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## Financial System in Poland 2011





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# Financial System in Poland 2011

Warsaw, 2014

This document is the first chapter of a comprehensive report *Rozwój systemu finansowego w Polsce w 2011 r.* [Financial system development in Poland 2011], prepared by the Financial System Department. The report is available in Polish, together with its previous editions, on NBP website:  
[www.nbp.pl/systemfinansowy/rozwoj](http://www.nbp.pl/systemfinansowy/rozwoj).

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## 1. Evolution of the size and structure of the financial system in Poland

The financial system is one of the parts of the economic system that provides for the creation of the purchasing power and provision of services that allow its circulation in the economy. The financial system is made up of the market financial system, where the services are rendered via market mechanisms, and the public (fiscal) financial system.<sup>1</sup> This report concerns the market financial system, which will be generally called the financial system. The system comprises: financial institutions, financial markets where financial instruments are traded, infrastructure, as well as regulations and rules that define their functioning.

The macroeconomic situation in Poland in 2011 offered favourable conditions for a stable development of the financial system. In the period under analysis, the Polish economy grew by 4.3% (as compared to 3.9% a year earlier), and it was one of the highest growth rates in the EU.<sup>2</sup> Revenues of domestic enterprises increased, and their financial results also improved. After two subsequent years of a nominal decrease, 2011 saw an increase in investments in the enterprise sector. Fixed investments were partially financed from external sources, which were driven in the first half of the year by: an easing of banks' lending policy, high demand for securities in the domestic capital market and the upward trend of stock prices on the WSE. In 2011, the financial standing of households improved slightly (moderate growth of disposable income, stabilisation of the unemployment rate), which contributed to an increase in the value of housing loans, although their value increased at a slower pace than in previous years. There was also an increase in household financial assets, which resulted from a change in bank deposits to the greatest extent.

In 2011, an increase in risk aversion was observed in global financial markets, which was related to intensification of the debt crisis in certain euro area countries. Investors were concerned that the problems related to debt management might spread to other European Union member states and negatively affect the condition of the European banking sector. These concerns were eased by actions taken by the European Union bodies and the IMF, as well as the unconventional monetary policy instruments applied by the ECB. In spite of unfavourable external conditions, the functioning of the domestic money market was stable. Moreover, when making investment decisions financial market participants were driven by local factors to a significant extent. In this context, the fast economic growth rate, the stable situation of Polish public finance and the attractive rate of return on government bonds were conducive to a further inflow of foreign investors to the domestic capital market.

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<sup>1</sup> B. Pietrzak, Z. Polański, B. Woźniak (eds.), *System finansowy w Polsce* [Financial system in Poland], vol. 1, Warsaw 2008, PWN, pp. 15–17.

<sup>2</sup> Faster economic growth was recorded by Estonia (8.3%), Lithuania (5.9%) and Latvia (5.5%).

As a result, in 2011 the importance of the financial system in the Polish economy continued to increase, although the growth rate of financial institutions' assets to GDP decelerated. At the end of 2011, the value of assets of institutions comprising the Polish financial system was PLN 1,805 billion (8.3% more than in 2010). The increase in the financial sector's assets in the period under analysis was mainly the result of an increase in the value of the banking sector's assets. The financial system assets to GDP ratio increased by 0.8 percentage points as compared to 2010 and amounted to 118.5% (Table 1.1). It confirms that the Polish economy – similar to the economies of other Central and Eastern European countries – was still characterised by a relatively low level of financial intermediation.

**Table 1.1.** Assets of the financial system as percentage of GDP in selected Central and Eastern European countries and the euro area in 2008–2011 (%)

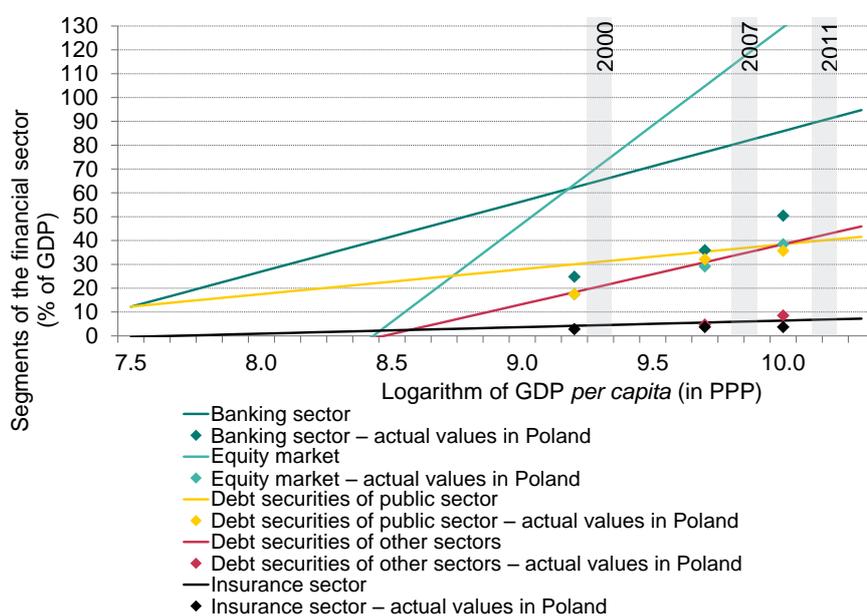
|                | 2008  | 2009  | 2010  | 2011  |
|----------------|-------|-------|-------|-------|
| Poland         | 110.5 | 111.2 | 117.7 | 118.5 |
| Czech Republic | 140.1 | 142.5 | 141.2 | 147.5 |
| Hungary        | 154.0 | 168.6 | 165.3 | 148.1 |
| Euro area      | 463.1 | 485.0 | 496.2 | 497.0 |

Notes: The data for the euro area refer to 15 countries in 2008 and 16 countries in 2009 and 2010 and 17 countries in 2011. The data are not comparable to the data published in earlier versions of the report due to the change of the data source, inclusion of the assets of the money market funds in the financial system assets and revised data sent by central banks.

Source: For the euro area: ECB Statistical Data Warehouse and Eurostat; for other countries – data provided by national central banks and the Central Statistical Office (GUS).

The analysis of financial institutions and financial markets of various countries against the level of their economic development suggests that some segments of the financial system in Poland, including the banking sector, are relatively poorly developed (Figure 1.1). At the same time, evidence from the recent financial crisis has shown that the banking sector in some countries was too large and inadequate for the needs of the real economy and that there is no optimal structure of the financial system that would ensure the effective performance of its functions in any economic conditions.<sup>3</sup> The Polish financial system is also characterised by a relatively low level of the stock market capitalisation and the low value of outstanding private sector debt securities, including corporate and bank bonds.

<sup>3</sup> *Changing global financial structures: Can they improve economic outcomes?* in: *Global Financial Stability Report. Restoring confidence and progressing on reforms*, October 2012, International Monetary Fund, pp. 150-152.

**Figure 1.1.** Financial system development depending on the level of GDP *per capita*

Note: the values of the regression function presented below were estimated for panel data which included the information on the financial systems of 209 countries in 1991–2009.

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

- banking sector: loans to non-public sector to GDP (for Poland – banking sector loans and advances to the non-financial sector in domestic and foreign currency);
- equity market: equity market capitalisation to GDