provisions of Recommendation 5 concerning good practices related to credit exposures secured by a mortgage. Preparations to implement two EU directives – the CRD and the MiFiD – were also under way. The former introduces new principles for calculating the capital adequacy requirement and the level of internal capital; it allows banks to apply their own internal risk assessment models; it also sets forth new standards for disclosing information on risk management methods, the bank’s risk exposure, and capital level. The MiFiD replaces the ISD\textsuperscript{107} and sets forth the legal framework for banks’ investment activities. It stipulates, inter alia, the procedures banks should apply when selling financial instruments offered by Treasury departments. As to organisational matters, work continued on the new system of banks’ financial reporting, i.e. on the FINREP and COREP packages.

4.1.1. Evolution of the banking sector: size and structure

Size of the banking sector

In 2006, the growth rate of banking sector assets increased almost twofold as compared to 2005 (from 8.9% to 16.1%), and as at the end of December their value exceeded PLN 681.0 billion (Figure 4.1.2). The value of commercial banks’ assets increased the most (by 15.6%), which constituted over 91% of the increase of the whole sector’s assets. This was mainly due to the stable interest of households in residential loans (an increase of 54.3% in the banking sector, compared to 40.9% in 2005). Simultaneously, cooperative banks, whose assets have been growing for 6 years at a pace (an average of 15.3%) higher than those of commercial banks (by an average of 8.2%), slightly strengthened their position. Thus, their share in the assets of the sector as a whole increased to 6.2% (Table 4.1.1). The increase in cooperative banks’ assets in 2006 was mainly due to the increase in the value of claims on non-financial customers (by over PLN 4 billion).

As at the end of December 2006, the number of domestic commercial banks conducting operational activity decreased by three institutions to reach 51 (Table 4.1.1). This was due to the fact that four banks with 100% share of foreign capital (Nykredit Bank Hipoteczny SA, Calyon Bank Polska SA, Danske Bank Polska SA and BNP Paribas SA) changed their legal form and established branches of credit institutions, and to the commencement of operations by Dexia Kommunalkredit Bank Polska SA. As at the end of 2006, operations on the basis of the single passport\textsuperscript{108} were conducted in Poland by 12 branches of credit institutions. The share of this group of banks in the total assets of the banking sector increased from 0.9% in 2005 to 3.1% in 2006. The almost quadruple increase in the value of assets was mainly statistical in nature, as it was due to the above-

Figure 4.1.2. Banking sector assets and their changes, 1999–2006

![Banking sector assets and their changes, 1999–2006](image)

Source: NBP.


\textsuperscript{108} More on the single passport principle can be found in: Financial System Development in Poland 2004, Warsaw 2005, NBP, p. 46.
mentioned change in the form of activity conducted by institutions which used to be included in the group of domestic banks. As a result, four banks were excluded from Polish supervision (with the exception of liquidity management). The transformation of banks into branches of credit institutions may be conducive to an increase in their activity on the market of financial instruments through reduced management costs and a higher capital base and head office rating. In 2006, as a result of the further consolidation of the cooperative banks sector, aimed at, *inter alia*, achieving the required minimum of own funds, the number of cooperative banks decreased by 4. Apart from the Krakowski Bank Spółdzielczy based in Cracow, all operating banks remained associated within three structures: the Bank Polskiej Spółdzielczości SA based in Warsaw (351 banks, total share in the balance-sheet total of the sector of cooperative banks: 54.9%), the Gospodarczy Bank Wielkopolski SA based in Poznan (152 banks, total share in the balance-sheet total: 29.5%), and the Mazowiecki Bank Regionalny SA based in Warsaw (80 banks, total share in the balance-sheet total: 13.3%).

**Ownership structure**

There were no changes in the ownership structure of commercial banks’ sector in Poland. The Treasury remained in control of four banks: directly of PKO BP SA (51.55% of shares) and BGK (100% of shares), and indirectly of Bank Pocztowy SA and Bank Ochrony Środowiska SA. The number of banks with majority Polish ownership (7) did not change. As to the value of assets, the largest share in the sector was held by banks with majority foreign equity (Table 4.1.1). In 2006, their assets together with the assets of the branches of credit institutions comprised 69.7% of the

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109 Cooperative banks are obliged to increase the value of their own funds to above EUR 1 million until the end of 2007. More on capital requirements of cooperative banks can be found in: Summary Evaluation of the Financial Situation of Polish Banks – 2006. Warszawa, June 2007, KNB, p. 22.
Financial institutions

The level remains stable – in the years 2000-2006 fluctuations were insubstantial. As at the end of 2006, banks with majority foreign capital maintained 69.9% of deposits of non-financial sector entities and extended 66.5% of loans for them. The largest share in the assets of the domestic banking sector was held by banks controlled by Italian capital, then – German, Dutch, and American (19.9%, 8.4%, 8.2%, and 7.8%, respectively).

The share of banks with majority foreign capital was higher in Poland than in most of EU-15 countries, but lower than in the remaining CEC-5 countries, excluding Slovenia (Figure 4.1.3). The share of foreign investors in the banking sectors of the region did not change significantly throughout the previous two years. The further consolidation of banks in Europe may bring about many changes in the ownership structure, particularly in the banking sectors of EU-15 countries.

Network of field branches and employment

The fast pace of GDP growth rate to date and the positive projections of economic development for the subsequent years made the demand of households and companies for loans remain on a high level. The above situation allowed commercial banks to extend their offer of services as well as their domestic sales network, particularly the network of sub-branches and customer service offices (Table 4.1.2, Figure 4.1.4). Banks not only developed electronic banking services, but also supplemented the networks of physical field branches with smaller automated field branches (e.g. franchise branches). The tendency to limit the number of costly branches and open smaller self-service field branches is currently visible. Moreover, one of the banks started to offer its services from a bus adapted for that specific purpose, another bank considered allowing its customers to obtain loans through an ATM; an increasing number of banks established mobile field branches in academic centres. As a result, as at December 2006, 51 commercial banks operated in Poland through 3,812 branches and 4,783 other field branches, i.e. sub-branches and customer service offices (2.3% and 3.6% more than in 2005, respectively), with the exclusion of franchise branches, which are not included in financial reporting.

Figure 4.1.3. Asset share of banks with majority foreign equity ownership in the banking sector assets in CEC-5 and EU-25 countries

Note: CEC-5 – Poland, Czech Republic, Hungary, Slovakia, and Slovenia.
* The ratio for EU-25 encompasses banks controlled by a foreign investor, in which one foreign investor controls over 50% of the equity. If two foreign investors hold e.g. 30% of shares each, such a bank is not considered to be controlled by a single foreign investor. In Poland those differences are not significant, but in the case of Hungary ‘adding’ the banks with several foreign shareholders controlling a total of over 50% of shares makes the share of banks controlled by foreign equity over 30% higher. For the CEC-5 group, the value of the ratio calculated by applying the method which takes into account solely individual majority investors should be lowered by 5.4 percentage points in 2006.
Source: EU Banking Structures. Frankfurt, October 2006, ECB; reports of central banks of the Czech Republic, Poland, Slovakia, Slovenia and Hungary.

Italy was ranked 10th as to the value of capital invested in the Polish banking sector.

It is expected for example that in Finland the share of foreign capital in the assets of the banking sector would increase as a result of mergers and acquisitions (e.g. the acquisition of Sampo Bank by Danske Bank) to over 70%. More in: Financial Market Report 4/2006, 22 January 2007, Bank of Finland, p. 12.
As in the previous year, also in 2006 the number of employees of the Polish banking sector increased (by 3.3% expressed as the number of full-time positions). Employment in commercial banks in particular increased by 3.5% (Figure 4.1.5). The trend was in line with the medium-term increase in the number of employees in the entire services sector. It was the result of adjusting the sector structure of the Polish economy to the new market conditions. The head offices of commercial banks increased the level of employment by 2,660 (an increase of 7.5% as compared to 2005), mainly due to their preparations to introduce new risk management methods and financial reporting systems (Table 4.1.2). Although the increase in the number of employees of commercial banks' field branches was lower than that of head offices, it signified the reversal of the tendency to reduce personnel, observed in the previous years. In 2006, also the field branches of cooperative banks increased their employment level.

During the two previous years, the average number of employees of commercial banks per one field branch remained stable and amounted to 11. As to head offices of commercial banks,

<table>
<thead>
<tr>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking sector</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>in head offices</td>
</tr>
<tr>
<td></td>
<td>in field branches</td>
</tr>
<tr>
<td>The number of</td>
<td>head offices</td>
</tr>
<tr>
<td></td>
<td>field branches</td>
</tr>
<tr>
<td>Commercial banks</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>in head offices</td>
</tr>
<tr>
<td></td>
<td>in field branches</td>
</tr>
<tr>
<td>The number of</td>
<td>head offices</td>
</tr>
<tr>
<td></td>
<td>field branches</td>
</tr>
<tr>
<td>Cooperative banks</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>in head offices</td>
</tr>
<tr>
<td></td>
<td>in field branches</td>
</tr>
<tr>
<td>The number of</td>
<td>head offices</td>
</tr>
<tr>
<td></td>
<td>field branches</td>
</tr>
</tbody>
</table>

Table 4.1.2. Changes in employment level and the number of field branches in the banking sector, 2005–2006 (%)

Note: The table does not include foreign branches of domestic banks.

Source: NBP.
The scope of overseas operations of domestic banks remained insignificant. Only three domestic banks operated through their foreign field branches in 2006, namely Raiffeisen Bank Polska SA in Lithuania (representative office), Bank Gospodarki Żywnościowej SA in Russia (representative office) and Bank Polska Kasa Opieki SA in France (branch). As at the end of the year, they employed a total of 29 employees.

4.1.2. Changes in the structure of bank assets and liabilities

Structure of assets

Changes to the structure of assets of the banking sector which took place in 2006 continued earlier trends. As in previous years, the most significant item were claims on non-financial customers. Their share increased to 46.3% (Figure 4.1.6) and remained close to the average value of the ratio for CEC-5 countries. Simultaneously, the share of securities and claims on financial corporations decreased.

The significant increase in claims on non-financial customers in commercial banks was mainly due to the higher growth rate of lending to households (an increase of 36.0%), particularly of residential lending (an increase of 54.7%). Lending to enterprises also increased (by 14.2%), particularly loans to finance real property and operational loans.

Securities – second largest balance-sheet item – posted a much lower growth rate (an increase of 6.2% as compared to 14.9% in 2005). Their share in the assets of commercial banks dropped to 21.8% (Tables 4.1.3 and 4.1.4). The decrease in the value of the Treasury bills portfolio was triggered by the Ministry of Finance limiting its supply.

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112 If commercial banks with no field branches were excluded, the value of the ratio would increase from 927 to 941 in the years 2005-2006.

113 In the CEC-5 group, the share of claims on non-financial customers in total banks assets in 2006 was close to 50%, with the highest share observed in Slovenia and Hungary and the lowest in Slovakia (source: data provided by the central banks of the Czech Republic, Slovakia, Slovenia and Hungary).

114 The demand for loans of the corporate sector increased mainly due to the increase in demand for investment financing, mergers and acquisitions, inventory and working capital. Also, banks mitigated their conditions and criteria for loan extension. More in: Sytuacja na rynku kredytowym – wyniki ankiety do przewodniczących komitetów kredytowych – IV kwartał 2006, Warsaw 2006, NBP, p. 1.
The most significant reason behind the decrease in the share of claims on financial corporations was engaging funds mainly in lending to non-financial customers. The value of deposits of commercial banks placed in other domestic banks increased by 17.6% as compared to 2005. However, the increase pertained solely to current accounts and one-day deposits, not to term deposits. Deposits placed in foreign banks remained unchanged and constituted over 2/3 of all deposits and funds on current accounts maintained by other banks.

In 2006, cooperative banks posted slightly lower growth rate of lending to non-financial customers (increase in claims by 22.3%) than commercial banks (27.1%). Simultaneously, they posted a significant increase in both securities (by 66.8%) and in claims on general government (by 62.5%). The value of Treasury securities held by cooperative banks increased to PLN 1.3 billion. The trend to gradually increase the role of cooperative banks in the credit lending needs of local government, which has been visible for years now, continued.

Table 4.1.3. Structure of commercial bank assets between 2003 and 2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and due from central bank</td>
<td>4.0</td>
<td>3.8</td>
<td>3.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Claims on non-financial customers</td>
<td>43.7</td>
<td>41.1</td>
<td>41.7</td>
<td>45.8</td>
</tr>
<tr>
<td>Claims on financial corporations</td>
<td>15.2</td>
<td>19.4</td>
<td>20.2</td>
<td>19.0</td>
</tr>
<tr>
<td>Claims on general government</td>
<td>4.1</td>
<td>3.9</td>
<td>3.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Securities, of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Treasury bonds</td>
<td>24.1</td>
<td>22.4</td>
<td>23.9</td>
<td>21.8</td>
</tr>
<tr>
<td>– Treasury bills</td>
<td>13.0</td>
<td>12.8</td>
<td>14.3</td>
<td>14.1</td>
</tr>
<tr>
<td>– money market bills</td>
<td>4.8</td>
<td>4.4</td>
<td>2.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>4.5</td>
<td>4.0</td>
<td>3.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Other assets</td>
<td>4.4</td>
<td>5.4</td>
<td>4.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

1 Except for debt conversion bonds.
2 Claims arising from securities purchased under repurchase agreements, and other assets.

Source: NBP.
Financial institutions

Asset securitisation

The size and structure of the balance sheets of commercial banks were also influenced by securitisation transactions. In Poland, securitisation mostly took place in the form of selling irregular loans to securitisation funds by banks. In 2006, such operations were conducted by, inter alia, ING Bank Śląski SA in February, Kredyt Bank SA in April, PKO Bank Polski SA in August, and Bank BPH SA in December. New loans of high quality at initial stages of repayment were rarely the object of securitisation transactions. The assets of securitisation funds which operated in the domestic market and also served entities from outside the banking sector increased from PLN 95.9 million in 2005 to over PLN 523.9 million as at the end of 2006.

To a lesser extent, securitisation also functioned as an alternative method of obtaining funds (“releasing” capital) through the issue of securities on the basis of assets pooled from a bank’s balance sheet. A precondition for the profitability of such issue was ensuring the appropriate quality of base assets as well as the division into tranches. In Poland, dividing loans into tranches was rare, as dominant transactions were those carried out by a non-standardised securitisation fund and not by a special purpose vehicle or a standardised fund where there would be a possibility to section off sub-funds with different risk profiles.

The emergence of the above securitisation model in Poland was due to, on the one hand, the current needs of banks, and on the other, to the specificity of domestic fiscal solutions and regulations on the operation of investment funds. The fiscal regulations in force were not conducive to securitising assets by banks through a special purpose vehicle. Banks were authorised to include the loss due to selling credit debt in tax deductible costs only when a securitisation fund was party to the transaction. The Act on Investment Funds gave preference to non-standardised funds, which did not allow for differentiating the risk related to investment certificates issued, but did

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115 As at the end of 2006, 11 securitisation funds held operation permits issued by the Polish Financial Supervision Authority. More information on securitisation funds currently operating in Poland can be found in: M. Matusiak, Sekurytyzacja zmieni rynek, “Bank”, April 2007, p. 11.

116 The value of securitisation funds’ assets as at the end of 2006 amounted to almost 2% of the value of irregular claims of banks on non-financial customers as at the end of 2005.

117 The essence of securitisation transactions in the world is the division of securitised assets into tranches according to different risk classes (i.e. stratification from Latin *stratus* – layer). As a result of stratification, an investor is offered securities of different risk level (loss likelihood) and a different return rate. By selling securitisation securities of the highest quality (premium tranches), the issuer obtains funds for the bank at a relatively low price.

118 i.e. the difference between the amount obtained from selling the debt and the value of the securitised debt. More in: Financial System Development in Poland 2005, Warsaw 2005, NBP, p. 182.
not, *inter alia*, have an obligation to retain a major part of their assets as uniform debt which would produce regular inflow of capital (the so-called pools).\(^{119}\) Regardless of the form of operations, regulations allowed exempting an entity which rendered a securitisation service from the obligation to pay the VAT. Servicing securitised debt (*inter alia*, execution) was nevertheless taxed at the rate of 22%.

In February 2006, Dominet Bank started its programme of securitisng the regular loans portfolio through a special purpose vehicle.\(^{120}\) In March 2006, Raiffeisen Bank Polska SA and Czech Raiffeisenbank a.s., with the cooperation of KfW (Kreditanstalt für Wiederaufbau) and the EIF (European Investment Fund) conducted the first synthetic securitisation of loans in Central and Eastern Europe, whose value was EUR 267 million and EUR 183 million, respectively.

Banks only sold “bad” loans, as conducting a securitisation transaction is both time-consuming and costly, the Polish banking system has a relatively high degree of liquidity understood as the availability of funds to finance operations, and it was difficult to unambiguously interpret some fiscal regulations. The main reason behind banks’ decisions was to improve their capital adequacy. Banks could not account for the loss on selling debt in case of direct debt sale to a debt recovery company. Therefore, instead of purchasing debt from banks, debt recovery entities purchased investment certificates issued on the basis of irregular loans sold earlier on by the bank to a securitisation fund.

In order to ensure the appropriate pace and direction of development of securitisation in Poland it will be necessary to, on the one hand, increase banks’ investment in devising securitisation methods and procedures, and to train their personnel in respect of securitisation techniques, and on the other, to create appropriate institutional and legal conditions by the supervision and regulators. Securitisation transactions should gain importance, particularly as the interest in mortgage loans, which dominate the portfolio of securitised assets in Europe, has been growing significantly.

### The structure of liabilities

As in previous years, liabilities to non-financial customers were still the main item of the structure of asset financing sources in the banking sector. In the segment of commercial banks, their value increased within the year by 12.7% and amounted to PLN 351.5 billion. However, since the growth rate of liabilities to non-financial customers was lower than the growth rate of liabilities to financial corporations, the share of the former in the liabilities of commercial banks decreased to 55% (Table 4.1.6, Figure 4.1.7). Deposits constituted almost 98% of liabilities to non-financial customers. Their value increased to PLN 343.4 billion in 2006, which was mainly due to a 26.9% increase in the value of corporate deposits. Deposits of households increased at a faster pace than in the previous year, yet the increase pertained solely to current deposits. In 2006, commercial banks saw a decrease in the value of term deposits of households by PLN 6.5 billion, with a simultaneous increase in the value of current deposits by PLN 19.4 billion.

Liabilities to financial corporations were the second largest source of financing for commercial banks (an increase of 28.9%). The high growth rate in this category can be mainly attributed to an increase in the value of interbank deposits, particularly current deposits (by 56.4%).\(^{121}\) A significant role was also played by term loans extended by foreign banks (frequently parent companies). At the end of 2006, their value amounted to PLN 19.2 billion, which constituted 16.2% of commercial banks’ liabilities towards financial corporations.

In 2006, the outstanding value of debt securities issued increased by 69.3% to PLN 15.9 billion, mainly as a result of one of the large universal banks issuing Eurobonds. Some banks offered

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\(^{120}\) M. Nowaczewska, *Sekurytyzacja portfeli kredytów: Dominet Bank przeciera szlaki*, “Gazeta Ubezpieczeniowa” of 14 March 2006.

\(^{121}\) As a result, commercial banks saw a higher mismatch of assets and liabilities with the shortest maturity, i.e. up to 1 month (as a consequence of an increase in short-term liabilities) and over a year (due to an increase in long-term claims on non-financial customers).
structured deposits in the form of debt securities including options both to their individual and to corporate customers. For example, one of Poland’s largest banks issued Structured Certificates of Deposit (SCD), i.e. bearer securities comprising a zero-coupon bond\textsuperscript{122} and an option (e.g. for indices of commodity prices, equity or real property prices, for exchange rate or interest rate).

\textbf{Figure 4.1.7. Structure of commercial and cooperative bank liabilities, 2005–2006}

\textbf{Table 4.1.6. Structure of commercial bank liabilities, 2003–2006 (%)}

<table>
<thead>
<tr>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to central bank</td>
<td>0.5</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Due to non-financial customers</td>
<td>59.7</td>
<td>56.7</td>
<td>56.5</td>
</tr>
<tr>
<td>Due to financial corporations</td>
<td>15.5</td>
<td>15.3</td>
<td>16.6</td>
</tr>
<tr>
<td>Due to general government</td>
<td>3.9</td>
<td>4.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Securities issued and outstanding</td>
<td>1.1</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Capital and subordinated debt</td>
<td>10.1</td>
<td>9.7</td>
<td>9.3</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>9.1</td>
<td>12.1</td>
<td>10.7</td>
</tr>
</tbody>
</table>

\textbf{Source: NBP.}

\textbf{Table 4.1.7. Selected liabilities of commercial banks, 2003–2006 (PLN billion)}

<table>
<thead>
<tr>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to non-financial customers</td>
<td>276.7</td>
<td>288.8</td>
<td>311.9</td>
</tr>
<tr>
<td>Due to financial corporations</td>
<td>71.8</td>
<td>78.2</td>
<td>92.0</td>
</tr>
<tr>
<td>Due to general government</td>
<td>17.9</td>
<td>22.5</td>
<td>26.2</td>
</tr>
<tr>
<td>Securities issued and outstanding</td>
<td>5.2</td>
<td>6.5</td>
<td>9.4</td>
</tr>
<tr>
<td>Capital and subordinated debt</td>
<td>46.8</td>
<td>49.7</td>
<td>51.7</td>
</tr>
</tbody>
</table>

\textbf{Source: NBP.}

\textsuperscript{122} Securities for which the legal basis of issue was the Banking Law.
Financing of cooperative banks was based on funds obtained from non-financial customers (in 76.8%, an increase of 1.7 percentage point) to a greater extent than in the case of commercial banks. The increase in their share in the financing structure was mainly triggered by an increase in current deposits of individual farmers (by 65.1%) related to direct payments made by the Agency for Restructuring and Modernisation of Agriculture (ARMA) (Agencja Restrukturyzacji i Modernizacji Rolnictwa – ARiMR). The accounts of cooperative banks maintained by two affiliating banks were credited with PLN 5.8 billion for direct area payments in 2006. Furthermore, the funds in the accounts of companies and sole proprietors increased (by over 32%), as well as term and current deposits of individuals (by 19.3%). Other significant sources of financing of cooperative banks’ operations were: own capital and deposits of general government (Figure 4.1.7).

4.1.3. Changes in the structure of claims and liabilities to non-financial customers

Exposures of banks towards non-financial customers have the largest share in the structure of assets and liabilities of the banking system both in Poland and in the majority of EU Member States. Therefore, as in previous editions of the study, this section discusses them in greatest detail.

Diagram 4.1.1. Division of the economy into sectors in NBP reporting – non-financial customers

4.1.3.1. Claims on non-financial customers

The fast growth rate of claims of the banking sector on households persisted in 2006. In that year, for the first time in history, the value of claims on individuals exceeded the value of claims on enterprises (Figure 4.1.8). The indebtedness of companies increased by 14.5%, yet not as much as to offset the effect of changes in the structure of claims, triggered by a significant increase in the value of loans extended to individuals (37.5%), mainly residential loans (by 54%).

123 As at the end of 2006, the share of claims on non-financial customers in the banking sector assets amounted to 46.3%, and the share of liabilities to non-financial customers in the sector’s liabilities amounted to 56.4%. The shares of financial corporations were 19.7% and 17.5%, respectively.

124 In 2006, the share of loans extended to non-financial customers in the assets of the banking sector of EU-25 countries amounted to 41% on average (47% for the EU-10).
These trends indicate that the retail banking segment is the fastest-developing segment of banking services in Poland. The same trend is also observed in other EU countries, particularly in new Member States, where the growth rate of loans to households is much higher than the average for the euro area (Figure 4.1.9).

The subsequent part of this section analyses loans as they dominated the structure of claims on non-financial customers in Poland (98.3% as at the end of 2006).

**Loans to non-financial customers**

The year 2006 saw a further increase in the growth rate of loans to non-financial customers (Table 4.1.9). As in the previous year, indebtedness resulting from loans to households grew at the fastest pace (34.5%). However, the increase in the growth rate of loans to enterprises (14.5%, as compared to 3.6% in 2005) was the most significant. As at the end of 2006, loans to households reached the value of PLN 183.4 billion, and loans to enterprises – PLN 138.8 billion. The type structure of loans to non-financial customers did not change significantly (Figure 4.1.10), the only increase concerned the share of real property loans (mainly to individuals) – from 26.6% to 31.7%.

The development of the residential loan market was reflected in the term structure of loans. Banks’ claims on households increased markedly, particularly the value of loans with original maturity of above 20 years (Figure 4.1.11). The currency structure of loans saw a slight decrease in the share of loans denominated in zlotys (from 73.3% to 72%).

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125 Out of the new EU Member States, Poland had the highest ratio of household loans to loans to enterprises (135.1% in 2006). The growth rate of the ratio was also the highest in Poland.
Table 4.1.9. Changes in selected categories of loans to non-financial customers, 2004–2006 (%)

<table>
<thead>
<tr>
<th>Loan category</th>
<th>Enterprises</th>
<th>Households</th>
<th>Non-financial customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorised overdraft</td>
<td>8.6</td>
<td>18.9</td>
<td>17.0</td>
</tr>
<tr>
<td>Investment loans</td>
<td>-10.5</td>
<td>3.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Real property loans, of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– residential loans</td>
<td>-15.5</td>
<td>6.1</td>
<td>16.4</td>
</tr>
<tr>
<td>Credit card lending</td>
<td>-0.9</td>
<td>96.0</td>
<td>15.6</td>
</tr>
<tr>
<td>Other loans and advances¹</td>
<td>-5.7</td>
<td>-9.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Total</td>
<td>-4.0</td>
<td>3.6</td>
<td>14.5</td>
</tr>
<tr>
<td>Mortgage-backed loans²</td>
<td>11.8</td>
<td>5.7</td>
<td>17.3</td>
</tr>
</tbody>
</table>

¹ Mainly consumer loans, including credits within instalment sales systems. The category does not include, inter alia, discount loans, export loans, securities purchase loans etc.
² Among total loans.
³ The “households” category includes: individuals, sole proprietors and individual farmers.

Source: NBP.

Figure 4.1.10. Type structure of loans to non-financial customers, 2004–2006 (%)

¹ This category includes types of loans to non-financial customers omitted in the chart; it is different from the “Other loans and advances” category in Table 4.1.9 as it covers the value of export loans, discount loans, and securities purchase loans.
² Source: NBP.
Loans to households

The growth rate of loans to households influenced the increase of the total value of loans to non-financial customers to the largest extent. Residential loans to individuals contributed as much as 42% of the increase. In 2006, the indebtedness of individuals due to residential loans exceeded the total value of their indebtedness due to all other loans for the first time. The faster increase in residential loans as compared to consumer loans influences the structure of the Polish loan market, which is gradually becoming similar to that of euro area countries, where residential loans are of the greatest importance.

Residential loans

In 2006, the growth rate of residential loans to households was much higher than in the previous year and amounted to 54.3% (40.9% in 2005). As compared to other countries of the region, where the increase in residential loans was much higher than in the euro area (Figure 4.1.13), the indebtedness of Polish households due to residential loans increased the most and amounted to PLN 78.2 billion as at the end of 2006. In 2006, banks concluded over 255,000 residential loan agreements.\textsuperscript{126} As a result, the share of residential loans in the structure of loans to households increased and amounted to 44.4% as at the end of 2006. This was the highest level

\textsuperscript{126} ZBP data.
recorded so far in Poland, yet it is still relatively low as compared to other EU countries (an average of 60%).

As in the previous year, the demand factors conducive to the dynamic development of the residential loans market in 2006 comprised favourable macroeconomic conditions and the further improvement of the financial standing of households. Introducing fixed fees for making entries in land and mortgage registers, which translated into the possibility to lower the cost of purchasing a flat financed with a mortgage-backed loan (particularly in large cities) was an advantageous solution for borrowers. An additional impulse for the increase in loan demand was the prospect of liquidating the interest allowance\(^1\) in 2006 and increasing the VAT rate on construction materials in 2008, which might have impacted the further increase in apartment prices. Despite the increase in the value of available loans, the simultaneous increase in real property prices significantly influenced the purchasing power of borrowers. Considering the observed decrease in the ratio of apartment availability in Poland\(^2\) caused by the much faster increase in apartment prices than in remunerations\(^3\) and the increasing global tendency of interest rate increase, retaining the current level of demand for residential loans seems difficult.

On the supply side, mitigation of conditions and criteria for extending loans\(^4\) by banks was still visible, so was the intensification of marketing activities and an even more flexible offer of residential loans, e.g. extending the original maturity of loans (in some banks up to 50 years), an increase in the value of loans offered to customers with national average wage – as at the end of 2006, the value of such loans amounted to even PLN 300,000 and was ca. 20% higher than a year before. This influenced the increase in the average value of residential loans to households, which amounted to PLN 165,000 in 2006.\(^5\) Considering the term structure, non-financial entities posted the highest indebtedness due to residential loans extended for 10 to 20 years at the end of 2006 (Figure 4.1.14).

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\(^1\) More information on the subject can be found in Chapter 2.
\(^2\) More on the subject can be found in: Financial Stability Report 2006, Warsaw 2006, NBP, p. 43. The ratio was calculated as a relation of the average price of one square metre of an apartment in Warsaw to the average remuneration in the Mazowieckie Voivodeship.
\(^3\) According to GUS data, the increase in the average monthly remuneration in national economy in 2006 amounted to 4.1%. The price of 1 sq.m. of residential premises in 5 largest Polish cities increased from 55% to 75%, depending on the location. More in: Financial Stability Report 2006, Warsaw 2007, NBP.
\(^4\) Sytuacja na rynku kredytowym. Wyniki ankiety do przewodniczących komitetów kredytowych, Warsaw 2006, NBP.
\(^5\) On the basis of NBP and ZBP data.
The offer of residential loans was also influenced by the so-called Recommendation S,\textsuperscript{132} issued by the Commission for Banking Supervision, which entered into force on 1 July 2006. Its recommendation for banks to apply more stringent requirements of credit rating assessment of those applying for mortgage loans, including loans denominated in foreign currencies,\textsuperscript{133} as well as the remaining provisions on mortgage-backed exposures triggered changes in the currency structure of residential loans in 2006. The share of loans denominated in PLN in the currency composition of those exposures increased since the recommendation entered into force (Figure 4.1.15). Its application did not result in decreasing the current growth rate of the residential loans market in Poland. The impact of Recommendation S on the currency composition of residential loans was also confirmed by NBP surveys conducted among banks.\textsuperscript{134}

\textsuperscript{132} Recommendation S on good practices in the field of mortgage secured credit exposures. Commission for Banking Supervision, Warsaw 2006, NBP.

\textsuperscript{133} In the case of loans denominated in foreign currencies, banks should analyse the customer’s credit rating on the assumption that the interest rate for the currency loan equals at least the interest rate of a loan denominated in PLN and the loan capital is higher by 20%. It is also advised that banks offer loans denominated in PLN to customers in the first place.

\textsuperscript{134} Sytuacja na rynku kredytowym. Wyniki ankiety do przewodniczących komitetów kredytowych (IV kwartał 2006), Warsaw, October 2006, NBP.
Recommendation S, which is a set of recommendations for banks, constitutes a quality standard and, not being a source of law, is not binding for banks. In 2006, banking supervision also planned to introduce quantitative norms for foreign currency loans. It was considered to limit the use of a preferential risk weight in the capital adequacy account only to loans granted in or indexed to a currency in which the debtor earns income. The risk weight proposed for mortgage-backed currency loans was 100% or 75%. Currently the weight is 50% and it will decrease to 35% in line with the provisions of the CRD.

As at the end of 2006, currency loans constituted 63.8% of banks’ debt due to loans extended to households for residential purposes. However, while currency loans constituted 77.4% of residential loans extended in January, among loans extended in December the share diminished to about 60%. As at year-end, 90% of currency residential loans extended to households were loans denominated in the Swiss franc (80.2% in 2005). The currency composition of residential loans to households is presented in Figure 4.1.16.

**Loans to enterprises**

In 2006, the growth rate of loans to enterprises increased significantly. In 2004, the growth rate was negative and amounted to -4.0%, in 2005 it amounted to 3.6%, while in 2006 it increased to 14.5%. As a result, at the end of 2006, bank indebtedness of enterprises due to loans was higher by PLN 17.5 billion than in the previous year and amounted to PLN 138.8 billion. Such a high increase in the value of loans to enterprises was last posted in 1998.

The increase in the growth rate of Polish enterprises’ indebtedness in 2006 was triggered by banks mitigating their lending policy towards the sector. Interest rates on loans and access limitations are becoming less of a barrier to economic activity development by the year. NBP studies show that between 2002 and 2006 the percentage of enterprises which saw the cost of a loan as a barrier to development decreased from 12% to about 1%.

The increase in the growth rate of lending to enterprises in Poland in 2006 did not trigger substantial changes in their type structure: the highest share was still that of investment and operational loans as well as overdraft facilities (Figure 4.1.10). The highest growth rate of all categories of loans to enterprises was recorded for real property loans (25.9%), including mortgage-backed loans. The relatively high growth rate of overdraft facilities that has been visible for two years is due to their facilitated accessibility and fewer formal requirements imposed by banks as

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135 i.e. 100% in the case of banks which will apply the current principles of the capital adequacy account in 2007 and 75% in the case of banks which will implement the CRD.

136 ZBP data.

compared to other types of credit. Also, the interest rate on overdraft facility was still lower than the interest rate on long-term loans, which made it additionally attractive (Figure 4.1.17). The year 2006 saw the long-expected significant increase in the growth rate of investment loans. In 2004, their growth rate was negative and amounted to -10.5%, a year later only 3.8%, and 11.3% in 2006 (Figure 4.1.9). Apart from the completion of debt restructuring, the factors conducive to the increase in the growth rates of loans to enterprises were the increasing consumer demand in the domestic economy and foreign demand, which allowed for increasing the sales of manufactured goods and services. Retaining the current market position in the light of increasing competition necessitated making additional investments due to the record-high capacity utilisation.

**Development of the payment card market**

The growth rate of payment cards was high in Poland in recent years. As credit cards posted the highest growth rate, this section discusses them in greater detail.

In 2006, the number of payment cards issued in Poland increased at a slower pace than in the previous year (17.1% as compared to 20.5%). As at the end of 2006, there were 23.8 million payment cards (credit, debit and charge cards) in circulation, i.e. 3.5 million more than in 2005 (Figure 4.1.18).

The increase was mainly triggered by the increase in the number of credit cards issued. The number increased by 2.2 million and amounted to 6.4 million at the end of the year. Although the growth rate of the number of credit cards was not as high as in 2005, yet it remained at a high level (52.8%) and was again much higher than the growth rate of debit cards. As a result, the share of credit cards increased in the structure of payment cards by the year. In 2002, it was only 4.8%, while in 2006 – as much as 26.6%. It is worth noting that the increase in the number of issued credit cards results in an increased share of the number of transactions with their use in the total number of payment card transactions (from 5.8% in 2002 to 11.2% in 2006). The increase in the number of payment cards in circulation translated into an increase in the number of card transactions (Figure 4.1.19). In Q4 of 2006, it amounted to 247 million and was 38 million higher than in the previous year.

An analysis of the average value of card transactions (Figure 4.1.20) shows that in Poland they are used rather to fulfil short-term financial needs. The average value of a transaction

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138 In 2006, the growth rate of individual consumption amounted to 5.2% (2.0% in 2005). GUS data.
139 It is worth noting that as to the technology of data recording, the highest growth rate was posted by payment cards fitted with both a magnetic stripe and a microprocessor. Yet, the over 100% growth rate is mainly due to the low base effect. As at the end of 2006 there were 1.3 million such cards in circulation.
Figure 4.1.18. Number of payment cards in Poland and its growth rate, 2003–2006

Source: NBP.

Figure 4.1.19. Number of transactions performed with payment cards in Poland and its quarterly growth rate, 2003–2006

Source: NBP.

Figure 4.1.20. Average value of transactions performed with payment cards in Poland, 2003–2006

Source: NBP.
performed with a credit card has been PLN 170–180 for a few years now. Credit cards continued to be used in emergency situations. It is also worth stressing that the repayment of debt within the credit limit on the card usually took place within the so-called grace period. Therefore, a significant increase in household spending in relation to the use of credit cards on which interest will be charged is not to be expected in subsequent years.

The popularisation of credit cards among households is influenced by the activities of banks, which offer them jointly with a growing number of other banking products, including cash advances and mortgage loans. In 2006, credit cards were even issued to customers with average monthly net remuneration of as little as PLN 450. Banks more frequently made the total cost of holding a credit card (fees for issue and use) conditional on the value and number of transactions made with their use. The interest rate on credit card debt was still high and rather close to the statutory limit (i.e. four times that lombard loan rate). Banks also competed in another way – by extending the grace period (in one of the banks it was as long as 116 days). Partner cards, issued in cooperation with a wide range of non-banking institutions, were also highly popular. They allowed banks access to new groups of customers.

Despite the fast increase in the number of credit cards in circulation, the share of transactions performed with them in the total value of card transactions in Poland was insignificant (7.5%). The Polish market was still dominated by debit cards, both in terms of their number and the value of transactions. The vast majority of transactions performed in 2006 with payment cards were cash transactions. Their share was 79.8% in terms of value and 59.2% in terms of number (they were mainly cash withdrawals from ATMs). Payment card users used them more frequently for cash transactions; the average value of such a transaction was almost three times higher than that of a non-cash transaction (PLN 335 as compared to PLN 123) (Figure 4.1.21). Nevertheless, the share of non-cash transactions in total payment card transactions has been gradually increasing since Q1 of 2005. It is quite probable that the trend will continue in subsequent years with the increase in the number of credit card users.

4.1.3.2. Liabilities to non-financial customers

In 2006, the growth rate of liabilities to all non-financial customers was 13.7%, and their value increased to PLN 382.2 billion (Figure 4.1.22). As in 2005, the growth rate of liabilities to enterprises (25.9%) was much higher than the growth rate of liabilities to other categories of non-financial customers (an average of 8.5%).

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Contrary to claims, the share of enterprises gradually increased in the structure of liabilities of the banking sector towards non-financial customers (Figure 4.1.22) and amounted to 33.5% as at the end of 2006. This means that enterprises were becoming a more significant source of the increase in banks’ deposit base.

Due to the fact that deposits constitute the majority of liabilities to non-financial customers (97.8% as at the end of 2006), the further part of this section will be devoted exclusively to the analysis of this balance-sheet item.

**Figure 4.1.22. Liabilities to non-financial customers, 2003–2006**

![Figure 4.1.22](image)

Note: “individuals” are included in the “households” category.
Source: NBP.

**Figure 4.1.23. Structure of liabilities and claims on non-financial customers, 2003–2006**

![Figure 4.1.23](image)

Source: NBP.

**Deposits of non-financial customers**

In 2006, the growth rate of non-financial customers’ deposits was higher than in the previous year and amounted to 14.1% (8.7% in 2005) – cf. Table 4.1.10. The value of funds gathered by non-financial entities in deposit accounts maintained by banks increased by PLN 46.4 billion (including those in the accounts of enterprises by PLN 26.7 billion, and in the accounts of households – by PLN 18.9 billion) and amounted to PLN 375.6 billion. Funds of enterprises were the source of the 57.5% growth of non-financial customers’ deposits. The highest growth rate was again recorded in current deposits.

The year 2006 was the second subsequent year of the positive growth rate of households’ deposits. Yet, it was slightly lower than in 2005 and still significantly lower than in the case of enterprises. As the structure of households’ savings is becoming increasingly diversified,\(^{141}\) it is difficult to assess whether the reversal of the downward trend in this sector’s deposits, observed

\(^{141}\) More in Chapter 1.
in 2005 would last. It is worth noting that the increase in the growth rate of households’ deposits (from 5.4% to 8.6% in 2006) was not only due to the improved financial standing of individuals, as the value of funds in current accounts of individual farmers increased significantly in December (by PLN 1.6 billion). The inflow was connected with transfers of payments for European Union farmers. In 2006, the balance of deposit accounts of farmers increased by PLN 2.3 billion and triggered over 12% increase in the deposits of households.

The relatively low growth rate of households’ deposits and, particularly, the negative growth rate of changes in term deposits, visible for a few years now, show that households are increasingly willing to use other ways to deposit long-term savings (particularly in investment funds) which allow for obtaining much higher profits than traditional term deposits during the bull market. With the popularisation of other methods of long-term saving in Poland, in the nearest future one can expect a further gradual decline in the use of bank deposits and the related changes in the term structure of households’ deposits, i.e. an increase in the share of current deposits (Figure 4.1.24). This will nevertheless depend on both the stock exchange situation and the level of market interest rates in the coming years.

The currency composition of non-financial customers’ deposits was relatively stable in the past three years. PLN deposits had a dominating share (over 80%), as their growth rate among all non-financial customers’ increases by the year. Only in the case of enterprises has the growth rate of currency deposits exceeded the growth rate of PLN deposits for years. This is due to the increase in trade operations abroad.

Table 4.1.10. Changes in non-financial customers’ deposits, 2004–2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>Enterprises</th>
<th>Households</th>
<th>Non-financial customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>26.2</td>
<td>23.7</td>
<td>21.5</td>
</tr>
<tr>
<td>Term</td>
<td>22.4</td>
<td>8.8</td>
<td>34.1</td>
</tr>
<tr>
<td>PLN</td>
<td>23.6</td>
<td>13.2</td>
<td>25.9</td>
</tr>
<tr>
<td>Currency</td>
<td>28.4</td>
<td>33.9</td>
<td>30.9</td>
</tr>
<tr>
<td>Total</td>
<td>24.4</td>
<td>16.8</td>
<td>26.9</td>
</tr>
</tbody>
</table>

Source: NBP.

Figure 4.1.24. Term and currency structure of non-financial customers’ deposits, 2004–2006

A. Term structure

B. Currency structure

Source: NBP.
4.1.4. Banking sector earnings and performance

In 2006, the net profit of banks increased by 15.8\% and reached its historical high of PLN 10.6 billion (Figure 4.1.25). This was accompanied by a slight decrease in the high growth rate of the earnings of the sector, observed between 2004 and 2005. Achieving such results was possible mainly due to increasing the sale of loans to non-financial customers (mainly residential loans to individuals) and enhancing their quality (lower reserve burden on earnings). In addition, the share of current deposits in financing banks’ operations was higher than in 2005, and was conducive to a slight increase in the interest spread between the average interest rate on loans and deposits.

In 2006, as much as 98.4\% of the increase in the net profit of the banking sector was generated by commercial banks. Their gross earnings amounted to almost PLN 12.4 billion and were 19.1\% higher than in the previous year. Net earnings reached PLN 10.1 billion, which translates into a growth rate almost two times lower than in the previous year (Figure 4.1.25). Out of 63 commercial banks, 50 ended the year with a (net) profit, and 13 with a loss. In the second group, as many as 9 entities are newly established branches of credit institutions, which incurred relatively high entry costs.

As in previous years, the basic source of commercial banks’ profit was interest income. It increased by PLN 1.9 billion (11.4\%), and its share in the structure of income on banking activity amounted to 57.8\%. The increase in banks’ interest income as compared to services rendered to non-financial customers was mainly due to the lowering of interest costs. From among banks’ non-interest revenues, revenues from fees and commissions were the most important. As at the end of 2006, the related income was PLN 8.4 billion and constituted 26\% of the income on banking activity. The increase by 22.7\% was a result of the intensified sale of non-banking financial products, among others, units in investment funds and insurance policies. This phenomenon is in line with the all-European trend to gradually increase the significance of non-interest revenues in the structure of banks’ income.\footnote{EU Banking Structures, Frankfurt, October 2006, ECB, pp. 36 and 38.} Revenues from stocks, shares and other securities of a variable rate of return, as well as the income on financial operations were of lesser influence on profit. The income on net foreign exchange gains of commercial banks deteriorated by over 22.5\% as compared to the previous year. This was influenced by a decrease in the interest income recognised in this position (on swap points) due to the smaller difference between interest rates in Poland and abroad.

Figure 4.1.25. Net earnings of commercial and cooperative banks in Poland, 2003–2006

Source: NBP.

\footnote{The results of the banking sector for 2005 and 2006 are not fully comparable with results from previous years due to the introduction of International Financial Reporting Standards. More on the subject can be found in: Sytuacja finansowa banków w 2005 r. Synteza, Warsaw 2006, NBP, p. 14.}
Although none of the cooperative banks sustained a loss, net profit in this sector decreased by 0.5% in respect of 2005. The decrease in profit was due to the increase in interest income, which was less dynamic than in the previous period (by 1.8% as compared to 11.3% in 2005), with a similar growth rate of banks' operating costs (a yearly average of 6% between 2005 and 2006). The above trend was not set off by an over 9% increase in income on commission.

In 2006, the average profitability of banks' operations increased, as substantiated by the increase in ROA and ROE indicators (Table 4.1.11). Also, the quality of claims improved substantially as compared to 2005. The value of irregular claims on non-financial customers decreased from PLN 29.0 billion to PLN 24.1 billion. The net interest margin of the banking sector did not change (Table 4.1.12).

Favourable earnings generated by commercial banks in 2006 were mirrored in the increase of return rates on assets and on capital (Table 4.1.12). Simultaneously, the share of irregular claims in gross claims decreased due to the change in the type structure of loan exposures. The share of new residential loans to households, usually characterised by higher quality than the remaining types of loans, increased significantly. The improvement of the quality of the claims portfolio was also influenced by an improvement in the income of individuals and the sale of irregular claims to securitisation funds.

As to the profile of operations, both the highest profitability and cost effectiveness was achieved by retail banks and automotive banks. Banks of this type posted much higher margins than the average for this sector. As at the end of September 2006, the level of interest margin of retail banks amounted to 8.06%, automotive banks – 6.05%, corporate banks – 2.37%, and universal banks – 2.99%.

As opposed to commercial banks, profitability of cooperative banks deteriorated in 2006 (Table 4.1.13). While two years before cooperative banks posted higher profitability than commercial banks, in 2006 their ROA and ROE were lower by 0.4 and 7.8 percentage points, respectively. Due to the different type structure of the loan portfolio, particularly the lower share of residential loans with lower interest rates, the interest margin was significantly higher than in commercial banks.

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Table 4.1.11. Selected profitability and performance indicators of the banking sector, 2003–2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets (ROA)</td>
<td>0.5</td>
<td>1.4</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>5.8</td>
<td>17.2</td>
<td>20.6</td>
<td>22.2</td>
</tr>
<tr>
<td>Operating expense/assets</td>
<td>3.9</td>
<td>3.7</td>
<td>3.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Net interest margin (NIM)</td>
<td>3.2</td>
<td>3.3</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Non-interest income/assets</td>
<td>2.4</td>
<td>2.4</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Irregular claims/gross claims</td>
<td>21.2</td>
<td>14.9</td>
<td>11.0</td>
<td>7.3</td>
</tr>
</tbody>
</table>

1 ROA (Return on Assets) is the ratio of net earnings to average asset value.
2 ROE (Return on Equity) is the ratio of net earnings to average core capital.
3 General expense and amortisation.
4 NIM (Net Interest Margin) is the ratio of interest income less interest expense to asset value.
5 i.e. net fee income, earnings from equities and other variable-income financial instruments, net gains/losses on financial operations, net foreign exchange gains/losses.
6 The value of claims on non-financial customers was used in the calculations. In order to calculate this ratio, the definition of irregular claims was applied which is used in the banks using Polish accounting standards. According to the definition, irregular claims include substandard, doubtful, and lost loans (since January 2004, new principles of classification of claims and of establishing earmarked reserves have been in force). Banks which apply the IFRS report as irregular claims the claims where it has been objectively proven that they had lost value and were acknowledged to have lost their value pursuant to the principles defined in IAS 39.

Source: NBP.
The quality of commercial banks’ claims and profitability ratios improved, mainly due to the dynamic increase in the value of their assets.

In 2006, profitability of the Polish banking sector slightly exceeded the average for the CEC-5 region. Profitability in CEC-5 did not change significantly, yet there was still a visible discrepancy between the countries. In Slovenia and in Poland, the ROA increased (by 0.25 and 0.10 percentage points, respectively), while in the Czech Republic and Hungary the ratio decreased by 0.19 and 0.17, respectively (Figure 4.1.26). In 2006, the growth rate of profitability of basic funds in the region was usually slightly higher than the growth rate of asset profitability. Apart from the Czech Republic and Hungary, all countries under analysis saw an increase in ROE ratio (Figure 4.1.27). In the case of both ROE and ROA, the Polish banking sector generated values exceeding the regional average.

In 2006, the decrease of NIM in CEC-5 countries was not as significant as in the previous year (Figure 4.1.28). The decrease in NIM by 0.07 percentage point was a consequence of the further increase in competition in the financial services market and the lasting low level of interest rates. This is not characteristic of Poland alone. Within the EU, the convergence of the interest margin in the markets of the ‘new’ and ‘old’ Member States is visible. In the first half of 2006, the value of the NIM ratio (arithmetic mean) for euro area countries was still much lower than in the ‘new’ Member States, and amounted to 0.97%. The highest decline in the margin was recorded by Hungarian banks, yet the level of the interest margin (3.6%) remained the highest in the region.

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Figure 4.1.26. Return on Assets (ROA) in the banking sectors of CEC-5 countries, 2000–2006

Source: NBP, central banks of the Czech Republic, Hungary, Slovakia and Slovenia.

Figure 4.1.27. Return on Equity (ROE) in the banking sectors of CEC-5 countries, 2000–2006

Source: NBP, central banks of the Czech Republic, Hungary, Slovakia and Slovenia.

Figure 4.1.28. Net interest margin (NIM) in the banking sectors of CEC-5 countries, 2000–2006

Source: NBP, central banks of the Czech Republic, Hungary, Slovakia and Slovenia.
4.1.5. Consolidation and concentration of the banking sector

Consolidation processes

In 2006, none of the consolidation processes in the commercial banks sector was finalised. The main event was Italian UniCredit commencing the merger procedure of Bank Pekao SA and Bank BPH SA (Box 4.1.1). The second most important event, though of much less importance to the banking system, was the launch of the process of purchasing Dominet Bank SA by Fortis Bank SA.

Consolidation continued in the cooperative banks sector, aimed at meeting capital requirements (EUR 500,000 by the end of 2005 and EUR 1 million by the end of 2007). As a result, four cooperative banks (BS Alwernia, BS Suchożeby, BS Krymica-Zdrój and BS Kisielice) whose own funds were below the statutory level were merged with other banks associated in the Bank Polskiej Spółdzielczości SA and the Gospodarczy Bank Wielkopolski SA in January, March and July 2006. As at the end of December 2006, all cooperative banks met the capital requirements, and 387 held own funds whose value exceeded EUR 1 million.

Box 4.1.1

IMPACT OF THE TAKEOVER OF HVB BY UNICREDIT ON THE STRUCTURE OF THE POLISH BANKING SECTOR

Consolidation processes which take place in parent banks are also reflected in entities where the merging banks hold substantial ownership shares. Thus, cross-border mergers of large banks may affect the structure of banking systems not only in the countries where they are seated but also in many others. One of the most significant events which recently influenced the structure of the European banking sector was the announcement (in June 2005) of the takeover of the German HypoVereinsbank (HVB) by the Italian UniCredit group. As a result, UniCredit became the largest financial group in Central and Eastern Europe in terms of assets and one of the largest in many EU-15 markets (e.g. in Italy, Germany and Austria).1 Taking over the HBV also allowed UniCredit to access markets where it had not been present, e.g. Hungary, Ukraine, Slovenia, and Russia.

As a result of the takeover of the HVB, the share of UniCredit (through subsidiaries) in the assets of the banking sector increased (or has been increasing, as not all consolidation processes were completed by 2006) in Bulgaria (by 10 percentage points to 24.3%), Bosnia and Herzegovina (by 8.4 percentage points to 22%), Turkey (by 8.4 percentage points to 11.5%), Croatia (by 8.3 percentage points to 34%), and Poland (by 8.1 percentage points to 16.7%).2

In Poland, UniCredit and HVB were strategic investors of Bank Pekao SA and Bank BPH SA, respectively.3 The merger of the HVB and UniCredit groups triggered action aimed to merge the banks in Poland. On 5 April 2006, the Commission for Banking Supervision issued permission for Bank Pekao SA to execute its voting right in Bank BPH SA. Subsequently on 19 April, an agreement was concluded between UniCredit and the Ministry of the Treasury on, inter alia, selling 200 Bank BPH branches and its brand. UniCredit also committed itself to retain the current employment level in both banks until 31 March 2008. In November 2006, Bank Pekao SA announced that the integration of the institutions will take place by splitting Bank BPH SA, i.e. via transfer of part of assets of Bank BPH SA to Bank Pekao SA in

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1 UniCredit Group operates in 20 countries, of which 14 are located in Central, Eastern and Southern Europe.
2 In the Czech Republic, Romania and Slovakia the share of UniCredit increased less than in the countries mentioned above (by an average of 5.4 percentage points) and amounted to ca. 8.8%.
3 UniCredit Group held 52.8% of shares in Bank Pekao SA, while HVB Group (through Bank Austria Creditanstalt AG) controlled 71.03% of shares in Bank BPH SA.
the form of an organised part of the enterprise in exchange for the shares of Bank Pekao SA. According to the share allocation ratio established by the Management Board of Bank Pekao SA, each shareholder of Bank BPH SA would receive 3.3 shares of Bank Pekao SA for each Bank BPH SA share he/she holds. The split of Bank BPH is to take place – according to the schedule of Bank Pekao SA – by the end of 2007. This is also when the completion of the operational integration process is planned. Bank Pekao SA was the second, and Bank BPH SA was the third largest bank in terms of assets in Poland. On completion of the merger, the value of assets of Bank Pekao SA will be higher than the asset value of the currently largest Polish bank – PKO BP SA. As a result of the merger, the concentration level of the banking sector will increase (it is estimated that the CR3 indicator will increase from 34.2% to 39.9%, CR5 from 46.5% to 50.5% and HHi from 0.0595 to 0.0739), yet it will remain relatively low in comparison with the remaining European countries (Table 4.1.14).

Table 4.1.14. Selected data on banking sectors of countries where UniCredit held the largest share in assets, 2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of UniCredit in sector assets (%) prior to the merger</th>
<th>CR5 (%) 2006</th>
<th>Share of foreign investors in banking sector assets (%)</th>
<th>Number of commercial banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>25.7</td>
<td>34.0</td>
<td>64.0</td>
<td>90.7</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>14.3</td>
<td>24.3</td>
<td>50.3</td>
<td>81.0</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>14.6</td>
<td>22.0</td>
<td>65.0</td>
<td>78.1</td>
</tr>
<tr>
<td>Turkey</td>
<td>3.1</td>
<td>11.5</td>
<td>59.0</td>
<td>17.4</td>
</tr>
<tr>
<td>Poland</td>
<td>8.6</td>
<td>16.7</td>
<td>46.5</td>
<td>69.7</td>
</tr>
</tbody>
</table>

Note: The table only shows those countries where UniCredit ranks 1st, 2nd or 3rd in terms of assets in the banking sector after the merger.

Source: NBP, data from central banks, UniCredit.

Concentration

In 2006, the banking sector saw further decline in concentration as measured by the Herfindahl-Hirschman concentration index (HHi) in terms of net assets, loans extended to non-financial customers, and non-financial customers’ deposits (Figure 4.1.29). Similar conclusions can be drawn from the analysis of the CR5, CR10, and CR15 indices (Figure 4.1.30). The lower concentration was due to the high growth rate of smaller commercial banks’ assets (19.5%), much higher than the growth rate of largest banks’ assets (Figure 4.1.31).

The concentration level of the Polish banking sector, measured by the share of five largest entities in the sector’s assets, was much lower than the average for EU-25 countries (Figure 4.1.32). Its value ranked below the average concentration level in the banking sector of the euro area (54%). According to the above measure, the concentration level was lower in only seven countries, i.e. Germany, Italy, Luxembourg, United Kingdom, Spain, Austria and Ireland.

The increase in concentration in the European Union, related to intensified consolidation processes within the last few years, was much higher in the corporate than in the retail banking

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146 Herfindahl-Hirschman Index (HHi) for net assets is defined as the sum of squares of the shares of individual entities in the net assets of the sector. HHi indices for loans and deposits are calculated analogically. HHi can range from 0 to 1 and the higher its value, the higher the market concentration.

147 CR5, CR10, and CR15 are respectively the market shares of the 5, 10 and 15 largest banks, e.g. in loans, assets, and deposits of the banking sector.

148 According to calculations made with the use of HHi, the Polish banking sector also showed a lower level of concentration than the banking sector in Ireland.
Figure 4.1.29. HHI and the number of entities in the commercial banking sector, 1999–2006

Source: NBP.

Figure 4.1.30. CR5, CR10, CR15 for net assets of the banking sector, 1999–2006

Source: NBP.

Figure 4.1.31. Share of the largest entities in the assets of the commercial banking sector, 2002–2006

Source: Prepared on the basis of banks’ annual reports and NBP data.
Both the concentration level and change dynamics were highly diversified in the EU. Between 2002 and 2006, the average concentration level of the banking system in CEC-5 countries declined (Figure 4.1.33), mainly due to the more even distribution of assets in the Polish and Slovenian banking sector. However, in 2006 the level of concentration increased in Hungary and Slovakia. In the ‘old’ EU Member States, the HHI increased systematically between 2002 and 2005, but declined slightly in 2006. In that period, out of all EU-15 countries the highest increase of the index was recorded in Portugal, France and the United Kingdom.

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4.1.6. Changes in banks’ product offer

Offer for individual customers

Due to the high demand of households for residential and consumer loans and the increasing competition between banks, changes in their offers in 2006 covered mainly those two categories of loans.

Changes to the loan offer – residential loans

Competition between banks in the residential loans market was becoming increasingly non-price-based. Due to the low level of banking margins on residential loans, banks tried to lure customers with other characteristics of their products. Loans with original maturity of over 40 years, extended to individuals with lower and lower average monthly income, were gradually becoming a norm. More banks abolished their fees for early loan repayment. Seeking to reach new customer groups, some banks prepared a special offer of residential loans for Poles leaving to work abroad. Other banks tried to reach those who may be interested in purchasing their own apartment in the coming years. Such customers were the target of e.g. the offer of building society books with an investment fund and the so-called mortgage accounts which combine the possibility of repaying residential loan instalments and simultaneously depositing the financial surplus in a bank account with a favourable interest rate, thanks to which a customer may lower the cost of a loan. Keeping in mind that court fees (e.g. for establishing a land and mortgage register) were supposed to be lowered since March 2006, at the beginning of the year banks allowed their customers who took out mortgage-backed loans to extend the deadline for the formalities which entailed such costs until the new regulations entered into force. Some banks applied for an entry in a land and mortgage register on behalf of their customers.

Residential loans became a strategic product within the offer of many banks in Poland. In order to have better access to customers, banks started cooperation with entities which render loan agency services more frequently. It is estimated that in 2006 the share of such entities in the sales of residential loans in Poland already amounted to about 20%. One of the banks established a separate brand solely for the purpose of selling mortgage loans to individual customers, who were serviced in branches set up specifically for that purpose.

Changes to the loan offer – consumer loans

Banks also took steps aimed at making their offer of consumer loans more attractive. The high margins on this type of loans indicated that banks wished to limit the risk related to extending such loans due, inter alia, to extending their customer base. Competition was thus limited to modifying non-price parameters of those products, e.g. the speed of approving a loan application and making funds available to customers or improving the technical availability of the loan. This was characteristic mainly of cash advances. The time necessary to make funds available to the customer who applied for a loan was shortened even to 15 minutes, and the repayment period could be extended up to 48 months. Loans were even offered to customers whose monthly income did not exceed PLN 500, as well as to those who did not hold an account in the bank where they applied for a loan. One could submit an application not only in person at a branch, but also by phone. Banks more frequently allowed signing loan agreements at the customer’s home. A visit of the consultant could be ordered via the Internet, by phone or at a branch, which proves a more deliberate use of different service distribution channels.

Changes in banks’ deposit offer

With the high growth rate of loans, establishing a stable deposit base, which is the basic source of financing for lending in Poland, was of increasing importance to banks. The will to cope

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153 It is worth noting that to that end banks allowed their customers to join income from different sources, e.g. contracts of mandate or contracts of commission.
with the competition of non-banking financial institutions (particularly investment funds) and the recent struggle to win customers’ savings exerted the greatest influence on banks’ deposit offer.

In 2006, in order to extend their deposit base more banks offered structured deposits. Those instruments combine a traditional deposit (in the form of a bank deposit or a deposit certificate) with a derivative (most frequently an option or an option strategy with exposure to the equity market or the currency market). Income from the structured deposit consists of guaranteed interest and the potential profit which depends on the changes in the prices of base instruments for which the included derivatives have been issued (changes in the stock exchange index, the prices of stocks of selected companies, exchange rates). In the situation of low interest rates, investment in structured deposits allows earning a higher profit than on a traditional bank deposit, with the guarantee of return of a pre-established capital value. In order to construct such deposits, some banks issued the so-called structured deposit certificates, which guaranteed a customer the return of 100% of capital and offered a potential share in profits on the increase in selected stock exchange indices. Deposits with an investment fund were also increasingly popular among bank customers. Thanks to allocating a certain amount of funds declared by the customer for investment in fund units, they allowed earning much higher profit than on traditional term deposits. The catalogue of investment funds in which to invest within the deposit placed at a bank was extended significantly, as was the offer of so-called investment policies, which combine the benefits of investing in investment funds with 100% protection of capital paid in and exempt the depositor from the 19% tax on capital gains (thanks to the insurance policy included in the deposit).

Banks were very flexible when preparing their offer of short-term deposits. Some banks offered overnight deposits to individual customers, other offered the so-called negotiated deposit: a customer declares to deposit a certain amount of money and, depending on the amount declared, the bank proposes the duration and interest rate. Deposits with favourable interest rates were offered to individuals who used Internet banking. In this way, banks encouraged their customers to use banking service distribution channels other than the traditional ones.

Students with very good results were offered services with more favourable conditions, e.g. free account maintenance, discounts for mobile phone top-ups, etc.

**Offer for enterprises**

In 2006, the demand of enterprises for loans and other products offered by banks was higher. The increasing number of corporate customers was accompanied by an increase in banks’ interest in rendering services for that segment. Many banks modified their current procedures of extending loans to enterprises and shortened the time necessary to make a loan decision.

Banks have devoted more and more attention to preparing their offer for small and medium-sized enterprises for some time now. Some banks put emphasis on the development of the offer for start-up enterprises, and prepared special ‘start-up’ service packages. In the framework of such a package, customers were allowed to take out a few types of loans (as well as a letter of credit, collection, etc.) on the basis of a single agreement, without the necessity to meet additional formal requirements which would extend the time necessary to obtain the funds. Upon customer’s request and on his/her behalf, some banks also dealt with formalities, e.g. obtained copies of the pledge register. The most popular way to deposit enterprises’ financial surplus were still term deposits denominated in PLN. That part of banks’ offer had already been well-developed. Within the framework of deposits negotiated on an individual basis, enterprises were able to deposit amounts of their own choice for different terms. Overnight deposits whose interest rate depended on the amount deposited were also popular. A number of banks introduced the so-called automatic overnight deposits, i.e. they automatically credit the financial surplus of a company into the deposit account, in line with the conditions of the agreement concluded with the customer.

**Internet banking**

Automated distribution channels gained importance in the case of the most popular and less complicated banking services (i.e. transfers, setting up deposits, purchasing the units of investment
In line with global trends, the traditional access methods were reserved for rendering more advanced services where direct contact with the customer is necessary.

In 2006, the number of banks which offered Internet accounts in Poland, both to individual and to corporate customers, did not change in comparison with the previous year and amounted to 19. Three out of them conducted their operations through special departments spun off in their structure – virtual banks. They included Inteligoo (owned by PKO Bank Polski SA), mBank (owned by BRE Bank SA) and VW Bank Direct (Internet branch of Volkswagen Bank Polska SA). As in 2005, the number of customers who used Internet-based accounts increased at a fast pace (Figure 4.1.34). Within a single year, the number of individuals who used bank accounts via the Internet increased by almost 29% (by 52.5% in 2005) and amounted to 9.9 million.\footnote{ZBP data.}

As at the end of 2005, the highest level of Internet-banking penetration\footnote{The level of penetration is measured by the share of the number of current accounts with access via the Internet, maintained by banks for non-financial customers in the number of all current accounts of non-financial customers.} was recorded by the banking services market in Ireland, Germany and the Czech Republic. In Germany, the high percentage of Internet-accessed accounts was the result of the development of that distribution channel already in 1990s. In Ireland and in the Czech Republic, as in Poland, the internetisation of banking services took place within the past 4–5 years (Figure 4.1.35).

The main determinants of Internet banking development in Poland were the price strategy of commercial banks and technical development. Between 2005 and 2006, the highest decline in the prices of banking products and services in the world (i.e. by 14%) was recorded by Internet banking. In the EU Member States which do not belong to the euro area, fees related to Internet-based account maintenance declined in that period by an average of 25%. Banks from those countries also increased the fees for cash withdrawals at a bank branch by almost 21%. With the expansion of Internet accessibility in Poland (increase in the number of Internet users by about 30% as compared to 2005), the vast development potential of this distribution channel for banking services is yet to be made use of. A survey held by TNS OBOP shows that in Poland electronic banking services are well-received, particularly by young people, men mostly. More than 60% of individuals using this type of services are less than 40 years old.\footnote{Mężczyźni lubią e-banki, TNS OBOP, 2 June 2005. The materials are available at: http://www.tns-global.pl/uploads/1002/TNS_OBOP_Mezczyzni_lubia_e-banki.doc.}

Apart from the obvious advantages of rendering banking services via the Internet, i.e. speedy access, global reach, low cost and convenience, the use of that distribution channel gives rise to specific problems. The most important one is ensuring an appropriate level of security by the service provider. Systematic increase in the value of transactions performed via the Internet justifies the need for the constant improvement of security systems, particularly as there have already been instances of ‘cyber crime’ in Internet branches of some banks.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4134.png}
\caption{The number of enterprises and individual customers using Internet accounts and the number of Internet users in Poland}
\end{figure}
Further development of Internet banking will primarily depend on infrastructure conditions, particularly Internet access and its cost. It is estimated that in two years the number of Internet users in Poland will increase by almost 20% to reach 13 million users in 2008.\textsuperscript{157} Considering the strong relation between the development of Internet banking and the level of Internet use as well as the increasing financial awareness of society, one can expect that the use of the possibilities created by this distribution channel will improve in time.

4.1.7. Outlook

For a number of years, the Polish banking system has been dominated by banks whose strategic operating area is retail banking. Solutions favourable to those banks, included in the CRD, which will enter into force in 2007, will result in the banks retaining their dominant position; retail banking will remain the fastest-developing banking segment in Poland. The spread between the values of the loans/GDP ratio in Poland and in the euro area is expected to decrease gradually. The condition is the retention of the growth rate of banks’ lending at the current level in the coming years, which will force banks to increase their investment in the development of credit risk management systems.

The further development of the residential loans market will be of utmost importance to retaining the current growth rate of lending by banks in Poland. If the growth rate of loans to non-financial customers remains at the current level, their value will exceed the value of deposits placed by those entities as soon as in 2007.

The provisions of the CRD will be conducive to small and medium-sized enterprises (SMEs) becoming an attractive customer group for banks in the nearest future. The possibility to qualify certain exposures of banks towards SMEs in the retail segment will allow them to apply lower risk weights than at present to calculate the capital requirement due to credit risk within the standard method.\textsuperscript{158} It can be expected that the demand of enterprises for banking services will not only include loans. The expected inflow of funds from the EU, which will amount to about EUR 67.3 billion\textsuperscript{159} between 2007 and 2013, should be conducive to an increase in the demand of enterprises for other banking services, e.g. advisory services related to the financing of projects for which the funds will be earmarked. With the dynamic development of the loan market, ensuring

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a stable base for their financing will be of major importance to banks. Banks will more actively seek to attract customers’ savings by modifying their deposit offer to include investment elements (e.g. by developing structured deposits). In some EU countries, competition over those resources made banks increase interest rates on term deposits significantly. It can be expected that banks in Poland will follow in their footsteps.

One can also expect improvement in the accessibility of banking services. Plans made by bank clearly indicate that they will increase the number of branches in the nearest future. Also some banks which render their services mainly via the Internet plan to extend their networks of physical branches, which does not mean, however, that banks would not seek other distribution channels for their services in the future. Establishing cooperation with commercial networks by banks in the EU to win new customers can serve as a good example. When visiting the website of the producer of your favourite coffee or clothing you can, for example, fill in a loan application or open a bank account. In 2006, some of the largest networks decided to apply for a bank license (e.g. S-Group in Finland, C&A in Germany). Building separate brands for different customer groups has also become an element of the marketing strategy. This approach is applied particularly by larger banks, which sell private banking services under one brand and services for their less wealthy customers under another brand name. This way, banks are able to increase the number of their customers and diversify their sources of financing, while customers have a sense of using more individualised services.

Further dynamic growth is also expected in the Polish payment cards market. Competition between banks will be mainly non-price in nature, and the innovation of technological solutions will be the advantage factor. It is difficult to assess the impact of the decision of the Office of Competition and Consumer Protection (UOKiK) of December 2006 on the so-called interchange fee on the market. On the basis of own studies, which had been conducted since 2001, UOKiK found out that 20 banks which operated in Poland applied illegal practices which limited competition by jointly establishing the amount of the interchange fee. It is the opinion of UOKiK that the amount of the fee was not substantiated by real costs incurred by banks, and non-cash payments should be settled according to the nominal value.

The banking sector will face the challenge in respect of the development of the payment services market, namely work on preparing the Polish system for the introduction of the Single Euro Payment Area. The standardisation of regulations on executing euro payments within the EU should improve price transparency as well as the safety and speed of such transactions.

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160 i.e. the fee charged by banks to settlement agents for a payment card transaction. On average, the amount of the fee in Poland constitutes 1–2% of the transaction amount.


162 The work started in the second half of 2006. The institution in charge of introducing the SEPA programme in Poland is the Polish Bank Association.
4.2. Credit unions

In recent years, the scope of services rendered by credit unions was successively extended and became very similar to the offer of banks. However, the activity of credit unions is not regulated by the Banking Law Act, and thus they are not subject to banking supervision. They are supervised by the National Association of Credit Unions (Krajowa Spółdzielcza Kasa Oszczędnościowo-Kredytowa – KSKOK).

**The size of the sector**

In 2006, the development of the credit union sector was not as dynamic as in the previous years. The assets of credit unions increased by PLN 650 million, reaching the level of almost PLN 6 billion. The growth they posted was the lowest since 2001. Between 2002 and 2004, the value of credit unions’ assets increased annually by ca. PLN 800 million, and in 2005 – by PLN 1.1 billion. As at the end of 2006, the assets of credit unions still constituted less than 1% of the balance sheet total of the whole banking sector.

The decrease in the growth rate of credit unions’ assets posted throughout the past few years results from the increasing base effect, the already limited number of potential customers, and from the increasing competition in the market of financial services rendered to households. Cooperative banks are credit unions’ main competitors in this segment. This is due to the fact that both groups of financial institutions direct their offer at the same group of customers, namely those with income below the national average, mainly village and small town dwellers. In 2006, the growth rate of credit unions’ assets was lower than the growth rate of cooperative banks’ assets for the first time in history (Figure 4.2.2). This triggered a decrease in the relation of credit

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**Figure 4.2.1. Credit unions’ assets in comparison with the assets of cooperative banks and the banking sector as a whole, 2000–2006**

Source: NBP, National Association of Credit Unions.

**Figure 4.2.2. Growth rate of credit unions’ assets in comparison with the assets of cooperative and commercial banks, 2000–2006**

Source: NBP, National Association of Credit Unions.
unions’ balance sheet total to the balance sheet total of cooperative banks to 14.5%, from 16% in the previous year.

In 2006, the number of credit union members increased by a further 150,000 persons (i.e. by 11%). While new branch offices continued to be set up (an increase by 42 offices as compared to the end of 2005), the number of credit unions declined to 70. Consolidation has been visible in this sector since the beginning of the decade (Figure 4.2.3). According to the information of the National Association of Credit Unions, smaller credit unions are taken over by stronger ones due to the inefficiency and low competitiveness of the former. Credit union branches operated in over 360 towns and cities. The majority of branches were still located in the Śląskie, Mazowieckie and Dolnośląskie voivodeships.

The development of credit unions visible recently in Poland is in line with the global trend (Figure 4.2.4). According to the data of the World Council of Credit Unions (WOCCU), the assets of credit unions throughout the world exceeded USD 1 billion as at the end of 2006 (USD 895 million in the previous year). The number of credit union members increased in 2006 by almost 15 million and amounted to 172 million individuals.

**Structure of assets and liabilities**

As at the end of 2006, the value of loans and advances declared in the balance sheets of credit unions exceeded PLN 4 billion. However, the annual increase in the value of the loan portfolio (PLN 542 million) was lower than between 2004 and 2005. In 2006, the value of deposits placed at credit unions increased by PLN 563 million (to PLN 5.5 billion), which constituted slightly more than a half of the increase posted in the previous year (Figure 4.2.5).

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Households constituted the most numerous group of credit unions’ customers. Their share in loans and advances amounted to almost 78%, and in deposits – to over 99%. The second group of borrowers comprised the remaining other financial intermediaries, which have an 18% share in the portfolio structure by type of entities.

The maturity structure of receivables was dominated by loans and advances with the maturity of 1 to 5 years (73% of the loan portfolio). There were also instances of loans and advances (including those for residential purposes) extended for over 5 years. Until 2005, the offer of credit unions did not encompass products of this kind due to legal restrictions. Households usually deposited their funds for short periods. Deposits with maturity of up to 1 year constituted a total of 87% of time deposits.

Credit unions offered higher deposit interest rates than banks (by an average of 3 percentage points for 1-year deposits). However, placing deposits entails the obligation to join the credit union and to pay the relevant fees. In the case of short-term and one-off investments, the additional

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164 It is impossible to isolate data on individual entities within the category of “households” on the basis of information submitted to the NBP by the National Association of Credit Unions within the framework of monetary statistics.

165 Credit unions were only allowed to extend loans and advances for up to 3 years. In the case of residential loans, the period was extended to 5 years. The provision which limited the maximum repayment period for all loans and advances extended by credit unions was repealed by the Act of 8 September 2006 on Financial Support to Families for the Purchase of Their Own Apartment (Dz.U. of 2006, No. 183, item 1354, Article 15).
Financial institutions

Financial results

In 2006, the net profit of credit unions amounted to nearly PLN 34.5 million, and it doubled on the 2005 profit. While their efficiency ratios improved substantially and came close to those posted in 2004, the ratio of past due loans and advances deteriorated – it increased to 12.5%. In the same period, the ratio of irregular loans of the banking sector amounted to 5.1%. However, the ratios are not comparable due to the different classification methodology for past due loans.

Table 4.2.2. Selected capital adequacy and performance indicators for credit unions, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit (PLN thousand)</td>
<td>13,883</td>
<td>35,427</td>
<td>16,168</td>
<td>34,401</td>
</tr>
<tr>
<td>Gross earnings/assets (%)</td>
<td>0.43</td>
<td>0.86</td>
<td>0.33</td>
<td>0.62</td>
</tr>
<tr>
<td>Net earnings/assets (%)</td>
<td>0.42</td>
<td>0.84</td>
<td>0.30</td>
<td>0.57</td>
</tr>
<tr>
<td>General capital adequacy ratio (%)</td>
<td>8.44</td>
<td>8.65</td>
<td>8.13</td>
<td>8.33</td>
</tr>
<tr>
<td>Ratio of overdue loans (%)</td>
<td>15.3</td>
<td>14.1</td>
<td>12.3</td>
<td>12.51</td>
</tr>
</tbody>
</table>

Note: The figures for credit unions cannot be compared to bank indicators.

1 The general capital adequacy ratio is defined as the ratio of total capital to assets.
2 The share of past due loans and advances in total loans and advances.
Source: National Association of Credit Unions.

Outlook

Following in the footsteps of the banking sector, credit unions keep extending and improving their offer. Larger credit unions offer their customers Internet access to personal accounts. Issuing payment cards (and credit cards as well) is becoming a norm. It should be expected that credit unions’ activity in the financial services market will continue to increase in the following years. Most probably, they will continue to modify their product offer and will take steps aimed to extend their customer base.

Including credit unions in the government programme A Family with their Own Place (Rodzina na swoim)167 may prove to be an impulse to a further development of lending, particularly mortgage lending. In order for credit unions to be able to join the programme, the article of the Act on credit unions which stipulates the maximum repayment period for residential loans the institutions may offer had to be amended.168 Repealing the article will allow the National Association of Credit Unions to sign an agreement with the BGK on refinancing residential loans. Then, apart from PKO BP, also credit unions will be able to offer loans subsidised from the budget. Yet, the price of real property built or sold in the framework of the preferential loan may constitute a significant limitation to the programme. The cost of building or purchasing real property with the use of loan funds may not exceed the average of two so-called ratios of living space square metre replacement cost as lately announced by GUS. Thus, the limit does not correspond to the actual apartment prices in the market, particularly in larger cities.

It is worth pointing out certain threats which result from extending the credit possibilities of credit unions as well as from the sales of increasingly complex products which have been offered solely by banks. For example, the increase in long-term indebtedness of credit unions’ customers...

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167 The governmental programme A Family with their Own Place (Rodzina na swoim) was introduced under the Act of 8 September 2006 on Financial Support to Families for the Purchase of Their Own Apartment (Dz.U. of 2006, No. 183, item 1354). Within the framework of the programme, BGK provides subsidies from the state budget for interest on residential loans. The loan with subsidised interest may be extended for the purchase of an apartment or for purchasing or building a house whose usable space does not exceed 75 sq. m. and 140 sq. m., respectively.
168 Article 15 of the Act on Financial Support to Families for the Purchase of Their Own Apartment repealed Article 21 of the Act on Credit Unions, which allowed extending loans and advances for a period of up to 3 years, and residential loans and advances for a period of up to 5 years.
with the simultaneous lack of the possibility to incur liabilities on the financial market for similar periods gives rise to the risk of mismatch of the maturity structure of assets and liabilities. In addition, the National Association of Credit Unions takes actions aimed to allow credit unions to obtain the right to issue bank enforcement titles and to sell debt. Realising the increasingly important role of credit unions in the financial system, the Polish Financial Supervision Authority has raised the need to cover credit unions with state supervision of all areas which coincide with the activities of banks.\textsuperscript{169} Introducing supervision of credit unions would not be an exceptional solution in Europe: credit unions are subject to the control of financial supervision authorities in 11 EU Member States.

\textsuperscript{169} 100 dni Komisji Nadzoru Finansowego, Polish Financial Supervision Authority, Warsaw 2007, p. 3.
4.3. Non-banking institutions providing financial services

4.3.1. Leasing companies

A dynamic development of the leasing market has been observed in Poland for several years. It is supported by fast economic growth and large interest in this source of financing among small and medium-sized enterprises.¹⁷⁰

The size of the market

In 2006, leasing was one of the fastest-developing segments of the Polish financial market. The value of assets leased in 2006 increased by 33.1% as compared to 2005 and amounted to PLN 21.7 billion, which accounted for 2.05% of the GDP (Figure 4.3.1). The share of leased assets in gross fixed capital formation incurred in the national economy in 2006 amounted to around 10%.

In 2006, the value of leased assets in Europe amounted to EUR 301.6 billion.¹⁷¹ In terms of value, most assets (both movables and property) were leased in Germany, the United Kingdom and France. In those countries, leasing is a commonly used form of financing enterprise investment. As regards CEC-5 countries, apart from Poland, the value of leased assets was the highest in the Czech Republic and Hungary.

In 2006, the ownership structure of leasing enterprises operating in Poland remained largely unchanged. Among the 34 companies associated in the Polish Association of Leasing Companies in 2006, there were 18 companies which belonged to banking groups, 6 captive companies¹⁷² and 10 other (18, 5 and 10, respectively, in 2005). Subsidiaries of banks have easy access to the sources of financing and the possibility to finance the investment projects of enterprises jointly with banks, partly with loans and partly with leasing. A significant share in the ownership structure of leasing companies from the category of captive and other companies was held by foreign entities.

Increasing competition among leasing companies resulted in easier access to financing in the form of leasing for newly established enterprises with no credit history. In particular, this situation concerned customers who had accounts at the bank from the same capital group as the lessor. In 2006, price competition was less and less important, since, according to the representatives of leasing companies, margins remained at a relatively low level. Moreover, leasing companies often extended the scope of offered services by additional products such as life insurance.

Structure of leased assets

Figure 4.3.1. Value of leased assets in Poland, 1999–2006

Source: Polish Association of Leasing Companies.

¹⁷² "Captive" refers to producers of fixed assets who offer those assets for leasing.
Trends in the growth rate and structure of leased assets reflected the changes taking place in the Polish economy. The improvement of the condition of the economy contributed to the increase in demand for goods and services, and thus to the increase in the leasing of movables. In 2006, the value of leased movables grew by 42% (the largest growth since 1999) and amounted to PLN 19.6 billion.

In 2006, means of road transportation dominated in the structure of leased assets – 55.8% (Table 4.3.1). As regards vehicles, trucks were leased most often (they accounted for 53% of the value of the vehicle portfolio), and the leasing of passenger cars was one of the fastest-growing segments of the market. This was a result of increased interest in the leasing of the means of transport on the part of small and medium-sized enterprises (SMEs), the dynamic development of car fleet management, and the increased share of the leasing sector in the sales market for new company cars. The analysis of data on the number of cars registered for enterprises shows that in 2006, 60% of registrations (53.3% in 2005) were made by entities dealing with long-term leasing and by leasing companies.

The leasing of machines and equipment grew in importance again, and its share in the structure of leasing assets increased to 29.8%. The good situation in the segment of machines and equipment leasing was maintained thanks to the increasing investment demand, an ever wider offer, and the specialisation of part of companies in the leasing of selected movables. The increased experience of lessors with regard to the assessment of the liquidity risk of the leased object (assessment of the possibility to sell the leased object at a specific price in case of the lessees’ insolvency) was also important. A favourable situation in the construction sector contributed to the increase in the value of construction machines leased, which grew more than twice as compared to 2005. In 2006, the share of construction machines in the machines and equipment portfolio amounted to around 21% (13.8% in 2005). The leasing of printing machines stood at approximately 7–8%, while the share of agricultural machines increased to 3% (from 0.6% in 2005).

Table 4.3.1. Value and structure of leased assets, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>(in PLN billion)</th>
<th>Structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movable, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– machinery and equipment</td>
<td>2.45</td>
<td>2.85</td>
</tr>
<tr>
<td>– computers and office equipment</td>
<td>0.24</td>
<td>0.30</td>
</tr>
<tr>
<td>– means of rail, air and water transport</td>
<td>0.07</td>
<td>0.16</td>
</tr>
<tr>
<td>– means of road transport, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– passenger</td>
<td>0.70</td>
<td>1.45</td>
</tr>
<tr>
<td>– other</td>
<td>0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>Property</td>
<td>0.61</td>
<td>1.93</td>
</tr>
<tr>
<td>Total movable and property</td>
<td>11.15</td>
<td>14.21</td>
</tr>
</tbody>
</table>

Note: Data concerning computers and office equipment do not include information from IT companies which lease IT equipment directly from producers.

Source: Polish Association of Leasing Companies data.

173 This is shown by the fact that in 2000, the value of passenger cars leased did not exceed 1% of the Polish leasing market (it amounted to PLN 25.7 million).

174 Car fleet management consists in, among others, the provision of servicing, supply of replacement cars, purchase of fuel, liquidation of damages and supervision of motor insurance schedule. Based on the Polish Association of Leasing Companies data.

175 Based on the data of SAMAR Automotive Market Research Institute, www.samar.pl.

The share of property in the leased assets decreased to 9.4%, though it amounted to 31% in Europe. The property leased most often in Poland included commercial and service facilities (71% of the value of leased property), industrial facilities (18%), office buildings (9%), and hotels and recreational facilities (2%). The average duration of a leasing contract amounted to 10 years. The average value of contracts decreased significantly (from PLN 33.7 million in 2005 to PLN 18.8 million in 2006), which resulted from, among others, addressing the offer to the companies from the SME sector. It should be noted that only several entities offered the leasing of property, which led to a significant concentration of the market.

The data available point to a low, 2% share of IT equipment in the leasing market. The average share of the leasing of computers and office equipment in the total turnover of the leasing sector exceeded 11% in Europe. However, it should be noted that the data for Poland do not include information from IT companies, which lease hardware directly from producers most often – this makes it difficult to evaluate the size of this segment of the market.

The leasing of planes and rolling stock (big tickets) was still not very popular. In 2006, the largest transaction in this segment of the market was concluded between BRE leasing and PLL LOT. In 2006, some leasing companies offered to lease such untypical means of transport as small planes, scooters or yachts. Those services were addressed to recreation centres, courier companies and restaurants which provide home delivery services. This form of leasing has good perspectives due to the development of tourism (including agrotourism) and services consisting in direct delivery of goods to customers.

**Growth barriers**

Legal and tax regulations are important barriers to the development of certain segments of the leasing market. One of such segments is the leasing of property, which so far has been of interest only to a small number of lessors. There are several types of property in Polish regulations (land, building and premises). Only fixed assets, buildings and structures on land may be leased, since they are subject of depreciation. Land, however, is not subject of depreciation. Therefore, in the case of land property, two types of leasing must be applied, i.e. operating leasing for the building, and financial leasing for land. At the same time, according to the Civil Code, buildings and other facilities permanently connected with land are its components, i.e. they constitute an inseparable whole. This terminological inconsistency is a source of problems with interpretation.

The provisions of the Act on Value Added Tax are also subject to criticism. According to those provisions, an entrepreneur has to pay that tax in advance for the whole financial leasing transaction, which may constitute a considerable one-off financial burden for some. Although the lessee has the right to deduct the tax calculated according to general rules but spending such a huge amount at the beginning of the transaction, in particular when the transaction concerns property, may pose a serious financial problem for the entrepreneur. Enterprises may also be discouraged by a low annual depreciation rate of property amounted to 2.5% and its long depreciation period amounted to 40 years. Moreover, a property leasing contract may be concluded for at least 10 years, while many enterprises make investment decisions for shorter periods, often up to five years at most.

In 2006, the interest in consumer leasing remained at a low level. One of the reasons may be the customers’ reluctance to engage in operating leasing due to the fact that in such...
a situation, the ownership of the leasing object is not transferred to the consumer upon the end of the contract.\textsuperscript{182} Consumers are not used to the fact that the total repayment of capital does not give them the ownership right to the leasing object but only the right to purchase it. Other obstacles to the development of consumer leasing are the unclear and sometimes contradictory legal regulations. If a leasing contract is subject to the provisions of the Consumer Credit Act, then the customer has the right to repay the liability earlier. In such a case, a problem arises with the settlement of the lessee’s liabilities without the violation of tax regulations with regard to leasing. Those regulations stipulate that the transfer of the right of ownership of the leased object to the lessee at a price different from the market price is only possible after the expiry of the basic contract validity period. If the period of the contract for which it was concluded has not been observed (the customer repaid the liabilities before the deadline), the lessor cannot sell the object of leasing at a price lower than the market price, that is e.g. at the price of the last instalment. All instalments repaid up to that moment should be treated as fees for the use of the object. The principal amount to be repaid, however, is compared to the current market value of the leased object. The lower value of the principal amount means that the customer has to make an additional payment up to the market value of the leased product.

\textbf{Outlook}

Fast economic growth will facilitate further increase in the demand for leasing services, particularly on the part of SMEs, which most often use this external source of financing. Leasing services will continue to be supported from EU funds in the years to come. As a result of changes to the national guidelines on the structural funds for 2007–2013, both lessors and lessees will have the right to apply for reimbursement from EU funds (the decision will belong to the lessee). Under the aid programmes between 2004 and 2006, only the expenditure of the lessee was reimbursed. In each case, however, the paid aid will decrease the principal liabilities of the lessee resulting from the leasing instalments. If a leasing company is the direct recipient of the funds, the financing amount may be paid on a one-off basis. The funds will be allocated for principal instalments repaid under the leasing contract.

In addition, the 2007–2013 financial perspective includes measures aimed at the harmonisation of the standards of applying for financial aid from EU funds. Beneficiaries will be able to use the technical assistance of leasing companies with regard to the preparation of documentation. This should lower the risk of the rejection of the grant application.\textsuperscript{183} In addition, the Ministry of Regional Development will be supported by leasing companies which own the leased objects, controlling project durability throughout its whole period of implementation.\textsuperscript{184}

It is difficult to estimate whether the number of lessors will increase in the coming years. On the one hand, several foreign companies plan to begin their operations in Poland, which would certainly contribute to the growth of competition. However, on the other hand, some leasing companies may merge, e.g. those from the capital group of Bank Pekao SA and Bank BPH SA.

The future should see the establishment of various facilities which would be the object of property leasing. So far, shopping malls and offices have enjoyed the greatest interest. The fast development of logistics and outsourcing results in the growing popularity of logistic centres and warehouse space among leasing companies.

\textsuperscript{182} Article 3 of the Consumer Credit Act of 20 July 2001 (Dz.U. of 2001, No. 100, item 1081, as amended).

\textsuperscript{183} A. Sugajski, Leasing wspierany finansowo ze środków unijnych, Polish Association of Leasing Companies, 29 November 2006, www.leasing.org.pl.

\textsuperscript{184} Pursuant to the provisions of Article 57 of Council Regulation No. 1083/2006, each facility co-financed from the Structural Funds or the Cohesion Fund must retain durability for 5 years from the date of provision of final payment to the beneficiary and cannot undergo a substantial modification. The violation of this rule results in the initiation of the recovery procedure with respect to amounts spent on the project. Krajowe wytyczne dotyczące kwalifikowania wydatków w ramach funduszy strukturalnych i Funduszu Spójności w okresie programowania 2007–2013, Warsaw 2006, Ministry of Regional Development, p. 8.
4.3.2. Factoring

Recent years have seen a growing popularity of factoring in Poland, especially among small and medium-sized enterprises. Thanks to factoring, companies may regulate their liabilities faster, prolong payment deadlines for recipients and thus become more competitive.

The size of the market

Factoring services in Poland are provided by both banks and specialised companies (which often belong to bank groups). The offer of services provided by banks is different from the offer of specialised factoring companies. Banks usually only finance invoices, while factoring companies also offer other services, such as settlements, receivables collection or assistance in the recovery of outstanding debts.

In 2006, the value of purchased invoices in Poland amounted to PLN 25.5 billion. It remained at a low level as compared to the GDP (2.4%). In other countries of the region factoring is used more often. In the Czech Republic, the ratio of the value of purchased invoices to the GDP amounted to 3.5%, in Hungary to 3.2%, while in Estonia to 22%.

The construction of electronic factoring settlement systems had an impact on the increase in the activity of banks in the provision of that service. GUS studies show that in 2006, the value of invoices purchased by banks accounted for around 44% of repurchased receivables. The growing popularity of factoring services is demonstrated by the increase in the value of invoices purchased by factoring companies. In 2006, the turnover of factoring companies increased by around 20% as compared to 2005 and amounted to PLN 17 billion (Figure 4.3.2).

Ten out of 14 non-banking entities which provide factoring services in 2006 were associated in the Polish Factors Association (Polski Związek Faktorów – PZF), established in April 2006. The services provided by companies which belong to the Polish Factors Association were used by 1600 entities in 2006, i.e. 200 entities more than a year before. They were mostly companies from such sectors as the automotive industry, the foodstuffs sector, metallurgy, steel metallurgy, construction and trade sector. The number of debtors also increased – from 35 000 in 2005 to 38 000 in 2006. The analysis of the value of invoices purchased by the entities belonging to the Polish Factors Association shows a high concentration among those entities. The value of invoices purchased by four largest factoring companies accounted for around 85% of turnover. In 2006, ING Commercial Finance BV purchased all shares of Handlowy-Heller SA, thus creating one of the largest factoring companies in Poland, i.e. ING Commercial Finance Polska SA.

Figure 4.3.2. Value of turnover of factoring companies in Poland, 2001–2006

Source: Polish Factors Association.

185 GUS data. In 2007, for the first time, GUS published data on factoring companies and banks which provide factoring services.

186 Data of the Polish Factors Association.

187 Earlier, there was the Factoring Institutions Conference (Konferencja Instytucji Faktoringowych).

As regards the ownership structure of companies specialised in factoring in 2006, in 7 entities Polish capital accounted for 100% of equity, in 5 companies equity came from foreign investors, whereas in the remaining 2 it belonged both to Polish and foreign owners.\textsuperscript{189}

**Factoring structure**

The turnover structure was dominated by domestic factoring, which accounted for 91.6% of the value of all transactions. After Poland’s accession to the EU, the potential of international factoring, including export factoring, has been growing and its share in the structure of the turnover of the whole sector amounted to 7.1% in 2006.\textsuperscript{190} Domestic factoring was still dominated by recourse factoring (70.5% of the value of purchased invoices), less by non-recourse factoring (24.7%) and mixed factoring (4.8%). It is worth noting that banks were more willing to take over the risk of the debtor’s solvency than factoring companies (Figure 4.3.3). Notified factoring, where a debtor is informed about the agreement between the factor and the customer, prevailed in 2006. Factors most often used collection factoring (48.8% of contracts) to finance repurchased receivables. In this form of factoring, the factorer receives an advance amounting to less than 100% of the value of the receivable, depending on the value of the receivable and the repayment deadline. The advance is paid out immediately after the factor receives the invoices, and the remaining part is paid out upon the actual repayment of the debt. Advance factoring, where the factor pays 100% of the value of the receivable immediately upon receipt of the invoice from the customer, accounted for 38.7% of concluded contracts.\textsuperscript{191}

With the gradual increase in demand for services, factors compete for customers by changing their offer. Many of them divide offered products into lines corresponding to the type of customers, e.g. the Factoring Solution is addressed to small and medium-sized enterprises, and the Finance Solution to large companies. Factoring companies and banks intensify their cooperation with insurers with regard to the insurance protection of repurchased receivables, with factors being parties to insurance contracts.

**Outlook**

In the coming years, factoring should become increasingly popular due to occurring payment gridlocks between companies, difficult access to loans for companies with short history, and the long period of examining cases by courts, as well as delays in the recovery of receivables by debt

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\textsuperscript{189} GUS data.

\textsuperscript{190} GUS data.

\textsuperscript{191} Działalność faktoringowa przedsiębiorstw niefinansowych w 2006 r., Warsaw 2007, GUS.
collectors. Small and medium-sized enterprises are most exposed to the consequences of payment gridlocks since they have a weaker bargaining position and lower financial resources. Factoring may be a way to decrease those inconveniences. In the near future, the growth of exports should contribute to a further increase in the importance of foreign factoring in the turnover of factoring services providers.

In 2006, the development of factoring was hampered by the same factors as in the previous years. They included both demand barriers (the still low level of knowledge about factoring) and supply barriers (reluctance to take over the risk, establishment of the minimum value of a single receivable to be purchased, as well as the minimum value of the turnover of the company which allows for signing a contract with a factor). The obstacles to development also include unclear legal regulations and the lack of the definition of factoring in Polish regulations. Market participants claim that rules governing the taxation of factoring with VAT are still unclear.

The ban on the assignment of trade claims which arise from contracts between large space stores and their suppliers is still in force and excludes them from the group of factorers. In addition, the Polish Factors Association points to certain threats on the part of an increasing number of unreliable debt recovery entities which have an adverse impact on the image of factoring companies. High discount and fees they collect (amounting to 20–30% of the value of receivables) and a low quality of offered services, often mistaken for factoring, may discourage potential entrepreneurs from factoring.

### 4.3.3. Financial intermediaries

Cooperation with banks and intermediation in the sales of credit products remain the traditional areas of financial intermediaries’ activity. Since the beginning of the decade, the offer of services provided by intermediaries in Poland has widened. New entities mainly conducted brokerage activities and cooperated with more than one bank or financial institution. Apart from intermediation in granting loans, they also sold insurance policies and units of (domestic and foreign) investment funds, encouraged customers to participate in savings programmes, and created their own products in cooperation with financial institutions. In addition, new entities were separated from existing companies, and they addressed their offer only to wealthy customers.

In 2006, the value of loans granted by banks with the participation of financial intermediation companies exceeded PLN 13 billion. Customers signed almost 2 million loan agreements at brokers’, the majority of which (92%) concerned loans with the repayment period of up to 2 years. Fourteen largest entities from the sector, with country-wide operations and renowned brand, had a 90% share in the market, in terms of both the value and the number of signed agreements.

Entities with the strongest position in the financial intermediation market increased the value of sold loans over two times in 2006. Expander retained the leading position in the market and acted as a broker in the conclusion of loan agreements worth PLN 3.3 billion, which constitutes a growth of almost 100% as compared to the previous year. Open Finance, at the second position

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194 This year’s study analyses the activity of the whole sector of financial intermediaries in 2006, based on GUS study, and, in addition, the activity of the largest intermediaries. Due to the size of groups and the quality of presented data it is not possible to compare information from 2006 and from previous years.
195 Xelion provided advisory services to customers with savings exceeding PLN 100 000. Noble Bank, established in 2006, specialised in services for customers from the private banking sector, and also offered products of other financial institutions (including banks). Expander, the first intermediary in the market to provide financial advisory services, established Expander Prestige in 2005.
196 In the first half of 2006, GUS conducted a survey of financial intermediaries for the first time. The survey will be repeated every six months. It covered 37 entities which grant loans from their own funds and intermediate in granting loans and advances from banks. Cf.: Działalność przedsiębiorstw pośrednictwa kredytowego w 2006 r., Warsaw 28 March 2007, GUS, www.stat.gov.pl.
in the market, obtained a record growth of the value of agreements amounting to over 345% as compared to 2005. The value of loans sold reached PLN 2.9 billion.\textsuperscript{197}

Instalment loans and cash advances enjoyed the greatest popularity among the customers of financial intermediaries. However, they only accounted for 25% of the value of loans sold by loan brokers due to the low value of agreements (Table 4.3.2). The development of the financial intermediation market was supported by a high demand for residential loans. Mortgage loans constituted the largest group of products in terms of value, as the value of completed agreements exceeded PLN 6 billion. The average value of a mortgage loan obtained through intermediaries was slightly lower than the value of loans granted directly by banks.

\textsuperscript{197} B. Chochołowski, Rekordowe wyniki i optymistyczna przyszłość „Nasz Rynek Kapitałowy”, No. 3/2007, p. 103.
The role of intermediaries in granting car purchase loans decreased. This segment of the market is the place of dynamic activities of the so-called automotive banks, which are owned by car production concerns and provide services for their customers at car dealers’ establishments.

The sale of loans was often accompanied by the conclusion of insurance protection agreements aimed at minimizing the losses of the bank in case of the borrower’s insolvency. Such agreements may also protect from the consequences of Acts of God (e.g. serious illness, loss of job, accident), which may have an impact on the ability to repay the debt. Moreover, the improvement of the macroeconomic situation resulted in the increased number of individual customers interested in investing free funds and advisory services in this regard. The share of intermediaries in the sales of investment products to individuals was small. However, one should expect an increase in the activity of intermediaries in this regard.

Large demand for advisory services provided by financial intermediaries results from several factors. The most important ones include the credit boom and the low level of financial knowledge of the society. With a large number of loan products and promotions at banks, the average customer finds it difficult to compare offers and select the appropriate one. Professional and free-of-charge advice may protect them from choosing a disadvantageous offer. In addition, advisors help persons with non-standard credit profile (without regular income, with increased credit risk) to obtain loans.

**Outlook**

Owing to the diversity of offers, financial intermediaries become main advisors of individual customers who choose financial products. Therefore, they will extend their offer by financial advisory, which seems to be a more profitable type of activity. The act of signing a loan agreement is a transaction with one-off commission. Advisory services and the related repeated contact with the customer ensure constant income from commission on sold products (e.g. investment and insurance instruments).

Banks will continue to develop cooperation with financial intermediaries, as this allows them to widen the distribution channels of their own products. Cooperation is a more economical source of acquiring new customers than the expansion and maintenance of own sales network. Thanks to introducing investment products to their offer, intermediaries will become important partners of financial institutions in acquiring retail customers.

Mortgage loans and long-term saving instruments offered by financial intermediaries are of particular importance to any consumer. A mortgage loan taken will have an impact on the financial standing of the consumer for a considerable part of his/her life, while long-term savings play an important role in ensuring financial security after retirement. Therefore, the quality of advisory services in those two areas should be very high. However, there are an increasing number of small companies, without professional background and external control, which may pose a threat to customers and to the development of the sector. Unreliable or inappropriate advisory services may lead consumers to take excessive risk. It seems that an appropriate solution to improve the quality of services offered by intermediaries and to reduce the threats resulting from the lack of professionalism would be to encourage the sector to undertake self-regulatory measures or, as some market participant suggest, to have their activities licensed by the Polish Financial Supervision Authority. The relevant certificates issued by the supervisor would allow the customers of intermediaries to verify whether the persons who provide them with services have relevant qualifications and knowledge in the field of financial advisory services.
The certification of financial advisors in Europe belongs to non-governmental industry organisations. They conduct educational activities, promote the observance of ethical principles by their members and by persons working as advisors.

The European Federation of Financial Professionals (EFFP) is an independent European institution which acts to disseminate and certify high standards of performing the job of a financial advisor. Certificates granted by the Federation confirm the professionalism of advisors, their familiarity with issues related to the financial market and the high quality of work. A financial advisor with an EFFP certificate should observe ethical principles specifying personal and professional characteristics such as honesty, confidentiality, objectivity, neutrality, competence and professionalism. An advisor should act to the best interest of the customer, planning the customer’s personal finance and preferring the customer’s benefit to his own profit obtained from the sale of financial services.

The European Academy of Financial Planning (German Europäische Akademie für Finanzplanung – EAFP) cooperates with numerous organisations which associate financial intermediaries, and with training institutions. The Academy may grant accreditation to training institutions under its financial advisor training programmes. An accredited institution must meet requirements concerning the quality and scope of provided knowledge necessary to obtain a financial advisor certificate.

In 2003, the Polish Chamber of Insurance and Finance Intermediaries (Polska Izba Pośredników Ubezpieczeniowych i Finansowych) established cooperation with the EAFP by signing an agreement on the establishment of the European Academy of Financial Planning. It is the first organisation in Poland which trains professional financial advisors and applies European standards of financial planning. The Academy uses educational patterns and the certification system prepared and functioning in the European Union which confirms the qualifications required for the provision of financial advisory services in the territory of the EU Member States. EAFP Polska, in cooperation with EAFP Germany and the EFFP, organises training and examinations for the international financial advisor on three levels: European Financial Guide (EFG), European Financial Consultant (EFC) and European Financial Planner (EFP).

1 The United Kingdom, where the Financial Supervision Authority carries out examinations and issues official certificates, is an exception.

Source: prepared on the basis of information available at www.eafp.pl.
4.4. Private equity/venture capital sector

The size of the sector

Private equity funds have become a permanent element of the Polish financial system. They manage capital worth a total of over PLN 27 billion and have around 470 Polish and foreign companies in their investment portfolios. In 2006, the value of investments initiated in Poland by domestic and foreign private equity funds\(^{198}\) almost doubled, reaching the level of PLN 1.14 billion, while the value of funds raised by funds which operate in Poland increased over 14-fold and amounted to PLN 3.65 billion (Table 4.4.1). Earnings generated in 2006 were the best in almost 20-year history of the sector.

A dynamic growth of this sector was recorded not only in Poland. A very high growth rate of private equity investments and capital raised by the funds were recorded in numerous European countries included in the annual survey of the European Private Equity & Venture Capital Association (EVCA). The growth rate of the sector is now almost the same as at the end of 1990s, i.e. during the technology company’s boom. In 2006, European private equity funds raised a total of EUR 112 billion, i.e. 56.4% more than in 2005, and their investments amounted to EUR 71 billion and were higher by 51.2%.

Due to the high growth rate of private equity investments in Poland, the ratio of the value of investments to GDP also increased and amounted to 0.11% as at the end of 2006. This ratio is most often used in the literature to compare the level of development of the PE/VE sector in different countries. Its average value for 20 European countries included in the EVCA survey\(^ {199}\) in 2006 amounted to 0.6% (Figure 4.4.1). In terms of the ratio of the value of investments to GDP, the Polish private equity sector still remained underdeveloped in comparison with other European countries.

A characteristic feature of the private equity sector in Poland is its high degree of concentration in terms of the value of both investments and raised funds.\(^ {200}\) Therefore, individual transactions may have a large impact on the sector, which makes it difficult to predict the rate and directions of its growth.

Table 4.4.1. Value of investments and funds raised by private equity funds in Poland, 2002–2006 (PLN million)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004(^1)</th>
<th>2005(^1)</th>
<th>2006(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment value(^2)</td>
<td>529</td>
<td>779</td>
<td>590</td>
<td>620</td>
<td>1,144</td>
</tr>
<tr>
<td>Amount of funds raised(^3)</td>
<td>457</td>
<td>113</td>
<td>1,378</td>
<td>238</td>
<td>3,649</td>
</tr>
<tr>
<td>Number of enterprises financed</td>
<td>86</td>
<td>48</td>
<td>34</td>
<td>25</td>
<td>37</td>
</tr>
<tr>
<td>Number of enterprises in which funds completed their investment</td>
<td>30</td>
<td>50</td>
<td>41</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>Private equity investments as percentage of GDP (%)</td>
<td>0.069</td>
<td>0.098</td>
<td>0.063</td>
<td>0.064</td>
<td>0.114</td>
</tr>
</tbody>
</table>

1 The average NBP exchange rate has been used for calculations: EUR/PLN = 4.5340 in 2004, 4.0254 in 2005, and 3.8951 in 2006.
2 i.e. the value of investments of domestic private equity funds in a given year, reduced by the value of their foreign investments, and increased by the investments of foreign funds in Poland.
3 i.e. the value of funds raised in a given year by private equity funds based in Poland.


\(^{198}\) The terms venture capital sector and private equity sector are used interchangeably in this section. Since the meaning of venture capital is narrower than private equity and constitutes its subcategory, private equity is used in the text, as it refers to the operations of both private equity and venture capital funds.

\(^{199}\) They included: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Greece, Spain, Netherlands, Ireland, Germany, Norway, Poland, Portugal, Romania, Sweden, Switzerland, Hungary, the United Kingdom and Italy.

\(^{200}\) In 2006, approximately 30% (as much as 90% in 2005) of investments, in terms of their value, were carried out by one company which manages private equity funds in Poland. In terms of the value of the capital raised, its share amounted to 70%.
The structure of the raised capital

As in the previous years, foreign capital prevailed among financing sources of private equity funds based in Poland (96.2% of capital raised by funds in 2006). Unlike in 2005, they came mainly from other European countries (69.8%) and only in 26.4% from the United States (80.9% in 2005). The structure of private equity investors, i.e. entities which provide capital to private equity funds, is variable (Figure 4.4.2). As already mentioned, this may result from the high concentration of the sector, but also from the increasing average value of the single private equity investment. Investors, while undertaking to provide the funds with additional tranches of capital for a specific investment, know its goal (e.g. the name of the company and the area of activity) and characteristics (e.g. whether it is a leveraged buyout). The financing structure is thus to a certain extent a result of the type of investments planned in a given period and the type of funds that plan such investments. As usual, in 2006 a significant part of funds came from financial institutions based abroad, in particular from banks, pension funds and insurance companies.

In 2006, the largest providers of resources in Europe were again pension funds (27.1%). Similarly to Poland, the share of other private equity funds increased as well (18.2%), but in the structure of the sources of capital raised it was much smaller than in Poland. The differences between the origins of resources in the Polish and European private equity sectors remained significant. Every year, domestic entities dominate in Europe with regard to the country of origin of private equity investors. However, there are also countries where, as in Poland, a significant part

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**Figure 4.4.1. Private equity investment as percentage of GDP, 2005–2006**

![Graph showing private equity investment as percentage of GDP for various countries.](source)

**Figure 4.4.2. Private equity capital sources in Poland and Europe, 2005–2006**

![Graph showing the distribution of private equity capital sources for Poland and Europe.](source)
Financial institutions

of funds comes from foreign sources. In 2006, they were the United Kingdom (71.8%), Switzerland (79.6%) and Sweden (63%).

The structure of investments

Polish private equity funds predominantly invested on the domestic market (Figure 4.4.3). In 2006, over 95% of investments in terms of value were projects implemented in Poland. The Bulgarian and Romanian, and recently also Croatian and Ukrainian markets enjoy an increasing interest of both investors and funds. It may be expected that in the coming years Polish private equity funds will increase their investments in these countries.

The sectoral distribution of investments made by the private equity funds based in Poland changed significantly in 2006. As regards projects launched in the analysed period, the majority of investments in terms of value (56.2%) were carried in the telecommunications sector (only 5.6% in 2005). The share of investments in the financial services sector increased as well (from 2.1% to 14.1%). Only 3.2% of investments were launched in the previously dominant consumer goods sector (42.7% in 2005).

The value of divestments in Poland increased for the second year in a row and was accompanied by a decrease in the number of enterprises in which the funds finished their investments. The structure of divestments was significantly different than in 2005, as share sales through initial public offerings constituted over half of the divestments in terms of value (53.4% of completed divestments). Five companies debuted on the Warsaw Stock Exchange (3 in 2005). They included Sfinks, AB, Bankier.pl, One-2-One and eCard. Secondary offerings were carried in case of 7 companies (including Polish Energy Partners, Teta, W. Kruk).

Outlook

In the 1990s, one of the main reasons for the lack of interest in alternative investments was the high profitability of Treasury securities. High profits from investments in safer and more liquid instruments did not encourage investors to diversify their portfolios through investments in private equity funds. With the lowering inflation and market interest rates, the generated profits were not as high as before. However, the good situation on the stock exchange compensated for the lower profits from investments in debt securities. A significant increase in the value of companies listed on the WSE did not encourage investors to seek alternative investments either.

It seems that the legal and fiscal aspects of the functioning of funds are of key importance for the development of the private equity sector in Poland. The new regulations on closed-end investment funds introduced by the amendment to the Act on Investment Funds of 2004 did not prove to be an incentive for private equity funds to undertake the activity. This is a result of, among others, the obligation to create investment fund management companies, and to list the certificates of closed-end investment funds on the regulated market\(^\text{201}\) in order to facilitate investment in

\(^\text{201}\) This resolves the issue of the rules governing the valuation of non-listed certificates. Nevertheless, the certificates of closed-end investment funds listed on the regulated market have to be fully paid, which means that investors would have

Figure 4.4.3. Investments of private equity funds based in Poland

Source: NBP study based on EVCA data.
those funds by open pension funds, as well as from the tax inefficiency of such a solution (double taxation of the profits from investment). As noted in the White Paper of the Polish Private Equity Association, the development of the private equity sector in Poland in the long term requires the introduction of significant changes to the structure of closed-end investment funds, the extension of investment opportunities of Polish pension funds and the amendment of legal regulations on limited partnerships in order to make them more favourable for private equity activities. Another obstacle is the deficit of qualified personnel in entities which invest in private equity and specialise in alternative investments.

The inflow of funds from the EU may be an important impulse for the development of the private equity sector. Between 2007 and 2013, Poland will receive EUR 7 billion under the Innovative Economy programme. Already in December 2006, the Polish Agency for Enterprise Development (PAED) began to accept applications for the financing of seed capital funds. EU funds will be divided by the National Capital Fund (KFK) created at the Bank Gospodarstwa Krajowego. By the time works on this publication were completed, the National Capital Fund had not begun to operate due to the ongoing process of its notification at the European Commission.

Aid from the EU is expected to facilitate the establishment of several funds which will operate in the biotechnology sector. The first such fund was established in 2006. It is worth noting that the growing interest in the private equity sector encouraged individual investors from the south of Poland to create the third business angels network in Poland, the so-called SiBAN.202

An important event for the development of the Polish private equity sector may be the establishment of a new trading platform on the WSE, namely NewConnect, where the requirements for companies will be lower than in the traditional stock market (the costs of listing will also be lower). NewConnect will finance the development of small, prospective entities with a short history which have a high growth potential but are also characterised by higher risk. The issuers will include companies interested in obtaining between several hundred thousands and several million zlotys. Investors on the platform will include private equity funds, specialised closed-end funds, asset management companies and individual investors. The instruments listed on NewConnect will include stocks, allotment certificates, subscription rights, depository receipts and other participation financial instruments.203 International experience clearly shows that the establishment of alternative trading systems is an important factor in the development of the private equity sector. One such example is the Alternative Investment Market, established in the United Kingdom in 1995, where an increasing number of companies supported by private equity/venture capital have been listed in recent years.204

The development of the private equity/venture capital sector will be influenced by both demand and supply factors. The most important factors on the demand side include the good financial condition of enterprises and improved opportunities of divestment due to the favourable situation in stock markets. As regards supply, the development of the private equity sector is supported by the improvement of risk management processes at banks, which may encourage them to engage in such transactions as buyouts of enterprises. Private equity development will also be supported by innovations in the financial services sector which allow for transferring the risk related to such investments to third parties. This, however, is one of the reasons for a more detailed analysis of banks’ exposure to private equity funds and their potential impact on the stability of the banking sector, and the more prudent supervision over the private equity sector.205

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202 The remaining two networks of business angels in Poland are PolBAN and Lewiatan Business Angels.
203 More at: www.newconnect.pl.
4.5. Collective investment schemes

4.5.1. Investment funds

The Polish investment fund sector includes both domestic entities, which operate on the basis of the Act of 27 May 2004 on Investment Funds, and foreign entities, which operate in Poland in accordance with the UCITS directive on the basis of the single European passport principle. The participants of investment funds are mainly natural persons. As at the end of 2006, the share of the value of units purchased by individuals in the net assets of investment funds amounted to 74% (excluding units of money market funds).

Size and growth of the sector

In 2006, net assets of domestic investment funds increased by 61.3% (PLN 37.5 billion) as compared to 2005, and amounted to PLN 98.8 billion (Figure 4.5.1) as at the end of December. The growth resulted mainly from the net inflows to funds (approximately PLN 25.5 billion) and, to a lesser extent, from the change in the value of assets (Figure 4.5.2). The large interest in investment funds, particularly in funds which invest in equity, was related to the situation on the Warsaw Stock Exchange, which had remained good for four years. As at the end of 2006, the assets of foreign investment funds whose units were offered in Poland, amounted to PLN 1.48 billion.

In 2006, around 68% of the growth of net assets of investment funds was attributed to the net inflows. In each month of 2006, as in 2005, funds recorded a positive balance of the inflow of resources. Its size was a derivative of the growth of disposable income of households. The net inflows were the largest in the history of the activity of investment funds in Poland. However, its share in the growth of assets was at one of the lowest levels recorded since 2000 (the share was lower only in 2004). This stemmed from very good returns on investments recorded by funds.

In 2006, the average value of the assets of a domestic investment fund amounted to around PLN 377 million (around PLN 300 million in 2005). In half of the funds, the value of net assets did not exceed PLN 110 million. The difference between the fund with the largest and the lowest value of assets increased significantly. In 2006, it amounted to almost PLN 5.7 billion, while in 2005 – to

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207 The units do not encompass whose purchased by natural persons in form of insurance investment funds and transferred to investment funds for management.
208 The further part of the study concentrates mainly on the description of domestic investment funds. If the analysis covers foreign funds, it will be stated clearly in the text.
209 Unit-linked funds, whose assets were managed by insurance companies or investment fund management companies, proved to be an important channel of acquiring new resources. In the first half of 2006, approximately 60% of the net inflow to unit-linked funds was transferred to investment funds.
Figure 4.5.2. Structure of the growth of net assets of investment funds in 2006

Note: The structure of the growth of net assets is based on estimates. The net inflows to the funds were reduced by the distribution fee, and profits were reduced by management fees.
Source: Analizy Online.

Figure 4.5.3. Net assets of investment funds, 2003–2006

Note: annual data. Sub-funds of umbrella funds were separated in the calculations.
Source: Chamber of Fund and Asset Managers.

Figure 4.5.4. Net assets of investment funds by type at the end of 2006

Note: Sub-funds different in terms of investment policy were separated in the calculations.
Source: IZFiA.
PLN 3.7 billion (Figure 4.5.3). From among the different kinds and types of funds, the largest average value of net assets was recorded by open-ended funds and hybrid funds, respectively (Figure 4.5.4). It is difficult to state clearly what the optimum size of a fund is. Funds with relatively small assets may shape the structure of their investment portfolio flexibly without exercising significant impact on the valuation of purchased or sold assets. On the other hand, however, a management company which manages low-value assets may be forced to impose higher fees on units’ holders due to fixed costs and the lesser possibility of negotiating fees for the depositary, transfer agent, etc.210

As at the end of 2006, 26 management companies operated in Poland (an increase by 3 entities), and they managed 241 funds. In 2006, the supervisory authority of the investment fund sector granted 63 licenses for the establishment of an investment fund, including 36 licenses for the establishment of a closed-end investment fund. A management company was obliged to attach the statute, and either the prospectus or the terms and conditions of issue to the application for the license (Box 4.5.1).

More and more often, the offer of management companies was addressed to a limited circle of investors, which was reflected in the creation of closed-end funds which issued non-public investment certificates, and in the high value of the minimum contribution. In 2006, the supervisory authority granted licenses to establish 9 securitisation funds (in the case of two of them, the licenses had expired) and 9 private equity funds (Table 4.5.2).

In 2006, the structure of the sector was further differentiated following the establishment of new entities with structures introduced by the Act of 27 May 2004 on Investment Funds. Two management companies created master-feeder funds. The units of master funds are not available to investors and can only be purchased by feeder funds. The investment policy of all feeder funds is the same as the policy of the master fund. However, feeder funds may be different in terms of

**Box 4.5.1**

**STATUTE, PROSPECTUS, TERMS AND CONDITIONS OF ISSUE**

The statute is necessary to establish an investment fund. It is approved by the supervisory authority. The statute specifies the method of the fund’s operation and its organisation. It also defines the rights and obligations of the units’ holder. It is an integral element of the prospectus and the issue prospectus of the fund. There is a statutory obligation to make the prospectus available and thus to provide the statute to the buyer of the units.

The prospectus, issue prospectus and the terms and conditions of issue are the offering documents of an investment fund. Open-ended investment funds and specialised open-ended investment funds prepare information prospectuses, while closed-ended funds which issue public investment certificates prepare issue prospectuses. The terms and conditions of issue must be published by closed-ended funds which issue non-public investment certificates. The prospectus is an important document for investors since it contains the description of investment risk and information about the tax obligations of fund participants. Although the statute regulates the principles of the organisation and functioning of the investment fund, some of the provisions important from the point of view of the fund participant are included in the prospectus. They include the dates and conditions of subscription for units, the number of certificates covered by subscription, as well as the rules of their assignment, sale and issue, as well as of the repurchase and redemption of units or investment certificates.


The methods of fee collection and the amount of fees. There are no legal constraints on the type of master and feeder funds. It is thus possible that the master fund is a closed-end fund and the feeder fund is an open-end fund. This allows the participants of the feeder fund to benefit from the wide range of investment opportunities offered by closed-end funds.

The number of permits for investments on organised markets outside OECD countries increased significantly in 2006. The supervisory authority granted 15 such permits, while in 2005 – only 4. As a result, more funds appeared which invest on Asian markets (China, Hong Kong, Taiwan) and in European countries which are not members of the OECD (Ukraine, Lithuania, Latvia, Estonia, Croatia). The interest of domestic management companies in investing in the markets of non-OECD countries stemmed from the high rates of return which could be obtained in those emerging markets, and from the competition of foreign funds which distribute their units in cross-border sales. Their offer included investments in Asian countries (China, India) and Latin American countries.

As at the end of 2006, 34 foreign investment funds could sell their units in Poland; most of them were registered in Austria and Luxembourg. The notified entities often had the form of umbrella funds. Taking into account the number of all sub-funds, the offer of foreign funds available in Poland was wider than that of Polish ones. In 2006, Polish funds still did not begin to distribute their units in other EU Member States.

In 2006, net assets of European investment funds increased by EUR 980 billion, i.e. by 14.9%, and amounted to EUR 7,574 billion as at the end of the year. Over a half of that growth resulted from the net inflows to the funds (approximately EUR 520 billion). The assets of UCITS funds accounted for 79% of assets of the investment fund sector. The share of the Polish investment fund sector in the assets of European funds amounted to 0.3% as at the end of the year. The largest amount of fund assets was accumulated in Luxembourg and France.

In 2006, Poland reported the largest percentage growth of net assets of investment funds from among all countries associated in the European Fund and Asset Management Association (EFAMA). Therefore, Poland maintained the position of the leader in the region in terms of the value of net assets of investment funds, and achieved the highest net assets to GDP ratio, thus outstripping the previous leader i.e. Hungary (Figure 4.5.5).

### Table 4.5.1. Number of investment funds in Poland, 2003–2006¹

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-end investment funds</td>
<td>91</td>
<td>107</td>
<td>134</td>
<td>144</td>
</tr>
<tr>
<td>Specialised open-end investment funds</td>
<td>24</td>
<td>24</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Closed-end investment funds²</td>
<td>22</td>
<td>23</td>
<td>36</td>
<td>69</td>
</tr>
<tr>
<td>Total</td>
<td>137</td>
<td>154</td>
<td>190</td>
<td>241</td>
</tr>
</tbody>
</table>

¹ Data refer to funds which obtained the license for operation.
² Data for 2003–2004 for closed-end investment funds include closed-end funds, specialised closed-end funds and mixed funds.

Source: KNF.

### Table 4.5.2. Number of investment funds established in 2005 and 2006 according to types and structures

<table>
<thead>
<tr>
<th>Structures of investment funds</th>
<th>2005</th>
<th>2006</th>
<th>Types of investment funds</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds with various unit categories</td>
<td>5</td>
<td>4</td>
<td>Money market funds¹</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Umbrella funds</td>
<td>4</td>
<td>9</td>
<td>Exchange traded funds</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Master funds</td>
<td>0</td>
<td>2</td>
<td>Securitisation funds</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Feeder funds</td>
<td>0</td>
<td>4</td>
<td>Private equity funds</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

¹ This category concerns special type of money market funds. Their investment policy is strictly regulated

Source: KNF.
Concentration and competition

In 2006, the concentration of the management companies sector measured by the share of the Herfindahl-Hirschman Index and the CR3 index decreased (Table 4.5.3). The decrease in concentration, which had been recorded since 2004, resulted from the decline in the market share of the largest entity and the increase in the share of smaller management companies which attracted new investors with their differentiated product offer. The management companies which attracted the greatest amount of new inflows based their marketing strategies on the good results of the already operating funds or on the interesting product offer, i.e. funds which applied strategies or structures previously unavailable in the Polish market. The management company which acquired the greatest amount of new resources in 2006 incurred the largest expenditure on advertising. It is, however, difficult to find a relation between the amount of expenditure and the purchase and redemption balance in the whole sector, since the company with the smallest advertising expenditure recorded the second largest inflow.

In 2006, the largest decrease in the market share (around 8 percentage points) was recorded by the largest management company, and the main beneficiary of the decrease was the second largest entity in the sector. The growth rate of assets was lower than the market average in the case of 8 out of 24 actively operating management companies. It is worth noting that the share of 21 smallest management companies, measured by the value of net assets of the funds managed, did not exceed 50% (Figure 4.5.6).

In 2006, there were 125 distributors of investment funds (92 in 2005), out of which 60% were banks. Although the number of entities which acted as intermediaries in the sale and repurchase of units increased, the purchase of a unit of a selected fund could be difficult at times. This was due to the fact that over 70% of all distributors sold and repurchased units of only 10–20 funds. The distribution of units was still limited to the entities from one capital group. Only

Table 4.5.3. Management company concentration indices, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>17</td>
<td>20</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>CR3 (%)</td>
<td>57.97</td>
<td>55.09</td>
<td>54.92</td>
<td>53.78</td>
</tr>
<tr>
<td>HHI²</td>
<td>0.1494</td>
<td>0.1603</td>
<td>0.1469</td>
<td>0.1232</td>
</tr>
</tbody>
</table>

² Herfindahl-Hirschman Index.

Source: KNF, NBP calculations based on IZfIA data.
6 entities, including 3 financial intermediaries, 2 brokerage houses and one bank, acted as intermediaries in the purchase of units of over 60 different funds.

**Structure of the market**

An analysis of the sector of investment funds by type shows that a significant change took place in the asset structure in 2006. From among various types of funds, balanced funds had the largest net assets as at the end of the year (Table 4.5.4). In 2006, balanced funds recorded the largest net inflows which, along with investment activity performance similar to the performance of equity funds in nominal terms, contributed to a significant increase of their net assets (by over PLN 14.5 billion). Balanced funds replaced the leader from 2005, i.e. stable growth funds. The tendency to invest money in funds with ever higher risk level was thus maintained.

In 2006, foreign equity funds recorded the highest growth rate of net assets. Interest in those funds could stem from fund participants’ wish to diversify the risk. The net inflows to those funds was positive in each month. This was also the low base effect. It is worth noting that investing in the units of foreign equity funds was related to the unequal tax treatment of the participants of funds which accepted and made payments in foreign currencies. Legal regulations required the amount which was the basis for the calculation of the capital gains tax to be expressed in PLN. Those regulations were different from the tax mechanism concerning bank deposits in foreign currencies, where the tax was calculated from the profit expressed in foreign currency. The different treatment of investments in units of investment funds may result in a situation where a fund participant has to pay tax despite incurring a loss.  

Table 4.5.4. Net assets of basic investment fund types, 2003–2005 (PLN billion)

<table>
<thead>
<tr>
<th>Fund type</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Change 06/05 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic equity</td>
<td>2.3</td>
<td>4.8</td>
<td>6.6</td>
<td>19.3</td>
<td>193.5</td>
</tr>
<tr>
<td>Domestic bond</td>
<td>13.5</td>
<td>8.1</td>
<td>10.7</td>
<td>7.1</td>
<td>-33.8</td>
</tr>
<tr>
<td>Money market</td>
<td>5.4</td>
<td>5.1</td>
<td>8.1</td>
<td>8.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Stable growth</td>
<td>5.0</td>
<td>7.1</td>
<td>14.8</td>
<td>24.6</td>
<td>66.0</td>
</tr>
<tr>
<td>Balanced</td>
<td>2.9</td>
<td>6.1</td>
<td>11.4</td>
<td>26.0</td>
<td>128.5</td>
</tr>
<tr>
<td>Foreign equity</td>
<td>0.1</td>
<td>0.3</td>
<td>0.8</td>
<td>2.6</td>
<td>214.7</td>
</tr>
<tr>
<td>Foreign bond</td>
<td>3.0</td>
<td>4.0</td>
<td>4.4</td>
<td>3.2</td>
<td>-26.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.6</td>
<td>2.0</td>
<td>4.5</td>
<td>7.9</td>
<td>72.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32.9</strong></td>
<td><strong>37.5</strong></td>
<td><strong>61.3</strong></td>
<td><strong>98.8</strong></td>
<td><strong>61.3</strong></td>
</tr>
</tbody>
</table>

Note: Data for 2006 are preliminary data.
Source: Analizy Online.

Domestic equity funds also recorded a significant growth rate of assets. The net inflows amounted to over PLN 8.5 billion and were negative in one month only. In addition, high investment performance related to the good situation on the WSE contributed to the significant increase of the market share of the funds of this type. It is worth emphasizing that four domestic equity funds used the right to suspend the sales of units in order to protect the investors’ interests, which could reduce the value of assets collected by those funds.

In 2006, Polish bond funds recorded the largest outflow of capital. Their monthly net inflow of capital was positive only in December. The outflow of capital also concerned foreign bond funds. The predominance of redemptions over purchases of units of funds which generated lower rates of return and involved lower risk could be related to the continued bull market in the equity market and large disproportions between the investment performance of various types of investment funds.

An analysis of the structure of assets in terms of investment fund type shows the continued predominance of open-end investment funds, with a slight decrease of their market share, mainly in favour of closed-end funds (Table 4.5.5). Closed-end funds prevailed in the group of funds not classified in terms of investment policy. The growth rate of closed-end funds exceeded the market average almost twice, but this growth did not have an impact on the significant improvement in the liquidity of the investment certificates market. In 2006, the value of net trade in investment certificates on the WSE amounted to PLN 94.6 million (PLN 80 million in 2005).

Foreign funds registered abroad which conduct cross-border sales in the territory of Poland were the smallest group in terms of net assets. As at the end of 2006, their net assets amounted to PLN 1.48 billion (PLN 0.3 billion as at the end of 2005), while the net inflows in 2006 exceeded PLN 1 billion. Investors’ interest in foreign funds which conduct cross-border sales in Poland was accompanied by a high growth rate of assets of foreign investment funds registered in Poland. Although the distribution of foreign funds registered abroad was on a smaller scale, and access to

**Figure 4.5.7. Asset structure of investment funds by type in 2005 and 2006 (% of net assets)**

![Asset structure of investment funds by type in 2005 and 2006](chart)

Source: Analizy Online.

**Table 4.5.5. Net assets of individual types of investment funds, 2003–2006**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-end investment funds</td>
<td>29.1</td>
<td>32.6</td>
<td>53.8</td>
<td>84.3</td>
</tr>
<tr>
<td>Specialised open-end investment funds</td>
<td>2.9</td>
<td>3.5</td>
<td>4.4</td>
<td>7.8</td>
</tr>
<tr>
<td>Closed-end investment funds</td>
<td>1.3</td>
<td>1.6</td>
<td>3.1</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33.2</strong></td>
<td><strong>37.7</strong></td>
<td><strong>61.3</strong></td>
<td><strong>98.8</strong></td>
</tr>
</tbody>
</table>

Source: iZFiA.
The structure of the investment portfolio of investment funds and their impact on financial markets

In recent years, investment funds played an important role in the financial markets due to the large assets and their dynamic growth rate. As at the end of 2006, the value of stocks listed on the WSE, held by investment funds, exceeded the value of the domestic bond portfolio. Thus, the share of Treasury bonds in the net assets of investment funds fell from 44% in 2005 to 35% in 2006. The reason for such a change in the asset structure was the decline in the interest in domestic bond funds.

Over 40% of new resources contributed to investment funds in 2006 were invested in the stock market (around 15% in 2005). The bull market on the Warsaw Stock Exchange and the purchase of new securities contributed to an almost 140% increase in the value of investment funds’ equity portfolio. Thus, the share of stocks in the net assets of investment funds increased from 25% in 2005 to 38% in 2006. In addition, the exposure of funds in free float increased significantly. The stock portfolios of investment funds and open pension funds remained on a similar level (around PLN 35–40 billion), and their total share in free float exceeded 40%, which, with the limited supply of stocks, could have had an impact on the valuation of stocks of some companies (Table 4.5.6).

In 2006, investment funds purchased stocks worth around PLN 11 billion (PLN 2.8 billion in 2005). Such a large difference in the balance of investment in stocks resulted from greater net inflows to the funds whose investment policy allowed investment in equity. Domestic equity

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**Figure 4.5.8. Asset structure of UCITS funds by type in selected countries and the average for Europe in 2006**

Note: Data for Europe include the following countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

Source: EFAMA.
Financial institutions

National Bank of Poland

funds alone collected over PLN 8 billion more than in 2005. It is, however, difficult to determine a linear relation between the balance of the funds’ investments in stocks and the growth of the WIG index in 2006 (the very low value of the linear correlation coefficient, Figure 4.5.10).

Investment funds were the most active institutional participants of the stock market on the WSE in terms of share in turnover. In the second half of 2006, their share in the value of transactions in stocks carried out by institutional investors amounted to 33%. The share of funds in the turnover in future contracts and options on the WSE was much lower, though from among other institutional investors only market-makers were more active in those segments of the market.

Table 4.5.6. Exposure of investment funds in the Polish financial market, 2004–2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in Treasury bills market</td>
<td>13.3</td>
<td>8.1</td>
<td>9.6</td>
</tr>
<tr>
<td>Share in Treasury bonds market</td>
<td>5.2</td>
<td>9.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Share in the WSE free float</td>
<td>9.7</td>
<td>11.7</td>
<td>20.4</td>
</tr>
<tr>
<td>Share in the stock exchange capitalisation(^1)</td>
<td>4</td>
<td>5.1</td>
<td>8.5</td>
</tr>
</tbody>
</table>

\(^1\) The capitalisation only includes domestic companies.

Source: Ministry of Finance, WSE, Analizy Online.
**Investment performance and risk level**

In 2006, the value of units and investment certificates for the majority of investment fund types increased. The weighted average rate of return of investment funds increased by 8.4 percentage points. Only foreign bond funds which invested in US dollars recorded a loss, which resulted, among others, from the appreciation of the zloty against the US dollar. In addition, funds investing in the bond market and in foreign stock markets recorded lower rates of return than in 2005.

In 2006, investment funds’ returns on investment amounted to around PLN 12 billion, i.e. PLN 6.7 billion more than in 2005. Such a high growth resulted mainly from the bull market on the equity market and the related very high rates of return generated by domestic equity funds. Profits from the domestic stocks portfolio accounted for 80% of the return on investment. The good results were accompanied by a significant diversification of the rates of return between individual types of funds, the largest since 2002 (Table 4.5.7).

An analysis of the annual rates of return of individual investment funds shows that half of the equity funds generated results which exceeded the rate of return on the WIG stock exchange index. In 2005, the results of only one fund exceeded the level of the benchmark defined in this way. It may be thus concluded that the structure of the investment funds’ portfolio was significantly different from the structure of the portfolio which reflected the main Warsaw Stock Exchange index. It is worth noting that funds investing in small and medium-sized enterprises recorded the highest rates of return. This was influenced by strong increases in the WIRR (an increase over 3 times greater than that of the WIG index) and MIDWIG (an increase higher by 65% as compared to the WIG index) stock exchange indices.

In 2006, the generation of higher rates of return by funds which invested on the domestic equity market was related to the higher risk than in the previous year. This resulted from the higher volatility of daily rates of return of the WIG, WIG20, MIDWIG and WIRR indices. From among those indices, WIG20 was characterised by the highest level of volatility with the lowest daily rates of return. The smallest volatility was recorded by MIDWIG.

An important development was the suspension of the sale of units by 4 funds which invested in small and medium-sized enterprises listed on the WSE. The decisions to suspend the sale of units resulted from the necessity to protect fund participants against the increase in investment risk due to the low capitalisation of small and medium-sized enterprises and the low liquidity of their stocks.

### Table 4.5.7. Rates of return of investment funds, 2003–2006 (%)

<table>
<thead>
<tr>
<th>Types of funds</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic equity</td>
<td>35.0</td>
<td>23.8</td>
<td>22.9</td>
<td>47.7</td>
</tr>
<tr>
<td>Domestic bond</td>
<td>2.8</td>
<td>6.0</td>
<td>6.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Money market</td>
<td>5.0</td>
<td>5.0</td>
<td>4.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Stable growth</td>
<td>11.6</td>
<td>10.7</td>
<td>11.6</td>
<td>12.8</td>
</tr>
<tr>
<td>Balanced</td>
<td>17.9</td>
<td>14.4</td>
<td>18.1</td>
<td>21.5</td>
</tr>
<tr>
<td>Foreign equity</td>
<td>23.7</td>
<td>-11.8</td>
<td>12.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Foreign bond</td>
<td>10.5</td>
<td>-14.9</td>
<td>7.6</td>
<td>-4.6</td>
</tr>
<tr>
<td><strong>Investment fund weighted average</strong></td>
<td>9.0</td>
<td>8.1</td>
<td>12.0</td>
<td>20.4</td>
</tr>
<tr>
<td>Annual average inflation (CPI)</td>
<td>0.8</td>
<td>3.5</td>
<td>2.1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

1 The rate of return is a weighted average of the rate of return of foreign bond funds in the euro and US dollars.

Note: The rates of return for investment funds are stated as arithmetic averages for a given fund category. The weighted-average for investment funds does not include the unclassified fund group.

Source: Analizy Online, GUS.
Figure 4.5.11. Histogram of annual rates of return of investment funds in 2006

Note: The histogram presents the rates of return of only those funds which operated between January and December 2006.
Source: www.money.pl.

Figure 4.5.12. Rate of return to risk ratio in investment funds in 2005 and 2006

Notes:
1. Abbreviations used in this Figure stand for the following: AK – domestic equity funds, AZ – foreign equity funds, PDK – Polish bond funds, RP – money market funds, SW – stable growth funds, ZR – balanced funds.
2. The rate of return has been stated on a monthly basis, while risk has been expressed as the standard deviation of the rates of return for a given fund.
Source: NBP calculations based on Analizy Online data.

Figure 4.5.13. Sharpe ratio for selected types of investment funds

Note: Abbreviations used in this Figure stand for the following: AK – domestic equity funds, AZ – foreign equity funds, PDK – Polish bond funds, RP – money market funds, SW – stable growth funds, ZR – balanced funds.
Source: NBP calculations based on Analizy Online data.
Domestic equity funds were the most effective in 2006 in terms of asset management measured by the Sharpe ratio. The increase in the effectiveness of management of domestic funds which invest in stocks (equity and hybrid funds) resulted from good investment results. The Sharpe ratio decreased in the case of money market funds, domestic bond funds and foreign equity funds.

**New products offered**

The number of new investment funds established in 2006 was the highest since 1999. The most popular types of funds included private equity funds. In terms of the structure of funds, umbrella funds prevailed. In 2006, for the first time, two management companies used the possibility to transform open-end investment funds or specialised open-end investment funds managed by one company into an umbrella fund. Umbrella funds allow for transferring assets between individual sub-funds without the necessity to pay the capital gains tax.

In 2006, 7 new securitisation funds were created. They were non-standardised funds which addressed their offer only to corporate entities, non-corporate organisational units, and to natural persons. However, in the case of natural persons, the issue price of a certificate had to amount to at least EUR 40 000.

The establishment of an open-end real estate and construction fund was a novelty in 2006. The innovativeness of that fund consisted in investing in the stocks of companies linked to the construction sector and the real estate market. It was a debut in the Polish market of open-end real estate funds, which are very popular in the world. According to Polish law, real estate funds may only be established as closed-end investment funds. Open-end funds which invest in stocks of companies related to the real estate sector provide numerous investors with an indirect access to that market. One of the incentives for the establishment of such a fund was the competition on the part of foreign investment fund management companies which conduct cross-border sale in Poland, which offered open-end real estate funds.

In 2006, the first fund which invests in the commodity market in Poland was established. Its exposure in respect of the stocks of commodity companies and derivatives for precious metals may amount to 100%. It was established in the form of a closed-end investment fund, since only such funds may purchase securities or negotiable property rights which represent rights to precious metals. The fund issued non-public investment certificates, which limited the group of buyers of the units to the group of entities specified by the fund. There were also other funds in the market which invested in commodities and metals, but the instruments related to that market usually did not constitute the main category of investments.

**Outlook**

The dynamic growth rate of assets of investment funds contributed to the increased importance of that sector in the financial system in recent years. The value of the inflow of new assets in 2006 seems to point to an unflagging interest in investment in units of investment funds. Between 2000 and 2006, no outflow of resources from investment funds was recorded in annual terms, despite the temporary decreases in the prices in the stock and bond markets. The situation in financial markets may have a significant impact on the shifts of resources between various types of funds within the sector. The bull market on the WSE may contribute to the growth of assets of funds which invest in stocks, while the worsening of the situation on the stock exchange may result in the inflows to funds with safer investment strategies or alternative forms of asset investment.

The net assets of investment funds to GDP ratio demonstrates the huge potential of the Polish investment fund sector. In 2006, the ratio amounted to around 10% in Poland. Nevertheless, it still remains on a significantly lower level than in countries with longer traditions of collective investment schemes. In European countries, the fund assets to GDP ratio usually exceeds 20%. In addition, the number of entities which invest in units, which, according to WSE estimates, amounted to 2.1 million as at the end of 2006 (1.4 million in 2005), may also point to the large
growth possibilities of the investment fund market. In addition, around 20,300 people invested in foreign investment funds offered in Poland. If in 2007 the average monthly growth rate of investment and pension funds assets remained on the same level as in 2006 (around 4.06% for investment funds and around 2.56% for pension funds), then at the end of 2007, the assets managed by management companies should exceed the assets of open pension funds.

As at the end of 2006, the share of assets of investment funds in the savings of households increased by almost 3 percentage points as compared to the end of 2005 and amounted to 12.5%. Apart from the decrease in the share of bank deposits, that was the major change in the structure of the financial assets of households. The decline in the share of bank deposits and direct investments in Treasury securities shows that saving in investment funds was the preferred option. If market conditions, i.e., the good situation in the stock market and low interest rates, are similar in the coming years, this tendency may be maintained, as households most often choose between bank deposits and investment funds on the basis of relative historical rates of return.

Interest in umbrella funds is expected to be maintained in the coming years. Tax benefits for participants are the most important factor which is conducive to the transformation of already existing funds into umbrella funds or the creation of new funds with separate sub-funds. When transferring units between the sub-funds, the participant of an umbrella fund does not pay the capital gains tax. In 2006, management companies for the first time made a decision about the transformation of funds they managed into an umbrella fund, and it seems that an increasing number of management companies will change the structure of funds in that way. In addition, the planned legal changes which are to allow for differentiating units of sub-funds in terms of the share in the fees charged on the assets of sub-funds, will allow for removing the obstacle to the development of this part of the investment fund sector.

4.5.2. Open pension funds

The size of the sector

In 2006, open pension funds posted an increase in net assets by 35.4%. Assets managed by pension companies increased by PLN 30.5 billion as compared to 2005 and amounted to PLN 116.6 billion (Figure 4.5.14). The inflow of funds transferred by ZUS less fees on contributions in the amount of PLN 0.9 billion In 2006, the value of contributions transferred amounted to PLN 16.2 billion and was 15% higher as compared to the previous year.

Nearly half of the growth of assets (49.9%) was due to the investment activity of open pension funds. In 2006, the earnings (the profit and loss account) of open pension funds amounted to PLN 15.2 billion (as compared to PLN 10.3 billion in 2005) and were higher almost by half than in the previous year. This was due to the good situation on the stock exchange and the increase in the prices of securities held in the portfolios of open pension funds (Figure 4.5.15).

In 2006, the number of participants of open pension funds increased by almost 5.4% and amounted to 12.35 million (11.72 million in 2005). Out of the 634,600 people who joined pension funds, approximately one quarter did not decide on the selection of the fund and were assigned to a specific fund by a draw.

Polish open pension funds are among the most developed in Central and Eastern European countries which have pension systems with the mandatory capital pillar with a specified contribution. Poland was the leader in the region in terms of both the value of assets and the number of participants of pension funds (Figure 4.5.16).

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215 Inwestorzy w obrotach giełdowych (II połowa 2006 roku), Warsaw 2007, WSE.
216 The figure does not include the growth rate of the assets of insurance investment funds whose resources are transferred to investment funds.
Concentration and competition

Fifteen pension companies operated in 2006. A request was filed for the merger of two pension companies, yet in August 2006 the financial supervision discontinued the proceedings. The ownership structure of pension companies is expected to change in the coming years.

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217 Biuletyn Miesięczny KNUiFE, No. B (85), Warsaw 2006, KNUiFE.
In 2006, the pension funds sector recorded a continuation of the slight decrease in the level of concentration, both as measured by the Herfindahl-Hirschman (HHI) ratio, and as expressed by the CR3 ratio, which describes the share in the market of the three largest entities in terms of net assets (Table 4.5.8). The slight decrease in concentration was due to a decreased market share of the largest pension fund and the stronger position of medium-sized entities. The latter owe the strengthening of their market position to the applicable drawing system, which prefers funds with market share not larger than 10%, and to the favourable migration balance, which is the result of intensive sales activity.

The number of transfers of participants between pension funds remained at a high level. In 2006, 325,000 people changed pension funds (320,000 in 2005). Migration was one of the more important factors which influenced the strengthening of the market position of individual funds, since the change of membership entailed the taking over of funds accumulated so far on the individual accounts of participants. Winterthur was the leader in transfers in 2006 – over 52,000 participants of other funds joined it. The next funds to record the highest growth in the number of participants were Polsat, Generali, and DOM, classified among medium-size funds.

The growth rate of the assets of individual funds was positively correlated with the growth rate of the number of their participants (Figure 4.5.17). However, this correlation was not as strong as in the previous year (in 2006, the Pearson correlation coefficient lowered to 0.73). The growth in net assets of individual pension funds was influenced to a larger extent than in 2005 by the earnings generated.

In 2006, the share of fees related to the operations of pension funds in contributions amounted to 5.6% against 6.5% in the previous year. In the entire period of the functioning of the second pillar of the reformed pension system, those fees amounted to PLN 5.6 billion and accounted for 7% of contributions brought into the system. Fund management costs, which, in accordance with the regulations, may not exceed 0.045% of the value of net assets a month, were

Table 4.5.8. Concentration indices of pension companies, 2003-2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of entities</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>CR3 (%)</td>
<td>64.75</td>
<td>64.10</td>
<td>63.74</td>
<td>63.59</td>
</tr>
<tr>
<td>HHI</td>
<td>0.1646</td>
<td>0.1616</td>
<td>0.1602</td>
<td>0.1588</td>
</tr>
</tbody>
</table>

Source: NBP calculations based on KNF data.

Figure 4.5.17. Relationship between changes in open pension funds’ assets and the relative increase in the number of members

Source: NBP calculations based on KNF data.

218 An open pension fund may also cover the costs of the management of the fund by the management company directly from its assets according to the rate established in the statute but not exceeding amounts calculated according to the regressive scale referred to in Article 136 of the Act of 28 August 1997 on the Organisation and Operation of Pension Funds (Dz.U. of 2004, No. 159, item 1667).
covered directly from open pension funds assets and increased from PLN 0.37 billion in 2005 up to PLN 0.48 billion in 2006, which accounted for 0.47% of the average value of net assets (i.e. 0.04% a month).

The structure of the investment portfolio

In 2006, the value of the investment portfolio accounted for 99.3% of open pension funds assets and 99.7% of open pension funds net assets. As at the end of 2006, the value of investment of open pension funds amounted to PLN 116.2 billion. The structure of the investment portfolio of open pension funds did not change significantly as compared to the previous years (Figure 4.5.18).

Funds invested their resources mainly in two classes of assets: domestic Treasury bonds (a share of 60%) and stocks of companies listed on the WSE (a share of 33%) in the investment portfolio of open pension funds. The value of the Treasury bonds portfolio increased as compared to 2005 by approximately PLN 17.5 billion (an increase by 33%), most of which were new investments. As at the end of December 2006, the value of Treasury bonds held by open pension funds amounted to approximately PLN 70 billion. Pension funds became the second investor in the Polish Treasury bonds market in terms of value, after foreign investors, and the share of open pension funds in the bonds market increased by approximately 3 percentage points to 21.4% (Table 4.5.9). Fixed-rate securities accounted for over 70% of Polish Treasury bonds in the portfolio of open pension funds. The value of floating-rate bonds increased significantly, mainly due to the transfer of debt securities from ZUS to open pension funds as payment of ZUS commitments. The largest share in the open pension funds’ portfolio of Treasury bonds (approximately 31–32%) were 10-year and 5-year fixed-rate bonds. Such a structure of the portfolio resulted from the fact that State Treasury debt due to those bonds was the largest. The duration of wholesale Treasury bonds portfolio held by open pension funds amounted to around 3 years. Only the domestic banks’ bonds portfolio had shorter duration.

In December 2006, the value of stocks listed on the WSE held in the investment portfolio of pension funds amounted to PLN 38.8 billion (an increase by 46% as compared to December 2005). Thus, in 2006 their share in stock exchange capitalisation and in free float increased slightly (Table 4.5.9). According to the estimates, funds purchased net stocks worth PLN 1.6 billion. The remaining part of the increase in the value of the equity portfolio, i.e. around PLN 10.6 billion, was due to the increase in stock prices on the WSE. In 2006, there was a significant change in the structure of the Polish stock portfolio. The share of stock of large companies decreased significantly in favour of

Figure 4.5.18. The structure of the investment portfolio of pension funds in Poland, 2003–2006 (%)

Source: KNF.

219 Assets of the pension fund include: the investment portfolio, cash, debtors, and prepayments and accrued income. Net assets of open pension funds are the difference between the value of total assets and the value of the commitments of the fund.
Financial institutions

Small and medium-sized companies. These changes are reflected by the large increase in the value of the stock portfolio, as the rates of return of individual stock indices differed significantly (WIG20 – 23.75%, WIRR – 132.42%). Investment limits imposed on pension funds make it impossible for open pension funds to significantly increase their exposure in the stock market.

Apart from stocks of companies listed on the WSE and domestic Treasury bonds, the total share of which in the investment portfolio exceeded 93%, pension funds invested their assets in Treasury bills (approximately 2% in the open pension funds portfolio), deposits at domestic banks (approximately 2%) and foreign assets (1.3%). Investments in non-Treasury debt securities (corporate, municipal, mortgage bonds and bank debt securities) were insignificant despite the relatively high investment limits imposed on those categories of assets. However, the investment possibilities of open pension funds were limited by the size and liquidity of the individual segments of the non-Treasury debt securities market. The low supply of the instruments and the lack of a single secondary market, and thus difficulties in the everyday valuation of those assets contribute to the lack of interest on the part of open pension funds in investing in non-Treasury debt securities. The low values of individual issues and the fixed costs related to the investment credit risk analysis and evaluation are an additional obstacle for investment. An analysis of the composition of the debt securities portfolio of open pension funds shows that the funds mainly showed interest in instruments issued by public companies as well as in fully secured instruments, thus limiting the credit risk of the issuer.

As at the end of 2006, the value of foreign deposits of open pension funds amounted to PLN 1.5 billion, which accounted for 1.3% of the value of open pension funds assets, as compared to the 5% limit on those investments. The share of stocks of companies listed in foreign stock exchanges increased to more than 50%. Bank securities were another group of foreign assets. Pension funds did not use the limit on foreign investment to the full extent due to legal regulations, which make managers less willing to invest abroad. The statutory provisions stipulate that the costs of foreign transactions which exceed transaction costs in Poland are covered by the pension funds’ assets.

<table>
<thead>
<tr>
<th>Table 4.5.9. Open pension funds in financial markets (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of open pension funds in the bonds market</td>
</tr>
<tr>
<td>Share of open pension funds in WSE free float</td>
</tr>
<tr>
<td>Share of open pension funds in stock exchange capitalisation</td>
</tr>
<tr>
<td>Share of open pension funds in stock exchange capitalisation</td>
</tr>
</tbody>
</table>

1 The share of open pension funds includes stocks listed on the WSE primary market only; stock exchange capitalisation includes domestic companies only.

Source: KNF, MF, WSE.

![Figure 4.5.19. Investment portfolios of pension funds in selected countries worldwide, 2006](image-url)
company, whereas in the case of domestic investments, transaction costs are borne in full by the open pension fund. Furthermore, outside Poland open pension funds may only purchase securities which have investment-level rating. It appears that this limits the possibilities to invest in stocks in foreign markets, since stocks are a non-rated instrument.

Due to the lack of implementing provisions to the act, the applicable legal regulations do not allow open pension funds to purchase derivative instruments. This makes it impossible for pension funds to secure themselves against foreign exchange risk, to which they are exposed when investing in foreign markets. Under such circumstances, the appreciation of the zloty observed in recent years significantly decreased the profitability of potential foreign investments of open pension funds.

Owing to the structure of the Polish capital market, foreign deposits are the only possibility of further diversifying the investment risk of open pension funds. The comparison of the investment portfolios of pension funds in countries with the mandatory capital part of the pension system with a specified contribution suggests that the portfolio of Polish pension funds is characterised by the highest concentration of assets. Due to the lack of real possibilities for the diversification of investment, participants of open pension funds are exposed to greater risk than participants of pension funds in other countries (Figure 4.5.19).

Investment limits applicable in the pension funds sector are aimed to mitigate the investment risk of open pension funds. However, the value of individual limits does not fully reflect the risk related to investment in a given instrument. For example, investment in corporate securities issued by public companies (an investment limit of 10%) does not appear riskier than investment in the stocks of those companies (an investment limit of 40%). Therefore, it is worth considering the change of investment limits and the manner of pension funds risk management in such a way that in the case of debt securities, one of the essential criteria in investment decisions is the rating of that instrument. In countries with similar pension systems (e.g. Chile, Mexico), the possibilities of investing in specific debt instruments depend on the rating of those instruments. Therefore, the exposure of pension funds in respect of the individual types of debt securities entails risk related to investment in those instruments. It appears that increasing the limit for unsecured non-Treasury debt securities with high rating would facilitate greater diversification of the credit risk of the investment portfolios of open pension funds and would contribute to the greater popularity of rating in Poland.

Investment performance of open pension funds vs. risk level

The weighted average rate of return on investment of open pension funds amounted to 16.4% in 2006, which means that the funds achieved higher results than in the previous three years. The investment performance of pension funds with the highest and the lowest rate of return was better than between 2003 and 2005. This was a result of both good investment policy and of the greater increase in WSE indices. Along with the increase in the profit on investment activity, the difference between the rates of return obtained by the best and the worst open pension fund increased (up to 7.5 percentage points) (Table 4.5.10).

In accordance with applicable regulations, the level of the minimum required rate of return and the average weighted rate of return for the periods of 36 months were specified twice in 2006. All funds achieved the minimum required rate of return, which amounted to 26.724% in March and to 22.917% in September. The analysis of the 3-year rates of return does not justify a statement

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221 Ordinance of the Minister of Finance of 23 December 2003 concerning the general permit to invest assets of pension funds abroad (Dz.U. of 2003, No. 229, item 2286 as amended). Pursuant to Article 1 section 3 of that Ordinance, all categories of foreign investments in which pension funds can invest should have rating at investment level, granted by a specialised agency which evaluates the investment risk related to the specific security or to the issuer’s capacity for timely repayment of commitments entered into.

that the growth rate of the fund settlement unit was related to the size of the fund (Figure 4.5.20).

In 2006, the diversification of the investment portfolio of open pension funds in terms of exposure towards stock was slightly lower than in 2005 and amounted to 6.8 percentage points.\(^{223}\) In 2006, two funds which have the largest share of stock in their portfolios achieved the highest rates of return. However, the investment performance of other funds does not allow for formulating a general statement for the entire market that the rate of return was correlated to the share of stock in the portfolio of open pension funds (Figure 4.5.21).

\(^{223}\) The share of stocks in the open pension funds investment portfolio fluctuated between 30.6% and 37.4%. The dispersion measured by the value of diversion of the share of stocks in individual open pension funds from the average value and the range of the volatility band. The range (the difference between the limits of the volatility band) is expressed in percentage points.

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### Table 4.5.10. Rates of return obtained by pension funds, 2003–2006 (%)

<table>
<thead>
<tr>
<th>Funds</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>The best open pension fund in a given year</td>
<td>16.8</td>
<td>16.7</td>
<td>16.4</td>
<td>22.7</td>
</tr>
<tr>
<td>The worst open pension fund in a given year</td>
<td>9.7</td>
<td>11.9</td>
<td>11.2</td>
<td>15.2</td>
</tr>
<tr>
<td>Pension fund-weighted average</td>
<td>10.9</td>
<td>14.0</td>
<td>15.0</td>
<td>16.4</td>
</tr>
<tr>
<td>Annual average inflation (CPI)</td>
<td>0.8</td>
<td>3.5</td>
<td>2.1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: KNF, GUS.

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**Figure 4.5.20. Net assets and 36-month rates of return of pension funds in 2006**

![Graph showing net assets and rates of return of pension funds](image)

Source: KNF.

**Figure 4.5.21. Share of stocks in the open pension funds investment portfolio and the rate of return generated in 2006**

![Graph showing share of stocks and rate of return](image)

Source: NBP calculations based on KNF data.
In 2006, pension funds generated higher rates of return, with risk level similar to that in 2005 (Figure 4.5.22). The average monthly rate of return amounted to 1.34% in 2006, against 1.12% in the previous year. That increase was due to the stock bull market. In 2006, all stock exchange indices, except for WIG20, generated rates of return higher than in 2005. Due to the change in the composition of the open pension funds investment portfolio (increase in the share of stocks of small and medium-sized enterprises), the above-mentioned stock prices contributed to the improved result on investment activity of funds. The difference between the rates of return in the open pension funds sector, greater than in 2005, was mainly due to the diversification of the investment portfolios of individual investment funds. Increase was posted mainly by those open pension funds which had a higher share of stocks of small and medium-sized enterprises.

One of the measures of the effectiveness of open pension funds investment portfolio management is the Sharpe ratio, which describes return on investment against risk. Due to the fact that the level of risk was similar to that in 2005, the factor which differentiated the value of the Sharpe ratio for pension funds was the generated rate of return. In 2006, for a majority of funds the ratio was higher than a year before. The scale of growth for individual open pension funds was diversified. The high increase in investment effectiveness was observed primarily among small and medium-sized funds. Those funds altered the composition of investment portfolios significantly, which had an impact on the generated rates of return and the values of the Sharpe ratio. In funds with a high share in the market, the efficiency of investment portfolio management improved slightly as compared to 2005. Limits on investment in particular categories of deposits and concentration limits for investments in instruments issued by one entity, as well as the stock supply structure limited the possibility to alter the portfolio (Figure 4.5.23).
**Outlook**

Due to the mandatory character of the pension system, both the number of members and the assets of pension funds will continue to grow systematically. The first benefits will be paid in 2009, and for the next several years the value of those benefits will be small as compared to the incoming contributions. Forecasts indicate that inflows of contributions will probably equal expenditures due to the retirement of the participants of the system around 2030.

Further mergers of pension funds should be expected in the next years. However, ownership changes in pension companies and the related further consolidation of the open pension funds market will require approval of the Polish Financial Supervision Authority. With the current investment limits and the same structure of the supply of instruments in the capital market, the further consolidation of the pension funds market may make managing their assets more difficult.

In 2009, the first pensions will be paid out within the second pillar of the pension system. This entails the necessity to elaborate solutions which will allow for completing the pension system reform. Arrangements in this respect should concern both the form of payments and the institutions which will make them.

From the point of view of the future pensioner, the optimum solution would be to guarantee a number of choices and thus to adjust the pension payment method to his/her circumstances. Different forms of benefits paid to the participants of the new system are considered. The future pensioner will probably be able to choose between the individual lifetime pension, a benefit with a guaranteed payment period, and a joint-life annuity. It appears that the lump sum payment of all the funds accumulated in the open pension fund will not make its way to the catalogue of available pension products. Box 5.4.2 presents a brief overview of the basic types of pension benefits and their availability in selected countries which have pension systems similar to the one in place in Poland.

In most countries with the capital pension system, pensions are paid out by life insurance companies (or pension institutions – specialised life insurance companies). In rare cases, these responsibilities are performed by pension funds. In accordance with applicable regulations, pensions from the second pillar in Poland will be paid out by pension insurance institutions. Funds for the payment of pensions will still be invested in financial markets. However, in contrast to pension funds, where investment risk is almost fully borne by fund participants, institutions which pay out the benefits will bear insurance risk and, depending on the solutions adopted, part or all of investment risk. Until the end of 2006, the question of which institutions will act as

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**Box 5.4.2**

**PENSION TYPES AND PAYMENT METHODS IN SELECTED COUNTRIES**

The payment of pensions in countries with pension systems similar to the one in place in Poland takes different forms, adjusted to the needs of the market. There are three basic types of pensions: lump sum payment, programmed payment, single lifetime annuity, single life annuity with guaranteed payment period, and a joint-life annuity.

The lump sum payment is a one-off payment of the whole amount of the funds accumulated in the pension fund which are due to the fund participant.

The programmed payment consists in paying out pension instalments for a specified period of time, in the amount and with the frequency established in the contract. The

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The pension payment period can be adapted to the individual needs of the insured person. In the case of death of the insured person prior to the end of the period specified in the contract, the due benefit is paid out to a beneficiary named by the insured person. Another form may be the payment in the form of an annuity, paid out with a specified, fixed frequency, for a period of time specified in the contract. The amount of payments (instalments) may be level or escalating. For the escalating amount of benefits, the payments (instalments) may be indexed. Where the growth index of the benefit is established at the beginning of the contract, this is the increasing annuity. The inflation index may also be used for indexation.

The single life annuity consists in paying the insured person a benefit in the amount and with the frequency specified in the contract, until the date of that person’s death. The payments are most often monthly (monthly instalments). Benefits are paid out for the rest of the insured person’s life. Depending on the provisions of the contract, the benefits may be indexed, but in such a case the initial benefits are lower than in the case of fixed-amount benefits.

The pension with the guaranteed period of the payment of benefits consists of a term annuity, which is paid out for a period guaranteed in the contract, and the deferred lifetime annuity. During the guaranteed period, the insured person receives the annuity, and in case of his/her death the benefit is transferred to the beneficiary/beneficiaries. After the guaranteed period of payments, the payment of the lifetime annuity commences (if the insured person has not died); the payments are made for the rest of the insured person’s life. Another variant of this type of pension is the payment of guaranteed benefits after the death of the insured person. However, that variant leads to a significant lowering of the base of the pension and is applied less often.

The joint-life annuity is a benefit paid out to the insured person for the rest of his/her life, and then to the co-insured person (beneficiary, joint annuitant). The payment of benefits ceases with the death of the joint annuitant. Most often, joint annuitants are the spouse or children of the insured person.

### Table 4.5.11. Basic types of pension benefits in selected countries

| Type of pension – form of payment | Lump sum payment | Programmed payment | Life annuities | | | | |
|---|---|---|---|---|---|---|
| | | | Single | Single with guaranteed payment period | Joint-life annuity |
| Argentina | • | • | | | | |
| Bolivia | — | — | • | • | • |
| Chile | • | • | • | • | • |
| Mexico | • | • | • | n/a | • |
| Uruguay | — | — | • | — | • |
| Sweden | — | — | • | — | • |

Discussion on the completion of the pension system reform also concerns calculating the pension base, and the selection of life expectancy tables in particular. It has not been settled yet whether they will be unisex or different for men and women. The results of simulations show that using unisex tables entails an increase in pension benefits for women by several per cent and the decrease of pensions for men by more than ten per cent (part of the funds accumulated by men would have to be allocated for the payment of pensions for women). Furthermore, the greater number of women (overrepresentation of women in the group of pension beneficiaries) would deepen the shortage of funds for the obligations of pension institutions, and additional funding for these pensions would be necessary from own funds of the pension institutions, whereas applying separate tables lowers the pension base for women due to their longer life expectancy, which is enhanced by their lower retirement age and a shorter average time of employment.

4.5.3. Occupational Pension Programs and Individual Pension Accounts

The pension system reform implemented in 1999 allowed for collecting additional savings to be used after retirement, within the so-called third pillar. In the initial period of the reform, only few Occupational Pension Programs existed. In the recent years, their number increased. Beginning with September 2004, the provisions have allowed accumulating savings for pension purposes also in the form of Individual Pension Accounts (IPA).

In 2006, the number of Occupational Pension Programs increased, although to a smaller extent than in 2005. As at the end of 2006, there were 974 Occupational Pension Programs, which had 281,500 participants; in 2005, there were 906 programs with 260,000 participants. As at the end of 2006, the value of accumulated assets amounted to PLN 2.793 billion (PLN 1.696 billion in 2005).

In 2006, the number of IPA almost doubled, and as at the end of the year it amounted to 840,000 (427,900 in 2005). The greatest number of IPAs were operated by life insurance companies – 634,600 accounts, which accounted for 77% of all accounts (Figure 4.5.24). The fact that IPA were slightly more popular than in previous years resulted from the high level of activity of insurance agents who operate for the benefit of insurance companies. This resulted in the increase in the number of IPA run in the form of life insurance, and contributed to the increase in this segment of the market.

As at the end of 2006, the value of assets accumulated within the IPA system amounted to PLN 1.3 billion (PLN 0.7 billion in 2005), of which 45% were held in investment funds and 38% in

Figure 4.5.24. The number of accounts by institutions offering IPA in 2006

Source: KNF.
In terms of value of the funds accumulated on IPA, investment funds retained the leading position (Figure 4.5.25). In 2006, the average value of funds paid to IPA accounts amounted to PLN 2,199 (PLN 2,208 in 2005).

Investing resources in Individual Pension Accounts is not popular. The applicable limits on the flexibility of payments of resources within the IPA (loss of the capital gains tax exemption right) and the limits on the amount of payments were a barrier to the development of this form of saving. At the end of 2006, the Ministry of Labour and Social Policy presented draft amendments to the Act on Individual Pension Accounts. In order to encourage saving for retirement, the proposals included increasing the annual limit on payments into the individual pension accounts several times, and allowing holders to withdraw part of the funds from the account without the need to terminate the contract. However, greater fiscal incentives would need to be implemented to create a basis for a dynamic growth of IPA.
4.6. Insurance companies

In 2006, the development of the insurance market was still stable. The gross written premium as well as the earnings were higher than in 2005, and the majority of technical and insurance indicators indicated a further improvement of the financial standing of insurance companies.

4.6.1. The size and structure of the insurance sector

*Gross written premium amount*

The development of the insurance market is measured by the value of the gross written premium (hereinafter referred to as the premium). In 2006, the premium for the whole insurance sector amounted to PLN 37.5 billion and was approximately 21% higher than in 2005. The premium growth rate in the life insurance sector (sector I) reached the highest level in several years and exceeded 37.6%. The premium growth rate was much slower in the non-life insurance and personal insurance (sector II), hereinafter referred to as non-life insurance, and amounted to 4.8%. This resulted in the change of the insurance premium structure in Poland – for the first time the life insurance premium was higher than in the non-life insurance sector (Figure 4.6.1).

![Figure 4.6.1. Gross written premium amount and its growth rate, 2003–2006](image)

Source: KNF.

![Figure 4.6.2. Insurance penetration in selected European countries in 2006](image)


225 Gross written premium is a premium due for the insurance period, and for life insurance contracts and contracts for an indefinite period it is a premium due for the period of the insurance company liability. Gross written premium is correlated with revenues and reflects the scale of insured risk.
The Polish insurance market is still underdeveloped in comparison with other European countries, both in terms of the gross written premium amount per capita (insurance density) and the premium to GDP ratio (insurance penetration). In 2006, the premium to GDP ratio amounted to 3.5% in Poland and the insurance density to around USD 280 (Figure 4.6.2).

The average insurance penetration of the insurance market in Europe amounted to 8.3%. The figure was slightly higher for the European Union. The highest insurance penetration, amounting to 16.5%, was recorded in the British market, where the life insurance sector is particularly well-developed. The insurance premium amount per capita was the highest also in the United Kingdom (USD 6,467), whereas the European average is USD 1,745 (Figure 4.6.3). In the majority of countries with a low level of insurance market development, non-life insurance sector products prevailed.

**List of insurance companies and their ownership structure**

As at the end of 2006, there were 64 insurance companies conducting business activity, including 31 life insurance companies and 33 non-life insurance companies. Two sector II insurance companies were liquidated within the analysed period and one national entity from sector I was taken over by another company (Table 4.6.1).

There was one chief branch of a foreign insurance company operating in the Polish insurance market. It offered non-life insurance contracts. Insurance products were also sold by the branches of insurance companies from EU Member States, which do not fall under the authority of the Polish insurance supervision. However, the scale of operations of those companies was insignificant.

**Table 4.6.1. Insurance companies conducting activity in the territory of Poland, 2003–2006**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance companies</td>
<td>73</td>
<td>68</td>
<td>67</td>
<td>64</td>
</tr>
<tr>
<td>Sector I – life insurance companies</td>
<td>35</td>
<td>32</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>Sector II – non-life insurance companies</td>
<td>38</td>
<td>36</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>Chief branches of foreign insurance companies</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sector I – life insurance companies</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sector II – non-life insurance companies</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: KNF.

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226 After Poland’s accession to the EU, insurance companies from the EU Member States have the right to carry out business operations in Poland under the single passport, without the necessity to obtain the license from the supervision authority.
As at the end of 2006, the subscribed capital of insurance companies amounted to PLN 4.8 billion. As in the previous years, the ownership structure of insurance companies was dominated by the private sector with the predominance of foreign capital (Table 4.6.2). The share of foreign entities in subscribed capital of both life and non-life insurance sector companies remained on a similar level and amounted to around 77%. Very few insurance companies were controlled by domestic entities. Public sector and domestic banks still had a relatively low share in subscribed capitals, which amounted to slightly over 4% (Figure 4.6.4). The State Treasury was a major shareholder of the Powszechny Zakład Ubezpieczeń (PZU) and the Export Credit Insurance Corporation (KUKE). It also indirectly controlled PZU Życie. The majority of insurance companies operated as joint-stock companies – 55 entities.

**Concentration and competition within the sector**

The year 2006 saw the continuation of the consolidation of small and medium-sized entities belonging to the same capital groups in the Polish insurance market. Despite this, a slight decrease in the level of concentration in both insurance sectors (Table 4.6.3) was recorded as a result of the decrease in the market share of the largest companies (PZU and PZU Życie) and the launch of operations by new entities (e.g. by AXA, one of the largest insurance groups in Europe).

The Herfindahl-Hirschman Index (HHI) for the gross written premium in the sector of life insurance decreased to 0.17 in 2006. The share of the three and five largest entities in the premium amount also decreased. In terms of the gross written premium, PZU Życie was the largest life insurance company, although its share in the market dropped from 40% to 36% (Figure 4.6.5). The position of
PZU Życie was mainly the result of a large portfolio of group insurance. In 2006, the importance of some medium-sized life insurance companies increased, mainly as a result of a significant growth of sales of life insurance contracts with insurance investment funds. For individuals, such insurance contracts were an alternative for investments in units of investment funds.

In the non-life insurance sector, the Herfindahl-Hirschman Index (HHI) amounted to 0.25 as at the end of 2006 (0.27 in the previous year). The share of the five largest entities slightly decreased, by 0.7 percentage point. PZU retained its leading market position, although its share measured by the premiums went down from 49% as at the end of 2005 to 47% as at the end of 2006 (Figure 4.6.5.

### Table 4.6.3. Insurance sector concentration, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life insurance companies – sector I</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR3</td>
<td>70.4</td>
<td>65.0</td>
<td>60.1</td>
<td>56.3</td>
</tr>
<tr>
<td>CR5</td>
<td>82.8</td>
<td>77.2</td>
<td>73.3</td>
<td>70.7</td>
</tr>
<tr>
<td>HHI</td>
<td>0.2532</td>
<td>0.2299</td>
<td>0.1981</td>
<td>0.1689</td>
</tr>
<tr>
<td><strong>Non-life insurance companies – sector II</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR3</td>
<td>72.8</td>
<td>68.3</td>
<td>67.0</td>
<td>64.4</td>
</tr>
<tr>
<td>CR5</td>
<td>80.7</td>
<td>77.8</td>
<td>76.9</td>
<td>76.2</td>
</tr>
<tr>
<td>HHI</td>
<td>0.3097</td>
<td>0.2783</td>
<td>0.2654</td>
<td>0.2456</td>
</tr>
</tbody>
</table>

Source: KNF.
4.6.6. The majority of entities in the non-life insurance sector copied the marketing policy of the market leaders. The market position of individual companies depended mainly on the sale of motor insurance: accident and theft insurance and third party liability insurance. Only a few companies decided to specialise and concentrate their activities on other types of insurance, e.g. Towarzystwo Ubezpieczeń EUROPA, which specialised in financial insurance.

4.6.2. Premium structure

There are five groups of insurance products in the life insurance sector:

- life insurance (group 1);
- dowry insurance (group 2);
- unit-linked insurance (group 3);
- annuity insurance (group 4);
- accident protection and sickness insurance (group 5).

Unit-linked insurance products had a decisive impact on the dynamic growth and structure of the life insurance sector premium. In 2006, the written premium amount from such insurance totalled over PLN 9.7 billion, which marks a growth of over 70% as compared to 2005. Such a high growth of the premium from unit-linked insurance resulted mainly from a large activity of insurance intermediaries which sell such insurance products for the largest companies and from the sale of such products by means of bancassurance. The growth rate of the life insurance premium was significantly lower and amounted to 17%, while in the case of accident protection and sickness insurance it totalled 21% (Figure 4.6.7).

The presented growth trends were reflected in the structure of the sector insurance portfolio. Although traditional insurance products from group 1 prevailed in previous years, as at the end of 2006 the largest share in the portfolio belonged to unit-linked insurance. The share of the latter increased to 44.6%, while the share of life insurance dropped to 40.2%. Accident protection and sickness insurance complemented the basic product offer. Its share in the premium remained at the similar level as in 2005 and amounted to 14.1%. The remaining types of sector insurance, i.e. dowry and annuity insurance, did not have any significant share in the structure of the gross written premium.

Figure 4.6.7. Quarterly premiums for life insurance groups, 2003–2006

![Figure 4.6.7. Quarterly premiums for life insurance groups, 2003–2006](image)

Source: KNF.

227 Premium structure for direct insurance without active reinsurance.
There are 18 groups among non-life insurance products which may be aggregated according to the class of insurance, taking into account the type of covered risk of the functions of individual insurance products. As in the previous years, the following classes of insurance prevailed in the non-life insurance sector:

- accident and theft insurance and third party liability motor insurance (group 3 and 10);
- fire and theft insurance\(^228\) (group 8 and 9);
- financial insurance, including loan insurance (group 14, 15 and 16);
- accident protection and sickness insurance (group 1 and 2);
- general third party liability insurance (group 13).

A characteristic feature of sector II insurance is the seasonal nature of the gross written premium resulting from the fact that a significant part of insurance contracts is concluded for a period of a calendar year and settled during the subsequent quarters. In 2006, non-life insurance premium structure was still dominated by motor insurance, although motor accident and theft insurance premium decreased by PLN 0.14 billion (Figure 4.6.8). This was mainly the result of fewer renewals of such insurance contracts. The premium from motor third party liability insurance increased by only PLN 0.25 billion. As a result, the share of motor accident and theft insurance fell to 26% as at the end of 2006 and the motor third party liability insurance to 35%.

The second group of products of vital importance for the insurance sector was third party fire and theft insurance contracts with the share of 17.6%. Financial insurance enjoyed huge interest. The premium growth rate for this group exceeded 27% and its share increased to 5.4%. The most popular product from that group was mortgage loan insurance which covers the risk of the failure to repay the loan for the period until the entry in the Land and Mortgage Register becomes valid (so-called “bridge” insurance). Other types of insurance products were of little significance and their share in the structure of gross premiums amounted to 10.1%.

4.6.3. Balance sheet and investment portfolio of insurance companies

\textbf{Structure of assets and liabilities}

In 2006, the assets of insurance companies increased by almost 21% and amounted to PLN 108.3 billion as at the end of December. As in 2005, the assets of life insurers grew much faster than the assets of non-life insurance companies. As at the end of 2006, the assets of sector

\(^{228}\) Fire, theft and other acts of God insurance of property and fixed assets (except for motor, sea and aviation insurance).
companies amounted to PLN 67.5 billion and accounted for 62% of the assets of the whole insurance sector (Figure 4.6.9).

The most important item in the assets of sector I companies were the investments of the insurance fund and own funds (54.7% of assets). Recent years saw a significant increase in net assets allocated for covering liabilities under the unit-linked life insurance contracts. The share of this item in the assets of life insurance companies grew to 41.7%. Investments allotted for covering current and future liabilities arising under insurance contracts transacted prevailed in the structure of assets of non-life insurers (Figure 4.6.10). As at the end of 2006, such investments constituted approximately 86% of their balance sheet total. Another important item of assets included also debtors from policyholders, intermediaries, reinsurers and subsidiaries. They accounted for 8.5% of the balance sheet total.

The technical provisions accounted for 46% of liabilities in sector II insurance companies and were comparable to the level of own capital (43%). A relatively high level of own capital in the sector resulted mainly from the high level of profits in the current year and the accumulated profit from the previous years.
**Investment portfolio structure**

As at the end of 2006, the value of the investment portfolio of insurance companies from both sectors (taking into account unit-linked products) amounted to PLN 100 billion. Domestic Treasury bonds were the largest item and accounted for 56% of the investment portfolio. The duration of the (wholesale) Treasury bonds portfolio amounted to approximately 3.7 years. This category of investments was dominated by fixed-rate 10-year Treasury bonds (a share of 41% in the Treasury bond portfolio). Such a high share of those instruments resulted from the necessity to adjust the structure of assets to long-term liabilities.

The balance sheet value of the insurance portfolio of life insurers amounted to PLN 65 billion as at the end of 2006. The share of unit-linked insurance assets in the portfolio was the highest (Figure 4.16.11). They include the deposits for contracts concluded at the expense and risk of the insured and without the application of investment limits laid down in the Act on Insurance Activity. Policyholders are the owners of the units of insurance investment funds (fund assets). By choosing the type of an insurance fund they decide about the composition of the investment portfolio. Insurance companies may influence the composition of that portfolio only by means of the cost policy (various distribution fees and fees for the management of individual funds) and marketing activities. Treasury bonds dominated the investments of unit-linked life insurance (PLN 9 billion).

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**Figure 4.6.11. Structure of investment portfolio of life insurance companies as at the end of 2006**

Source: KNF.

**Figure 4.6.12. Structure of investment portfolio of non-life insurance companies as at the end of 2006**

Source: KNF.

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229 Act on Insurance Activity of 22 May 2003 (Dz.U. of 2003 No. 124, item 1151, as amended), Article 155 section 4.
The remaining part of the life insurers’ investment portfolio included deposits allocated for the repayment of liabilities stemming from other contracts and the maintenance of the solvency margin. Due to the necessity to adjust the investments to the regulations in force and maturity dates of liabilities, this part of the portfolio was dominated by debt securities. They included mainly Treasury bonds and bills.

In the non-life insurance sector, the balance sheet value of investments amounted to PLN 35 billion. The constraints on the investment policy of sector II insurance companies and the solvency requirements determined the structure of investments. As at the end of 2006, debt securities still had the largest share in the portfolio (Figure 4.16.12). Although in 2006 the value of such securities increased by PLN 2.4 billion, to PLN 21.4 billion, their share in the portfolio slightly decreased as a result of the growth of loans (including loans for subsidiaries).

4.6.4. Insurance sector earnings

In 2006, insurance companies generated the best earnings since the beginning of 1990s. The net profit of the entire insurance sector amounted to PLN 6.8 billion. As compared to 2005, the net profit of life insurance companies increased by almost 30% (Figure 4.6.13). The revenues of non-life insurance companies were lower than those of life insurers, but it is non-life insurance companies that generated better earnings. It was due to the results of their investment activities, dividends from subsidiaries, which often included life insurance companies, and the low claims to premiums ratio.

The increase in the sale of unit-linked insurance influenced the high level of earned premiums, net of reinsurance230 of life insurance companies. Earned premiums, net of reinsurance, was allocated for the covering of current costs of the payment of claims and the payments to be made in future. The changes in technical provisions charged to the costs of the current reporting period were the most important item of the costs of life insurance companies. The assets covering those provisions are allocated for the payment of claims in the future. The net operating costs (including other items of the technical insurance account and the general profit and loss account) amounted to PLN 3.5 billion in 2006 (Figure 4.6.14A).

Earned premiums net of reinsurance were the main source of revenues of non-life insurance companies. The revenues from investments which were almost two times lower than in sector I resulted from a significantly lower value of investments of non-life insurance companies. The most important items among the costs were compensations and claims paid. Liabilities stemming from insurance contracts which may result in payments did not change considerably.

![Figure 4.6.13. Insurance sector earnings, 2003–2006](image-url)

Source: KNF.

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230 Earned premium net of reinsurance is a written premium net of reinsurance within a reporting period, less the change in provision for unearned premiums. Earned premiums less of the shares of reinsurers are earned premiums on own share. Ordinance of the Minister of Finance of 8 December 2003 on special accounting principles for insurance undertakings, (Dz.U. of 2003, No. 218, Item 2144, as amended).
Therefore, the changes in the provisions of non-life insurance companies (contrary to life insurance companies) were small and did not have an important impact on the earnings of the non-life insurance sector (Figure 4.6.14B).

### 4.6.5. Reinsurance and selected technical indicators

The share of reinsurers in the risk assigned by insurance companies is measured by premiums retention ratio and claims retention ratio. The higher the retention ratios, the lower the reinsurers’ share. In 2006, foreign entities most often served as reinsurers for insurance companies operating in the Polish market. The share of the Polish reinsurer (Polskie Towarzystwo Reasekuracyjne – Polish Reinsurance Company) in the market, measured with the value of premiums, amounted to 1.5%.

In 2006, the premiums retention ratio in the sector of non-life insurance products increased to 87.4% and was similar to the claims retention ratio. This means that in 2006 the ratios of the costs of insurance companies and of reinsurance to their revenues were similar (Figure 4.6.15). The increase of retention ratios in sector II in 2005 and 2006 reflects the continuation of the reconstruction of reinsurance programmes and the optimization of reinsurance protection scope consisting in the adjustment of the reinsurance form and scope to the financial potential of individual insurance companies. Thanks to the growth of equity of insurance companies to the level almost equalling the provisions on equity, insurance companies may assign less risk and retain higher amounts of insurance on equity.

![Figure 4.6.15. Premiums and claims retention ratios for non-life insurance companies, 2003–2006](chart)

Source: KNF.

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231 Premiums retention ratio is a quotient of premiums, net of reinsurance, and gross premiums amount.

232 Claims retention ratio is a ratio of claims (net of reinsurance) to gross claims.
The share of reinsurers in the life insurance sector remained low and the premiums retention ratio and the claims retention ratio amounted to 99% in 2006. The low share of reinsurers in the premiums of this sector resulted from relatively low insurance amounts for individual types of risk and from large insurance risk dispersion into individual risks covered by insurance protection.

Basic indicators which allow for monitoring insurance activity include the gross claims ratio and the corresponding claims ratio net of reinsurance. In recent years, these ratios demonstrated a downward trend, and in 2006 their value was the lowest since the beginning of the 1990s (Figure 4.6.16). The gross claims ratio amounted to 57.1% and the claims ratio net of reinsurance in the non-life insurance sector to 58.7%. The decrease in those indicators reflects the improvement of insurance activity revenues to costs ratio. The similarity of gross claims ratio and claims ratio net of reinsurance demonstrated the division of costs (related to the payment of claims) between insurance companies and reinsurers proportionally to the earned premium net of reinsurance and the earned premium.

The claims ratio in the life insurance sector, established in accordance with the methodology used in the non-life insurance sector, does not include important costs related to the creation of life insurance provisions and thus the impact of provisions of unit-linked insurance products. The modified claims ratio is a better measure of the results of activities in the case of life insurance products. The difference is that the earned premiums are increased by (net) revenues from investments and the claims include the changes in the provisions of the life insurance sector (including unit-linked insurance). For the last several years, the modified claims ratio of the life insurance sector remains on a stable level of 71–73%.

4.6.6. Product offer and distribution channels

The product offer of life insurance companies did not change significantly. In 2006, insurance companies only introduced new types of unit-linked insurance products to their offer. Group life insurance products still had the greatest share in the life insurance portfolio (Figure 4.6.17). The employer is usually the policyholder, while the insured include employees and the members of their families. Their typical scope of protection covers the risk of death of the insured and co-insured, casualty, costs of medical treatment, serious diseases and other types of risk. PZU collected the largest premium amount from group insurance (around two thirds of gross written premiums from group insurance).

In comparison with 2005, the share of group insurance slightly decreased as a result of a large growth of sales of individual unit-linked insurance products. The share of this product in

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233 Claims ratio (net of reinsurance) is a ratio of claims (net of reinsurance) having taken into account changes in provisions for outstanding claims (net of reinsurance) to earned premium (net of reinsurance).
the premiums increased to almost 40%. The importance of individual life insurance (including also the so-called anti-tax insurance) decreased since unit-linked insurance allowed for generating higher profits. An important element of the offer of life insurance companies was financial protection in case of casualty insurance, casualty insurance and insurance of cost of medical treatment. Such a protection against the consequences of the acts of God may supplement all products offered by the life insurance sector. Despite large outlays for advertising, individual health and sickness insurance accounted only for a small part of the portfolio.

Similarly to previous years, the Polish non-life insurance market was dominated by motor insurance. Such products may combine three types of insurance within a single insurance agreement, namely, third party liability, accident and theft insurance, casualty and assistance insurance policies. The share of motor vehicle insurance in the market remained large. The interest in other products is reflected in the non-life insurance premium structure presented above. Diversified product offer was targeted at big commercial companies, medium-sized and small entrepreneurs as well as individual customers. This insurance protection covered usually the risk of damages caused by natural forces (including fire) as well as other accidents. Despite a gradual increase in the premiums, the share of financial insurance was relatively small. The group of such products includes credit insurance, guarantees and insurance against financial losses.

Insurance agents involved in selling of both individual and group insurance policies were the most important channel of distribution in the life insurance sector. The share of this distribution channel measured by the gross written premium amount totalled 59.4% in 2006 (56.0% in 2005). Individual agents represented the most numerous group among agents (excluding multiagencies and other legal entities), which acquired over 23.1% of the premiums in this sector. Direct sales were the second most important distribution channel (with the share in the gross written premium amounting to 28.2%). The importance of direct sales results from a significant share of group insurance. Group insurance contracts are concluded and handled by the employees of insurance companies or the employees working directly at the companies. The share of the banking sector in the distribution of life insurance products amounted to 20.4%, while the role of insurance brokers remained insignificant.

In the sector of non-life insurance, sale by agents was the most often used distribution channel. Their share in the gross written premium amount in 2006 was 59.6% (58.8% in 2005) and almost half of all insurance contracts were sold by individual agents. Direct acquisition by employees and brokers accounted for 24.1% and 15.4%, respectively, of the gross written premium amount. The role of the banking sector in the distribution of the sector II insurance products was insignificant. In 2006, non-life insurance companies started to use electronic distribution channels

Fixed-term life and endowment insurance with one-off premiums, most often concluded for one year. The claim is paid as an amount agreed in the contract (insurance amount). The payment of the claim (insurance amount) is exempted from tax.

*Figure 4.6.17. Life insurance product structure, 2005–2006*

Source: KNF.
increasingly often. Some companies sold insurance products (mainly motor insurance) through Internet and telephone (direct distribution channels) but the share of this distribution channel remains of little importance (1.1% of the gross written premium amount).

4.6.7. Outlook

Despite the dynamic growth of gross written premiums in the life insurance sector, the gross written premium per capita in Poland remains several times lower than the European average and is considerably lower than in the countries where the financial markets are highly developed. Forecasts concerning premiums assume a further growth in the sector of life insurance, though not as dynamic as in 2006. Group life insurance (specific for the Polish insurance market), that demonstrated stable growth rate within the last several years, will play an important role in sector i. The importance of unit-linked insurance will most probably increase. Along with the faster growth of the premiums in the following years, the investments of life insurance companies will continue to grow faster than the investments in the non-life insurance sector.

A stable growth rate of the premium should be expected in the non-life insurance sector. Vehicle insurance as well as fire and theft insurance will probably remain the most popular products. The proposal of the Ministry of Health to finance the costs of medical treatment of the victims of road accidents from third party liability insurance premiums may result in an increase in the premiums for third party liability insurance by over 10% in the next years, but it is the activities of PZU whose price policy influences the activities of other entities that will determine the developments on the market. The expected amendment of the regulations of the limits of the insurance companies liability for third party liability insurance for damages caused in road traffic (limits of the third party liability insurance of vehicle owners) may also have an impact on the growth of the insurance premiums, and in particular reinsurance premiums.

The high demand for medical services allows for predicting that insurance companies will expand their product offer in the field of healthcare. This would be an alternative for medical services offered by non-public healthcare institutions in the form of subscription. However, with the current legal regulations, no breakthrough should be expected in this segment of the insurance market.

Within the coming years we might expect mergers of companies owned by the capital groups and buy-outs of minority shareholders in companies where foreign capital prevails. New entities which are to begin or have already begun operations in the Polish financial market are expected to increase the sales of insurance products. It is difficult to predict how the ownership transformation processes of PZU and PZU Życie will proceed.

The Quantitative Impact Study 2 (QIS2) was carried out in Poland in 2006 within the framework of works related to the Solvency II project. The QIS2 included 22 insurance companies operating in the Polish market (9 life insurance companies and 13 non-life insurance companies). The works concerned mainly the level of technical provisions. The study revealed a surplus of the amount of provisions calculated by means of the currently used method as compared to the method applied under QIS2 in the majority of the companies. In the case of life insurance, the covering of capital requirements with equity calculated for the purposes of the QIS2 survey proved to be higher in comparison with the currently applied methodology, while in non-life insurance the hypothetic covering of capital requirements was over two times lower than the amount resulting from the present regulations in force.

The following years will see the continuation of works on the proposal of the new Insurance Directive. According to the schedule, the Quantitative Impact Study 3 (QIS3) will be completed in July 2007 and the new Directive will be provided to the European Parliament and the EU Council for approval. The works related to the final text of the directive will continue at least until the end of 2007. The implementation of the new Insurance Directive is planned for 2010 at the earliest. On the basis of the results of studies on the Polish insurance market, we may expect that the implementation of new regulations will result in lower technical provisions. Due to the high equity of insurance companies, they should not have any difficulties with meeting new capital requirements.
4.7. Entities conducting brokerage activities

There are three types of institutions which conduct brokerage activities (investment firms) in the Polish market: brokerage houses, banks which conduct brokerage activities (brokerage offices and banks’ organisational units), and foreign entities which offer brokerage services (foreign investment firms and credit institutions). The latter operate in the Polish market on the basis of a permit granted by the supervisory authority of the country where they are seated, after it notifies the KNF of the intention of a foreign entity to commence activity.

4.7.1. Evolution of the size and structure of the sector

In 2006, the tendency for the number of entities which conduct brokerage activities to grow continued, which was a result of the good economic climate on the WSE. The number of domestic brokerage institutions increased to 47 (from 42 in the previous year). They included 37 brokerage houses and 10 banks which conduct brokerage activities (6 brokerage offices and 4 organisational units of banks). Additionally, in April 2006 the KPWIG withdrew the permit for one of the entities to conduct brokerage activities. The reason was the substantial breach of law and non-compliance with the principles of fair trading by that entity. Since 1993, this was the tenth (and the first since 2001) case of withdrawing the license of a brokerage institution.

In 2006, no significant changes occurred among the brokerage entities with the largest share in turnover on the WSE (Figure 4.7.1). It is worth noting, however, that the share of the five largest brokerage entities in the stock market turnover decreased. The CR5 ratio dropped from 63.9% in 2005 to 55.2% in 2006. During the period under analysis, CDM Pekao (a 12.1% share in turnover) replaced DM BH (11.5% of the share in turnover) in the first position. The following entities retained their leading positions in other segments of the stock exchange market: BDM PKO BP in the bonds market, DM BOŚ in the futures market, and DI BRE Banku in the options market (Table 4.7.1).

In 2006, another 4 foreign entities commenced operational activity on the WSE. Thus, the number of foreign investment firms and credit institutions which operate on the WSE increased to ten. In 2006, two other foreign entities obtained the status of the remote member of the stock exchange, and one conducted activity in the form of a branch. However, the share of foreign entities in the stock

Figure 4.7.1. Share of the largest brokerage entities in WSE stock turnover, 2005–2006

Source: WSE.

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235 In 2006, two other foreign entities obtained the status of the remote member of the stock exchange, but they did not conduct operational activity.

236 Remote membership gives foreign entities the possibility to access the WSE system directly, without the need to establish a physical presence in Poland or to use local intermediaries.
exchange turnover, similarly as in 2005, was negligible. Only KBC Securities was among the ten entities which had the largest share in the turnover in the stock market (its share in turnover increased by 1.64 percentage points as compared to the previous year, and amounted to 4.87%).

### 4.7.2. Financial results

In 2006, the financial standing of brokerage offices and houses was very good. This was determined by the same factors that favourably influenced their financial results between 2004 and 2005, namely the increase in turnover in the secondary stock market and a revival in the primary market. Pre-tax financial results generated by brokerage entities in 2006 amounted to PLN 1,191.5 million and were 67% higher as compared to figures recorded in 2005 (PLN 712.4 million). The favourable financial standing of brokerage entities is confirmed by the size of pre-tax return on revenue (Figure 4.7.2) and the increase in the number of institutions which generated profit from their activities. In 2006, 35 entities generated profit (31 houses and 4 offices), while 4 entities posted losses (3 houses and 1 office). In 2005, the number was 31 and 10 entities, respectively.

In 2006, revenues generated by brokerage entities on securities transactions in the secondary market increased, and so did revenues on the sale of securities in the primary market (in both cases by 63% as compared to 2005). Income from intermediation in investment funds’ units increased considerably (by 77%). However, it still accounted for an insignificant part of total revenues (6.3%).

### 4.7.3. Brokerage services market

In 2006, the bull market on the WSE (an increase of the WIG20 index by 23.7%, and of the MIDWIG index by 69.1%) was favourable for the share issues and for the increase in the value of turnover in the secondary market. Thirty eight companies debuted on the WSE, and session stock

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Table 4.7.1. The entities with the highest share in stock exchange turnover, 2006 (percentage of market share, trading volume in PLN million and in quantitative terms)

<table>
<thead>
<tr>
<th>Stock market</th>
<th>Bond market</th>
<th>Futures market</th>
<th>Options market</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDM Pekao</td>
<td>BDM PKO BP</td>
<td>DM BOS</td>
<td>DI BRE Banku</td>
</tr>
<tr>
<td>12.11%</td>
<td>37.64%</td>
<td>18.44%</td>
<td>35.90%</td>
</tr>
<tr>
<td>PLN 41,006.09 million</td>
<td>PLN 2,083.87 million</td>
<td>2,354,914 contracts</td>
<td>2,354,410 contracts</td>
</tr>
</tbody>
</table>

Source: WSE.

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Figure 4.7.2. Brokerage offices and houses’ pre-tax return on revenue, 1999–2006

![Figure showing pre-tax return on revenue percentage from 1999 to 2006](image)

Note: Pre-tax return on revenue is calculated as the ratio of pre-tax financial result to total revenue.

Source: GUS.
market turnover grew by 83% as compared to 2005. The greatest number (15) of public share offerings of the highest value (PLN 3.1 billion) were underwritten by UniCredit CA IB. In terms of value of the shares sold, the subsequent positions were taken by ING Securities (7 offerings worth PLN 1.6 billion) and CDM Pekao (8 offerings worth PLN 1.5 billion).

In 2006, the number of securities accounts and investors’ registers maintained by brokerage offices and houses decreased slightly. However, the value of assets held on them continued to increase (Table 4.7.2), which resulted from the increased interest in investing in the stock market.

In 2006, the distribution of brokerage services via the Internet continued to grow in importance. The number of Internet accounts maintained by brokerage offices and houses increased by half (from around 121,000 in 2005) to 187,000. In the second half of 2006, the average share of Internet accounts in the total number of securities accounts maintained by brokerage offices and houses amounted to 21%, which constitutes an increase by 7 percentage points as compared to the second half of the previous year. Furthermore, in 2006 the share of orders placed on the WSE via the Internet in the total number of orders remained high (Figure 4.7.3).

In 2006, Polish brokerage offices and houses also allowed their customers to conduct transactions in foreign markets. In a majority of cases, those entities operated through the intermediation of other investment firms which operated in those markets. Two brokerage houses (DB Securities and CDM Pekao) continued their activities on the Budapest stock exchange as its remote members. However, their share in the turnover in the stock market remained negligible (below 1%). Remote membership in a foreign stock exchange (as in the case of foreign investment firms which operate in the Polish market) allows brokerage entities to access the stock exchange trading system without establishing a physical presence in a given country or the need to use the intermediation of local brokerage entities, which would entail additional costs.

Table 4.7.2. Number of securities accounts and investors’ registers and the value of assets held therein, 2002–2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of securities accounts and investors’ registers (in thousand, as at year-end)</th>
<th>Value of assets in securities accounts and investors’ registers (PLN million, as at year-end)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1,251.1</td>
<td>29,153.5</td>
</tr>
<tr>
<td>2003</td>
<td>1,176.6</td>
<td>33,747.6</td>
</tr>
<tr>
<td>2004</td>
<td>1,535.5</td>
<td>64,994.2</td>
</tr>
<tr>
<td>2005</td>
<td>1,651.4</td>
<td>77,819.5</td>
</tr>
<tr>
<td>2006</td>
<td>1,599.6</td>
<td>122,756.2</td>
</tr>
</tbody>
</table>

Note: Investors’ registers constitute accounts which register assets not admitted for organised trading.

Source: GUS.

Figure 4.7.3. Share of orders placed at the WSE via the Internet in the total number of orders, 2002–2006

Options have been listed on the WSE since September 2003.

Source: WSE.
The Act on Trading in Financial Instruments of 2005\textsuperscript{238} allowed domestic brokerage entities to operate as limited liability companies, as well as to employ investment firm agents who could intermediate in the activities of brokerage houses and banks which conduct brokerage activities on their behalf and on their account. In 2006, two entities used the possibility to operate as a limited liability company. During the period under analysis, the number of investment firm agents increased to 19 (from 2 in 2005), which allowed for increasing the availability of brokerage services.

Within the framework of the capital market development strategy, in 2006 the WSE initiated a number of actions in which Polish and foreign brokerage entities may participate. The WSE launched the \textit{WSE IPO Partner} programme, and replaced the \textit{WSE Partners} programme with new ones: the \textit{WSE IPO Partner - Primary Market Leader} and the \textit{WSE IPO Partners to SMEs}. The \textit{WSE IPO Partner} programme is open to foreign investment firms which will support the WSE in promotion activities carried out in the markets of our region. Until the end of 2006, four entities joined the programme: three from Ukraine (E-volution Capital, Altera Finance and Sokrat Capital) and one from Estonia (Suprema Securities) which will also service markets in Lithuania and Latvia. The aim of the other two programmes is to facilitate entry into the stock exchange market for Polish entities in search of financing. Their participants, apart from brokerage entities, may include law firms, audit and financial advisory companies.

\subsection*{4.7.4. Outlook}

In the coming years, the development of the brokerage services market will be mainly determined by the economic climate in the stock market. The continuation of the bull market on the WSE should contribute to the gaining of new customers by brokerage entities, to the development of services offered by them and to the maintained good financial results in the brokerage industry.

In 2007, the necessity to adapt to the provisions of two directives – the Directive on markets in financial instruments (the MiFID)\textsuperscript{239} and the Directive on the capital adequacy of investment firms and credit institutions\textsuperscript{240} – will be an important factor which will influence the functioning of brokerage entities. These directives specify the requirements which must be met when conducting investment activity, as well as the principles for conducting such activities in the European market. Brokerage entities will have to adapt to those requirements, among others, in respect of reporting, internal supervision, execution of orders and preventing the conflict of interests. Possibly, the offer for customers will also need to be modified. This may entail the need to alter operational processes and IT systems. The provisions of the directives need to be first included in Polish legislation. Some of the provisions of the MiFID are already partly included in the Act on Trading in Financial Instruments of 2005,\textsuperscript{241} yet the Act will need to be amended, and implementing acts will also need to be issued. The MiFID should be finally implemented in national law until the end of January 2007 (financial market institutions have to adapt to the new regulations until 1 November 2007), while the directive on the capital adequacy, whose provisions will be included in the Act on Trading in Financial Instruments as well – until the end of December 2006.

In the coming years, one may expect the further growth in importance of the distribution of brokerage services via the Internet and via investment firm agents. One may also expect that the interest of customers in integrated brokerage and banking services will continue to grow (access to brokerage services at bank counters and the possibility to invest within the bank account). However, one should not expect a significant increase in competition in the brokerage services


\textsuperscript{241} More information on the changes introduced by that act in Financial System Development in Poland 2005, Warsaw 2006, NBP, Chapter 4.7.
market on the part of foreign entities. In 2006, 135 investment firms and credit institutions reported the intention to conduct investment activities in the territory of Poland without opening a branch, and 2 credit institutions reported the intention to conduct activities in the form of a branch. However, none of those entities informed the supervisory authority of the commencement of activities. On the other hand, operational activity was commenced by two other credit institutions, which reported the intention to conduct activities in the form of a branch a year before. This may indicate that notifications of the intention to conduct activities in Poland by foreign entities are most often related to their long-term development strategies and do not mean that operational activities will be commenced immediately.
5.1. Money market

5.1.1. Evolution of the money market: size and structure

The largest segment of the short-term debt securities market was the Treasury bills market. In comparison with the end of 2005, the value of NBP bills was falling. However, the annual average outstanding value of those instruments was higher by PLN 3.1 billion than the average level in 2005. In 2006, the outstanding value of short-term debt securities issued by commercial banks and enterprises increased (Table 5.1.1). However, these entities still used this form of financing relatively rarely. The increase in bank debt resulted mainly from the issue of short-term bonds of the BGK.

FX swaps remained the most liquid instrument in the domestic money market. The FX swaps market was dominated by transactions with foreign banks, which most often used these instruments to finance their investments in Treasury bonds and to speculate on the PLN exchange rate. Banks managed their current liquidity mainly in the unsecured deposit market. As compared to 2005, the average daily turnover in the unsecured interbank deposits market and conditional transactions market increased significantly. The conditional transactions market was dominated by transactions with non-banking financial entities, collateralised by Treasury bonds. The interbank repo market still was not very liquid.

Table 5.1.1. Outstanding value of individual money market instruments as of year-end, 2003–2006 (PLN billion)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury bills</td>
<td>48.1</td>
<td>46.9</td>
<td>24.4</td>
<td>25.8</td>
</tr>
<tr>
<td>NBP bills</td>
<td>6.0</td>
<td>5.7</td>
<td>23.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Short-term commercial bank debt securities</td>
<td>3.0</td>
<td>2.9</td>
<td>2.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Short-term corporate bonds</td>
<td>7.5</td>
<td>6.6</td>
<td>5.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Unsecured deposits (interbank deposits)</td>
<td>20.6</td>
<td>23.6</td>
<td>30.3</td>
<td>34.9</td>
</tr>
<tr>
<td>Secured deposits (FX swaps and conditional transactions)(^1)</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

\(^1\) Data from the bank reporting system do not make it possible to determine the value of banks’ positions due to FX swaps and conditional transactions.

Source: NBP.

5.1.2. Marketable short-term debt securities market

5.1.2.1. Treasury bills

Market size

The extent of financing the borrowing needs of the central budget through the issue of Treasury bills depends mainly on the seasonal nature of revenues and expenditures of the central budget and on the strategy of public debt management, which takes into account, among other things, the expectations concerning interest rate changes. As at the end of 2006, the value of Treasury bills issued and outstanding amounted to PLN 25.8 billion and was slightly higher than at the end of 2005. A significant decrease in the outstanding value of Treasury bills within the last
two years resulted from the strategy of the Ministry of Finance (aimed at extending the average
debt maturity and reducing the domestic currency refinancing risk) and from the change in the
management of the liquidity reserve and a relatively high value of Treasury bonds with residual
maturities of up to 1 year in the domestic market. The average level of the central budget liquidity
reserve held by the Ministry of Finance in the NBP and BGK was much lower in the years 2005–
2006 (PLN 6.0 billion and PLN 8.4 billion, respectively) than in 2004 (PLN 15.4 billion). The value
of Treasury bonds with maturity of up to 1 year amounted to PLN 44.2 billion as at the end of 2006
and PLN 58.9 billion as at the end of 2005.

Due to the low value of the Treasury bills issued, the share of short-term securities in the
outstanding value of Treasury securities amounted to 7.4% as at the end of 2006. This level was
achieved in the situation of a decreased budget deficit and low interest rates. In 2006, budget
deficit amounted to PLN 25.1 billion and was lower by PLN 5.5 billion than the deficit planned, as
well as PLN 3.3 billion lower than the deficit in 2005. Such a low share of short-term financing is
characteristic of countries with developed financial markets. In the euro area, in 2006 the share of
short-term debt securities in the Treasury securities market amounted to 7.6%.

Primary market

In 2006, the Ministry of Finance issued Treasury bills in the amount of PLN 27.1 billion
(i.e. PLN 0.2 billion more than in 2005 and PLN 21.7 billion less that in 2004). As in previous years,
mainly 52-week bills were sold. The issues of other kinds of Treasury bills were of supplementary
character (Table 5.1.2). The values of each Treasury bills issue changed throughout the year and
was related to the budget revenues and expenditures cycle (Figure 5.1.2). As in 2005, large issues
of Treasury bills were conducted in the first four months of the year and in December, when the
negative monthly balance of central budget revenues and expenditures is the highest. As in
previous years, the value of purchase bids significantly exceeded the supply of Treasury bills.
In 2006, the demand to supply ratio amounted to 2.80 (3.07 in 2005). The excess of demand was
permanent and its high value reflected the investors’ interest in each issue and the changes in
supply of Treasury bills.

Since 1 January 2003, Treasury bills have been sold in the primary market within the Primary
Dealers System. The rules governing the system operation are set forth in the regulations on
performing the function of the Primary Dealer, updated each year by the Ministry of Finance. In
2006, the number of banks having the right to purchase Treasury securities in the wholesale
primary market was increased to 15.242 Among the Primary Dealers, there were twelve domestic
banks, two foreign financial institutions and one foreign branch of a credit institution operating in
Poland. Also BGK had the right to purchase Treasury securities in the wholesale primary market.

242 Until 9 April 2004, 12 domestic banks served as Primary Dealers, and after one of them was excluded – 11.
Table 5.1.2. Treasury bills by maturity, 2003–2006 (%), value of bills in the primary market

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-week</td>
<td>4.9</td>
<td>3.3</td>
<td>6.0</td>
<td>0.7</td>
</tr>
<tr>
<td>26-week</td>
<td>6.1</td>
<td>1.2</td>
<td>0.0</td>
<td>3.4</td>
</tr>
<tr>
<td>39-week</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>52-week</td>
<td>82.9</td>
<td>95.5</td>
<td>89.2</td>
<td>81.4</td>
</tr>
<tr>
<td>Other</td>
<td>6.1</td>
<td>0.0</td>
<td>4.8</td>
<td>14.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: The category "Other" includes: 10-week bills in 2003, 1-week bills in 2005, and 3- and 5-week bills in 2006.

Source: The Ministry of Finance.

Figure 5.1.2. Monthly amounts of Treasury bills issued, 2005–2006 and the excess of demand over supply at Treasury bills auctions

Note: The demand to supply ratio is measured as the value of submitted offers divided by the value of Treasury bills offered at an auction by the Ministry of Finance.

Source: NBP.

Figure 5.1.3. Yield on money market instruments in 2006

Source: NBP.
Treasury bills auctions are organized by the NBP, which is the issue agent and manages the depository and settlement system for these instruments. In previous years, the Treasury bills auctions were held each week (usually each Monday), and as from July 2006 the number of auctions was reduced to two per month. Reducing the frequency of auctions aimed at increasing the average value of issue, which should result in decreasing the scale of secondary market liquidity decrease and in reducing issue costs. In 2006, the average value of 52-week Treasury bills sold in auctions amounted to PLN 983.3 billion, while in 2005 it amounted to PLN 648.7 billion.

Treasury bills were sold in the multi price auction system. In this kind of auction, bids with the highest prices are taken into account first, and then bids with lower prices follow until the supply is exhausted or the minimum price determined by the issuer is reached. Thus each purchaser pays the price indicated in his bid, provided that it is higher than or equal to the minimum price accepted by the Ministry of Finance.

In 2006, the yield on 52-week Treasury bills in the primary market was slightly lower than the 1Y WIBOR rate in the interbank deposits market. At the same time, it was significantly higher than the interest on deposits of households and enterprises.

Secondary market

In 2006, the downward trend in the liquidity of Treasury bills secondary market was maintained. As compared to 2005, net turnover decreased by over 60% (Box 5.1.1). In 2006, the average daily value of Treasury bills transactions amounted to PLN 1.1 billion and was more than three times higher than in 2003 (Table 5.1.3). A significant decrease of activity in the Treasury bills secondary market is shown also by the decrease of the liquidity ratio from 1.59 in 2005 to 0.99 in 2006.\(^{243}\) The basic reason for the decrease in turnover was the reduction of Treasury bills issue. The decrease was also caused, among others, by the smaller activity of domestic banks in the segment of outright transactions and by the withdrawal of foreign entities from the Treasury bills market. A substitute for Treasury bills are Treasury bonds with short maturity. Banks preferred to enter into transactions based on Treasury bonds with residual maturity of up to 1 year, since the value of individual issues of Treasury bonds was many times higher than the value of Treasury bills issue and was characterised by greater liquidity. Moreover, a significant part of Treasury bills purchased by banks in the primary market was resold to non-banking domestic investors, who usually treated them as a deposit instrument and kept them until the maturity date. Non-banking financial institutions entered mainly into short-term conditional transactions by placing deposits

### Table 5.1.3. Average daily turnover in Treasury bills and their change depending on turnover calculation method

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net turnover (PLN billion)</strong></td>
<td>3.8</td>
<td>3.9</td>
<td>2.7</td>
<td>1.1</td>
</tr>
<tr>
<td>including: outright transactions</td>
<td>0.4</td>
<td>0.7</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>conditional transactions</td>
<td>3.4</td>
<td>3.2</td>
<td>2.2</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Gross turnover</strong></td>
<td>14.5</td>
<td>14.4</td>
<td>9.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change in comparison with the previous year (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net turnover</td>
<td>–</td>
<td>3.0</td>
<td>-31.7</td>
<td>-60.8</td>
</tr>
<tr>
<td>including: outright transactions</td>
<td>–</td>
<td>69.0</td>
<td>-31.8</td>
<td>-54.0</td>
</tr>
<tr>
<td>conditional transactions</td>
<td>–</td>
<td>-5.2</td>
<td>-31.7</td>
<td>-62.3</td>
</tr>
<tr>
<td>Gross turnover</td>
<td>–</td>
<td>-0.9</td>
<td>-31.7</td>
<td>-61.5</td>
</tr>
</tbody>
</table>

Note: In gross turnover for conditional transactions, the values of both operations – sale and repurchase – was taken into account. Average daily turnover was calculated on the basis of the following numbers of working days: 246 days in 2003, 247 days in 2004, 252 days in 2005 and 2006.

Source: NBP.

\(^{243}\) The liquidity ratio is measured as a ratio of average monthly net turnover to average monthly outstanding value of Treasury bills issued. The presented values differ from those presented in the previous edition of this report due to a change in the method of calculating turnover (Box 5.1.1).
and borrowing securities from banks. However, in 2006, the value of repo and sell-buy-back transactions secured by Treasury bills significantly decreased.

In 2006, as in previous years, the Treasury bills market was dominated by conditional transactions (Figure 5.1.4). They constituted 78.7% of the total value of transactions (81.9% in 2005).244 A slight decrease in the share of conditional transactions resulted from the changes in the security structure of these transactions. Domestic banks much more often used Treasury bonds in repo and sell-buy-back transactions, and less often Treasury bills. In 2006, conditional transactions in Treasury bills were dominated by sell-buy-back transactions, which constituted 96.2% of total conditional transactions.

Box 5.1.1

PRESENTATION OF TURNOVER IN THE SECONDARY MARKET OF TREASURY SECURITIES

As compared to the previous editions of this report, the method of presenting turnover in the Treasury bills and bonds market has been changed. Turnover in these markets was presented individually – in net values. Before, the gross value of turnover was presented (two times within the same transaction – as the sum of sales and purchase values of securities). The method of presenting conditional transactions (repo and sell-buy-back) has also been changed. In this report, turnover only includes the value of initial exchange in conditional transactions (similarly as in section 5.3.1), and not the value of both these operations – sales and repurchase – because the repurchase of securities is not an economically separate transaction.

This change in the method of presentation of turnover in the Treasury bills and bonds market aims at unifying the method of presentation of liquidity of each market described in this report. The authors believe that net turnover (also referred to as the value of transaction) is a better and more comparable measure of market liquidity, in particular in the conditions of dynamic increase in the value of conditional transactions. If turnover is presented in net values, each transaction, irrespective of its type (outright or conditional), is taken into account in calculations once only. Table 5.1.3 presents the comparison of turnover value and growth rate with the use of the new and old turnover presentation methods.

Figure 5.1.4. Monthly net turnover in Treasury bills by transaction type, 2003–2006

Note: The value of conditional transactions calculated individually, i.e. according to the value of the initial exchange.
Source: NBP.

244 These data differ from the data published by the Ministry of Finance and the National Depository for Securities due to a different method of turnover presentation for conditional transactions. In the statistics of the MF and the KDPW, for each conditional transaction both the sales operation value and the repurchase operation value are taken into account.
Treasury bills were traded in the non-regulated OTC market and in the MTS Poland electronic platform (organised non-regulated market). Transactions in the OTC market dominated (99.8% of net turnover in 2006). One of the reasons behind such a high concentration of trade in the OTC market was the fact that the market was dominated by conditional transactions, which are performed mainly with non-banking entities, and the participants of the MTS Poland platform were banks exclusively.

**Investors**

A majority of transactions were transactions between banks and domestic non-banking customers. In 2006, they accounted for approximately 85% of the total net turnover. Transactions in the interbank market constituted 14% of net turnover. The higher share of transactions with domestic non-banking entities resulted from the application by non-banking financial institutions of the strategy of depositing financial surplus by short-term conditional transactions secured by Treasury bills.

2006 brought no significant changes in the structure of buyers of Treasury bills. Around 60% of the value of bills issued and outstanding was held by domestic non-banking entities. In this group of investors, the involvement of natural persons and non-financial entities decreased significantly (Figure 5.1.5), which resulted from the greater availability of attractive forms of depositing funds, for instance: in participation units of investment funds or directly in the stock market. Domestic banks remained the most important group of Treasury bills buyers. Their share in the structure of investors slightly increased – to 41.9% as at the end of 2006. Foreign entities generally did not invest in Treasury bills (as at the end of 2006, they had only 0.03% of the value of Treasury bills issued and outstanding).

**Outlook**

*The Public Finance Sector Debt Management Strategy in the years 2007–09,* prepared by the Ministry of Finance, provides for the reduction of the role of short-term debt securities in financing the borrowing needs of the central budget in the domestic market. In the years 2005–2006, the share of Treasury bills in financing with the outstanding value of Treasury securities in the domestic market was similar as in euro area countries. It seems then that in the next years no development of Treasury bills market should be expected. Only a significant increase of uncertainty in financial markets or deterioration of the liquidity situation of the central budget could cause the

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increase in Treasury bills issued. The downward trend in the liquidity of the Treasury bills secondary market will probably be maintained. Just as in the previous years, turnover will be dominated by conditional transactions.

5.1.2.2. NBP bills

The issue of NBP bills is the main open market operation performed by the NBP in the money market. The value of NBP bills offered in auctions depends on the forecasted scale of excess liquidity in the domestic banking system. The central bank uses this instrument to absorb excess liquidity and in this way determines one-week interbank deposits interest rates at the level close to the reference rate established by the Monetary Policy Council (Rada Polityki Pieniężnej – RPP).

Market size

In 2006, there was an increase in excess liquidity in the Polish banking sector, but this increase was not as dynamic as in 2005. During the analysed period, the excess liquidity of the banking system as measured by the balance of NBP bills issued and outstanding, remained close to the level observed in the 4th quarter of 2005. In annual average terms, the value of NBP bills issued and outstanding amounted to PLN 19.8 billion and was PLN 3.1 billion higher, i.e. by 18.3% from the average level in 2005. The main reason for the increase of excess liquidity of the banking sector was the net purchase of foreign currencies by the NBP, which was reflected by the increase of official reserve assets. The central bank converted to PLN the funds in EUR transferred to Poland by the European Commission as part of pre- and post-accession funds. Other significant reasons for the increase in excess operating liquidity were: the payment of NBP profit to the central budget and the further redistribution of these funds by the government, payment of discount of NBP bills, payment of interest on public sector term deposits placed with the central bank, NBP bonds and reserve requirement. The most important factor restricting liquidity was a dynamic increase of notes and coins in circulation, resulting mainly from the fast development of economy.246

The NBP bills issue depended also on the balance of term deposits of the State budget maintained in the NBP. Depositing the central government liquidity reserve in the banking sector and introducing in 2005 the limits on State budget term deposits with the NBP (in 2006, the average daily limit on deposits established in the agreement between the NBP and the Ministry of Finance was approximately PLN 6.3 billion) significantly decreased the share of the Ministry of Finance in the absorption of liquid funds on the interbank market. The average amount of the Ministry of Finance term deposits held with the NBP in the years 2005–2006 was around PLN 5 billion, while in 2004 it was over PLN 12.2 billion. In 2006, the Ministry of Finance placed financial surplus on the interbank market through the Bank Gospodarstwa Krajowego (BGK), which

Figure 5.1.6. NBP bills issued and outstanding, 2003–2006 (as at period-ends)

![Graph showing NBP bills issued and outstanding, 2003–2006](image)

Source: The Securities Register of the NBP.

distributed the funds mainly in buy-sell-back operations with the banks serving as Primary Dealers. These transactions were collateralised by Treasury bonds and bills. The Ministry of Finance also placed unsecured term deposits at banks, through the BGK. This resulted in shifting funds to the interbank market and consequently in the increase of the value of NBP bills issue. At the same time, however, it reduced the volatility of MF term deposits with the NBP, which made planning open market operations significantly easier.

Important changes in the abovementioned factors (in particular, in public sector deposits, notes and coins, net purchase and sales of foreign currencies) resulted in different liquidity in the money market in each month. As at the end of December 2006, the balance of NBP bills issued and outstanding amounted to PLN 18.4 billion and was PLN 4.6 billion lower than in the preceding year (Figure 5.1.6).

**Primary market**

Since 2005, the NBP has performed main open market operations by issuing NBP bills with the maturity of 7 days.\(^{247}\) Such a short maturity of open market operations was advantageous both for the central bank and for other banks. The NBP could adjust the scale of its liquidity-absorbing operations to the liquidity situation in the banking sector in a more flexible way, and banks could determine their demand for NBP bills more precisely within a week’s perspective. Yield on NBP bills was determined at auctions, and the reference rate was its lower limit. The auctions were held regularly once a week, each Friday.\(^{248}\) Since 1 January 2006, all banks operating in Poland which meet the technical requirements related to performing open market operations, as well as – according to the statutory provisions – the Bank Guarantee Fund, can take part in NBP bills auctions.\(^{249}\) The technical requirements mentioned above included direct participation in the SORBNET payment system, having an account in the NBP Securities Register and having the ElBON application which facilitates electronic submission of orders to the NBP. However, the Money Market Dealer system was maintained. Money Market Dealers were banks which were the most active in the money market and in the OTC interest rate derivatives market, and only those banks were authorised to participate in fine-tuning operations.\(^{250}\)

The shortening of maturity of open market operations since 1 January 2005 and the direct influence of the NBP on the level of one-week interbank deposits resulted in the reduction of fluctuations of money market interest rates. In 2006, another change was introduced, which contributed to the reduction of volatility in short-term interest rates in the interbank deposits market. As at the beginning of 2006, the scope of information published on current liquidity situation was extended. Apart from the information which had been presented before in the Reuters information service on the NBPM Website, the central bank presented to the banks in the same way also information on the average value of their current accounts on the days preceding the reserve requirement period and, on the day of NBP bills issue, the forecast of average balances of those accounts for the following week. The changes in publishing information, together with the reduction of volatility in the level of Ministry of Finance term deposits improved the accuracy of liquidity forecasts and consequently contributed to the further stabilisation of short-term interest rates in the money market (Figure 5.1.7). In 2006, the deviation of the SW WIBOR rate from the reference rate was stable. The average deviation amounted to 10 basis points (which is equivalent to 6 points after recalculating the reference rate on the basis of 365 days) and was similar to the average deviation of 2005.

As in previous years, banks’ demand for NBP bills exceeded supply. In 2006, banks submitted purchase bids with the value 163% higher than the nominal value of the NBP bills offered (in 2005

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\(^{248}\) When Friday was an official holiday, the auction was held on Thursday.

\(^{249}\) The Act on the Bank Guarantee Fund of 14 December 1994 (consolidated text in Dz.U. of 2000, No. 9, item 131, as amended) and Resolution No. 36/2003 of the NBP Management Board of 12 September 2003 on issuing NBP money market bills (Official Journal of the NBP No. 15/2003, item 24).

\(^{250}\) These banks are chosen each year on the basis of uniform Dealer Activity Index criteria prepared by the NBP.
this ratio was 77%). In absolute terms, the surplus of demand over supply was significantly higher in 2006 than in the previous year. In 2006, the average surplus in auction amounted to PLN 32.2 billion, and to PLN 12.9 billion in 2005. This resulted from the fact that since October the demand in auctions exceeded the value of the offered bills several times or even more than ten times (Figure 5.1.8). In the 4th quarter, the overbidding grew from auction to auction and the scale of reduction of offers increased. This was caused by the fact that overbidding is a self-driving phenomenon. At subsequent auctions, banks raised their bids more and more because apart from the liquidity forecasts they took into account the behaviour of other participants and the scale of reduction at the previous auction. At the auction on 22 December 2006, the demand was already 14 times higher than the value of accepted bids. The strategy of submitting much higher bids than the funds which one intended to deposit in NBP bills had negative consequences for several market participants. At the auction on 29 December 2006, most of the banks which earlier declared very high demand submitted bids with the same value as the NBP bills which they really intended to buy. These banks did not take into account the extent of the reduction of offers predicted on the basis of the previous auction because they were afraid that in case of allotment of too many bills (much more than it would result from their liquidity) in the last operating day of the December period of maintaining the reserve requirement they would have to finance their purchase with a Lombard loan. They should then include such a loan in the annual financial report, and in the case of banks with a dominating share of foreign capital – also in the consolidated report of their banking group. These entities preferred to place a deposit at the end of the day rather than to expose themselves to the need to take out the Lombard loan. In such circumstances, the banks that did not predict the behaviour of other participants and did not change their strategy at the auction
were allotted bills with the value exceeding their funds. These banks had problems with borrowing all funds necessary for the purchase of NBP bills in the interbank deposits market and consequently had to take out lombard loans. Other banks, in turn, placed their overnight deposits.

**Secondary market**

NBP bills were traded in the no-regulated OTC interbank market. The secondary market in NBP bills is characterized by low liquidity, which results from the function of those instruments and their short original maturity. In 2006, the average daily net turnover amounted to PLN 0.44 billion and was almost three times lower as compared to 2005 (PLN 1.21 billion). Also the average daily number of transactions fell from 9.7 to 6.4. The reduction of liquidity in the secondary market of NBP bills resulted from admitting all banks operating in Poland which meet the abovementioned technical conditions to participation in NBP bills auctions. In previous years, a large part of the operations were transactions where Money Market Dealers (at that time only the banks which could participate in auctions) resold the purchased bills to other banks shortly after the auction. In 2006, the scale of such operations was reduced naturally. Due to the very short maturity period, NBP bills were seldom used as collateral in repo transactions. In 2006, the share of conditional transactions in total net turnover in NBP bills amounted to approximately 3%.251

**Figure 5.1.9. Monthly net turnover in the secondary market of NBP bills, 2003–2005**

Note: The presented figures include both outright transactions and repos. For repo transactions the initial and final exchange values have been taken into account.

Source: The NBP Securities Register.

**Outlook**

In the next years, the scale of excess liquidity of the banking system will depend mostly on the balance of currency transactions performed by the NBP, changes in the amount of notes and coins in circulation and the amount of Ministry of Finance term deposits with the NBP. The planned transfers of EU funds for financing operational programmes in the years 2007–2013252 suggest that the balance of net currency purchase should grow. At the same time, it seems that the rise of liquidity resulting from the conversion of EU transfers into PLN will be limited by the sale of foreign currencies (for the payment of the membership fee to the account of the European Commission and for servicing State Treasury foreign debt) and by the increase in reserve money. Moreover, 2007 will see a further reduction of the average limit of State budget’s term deposits to PLN 4.9 billion.253 This will result in an increase in NBP bills issue and will contribute to the stabilisation of liquidity.

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251 This is the ratio of the nominal value of repo transactions to the total net value of NBP bills transactions. Estimates based on reports submitted by a group of banks – Money Market Dealers to the NBP.


The secondary market of NBP bills will still not be very liquid. It seems that the situation in the primary market of December 2006 will make banks realize the extent of risk related to overbidding in NBP bills and in the future will bring about the reduction of overbidding at auctions.

Significant changes to banking system liquidity and changes in the NBP bills market will only take place after Poland’s accession to the euro area. The excess of liquid funds in the Polish banking system will then be absorbed by banks in the euro area, where there is a structural shortage of liquidity. The NBP will cease issuing NBP bills and will carry out refinancing operations within the framework of the ESCB system.

5.1.2.3. Short-term bank debt securities

The domestic market of short-term bank debt securities (SBDS) includes bonds and bank securities (instruments issued pursuant to the Banking Law, also referred to as the certificates of deposit) with original maturity of up to 1 year, issued in Poland by commercial banks. As at the end of 2006, the share of SBDS in total bank liabilities resulted from the issues directed to the domestic market.

Market size

2006 saw the curbing of the trend observed in the three preceding years for the value of SBDS issued and outstanding to gradually decrease. As at the end of 2006, the outstanding value of short-term debt securities issued by commercial banks amounted to PLN 4.5 billion, which is PLN 1.7 billion more than at the end of 2005 (Figure 5.1.10). Due to a bigger increase in the value of long-term instruments’ issue, the share of short-term instruments in commercial banks’ liabilities related to the issue of debt securities in the domestic market decreased to 59%. The issue of 9-month BGK bonds amounting to PLN 1.1 billion had a significant impact on the increase of the value of the SBDS market. These bonds were issued in December as part of the operations for National Road Fund and were directed to one investor.

In 2006, over ten banks issued SBDS with the value of approximately PLN 30.5 billion. The average value of an individual issue was approximately PLN 55 million. SBDS were sold in private placement issues and were not introduced into trading in the regulated market. New issues were often performed within the framework of one programme and took place on the day of the maturity of instruments from the previous issue.

The high growth rate of the outstanding value of SBDS (62%) resulted in the increase in the share of these instruments in banks’ liabilities from 0.5% in 2005 to 0.7%. As at the end of 2006, the share of SBDS in the domestic market of non-Treasury securities with maturity of up to 1 year amounted to 37%, while short-term instruments issued by banks in the euro area constituted almost 80% of the value of that market. However, the scope of financing banks in

Figure 5.1.10. Outstanding value of SBDS in the domestic market, 2003–2006, as of year-end

Source: NBP.
Financial markets

Poland by issuing debt securities in the money market is not very different from the one in the euro area (Figure 5.1.11). The share of these instruments in the structure of debt was lower and amounted to around 50% as at the end of the year. The SBDS issuers were mainly banks with a poorly developed network of branches and small deposit base, which operated on the retail loans and advances market. Some of the universal banks, in order to increase the attractiveness of their deposit offers for non-financial customers (mainly for households), sold bank securities with the maturity of several months, with incorporated option strategies. Profit from these investments depended, for instance, on the number of days when 6M WiBOR, the interbank money market rate, remained within the range determined in the issue conditions. The value of such structured certificates of deposit denominated in PLN and in foreign currencies issued in 2006 amounted to approximately PLN 0.5 billion.

There were also some significant changes to the structure of the term issue (according to the outstanding value as at period-end). The share of instruments with original maturity from 6 months to 1 year increased significantly, and the share of instruments with the shortest maturity (up to 3 months) decreased. These changes to the term structure resulted mainly from a one-time factor – the issue of BGK bonds, which constituted over half of the growth of the outstanding value of SBDS (Table 5.1.4).

**Secondary market and investors**

SBDS are traded on the non-regulated market. The NBP does not have any information about the value of these transactions. Information received from banks who arrange issues indicates that the transactions are performed very rarely, as most instruments have very short maturity and investors keep them until the maturity date.

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**Table 5.1.4. The term structure of the domestic market of short-term bank debt securities, 2003–2006 (according to original maturities, as of year-end; %)**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1 month (inclusive)</td>
<td>6.1</td>
<td>11.4</td>
<td>17.6</td>
<td>15.4</td>
</tr>
<tr>
<td>From 1 to 3 months (inclusive)</td>
<td>15.7</td>
<td>39.0</td>
<td>47.4</td>
<td>21.1</td>
</tr>
<tr>
<td>From 3 to 6 months (inclusive)</td>
<td>18.8</td>
<td>14.0</td>
<td>16.1</td>
<td>23.1</td>
</tr>
<tr>
<td>From 6 months to 1 year (inclusive)</td>
<td>59.4</td>
<td>35.6</td>
<td>18.9</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Source: NBP.
The structure of investors in the SBDS market differs depending on the legal form of these instruments. In the case of bank securities, the main buyers were non-financial entities. Both at the end of 2006 and of 2005, over 70% of the outstanding value of these bank instruments were the liabilities towards enterprises and households. In the case of bonds, in 2006 there was a significant change in the structure of buyers. In 2005, the dominating investors were investment funds, while at the end of 2006 a significant part of these instruments was held by other domestic banks (Figure 5.1.12). This change was mainly the result of the BGK issue, which was covered by one of commercial banks.

**Outlook**

The growing competition for non-financial sector deposits (especially households) and the growing difference between the inflow of the new deposits to the banking system and the quickly growing lending will result in more intensive use of other sources of financing by banks. This may result in the increase of the outstanding value of bank debt securities. Owing to a significant increase of long-term claims due to mortgage loans, banks will prefer issuing debt securities with maturity of more than one year. Issuing short-term instruments should be of interest mainly to the banks concentrated on the consumer finance market, which can finance retail loans in this way. It should also be expected that other universal banks will extend their offer by adding short-term structured certificates of deposit. Low-value issues in the form of bank securities sold in private placements will remain most common.

**5.1.2.4. Short-term corporate bonds**

The domestic market of short-term corporate bonds (SCB) includes debt instruments with the primary maturity period of up to one year, issued in Poland by non-financial corporations, other financial intermediaries and financial auxiliaries.

**Market size**

In 2006, the decreasing trend in the SCB market which had been noted during the previous years was inhibited (Table 5.1.5). As at the end of 2006, the outstanding value of short-term corporate bonds amounted to PLN 6.3 billion, which meant an increase by approx. 13% as compared to 2005. Furthermore, the value of new issues increased. Nevertheless, the domestic SCB market should be deemed as underdeveloped, as the number of entities which use these instruments as a source of external capital acquisition is systematically decreasing. Enterprises which operate in the euro area finance their short-term demands by means of issuing bonds to...
a larger extent. In 2006, the ratio of the outstanding value of SCB issue to GDP amounted to 1.3% in the euro area, whereas the same ratio amounted to an approximate 0.6% in Poland. The largest SCB market in the euro area remained the French market (Figure 5.1.13).

The insignificant interest of Polish enterprises in short-term corporate bonds issue resulted from several factors. The good financial standing of enterprises in recent years resulted in, among others, an increase in their liquidity ratios and in the value of deposits held in domestic banks. As at the end of 2006, the value of short-term corporate deposits amounted to PLN 66.8 billion, which constitutes an increase by over 21% as compared to the end of 2005. Thus, some enterprises were unwilling to incur liabilities in the money market. Moreover, short-term financial demands were satisfied from other sources more often, e.g. by drawing bank loans or selling invoices to

Table 5.1.5. Outstanding value of SCB issued and the number of issuers, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of issuers</td>
<td>232</td>
<td>193</td>
<td>184</td>
<td>179</td>
</tr>
<tr>
<td>Outstanding value (PLN billion)</td>
<td>7.5</td>
<td>6.6</td>
<td>5.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Value of new issues (PLN billion)</td>
<td>37.4</td>
<td>54.9</td>
<td>47.0</td>
<td>54.3</td>
</tr>
</tbody>
</table>

Source: Number of issuers – for the years 2003–2005, data from Fitch Polska SA, for 2006, "Rzeczpospolita", No. 10/2007 of 12 January 2007, p. 87. Outstanding value and the value of new issues have been estimated on the basis of data from Fitch Polska SA and NBP data obtained from Primary Dealers and/or Money Market Dealers serving as depositaries.

Figure 5.1.13. Outstanding value of SCB in selected euro area countries and in Poland, and its relation to GDP, 2005–2006

Figure 5.1.14. Selected short-term external financing sources of enterprises in Poland, 2003–2006

Source: NBP, the Polish Factors Association.
factoring companies (Figure 5.1.14). At the same time, the increase in corporate investments resulted in a growing demand for long-term financing. This demand was met by means of, e.g., issuing bonds with the primary maturity period of up to one year. By contrast, the strategy of rolling maturing short-term bonds, often exercised in the previous years, was rarely used. This resulted in an increase in the share of short-term instruments in the total outstanding value of SCB to approx. 40%. Furthermore, SCB were not an attractive source of resources acquisition for small and medium-sized enterprises due to the relatively high fixed costs of issue with respect to the size of financial demands of particular entities.

**Market structure**

The structure of issuers was dominated by non-financial corporations (approx. 75% share in the outstanding value of SCB). The highest activity in the SCB market was reported among companies from the following industries: telecommunications, construction and energy. A large share of instruments was issued by large companies listed on the WSE. Instruments issued by other financial intermediaries, leasing companies in particular accounted for the remaining 25% of the outstanding value.

As in preceding years, the issues were exclusively non-public. The function of issue arranger, depositary and paying agent was usually performed by banks with a stable position in the corporate banking segment. Due to the decreasing number of issuers in recent years, the number of banks which offered SCB-related services also decreased. In 2006, there were 13 banks which arranged SCB issues (16 in 2005), whereas the 5 most active banks represented an approx. 75% share in SCB services, taking into account the outstanding value as at the end of 2006 (Figure 5.1.15).

For the past several years, a trend to standardize the legal basis for issues has been observed in the SCB market. As at the end of 2006, bonds accounted for 95% of the outstanding value; as at the end of 2004 – for 79% (Figure 5.1.16). The share of issues based on the Bill of Exchange Act decreased to 4.9%. In 2006, the sales of debt instruments issued on the basis of Civil Code provisions were low.

Most of SCB issues were made under previously launched programmes. In 2006, there were over 80 programmes for SCB issues (over 100 in 2005). In 2006, the number of new SCB issue programmes decreased again. 10 new programmes were organised in 2006, whereas the respective number was 17 in 2005 and 19 in 2004. During the period under analysis, the value of several

**Figure 5.1.15. Share of issuing agents in organizing SCB issues, 2005–2006 (by outstanding value as at period-ends)**

![Chart showing share of issuing agents in organizing SCB issues, 2005–2006 (by outstanding value as at period-ends)]

Source: NBP study based on data submitted by Primary Dealers and/or money market dealers serving as depositaries, and on data from Fitch Polska SA.

255 In the euro area, short-term instruments accounted for only 7% of the outstanding value of corporate debt instruments. As at the end of 2006, the value of SCB issued by euro area residents amounted to EUR 113 billion, whereas the outstanding value of long-term bonds increased to EUR 1,671 billion.

256 Quoted after the following reports: Rating & Rynek. Podsumowanie kwartału na rynku pozaskarbowych instrumentów dłużnych w Polsce, issues for 2004, 2005 and 2006, Fitch Polska SA.
Issue programmes launched in preceding years increased. The highest value – PLN 2 billion – was reached by the programme of the Sitech company. The average value of a single SCB issue organised in 2006 amounted to approx. PLN 22 million, although large enterprises would meet their short-term financial demands by issuing bonds valued for even several hundred million zlotys at one time. Those types of large issues of debt instruments with the primary maturity period of up to one month (usually) were organized normally by companies from the following sectors: telecommunications, construction and energy.

The decreasing frequency of using the strategy of financing investments by means of rolling maturing short-term bonds resulted in changes in the term structure of SCB. In 2006, the market was dominated by instruments with the maturity period of up to one month (Figure 5.1.17). On the other hand, the share of from the outstanding value of bonds with the primary maturity period of 1 to 3 months inclusive decreased significantly, amounting to 21% as at the end of 2006.

Secondary market and investors

Due to the non-public nature of their issue, short-term corporate bonds were traded in the non-regulated market. Against the absence of a common settlement and deposit chamber and a centralized trading platform, that market remained strongly segmented. The banks which arranged issues organized trading markets for those instruments for whose trading they were agents. No information about the value of transactions concluded in the secondary market is available. In the opinion of issue arrangers, the liquidity of the SCB market was low, as the majority of issues were characterized by a very short maturity period and investors tended to hold the bonds until maturity date.

Figure 5.1.16. Regulations forming legal grounds for SCB issues, 2003–2006 (by outstanding value as at period-ends)

Source: NBP study based on data submitted by Primary Dealers and/or money market dealers serving as depositaries.

Figure 5.1.17. SCB by maturity, 2005–2006 (by outstanding value at period-ends)

Note: term structure by primary maturity periods, maturity brackets are closed on the right side.
Source: NBP study based on data submitted by Primary Dealers and/or money market dealers serving as depositaries.
Non-financial corporations and banks continued to be the most significant investors in the SCB market (a share of 51% and 23% in the buyer structure, respectively, as at the end of 2006). Owing to their good financial standing, some enterprises invested their ongoing financial surpluses in the SCB market, which allowed them to achieve a slightly higher return on investment than in the case of the traditional deposit. The SCB buyer structure was to a large extent affected by the non-public nature of issues and the fact that the issues were addressed to a closed group of investors, including companies from the issuer’s capital group and the bank managing the issue. As compared to the end of 2005, the involvement of investment funds increased (to 16%). Other non-banking financial institutions – insurance companies and pension funds – continued to show little interest in SCB.

**Outlook**

The maintained high economic growth rate should result in an increase in enterprises’ demand for short-term financing, including resources obtained by means of SCB issue. Therefore, during the upcoming years, we should expect a further growth in the outstanding value of SCB. However, there are several factors which will not be favourable for the development of the SCB market. The entity structure of Polish economy, dominated by micro-, small and medium enterprises (SME), limits the number of prospective SCB issuers. Many businesses from the SME sector operate as partnerships or natural persons conducting business activity. The financial demands of those entities are relatively low. Therefore, their issues are likewise small, and the costs are relatively high. Furthermore, some enterprises have high financial surpluses in the form of bank deposits and more and more often use the services of factoring companies, which allows them to meet their demand for liquid current assets.

The obstacles for the development of the SCB market are also to be found on the demand side. The issue structure in the SCB market does not meet the demands of institutional investors, since the latter are interested in large issues of bonds by renowned companies with good financial standing. Moreover, institutional investors are also concerned with the risk premium included in the price of such instruments, which they consider to be too low. The absence of a common deposit and settlement chamber makes it extremely difficult for them to compare and value bonds from particular issues and prohibits the development of a unified secondary market.

5.1.3. Deposit transactions market

The deposit transactions market is used for current financial liquidity management by enabling market participants to invest temporary surpluses or to borrow funds when they are insufficient. Taking into account the credit risk, unsecured deposits, as well as deposits collateralized...
by foreign currency (FX swaps) and by securities – conditional operations (repos and sell-buy-backs – SBB) can be distinguished among deposit transactions.

The most important participants of the deposit transaction market are domestic banks which lend available funds to one another on a daily basis. Large-value transactions with maturity periods ranging from one day to one year are concluded in the interbank market. The structure of the interbank deposit transaction market in Poland was considerably different from the structure of this market in the euro area. The primary liquidity management instruments for banks in Poland were unsecured deposits. Due to daily shifts in both liquidity in the banking system and the liquidity position of particular banks, as well as due to high credit risk of those kinds of transactions, the most popular type of transactions concluded was the one-day transaction type – O/N (they account for approx. 80% of net turnover in the interbank deposit market). In 2006, there was a significant increase in the share of conditional transactions within deposit operations of domestic banks. However, in comparison with the euro area, those transactions were seldom used in order to finance short-term demands (Figure 5.1.19). FX swaps were concluded mainly with foreign banks and were used in order to manage the liquidity position in foreign currencies. Moreover, some domestic banks used this type of deposit transactions to secure their currency position for granting residential loans indexed with foreign currencies. On the other hand, counterparties of those operations (i.e. foreign banks) willingly accepted loans in PLN, usually in short-term swaps, in order to finance their positions in PLN-denominated securities.

The primary liquidity management instruments for banks operating in the money market of the euro area were conditional transactions, repos in particular. The popularity of this instrument resulted from the necessity of limiting exposure to credit risk related to the implementation of the provisions of the CRD Directive (new risk weights for particular asset classes), as well as from the growing willingness to increase the profitability of securities held. Those banks which were the most active in the bond market financed their positions by means of those instruments, mainly using conditional transactions. Secured loans with maturity periods ranging from T/N to 1 month dominated in this area. As for the unsecured interbank deposit market, banks were – as in Poland – the most active in the O/N transactions’ segment. In 2006, there was a significant increase in the FX swap market turnover in the euro area, in particularly for transactions with short maturity periods. This resulted from the reorganization of liquidity management systems in some bank groups. An increasing number of banks acquired liquid financial resources on a daily basis by means of concluding FX swaps.

The structure of the Polish interbank deposit system market is not favourable for the effective allocation of liquidity in the banking system. This is substantiated by the events which took place in the last days of required reserve maintenance period. During the years 2005–2006, those days were characterized by intense fluctuations of short-term interest rates in the unsecured interbank deposits market, as well as by instances of banks placing deposits at the NBP and, simultaneously, other banks drawing lombard loans. Those situations resulted from the fact that, for a certain group of banks, unsecured deposits were actually the only instrument for liquidity management. However, banks manage the loan limits they impose on one another very carefully at the end of the month, thus decreasing the number of prospective contractors to unsecured deposits and limiting the possibility to use third-party agency in switch transactions almost to zero, in those

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257 The form of denoting the maturity periods of interbank deposits. Standard maturity dates: one-day – O/N, T/N, S/N, one week – 1W, two weeks – 2W, three weeks – 3W, one month – 1M, two months – 2M, three months – 3M, six months – 6M, nine months – 9M and one year – 1Y. All deposits except for O/N and T/N begin on the second working day after the conclusion of the transaction. The O/N (overnight) deposit begins on the day of the conclusion of the transaction and matures on the following working day.


259 Switch is a transaction concluded between two banks via a third bank. Such transactions are used in a situation when the bank which is going to submit its deposit has used the credit limit imposed on its transaction partner but still dispose of a free limit for the intermediary bank, and the intermediary bank has a free limit for the bank which wants to obtain the money.
kinds of situations, it would be advisable to acquire financial resources via conditional transactions, which are burdened with a significantly lower risk and constitute a definitely lesser burden on credit limits.\textsuperscript{260} Therefore, a change in the interbank deposit transactions structure towards a significant increase in the role of repo and SBB operations in the domestic money market would be desirable. Furthermore, the development of the interbank conditional transactions market would – after the introduction of the euro in Poland – contribute to the smooth integration of the domestic money market and the euro area market.

\textbf{5.1.3.1. Unsecured deposits}

Unsecured interbank deposits are the simplest and most common liquidity management instrument used by banks operating in Poland. In the interbank deposit market, funds are continuously transferred from banks with temporary surpluses to banks with liquidity shortages. Liquidity needs of a bank which result from the necessity to maintain an average level of the reserve requirement, as well as from its operations in different segments of the financial market (inter alia, granting loans, activity in the securities market, foreign exchange transactions), are satisfied in the interbank deposit market on a daily basis. To this end, one-day O/N transactions are most commonly used.

\textbf{Market size}

The unsecured interbank deposit market belongs to the most developed segments of the domestic financial market. In 2006, the increasing trend for the liquidity of the interbank deposit market, which had started in 2005, was sustained (Figure 5.1.20). However, average daily net turnover in that market increased, as compared to 2005, by 18% and amounted to PLN 8.2 billion. This is due to a significant increase in activity in the O/N deposits segment, which dominates the market. This is supported by the fact that the value of one-day transactions concluded in 2006, as compared to 2005, increased by approx. 50%. Those transactions provide the basis for the calculation of the POLONIA rate. The development of the market is also indicated by the data from the outstanding value of interbank deposits (Figure 5.1.21). The average outstanding value as at the end of quarters in 2006 was PLN 33.1 billion, whereas in 2005 it was PLN 31.7 billion.

The increase in activity in the interbank deposit market resulted, among others, from a larger volume of transactions in financial markets related to the settlement of payments in PLN. This is

\textsuperscript{260} The charge on the credit limit arising from conditional transactions amounts up to 10% of the nominal value of the transaction, whereas for a classic interbank deposit it amounts to 100% of nominal value. Exposure to credit risk in repo and SBB transactions depends on the credibility of the issuer of the securities which constitute the security for such transactions, and on the volatility of prices of such securities.
supported by an increase in turnover on NBP current accounts by approx. 20% as compared to 2005. This increase in turnover resulted primarily from an increase in the value of interbank customer orders (Figure 5.1.22). The value of such orders increases, in turn, as a result of the dynamic development of the offshore market for the Polish zloty (spot and forward transactions), and of an intense activity of non-residents in domestic FX swap, Treasury bonds and stocks markets. The high amounts of payments made in the SORBNET system by correspondents for foreign banks significantly modified current account balances of domestic banks and resulted in the increased activity on the one-day interbank loan market, as well as in an increase in the frequency of intraday credit facility use.

Starting in the last quarter of 2003, the turnover on current NBP accounts of banks were increasing much more rapidly than the value of resources collected on those accounts. Therefore, carrying out of large-scale payment orders was possible only by means of using the intraday credit facility, granted by the NBP to participants in the SORBNET system in return for the transfer of Treasury securities’ ownership. In the following years, more and more banks used this instrument on a daily basis in order to manage liquidity in the course of an operating day. The biggest demand for the intraday credit was reported on Fridays, when tenders for Treasury bonds and NBP bills were settled. The average daily value of intraday credit granted by the NBP to banks in 2006 amounted to PLN 11.0 billion (an increase by 48% as compared to 2005). Approx. 85% of the credit value was secured with Treasury securities.

261 Foreign banks make payments in PLN through correspondent banks which are the participants of the domestic payment system. All transactions of non-residents concluded on the market of PLN-denominated instruments are thus settled in the SORBNET system.

262 The average daily value of intraday credit increased significantly in the second half of 2006, amounting to nearly PLN 14 billion in the fourth quarter.
Market structure

Banks were the most active within the segment of transactions whose maturity period was up to one week. The term structure of turnover was dominated by one-day O/N operations. Those transactions allow banks to manage their liquidity in a flexible manner (both liquidity conditions of the banking system and the demand of particular banks for funds change daily) and to use the credit limits imposed on them by other participants of the market more effectively. As in 2005, in 2006 O/N transactions amounted to approx. 80% of net turnover in the domestic interbank deposit market. The share of deposits with maturity period of up to 7 days (excluding O/N) amounted to approx. 15%, and the share of deposits with maturities exceeding 7 days – less than 5%.\footnote{Estimates based on a questionnaire filled in by the 18 most active banks in the domestic money market.}

The focus of bank activity in the short-term transactions segment is confirmed by the structure of the banks’ debt amounts resulting from interbank loans by primary maturity periods. Comparing to the end of December 2005 the structure did not change significantly (Figure 5.1.23). As at the end of 2006, loans drawn for periods of up to one week continued to account for nearly half of the total amount due for transactions in the domestic interbank deposit market.

Figure 5.1.23. Maturity structure of interbank deposits outstanding (by outstanding values at period-ends)

Notes: Left half-open intervals. The interval labelled as “<1W” covers all deposits with maturities of up to one week (including O/N, T/N and S/N).

Source: NBP.

\footnote{Estimates based on a questionnaire filled in by the 18 most active banks in the domestic money market.}
Money market rates

The shorter maturity period of the primary open market operations, limitation of volatility of term deposits placed by the Ministry of Finance at the central bank and the increase in the scope of information about liquidity conditions in the banking sector published by the NBP – all of these factors contributed to the stabilization of money market rates. During the period under analysis, both SW WIBOR rate and the POLONIA\(^{264}\) and O/N WIBOR rates remained within the fluctuation range set by NBP deposit and lombard rates (Figures 5.1.24 and 5.1.25). The most variable interest rate was that of one-day deposits, which was related to the ongoing changes of liquidity conditions caused by autonomous factors. The average deviation of the O/N WIBOR rate from the reference rate amounted to 10 basis points and was significantly lower than in 2005, when it amounted to 21 basis points (calculation of the reference rate on the basis of 365 days per year).

The actual interest of one-day deposits in the interbank market is better reflected by the POLONIA rate, which is the average of the interest on O/N transactions concluded by 4:30 p.m. by a representative group of banks, weighted with the value of those transactions.\(^{265}\) Similarly as in 2005, the POLONIA rate oscillated close to the centre of the range delimited by the fixing of the O/N WIBID and O/N WIBOR reference rates. The deviation of the POLONIA rate from the centre of that range rarely (and usually during the last days of required reserve maintenance period) exceeded 10 basis points (Figure 5.1.25). The average deviation of the POLONIA rate from the NBP reference rate in 2006 amounted to 16 basis points (26 basis points in 2005).

The largest fluctuations of one-day interbank deposit interest rates were reported at the end of required reserve maintenance periods. At the end of the month, banks manage the limits they impose on mutual credit exposures very carefully, thus decreasing the number of prospective counterparties to unsecured deposits. As a result, in 2006 by the ends of required reserve maintenance periods several banks used the lombard loan four times, whereas other banks placed overnight deposits at the NBP. The amounts of those operations were similar, which means that the redistribution of liquidity in the interbank market could have been achieved without the participation of the central bank. However, the functioning of the domestic interbank market was

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\(^{264}\) The POLONIA rate (Polish Overnight Index Average), an equivalent of the EONIA rate in the euro area, was introduced in the domestic money market on 24 January 2005. Its value is published on every business day at 5 p.m. in the Reuters news service on the NBP's website. The POLONIA rate is calculated by NBP.

\(^{265}\) In 2006, the value of deposits which formed the basis for the calculation of the POLONIA rate accounted for over 50% of the value of all O/N deposits placed in the domestic interbank market. Detailed rules of fixing the POLONIA rate are specified by the Regulamin fixingu stawki referencyjnej „POLONIA” [Fixing rules for the POLONIA reference rate]. Warszawa 2005, Polskie Stowarzyszenie Dealerów Bankowych ACI Polska.
Financial markets

National Bank of Poland

not fully efficient, as few banks used conditional transactions in situations of liquidity mismatches in the banking system. That resulted in rapid increases or decreases in the rates of overnight deposits, which could bring about difficulties in current bank liquidity management and the smooth execution of payment orders. However, it seems that it did not have a significant impact on the volatility of longer-term money market rates. Research conducted on the money market of the euro area shows that the volatility of interest rates of one-day deposits which appears towards the end of the required reserve maintenance period does not spread along the curve of money market interest rates and should not impede the transmission of money policy impulses.\textsuperscript{266}

\textbf{Market infrastructure and participants}

The most active participants of the unsecured interbank deposits market were banks with a stable deposit basis and banks acting as correspondents for foreign banks and as agents in their payments for transactions concluded in markets of instruments denominated in PLN. The liquidity of the market was defined by transactions concluded by over a dozen large banks.

Unsecured interbank deposits were concluded mainly by the agency of voice brokers and the Reuters Direct electronic conversational system. The frequent, as compared to other financial instruments, agency of voice brokers resulted from the anonymity offered by such a manner of communication between market participants and the possibility of finding switch transaction partners. Beginning in July 2005, interbank deposits in PLN could also be concluded via the electronic transaction platform called e-MiD. In 2006, 8 banks from Poland used this platform. Domestic banks rarely concluded their transactions in that market. The average daily value of operations in PLN concluded between domestic banks did not exceed 5\% of average daily turnover in the interbank deposit market in Poland.

\textbf{Outlook}

Taking into account the development of the domestic financial system and the increasing value of transactions involving PLN-denominated instruments, one should expect the further gradual increase in the turnover in the interbank deposit market. The limitation of liquidity could ensue in case of a significant increase in the role of conditional transactions in bank liquidity management. However, it is unlikely for the repo-type interbank market transactions to develop dynamically in the years to come. The reason for this is, \textit{inter alia}, the fact that securities portfolios of some banks are not large enough to secure such transactions. The market of deposit transactions should remain dominated by unsecured O/N deposits.

The future development of the interbank deposit market in Poland may be affected by the strategy adopted by Pan-European banking groups in respect of the allocation of economic capital and the management of assets and liabilities, including short-term liquidity management. The introduction of common procedures for liquidity management and a policy of including capital costs in all aspects of the group’s activity may result in a situation where some of the banks operating in Poland shall relocate their activities from the unsecured deposits market onto the conditional transactions market.

5.1.3.2. Secured deposits

The analysis of the secured deposit transactions market will be divided into two parts – FX swaps (deposits collateralised by foreign currency) and conditional transactions – repos and sell-buy-backs/buy-sell-backs (deposits collateralised by securities).

5.1.3.2.1. FX swaps

An FX swap is a combination of two opposite foreign exchange transactions which are settled on different dates. Thus, in economic terms, it consists of two secured deposit transactions in different currencies. The FX swap may be used as a liquidity management instrument. The sale of a foreign currency in the initial exchange and its obligatory repurchase in the final exchange make it possible to obtain zlotys for a period specified in the terms of the transaction.

Market size

The FX swap was the most liquid domestic money market instrument. The dynamic growth of the FX swap market, observed in recent years, subsided in 2006 (Figure 5.1.26). The average daily net turnover in the interbank market decreased by around 7% as compared to 2005 and amounted to PLN 12.9 billion.\(^{267}\) Transactions with non-residents, primarily with London-based banks, accounted for over 90% of net turnover in the domestic market. The decline in turnover in the domestic market was thus mainly due to the lower activity of non-residents, which was due to a number of factors. In 2006, the activity of non-residents shifted towards the offshore market, which was also characteristic of spot, outright forward and FX options transactions. For several years now, a strategy of financing the position in the domestic Treasury bonds market which has been very popular among foreign banks, has been to roll the zloty loans in T/N FX swap transactions every day. Such transactions, which limited the currency risk of investments, generated the majority of turnover in the FX swap market. Expectations for interest rates to increase, which were present in the market in the second half of 2006, and interest rate increases in developed markets, which decreased the interest rate disparity, limited the demand for bonds on the part of foreign short-term investors, who most often finance their positions through the FX swap market. Therefore, the exposure of foreign investors in the domestic Treasury bonds market did not increase as dynamically as in previous years. As at the end of 2006, non-residents held Treasury bonds in the amount of PLN 74.4 billion, i.e. PLN 5.7 billion more than as at the end of 2005. By contrast, in 2005 the portfolio of non-residents increased by PLN 6.7 billion. Moreover, in the second half of 2006, in a situation of the historically low volatility of the zloty exchange rate, foreign entities which invest in the Polish financial market were more willing to accept the risk of zloty exchange rate movements, and increasingly often the zlotys needed for the purchase of securities were obtained in the spot market.

The activity of non-banking entities in the domestic market remained limited. The average daily value of transactions concluded by banks operating in Poland with domestic non-banking entities amounted to around PLN 200 million in 2006. The small interest of non-financial entities in this instrument resulted from the fact that such institutions mainly use outright forward transactions to secure against the currency risk, rather than – like banks – synthetic forward transactions generated by the combination of the FX swap and the spot transaction. The most active group of non-financial entities were the customers of private banking, who opened speculative positions in the forward zloty market through the simultaneous conclusion of spot and FX swap transactions.

\(^{267}\) This is the average daily nominal value of FX swaps adjusted for double-counting. Only the zloty leg of the initial or final exchange is taken into account.
As mentioned above, FX swap transactions including the zloty were also concluded on a large scale outside Poland – in the offshore market. In the opinion of the participants of that market, in 2006 the value of zloty FX swaps concluded between non-residents increased much more dynamically than in previous years. It is estimated that average daily net turnover in the zloty FX swap market (domestic and offshore markets together) amounted to around PLN 30–35 billion (i.e. over USD 10 billion) in 2006, 60% of which were operations between non-residents. The dynamic increase in the value of FX swap transactions concluded outside Poland resulted mainly from the high activity of non-banking financial institutions. Some institutional investors who invested their resources in zloty-denominated assets acquired zlotys in the FX swap market by concluding and then rolling transactions with longer maturities (of 1 and 3 months). By contrast, hedge funds used FX swaps to speculate on the zloty exchange rate. Moreover, FX swap transactions including the zloty were used in carry trade strategies, which were most often financed with loans denominated in the yen or the Swiss franc. However, it appears that due to the relatively low interest rates in Poland the scale of such transactions was not larger than in previous years. In the opinion of market participants, an additional factor in the increased turnover in the offshore market was the greater activity of foreign banks in the market of interest-rate derivatives denominated in the zloty, as FX swaps make it possible to secure the exposure to interest rate risk which arises as a result of the FRA transaction.

**Market structure**

Similarly as in previous years, the interbank FX swap market in Poland was dominated by USD/PLN exchange operations, which accounted for 97% of the zloty exchange transactions. The share of the EUR/PLN pair amounted to around 3%. Such a currency composition results from the standard of using the US dollar in FX swap transactions, which has existed in the global FX market for years. In their investment strategies, foreign investors borrowed currencies with low interest rates (e.g. yens or Swiss francs) in the interbank market, then exchanged them for US dollars and finally obtained zlotys in USD/PLN FX swap operations. Thus, even with the negative disparity between short-term interest rates in Poland and the United States that was observed in 2006, the share of USD/PLN operations in the FX swap transactions market did not decrease.

By contrast, the currency composition in the customer market was dominated by USD/PLN operations – around 85% of turnover. The share of the EUR/PLN pair amounted to 13%. Such

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**Figure 5.1.26. Monthly turnover on the interbank FX swap market in Poland, 2003–2006**

Note: Net turnover – monthly nominal value of transactions adjusted for double-counting. The figures presented only include transactions where the zloty was one of the currencies involved.

Source: NBP data submitted by banks acting as Primary Dealers and/or money market dealers and candidates for these functions.
a currency composition resulted from the fact that non-banking entities used the FX swap transactions to secure trade payments and to speculate on the zloty exchange rate.

The popularity of the strategy of financing non-residents’ positions in Treasury securities by rolling over one-day FX swap transactions every day and using that instrument in managing liquidity in foreign currencies is confirmed by the term structure of turnover in the FX swap transactions market. FX swaps with maturities of 7 days or less accounted for almost 95% of turnover in the domestic interbank market (Figure 5.1.27). T/N and O/N one-day swaps predominated among the transactions. According to dealers operating in the domestic money market, the share of such transactions in total turnover amounted to around 75–85%. Transactions with maturities exceeding one month accounted for around 5% of turnover and were primarily used for speculation on interest rate and exchange rate movements and for hedging FX positions resulting from forward transactions with non-banking entities.

Market participants and infrastructure

As in previous years, the turnover in the domestic interbank FX swap market was considerably concentrated. In 2006, the share of the five most active domestic banks in net turnover amounted to around 65%. The most active were banks from international banking groups.

The very large share of non-residents in the turnover on the domestic FX swap market (92% in 2006) was also characteristic of other currencies of our region. Due to the costs of conducting the operations and monitoring the liquidity situation, foreign banks are not very active in local interbank deposit markets. In such a situation, FX swaps are a very effective way of financing operations in the financial markets of various currency regions.

Interbank transactions were mainly executed in the Reuters Dealing Direct 3000 system and via voice brokers. In 2006, banks which operate in Poland were more interested in using the Reuters Forward Matching electronic platform, which automatically matches buy and sell orders. However, the value of transactions concluded via that system did not exceed 5% of turnover. The standard value of a single FX swap transaction with a maturity of up to 1 week was USD 100 million. For swaps with a longer maturity, the ticket size amounted to USD 25 or 50 million.

Outlook

Until Poland enters the euro area, the FX swap market will remain the most liquid segment of the domestic money market. The interbank market will remain dominated by USD/PLN operations. Foreign banks will remain very active participants of the domestic FX swap market. The upward trend of the value of FX swap transactions including the zloty is also expected to continue in the offshore market.
The further development of the FX swap market and the value of its transactions will primarily depend on the interest of foreign financial entities in investing in zloty-denominated instruments. The inflow of capital to the domestic financial market will be determined by both local (the macroeconomic situation and the interest rate movement expectations in Poland) and global factors. The further diversification of the investment portfolios of global financial institutions and the stable macroeconomic situation in Poland will be conducive at least to the exposure of non-residents in the domestic capital market remaining the same. However, the higher volatility in global markets, which usually entails the reallocation of capital into low-risk instruments, could contribute to the decrease in turnover. The development of the FX swap market of the zloty will also be stimulated by the operations of hedge funds, which are still very active on the emerging markets.

5.1.3.2. Conditional transactions

Two types of conditional transactions, which include the temporary transfer of ownership of securities are concluded on the Polish money market: repos and sell-buy-back/buy-sell-back (SBB/BSB) transactions. The existence of two types of conditional transactions is the result of the historical conditions which influenced the development of the financial market in Poland. There were significant differences between the repo and SBB/BSB transactions before 2004, which pertained to, among others, the recording of those instruments in accounting books and the rules governing the reserve requirement. Those differences resulted in the SBB/BSB operations segment of the domestic money market being significantly more developed. At present, repos and SBB/BSB transactions are concluded on the basis of a standard framework agreement, have almost identical economic nature and should be recorded in accounting books in the same way. Since the party “selling” the securities in the initial exchange retains the risk and benefits related to holding them, then in accordance with iAS 39 it should still record them in its assets. Moreover, for both types of operation with non-banking entities the zero rate of the reserve requirement applies. Different legal documentation in numerous institutions on the basis of which dealers conclude the transactions and the differences in the transfer of proceeds, the substitution of collateral and recording of collateral in securities depositories cause the two types of transactions to be treated as distinct. This results in the lack of a uniform standard for repo transactions and in the strong segmentation of the market.

Owing to the use of collateral, the credit risk in conditional transactions is much lower than in traditional interbank deposits, as the risk results mainly from the volatility of the prices of securities which serve as collateral. The risk of a significant decrease in the collateral value on the domestic conditional transactions market is low since it is dominated by the short-term operations collateralised with Treasury securities. Therefore, conditional transactions make it possible to obtain funds at a lower cost than in traditional interbank deposits, and to easily manage financial liquidity in case of turbulences in the money market resulting e.g. from limited credit limits imposed by the participants of that market on one another.

Market size

In 2006, the increase in the activity in the domestic conditional transactions market remained strong (Figure 5.1.28). The average daily value of conditional transactions concluded in the domestic money market increased from PLN 6.2 billion in 2005 to PLN 8.4 billion in 2006. SBB/BSB operations still dominated, and accounted for around 90% of net turnover. The average daily value of

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270 In the domestic money market, some banks conclude SBB/BSB transactions without the standard Global Master Repurchase Agreement or an agreement included in the Rekomendacja dotycząca zawierania transakcji REPO i BUY/SELL BACK na polskim rynku finansowym, Warszawa 2001, Związek Banków Polskich. These operations are described as undocumented BSB and in fact consist of two separate outright transactions: the purchase and sale of securities.


272 Repo transactions also include legal risk. The failure to apply an appropriate framework agreement (documentation which describes in detail the legal relationship of the conditional transaction) entails the risk that the legal nature of that financial instrument may change, which in turn may result in the ineffectiveness of the collateral in case of the counterparty’s bankruptcy.

273 Net turnover is the value of transferred funds in the initial or closing exchange of the conditional transaction.
SBB/BSB transactions increased by 32% as compared to 2005 and amounted to PLN 7.5 billion. By contrast, the value of repo transactions was twice as high as in 2005. However, the domestic repo market, with its average daily net turnover of PLN 0.9 billion in 2006, was still underdeveloped. The increase in turnover on the repo market resulted from the growing interest of non-banking entities in that type of transaction. This may have followed from the introduction in mid-2004 of the zero rate of the reserve requirement on funds obtained in security sales transactions under repurchase agreements with non-banking entities, and from an increasingly common use of framework agreements. At the same time, in 2006 the activity in the interbank repo market continued to decline.

**Market participants**

Similarly as in previous years, the Polish money market was dominated by conditional transactions with domestic non-banking institutions (Figure 5.1.29). Non-banking financial institutions continued to be very willing to invest temporary financial surpluses in short-term secured deposits. However, the share of interbank operations increased – in 2006 they accounted for 26% of total net turnover in the domestic market of conditional transactions (20% in 2005).

In 2006, the activity in the market of transactions with non-banking entities intensified markedly. The average daily turnover in that market segment amounted to PLN 5.3 billion (an increase of 32% in turnover as compared to 2005). The development of the customer market resulted primarily from the fast increase in the assets of non-banking financial institutions. Investment funds and insurance companies as well as, to a lesser extent, pension funds, were very willing to invest temporary financial surpluses by concluding short-term conditional transactions, mostly BSB. The average daily value of secured deposits placed by those institutions amounted to around PLN 4.3 billion in 2006, of which over 50% were the operations of investment funds. There were several reasons for the popularity of this form of investing financial surpluses in banks. Banks could offer slightly higher interest rates on such deposits, as, in contrast to traditional deposits, the resources obtained in repo and SBB transactions were covered by the zero rate of the reserve requirement. In the coming years, however, conditional transactions will not be as attractive in this respect, because since 2007 all interest calculated on the reserve requirement will constitute the income of banks, and thus the alternative cost of maintaining the reserve requirement will decrease. Nevertheless, owing to the collateral and a low credit risk, non-banking financial institutions will continue to prefer investments in conditional transactions. SBB transactions accounted for the majority of turnover in the customer market (approximately 85%). This resulted

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274 Resolution No. 1/2004 of the Monetary Policy Council of 30 March 2004 concerning the banks’ required reserve rate (Official Journal of the NBP No. 2, item 2).

275 Pursuant to Article 39 section 5 of the Act on the National Bank of Poland, between 2004 and 2006 part of the interest on the required reserve was transferred to the EU Guarantee Fund.
The average daily value of operations in the interbank market increased from PLN 1.3 billion in 2005 to PLN 2.2 billion in 2006. SBB/BSB transactions predominated among the operations between banks (a share of 98%). This differentiated the domestic money market from the developed financial markets, dominated by traditional repo transactions.\(^{276}\) The large share of BSB/SSB transactions in turnover on the domestic interbank market was caused by several factors. Securities driven deals constituted a significant part of operations between banks. Banks preferred BBS/SSB transactions, where the gross price is used for securities which constitute collateral. Given the underdeveloped mechanism for securities lending, some banks used SBB/BSB transactions to actively manage the trading portfolio of securities – by conducting arbitrage, obtaining particular securities in order to close the short sales positions. In addition, transactions conducted by the BGK, through the intermediation of which the Ministry of Finance invests funds in the money market, with banks acting as Primary Dealers, were almost exclusively BSB. Domestic banks rarely used conditional operations to obtain liquid resources.

The participants of the domestic conditional transactions market also included enterprises, which invested their financial surpluses in BSB operations. However, their share in turnover on that market did not exceed 5%. Very low activity in the domestic market was also recorded by non-residents. Operations with foreign banks were concluded very rarely and accounted for less than 1% of registered turnover. More often, foreign banks conducted repo transactions collateralised by zloty-denominated Treasury bonds in the London-based market, where framework agreements which limit the legal risk of such transactions are commonly used.

**Market structure**

In 2006, nearly 90% of conditional transactions (in terms of value) were collateralised by Treasury bonds. The significant increase in the share of Treasury bonds in the structure of collateral for repo and SBB/BSB operations, observed between 2005 and 2006, was accompanied by a lower frequency than in previous years of the use of Treasury bills (Figure 5.1.30). This resulted from the large increase in the value of conditional operations and a simultaneous decrease in the balance of Treasury bills held by banks due to the limited issue of those bills by the Ministry of Finance. The Treasury bills portfolios held by domestic banks, whose value amounted to PLN 10.8 billion as at the end of 2006, was enough mainly to collateralise transactions with the central bank – the intraday credit and Lombard facilities. In such a situation, with the increase in the demand of non-banking institutions to use traditional repo transactions, and from the rare application of standard framework agreements for repo transactions.

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financial institutions for secured deposits, bank had to transfer the ownership or block the Treasury bonds held on accounts at the KDPW. The share of other assets in the collateral structure was low. Banks sporadically concluded transactions secured with NBP bills and non-Treasury debt securities.

The term structure of conditional transactions in the Polish money market was closely related to their application. Most banks treated repo and SBB/BSB transactions as an instrument to enrich their investment offer rather than as an instrument for liquidity management or speculation on yield curve movements. Turnover structure was dominated by the sales of securities under repurchase agreements, in which non-banking financial institutions invested for several days the available funds which they had at their disposal between the dates of settlement of transactions in the securities market. Therefore, transactions with maturities of less than 7 days predominated. In 2006, the share of those transactions in total turnover amounted to over 90%.

A majority of which were one-day transactions (O/N, T/N and S/N). Banks and investment funds used repo and SBB/BSB transactions in arbitrage strategies and short sales, which are popular in developed markets, relatively seldom. This is confirmed by the low share of operations with the maturity period of over 1 month. In 2006, they only accounted for 2% of net turnover in the conditional transactions market.

Market infrastructure

Most repo and SBB/BSB transactions were concluded on the non-regulated OTC market. Counterparties established the terms of transactions in the Reuters Direct conversation system, by phone or via voice brokers. Conditional transactions collateralised by Treasury securities could also be concluded using the MTS Poland electronic platform. In 2006, the average daily value of transactions collateralised by Treasury bonds which were concluded on that platform amounted to PLN 200 million, i.e. about 10% of net turnover on the interbank conditional transactions market.

Outlook

The predominance of short-term SBB/BSB transactions, used primarily as substitutes for deposits, and the lack of a uniform standard for repo transactions indicate that despite the dynamically growing turnover, the domestic conditional transactions market was underdeveloped and its structure was clearly different from the structure of the conditional transactions market in the euro area. The development of the conditional transactions market, which is characterised by a significant share of the so-called securities driver deals with maturities longer than 7 days, and by the liquid segment of interbank repo operations used to manage liquidity, will not occur without

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277 Estimates. In deposit systems, SBB/BSB operations are treated as two separate transactions, and therefore it is difficult to obtain holistic, uniform data on the term structure of conditional transactions.
the elimination of factors which discourage from concluding such transactions. The most important barriers to the development of the conditional transactions market in Poland include:

- The strong segmentation of the market, which results from using different legal documentation. No uniform and widely accepted specimen of a framework agreement for repo and SBB/BSB transactions functions in the Polish financial market. Few entities signed bilateral framework agreements modelled on the recommendation of the Polish Bank Association or the standard Global Master Repurchase Agreement created by the International Capital Market Association.

- The lack of a uniform terminology. Polish law does not have definitions of repo and SBB/BSB transactions which would be used by all financial market participants. Regulations concerning the functioning of specific financial institutions treat those transactions differently.

- Tax regulations, according to which the party “selling” the securities in the initial exchange of the operation is obliged to pay tax at the moment of the temporary transfer of ownership of securities, which decreases the profitability of repo and SBB/BSB transactions.

- The tax and accounting dualism. According to the accounting principles, the gains/losses on the sale of assets are not realised in conditional transactions. This forces the participants to make additional organisational effort, since it is necessary to introduce two independent registers of operations – the accounting one and the fiscal one.

- The too small portfolios of Treasury securities held by some banks which could be used in liquidity interbank repo transactions.

- The insufficient knowledge of some participants of the financial market on the legal and accounting aspects of conditional transactions and the related types of risk.

Most of the barriers presented above are legal and fiscal in nature. It appears, therefore, that in order to create an efficient market for conditional transactions in Poland it would be desirable to change the legislative environment and to popularise the framework agreement which would meet the standards of developed financial market, since taking measures to introduce uniform standards for repo and SBB/BSB transactions would make it easier for domestic banks to prepare organisationally for concluding conditional transactions. Furthermore, it would contribute to the greater diversity of applications of those operations and an increased activity of foreign banks. This should result in a smooth integration of the domestic money market with the market of the euro area.

It should be expected that all the barriers presented will not be eliminated soon. However, in the coming years turnover in the domestic conditional transactions market should continue to grow, as the value of assets managed by non-banking financial institutions is expected to continue to increase. Short-term SBB/BSB transactions collateralised by Treasury bonds, used mainly as a form of investing the financial surpluses of investment funds, insurance companies and open pension funds, will continue to predominate.

One could also expect a gradual increase in turnover in the interbank market. Owing to the application of new requirements in respect of the assessment of credit risk (the CRD) and the introduction of procedures for the management of economic capital at the level of the banking group, domestic bank should take into account the cost of capital in interbank deposit transactions. Therefore, it appears that they will use repo and SBB/BSB transactions increasingly often, since they allow for increasing activity in the money market without imposing a significant burden on own capital.
5.2. Capital market

5.2.1. Evolution of the capital market: size and structure

In 2006, the equity market and the Treasury bond market remained the most important segments of the Polish capital market. The other segments were still much less significant. The equity market was the fastest developing segment of the capital market in 2006 – WSE capitalisation grew by almost 50%. It resulted mainly from a significant growth of equity prices and a high total capitalisation of the companies which debuted on the WSE. The outstanding value of marketable Treasury bonds increased likewise, but its growth rate was much lower than in previous years.

The development of the non-Treasury debt securities was still slow. The outstanding value of long-term debt securities issued by commercial banks increased considerably, mainly as a result of the fact that banks offered structured deposits in the form of the issue of bank securities with embedded derivative instruments. The outstanding value of long-term debt securities issued by enterprises increased gradually within the analysed period. The value of municipal bonds outstanding and mortgage bonds did not change significantly. A slight decrease in the value of mortgage bonds resulted only from the changes in the zloty exchange rate which was used to convert the issues denominated in euro and American dollars. There were still NBP bonds with the value of PLN 7.8 billion on the market.

Table 5.2.1. Size of individual capital market segments, 2003–2006 (PLN billion)

<table>
<thead>
<tr>
<th>Debt securities</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketable Treasury bonds</td>
<td>184.5</td>
<td>226.6</td>
<td>278.4</td>
<td>317.0</td>
</tr>
<tr>
<td>Long-term corporate bonds</td>
<td>5.3</td>
<td>7.3</td>
<td>8.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Municipal bonds</td>
<td>2.8</td>
<td>3.1</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Long-term commercial bank debt securities</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Mortgage bonds</td>
<td>0.8</td>
<td>1.0</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>NBP bonds</td>
<td>7.8</td>
<td>7.8</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Equities – stocks</td>
<td>167.7</td>
<td>291.7</td>
<td>424.9</td>
<td>635.9</td>
</tr>
</tbody>
</table>

Note: size of individual capital market segments for debt securities was measured by the outstanding value of those instruments and for equities, by capitalisation of domestic and foreign companies listed on the WSE.

1 The data cover the liabilities of Polish banks resulting from the issue of own securities for the domestic market.

Source: NBP own study on the basis of MF, NBP, WSE and Fitch Polska data.

5.2.2. Marketable long-term debt securities market

5.2.2.1. Treasury bonds

Market size

The Treasury bond market was the largest segment of the Polish debt securities market. As at the end of 2006, the share of marketable Treasury bonds in the entire (short-term and long-term) debt securities market amounted to 92.3%. The predominance of Polish Treasury bonds resulted both from the scale of the Treasury borrowing needs and the low level of development of non-government debt securities. In the Euro area countries the market of bank debt securities is only slightly smaller than the Treasury securities market (in terms of the value of outstanding instruments). In terms of size, the Polish market of Treasury bonds was medium-sized in

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Table 5.2.2. Debts of the governments of selected EU Member States from Treasury securities issued on the domestic markets (as at the end of 2006, EUR billion)

<table>
<thead>
<tr>
<th>Country</th>
<th>Debt</th>
<th>Country</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>1,164.7</td>
<td>Sweden</td>
<td>116.3</td>
</tr>
<tr>
<td>Germany</td>
<td>925.4</td>
<td>Poland</td>
<td>97.9</td>
</tr>
<tr>
<td>France</td>
<td>915.2</td>
<td>Portugal</td>
<td>84.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>632.0</td>
<td>Austria</td>
<td>77.7</td>
</tr>
<tr>
<td>Spain</td>
<td>339.9</td>
<td>Denmark</td>
<td>64.0</td>
</tr>
<tr>
<td>Belgium</td>
<td>251.3</td>
<td>Czech Republic</td>
<td>52.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>210.7</td>
<td>Finland</td>
<td>51.4</td>
</tr>
<tr>
<td>Greece</td>
<td>184.9</td>
<td>Ireland</td>
<td>31.2</td>
</tr>
</tbody>
</table>

Note: Converted using EUR – 1.321 USD exchange rate.
Source: Bank for International Settlements, ECB.

Table 5.2.3. Central government debt structure, 2003–2006 (as of period-end, PLN billion)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central government debt</td>
<td>378.9</td>
<td>402.9</td>
<td>440.2</td>
<td>478.5</td>
</tr>
<tr>
<td>1. Domestic central government debt</td>
<td>251.2</td>
<td>291.7</td>
<td>315.5</td>
<td>352.3</td>
</tr>
<tr>
<td>1.1. Treasury bills</td>
<td>246.0</td>
<td>286.9</td>
<td>312.0</td>
<td>350.5</td>
</tr>
<tr>
<td>1.2. Treasury bonds</td>
<td>197.9</td>
<td>240.0</td>
<td>287.6</td>
<td>324.7</td>
</tr>
<tr>
<td>1.2.1. Marketable bonds</td>
<td>184.5</td>
<td>226.6</td>
<td>278.4</td>
<td>317.0</td>
</tr>
<tr>
<td>– fixed rate bonds</td>
<td>169.0</td>
<td>201.0</td>
<td>241.8</td>
<td>271.8</td>
</tr>
<tr>
<td>– floating rate bonds</td>
<td>15.5</td>
<td>23.0</td>
<td>31.9</td>
<td>38.8</td>
</tr>
<tr>
<td>– inflation-indexed bonds</td>
<td>–</td>
<td>2.6</td>
<td>4.7</td>
<td>6.5</td>
</tr>
<tr>
<td>1.2.2. Saving bonds</td>
<td>7.4</td>
<td>9.1</td>
<td>8.6</td>
<td>7.2</td>
</tr>
<tr>
<td>1.2.3. Non-marketable bonds</td>
<td>6.0</td>
<td>4.3</td>
<td>0.6</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: The category of "non-marketable bonds" includes USD-denominated bonds issued in 1991, restructuring bonds issued in 1993 and 1994 in order to increase the equity and provisions of 10 banks and bonds from 1996 which were issued to increase the equity of BGŻ. As at the end of 2006, only the last of the listed bonds were outstanding.
Source: MF.

comparison with the markets of EU countries (Table 5.2.2) and concurrently the largest in comparison with the countries which joined the EU in 2004.  

In 2006, the outstanding value of Treasury bonds issued on the domestic market increased by 12.9% as compared with 2005 and amounted to PLN 324.7 billion at the end of December, out of which marketable bonds accounted for PLN 317 billion. The outstanding value of marketable Treasury bonds on the domestic market grew faster than total domestic debt and foreign debt. It resulted from an increased use of issues of bonds denominated in zloty and addressed to the Polish market and the longer average period to maturity of Treasury securities, as well as the decrease in the Treasury bills issues and increase in the Treasury bonds issues as an instrument for the financing of the State budget borrowing needs.

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279 Bond markets and the long-term interest rates in non-euro area member states of the European Union, Frankfurt 2008, ECB.
Market structure

The structure of Treasury bonds by types of issued instruments was similar to those on the most developed capital markets of the countries with a stable inflation rate. Fixed-rate bonds were the basic instrument for the financing of the State budget borrowing needs. As at the end of 2006, they accounted for 83.7% of all outstanding bonds (Figure 5.2.1) and for 85.7% of all marketable bonds. Their large share in the debt structure from issues on the domestic market resulted from the fact that they are potentially more liquid than floating-rate bonds. The prices of fixed-rate bonds are more volatile and thus are more often subject to speculative operations. The issuer may issue fixed-rate debt securities for more favourable prices. Higher turnover on the secondary market is related to the lower premium for liquid risk paid to the purchasers and the possibility to sell the investments without a significant impact on the prices.

The most popular fixed-rate bonds were 2-, 5- and 10-year bonds mainly for institutional investors. In 2006, the share of securities with a long original maturity, i.e. 10 and 20-year bonds, significantly increased (Table 5.2.4). It contributed to the prolongation of the average maturity of Treasury securities from 3.57 year at the end of 2005 to 3.94 year as at the end of 2006.

In 2006, as in the previous years, the value of outstanding marketable floating-rate bonds grew faster than the value of fixed-rate bonds. The share of floating-rate bonds in the structure of the outstanding long-term debt securities issued by the State Treasury on the domestic market was still low (Figure 5.2.1). The high value of 7-year bonds issued influenced the development of the floating-rate bonds market (Table 5.2.5). The demand for such bonds resulted also from the fact

Table 5.2.4. Structure of the outstanding value of the marketable fixed-rate bonds issued by the Treasury, 2004–2006 (as of period-end)

<table>
<thead>
<tr>
<th>Type of bonds by original maturity</th>
<th>Bond value (PLN billion)</th>
<th>Bond structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year zero-coupon bonds</td>
<td>52.9</td>
<td>57.1</td>
</tr>
<tr>
<td>5-year bonds</td>
<td>70.8</td>
<td>86.7</td>
</tr>
<tr>
<td>10-year bonds</td>
<td>68.7</td>
<td>85.7</td>
</tr>
<tr>
<td>20-year bonds</td>
<td>3.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Retail bonds</td>
<td>2.6</td>
<td>3.2</td>
</tr>
<tr>
<td>10-year converted bonds</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>201.0</td>
<td>241.7</td>
</tr>
</tbody>
</table>

Source: MF.
that they had the shortest original maturity from among wholesale floating-rate bonds issued in 2006.\footnote{280}

The basis for determining the coupons of such bonds were 6M WIBOR rate for 7- and 3-year retail bonds and 3M WIBOR rate for 3-year wholesale bonds. In 2006, the last of 3-year retail bonds issued in the previous years with the coupon calculated on the basis of the yield on 13-week Treasury bills were repurchased.

In 2006, the segment of inflation-indexed bonds placed in 2004 was the fastest developing segment of the market. Their value increased by 38.4%, but as at the end of 2006 the inflation-indexed bonds accounted only for 2.0% of marketable bonds issued. Such a high growth rate of the outstanding value of marketable inflation-indexed bonds was not only the result of the low base. The development of this segment of Treasury bonds market was supported by the Ministry of Finance issue strategy, based on the prolongation of the maturity of the issued securities (the original maturity of inflation-indexed bonds equals 12 years) and a large demand for such securities on the part of foreign investors. As at the end of 2006, foreign investors had 80.3% of inflation-indexed bonds issued. A large interest in inflation-indexed bonds resulted from their construction which allowed their buyers for the retention of the real capital value and an annual 3% yield.\footnote{281}

Savings bonds are addressed to individual investors and are not traded on the secondary market. Those instruments are registered in the Bond Purchaser Register maintained by the issuing agent (since 2003 – PKO BP SA). Since 2005 the outstanding value of savings bonds has decreased. In 2006, it fell by 16.4% and amounted to PLN 7.2 billion at the end of December. Individual investors’ portfolios included 2-year fixed-rate bonds, 4-year inflation-indexed bonds and the 10-year retirement bonds (Table 5.2.6).

Savings bonds did not enjoy large interest despite the fact that their yield was higher than the interest on bank deposits with similar maturity. The average interest rate of 2-year fixed-rate savings bonds amounted to 4.1% in 2006, of 4-year inflation-indexed bonds to 4.7%, while of 10-year retirement bonds to 5.2%.\footnote{282} The interest rate on 2-year deposits offered by banks to households amounted to 3.1% and on deposits declared for more than two years to 3.3%. The demand for savings bonds was low since individual investors preferred to invest their financial surpluses on the capital market through collective investment institutions (purchase of participation

Table 5.2.5. Structure of the outstanding value of the marketable floating-rate bonds issued by the Treasury, 2004–2006

<table>
<thead>
<tr>
<th>Type of bonds by original maturity</th>
<th>Bond value (in PLN billion)</th>
<th>Bond structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-year retail bonds</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>3-year wholesale bonds</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>7-year wholesale bonds</td>
<td>1.1</td>
<td>9.1</td>
</tr>
<tr>
<td>10-year wholesale bonds</td>
<td>11</td>
<td>11.9</td>
</tr>
<tr>
<td>Private placements</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>23.0</td>
<td>31.9</td>
</tr>
</tbody>
</table>

Source: NBP calculations on the basis of MF data.
Financial markets

Due to the low demand for savings bonds on the part of households, MF decided to widen the target investor group which previously included only natural persons. In 2006, such instruments could also be purchased by associations, other social and professional organisations and by foundations entered into the court register (in the case of non-residents – entered into other official register).

**Primary market**

In 2006, the gross value of Treasury bonds issued on the domestic market increased by 8.2% as compared to 2005 and amounted to PLN 103.4 billion. The value of wholesale bonds issued considerably increased (by PLN 9.7 billion) (Figure 5.2.2). The value of retail bonds sold decreased by over 30% as a result of the lower demand for those instruments on the part of individual investors.

In 2006, there were no significant changes in the organisation of the primary market of Treasury bonds. The form of issue depended on the type of instrument. Marketable wholesale bonds were sold at auctions organised for Primary Dealers. Retail bonds (both marketable and savings bonds) were sold in PKO BP branches. Apart from the abovementioned standard forms of issue, in 2006 the Ministry of Finance organised special auctions of floating-rate Treasury bonds for specific buyers. Such bonds could be purchased only by open pension funds with claims to the State Treasury resulting from the Social Insurance Institution’s liabilities (taken over by the State Treasury) for contributions which were not transferred to pension funds. In 2006, the value of bonds sold at auctions addressed only to open pension funds amounted to PLN 1.1 billion.

As in the previous years, the main form of sales of wholesale bonds on the primary market was auction sales. In 2006, the MF sold bonds with the value amounting to PLN 70.8 billion which accounted for 71.3% of wholesale bonds issued (in 2005 it was 80.8%). In 2006, the MF also used switching auctions (in place since 2001). Such form of issue reduces the refinancing risk since it allows for redemption of bonds without employing cash and is favourable for the creation of large, potentially very liquid issues (the so-called benchmark issues). In 2006, the wholesale Treasury bonds amounting to PLN 27.4 billion were sold at switching auctions (PLN 15.9 billion in 2005). Bonds with long original maturity dominated the offer. The average maturity of bonds sold at switching auctions amounted to 8.2 year, and of bonds sold at standard auctions to 4.9 year.

In 2006, there were 11 types of wholesale bonds issued. That year also saw the continuation of the policy consisting in increasing the value of individual issues so that the minimum value of the issue for medium- and long-term fixed-rate bonds amounted to EUR 5 billion when the issue

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283 Wholesale bonds are offered only to financial institutions. Retail bonds are sold mainly to individual investors. Retail bonds include savings bonds and marketable retail bonds traded on GPR or RPW CeTO.

284 This amount includes also bonds sold at non-competitive auctions.

### Table 5.2.6. Structure of savings bonds, 2004–2006 (% by outstanding value as of period-end)

<table>
<thead>
<tr>
<th>Type of bonds by original maturity</th>
<th>Bond value (PLN billion)</th>
<th>Bond structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year fixed-rate bonds</td>
<td>8.1</td>
<td>7.9</td>
</tr>
<tr>
<td>4-year inflation-indexed bonds</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>10-year retirement bonds</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>9.1</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: MF.
Financial markets

is considered to be a benchmark issue. As at the end of 2006, 8 issues met this requirements (4 issues in 2005), including one floating-rate issue.

The supply on the primary market of wholesale bonds was accompanied by a very large demand. It very often exceeded the value of offered securities several times. The largest demand measured by the purchase to sales offers' value ratio was reported in the case of 7-year floating-rate bonds (Table 5.2.7).

The situation on the primary market of retail bonds was reversed. Out of the offered bonds amounting to PLN 17.4 billion, only PLN 4.1 billion, i.e. 23.6%, were sold. The main reason for such little interest in savings bonds was a relatively low rate of return, as compared to investments in participation units of investment funds. As in 2005, the lowest demand was reported in the case of 10-year retirement bonds. in 2006, only 7.6% of offered bonds were sold. The issues of retirement bonds were addressed mainly to the owners of Individual Pension Accounts (IPA) which do not enjoy large interest due to, among others, rules governing the interest on the savings on those accounts. The low demand resulted also from less favourable interest on retirement bonds in the first year covered by the interest, as compared to other debt instruments. Starting from the second year covered by the interest, the interest margin exceeding the inflation rate is lowered (for the bonds issued in 2006 by 1.9 percentage point on average).

Source: National Depository for Securities.
Financial markets

Secondary market

According to investors, the Polish Treasury bond market in 2006 was the fourth market among the emerging markets (after Mexico, Brazil and the Republic of South Africa) in terms of liquidity.\textsuperscript{285} In 2006, the high growth rate of Treasury bonds turnover was maintained. As compared to 2005, the net turnover\textsuperscript{286} increased by 38%. In 2006, the average daily value of transactions on the Treasury bond market amounted to PLN 15.3 billion (the figure includes also transactions between non-residents). The high growth rate of turnover on the bond market resulted mainly from a two times increase of the value of conditional transactions, mainly sell-buy back transactions (Figure 5.2.4). The average daily value of a bond-back SBB transaction and a repo transaction amounted to PLN 6.6 billion and PLN 0.8 billion, respectively. Such a strong growth of activity in the conditional transactions segment resulted, among others, from the change in the structure of collaterals for such transactions (less frequent use of Treasury bills) and a large interest of non-banking financial institutions in security-backed investments. Conditional transactions were concluded by almost only residents. The share of non-residents in the turnover in this segment of the Treasury bond secondary market amounted to around 1%.

The share of outright transactions which reflect the market liquidity most comprehensively in the turnover structure significantly decreased. Net turnover in this segment of the market increased by 8.2% as compared to 2005 and amounted to PLN 7.9 billion. The market liquidity ratio

Table 5.2.7. Demand for wholesale bonds at auctions in 2006

<table>
<thead>
<tr>
<th>Type of bonds</th>
<th>Purchase offer value (PLN billion)</th>
<th>Sales offer value (PLN billion)</th>
<th>Purchase offers to sales offers ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-year floating-rate bonds</td>
<td>29.87</td>
<td>8.56</td>
<td>3.49</td>
</tr>
<tr>
<td>10-year fixed-rate bonds</td>
<td>27.63</td>
<td>8.72</td>
<td>3.17</td>
</tr>
<tr>
<td>2-year zero-coupon bonds</td>
<td>86.87</td>
<td>28.62</td>
<td>3.04</td>
</tr>
<tr>
<td>5-year fixed-rate bonds</td>
<td>60.83</td>
<td>21.44</td>
<td>2.84</td>
</tr>
<tr>
<td>12-year inflation-indexed bonds</td>
<td>4.60</td>
<td>2.00</td>
<td>2.30</td>
</tr>
<tr>
<td>20-year fixed-rate bonds</td>
<td>4.60</td>
<td>2.34</td>
<td>1.97</td>
</tr>
</tbody>
</table>

Source: MF.


\textsuperscript{286} The method of the presentation of turnover is different than in the previous version of the report. The turnover on the secondary market of Treasury bonds was presented individually in net terms. The details concerning the presentation of turnover were presented in the chapter on Treasury bonds in Box 5.1.1.

Figure 5.2.4. Average daily value of a transaction on the Treasury bond market, 2003–2006

Note: The value of conditional transactions being a component of the total value of transactions was calculated according to the value of original exchange in the transaction. Average daily turnover was calculated taking into account the number of working days: 246 in 2003, 247 in 2004 and 252 in 2005 and 2006.

Source: Calculated based on the National Depository for Securities data.
also slightly increased, from 0.75 in 2005 to 0.76 in 2006. The changes in the structure of the buyers of wholesale Treasury bonds were not favourable for the market liquidity. In 2006, the share of foreign investors in the financing of the State Treasury debt from bonds issued on the domestic market decreased. It was accompanied by the increase in the share of pension funds which pursue long-term investments strategies. Foreign investors were more active in the management of debt securities portfolio. Their share in the value of outright transactions amounted to 36.4% (transactions in which at least one of the parties was a non-resident) and was significantly higher than the share in the structure of the buyers of bonds (24.6% on average in 2006). The largest turnover in the outright transactions segment was recorded in March, where a strong adjustment was observed on the domestic bond market in relation to the developments on the world markets (Figure 5.2.5). The yield on bonds increased most significantly at the end of the second quarter and was accompanied by the closing of positions by foreign investors (Figure 5.2.6).

Treasury bonds were traded on three markets: the unregulated OTC market, the MTS Poland (electronic platform) and on the Warsaw Stock Exchange. In Poland, as in the majority of the European Union countries, the trade concentrated on the unregulated OTC market where the banks usually perform the transactions using Reuters Direct system terminals or voice brokers. In 2006, the OTC market accounted for 95.7% of transactions (in terms of value) with Treasury bonds issued on the domestic markets (Table 5.2.8).

The second place in terms of the turnover value belonged to the organised unregulated MTS Poland market which has been operating since September 2004. In 2006, the share of turnover on the MTS Poland electronic platform dropped to 4.2%, despite the fact that the annual daily value of total transactions grew by 27.2% and amounted to PLN 0.64 billion. A relatively less frequent use of the electronic platform for bond transactions resulted mainly from the lower, as compared to the OTC market, growth rate of conditional transactions. The growth of the value of transactions resulted from, among others, the increase in the number of direct participants of the MTS Poland market. The number of the participants of that market grew from 25 in 2005 to 29 as at the end of 2006. They included 12 foreign entities (8 entities in 2005). Only the institutions providing

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287 Liquidity ratio was measured as the ratio of the average monthly value of outright transactions to the average outstanding value of marketable bonds issued by the State Treasury.

288 Treasury bond transactions may also be performed on the CeTO Securities Market (regulated OTC market) and the Warsaw Commodity Exchange. However, the trade in Treasury bonds on those markets in 2006, as in the previous years, was insignificant.
financial investment services (excluding leasing, factoring and credit advisory companies) which meet the financial requirements laid down by the market organiser may conclude transactions on the MTS Poland electronic market.

An important factor contributing to the activity on the electronic platform was the inclusion of the value of transactions on that market as one of the criteria applied by the Ministry of Finance upon the selection of Primary Dealers. This statement is supported by the seasonal character of the

![Figure 5.2.6. Foreign investors’ share in the domestic Treasury bond market and average monthly yield on benchmark bonds, 2005–2006](chart1.png)

**Source:** Calculated based on NBP data.

![Table 5.2.8. Individual markets’ share in total turnover on the Treasury bond market, 2005–2006 (%)](chart2.png)

**Source:** Calculated based on National Depository for Securities data.

![Figure 5.2.7. Monthly value of Treasury bond transactions on the MTS Poland and OTC secondary market, 2005–2006](chart3.png)

**Note:** The value of conditional transactions included in the total transactions value was calculated according to the value of the original exchange in the transactions.

**Source:** Calculated based on National Depository for Securities data.
trade in bonds on this market. In 2005 and 2006 the banks’ were less active on the electronic platform after the period which was included in the competition for Primary Dealers\(^{289}\) (Figure 5.2.7).

**Investors**

Non-residents remained the largest group of investors on the Treasury bond market (Figure 5.2.8). As at the end of 2006 they had bonds worth PLN 74.4 billion (PLN 68.7 billion at the end of 2005). In 2005 and 2006, despite the increase in non-residents’ bond portfolio value, their share in the market has gradually decreased. At the end of 2004, non-residents had 26.3% of wholesale Treasury bonds, while at the end of 2005 their share in the structure of buyers fell to 23.9% and as at the end of 2006 to 22.9%. It was mainly the result of the lower share of foreign non-banking entities. In 2006, the value of bonds in their portfolios fell by around PLN 2.3 billion. At the same time the share of foreign banks in the market increased. As at the end of 2006 they owned Treasury bonds issued on the domestic market the value of which amounted to PLN 33.8 billion (growth by almost PLN 7.9 billion as compared to the end of 2005).

The decreasing interest in Polish Treasury bonds among foreign non-banking entities could result from the lower attractiveness of such investment as compared to investments on other markets. The yield on Polish Treasury bonds was higher than the interest rates on the developed market and was relatively high as compared to the yield on bonds of the countries which joined the UE in 2004 (apart from Hungary), but the disparity was decreasing. In 2006, the yield on long-term bonds in the Euro area, the USA and the majority of new EU Member States increased, while in Poland it slightly decreased (Table 5.2.9). The factors which reduced the demand of foreign investors for Polish bonds included also the expectations of the rise in the NBP interest rates in the second half of 2006.

Significant changes took place in the structure of domestic buyers of Treasury bonds in 2006. The value of bond portfolios of non-banking financial institutions grew considerably. The growth was the most visible in the case of pension funds which for the first time became the largest investor on the Treasury bond market (Figure 5.2.9). As at the end of 2006, pension funds held bonds worth PLN 69.4 billion (a 21.4% share in the market). Systematic inflow of cash to pension funds and a relatively limited choice of instruments in which they can invest forced the funds to invest in Treasury bonds. Moreover, there were additional issues of bonds worth PLN 1.1 billion addressed to open pension funds. They were a form of repayment of ZUS liabilities towards pension funds.

**Figure 5.2.8. Holders of Treasury bonds, 2005–2006 (by outstanding value as of period-end)**

![Graph showing the holders of Treasury bonds, 2005–2006](#)

Source: Calculated on the basis of MF data.

\(^{289}\) The competition for Primary Dealers in 2006 began on December 1, 2004 and ended on September 30, 2005. The competition for Primary Dealers in 2007 lasted from October 1, 2005 to September 30, 2006. The aim of the competitions was to select the most active banks with the largest share in the turnover on the Treasury securities market.
Table 5.2.9. Yield on 10-year Treasury bonds in selected EU-10 countries, the Euro area and the USA (%)  

<table>
<thead>
<tr>
<th>Country / currency area</th>
<th>Dec 2005</th>
<th>Dec 2006</th>
<th>Change in yield¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>6.89</td>
<td>6.81</td>
<td>-0.08</td>
</tr>
<tr>
<td>Poland</td>
<td>5.16</td>
<td>5.14</td>
<td>-0.02</td>
</tr>
<tr>
<td>Slovakia</td>
<td>3.62</td>
<td>4.15</td>
<td>0.53</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3.69</td>
<td>3.90</td>
<td>0.21</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3.61</td>
<td>3.68</td>
<td>0.07</td>
</tr>
<tr>
<td>Euro area</td>
<td>3.41</td>
<td>3.90</td>
<td>0.49</td>
</tr>
<tr>
<td>USA</td>
<td>4.46</td>
<td>4.57</td>
<td>0.11</td>
</tr>
</tbody>
</table>

¹ Change in yield in 2006, as compared in 2005, in percentage points.
Source: ECB.

Figure 5.2.9. Structure of Treasury bond purchasers, 2005–2006 (% by outstanding value as of period-end)

<table>
<thead>
<tr>
<th></th>
<th>A. 2005</th>
<th>B. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>17.9%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Foreign banks</td>
<td>9.0%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>21.4%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Pension funds</td>
<td>14.9%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Individuals</td>
<td>18.4%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Other non-residents</td>
<td>2.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Investment funds</td>
<td>1.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Non-financial entities</td>
<td>5.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Other entities</td>
<td>9.4%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Source: Calculated on the basis of MF data.

funds resulting from contributions which were not transferred to the funds. The open pension funds’ investments were dominated by fixed-rate instruments (87.5%). The duration of the wholesale Treasury bond portfolio held by those institutions amounted to around 3 years.

The second largest group of domestic investors was banks which in the previous years held the largest bond portfolios among the residents. In 2006, the banks’ share in the domestic Treasury bond market increased by PLN 6.3 billion and amounted to PLN 67.7 billion at the end of December. Domestic banks held around 38% of floating-rate Treasury bonds and around 19% of fixed-rate bonds. Investment funds and insurance companies also increased their share in the domestic Treasury bond market. It resulted from a large interest on the part of households in investments in participation units of investments funds and the purchase of unit-linked life insurance products.

**Outlook**

The size of the domestic Treasury bond market will depend on the following factors: the borrowing needs of the central budget, public debt management policy which determines the scale of financing on the foreign markets and the term structure of issued securities (Treasury bills or bonds), as well as the demand for those instruments. The budget deficit is expected to fall below 3% of the GDP in relation to the planned accession of Poland to the Euro area. The increase in revenue from privatisation could reduce the borrowing needs of the state budget. The planned small decrease in the share of financing on the foreign markets²⁹⁰ will contribute to the growth of

the value of Treasury bonds issued in Poland. It seems that within several years the outstanding value of the State Treasury bonds issued on the domestic market should increase, while the growth rate will decrease.

The expected increase in the assets of domestic collective investment institutions will have a stabilising impact on the development of the domestic Treasury bond market. Constant inflow of funds to open pension funds, a limited scope of investment instruments and the share in the stock market which is close to the statutory limit will incline the managers of pension funds to purchase Treasury bonds. The demand for Treasury bonds on the part of investment funds will largely depend on the situation on the stock market. Non-residents will be an important group of entities influencing the demand on the Treasury bond market. Their operations on the Polish markets will be determined by both the situation on the world financial markets and local factors, such as the macroeconomic situation in Poland.

Developed capital markets are characterised by high liquidity allowing for the purchase or sale of instruments with relatively low transaction costs and a limited impact on the prices on the market. The growth of the size of the wholesale bond market so far and the strategy of the Ministry of Finance consisting in the reduction of the number of issues and the increase in the value of a single bond issue contributed to the increase in the liquidity of the domestic Treasury bond market (Table 5.2.10). Therefore, the continuation of this strategy should be expected. Changes in the structure of purchasers will reduce the liquidity of the secondary market. Further growth of the share of open pension funds, which pursue mainly long-term investment strategies, should be expected. The liquidity of the market could also be negatively affected by a significant rise in inflation expectations and a considerable growth in the yield on bonds.

The unregulated OTC market will remain the main trading market, though we may expect a gradual growth of turnover on the MTS Poland electronic platform due to the increasing number of foreign entities interested in the participation in this organised market. As in 2005 and 2006, conditional transactions concluded mainly with domestic non-banking financial institutions will account for a significant part of operations on the secondary market.

**5.2.2.2. Corporate bonds**

**Market size**

The interest of corporations in issuing long-term corporate bonds (LCB) is gradually increasing in Poland which is related to their growing investment activity. As at the end of 2006, outstanding value of LCBs amounted to PLN 9.7 billion. The share of long-term corporate bonds in the whole market of non-Treasury bonds in Poland amounted to 36% and in the total bond market to 2.45%.

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Table 5.2.10. Selected indicators of the domestic Treasury bond market, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond market size to GDP ratio (%)</td>
<td>21.9</td>
<td>24.5</td>
<td>28.3</td>
<td>29.9</td>
</tr>
<tr>
<td>Face value of wholesale Treasury bonds (in PLN billion)</td>
<td>177.1</td>
<td>220.6</td>
<td>271.7</td>
<td>311.5</td>
</tr>
<tr>
<td>Number of outstanding wholesale Treasury bonds</td>
<td>39</td>
<td>37</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>Average value of a single issue (in PLN billion)</td>
<td>4.7</td>
<td>6.1</td>
<td>7.7</td>
<td>9.9</td>
</tr>
<tr>
<td>Value of the largest issue (in PLN billion)</td>
<td>22.8</td>
<td>28.6</td>
<td>29.6</td>
<td>29.6</td>
</tr>
<tr>
<td>Duration of domestic Treasury securities in years</td>
<td>6.6</td>
<td>5.9</td>
<td>11.0</td>
<td>15.3</td>
</tr>
<tr>
<td>Average daily net turnover (in PLN billion)</td>
<td>21.9</td>
<td>24.5</td>
<td>28.3</td>
<td>29.9</td>
</tr>
<tr>
<td>Share of conditional transactions in total transactions (%)</td>
<td>8.2</td>
<td>18.0</td>
<td>32.4</td>
<td>48.5</td>
</tr>
</tbody>
</table>

Source: NBP calculations on the basis of National Depository for Securities and MF data.

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291 The LCB market includes bonds issued in Poland by the following categories of entities (according to ESA 95 classification): corporations, other financial intermediaries (excluding investment funds) and financial auxiliaries. In this chapter the terms LCB and corporate bonds are used interchangeably.
In 2006, the value of new issues of long-term bonds amounted to PLN 2.66 billion, including PLN 2.52 billion sold in the form of public offers. The number of entities using LCBs as a source of financing their borrowing needs (Table 5.2.11) also increased. Nevertheless, the share of LCBs in the financing of gross fixed capital formation was low and amounted to around 1.2%. The growing demand for external long-term financing was still more often satisfied using bank loans than long-term bond issues.

Private placements addressed to unregulated market still predominated. They accounted for over 90% of the value of the entire corporate bond market. The value of corporate bonds sold as public offers and traded on the regulated market decreased by PLN 244.5 million as compared to 2005 and amounted to PLN 652.7 million, out of which PLN 625.2 million were traded on the CeTO Securities Market.

The size of the market to GDP ratio remained low and amounted to 0.9%. The low level of development of the corporate bond market in Poland is not an exception in the Central and Eastern Europe (Figure 5.2.10). The markets of such instruments are more developed in the countries belonging to the Euro area where the size of the market measured as a percentage of GDP amounted to 17.7% in 2006. However, this ratio varies in different countries. In the Netherlands the corporate bonds’ value to GDP ratio amounts to around 90%, in Germany it is only 4%. Despite the significant development of the corporate bond market in recent years, in the Euro area countries, as in Poland, bank loans remained the main source of external financing for corporations.292

Table 5.2.11. Outstanding value of LCBs issued and number of issuers, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of issuers</td>
<td>59</td>
<td>69</td>
<td>82</td>
<td>90</td>
</tr>
<tr>
<td>Outstanding value (PLN billion)</td>
<td>5.29</td>
<td>7.26</td>
<td>8.92</td>
<td>9.75</td>
</tr>
<tr>
<td>– value of public offers</td>
<td>0.55</td>
<td>0.67</td>
<td>0.45</td>
<td>0.26</td>
</tr>
<tr>
<td>– value of private placements</td>
<td>4.74</td>
<td>6.59</td>
<td>8.47</td>
<td>9.49</td>
</tr>
<tr>
<td>Value of new issues (in PLN billion)</td>
<td>1.62</td>
<td>2.22</td>
<td>2.00</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Source: NBP data submitted by banks – Primary Dealers and/or money market dealers and candidates for dealers, Fitch Polska.

Figure 5.2.10. Outstanding value of corporate bonds issued in the selected EU-25 countries, 2004–2006

Note: The term corporation refers to non-financial corporations and non-monetary financial institutions, which, according to ESA 95, include insurance companies, pension funds, financial auxiliaries and other financial intermediaries.

Source: NBP study based on data provided by Statistical Data Warehouse, ECB.

Market structure

As at the end of 2006 the structure of issues selling LCBs during public offers was dominated by the entities from the other financial institutions sector. Such issues were carried out mainly by public companies. Non-financial corporations (mainly from the transport, property development and investor, chemical, food and energy sectors) prevailed among the issuers selling bonds in the form of private placements. Leasing companies prevailed among the issuers from the group of other financial intermediaries. Their activity on the LCB market was related to the fast development of the leasing market in Poland and an increasing demand for the financing of leased assets.

The LCB market was dominated by PLN-denominated instruments. PLN-denominated bonds accounted for around 96.5% of the unregulated market as at the end of 2006. The interest on the majority of LCBs was based on a floating interest rate, most often the WIBOR rate. The floating-rate instruments accounted for around 69% of the value of bonds traded on the regulated market and around 88% of bonds on the unregulated market.

The majority of issues were medium-term. As of the end of 2006, the original maturity of any LCB issue traded on the regulated market did not exceed 3 years. The instruments with original maturity of up to 3 years accounted for around 66% and the instruments with the maturity of 3 to 5 years for around 20% of the unregulated market. Only 14% of corporate bonds issued had the original maturity longer than 5 years.

As regards the debt structure by type of instruments, the share of standard bonds was the highest (around 95%). The share of convertible bonds amounted to around 4%. Revenue bonds (unregulated market) and bonds with priority rights (regulated market) were also traded on the Polish market. The majority of LCBs issued (around 80%) were unsecured. Other corporate bonds were secured with mortgage or other assets. The security was used mainly by the entities from property development and investor sector, as well as the transport sector.

Primary market

In 2006, the value of new issues of long-term corporate bonds was higher by around 30% than in 2005 and amounted to PLN 2.59 billion. The majority of issues were performed under the functioning issuance programmes. There were 14 new issuance programmes on the unregulated market (19 in 2005). The value of the largest one did not exceed PLN 250 million and only two of them had a limit of PLN 1 billion. The value of a single issue in 2006 carried out as private placement was from PLN 2 million to PLN 500 million (PLN 30 million on average). Average value

Figure 5.2.11. Structure of LCB issuers by outstanding value of bonds (as of end of 2006)

A. Public offerings

89.5% Enterprises
10.5% Other financial intermediaries
0.0% Financial auxiliaries

B. Private placements

89.3% Enterprises
10.4% Other financial intermediaries
0.2% Financial auxiliaries

Source: NBP data submitted by banks acting as money market dealers serving as depositaries, National Depository for Securities.

293 The issuance programme of Autostrada Wielkopolska SA with the limit of PLN 3.2 billion remained the largest private placement programme. The largest public offer programme (PLN 2 billion) was carried out by BZ WBK Finanse & Leasing.
of a single issue amounted to PLN 24 million (there was no issue with the value exceeding PLN 50 million).

In 2006, there were 27 entities organising LCB issues. The issues on the regulated market were organised mainly by brokerage entities. From among 21 LCB issue arrangers on the unregulated market, five banks, namely Bank BPH, BRE Bank, ING Bank Śląski, PKO BP and Deutsche Bank Polska, prepared over 80% of the value of all issues.

**Secondary market and investors**

In 2006, the LCBs were traded mainly on the unregulated market. As in the previous years, the market makers for individual issues and the institutions settling the transactions were banks arranging the issues. The data on the LCB turnover on the secondary market are not available. Bonds issued by 4 companies were traded on the regulated market. The bonds of one entity were traded on the WSE stock exchange market. The majority of transactions were performed on the regulated OTC RPW-CeTO market, where 23 issues of the bonds of 3 companies were traded. In 2006, the annual value of net turnover of corporate bonds amounted to PLN 64.6 million (PLN 209.2 million in 2005) on the MTS-CeTO market and to around PLN 10 million (PLN 20 million in 2005) on the WSE.

In 2006, the main purchasers of corporate bonds issued by means of private placements were domestic banks (Figure 5.2.12). The share of investment funds significantly increased (by 8.3 percentage points to 24.5% in 2006). The share of non-financial corporations in the purchaser structure fell by 19.7% in 2006, while the share of foreign entities amounted to around PLN 130 million as at the end of 2006. It is worth noticing that the interest in corporate bonds on the part of pension funds was still insignificant. Only a few open pension funds invested in LCBs, including OFE CU, OFE PZU, OFE Skarbiec-Emerytura and OFE Pekao. The information about the purchasers of LCBs traded on the regulated market is not available.

**Outlook**

Several factors will support the development of the long-term corporate bond market in the following years. The expected continued high economic growth rate and investment growth, further development of the leasing sector, as well as the necessity to co-finance infrastructural projects implemented with the use of EU funds should result in the increased demand for the financing on the part of the companies, including the demand for funds obtained from the LCB issues.

However, there are still numerous barriers of the development of the LCB market, both on the part of supply and demand for those instruments. The supply constraints result from, among others, the structure of companies in the Polish economy. There are few private entities which can

**Figure 5.2.12. Purchasers of LCBs issued in the non-regulated market (as of year-end)**

![Figure 5.2.12. Purchasers of LCBs issued in the non-regulated market (as of year-end)](source: NBP study based on data submitted by banks – money market dealers serving as depositaries.)
conducted large issues, especially public offers, where the obtained funds would be cheaper than the funds from bank loans. The entities with foreign capital have alternative sources of financing – they borrow the funds from the entities from their capital group which decreases the supply of bonds on the domestic market. An important obstacle to the market development is also the level of practical knowledge about the costs of issue and potential benefits from the issues. The barriers of the development of the market of junk bonds (instruments with high credit risk) may include the provisions of the Consumer Protection Act which limit the interest on such bonds.

The interest of institutional investors in corporate bonds is insignificant due to the low value of a single issue, as well as the segmentation and low liquidity of the secondary market. Due to the low value of a single issue the effort put on the risk analysis and the investment monitoring does not correspond to the additional revenue which may be posted as compared to other investments e.g. in Treasury bonds. In the case of corporations owned by local government units, the solution could be the so-called pooled bonds, i.e. the issues with high unit value issued jointly by public utility companies (e.g. public transport, sewage and water supply companies, power companies). Low liquidity of the corporate bond secondary market results in the difficulty to value the instruments held in the financial institutions’ portfolios. The regulatory requirements for open pension funds in this regard make many of the issues unavailable to those funds. The poor development of the secondary market is the result of, inter alia, predominance of private placements often addressed to a limited group of investors and the lack of a common deposit and settlement chamber. In addition, very few corporate bond issues and their issuers have a rating which also poses a difficulty in the appropriate valuation of those instruments.

Market participants also claim that the demand for corporate bonds is limited by flaws in the law. One of the examples is the incomplete protection of the interests of revenue bond holders in the case of recovery proceedings initiated by the issuer. The regulations in force do not specify whether the revenue bonds optionally or obligatorily provide the bond holder with the right to satisfy his claims before other creditors of the issuer from the whole or a part of the property financed from the funds obtained from the bond issue.

5.2.2.3. Municipal bonds

The municipal bond market is one of the smallest segments of the capital market. In the euro area countries the share of the bonds belonging to other general government sector in the debt securities market amounted to 3.0% as at the end of 2006, and in Poland – to 1.1%.

Market size

At the end of 2005, the value of municipal bonds issued amounted to PLN 3.8 billion, the vast majority (87%) of which constituted long-term securities sold through non-public offering. After a period of a low growth rate of the outstanding value of debt securities issued by local government units it increased significantly in 2006. The value of outstanding municipal bonds increased by 15.1%.

A number of projects set up by local government units (LGUs) and related to environmental protection and road infrastructure, co-financed from the EU resources was the most important factor affecting development of the municipal bond market. The local government units’ demand for financing their own contribution within these projects was satisfied e.g. from the issue of bonds. Amendments regulating local government’s finances (see Box 5.2.1) positively affected use of the EU structural funds.

Fundamental advantages of issuing securities as compared to bank loans for local government units are e.g.: no need of hedging, longer financing horizon and longer grace period of payment, possible financing major infrastructural projects due to grater number of lenders reached and lower

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294 Local government sector debt securities and social security funds. Calculations for outstanding bonds nominated in euro on the basis of Eurostat data.
295 The outstanding value of short-term debt securities as at the end of 2006 was 1.2% of local government units’ outstanding value of securities issued.
financing costs resulting from the fact that the instrument is marketable. Moreover, the issue procedure is shorter and easier than financing with loan for the election of debt securities issue arrangers is not subject to the Act on Public Procurement law. A local government unit is obliged to organise a tender when it takes a loan. Yet, in spite of these advantages the municipal bonds’ role in financing borrowing needs of local government units was decreasing in 2005–2006. At the end

Box 5.2.1

**AMENDMENTS IN LOCAL GOVERNMENT UNITS’ FINANCES**

At the beginning of 2006 the Public Finance Act of 30 June 2005 entered into force. The Act introduced some amendments in local government units’ financial system, facilitating local governments to absorb EU resources from structural funds. Most important changes were related to:

- Defining borrowing needs of the local government units’ budget, which included:
  - financing budget deficit of local government units, repaying liabilities, carrying out other operations related to local government units’ debt, financing loans given by local government units, refinancing tasks implemented with the use of EU funds;
  - further specifying which tasks can be financed with local government units’ funds; this amendment enabled local governments to spend their funds on tasks specified in provisions other than acts, e.g. in the European Commission regulations;
  - no obligation of applying the limit of repaying local government units’ liabilities of 15% of expected income for a given budget year in connection with issuing securities, taking loans, pledges and guarantees related to using EU funds;
  - introducing the provision pursuant to which limitations related to local government units’ debt (the limit of 60% of realised income) do not apply to the tasks which are co-financed by the EU;
  - local government units obliged to receive an opinion of regional settlement chamber referring to the possibility of repaying liabilities if local government units apply for a credit or a loan as well as in case of intended issue of securities.


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296 The Act of 29 January 2004. The Act does not apply to contracts where the object of the contract includes: financial services related to the issue, sale, purchase or transfer of securities or other financial instruments, in particular when related to transactions aimed at obtaining financial resources or capital for the awarding entity (Article 4 (3) (j)).
of 2005, the share of liabilities for debt securities in total liabilities of local government units lowered to 15.1%. Loans and credits continued to be the basic source of financing borrowing needs of local government units. Loans and credits' share in local government units' liabilities amounted to 83.9%. Decreasing role of municipal bonds in raising funds was caused by limited demand of non-banking financial investors for the instruments, which resulted e.g. from too low value of single issue, market segmentation and insufficient transparency of local government finances.

In Poland the main issuers of municipal bonds are cities with poviat status. Instruments issued by these entities constituted 51.9% of total municipal bonds issued as of the end of 2006. The remaining groups of local government units use this instrument more rarely. The associations of local government units have not so far issued any debt securities.

The average maturity period of amount outstanding of municipal bonds amounted to 6.8 year, while voivodships issued for the longest periods (8.7 year on average). As at the end of 2006 bonds of original maturity of up to 5 years constituted 12.8% of municipal bonds' value, of maturity of 5 to 10 years – 72.6%, and of maturity of 10 years and more – 14.6%.

**Primary market**

In 2006, there were no significant changes in the organisation of the primary market of municipal bonds. Issues under private placement dominated the market. 99.8% of issue were placed in this way, which constituted about 85% of the value of municipal bonds available on the primary market in 2006. Issues of municipal bonds sold through non-public offering tended to be very low. The value of single issue amounted from PLN 70 thousand to PLN 60 million, while the average issue was PLN 1.6 million. In 2006, there was only one issue carried out as a public offering. The city of Poznań sold municipal bonds of PLN 116.5 million.

**Figure 5.2.14. Municipal bond issue arrangers – share in the municipal bond market, 2005–2006**

<table>
<thead>
<tr>
<th>A. 2005</th>
<th>B. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKO BP</td>
<td>2.9%</td>
</tr>
<tr>
<td>BOŚ</td>
<td>7.9%</td>
</tr>
<tr>
<td>ZEB</td>
<td>9.2%</td>
</tr>
<tr>
<td>PK Bank</td>
<td>1.4%</td>
</tr>
<tr>
<td>BZ WBK</td>
<td>37.2%</td>
</tr>
<tr>
<td>Nordea Bank</td>
<td>11.2%</td>
</tr>
<tr>
<td>Other</td>
<td>26.4%</td>
</tr>
</tbody>
</table>

Source: Fitch Polska SA.

Data refer to amount outstanding bonds on the unregulated market.
Generally, interest rate on bonds was variable and was based on 52-week Treasury bills’ profitability. The margin amount higher than the profitability depended, i.a., on the issuer nature, the form and volume of issue and maturities. The average margin for non-public bonds issued by municipalities amounted to 0.24 percentage points, for issued by poviat 0.17 percentage points, and by voivodships 0.16 percentage points. Bonds placed by the city of Poznań in 2006 had margin of 0.15 percentage points. In the future, due to limited issues of Treasury bonds there should be more bonds which interest will depend on WIBOR reference rates.

Considering the non-public nature of the majority of issues, banks were almost sole arrangers of the issues. Large banks with developed network of field branches. Bank development strategy and its organisational capabilities are the factors which decide about the scale of activity related to servicing municipal bonds’ issue. As in 2005, more than 60% of the value of debt securities’ bonds issued by local government units was prepared by two banks: PKO BP and Bank Pekao SA.

**Secondary market and investors**

Secondary trade in public municipal bonds took place in the RPW CeTO regulated off-exchange market. In 2006, 9 bond issues of PLN 608 million were traded on the regulated market. There were placed by 3 cities: Poznań, Ostrów Wielkopolski and Rybnik. There was one issue placed on the MTS-CeTO market – bonds of PLN 116.5 million belonging to the city of Poznań. In total, 4 issues belonging to the city of Poznań of PLN 500 million were traded on the regulated market, which constituted 82% of the value of municipal bonds on the market. In 2006, the value of transactions on the regulated market amounted to PLN 12.0 million and was nearly 3 times higher than in 2005. Yet the market liquidity was still very low for the turnover was only 2% of the face value of bonds issued by the three cities and introduced into the RPW-CeTO market.

The main reason for low liquidity of the municipal bond market was low value of single issues. The average value of issue on the regulated market amounted to PLN 68 million. Low liquidity was also affected by the type of interest rate. Bonds carrying variable interest rates are typically characterised as less liquid than instruments with fixed interest rate.

Non-public bonds could have been traded on the non-regulated secondary market (the OTC market). Banks acting as arrangers and depositaries at the same time were most often secondary market-makers for individual issues. The NBP has no information about the turnover on the OTC market. The market-makers believe transactions were made sporadically for most investors kept their bonds until they reach maturity.

Both domestic and foreign banks were the main purchaser group of municipal bonds directed to the unregulated market. In domestic banks’ portfolios was 78% of the value of

**Figure 5.2.15. Investors on the municipal bond market, 2005–2006 (as of the end of periods)**

<table>
<thead>
<tr>
<th></th>
<th>A. 2005</th>
<th>B. 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>77.9%</td>
<td>77.7%</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>3.6%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Enterprises</td>
<td>13.0%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Households</td>
<td>0.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Other entities</td>
<td>1.1%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: NBP based on data of 19 financial market dealers.
outstanding municipal bonds in 2006 (Figure 5.2.15). Such big share of banks in the purchaser structure of non-public municipal bonds is due to the fact that when arranging the issues, banks acquire a large part of the bonds to their deposit portfolio and, most often, keep them until the bonds reach maturity. Therefore, arranging and taking over issues constitute for some banks an alternative product for an investment loan for LGUs. Strong banks’ competitiveness in this respect causes margin reduction. The second most important group of purchasers of municipal bonds were foreign investors (15% share in the market).

**Outlook**

Good economic situation in Poland and intended growth of local government units’ infrastructural investments are the reasons for the municipal bond market development. An increase in the issues of municipal bonds will be affected by the necessity of finding funds for investments co-financed by the European Union. Yet it should be expected that in the nearest future the municipal bond market will remain small. The market is one of the smallest segments of the debt securities market in other EU countries as well.

Small lending capabilities of individual municipalities and powiats are the main barrier in effective functioning of the municipal bond market. Low scale of single issues causes low liquidity and transparency of the market. The problem could be solved by pooling of bond issues conducted by LGU’s associations.

The attractiveness of the investments made by investment funds and open pension funds (OFE) will be decreased by the following factors: low profitability of these instruments as compared to alternative deposits, non-public issues domination, low transparency and secondary market segmentation, rare evaluation of issues made by rating agencies. The municipal bond market in Poland could also develop by setting clear rules related to the situation when local government ceases paying its liabilities as well as rules related to receiving claims resulting from the liabilities.

5.2.2.4. Long-term commercial bank debt securities

Long-term bank debt securities (LBDS) are securities issued by commercial banks with maturities of at least one year. In Poland LBDS are issued as bank bonds and bank securities pursuant to the provisions of the Banking Law.

As at the end of 2006, nearly 70% of the outstanding value of long-term debt securities issued by Polish banks resulted from foreign currency issues directed to the foreign market. Dynamic growth of housing loan portfolio indexed to foreign currencies and very low demand of domestic institutional investors for instruments nominated in foreign currencies made some banks issue long-term bonds on foreign markets. Further in this chapter development of LBDS domestic market which consists of issues made in Poland and subject to Polish law regulations is described.

**Market size**

In 2006, there was a large growth of the outstanding value of long-term debt securities issued by domestic banks in Poland. At the end of the year, the outstanding value (LBDS in circulation on the Polish market) exceeded PLN 3 billion as compared to PLN 900 million in 2005 (Figure 5.2.16), of which vast majority (about 90%) was nominated in PLN. About 75% of the value of long-term debt securities was in the form of bank securities. The value of new LBDS issues amounted to more than PLN 2.3 billion in 2006, yet none of them was a public one. The average value of a single issue was about PLN 60 million.

As in previous years, LBDS were issued by specialised banks with a small branch network and low deposit base – entities active in the consumer finance market, banks specializing in lending for

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299. The market of mortgage issued by mortgage banks in Poland is described in the next chapter.
car purchase and mortgage banks. In 2006, large issues were made also by universal banks with significant share in the housing loan market. Due to the fact that recently loans have been growing faster than non-financial sector deposits, banks must more often use other sources of financing lending growth than deposits. In the situation of low interest rates some banks which competed with investment funds to acquire household savings offered long-term bank securities including derivatives (typically stock exchange index or precious metal price options). In most issues of these instruments the invested capital protection or the minimal value of the coupons paid was guaranteed. Contrary to structured deposits, structured bank securities (called deposit certificates) are marketable instruments, which enabled establishment of a secondary market for them. Investors can sell such securities to other investors via an issuer during sessions arranged with a specified frequency. If there was a lack of other investors, securities were purchased earlier. The minimal price at which bank repurchased bank securities was written in issuance programmes most often. The existence of a secondary market for such form of structured deposits encouraged customers to invest their funds for periods longer than one year. It is estimated that in 2006 banks sold structured bank securities of about PLN 1.5 billion, which was 65% of all LBDS issues and significantly contributed to the increase in the outstanding value of long-term debt securities issued by domestic banks in Poland.

High growth rate of the outstanding value of domestic issues (240%) resulted in the increase of this balance category in total liabilities (to 1.5%, as compared to less than 0.9% in 2005). The outstanding value of domestic and foreign LBDS issues shows that Polish commercial banks use this financing source to a little extent (Figure 5.2.17). The LBDS market remains poorly developed, as compared to the euro area countries. In 2006, the outstanding value of long-term debt securities, including asset-backed securities, issued by euro area banks exceeded EUR 3.2 trillion, 44% of which was the outstanding value of German banks. As at the end of 2006, the share of these instruments in the non-Treasury debt securities market in the euro area amounted to about 65%, while in Poland domestic banks’ debt securities with maturity longer than one year constituted 21% of the value of non-Treasury long-term debt securities.

In 2006, big changes were observed in the maturity structure of the outstanding value of LBDS issued by banks (Table 5.2.13). As compared to the previous year, the share of instruments issued for the period of up to 3 years increased significantly, while securities with original maturity of more than 5 years became less important. Maturity of the aforementioned structured bank securities issued in 2006 did not exceeded 36 months.

Long-term debt securities were issued on the domestic market also by foreign banks. In April 2006, another issue of 20-year zero-couponed European Investment Bank bonds of PLN 215 million nominal value were registered in KDPW. In November, 3-year PLN Deutsche Bank AG PLN bonds

**Figure 5.2.16. Outstanding value of long-term debt securities issued by banks on the domestic market, 2003–2006 (as of the end of periods)**

![Graph showing the outstanding value of long-term debt securities issued by banks on the domestic market, 2003–2006 (as of the end of periods)](image)

Source: NBP.
Financial markets

National Bank of Poland

were listed on the WSE. They were structured instruments for individual customers of PLN 13.3 billion nominal value. As at the end of 2006, the value of EiB bonds traded on the Polish market amounted to PLN 1,843.5 billion. In total, long-term debt securities of PLN 5.25 billion belonging to credit institutions were traded on the domestic capital market (Table 5.2.14).

Secondary market and investors

LBDS were traded both on the regulated market (WSE and RPW CeTO) and on the non-regulated market. In 2006, bonds of one domestic bank and Deutsche Bank AG were traded on the WSE. Bonds of other domestic banks and of the EiB were traded on the off-exchange RPW CeTO regulated market. As at the end of 2006, bonds of 3 commercial banks of PLN 112.6 million were traded on the regulated market. The value of transactions of bonds issued by domestic banks and bonds traded on the regulated market amounted to PLN 17.3 million (338 transactions). Net turnover was therefore lower than in 2005 (PLN 0.55 billion), when “anti-tax” bonds were purchased on the secondary market. The NBP has no information about the turnover on the OTC market.

The investors’ structure on the LBDS market differed depending on legal form of the instruments. In case of bank securities households remained the main group of investors. In 2006, their share increased from 49.8% to 65.9%, which means their involvement was of PLN 1.6 billion.
Second important group of investors were investment funds with 18.3% share. Funds invested also on the long-term bank bond market. Domestic banks and non-residents (international financial institutions) were also important investors on the long-term bank bond market. A large share of domestic banks in the investors’ structure was caused e.g. by the fact that one of banks acquired to its own portfolio bond of a mortgage bank that belonged to the same capital group.

**Outlook**

Due to a high growth rate of lending and a limited increase of bank deposits which is the result of an abundance of saving products offered by non-banking financial institutions (participation units of investment funds, unit-linked life insurance), banks will have to look for new sources of financing in the coming years. There are several possibilities to obtain financial resources, such as issues of debt instruments on the domestic and (or) foreign market, subordinated loans (including loans from dominant entities), securitisation of assets and the renewal of short-term loans on the interbank deposits market. Decisions on the methods and structure of financing will depend on the strategy of a given institution and a capital group to which a given commercial bank belongs. The successful issues of bank securities with embedded derivatives carried out in 2006 show that banks may efficiently compete with non-banking financial institutions and obtain funds from households at low cost.

**5.2.2.5. Mortgage bonds**

In Poland, mortgage bonds can be issued solely by mortgage banks. They are one of the sources of financing of mortgage loans granted by those financial institutions. As at the end of 2006, there were 3 mortgage banks operating on the Polish market, namely BRE Bank Hipoteczny SA, BPH Bank Hipoteczny SA and Śląski Bank Hipoteczny SA. The fourth entity was a branch of a foreign credit institution – Nykredit Realkredit A/S SA Branch in Poland, which launched its activities on 1 September 2005 and took over the liabilities of Nykredit Bank Hipoteczny (which had operated since 2003).

**Market size**

The mortgage bond market remained a small part of Polish capital market and the use of mortgage bonds was not as common as in other European countries. Mortgage banks still played insignificant role on the real estate financing market which was dominated by universal banks. In 2006, the share of mortgage banks in the total real estate financing by the banking sector amounted to around 3%.  

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300 Finansowanie nieruchomości przez banki w Polsce, Warsaw 2006, Commission for Banking Supervision.
Figure 5.2.19. Outstanding value of mortgage bonds issued by mortgage banks in Poland, 2003–2006, as of end of quarters

Source: NBP.

Table 5.2.15. Mortgage bond issues in Poland

<table>
<thead>
<tr>
<th>Bank name</th>
<th>Issue date</th>
<th>Maturity</th>
<th>Issue amount (millions)</th>
<th>Issue currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE Bank Hipoteczny SA</td>
<td>28.06.2000</td>
<td>5-year</td>
<td>5</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>14.09.2001</td>
<td>3-year</td>
<td>10</td>
<td>USD</td>
</tr>
<tr>
<td></td>
<td>14.09.2001</td>
<td>3-year</td>
<td>5</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>20.11.2001</td>
<td>4-year</td>
<td>10</td>
<td>USD</td>
</tr>
<tr>
<td></td>
<td>20.05.2002</td>
<td>6-year</td>
<td>10</td>
<td>USD</td>
</tr>
<tr>
<td></td>
<td>20.05.2002</td>
<td>7-year</td>
<td>10</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>29.07.2002</td>
<td>4-year</td>
<td>50</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>10.04.2003</td>
<td>5-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>20.05.2003</td>
<td>5-year</td>
<td>20</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>23.10.2003</td>
<td>5-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>20.05.2004</td>
<td>5-year</td>
<td>25</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>20.05.2004</td>
<td>5-year</td>
<td>25</td>
<td>USD</td>
</tr>
<tr>
<td></td>
<td>14.04.2005</td>
<td>5-year</td>
<td>100</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>21.11.2005</td>
<td>5-year</td>
<td>10</td>
<td>USD</td>
</tr>
<tr>
<td>BPH Bank Hipoteczny SA</td>
<td>29.12.2000</td>
<td>10-year</td>
<td>3,63</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>29.04.2002</td>
<td>5-year</td>
<td>22</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>16.05.2002</td>
<td>5-year</td>
<td>8</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>16.05.2002</td>
<td>5-year</td>
<td>10</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>2.06.2005</td>
<td>7-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>18.08.2005</td>
<td>0.5-year</td>
<td>150</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>21.11.2005</td>
<td>5-year</td>
<td>400</td>
<td>PLN</td>
</tr>
<tr>
<td></td>
<td>5.04.2006</td>
<td>5-year</td>
<td>200</td>
<td>PLN</td>
</tr>
<tr>
<td>Śląski Bank Hipoteczny SA</td>
<td>24.01.2003</td>
<td>4-year</td>
<td>3</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>29.11.2004</td>
<td>3-year</td>
<td>30</td>
<td>PLN</td>
</tr>
</tbody>
</table>

1 Public issues and issues in secondary trading on the regulated MTS-CoTo market.
2 Issues already purchased as at the end of 2006.

Source: NBP.
In 2006, the outstanding value of mortgage bonds issued by banks did not change significantly and amounted to PLN 1.74 billion at the end of the year (Figure 5.2.19), out of which public issues accounted for PLN 1.3 billion. Within the analysed period, BPH Bank Hipoteczny was the only bank that issued mortgage bonds in PLN. The value of the issue was PLN 200 million. The issue was a part of the issue programme which began in June 2005 (Table 5.2.15). In accordance with the conditions laid down in the issue documentation, BRE Bank Hipoteczny repurchased a tranche of mortgage bonds worth PLN 50 million, while BPH Bank Hipoteczny repurchased instruments worth PLN 150 million. A small decrease in the value of outstanding mortgage bonds concerned the instruments denominated in foreign currencies and resulted solely from exchange rate differences.

Small value of new bond issues was mainly the result of using other sources of financing. Mortgage banks supplemented their equity with subordinated loans and funds obtained from the issues of short-term bonds without security. Decrease in the importance of bonds as an instrument for the financing of lending resulted from the increasing outstanding value of bonds issued by mortgage banks and the growth of deposits from non-financial entities (Figure 5.2.20). Small number of new issues was also reflected in the decrease in the share of mortgage bonds in the liabilities of the banking sector resulting from the issue of debt securities on the domestic market.

The interest on all issues of mortgage bonds in PLN was floating and depended on the fluctuations of the 6M WIBOR reference rate and the margin established in the issue conditions which remained within the range of 10 to 60 basis points.

**Secondary market and investors**

The secondary trading in mortgage bonds took place on both the regulated and unregulated markets. In 2006, only the instruments issued by BPH Bank Hipoteczny were traded on the regulated market – RPW-CeTO Debt Instruments Market. There were 64 transactions with the total nominal value exceeding PLN 6 millions registered in the National Depository for Securities. There was also one package transaction worth PLN 3.1 million. Three public issues of mortgage bonds of BRE Bank Hipoteczny were also traded on the regulated market, but there were no transactions in those instruments in 2006. The function of arrangers, paying agents, dealers and depositaries of non-public mortgage bonds is usually vested in the banks from the same capital group. Those banks also arrange secondary trading in those instruments on the unregulated market. The information about the turnover on this market is not available.

As at the end of 2006, banks were still the main investors in mortgage bonds but their share fell by 6 percentage points to 53%. International financial institutions and investment funds

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301 The presented data concern only the purchasers of mortgage bonds sold as non-public issues and in secondary trading on the unregulated market.
increased their share in the market. However, one must remember that due to the small value of mortgage bonds traded on the domestic market, single transactions may cause significant changes in the structure of purchasers.

**Outlook**

The development of the mortgage bond market depends on the situation on the real estate market which determines the demand for the financing of construction projects and the strategy of the bank groups’ operations on the real estate financing market. With the predicted good condition of the Polish economy, the demand for the financing of housing construction and commercial real estate is expected to grow. It seems, however, that mortgage banks will stay behind commercial banks, especially with regard to the financing of the most dynamically developing housing segment. The operating and financing strategy of mortgage banks is specified at the level of banking groups to which they belong, and the market of retail housing loans is dominated by the universal banks sector.

With the growing competition on the housing loan market, mortgage banks should develop their activities by granting loans for the financing of commercial real estate, housing projects of developers and the investments of local government units. In 2006, their share in the financing of commercial real estate by the banking sector was relatively high and amounted to over 13%. In the coming years, Polish local governments which want to implement infrastructural projects using EU funds will search for funds to co-finance those investments. The loans granted to local government units for infrastructural projects and municipal construction projects may be refinanced with the issue of public mortgage bonds. However, no public mortgage bonds were issued on the Polish market by the end of 2006.

The following years should also see the development of the financing of public hospitals and Health Care Centres. One of the mortgage banks already granted loans for the restructuring programmes of health care institutions with the warranties of local government units (the founders) as a security. The financing of the public sector allows mortgage banks to diversify their loan portfolio by including exposure which is not directly related to the real estate market.

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302 According to the Act of 29 August 1997 on mortgage bonds and mortgage banks (Dz.U. of 2003, No. 99, item 919), mortgage banks can issue two types of bonds: mortgage and public mortgage bonds. Mortgage bonds are secured with mortgage while the basis for the issue of public mortgage bonds includes the receivables of the mortgage bank from loans for the public sector.
5.2.2.6. NBP bonds

Since 2002 10-year NBP bonds worth PLN 7.82 billion are traded. They will be repurchased on March 1, 2012. In 2006, the net turnover in NBP bonds amounted to PLN 18.4 billion (PLN 2.3 billion in 2005).\(^3\) Conditional transactions accounted for almost 30% of the total value of transactions.

5.2.3. Equities market

Apart from stocks, the domestic equities market includes such instruments as allotment certificates, subscription rights and priority rights. Stocks are traded on the WSE and RPW CeTO, while other instruments are traded only on the WSE.

5.2.3.1. WSE equity market

Basic indicators of the stock market development, namely, capitalization, turnover and the number of listed companies significantly increased in 2006. The capitalisation of domestic and foreign companies increased by 49.7% and amounted to PLN 635.9 billion at the end of December. The capitalisation of domestic companies amounted to PLN 437.7 billion and was by 42% higher than in the previous year. In 2006, the total net turnover in stocks increased by 75.1% as compared to 2005 and amounted to PLN 167.3 billion. At the end of December, there were 284 companies listed on the WSE i.e. 29 entities more than at the end of 2005.

**WSE capitalisation**

The market capitalisation is determined by the following factors: changes in stock prices, new listings of companies, delistings of companies and new issues of stocks of already listed companies. In 2006, the increase in the capitalisation of the Warsaw Stock Exchange resulted mainly from the increase in the stock prices. The main WIG20 index which includes the largest and the most liquid companies improved its record 23 times and its value as at the end of 2006 was by 23.8% higher than at the end of 2005 (Figure 5.2.23). The WIG20 index reached its year maximum, which is at the same time the historical maximum, on 18 December (3 429.79 points). WIG broad market index set its record as many as 44 times. As at the end of 2006, its value was 41.6%\(^4\) higher than at the end of 2005. The WIG index reached its historical maximum, on 5 December (52 370.79 points). The highest growth in 2006 was recorded by the indices of small and medium-sized enterprises, i.e. WIRR and MIDWIG (132.4% and 69.1%, respectively).

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\(^3\) Data on net turnover include the value of outright and conditional transactions, calculated according to the value of original exchange.

\(^4\) WIG index is a total return index, i.e. it includes subscription rights and dividends, while the WIG20 index is a price index. When listed companies pay out dividends, the growth of the total return index is usually higher than the growth of the price index. Such a situation took place in 2006.
Financial markets

In the first months of 2006, the upward trend, which began in 2005, was maintained. In mid-May there was a significant correction on the stock market which continued until mid-June. WiG and WiG20 fell by over 20% within that period. The correction was global but the scale of price reductions on emerging markets (including in Poland on the WSE) was stronger than on the developed markets. Stock prices continued to increase from mid-June until almost the end of the year. There was a small price correction in December which affected mostly the stocks of small companies included in the WiRR index.

The growth of indices on the WSE in 2006 was higher than on other markets of Central and Eastern Europe. The Vienna Stock Exchange index (ATX) grew by 21.7%, the Budapest Stock Exchange index (BUX) by 19.5% and the Prague Stock Exchange index (PX) by 7.9%.

Apart from price increases, the listing of new companies on the stock market and the delisting of companies also had a significant impact on the capitalisation of the WSE. In 2006, 38 companies with the total capitalisation of PLN 87.8 billion debuted on the WSE, out of which domestic companies accounted for PLN 9.6 billion. The WSE was again among the top European stock exchanges in terms of the number of IPOs (Figure 5.2.24). The companies listed on the WSE conducted secondary public offerings (SPO) worth PLN 3.7 billion. Nine companies with the value of PLN 29.0 billion were delisted (Box 5.2.2), including 8 domestic companies with the value of PLN 5.1 billion.

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Owing to the large number of IPOs, the number of companies listed on the WSE has increased significantly, and the Warsaw Stock Exchange maintained its dominating position in this respect among the markets in the region of East and Central Europe. However, due to the relatively low capitalisation of the companies which entered the WSE in 2006 and in the previous years, the average capitalization of companies listed in Warsaw was much lower than in the other markets of the region (Table 5.2.18). Big number of companies with low capitalisation results in the decrease of market liquidity because the liquidity of the equity market is positively correlated with the size of listed companies.305

Table 5.2.16. WSE stock market, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange capitalisation, year-end (PLN million)</td>
<td>167,717</td>
<td>291,697</td>
<td>424,800</td>
<td>635,909</td>
</tr>
<tr>
<td>– of which domestic companies</td>
<td>140,002</td>
<td>214,313</td>
<td>308,418</td>
<td>437,719</td>
</tr>
<tr>
<td>Capitalisation as a proportion of GDP (%)</td>
<td>16.6</td>
<td>23.2</td>
<td>31.9</td>
<td>41.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>203</td>
<td>230</td>
<td>255</td>
<td>284</td>
</tr>
<tr>
<td>– of which foreign companies</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Number of IPOs</td>
<td>6</td>
<td>36</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Value of IPOs (PLN billion)</td>
<td>–</td>
<td>13.2</td>
<td>7.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Number of delisted companies</td>
<td>19</td>
<td>9</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Free float / capitalisation of domestic companies (%)</td>
<td>43.6</td>
<td>41.4</td>
<td>43.1</td>
<td>41.7</td>
</tr>
<tr>
<td>WIG index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– year-beginning</td>
<td>14,378.1</td>
<td>21,299.4</td>
<td>26,709.5</td>
<td>36,046.6</td>
</tr>
<tr>
<td>– year minimum</td>
<td>13,502.7</td>
<td>21,299.4</td>
<td>25,206.5</td>
<td>36,020.7</td>
</tr>
<tr>
<td>– year maximum</td>
<td>22,033.8</td>
<td>26,636.2</td>
<td>36,068.6</td>
<td>52,370.8</td>
</tr>
<tr>
<td>Return on index (%)</td>
<td>44.9</td>
<td>27.9</td>
<td>33.7</td>
<td>41.6</td>
</tr>
<tr>
<td>Investment accounts at year-end (thousands)</td>
<td>947</td>
<td>851</td>
<td>853</td>
<td>909</td>
</tr>
</tbody>
</table>

1 Capitalisation calculated for all companies listed on the WSE (both domestic and foreign).

Source: WSE.

305 In the years 2004–2006, the average weekly spread for large companies included in the WIG20 amounted to basis points 37, and for medium companies included in the MIDWIG – 91 basis points.
In 2006, the WSE free float increased by 37.2% and at the end of the year it equaled PLN 182.4 billion. In 2003–2006 the relation of free float to the capitalisation of the equity market was stable and oscillated around 42.5%. Owing to a rise in the number of companies listed on the WSE and the increasing capitalization of the market, the changes in the shareholders’ structure of individual companies have a decreasing impact on the free float of the whole market.

Box 5.2.2

PUBLIC OFFERING OF SHARES ON THE WSE AND CASES OF WITHDRAWING COMPANIES FROM THE STOCK EXCHANGE IN 2004–2006

In 2004–2006, 109 companies conducted IPOs on the WSE, and 28 enterprises were withdrawn from the WSE. The total capitalisation of companies that conducted IPOs on the WSE amounted to PLN 179.8 billion, including PLN 74.4 billion of domestic companies’ capitalisation. Among the companies whose shares were introduced to trading on the Warsaw Stock Exchange, there were 12 foreign enterprises including the largest company in the region in respect of capitalisation – a Czech energy concern, CEZ. In 2006, the Warsaw Stock Exchange registered the highest IPO of a private company in its history. In November the company Multimedia Polska sold its shares worth PLN 803.9 billion.
Despite a similar number of IPOs on the WSE in 2004–2006, their value was systematically decreasing. In 2004, the average value of IPO amounted to PLN 365.8 billion, in 2005 – PLN 199.5 billion, and in 2006 – PLN 109.0 billion. The decrease of the average IPO value resulted, among other things, from halting of the privatisation of enterprises through the WSE. In 2004–2006, the largest debuts on the Warsaw Stock Exchange were those of state-owned companies (Table 5.2.2). In 2004, the Warsaw Stock Exchange saw two debuts of state-owned companies (WSiP and PKO BP), in 2005 – 7 state-owned companies (including large fuel and energy companies, such as PGNiG and the lotos Group), while in 2006 only one company owned by the State Treasury (Ruch) was privatized through the WSE.

Table 5.2.17. Privatisations of state-owned companies through the WSE, 2004–2006

<table>
<thead>
<tr>
<th>Company</th>
<th>Date of debut</th>
<th>Value of offers (in PLN billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSiP</td>
<td>3 November 2004</td>
<td>239.1</td>
</tr>
<tr>
<td>PKO BP</td>
<td>10 November 2004</td>
<td>7,892.5</td>
</tr>
<tr>
<td>Zelmer</td>
<td>27 January 2005</td>
<td>169.0</td>
</tr>
<tr>
<td>Ciech</td>
<td>10 February 2005</td>
<td>277.3</td>
</tr>
<tr>
<td>Polmos Białystok</td>
<td>12 May 2005</td>
<td>306.0</td>
</tr>
<tr>
<td>Grupa Lotos</td>
<td>9 June 2005</td>
<td>1,015.0</td>
</tr>
<tr>
<td>Police (chemical company)</td>
<td>14 July 2005</td>
<td>154.5</td>
</tr>
<tr>
<td>PGNiG</td>
<td>23 September 2005</td>
<td>2,682.0</td>
</tr>
<tr>
<td>Pulawy</td>
<td>19 October 2005</td>
<td>297.8</td>
</tr>
<tr>
<td>Ruch</td>
<td>22 December 2006</td>
<td>248.8</td>
</tr>
</tbody>
</table>

Source: WSE.

The decreasing average value of IPO is a negative phenomenon for the development of the equity market on the Warsaw Stock Exchange. Debuts of large companies are especially important from the point of view of institutional investors (Open Pension Funds, investment funds), which manage large assets. These investors are mainly interested in companies with high capitalisation and high free float. There were significant changes to the structure of IPOs. In 2004, the value of new share issues accounted only for 11.5% of the total value of IPOs, while in 2005 they accounted for 75%, and in 2006, almost 60%. The low fraction of new share issues in the total value of IPOs in 2004 was influenced by the offer of PKO BP of PLN 7.9 billion. In this IPO only old share issues were sold. The structure of IPOs is essential because the funds from the sale of new share issues go to the issuer, while the funds from the sale of old share issues go to the seller and are not a means of financing enterprises.

In 2004–2006, companies listed on the WSE also conducted secondary public offerings with the value comparable to IPOs. Also in the case of SPO, the value of offered shares decreased. Lower value of SPOs could result from, inter alia, the increase of profitability of listed companies.

In 2004–2006, shares of 28 companies were withdrawn from the Stock Exchange, including the shares of one foreign company – IVAX Corp. Their total capitalisation exceeded PLN 35.0 billion, of which almost PLN 24.0 billion fell to IVAX Corp. In most cases, the reasons for withdrawal from the WSE were takeovers by other entities and mergers. In 6 cases companies were delisted owing to bankruptcy.
In 2006, the total net turnover in shares on the WSE increased by 75.1% and amounted to PLN 167.3 billion. The increase in turnover was caused both by the increase in the price of shares and the increase in the number of transactions. The increase in turnover resulted from the increase in the value of session transactions. The value of block trades decreased. In 2006, investors executed almost 11 million session transactions, which means 127-percent increase in comparison with the previous year. The increase in the number of transactions resulted from the high activity of individual investors, which is demonstrated by the fall of average transaction value by almost 20%, to PLN 14,750. Higher activity of investors was mainly caused by the bull market. Rising share prices were also attracting new investors to the market. The number of securities accounts as at the end of 2006 amounted to 909,000 and was 6.5% higher than at the end of 2005. In addition, the increase in volatility of daily rates of return on indexes enhanced the attractiveness of the market to speculating investors.

High turnover was recorded on the equity market in January, May and in the fourth quarter of 2006 (Figure 5.2.26). High value of transactions in January resulted, among other things, from high inflow of funds to investment funds. These funds were mostly invested in shares of companies.

Table 5.2.18. The number and average capitalization of domestic companies listed on the stock exchanges in East and Central Europe, 2003–2006

<table>
<thead>
<tr>
<th>Number of domestic companies</th>
<th>Average capitalization of domestic companies (EUR million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest</td>
<td>50</td>
</tr>
<tr>
<td>Prague</td>
<td>37</td>
</tr>
<tr>
<td>Warsaw</td>
<td>188</td>
</tr>
<tr>
<td>Vienna</td>
<td>104</td>
</tr>
</tbody>
</table>

Note: in accordance with the methodology applied by the FESE, the number of domestic companies does not include Exchange Traded Funds (ETF). The list of stock exchanges does not include the National Investment Funds (NFI) and the companies, who, until the end of each year, introduced to the stock exchange only allotment certificates.

Source: NBP calculation based on the data from FESE.

Turnover306

In 2006, the total net turnover in shares on the WSE increased by 75.1% and amounted to PLN 167.3 billion. The increase in turnover was caused both by the increase in the price of shares and the increase in the number of transactions. The increase in turnover resulted from the increase in the value of session transactions. The value of block trades decreased. In 2006, investors executed almost 11 million session transactions, which means 127-percent increase in comparison with the previous year. The increase in the number of transactions resulted from the high activity of individual investors, which is demonstrated by the fall of average transaction value by almost 20%, to PLN 14,750. Higher activity of investors was mainly caused by the bull market. Rising share prices were also attracting new investors to the market. The number of securities accounts as as at the end of 2006 amounted to 909,000 and was 6.5% higher than at the end of 2005. In addition, the increase in volatility of daily rates of return on indexes enhanced the attractiveness of the market to speculating investors.

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306 In the previous editions of this report, the turnover was presented in gross amounts (i.e. double). In this edition, just as in the statistics of the Federation of European Securities Exchanges (FESE), we presented the net turnover (value of transaction).
listed on the WSE. Very high activity in May resulted from the increased volatility of share prices noticed during correction. Net turnover in this month amounted to almost PLN 18.0 billion and were the highest in the history of the WSE. However, the May record was broken already in November 2006, when the net turnover reached PLN 20.4 billion. High activity in the share market in the last quarter could result from the dynamic increase in stock exchange indexes and from the high inflow of funds to investment funds.

**Participants**

In 2006, the value of equity portfolio of all investor groups rose. It resulted from the dynamic increase in prices, and in case of some groups of market participants, also from the net share purchases. The WSE data show that as at the end of 2006 that non-residents, with a 35-percent share in the WSE capitalisation (Figure 5.2.27), were the main group of investors on the equity market. According to the information of the NBP collected for the purpose of preparing the international investment position of Poland, the involvement of non-residents in the Polish share market was much higher and amounted to 51.6% at the end of December (Figure 5.2.28). The differences between the WSE and NBP data result from the different methodology applied. The WSE data are originated from annual reports of companies, which constitute around 90% of the market in respect of capitalization. In addition, these data concern only those investors who control over 5% of the company’s shares. In contrast, the NBP takes into account in its statistics shares controlled by all foreign investors in all listed companies.

Despite a significant increase in the value of foreign investors’ portfolio in 2003–2006, their share in the capitalization of the WSE decreased by almost 10 percentage points, as high equity prices on the Warsaw Stock Exchange and high demand for these instruments from domestic investors provided a good opportunity for the non-residents to take profits and transfer their capital to other markets. In addition, foreign investors were not interested in buying shares of
debuting companies because the issues of small and medium-sized enterprises prevailed in the IPOs. From October 2005 to June 2006, the monthly balance of non-residents’ transactions in shares was negative (Figure 5.2.29). Throughout 2006, foreign investors sold Polish shares worth PLN 6.3 billion net.

In 2006, as in previous years, the equities of companies included in the WIG20 index prevailed in foreign investors’ portfolio. In comparison with 2005 the share of equities of medium-sized companies from MIDWIG index and small companies (Figure 5.2.30) increased. This resulted in a quicker increase in prices of shares of small- and medium-sized companies than companies from the WIG20 index.

The second most important group of market participants were domestic institutional investors (including mainly investment funds and Open Pension Funds). Due to the high inflow of funds to investment funds, in 2006 they purchased shares worth net PLN 10.9 billion. The balance of Open Pension Funds’ transactions was much lower and amounted to PLN 1.6 billion.

Individual investors and the Treasury had a significant share in the capitalization of domestic companies listed on the WSE (17.1% and 15.8% respectively). The fact that the Treasury is a shareholder of listed companies results from the fact that only part of shares is sold in IPOs. However, the Treasury has been a passive investor, i.e. it has not participated in trading on the WSE.

Figure 5.2.27. Investors on the equity market in Poland, 2005–2006 (share in capitalization of domestic companies)

[Diagram]

Source: WSE.

Figure 5.2.28. Share of foreign investors in the capitalization of the WSE, 2004–2006

[Diagram]

Source: NBP.
2006 saw important changes in the investors’ structure of the session turnover in equities on the WSE. The most active group of investors on the market were individuals, who executed transactions worth PLN 56.2 billion and significantly increased their share in turnover (Figure 5.2.31). Despite a significant growth in value of executed transactions (from PLN 36.0 billion to PLN 49.8 billion), the share of foreign investors decreased by 10 percentage points and reached the lowest value since 2000. The decrease in the share of non-residents in turnover resulted from the outflow of foreign portfolio capital from the WSE. Domestic institutional investors executed transactions worth PLN 54.6 billion. Their share in turnover on the equity market was stable in the last few years.
**Outlook**

According to a positive outlook for the Polish economy, the share market on the WSE will be developing in the next years. The number of listed companies, the capitalization and the turnover will probably increase. Promotion actions of the WSE should result in an increased interest of investors in investing on the WSE and in an increased use of equity issues by enterprises as a source of capital. An important measure for the development of the Polish equity market taken by the WSE is developing a new trading platform, planned for 2007, which will be addressed to companies with a high growth potential and higher investment risk.

An important factor for the development of the equity market on the WSE would be further privatization of state-owned companies. In the next years we can expect privatization through the WSE of, *inter alia*, large companies from the energy sector. These offers would result in the improvement of liquidity of the equity market on the WSE and would increase the attractiveness of this market to foreign investors. The liquidity would be positively influenced by the change in regulations concerning short sale. According to market participants, a question which needs to be regulated is the issue of transferring of securities before recording them on the investment account by the transferor and exempting security loans from the tax on civil law transactions. Short sale makes it possible to make profits on decreases in share prices and this way minimizes the effect of fall in turnover characteristic for the bear market.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Athens</td>
<td>340</td>
<td>321</td>
<td>304</td>
<td>290</td>
<td>Athens</td>
<td>40.8</td>
<td>38.2</td>
<td>42.4</td>
<td>53.9</td>
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<tr>
<td>Budapest</td>
<td>49</td>
<td>46</td>
<td>44</td>
<td>41</td>
<td>Budapest</td>
<td>54.4</td>
<td>50.5</td>
<td>70.4</td>
<td>77.7</td>
</tr>
<tr>
<td>Dublin</td>
<td>66</td>
<td>65</td>
<td>66</td>
<td>68</td>
<td>Dublin</td>
<td>57.6</td>
<td>43.3</td>
<td>56.3</td>
<td>52.2</td>
</tr>
<tr>
<td>Euronext</td>
<td>1,047</td>
<td>999</td>
<td>966</td>
<td>954</td>
<td>Euronext</td>
<td>103.3</td>
<td>110.7</td>
<td>102.2</td>
<td>106.9</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>866</td>
<td>819</td>
<td>764</td>
<td>760</td>
<td>Frankfurt</td>
<td>133.1</td>
<td>140.8</td>
<td>149.3</td>
<td>174.3</td>
</tr>
<tr>
<td>London</td>
<td>2,692</td>
<td>2,837</td>
<td>3,091</td>
<td>3,256</td>
<td>London</td>
<td>165.0</td>
<td>200.3</td>
<td>176.8</td>
<td>208.2</td>
</tr>
<tr>
<td>Milan</td>
<td>279</td>
<td>278</td>
<td>282</td>
<td>311</td>
<td>Milan</td>
<td>148</td>
<td>133.1</td>
<td>155.2</td>
<td>161.6</td>
</tr>
<tr>
<td>Prague</td>
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<td>55</td>
<td>39</td>
<td>32</td>
<td>Prague</td>
<td>61</td>
<td>69.6</td>
<td>112.2</td>
<td>86.5</td>
</tr>
<tr>
<td>Warsaw</td>
<td>189</td>
<td>230</td>
<td>255</td>
<td>279</td>
<td>Warsaw</td>
<td>30.1</td>
<td>25.2</td>
<td>30.4</td>
<td>38.3</td>
</tr>
<tr>
<td>Vienna</td>
<td>125</td>
<td>120</td>
<td>111</td>
<td>113</td>
<td>Vienna</td>
<td>21.9</td>
<td>30.0</td>
<td>35.0</td>
<td>44.4</td>
</tr>
</tbody>
</table>

**Table 5.2.20. Main indicators of European stock exchanges, 2003–2006**

1 The number of listed companies includes domestic and foreign companies, with the exception of ETF funds. In case of the Warsaw Stock Exchange, it does not include the National Investment Funds shares.
2 The turnover ratio is calculated as turnover in a given year to capitalization at the end of the year.

Source: calculations of the NBP based on the FESE data.
The analysis of trends existing on the WSE in the last few years, i.e. of the increase in the number of listed companies, rising capitalization and turnover, and of the situation on other East and Central Europe stock exchanges shows that the Warsaw Stock Exchange will strengthen its position in this part of Europe. An important risk for the possible expansion of the WSE in the region will be the competition of the Vienna Stock Exchange. As at the end of 2006, the capitalization, turnover and liquidity of this stock exchange were higher and companies listed on it had a higher average market value (Table 5.2.20). Moreover, the Vienna Stock Exchange has already joint the process of consolidation of Central European stock exchanges – in 2004 it bought a 12.5% package of shares of the Budapest Stock Exchange. It confirms that it intends to integrate stock exchanges in this region of Europe. Another risk for the development of the WSE is the competition of large European stock exchanges in gaining issuers from other countries (for example Ukraine, Russia and Baltic states) considering a debut on foreign stock exchanges. Such stock exchanges as the London Stock Exchange and the Deutsche Boerse have an established position and are experienced in attracting foreign companies. In the future, the competition between the WSE and large European stock exchanges for foreign issuers may become tighter. Moreover, it should be expected that, in the future, these stock exchanges will also actively compete for Polish companies.

5.2.3.2. Securities Market – CeTO

Market size

The companies listed on the CeTO Securities Market were still SMEs. In 2006, the capitalization of this market increased by 51.5% and reached PLN 574.1 billion at the end of the year. The increase in capitalization resulted in the increase of share prices. At the end of December, the ITO index reached 30,993 points and was almost three times higher than at the end of 2005. The number of companies listed on the CeTO Securities Market decreased by 3 entities, which transferred the trade in their shares to the WSE (Table 5.2.21).

In the analysed period, the turnover on the CeTO market decreased by 27.7%, to PLN 26.7 million. It resulted from the decrease in the value of package transactions (Table 5.2.22). Total turnover was falling systematically from 2000 (except 2005) because of the decreasing number of listed companies and decreasing interest of investors in this market. Investors who intended to invest in shares preferred the companies listed on the WSE because of the larger size and higher liquidity of this market.

In 2006, the turnover structure changed. Individual transactions prevailed – their share in the total turnover in shares on the CeTo Securities Market amounted to 94.9% and was higher by 66 percentage points than in 2005. This resulted from an increased activity of individual investors (increase in the average daily number of transactions from 9 to 44) and from the decrease in the number of package transactions. As a result of the increase in the number of individual transactions and in the share prices, the average turnover per session doubled and reached PLN 0.1 million (Table 5.2.22).

Outlook

The importance of the share market on CeTO has been decreasing over the last few years. This results mainly from the competition of the WSE, where the trade in shares in Poland is concentrated. In 2006, the WSE made it easier for the companies listed on the CeTO Securities Market to transfer their shares to the WSE. Until the end of the year, 3 companies took the WSE's

<table>
<thead>
<tr>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of listed companies</td>
<td>24</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Capitalization (PLN million)</td>
<td>322.6</td>
<td>275.3</td>
<td>192.8</td>
<td>203.7</td>
<td>335.4</td>
<td>344.3</td>
<td>378.8</td>
</tr>
<tr>
<td>ITO index (in points)</td>
<td>15,549</td>
<td>15,254</td>
<td>9,115</td>
<td>9,776</td>
<td>9,704</td>
<td>9,457</td>
<td>10,047</td>
</tr>
</tbody>
</table>

Source: MTS-CeTO.
Financial markets

offer. It seems that in the next years companies listed on the CeTO Securities Market will transfer their shares to the WSE or withdraw them from the regulated market. Consequently, the share market on this platform will cease to exist, and the company organizing this market (MTS CeTO) will only manage the debt securities market (Treasury, municipal and corporate debt securities). It could be expected that transferring shares from the CeTO Securities Market to the WSE would be beneficial for companies, as their securities would gain more liquidity due to, among others, a larger base of investors. Concentration of trading in shares on one platform would be beneficial for investors, as it would facilitate the analysis of the whole share market. Attracting new issuers by the WSE would positively influence its capitalization and turnover.

5.2.3.3. Other equities – allotment certificates, subscription rights and pre-emptive rights

In 2006, companies conducted 55 issues of allotment certificates on the WSE and 36 issues of subscription rights (Figure 5.2.32). In comparison with 2005, the total value of these issues

<table>
<thead>
<tr>
<th>Table 5.2.22. Net turnover in shares on the CeTO Securities Market, 1999–2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>CeTO Securities Market</td>
</tr>
<tr>
<td>1. Total annual turnover (PLN million)</td>
</tr>
<tr>
<td>– session turnover (excluding package transactions)</td>
</tr>
<tr>
<td>– average turnover per session</td>
</tr>
<tr>
<td>2. Average number of transactions per session</td>
</tr>
</tbody>
</table>

Source: MTS-CeTO.

Figure 5.2.32. Issues of allotment certificates and subscription rights, 2003–2006

Note: the value of issues is calculated according to the closing price on the first day.
Source: WSE.

Figure 5.2.33. Net turnover in allotment certificates and subscription rights, 1999–2006

Source: WSE.
increased by 272.4% and amounted to PLN 17.3 billion, of which PLN 10.8 billion were allotment certificates. Also pre-emptive rights (subscription warrants), issued by Netia, were listed on the WSE. The last series of these instruments expired on 29 April 2006.

The turnover in allotment certificates and subscription rights is strictly connected with the activity of companies in obtaining capital through the WSE, i.e. with the value of issues of shares and allotment certificates in the IPOs and SPOs. In 2006, the net turnover in allotment certificates and subscription rights amounted to PLN 2.6 billion, which was over 13-percent less than in 2005 (Figure 5.2.33). The decrease in turnover concerned only the allotment certificates. The value of transactions in these instruments decreased by 30% and for the whole year it amounted to PLN 2.1 billion. The turnover in subscription rights increased eleven times and amounted to more than PLN 0.5 billion. High turnover in subscription rights in 2006 resulted from the strategy of companies listed on the stock exchange. While obtaining capital in secondary issues of shares, enterprises allowed their shareholders to keep their share in the company and conducted issues of shares with subscription rights more often than in the previous years.
5.3. Spot FX market

In 2006, the downward tendency in the turnover of the zloty spot market stopped. The average daily turnover in that market amounted to about PLN 4 billion. Similarly as in 2005, the offshore market recorded a marked increase in the value of zloty exchange transactions. Increased turnover in the London-based market was due to the investments of foreign financial institutions in assets denominated in zlotys, high hedge fund activity and the use of the algorithmic trading. The total turnover in the zloty market (domestic and offshore) is estimated at PLN 9.3 billion. The dominant currency pair on the zloty market was EUR/PLN, and the level of this exchange rate was the best indicator of the strength of the zloty. In 2006, the share of EUR/PLN transactions in the currency composition of the interbank market turnover stabilised at the level of over 90%.

The size of the market

The zloty market in Poland was the largest and most liquid among the currency markets in our region. In 2006, the average daily value of zloty exchange transactions in the domestic market (deals where at least one party is a resident) was almost twice as high as the value of transactions in the Czech koruna market (Table 5.3.1). As compared to 2005, turnover in the local forint market increased by 30% and was already only USD 150 million lower than that on the zloty market in Poland. All currency markets of our region were dominated by the exchange transactions of the domestic currency against the euro.

A vast majority of transactions in Poland were conducted on the interbank market. The transactions between banks and non-banking entities constituted 18% of the net turnover. The average daily net turnover on the domestic interbank market increased by 7% as compared to 2005 and amounted to PLN 3.25 billion (Figure 5.3.1). Markedly lower turnover was recorded in the second half of the year, when the volatility of the zloty exchange rate remained at a historically low level. The liquidity of the zloty market in Poland was still to a large extent determined by the exposure of non-residents. In 2006, foreign banks were increasingly engaged on the domestic market – their share in the net turnover rose to 75%. During the period under study, a significant increase (by around 35%) in the customer market was observed. The average daily value of zloty exchange transactions that were conducted with the non-banking entities amounted to PLN 0.75 billion. The increase in the value of operations in that segment of the market was mainly due to the strong increase in the foreign trade turnover. In 2005, the value of exports and imports of goods and services expressed in the euro increased by 18.3% and 13.6%, respectively, whereas in 2006 the increases amounted to 21.1% and 24.3%.

The dynamic increase in offshore market turnover which started in the second half of 2004 continued in 2006. Information received from market participants indicates that the value of

| Table 5.3.1. Average daily net turnover in the zloty, Czech koruna and forint spot FX markets in 2006 (USD million) |
|-------------------------------------------------|------------|------------|------------|
| Total turnover, of which:                       | Czech koruna | Forint | Forint |
| EUR/domestic currency transactions              | 1,111       | 570      | 898       |
| USD/domestic currency transactions              | 148         | 82       | 121       |

Note: Data for the Czech koruna based on transactions registered in April and October 2006.
Source: Data from the Czech National Bank, the National Bank of Hungary, the National Bank of Poland.

307 An investment strategy focused on short-term changes in exchange rates. Transactions in that strategy are concluded by a computer programme (without the dealer’s participation) via electronic systems which automatically match buy and sell orders. On the basis of a pre-defined algorithm (an advanced mathematical model) which takes into account variables specified by the user (mainly data from electronic information systems), the computer programme generates automatic buy and sell orders which are submitted to the above-mentioned transaction systems. Such a way of speculating in the FX market is characterised by high turnover and relatively low values of open FX positions.
transactions concluded between non-residents increased by around 35% as compared to 2005.\footnote{308} It is estimated that in 2006 the average daily turnover on the offshore zloty market amounted to PLN 5 billion (over USD 1.6 billion). Thus, in 2006 the total average daily value of zloty exchange transactions amounted to PLN 9.3 billion (around USD 3 billion). With such high turnover, banks did not experience problems with closing FX positions which resulted from large customer orders, and the zloty exchange rate was less sensitive to short-term capital flows resulting from the speculative strategies of individual market participants.

The dynamic increase in activity on the zloty market resulted both from the situation on global financial markets, and from the good economic conditions in Poland. Technological changes in trading infrastructure also contributed to the increased liquidity in the offshore market. In 2006, institutional investors continued to diversify their portfolios by investing part of their resources in countries referred to as emerging markets. However, the scale of capital inflow into emerging markets was smaller than in 2005, whereas it was the banks that increased their exposure.\footnote{309} The good macroeconomic situation, rising indices at the WSE and the stable exchange rate of the zloty encouraged foreign financial institutions to purchase assets denominated in zlotys. The tendency of a gradual zloty strengthening was observed. Short periods of depreciation of our currency were mainly related to greater uncertainty in global markets. In 2006, the EUR/PLN exchange rate fluctuated within a narrow range between PLN 3.75 and PLN 4.10, and depended to a significantly lesser extent on local factors than in previous years (Figure 5.3.2).

\footnote{308} The growing activity in the offshore zloty market is confirmed by the systematic increase in the values of interbank customer orders in the SORBNET payment system. In the fourth quarter of 2006, the value of those orders was 17% higher as compared to the values recorded in the same period of 2005.

Hedge funds were the group of investors which contributed to the increased turnover in the zloty market between 2005 and 2006 to the greatest extent. Those entities perceived currencies as a separate class of assets which allowed them to diversify their investment portfolios and to achieve higher returns on investment. In 2006, a very popular strategy on foreign exchange markets of the emerging economies was algorithmic trading. Hedge funds and foreign banks carried out such large-scale speculative operations which were targeted at short-term movements of the foreign exchange rates. Changes in transaction infrastructure were conducive to that, as banks concluded more and more transactions using electronic systems which automatically match buy and sale offers. In addition, London-based banks offered access to their electronic transaction platforms and prime brokerage services to hedge funds. The latter also applied the carry trade strategy. In 2006, the scale of such operations in the zloty market was slightly limited as compared to the previous years, which was due to the declining disparity of the interest rates between the Polish market and the markets of developed countries. The level of the spot market liquidity was also influenced by investors’ activity on the offshore FX options market for the zloty exchange rate. Banking dealers indicate that hedge funds were still very willing to take large positions in options, including barrier options. London-based banks, which issued those options, secured FX positions by selling or buying currencies on the spot market (dynamic hedging).

**Market structure**

The dominant foreign exchange relationship in the zloty market was the EUR/PLN. As compared to 2005, the share of the euro in the currency composition of the interbank zloty market turnover increased slightly and stabilised at the level of over 90%. The majority of speculative transactions determining the liquidity of this market were conducted in the EUR/PLN segment. The share of the USD/PLN pair, which as recently as in 2004 clearly dominated in the currency composition, decreased to 7% towards the end of 2006 (Figure 5.3.3). Interbank USD/PLN deals were mainly conducted due to the closing of the FX positions that resulted from the trades concluded with non-banking entities. All the participants of the interbank market quoted the zloty against the euro. The zloty ceased to be a basket currency in 2005 and ever since the EUR/PLN exchange rate has been the best indicator of the strength of our currency. This is confirmed by the share of the euro in the basket ensuring minimum variance of daily returns. For the most part of 2006, that share remained at the level of 100%. Periodically, the share of the euro in the basket ensuring minimum variance of daily returns decreased by several or between 10 and 20 percentage points, which was mainly due to the changes in the trend of the EUR/USD market (Figure 5.3.4).

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**Figure 5.3.3. Currency composition of zloty exchange transactions concluded in the domestic interbank market, 2003–2006**

<table>
<thead>
<tr>
<th>Quarters</th>
<th>EUR/PLN</th>
<th>USD/PLN</th>
<th>Other currencies/PLN</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 2003</td>
<td>31.1</td>
<td>41.4</td>
<td>27.5</td>
</tr>
<tr>
<td>II 2003</td>
<td>26.7</td>
<td>42.9</td>
<td>30.4</td>
</tr>
<tr>
<td>III 2003</td>
<td>23.3</td>
<td>44.5</td>
<td>32.2</td>
</tr>
<tr>
<td>IV 2003</td>
<td>26.5</td>
<td>45.7</td>
<td>27.8</td>
</tr>
<tr>
<td>I 2004</td>
<td>31.5</td>
<td>47.4</td>
<td>21.1</td>
</tr>
<tr>
<td>II 2004</td>
<td>26.7</td>
<td>49.8</td>
<td>23.5</td>
</tr>
<tr>
<td>III 2004</td>
<td>23.3</td>
<td>52.2</td>
<td>24.5</td>
</tr>
<tr>
<td>IV 2004</td>
<td>26.5</td>
<td>53.7</td>
<td>19.8</td>
</tr>
<tr>
<td>I 2005</td>
<td>31.5</td>
<td>55.7</td>
<td>12.8</td>
</tr>
<tr>
<td>II 2005</td>
<td>26.7</td>
<td>58.1</td>
<td>15.2</td>
</tr>
<tr>
<td>III 2005</td>
<td>23.3</td>
<td>60.6</td>
<td>16.1</td>
</tr>
<tr>
<td>IV 2005</td>
<td>26.5</td>
<td>63.1</td>
<td>10.4</td>
</tr>
<tr>
<td>I 2006</td>
<td>31.5</td>
<td>65.7</td>
<td>12.8</td>
</tr>
<tr>
<td>II 2006</td>
<td>26.7</td>
<td>68.1</td>
<td>15.2</td>
</tr>
<tr>
<td>III 2006</td>
<td>23.3</td>
<td>70.6</td>
<td>16.1</td>
</tr>
<tr>
<td>IV 2006</td>
<td>26.5</td>
<td>73.1</td>
<td>10.4</td>
</tr>
</tbody>
</table>

Source: NBP data submitted by banks acting as Primary Dealers and/or money market dealers and candidates for these functions.

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310 A service which consists in large banks making available their credit limits imposed on them by other market participants, for a fee. Entities which use that service may conclude transactions with multiple entities, submitting to credit rating and maintaining security in one bank whose credit limits they use.  
Market participants perceived the USD/PLN exchange rate as a resultant one which is dependent on the EUR/USD exchange rate. This is confirmed by the historical volatility of EUR/PLN and USD/PLN exchange rates and their correlation with the USD/EUR exchange rate. Since 2005,
the EUR/PLN volatility has been significantly lower than the USD/PLN volatility (Figure 5.3.5). The USD/PLN exchange rate was characterised by higher volatility due to the fact that it was calculated from the exchange rate of the zloty against the euro, and the euro against the US dollar. The USD/PLN exchange rate volatility resulted from both the appreciation (depreciation) of the zloty against the euro, and the short-term EUR/USD exchange rate changes. This can be deduced from the value of the correlation coefficient between the USD/PLN and EUR/USD exchange rates (Figure 5.3.6). The marked decline in the volatility of EUR/PLN and USD/PLN exchange rates (to historically low levels) occurred in the second half of 2006 and was related to the drop of volatility in developed markets (including the EUR/USD market).

In 2006, the currency composition of turnover in the customer market was still dominated by EUR/PLN transactions, but their share was lower than in the interbank market and amounted to nearly 60%. USD/PLN transactions accounted for 32%, and the transactions of zloty exchange to other currencies – around 10% of the net turnover in the customer market. The share of the exchange transactions of US dollar and of other currencies was markedly higher than in the interbank market, which resulted from the structure of payments in Poland’s international trade. In 2006, the share of individual currencies in payments arising from exports and import of goods did not change significantly and amounted to 71% and 58% for the euro, 18% and 29% – for the US dollar, 11% and 13% for other foreign currencies, respectively.\footnote{NBP data based on payments for goods registered by the banking system.}

In the domestic FX market, banks also carried out transactions in which foreign currencies were exchanged for other foreign currencies. Average daily net turnover in that market segment amounted to around PLN 2 billion in 2006, over 90% of which were interbank operations. In the currency composition EUR/USD transactions (with a share of 65%) prevailed. Banks used EUR/USD spot deals to take positions in the forward zloty market. USD/PLN trades dominated in the FX swap market, while EUR/PLN trades prevailed in the spot market. Therefore, in order to conclude a synthetic forward transaction it was easier for banks to conduct the following three transactions: EUR/PLN spot, USD/PLN FX swap and EUR/USD spot.

**Market participants**

The significant share of foreign banks in the turnover in the domestic market (75%) as well as the dynamic increase in the value of offshore market transactions suggest that the zloty exchange rate was mainly influenced by the speculative operations of foreign financial entities. Flows related to the real economy, i.e. orders of non-financial customers, played an insignificant role.

Foreign banks and hedge funds that generated high-value order flows were very important participants of the zloty market. It was the foreign banks that operated with the hedge funds. These had a much wider offer of services related to handling FX transactions (prime brokerage, own trading platforms, fully automated confirmation of the transaction terms and conditions as well as their settlement) and were able to conclude large-value transactions. Due to the low level of own funds as compared to the London-based banks, and due to the conservative policy with respect to the open FX position, banks which operated in Poland very rarely acted as counterparties to foreign non-banking financial institutions. As a result, the segmentation of the zloty market deepened, which was manifested by the concentration of liquidity and the higher values of individual transactions taking place on the offshore market. Foreign banks most active on the zloty market in London were: Deutsche Bank, Citigroup, UBS, HSBC and ABN Amro.\footnote{Results of the Euromoney FX market survey: Euromoney, May 2006, Vol. 37, No. 445, p. 118-131.}

As in previous years, the market in Poland was characterised by a high concentration level. In 2006, the five most active domestic banks concluded zloty exchange transactions of the value equal to around 60% of the turnover.

**Market infrastructure**

Domestic banks concluded transactions mainly via the electronic Reuters Spot Matching system which automatically matches buy and sell orders. The value of transactions carried out in
that system accounted for around 50% of the turnover on the domestic interbank market, which ensured high transparency of the zloty exchange rates. Around 40% of the zloty exchange transactions were conducted via the traditional conversation system, i.e. Reuters Direct, while 10% transactions were concluded via the voice broker. The terms of transactions concluded by domestic banks with non-financial entities were most often agreed by phone.

Since February 2006, banks have been able to execute zloty exchange transactions also on the EBS (Electronic Broking Services) electronic platform. In previous years, this system that automatically matches buy and sell orders, handled the main currency pairs (such as e.g. EUR/USD, EUR/CHF, USD/CHF, EUR/JPY, USD/JPY) only, while exchange transactions for currencies of developing countries were carried out exclusively via Reuters Spot Matching system. During the period under study, the zloty buy and sell orders rarely appeared in the EBS transaction system. Both domestic and foreign banks concluded transactions via that system occasionally, and preferred the very liquid market on the Reuters Spot Matching platform.

On the offshore market, non-banking entities were able to conclude transactions via electronic transaction systems. The most popular trading platforms for zloty transactions were, among others, Deutsche Bank’s Autobahn and FXall, organised by a consortium of banks. This way of transaction executing was most often used by hedge funds that took advantage of the algorithmic trading and the carry trade strategies.

The standard values of individual transactions on the interbank zloty market in Poland amounted to 3 and 5 million euro for trades executed in the conversational system. On the offshore market, the values of individual zloty exchange transactions were higher, which was the result of, among others, the composition of counterparties, i.e. the large share of operations with hedge funds. The value of transactions executed via the Reuters Spot Matching system most often amounted to 1 and 3 million euro. The spread quoted for the EUR/PLN pair, dominant in the zloty market, amounted to around 15 basis points.\(^\text{314}\)

**Outlook**

In the coming years, the value of turnover in the zloty market will mainly depend on global factors, the macroeconomic situation in Poland, and the difference between the level of interest rates in Poland and in developed countries. Hedge fund activity and the interest of other financial institutions in investments in assets denominated in zlotys should have a significant impact on the liquidity of the market. It appears that the activity of foreign entities on the offshore market will continue to grow, while the turnover in the domestic market will remain at a similar level.

Until Poland’s adoption of the euro, the EUR/PLN will be the main foreign exchange relationship in the domestic FX market. The zloty appears to have irrevocably lost the status of the basket currency, and the euro exchange rate against the zloty will best indicate the strength of the Polish currency. The share of the euro in the currency composition of turnover in the interbank zloty market will remain at the level of 90–95%. An increasing number of transactions are expected to be concluded via matching systems.

Significant changes in the spot FX market will take place after Poland has joined the euro area. Then, as shown by the experience of countries which adopted the euro earlier, the value of turnover in the domestic FX market may decrease by half. EUR/USD will be the basic FX relationship then. However, owing to the ownership structure of the banking system in Poland and the centralisation of risk management at the level of banking groups, euro exchange transactions in the interbank market will only constitute part of today’s operations with the zloty. In addition, due to the lack of foreign exchange risk in a majority of trade transactions (exports and imports is dominated by payments in the euro), the need of non-financial customers for FX operations will decline. Banks which operate in Poland will probably maintain small open FX positions and act as intermediaries between customers from Poland and their own parent banks.

\(^{314}\) In relation to the zloty exchange rate, the basis points (referred to by FX dealers as “PIPS”) mean hundredths of the grosz.
5.4. Derivatives market

Financial derivatives are traded both on the exchange and over-the-counter (OTC) markets. The development of the financial derivatives market worldwide measured by the value of open positions indicates the dominance of the OTC market.\textsuperscript{315} The activity in the OTC market is mainly concentrated on financial derivatives with exposure to changes in interest rates.\textsuperscript{316} In terms of turnover, the exchange market, where transactions in interest rate and equity-linked derivatives prevail, is better developed. The advantage of the exchange market over the OTC market results from centralisation of trade and functioning of clearing houses, which contributes to a better market transparency, the participation of a greater number of investors, and the reduction of counterparty risk.

5.4.1. Evolution of the derivatives market: size and structure

In Poland, the OTC market is much more developed. The average daily turnover recorded in the OTC market in the years 2003–2006 was significantly higher than that of derivatives traded on the WSE (Table 5.4.1). Banks, i.e. the institutions with the largest assets in the Polish financial system, acted as market makers in the OTC market. The considerable activity of foreign banks had a substantial impact on the turnover in this market. These banks are still almost absent from the WSE. It was the speculative interbank transactions which, to a large extent, were crucial for the liquidity of this market. Additionally, Polish companies that manage their financial risk more frequently preferred derivatives offered by banks rather than those traded on exchanges. Factors behind their preferences included, inter alia, long-term relationships between banks and enterprises, greater offer and higher flexibility of OTC derivatives as well as higher market liquidity, which affected the cost of the hedging instrument used.

In 2006, there was a marked increase in the liquidity of OTC interest rate derivatives. This increase in the value of transactions may be attributed to a rapid development of the Overnight Index Swap market. The most liquid segment of the FX transactions was the forward contracts market where the operations with non-banking entities prevailed.

A substantial increase in turnover was also recorded on the WSE derivatives market. The bull market which continued throughout 2006 contributed to the increase in the value of transactions executed on the WSE derivatives market by nearly 60%. As in previous years, WIG20 futures

| Table 5.4.1. Average daily net turnover in the domestic derivatives market, 2003–2006 (PLN million) |
|---------------------------------------------------|---|---|---|---|
| **OTC market** & | 2003 | 2004 | 2005 | 2006 |
| Interest rate derivatives & | 3,979.1 | 4,178.3 | 6,240.7 | 6,729.8 |
| FX derivatives & | 1,403.2 | 1,312.0 | 1,518.7 | 1,751.1 |
| **Exchange market** & | 232.8 | 251.5 | 498.9 | 790.6 |
| Interest rate derivatives & | 0.0 | 0.0 | 15.0 | 5.3 |
| FX derivatives & | 1.0 | 0.5 | 0.8 | 0.4 |
| Equity and equity index derivatives & | 231.8 | 251.0 | 483.1 | 784.9 |
| Of which WIG20 futures & | 226.4 | 239.6 | 448.8 | 735.8 |

Note: OTC market turnover calculated according to nominal value; stock exchange market turnover calculated on the basis of settlement amounts. The exchange market only includes instruments traded on the WSE. The “FX derivatives” category for the OTC market does not include FX swaps.

Source: NBP own calculations based on NBP and WSE data.


\textsuperscript{316} Triennial Central Bank Survey on Foreign exchange and derivatives market activity in 2004, Basel 2005, BIS, p. 5 and 15–16. The BIS report classifies FX swap transactions as FX derivatives which are recognised for the purpose of the present report as money market instruments. In April 2004, turnover in the world FX derivatives market except for FX swap transactions was considerably lower than turnover in the interest rate derivatives market.
contracts were the most popular among investors. Trade in those instruments accounted for over 90% of total turnover in the exchange-traded derivatives market. Individual investors remained the main participants of this market, yet their share in turnover was constantly decreasing.

5.4.2. OTC derivatives

The OTC derivatives market in Poland enables financial institutions and enterprises to hedge against the interest rate and FX rate risk. It also makes it possible to undertake a certain kind of risk in a desirable scope. The above features of the derivatives market determine the division of transactions in this market into speculative and hedging transactions. Furthermore, arbitrage between the derivatives market of a given instrument and its spot market is used.\(^{317}\) This is possible in the case of derivatives enabling to generate cash flows similar in structure and value to payments related to the underlying financial instruments (e.g. bonds).

Due to the decentralised nature of this market, banks are major market makers and participants therein. The analysis of domestic banks’ gross positions by nominal values of OTC derivatives shows that, as in previous years, also in 2006 banks held the largest exposures in interest rate derivatives. Banks’ activities concentrated on instruments denominated in PLN.

In 2006, FRA and IRS markets remained the most developed segments of the OTC derivatives market in Poland. A very rapid development was observed in the OiS (Overnight Index Swap) transactions. Bank positions due to these transactions are a predominant element of the category “Other instruments of similar nature”. The interest rate options market and bond forward market were underdeveloped. Transactions in the above-mentioned interest rate derivatives market were mainly concluded between banks. Despite the offer of bond futures on the WSE, in 2006 domestic banks increased their share in forward transactions.

In the OTC FX derivatives market, the forward market, dominated by transactions with non-banking entities, was the most developed one. The currency risk was the most important kind of financial risk identified and neutralised by Polish enterprises. Non-financial entities decided much more often, in comparison to 2005, to use FX options, decreasing the scale of activities in the CIRS market.

Table 5.4.2. Gross positions of domestic banks in the OTC derivatives market, as at the end of 2005 and 2006 (by nominal value of instruments, PLN billion)

<table>
<thead>
<tr>
<th></th>
<th>2005 PLN(^1)</th>
<th>Other currencies</th>
<th>2006 PLN(^1)</th>
<th>Other currencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate derivatives</td>
<td>1,095.90</td>
<td>83.75</td>
<td>1,525.3</td>
<td>125.99</td>
</tr>
<tr>
<td>FRA</td>
<td>622.24</td>
<td>21.70</td>
<td>793.88</td>
<td>28.26</td>
</tr>
<tr>
<td>IRS</td>
<td>455.03</td>
<td>61.64</td>
<td>616.81</td>
<td>83.47</td>
</tr>
<tr>
<td>Options</td>
<td>1.51</td>
<td>0.39</td>
<td>2.96</td>
<td>0.51</td>
</tr>
<tr>
<td>Bond forwards</td>
<td>0.2</td>
<td>0.02</td>
<td>1.05</td>
<td>0.08</td>
</tr>
<tr>
<td>Other instruments of similar nature (incl. OIS)</td>
<td>16.92</td>
<td>0.50</td>
<td>110.6</td>
<td>13.67</td>
</tr>
<tr>
<td>FX derivatives</td>
<td>101.72</td>
<td>n/a</td>
<td>115.54</td>
<td>n/a</td>
</tr>
<tr>
<td>Forward</td>
<td>46.99</td>
<td>n/a</td>
<td>55.41</td>
<td>n/a</td>
</tr>
<tr>
<td>CIRS</td>
<td>26.18</td>
<td>n/a</td>
<td>30.96</td>
<td>n/a</td>
</tr>
<tr>
<td>Options</td>
<td>28.55</td>
<td>n/a</td>
<td>29.17</td>
<td>n/a</td>
</tr>
<tr>
<td>Equity-linked market derivatives</td>
<td>4.62</td>
<td>4.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit derivatives</td>
<td>0.13</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{1}\) For FX derivatives, the nominal value of derivatives transactions regarding PLN exchange rates against foreign currencies has been presented in this column.

Source: NBP.

The value of banks’ gross positions (total nominal amounts of instruments sold and purchased) in equity-linked market derivatives remained at a low level. In 2006, banks showed mainly exposure to OTC options on stock exchange indices.

Banks were not significantly active in the credit derivatives market. Low exposures in credit instruments resulted from CDS (Credit Default Swaps) from non-residents, but they were insignificant.

The analysis of the OTC derivatives market in G-10 countries as regards the value of gross positions indicates that the structure of the Polish market is similar to that of the most developed countries. As at the end of 2006, the global OTC market was dominated by the interest rate instruments. They accounted for approx. 71% of total value of exposure of the reporting entities due to OTC derivatives. The value of net positions resulting from the OTC transactions as at the end of December 2006 significantly exceeded the value of open positions in the stock exchange market.\(^{318}\)

### 5.4.2.1. Interest rate derivatives

#### Market size

In 2006, domestic banks considerably increased their off-balance sheet positions in domestic interest rate derivatives denominated in PLN. The nominal value of open positions in these instruments as at the end of December 2006 was higher by 40% as compared to the previous year. The largest segment of the market in terms of the banks’ gross positions remained the FRA market. Since the end of 2004, the value of gross positions related to these transactions gradually increased. The value of the domestic banks’ positions in the FRA market amounted to PLN 794 billion as at the end of December 2006, which means an increase by 28% as compared to 2005. The increase in the interest rate derivatives positions was supported by a stable macroeconomic situation. The extension of the maturity for FRA transactions led to the situation when these operations remained longer in the banks’ accounting books, increasing the value of presented gross positions. The share of transactions concluded with non-residents remained at the level of 40% (Figure 5.4.1).

In 2006, the value of gross positions of domestic banks in IRS transactions further increased. As at the end of 2006, the positions of the banking sector amounted to PLN 617 billion and were

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**Figure 5.4.1. Size of the domestic FRA market for instruments denominated in PLN, 2003–2006**

![Chart showing the size of the domestic FRA market for instruments denominated in PLN, 2003–2006](chart)

**Note:** Gross nominal value of FRA transactions in PLN (sold and purchased) in domestic banks’ portfolios as at the end of June and December.

**Source:** NBP.

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\(^{318}\) *OTC Derivatives Market Activity in the Second Half of 2006*, Basel 2007, BIS, p. 7. The described data adjusted for double-counting with respect to transactions between reporting entities.
Financial markets

A constant increase was also observed in the size of operations with non-residents, though, their share in total transactions slightly decreased to 55% (Figure 5.4.2). The involvement of domestic banks increased most significantly in the OiS market. As at the end of the year, the value of off-balance sheet positions due to these transactions amounted to PLN 111 billion, i.e. increased by 550% as compared to 2005 (Table 5.4.2).

The FRA market was the most developed and the most liquid OTC derivatives market in Poland. A slight decrease in the activity in the FRA market was confirmed by a decrease in the average daily net turnover from PLN 4.9 billion in 2005 to PLN 4.8 billion in 2006 (Figure 5.4.3). Similar trends were observed also in the IRS market. The average daily value of transactions decreased by PLN 0.1 billion to PLN 1.1 billion (Figure 5.4.4). The main reason for a slight decrease in turnover in the mentioned segments of the OTC derivatives market was a generally stable level of interest rates throughout the year which slightly reduced the scale of speculative operations.

The most liquid segment of the EU OTC interest rate derivatives market in the euro zone was the OiS market. However, it should be noted that the gross nominal value of transactions is not the most reliable measure for comparing the FRA and IRS markets. Since the primary maturity of some of IRS contracts exceeds one year, such transactions, in contrast to FRA contracts, are recognized in banks’ accounts even for several years.

Note: Gross nominal value of IRS transactions in PLN (sold and purchased) in domestic banks’ portfolios as at the end of June and December.
Source: NBP.

Figure 5.4.2. Size of the domestic IRS market for transactions denominated in PLN, 2003–2006

Note: Data adjusted for double-counting with respect to transactions between resident banks.
Source: NBP data submitted by banks – money market dealers and candidates for dealers.

319 However, it should be noted that the gross nominal value of transactions is not the most reliable measure for comparing the FRA and IRS markets. Since the primary maturity of some of IRS contracts exceeds one year, such transactions, in contrast to FRA contracts, are recognized in banks’ accounts even for several years.

Financial markets

were the period of a rapid development of the OIS market. In 2006, the average daily net turnover more than doubled – from PLN 0.25 billion in 2005 to PLN 0.84 billion (Figure 5.4.5). A significant development of this market was influenced by an increase in the number of its active participants. A new group of domestic banks started their activities in the OIS market following the period of drawing up risk management procedures and adjusting operating systems to a daily monitoring of transactions.

A significant increase in turnover in the interest rate derivatives markets (FRA, IRS, and OIS) took place in June 2006. This was due to expectations of an increase in interest rates by NBP, which led to an increase in the participants’ activity. The expectations of an increase in short-term interest rates in a quarterly perspective became visible in the change of quotations of FRA transactions. Bank dealers expected an increase in interest rates in the perspective of a few months (Figure 5.4.6). This resulted in an increase in speculative operations. Quotations of FRA transactions, in particular those of short-term maturity, appropriately reflected a future level of WIBOR reference rate (Figure 5.4.7).

FRA and IRS transactions were carried out not only in the domestic interbank market. Foreign banks (in particular London-based banks) often concluded derivatives transactions in respect of Polish interest rates. According to banks’ estimations, daily turnover in the FRA offshore market for transactions denominated in PLN could amount to approx. PLN 2–3 billion. In the case of IRS transactions, the scale of activities of foreign banks was even greater. It is estimated that the daily value of transactions concluded in this market between non-residents reached as much as
PLN 1.5 billion, and as such was higher than turnover in the domestic market (operations for which at least one party was a domestic bank). A stable macroeconomic situation and low volatility of PLN exchange rate enabled speculations on the yield curve in Poland. Transactions with high notional values, in particular long-term iRS, were mainly concluded by large London-based banks. The activity of domestic banks in this segment of the market restricted their equity which has an impact on: the scale of the market risk related to derivatives transactions and the value of credit limits imposed on business partners.

The option market remained the least developed OTC interest rate derivatives segment. In 2006, the average monthly turnover in this market amounted to PLN 87 million as compared to PLN 50 million in 2005. Low market liquidity resulted from a small number of market participants. There was no domestic bank which managed the portfolio of these instruments, and as a result, no bank could be an active participant of the interbank market. In 2006, only 4 banks offered interest rate options to domestic non-banking customers. Exposure due to option transactions was hedged with foreign banks, usually dominant entities as back-to-back transactions. The interest of enterprises in options and other interest rate derivatives instruments was very low.

**Market structure**

Standard reference rates on the FRA market were 1M, 3M and 6M WIBOR. A change in the maturity structure of transactions concluded on the FRA market took place in 2006. An increase in the share of transactions with maturity of up 6 months was observed. Banks quoted rates for transactions with maturity of up to 2 years. As in previous years, the market liquidity was focused on the following segments: 9x12, 3x6, 1x4, 6x9. Standard transaction values amounted to PLN 100 and 200 million,
however, as regards short maturity periods, FRA nominal values amounted to PLN 500 million. Changes in the maturity structure of FRA transactions could be caused by a rapid development of the OiS market. According to the market participants, a part of FRA transactions for up to 1 year was replaced by OiS transactions. This is confirmed by the maturity structure of these swaps.

In 2006, operations with maturity over 6M prevailed in the OiS market, in contrast to 2005, when the highest share was represented by transactions with maturity up to 1 week. Changes in the maturity structure of OiS transactions resulted from a different use of these instruments. In 2006, they were used more frequently to hedge changes in financial costs of positions held in debt securities and to reduce the basic risk resulting from mismatch of positive and negative cash flows, and to a smaller extent, to speculate on changes in short-term money market rates between dates of open market operations.

In Poland, two reference rates of OiS transactions were used – O/N WIBOR and POlonia. Due to its more representative and reliable character, POlonia rate implemented in January 2005 was used more frequently (approx. 80% transactions were settled using this rate). Some domestic banks preferred OiS transactions, for which cash flows were calculated based on O/N WIBOR. This resulted from the use of this rate as reference rate for credits granted by banks. Standard nominal amount of OiS transactions was PLN 100 million, and spread quoted amounted to approx. 10 basis points.

In 2006, significant changes of the maturity structure of turnover took place also in the iRS market. A continuous increase in the share of operations with maturity of up to 1 year observed in

Figure 5.4.8. Maturity structure of FRA transactions denominated in PLN, 2005–2006

<table>
<thead>
<tr>
<th>Maturity Structure</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1M</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>1–3M</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>3–6M</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>6–9M</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>&gt;9M</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>&gt;9M</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>Note: Maturity structure by original maturities, contract maturity intervals are left half-open.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: NBP data submitted by banks – money market dealers.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.4.9. Maturity structure of OIS transactions denominated in PLN in 2006

<table>
<thead>
<tr>
<th>Maturity Structure</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1W</td>
<td>15%</td>
</tr>
<tr>
<td>1–2W</td>
<td>15%</td>
</tr>
<tr>
<td>2W–1M</td>
<td>11%</td>
</tr>
<tr>
<td>1–3M</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;6M</td>
<td>34%</td>
</tr>
<tr>
<td>Note: Maturity structure by original maturities, contract maturity intervals are left half-open.</td>
<td></td>
</tr>
<tr>
<td>Source: NBP data submitted by banks – money market dealers.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 5.4.10. Maturity structure of IRS transactions denominated in PLN, 2005–2006

<table>
<thead>
<tr>
<th>Maturity Structure</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1Y</td>
<td>47%</td>
<td>11%</td>
</tr>
<tr>
<td>1–2Y</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>2–3Y</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>3–5Y</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>&gt; 5Y</td>
<td>6%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Note: Maturity structure by original maturities, contract maturity intervals are left half-open.
Source: NBP data submitted by banks – money market dealers.

The recent years ended – these operations accounted for 23% as compared to 47% in 2005. The increase was observed for turnover in all other maturities (Figure 5.4.10). The highest turnover was noted in the segment of operations with maturity over 1 year and up to 2 years inclusive. Changes of the maturity structure of IRS transactions in Poland resulted from a more and more popular use of OiS transactions to reduce the interest rate risk arising from mismatch between banks’ assets and liabilities (asset-liability management). Reference rates used most frequently for IRS transactions were 6M WIBOR and 3M WIBOR. Standard amount of interest payment exchange amounted to PLN 100 million for swaps with maturity of up to 2 years and PLN 50 million for other swaps. Nominal amounts of transactions concluded by domestic banks were lower for long-term instruments (5- and 10-year).

Market participants

The participants of the OTC interest rate derivatives market in Poland were almost exclusively banks. The liquidity in the FRA and IRS market was significantly influenced by foreign entities. Their share in turnover in these markets amounted in 2006 to 56% and 70% respectively and as compared to 2005, it was higher by 5 and 13 percentage points respectively. The liquidity of the OiS market was predominantly dependent on domestic banks. Approx. 25% of transactions in this market was concluded with foreign banks. In 2006, the number of active market participants significantly increased which contributed to an essential increase in turnover. In 2005, transactions of the OiS market were concluded by 7 domestic banks, while in 2006 – by 11. Foreign entities also exhibited more interest in this market.

Non-banking enterprises and financial institutions very rarely used OTC interest rate derivatives to hedge against the interest rate risk. To manage the interest rate risk, enterprises usually used transactions consisting in the exchange of interest payments. However, these transactions accounted for only a few percent of turnover in the IRS domestic market. The limited activity of non-financial entities was also observed in the segment of interest rate options.

Collective investment schemes (investments funds, pension funds) very rarely opened off-balance sheet positions in derivatives. Pension funds did not use derivatives due to a lack of executive regulations enabling them to invest in such instruments. The law allows closed-end investment funds to invest in derivatives, while open-end investment funds were able to use them only in the scope necessary to “assure effective management of the investment portfolio or reduction of the investment risk”. The activity of investment funds in the derivatives market was at a low level. The exception may be noted for capital protection funds which invested part of the funds in more risky financial instruments including, inter alia, derivatives with exposure to domestic

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interest rates. Insurance companies operating in Poland did not use derivatives to hedge their investment portfolio.

**Outlook**

In the coming years, turnover in the domestic FRA and IRS markets is expected to remain stable. At the same time, it is likely that the activity on the offshore market of these instruments will continue to increase. Due to a higher scale of speculative transactions, the liquidity of these markets will be significantly influenced by expectations regarding changes in interest rates. A rapid improvement in the liquidity in the OIS market in the euro zone as well as flexibility and variety of use of these transactions enable to estimate a rapid development in the OIS market also in Poland. The group of active participants of this market should be joined by a domestic and a foreign bank. The increase in turnover in this segment may be related to the reduction in FRA transactions, in particular those of short maturity. Similar tendencies were namely observed in the euro zone. The market of interest rate options remains the one of least developed segments of the financial market in Poland.

It seems that the domestic OTC interest rate derivatives market will be further dominated by interbank transactions. Enterprise and non-banking financial institutions operating in Poland will very rarely use derivatives to hedge against the interest rate risk.

In the IRS market in Europe, in particular that of long maturity, a significant role is played by defined benefit pension funds. Long-term liabilities of the pension system and shortage of debt instruments of a relevant maturity make pension funds use derivatives, in particular, if the necessity to reduce the mismatch between the maturity structure of assets and liabilities results from supervisory regulations. The planned establishment of entities in Poland which pay out benefits from the money gathered in pension funds could lead to a higher demand for IRS operations with a perspective of over 10 years, if the regulations on the operation of such entities allow them to use derivatives.

### 5.4.2.2. FX derivatives

**Market size**

The Polish OTC market of PLN exchange rate derivatives comprises transactions, in the case of which a domestic bank is at least one party of the transaction. In 2006, transactions with FX instruments accounted for approx. 20% of turnover in the OTC derivatives market in Poland. As compared to 2005, turnover in the PLN FX instruments market increased by 15%. This led to a decrease in the activity on the outright forward and FX option market. This was accompanied by a decrease in the value of CIRS contracts. The main reason for the increasing activity on the forward and option markets was an increase in the international trade and higher awareness of the financial risk among non-financial entities. A significant number of enterprises used derivatives, in particular forward transactions to hedge their cash flows denominated in foreign currencies.

The most developed segment of the PLN derivatives market was the forward market. In 2006, the average daily turnover in this market amounted to PLN 1.1 billion and was 12% higher by as compared to 2005. The increase in turnover resulted from the increasing activity of non-banking entities. In the analysed period, over 90% of transactions were operations in the customer market. From 2004, domestic banks gradually decreased their activity in the interbank forward market. In order to hedge against the credit risk resulting from transactions concluded with non-banking entities, they preferred synthetic forward transactions concluded on the most liquid segments of the financial market – relevant combination of the spot and FX swap transactions. According to banks, the value of PLN forward transactions concluded between non-residents could be even a few times higher than turnover registered in Poland.

In terms of turnover, the second largest PLN derivatives market was the option market. In 2006, the average daily net turnover in this market amounted to PLN 0.6 billion which is an increase
by 23% as compared to 2005. The reason for this was an increase in the value of transactions concluded by non-banking entities, in particular visible in Q4 2006. The average daily turnover in the customer market amounted to PLN 0.24 billion, almost twice the figure for 2005 (PLN 0.13 billion). The increase in trade led to a higher demand of enterprises for instruments hedging against the credit risk. Enterprises more frequently used option strategies adjusted to their payment structure. The activity in the interbank market did not significantly change. The average daily turnover amounted to PLN 0.36 billion. Most transactions were carried out with a foreign parent company and were used to hedge exposure arising from the conclusion of option transactions with non-banking entities (back-to-back hedge). Nominal amounts of individual option strategies, which are commonly purchases and sold by foreign banks, were too high for banks operating in Poland, and therefore, they less frequently performed speculative transactions with non-residents. It is estimated that turnover in the offshore PLN option market was twice as high as transactions concluded by domestic banks.

The CiRS market remained the least developed segment of the domestic OTC FX derivatives market in Poland. The average daily value of PLN transactions concluded between domestic banks decreased from PLN 55 million in 2005 to PLN 37 million in 2006. The information obtained from market participants shows that larger turnover with the CiRS PLN/foreign currency transactions was reached in the interbank market in London. The data on off-balance sheet positions of domestic banks show that in 2006 they also included transactions consisting in the exchange of interest payments in CHF and EUR. The demand for these operations resulted from the need to
eliminate the mismatch between assets and liabilities. The increase in the value of mortgage credits for flats indexed to foreign currencies, mainly to CHF was a source of the currency and interest rate risk. Some banks financed their credit action with the issue of eurobonds denominated in EUR, and while carrying out CIRS CHF/EUR transactions, they tried to limit the above-mentioned type of risk. In 2006, a significant fall was also observed for the value of CIRS PLN/foreign currency transactions concluded with non-banking entities. The average daily net turnover in the customer market amounted to PLN 2.37 million and was less by PLN 5.6 million as compared to 2005. The decrease in the demand of enterprises for CIRS transactions resulted mainly from a smaller value of bonds denominated in foreign currencies and issued in foreign markets as compared to previous years.

**Market structure**

The currency structure of turnover in the PLN forward and option market was clearly related to the structure of trade payments of Polish enterprises. In 2006, in the forward market prevailed EUR/PLN operations (65% share in turnover in the PLN market). USD/PLN operations accounted for 29% of turnover in this market. The share of both currency pairs slightly diminished (by 1 percentage point) as compared to 2005. In the PLN option market, EUR/PLN transactions accounted for approx. 74% of turnover which means an increase by 10 percentage points as compared to 2005. At the same time, the share of USD/PLN options decreased to 26% of turnover. EUR/PLN transactions prevailed also in the above-mentioned interbank markets.

In the domestic interbank market European options and option strategies based on them were almost exclusively traded. A standard value of the ATM straddle strategy commonly quoted by banks amounted to EUR 10 million in the domestic market. In order to hedge themselves against unfavourable fluctuations in FX rates, enterprises usually used the risk reversal strategy and plain vanilla option. The increasing number of banks offered exotic options to their clients, including barrier and binary options. Significant changes in the maturity structure of FX options took place in 2006. The share of transactions with maturity from 3 months to 1 year increased from 26% in 2005 to 51% in 2006. At the same time, a significant decrease in turnover (by 11 percentage points) was noted in the option segment with maturity of up to 1 month (Figure 5.4.14). The average maturity of FX options extended due to the fact that enterprises preferred to limit fluctuations in the financial result and hedge cash flows using FX options for this purpose.

The CIRS market exhibited a continuous tendency to decrease the share of transactions with maturity less than 1 year (Figure 5.4.15). A significant increase was found in the value of operations with maturity exceeding 5 years (from 28% in 2005 to 42% in 2006). This was possible owing to a more common use of legal regulations reducing the exposure resulting from the partner’s credit risk in general agreements. The fact that banks were interested in long-term transactions resulted from the need to hedge against the mismatch between assets and liabilities caused by a rapid growth in the value of long-term mortgage credits indexed to foreign currencies.
Market participants

As compared to the OTC interest rate derivatives, the FX derivatives market was characterised by much larger turnover in the segment of customer operations. A high activity in this segment resulted from operations of enterprises which hedged their future currency payments related to export and import. They usually used various types of forward transactions for this purpose, though, more and more entities made use of options strategies adjusted to their specific needs. A second group of non-financial entities active in the forward market were private banking customers using short-term non-delivery forward transactions for speculations on the zloty exchange rate.

Non-banking financial institutions used instruments available in the OTC FX derivatives market to a small extent. The only group of non-banking financial institutions which showed interest in transactions in this market were investment funds. In 2006, the number of funds investing in foreign markets increased. In order to reduce the FX risk, some of them used derivatives. Insurance companies very rarely used FX options, while pension funds could not use derivatives as required by law.

Foreign banks played an important role in the interbank FX derivatives market. The majority of operations with foreign entities was carried out in the interbank FX options market (over 95%).
Only a few domestic banks managed a portfolio of FX options and regularly quoted implied volatilities of option strategies in the interbank market. Other banks, which offered options to their clients, acted only as agents in this market. Exposures resulting from transactions with non-banking entities were eliminated on the same day by the conclusion of a counter-operation with a foreign bank, usually a parent company.

Whereas a few dozens of Polish largest banks were active in the forward and FX option market, the participants of the CiRS market were just a few banks. They concluded CiRS transactions mainly in order to limit the mismatch between assets and liabilities. Due to a significant use of credit limits arising from these transactions, domestic banks very rarely carried out speculative operations which limited the liquidity of this market in Poland.

**Outlook**

No significant changes in the size and structure of the domestic FX derivatives market are expected in the coming years. A further development of this market will mainly depend on the activity of non-banking entities. Turnover in the forward FX market will be influenced by hedging transactions of enterprises. The scale of these transactions will be influenced by the foreign trade dynamics and fluctuations in the zloty exchange rate. The demand for FX derivatives among non-banking financial institutions could increase through international diversification of pension funds’ investment portfolios. However, this would require a change in the regulations relating to OFE (open pension funds) investments consisting in increasing the limit for foreign investments and enabling pension funds to hedge against the FX risk by using derivatives.

An increase in the liquidity of the interbank market should not be expected. Domestic banks will still prefer synthetic forward contracts (combination of spot and FX swap transactions). The equity of domestic banks and centralisation of risk management on the level of banking groups will limit the scale of transactions in the FX option and CiRS market. At the same time, due to the increasing activity of foreign investors in the Polish capital market, it may be expected that the value of transactions with PLN derivatives in the offshore market will increase.

The development of the domestic OTC derivatives market will be influenced by the implementation of the MiFID directive. As offering OTC derivatives is classified as an investment service in the meaning of this directive, banks will have to implement appropriate procedures, according to which they will have to, inter alia, check whether a customer is aware of the risk related to investments in derivatives. Bank customers will be classified into three categories specified in the MiFID directive (retail client, professional client or authorised business partner). This will contribute to a better protection of clients, in particular non-financial entities, and will make it possible to improve the adjustment of the products offered to knowledge and experience of individual business partners.

5.4.3. **Exchange-traded derivatives**

Financial derivatives were traded on the WSE and the Warsaw Commodity Exchange (WCE). Trading on the WSE was carried out for instruments hedging against the interest rate risk (bond futures), currency risk (FX futures) and instruments related to the equity market (equity index futures, individual equity futures and options, index options and index participation units MiniWIG20 index units). The WCE offered interest rate futures on WIBOR and bonds, FX futures as well as FX options on futures.

The volume of transactions in derivatives on the WSE increased in 2006 by approx. 20% to reach 6.7 million contracts and the value of transactions increased by approx. 60% to PLN 198.5 billion. The activity of investors was concentrated in the segment of WIG20 index futures. The share of this instrument in the total trading volume in derivatives on the WSE amounted to 93% (1.5 percentage point more as compared to 2005). The second largest share in this market was observed for index options (4.7%). The trading volume in these instruments increased as compared to 2005 by more than 25%. Other segments of the WSE futures market were still underdeveloped, and in some of them liquidity significantly decreased.
In 2006, as in previous years, investors willingly traded in FX futures on the WCE, in particular for the following FX rates: USD/PLN, EUR/PLN and EUR/USD. An increasing demand was observed for options on FX futures, however, turnover in this market was still insignificant. In the analysed period, no transaction was concluded on the WCE interest rate and Treasury bond futures market.

Individual investors represented the basic category of the market participants from the beginning of the futures market on the WSE. In 2006, their share in turnover amounted to approx. 64% and was the lowest since the beginning of this market. The activity of non-residents significantly increased. The share of this group of investors (10%) in turnover on the WSE futures market was the highest in its history. The share of institutional investors did not significantly change as compared to the previous year and amounted to approx. 26%. The most important group of investors on the WCE were enterprises using futures contracts to hedge against the currency risk.

According to the Futures Industry Association, the total number of futures and options contracts sold worldwide increased in 2006 by almost 20% and amounted to 11,859 million contracts (Table 5.4.3). Thus, the share of the Polish market in global turnover in the exchange-traded derivatives amounted to 0.06%. In 2006, the WSE was classified 37th among world stock exchanges as regards the number of futures contracts sold (decrease by 3 positions as compared to 2005) and 47th as regards the number of futures and options contracts sold (decrease by 4 positions). The WSE was ranked 10th in Europe as regards the number of futures contracts (position 9 in 2004, position 8 in 2005). Taking into account the criterion of the trading volume, WIG20 futures contracts were classified 9th among futures contracts on equity indices traded on the European exchanges (Table 5.4.4).

### Table 5.4.3. Global futures and options volume by category, 2005–2006 (in million of contracts)

<table>
<thead>
<tr>
<th>Underlying instrument</th>
<th>2005</th>
<th>2006</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity indices</td>
<td>4,080.33</td>
<td>4,453.95</td>
<td>9.16</td>
</tr>
<tr>
<td>Interest rates</td>
<td>2,536.77</td>
<td>3,193.44</td>
<td>25.89</td>
</tr>
<tr>
<td>Equities</td>
<td>2,356.87</td>
<td>2,876.49</td>
<td>22.05</td>
</tr>
<tr>
<td>Currencies</td>
<td>167.19</td>
<td>240.05</td>
<td>43.59</td>
</tr>
<tr>
<td>Commodities and others</td>
<td>832.68</td>
<td>1,095.33</td>
<td>31.54</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,973.84</strong></td>
<td><strong>11,859.26</strong></td>
<td><strong>18.90</strong></td>
</tr>
</tbody>
</table>

Source: Futures Industry Association.

### Table 5.4.4. The trading volume in futures contracts on main equity indices in Europe, 2005–2006 (in million of contracts)

<table>
<thead>
<tr>
<th>Underlying instrument</th>
<th>Stock exchange</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>DJ EURO STOXX50</td>
<td>Eurex</td>
<td>116.0</td>
<td>121.6</td>
<td>140.0</td>
<td>213.5</td>
</tr>
<tr>
<td>DAX30</td>
<td>Eurex</td>
<td>27.1</td>
<td>29.2</td>
<td>32.7</td>
<td>40.4</td>
</tr>
<tr>
<td>CAC40</td>
<td>Euronext Paris</td>
<td>29.3</td>
<td>24.1</td>
<td>25.0</td>
<td>33.4</td>
</tr>
<tr>
<td>FTSE100</td>
<td>Euronext LIFFE</td>
<td>20.3</td>
<td>20.8</td>
<td>21.8</td>
<td>25.1</td>
</tr>
<tr>
<td>OMX Stockholm 30</td>
<td>OM</td>
<td>14.6</td>
<td>16.5</td>
<td>19.7</td>
<td>23.6</td>
</tr>
<tr>
<td>SMI</td>
<td>Eurex</td>
<td>9.0</td>
<td>8.1</td>
<td>8.6</td>
<td>11.4</td>
</tr>
<tr>
<td>AEX</td>
<td>Euronext Amsterdam</td>
<td>5.2</td>
<td>5.7</td>
<td>7.4</td>
<td>11.2</td>
</tr>
<tr>
<td>IBEX35</td>
<td>MEFF</td>
<td>3.5</td>
<td>4.4</td>
<td>4.9</td>
<td>6.4</td>
</tr>
<tr>
<td>WIG20</td>
<td>WSE</td>
<td>4.1</td>
<td>3.5</td>
<td>5.2</td>
<td>6.3</td>
</tr>
<tr>
<td>MIB30</td>
<td>IDEM</td>
<td>4.3</td>
<td>3.3</td>
<td>3.6</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: Eurex, Euronext, WSE, IDEM, MEFF, OM.
5.4.3.1. Interest rate derivatives

Interest rate futures contracts were traded on the WSE and the WCE. Treasury bond futures were traded on the WSE. Fixed interest rate Treasury bonds is the underlying instrument. The issue amount may not be lower than PLN 5.0 billion and maturity may not be shorter than two years and nine months and not longer than five years and six months, counting from the contract delivery date. The contract is settled by a delivery of bonds on the terms specified by the KDPW (National Depository for Securities). The WCE offered contracts on interest rates (1M WIBOR and 3M WIBOR) and 2-, 5- and 10-year Treasury bonds.

Market size

In 2006, turnover in Treasury bonds futures contracts on the WSE fell almost three-fold (Table 5.4.5). There were 5 market makers on this market that were obliged to place bid and ask offers in order to assure adequate market liquidity. No transaction with interest rate futures was concluded on the WCE (Table 5.4.6).

Such a low activity in the exchange-traded interest rate derivatives resulted from the competition of the OTC market. Banks prefer to conclude transactions in very liquid FRA and iRS markets. Enterprises rarely hedge against the interest rate risk, and if they do so, they usually use bank instruments offered by banks. Furthermore, the demand for exchange-traded interest rate instruments of domestic investment funds and insurance companies as well as foreign investors is very low. The limitation to the development of this futures market segment is also a lack of legal possibilities to use derivatives by open pension funds (OFE) to hedge against interest rate risk. Bond futures were introduced to trading on the WSE mainly for the purpose of their use by OFE, as Treasury bonds are a significant part of their investment portfolios. In five out of eight OECD countries with an obligatory part of the pension system based on a defined contribution managed by private companies, pension funds may invest in derivatives in order to hedge their investment portfolio.323

Table 5.4.5. Size of the Treasury bonds futures market on the WSE, 2005–2006

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (PLN million)</td>
<td>3,323</td>
<td>1,329</td>
</tr>
<tr>
<td>Average turnover per session (PLN million)</td>
<td>15.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Average trading volume per session (contracts)</td>
<td>146</td>
<td>51</td>
</tr>
<tr>
<td>Number of open positions at year-end (contracts)</td>
<td>58</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: trade with bonds futures contracts started on 14 February 2005.
Source: WSE.

Table 5.4.6. Size of the interest rate and bond futures market on the WCE, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futures on WIBOR (1M and 3M)</td>
<td>53</td>
<td>38</td>
<td>70</td>
<td>18</td>
</tr>
<tr>
<td>Futures on bonds (2-, 5- and 10-year)</td>
<td>275</td>
<td>20</td>
<td>123</td>
<td>5</td>
</tr>
</tbody>
</table>

A – annual number of contracts sold
B – number of open positions as at period-end
Source: WCE.

323 OECD countries with an obligatory pension system based on a defined contribution are: Australia, Denmark, Mexico, Norway, Poland, Slovakia, Sweden, and Hungary. Funds are entitled to acquire derivatives in: Australia, Denmark, Mexico, Slovakia, and Hungary. Poland and Sweden are the only countries where pension funds are not allowed to invest in derivatives. No data available on Norway.
Outlook

In the coming years, the above-mentioned factors will further limit the development of the interest rate and bond futures market. It seems that even in the situation of increased interest rates volatility, turnover in this market will not significantly increase. Both financial institutions and enterprises will still prefer transactions in the OTC market which will remain much more liquid, *inter alia*, due to the activity of foreign banks.

5.4.3.2. FX derivatives

FX derivatives were traded on the WSE and the WCE. On the WCE futures on the following FX rates were available: USD/PLN, EUR/PLN, EUR/USD, GBP/USD, GBP/PLN, CHF/PLN, USD/CHF, EUR/HUF and EUR/CZK. Moreover, the WCE offered options on futures for: EUR/PLN, USD/PLN, EUR/USD, GBP/PLN and CHF/PLN. On the WSE futures only for the PLN exchange rates were traded (USD/PLN and EUR/PLN).

Market size

The activity of investors was concentrated on the WCE, where turnover was almost twenty times higher than on the WSE. The volume traded on the WCE amounted to 33,021, i.e. 71% more as compared to the previous year (Figure 5.4.16, Table 5.4.7). A significant increase in the number of FX contracts sold was due to the growth in the volume of foreign trade and improving knowledge of entrepreneurs about the possibilities to hedge against the currency risk. Enterprises are the most active market participants. There were two market makers on the FX futures market that were supposed to maintain market liquidity.

As compared to 2005, turnover in options on FX futures increased by over 70%. In 2006, the number of options sold amounted to 1,420. In the opinion of market participants, a significant increase of trading volume in this market segment was due to the use of the collar strategy by enterprises more frequently than in previous years. This strategy enabled to hedge against large changes in the FX rate with a low cost of such hedging strategy. The liquidity of the options on FX futures market was maintained by one market maker.

After a primarily significant increase in the volume of FX futures traded on the WSE, the activity of investors diminished in 2005. The number of contracts sold decreased by more than 50% (Figure 5.4.17). A drop was also observed in the average number of open positions as at the end of individual months (from 239 to 150). A decrease in the number of futures contracts sold on the WSE stemmed from the structure of market participants, in which individual investors prevailed. These investors used futures contracts for speculative purposes. A decrease in volatility of PLN/USD and PLN/EUR exchange rates in the second half of the year limited their activity in the FX futures market. Low turnover was also due to a lack of market makers which could place bid and ask offers in order to assure adequate market liquidity.

Figure 5.4.16. FX futures on the WCE, 2003–2006

![Graph showing FX futures turnover on WCE, 2003–2006](source: WCE)

324 In 2006, the value of exports and imports of goods and services calculated in PLN increased by 16.6% and 20.1% respectively.
Market structure

As in previous years, the most popular futures contracts on the WCE were USD/PLN futures (over 50% share in traded volume in FX futures). A high activity of investors in the USD/PLN segment was related to a strong appreciation of PLN towards USD at the turn of April and May and in the second half of the year. The weakening of USD encouraged enterprises to secure its receivables in this currency. On the WCE, transactions with EUR/PLN futures accounted for 25% of the total trading volume. On the WSE, the number of USD/PLN futures contracts sold was three times higher than that of EUR/PLN futures contracts. A poorer activity in the segment of EUR/PLN futures was due to a lack of a clear long-term PLN/EUR trend in 2006, and also due to lower volatility of the EUR/PLN rate than of the USD/PLN rate. On the WCE, investors were also interested in the USD/EUR futures contracts (14% of turnover) which were mainly used for speculative purposes. Turnover in other segments of the FX futures market was low. No transactions were concluded with the EUR/CZK and the EUR/HUF futures contracts.

Table 5.4.7. Size of the FX futures market on the WCE, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>USD/PLN</td>
<td>3,500</td>
<td>88</td>
<td>4,486</td>
<td>258</td>
</tr>
<tr>
<td>EUR/PLN</td>
<td>4,464</td>
<td>70</td>
<td>9,597</td>
<td>186</td>
</tr>
<tr>
<td>EUR/USD</td>
<td>11,000</td>
<td>113</td>
<td>12,848</td>
<td>67</td>
</tr>
<tr>
<td>Other rates</td>
<td>615</td>
<td>2</td>
<td>74</td>
<td>22</td>
</tr>
</tbody>
</table>

A – annual number of contracts sold (contracts)
B – number of open positions as at year-end (contracts)
Source: WCE.

Table 5.4.8. Size of the option market for FX futures on the WCE, 2005–2006

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>EUR/PLN</td>
<td>190</td>
<td>0</td>
</tr>
<tr>
<td>USD/PLN</td>
<td>355</td>
<td>0</td>
</tr>
<tr>
<td>EUR/USD</td>
<td>277</td>
<td>20</td>
</tr>
<tr>
<td>Other GBP/PLN</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

A – annual number of contracts sold (contracts)
B – number of open positions as at year-end (contracts)
Source: WCE.

Figure 5.4.17. FX futures on the WSE, 2003–2006

Source: WSE.
In 2006, the structure of market participants on the FX futures option market changed. The highest turnover was recorded in the EUR/PLN segment, and slightly lower in the USD/PLN segment. The number of contracts sold in the EUR/USD segment slightly decreased and the activity of investors in the GBP/PLN segment was very low. No trade was recorded in the CHF/PLN segment.

**Market participants**

The main buyers of the FX derivatives on the WCE were domestic SMEs and foreign investment companies. Due to the specification of some contracts – possibility of physical delivery – enterprises used this market not only to hedge their currency positions, but also to obtain foreign currencies in order to pay their liabilities.

The largest group of investors on the WSE was composed of individuals who used futures contracts mainly for speculative purposes. A small interest of companies in FX futures traded on the WSE could arise from a limited offer of these instruments and low market liquidity.

**Outlook**

In the coming years, exchange-traded FX derivatives markets will remain underdeveloped as companies will prefer more liquid instruments traded on the OTC market. Strong relations between banks and enterprises as well as a high flexibility in creating derivatives (no product standardisation – possibility of adjusting the value, maturity and type of instruments to the customer’s needs) will be an essential factor limiting the development of exchange-traded derivatives. The increasing activity of collective investment institutions (in particular investment funds) in foreign markets may contribute to a higher interest of these institutions in hedging against the currency risk. This will probably not contribute to the increase in the volume traded on exchanges as institutions will prefer to conclude transactions on the OTC market. The rise in international trade and increased knowledge about the possibilities to hedge against the FX risk should have a certain impact on the development of the exchange-traded FX derivatives market.

### 5.4.3.3. Equity index and individual equity derivatives

Equity index and individual equity derivatives were traded on the WSE. Futures contracts for the following indices were traded: WIG20, MIDWIG and TechWIG, as well as European options on the WIG20 index. Furthermore, futures contracts on equities of nine companies, European options on stocks of five companies and MiniWIG20 index participation units were traded on the WSE.

In 2006, the number of contracts sold and the turnover in derivatives related to the equity market significantly increased (by 21% and 64% respectively). WIG20 futures contracts continued to represent the dominant share in the futures market turnover exceeding 90%. The second best developed segment of the exchange-traded futures market was the WIG20 option segment. However, turnover in this instrument was significantly lower than for futures on the same index (Table 5.4.9).

**Table 5.4.9. Size of the index derivatives market on the WSE, 2003–2006 – turnover**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>WIG20 futures</td>
<td>56,831</td>
<td>4,118,952</td>
<td>61,096</td>
<td>3,484,397</td>
</tr>
<tr>
<td>TechWIG futures</td>
<td>22</td>
<td>4,379</td>
<td>51</td>
<td>7,961</td>
</tr>
<tr>
<td>MIDWIG futures</td>
<td>113</td>
<td>9,418</td>
<td>421</td>
<td>25,424</td>
</tr>
<tr>
<td>WIG20 options¹</td>
<td>318</td>
<td>20,647</td>
<td>1,393</td>
<td>78,795</td>
</tr>
<tr>
<td>MiniWIG20 index</td>
<td>17</td>
<td>132,459</td>
<td>8</td>
<td>45,645</td>
</tr>
<tr>
<td>participation units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ WIG20 options have been traded since 22 September 2003

A – annual value of contracts sold (PLN million)

B – annual number of contracts sold (contracts)

Source: WSE.
Turnover in MIDWIG and TechWIG futures as well as MiniWIG20 index participation units remained low. The reason for a low liquidity of these instruments was the lack of market makers and concentration of investors’ activity in the more liquid WiG20 futures contracts market. A significant fall in turnover was observed in the segment of individual equity futures contract and in equity options which started to be traded on the WSE at the end of 2005 and did not become popular among investors (Table 5.4.11). Low turnover in these market segments could result from the fact that investors interested in hedging their equity portfolio prefer investing in index instruments (mainly WiG20 futures contracts) rather than opening positions in individual equity derivatives.

Further part of this subchapter includes a detailed description of the market development for the most liquid instruments – WiG20 futures and options on this index.

### Market size

In 2006, net turnover in WiG20 futures amounted to PLN 184.7 billion and was higher by 64% as compared to 2005. In the analysed period, investors concluded transactions for 6.2 million contracts which means a 21% increase as compared to 2005. In the second half of the analysed year the number of open positions significantly increased reaching a record level of 72,600 contracts at year end. As at the end of 2006, six market makers operated on the WiG20 futures contracts market assuring adequate liquidity.

There were several reasons for the increase in turnover in the WiG20 futures contracts. Firstly, the number of market participants increased. The number of individual derivatives accounts grew in 2006 by 13.5% to 56,376 at year end, while in the years 2003–2006, it increased by a total of 75.7%. Secondly, market uncertainty increased in 2006, which had an impact on the implied volatility of the WiG20 index. On one hand, this stimulated the activity of speculators, which may be confirmed by a strong correlation (correlation ratio of 0.637) between daily changes of the WiG20 index and daily number of WiG20 futures contracts sold (Figure 5.4.20). On the other hand, another group of investors more frequently hedged their positions in equities and sold futures.

### Market size

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WiG20 futures</td>
<td>689.6</td>
<td>1,304.0</td>
<td>392.1</td>
</tr>
<tr>
<td>TechWIG futures</td>
<td>1.3</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>MIDWIG futures</td>
<td>1.1</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>WiG20 options</td>
<td>245.8</td>
<td>4347.5</td>
<td>1.3</td>
</tr>
<tr>
<td>MiniWiG20 index participation units</td>
<td>2.0</td>
<td>6531.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Table 5.4.10. Size of the index derivatives market on the WSE, 2003–2006 – open positions

### Table 5.4.11. Size of the derivatives market for companies’ stocks on the WSE, 2003–2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity futures</td>
<td>2,412</td>
<td>112,699</td>
<td>879</td>
</tr>
<tr>
<td>Equity options</td>
<td>4,368</td>
<td>5,522</td>
<td>302</td>
</tr>
</tbody>
</table>

1. Equity options have been traded since 17 October 2005.
2. Turnover according to the close price of the underlying instrument.

Source: WSE.
contracts. Furthermore, a difference between a market price and theoretical price of WIG20 futures contracts encouraged investors to use arbitrage strategies. In the major part of the analysed year, contracts were valued above their theoretical value (so-called contango market) which could encourage market participants to sell them and buy a portfolio of equities included in the WIG20 index (so-called cash and carry strategy).

The increased activity in the WIG20 futures market was noted in January, March and in the period May-July. The main reason for the large turnover in January and March was the lack of a clear trend as regards the WIG20 index. This encouraged investors to hedge their positions in equities. High uncertainty of market participants as regards equity prices is confirmed by the increased implied volatility (Figure 5.4.19). The highest turnover volume in the WIG20 futures contracts in 2006 was observed in May and June when it amounted to 635 and 634 thousand contracts respectively. The main reasons underlying such a high turnover in these months were: a significant fall of the WIG20 index and high volatility of equity prices included in this index. From May to September, implied and historical volatility of the WIG20 index was at the highest level recorded in 2006. High volatility of equity prices was related to a strong spring correction and expectations of a new correction after a significant increase in equity prices in the second half of June and in July.

A significant increase in WIG20 futures turnover led to a situation where the ratio of turnover in these contracts to the turnover in equities included in the WIG20 increased in 2006 by 3.7 percentage points to 174.1%. Since 2004, this ratio had remained stable between 170 and 180% (Figure 5.4.21). The liquidity of the WIG20 futures contracts measured by the bid-ask spread was much higher than the liquidity of stocks forming this index. In 2006, an average spread on WIG20 futures contracts was approx. 5 basis points, and in some transactions it was only 1 basis point. In the analysed period, an average bid-ask spread in transactions with equities included in the WIG20 was between 19 and 87 basis points. A low spread and a high turnover volume in WIG20 futures contracts encouraged new investors to trade on this market, which contributed to its development.

In 2006, the number of index options traded amounted to 316.8 thousand and was by over 25% higher as compared to the previous year. In 2006, two market makers operated in the index option market. From the launch of this market segment on the WSE (September 2003), investors became more and more interested in these instruments (Table 5.4.9 and Table 5.4.10). An increase in the turnover in index options in 2006 was due to a higher number of market participants and their increased activity. High equity prices, their increased volatility and market uncertainty resulted in the fact that investors wanted to hedge their equity portfolios, and as a result, they were buying, among others, WIG20 put options.

325 Bid-ask spread is the difference between the best futures contract price in the bid offer and the best futures contract price in the ask offer.

Figure 5.4.18. WIG20 futures on the WSE, 2003–2006

Source: WSE.
Figure 5.4.19. Implied and historical WIG20 index volatility, 2004–2006

Figure 5.4.20. Number of WIG20 futures contracts sold and daily changes of the WIG20 index in 2006

Figure 5.4.21. Ratio of WIG20 futures to WIG20 index equities on the WSE, 1999–2006

1 Annualized volatility calculated as a moving average from 22 sessions.
Source: NBP calculations based on www.bossa.pl.
Market participants

In 2006, as in previous years, the main group of the futures market participants were individuals. Their share in turnover volume in WIG20 futures contracts market amounted to 63%. At the same time, the share of domestic institutional investors and foreign investors reached its historical high (Figure 5.4.22). The increasing interest of non-residents in futures contacts could result from a relatively large size and high liquidity of this market as compared to the spot market. For foreign investors managing significant funds who want to open a position in the Polish equity market, the purchase of WIG20 futures may be a cheaper and easier strategy than buying equities of individual companies included in this index. Furthermore, the futures market also enables to make a profit on the decrease in stock prices which is not the case for the spot market due to the lack of a developed mechanism of stock short sale.

The main category of the index option market participants were individuals with a 71% share in the turnover volume in these instruments. The share of domestic institutional investors amounted to 26%, but approx. 90% of the value of these transactions was generated by the market makers. The share of non-residents in the turnover volume with index options amounted to 3%. As regards institutional investors, excluding market makers, the highest share in turnover volume in WIG20 options was generated by investment funds. In the first half of 2006, their share amounted to 5%, and in the second half it increased to 10%. The increased interest in index options exhibited by investment funds was due to the higher uncertainty as regards the development of prices of equity on the WSE present in the market from the correction in May and June until September. In view of the above, investment funds decided to hedge some part of their equity portfolios and were buying options. The activity of other groups of institutional investors was low and their share in total transaction volume with index options concluded by institutional investors amounted to approx. 3%. A significant factor leading to a small activity of institutional investors in this market segment was the lack of legal possibilities for OFE to invest in derivatives in order to hedge their portfolios. Despite the fact that OFE held equities with the value of almost PLN 40 billion as at the end of 2006, they could not hedge their portfolios against the market risk.

In 2006, as a result of the increasing activity of institutional investors on the derivatives market and in order to improve the market liquidity, the WSE enabled to conclude block transactions with derivatives (Box 5.4.1).

Box 5.4.1

**BLOCK TRANSACTIONS IN THE FUTURES MARKET**

In October 2006, the WSE enabled to conclude block transactions for futures and options on equity indices and stocks of individual companies as well as Treasury bonds and FX futures. The minimum transaction volume for all instruments is 200 contracts and the maximum is 1 600 futures contracts or 2 400 options. The conclusion of a block transaction enables to close or open a position in the central market (a market where individual transactions are concluded). This offer is a supplement to the central market and is addressed mainly to institutional investors. The advantage of this solution for market participants is the fact that investors do not have to conclude a large transaction consisting of many smaller transactions, which means that there is just one transaction with one price. This solution was implemented to facilitate investments in the futures market for investors interested in carrying out large transactions – in practice for institutional investors – and to enhance the liquidity of the futures market.

Source: WSE.

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226 The group includes the following entities: investment funds, open pension funds, asset management companies, insurance companies, market makers, banks and enterprises.
Outlook

In the coming years, the turnover in the exchange-traded derivatives will be still concentrated in the segment of WIG20 futures contracts. A further development of the index option market is to be expected as the activity of institutional investors interested in hedging their equity portfolios will increase. The development of this market should also be strengthened by further extension of the option offer which will enable to use various option strategies. According to market makers, the interest in index options among foreign investors is on a constant rise. A part of them already trades with WIG20 options in the offshore market in London. The increasing turnover in the WIG20 option segment on the WSE may encourage investors operating in the offshore market to become active on the WSE. On the large derivatives exchanges (e.g. Eurex), options are one of the most popular instruments used by investors to hedge their equity portfolios and the liquidity of the index option and index futures markets is comparable. Their advantage over futures is the fact that for (call or put) option buyers the loss is limited to the value of the premium paid, while the profit on a transaction is theoretically unlimited. This is particularly important in the time of a market correction when holding options may limit losses resulting from a fall in stock prices.

It seems that the existence of a large and liquid WIG20 futures segment is the cause of investors’ low activity in other futures market segments on the WSE, in particular TechWIG and MIDWIG futures market as well as MiniWIG20 index participation units market. An increase in turnover in TechWIG and MIDWIG futures could be achieved by stimulating the activity of investors in the spot markets for these contracts. Some investors holding equities of companies included in these indices would be then interested in hedging their portfolios.

The reason underlying such a small turnover in equity futures contracts and equity options markets is the fact that investors trading on the derivatives market are mainly interested in speculative transactions and not in hedging their positions against the market risk. As a result, they choose the more liquid WIG20 futures contracts market. Furthermore, if they analyse market risk and hedge against it, they often consider the equity portfolio as one thing and are not interested in using equity derivatives. In the developed markets, investors (including institutional investors) sell call options for stocks which they have in their portfolios, as well as buy call options on equities subject to short sale. In the first case, this enables them to generate additional profit, and in the second – they are able to secure their portfolios against the increase in prices of equities borrowed. Such activities are limited on the WSE due to the lack of a developed mechanism of equity short sale which would certainly contribute to the increase in the activity of investors in the equity option market. Consequently, it has to be stated that futures and stock option markets will remain underdeveloped.
Abbreviations used in this Report

1M  one month
3M  three month
6M  six month
1W  one week
1Y  one year
AC  accident and theft insurance
AIM  Alternative Investment Market
ARiMR  Agency for Restructuring and Modernisation of Agriculture (Agencja Restrukturyzacji i Modernizacji Rolnictwa)
ATS  alternative trading system
BFG  Bank Guarantee Fund (Bankowy Fundusz Gwarancyjny)
BGK  Bank Gospodarstwa Krajowego
BGŻ  Bank Gospodarki Żywnościowej
BIK  Credit Information Bureau (Biuro Informacji Kredytowej)
BIS  Bank for International Settlements
BPV  basis point value
BSB  buy-sell-back
CCP  Central Counterparty
CDS  credit default swap
CEC  Central European Countries
CEC-5  the Czech Republic, Poland, Slovakia, Slovenia, Hungary
CeTO  Central Table of Offers (Centralna Tabela Ofert)
CIF  closed-end investment fund
CiRS  currency interest rate swap
COREP  Common Reporting Framework
CPI  Inflation (Consumer Price Index)
CR  Concentration Ratio
CR3  Concentration Ratio (3 largest entities)
CRD  Capital Requirements Directive
DSPW  Treasury Securities Dealers (Dealerzy Skarbowych Papierów Wartościowych)
DvP  Delivery versus Payment
Dz.U.  Journal of Laws (Dziennik Ustaw)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dz.Urz. NBP</td>
<td>Official Journal of the National Bank of Poland (Dziennik Urzędowy Narodowego Banku Polskiego)</td>
</tr>
<tr>
<td>EACH</td>
<td>European Association of Central Counterparty Clearing Houses</td>
</tr>
<tr>
<td>EAFP</td>
<td>Europäische Akademie für Finanzplanung</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
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<tr>
<td>ECB</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>ECSDA</td>
<td>European Central Securities Depositories Association</td>
</tr>
<tr>
<td>EEA</td>
<td>European Economic Area</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>EFAMA</td>
<td>European Fund and Asset Management Association</td>
</tr>
<tr>
<td>EFC</td>
<td>European Financial Consultant</td>
</tr>
<tr>
<td>EFFP</td>
<td>European Federation of Financial Professionals</td>
</tr>
<tr>
<td>EFG</td>
<td>European Financial Guide</td>
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<tr>
<td>EFP</td>
<td>European Financial Planner</td>
</tr>
<tr>
<td>EIF</td>
<td>European Investment Fund</td>
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<tr>
<td>EP</td>
<td>European Parliament</td>
</tr>
<tr>
<td>EPC</td>
<td>European Payments Council</td>
</tr>
<tr>
<td>ETF</td>
<td>Exchange Traded Funds</td>
</tr>
<tr>
<td>EU-10</td>
<td>10 countries which acceded to the European Union on 1 May 2004</td>
</tr>
<tr>
<td>EU-15</td>
<td>15 countries which were European Union member states before 1 May 2004</td>
</tr>
<tr>
<td>EU-25</td>
<td>the 25 countries which are European Union member states since 1 May 2004</td>
</tr>
<tr>
<td>EVCA</td>
<td>European Private Equity and Venture Capital Association</td>
</tr>
<tr>
<td>FESE</td>
<td>Federation of European Securities Exchanges</td>
</tr>
<tr>
<td>FIAP</td>
<td>International Federation of Pension Funds Administrators</td>
</tr>
<tr>
<td>FINREP</td>
<td>Financial Reporting Framework</td>
</tr>
<tr>
<td>FPU</td>
<td>EU Guarantee Fund</td>
</tr>
<tr>
<td>FRA</td>
<td>forward rate agreement</td>
</tr>
<tr>
<td>FSA</td>
<td>Financial Services Authority</td>
</tr>
<tr>
<td>FSAP</td>
<td>Financial Services Action Plan</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product (produkt krajowy brutto)</td>
</tr>
<tr>
<td>GUS</td>
<td>Central Statistical Office (Główny Urząd Statystyczny)</td>
</tr>
<tr>
<td>HHI</td>
<td>Herfindahl-Hirschman index</td>
</tr>
<tr>
<td>IAS</td>
<td>International Accounting Standards</td>
</tr>
<tr>
<td>IGTE</td>
<td>Commercial Chamber of Pension Companies (Izba Gospodarcza Towarzystw Emerytalnych)</td>
</tr>
<tr>
<td>IF</td>
<td>investment fund</td>
</tr>
<tr>
<td>IFRS</td>
<td>International Financial Reporting Standards</td>
</tr>
<tr>
<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
</tr>
</tbody>
</table>
Abbreviations used in this Report

IPA Individual Pension Account (Indywidualne Konto Emerytalne)
IPO Initial Public Offering
IRS interest rate swap
ISD Investment Services Directive
IRO RPW-ČeTO stock market index
IZFiA Chamber of Fund and Asset Management (Izba Zarządzających Funduszami
i Aktywami)
KDPW National Depository for Securities (Krajowy Depozyt Papierów Wartościowych)
KFK National Capital Fund (Krajowy Fundusz Kapitałowy)
KIW Kreditanstalt für Wiederaufbau
KIR National Clearing House (Krajowa Izba Rozliczeniowa)
KL costs of treatment
KNB Commission for Banking Supervision (Komisja Nadzoru Bankowego)
KNF Polish Financial Supervision Authority (Komisja Nadzoru Finansowego)
KNUiFE Insurance and Pension Funds Supervisory Commission (Komisja Nadzoru Ubezpieczeń i Funduszy Emerytalnych)
KPWiG Securities and Exchange Commission (Komisja Papierów Wartościowych i Giełd)
KSKOK National Association of Cooperative Savings and Credit Unions (Krajowa Spółdzielcza
Kasa Oszczędnościowo-Kredytowa)
KUKE Export Credit Insurance Corporation (Korporacja Ubezpieczeń Kredytów
Eksportowych)
LBDS long-term bank debt securities
LCB long-term corporate bonds
LGU local government units
MF Ministry of Finance (Ministerstwo Finansów)
MIDWIG index of medium-sized companies listed on the WSE main market
MiFID Markets in Financial Instruments Directive
MMD Money Market Dealers (Dealerzy Rynku Pieniężnego)
MSP/SME Small and medium-sized enterprises (małe i średnie przedsiębiorstwa)
MTF Multilateral Trading Facility
NBP National Bank of Poland
NDF non-delivery forward
NFI National Investment Fund (Narodowy Fundusz Inwestycyjny)
NIM Net Interest Margin
NNW casualty insurance
NW unfortunate accident
O/N overnight
OC third party liability
Abbreviations used in this Report

OECD Organisation for Economic Co-operation and Development
OFE open pension fund (Otwarty Fundusz Emerytalny)
OIF open-end investment fund
OIS Overnight Index Swap
OTC over-the-counter
PDA allotment certificate (prawo do akcji)
POLONIA Polish Overnight Index Average
POS Point of Sale
PPE occupational pension scheme (Pracownicy Program Emerytalny)
PSIK Polish Private Equity Association (Polskie Stowarzyszenie Inwestorów Kapitałowych)
PTE pension company (Powszechne Towarzystwo Emerytalne)
PZF Polish Factors Association
PZU Powszechny Zakład Ubezpieczeń
QIS2 Quantitive Impact Study 2
QIS3 Quantitive Impact Study 3
ROA Return on Assets
ROE Return on Equity
RP The Republic of Poland
RPP Monetary Policy Council (Rada Polityki Pieniężnej)
RPW Securities Register (Rejestr Papierów Wartościowych)
RPW CeTO CeTO Securities Market
S/N spot next
SA Joint-stock company
SBB sell-buy-back
SBDS short-term bank debt securities
SCB short-term corporate bonds
SCD Structured Certificates of Deposit
SEPA Single Euro Payments Area
SOIF specialist open-ended investment fund
SKOK Cooperative Savings and Credit Union (Spółdzielcza Kasa Oszczędnościowo-Kredytowa)
SODPW Debt Securities Service System (System Obsługi Dłużnych Papierów Wartościowych)
ST State Treasury
SPO Secondary Public Offering
SSP Single Shared Platform
T2S TARGET2-Securities
T/N tomorrow next
TARGET Trans-European Automated Real Time Gross Settlement Express
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC</td>
<td>Treaty establishing the European Community</td>
</tr>
<tr>
<td>TechWiG</td>
<td>index of companies listed on the WSE which belong to the High-Tech Segment</td>
</tr>
<tr>
<td>TFI</td>
<td>investment fund management company (Towarzystwo Funduszy Inwestycyjnych)</td>
</tr>
<tr>
<td>TNS OBOP</td>
<td>Ośrodek Badania Opinii Publicznej Sp. z o.o.</td>
</tr>
<tr>
<td>TS</td>
<td>Treasury securities</td>
</tr>
<tr>
<td>UCITS</td>
<td>Undertakings for Collective Investment in Transferable Securities</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>UFK</td>
<td>insurance investment fund (Ubezpieczeniowy Fundusz Kapitałowy)</td>
</tr>
<tr>
<td>UOKiK</td>
<td>Office of Competition and Consumer Protection (Urząd Ochrony Konkurencji i Konsumenta)</td>
</tr>
<tr>
<td>USD</td>
<td>US dollar</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
<tr>
<td>WCE</td>
<td>Warsaw Commodity Exchange</td>
</tr>
<tr>
<td>WIBID</td>
<td>Warsaw Interbank Bid Rate</td>
</tr>
<tr>
<td>WIBOR</td>
<td>Warsaw Interbank Offered Rate</td>
</tr>
<tr>
<td>WIG</td>
<td>Warsaw Stock Exchange Index (Warszawski Indeks Giełdowy)</td>
</tr>
<tr>
<td>WIG20</td>
<td>index of the 20 largest companies listed on the WSE main market</td>
</tr>
<tr>
<td>WIRR</td>
<td>Warsaw Index of the Parallel Market (Warszawski Indeks Rynku Równoległego)</td>
</tr>
<tr>
<td>WOCCU</td>
<td>World Council of Credit Unions</td>
</tr>
<tr>
<td>WSE</td>
<td>Warsaw Stock Exchange</td>
</tr>
<tr>
<td>ZBP/PBA</td>
<td>Polish Bank Association (Związek Banków Polskich)</td>
</tr>
<tr>
<td>ZE</td>
<td>pension institution</td>
</tr>
<tr>
<td>ZU</td>
<td>insurance company</td>
</tr>
<tr>
<td>ZPL</td>
<td>Polish Association of Leasing Companies (Związek Przedsiębiorstw Leasingowych)</td>
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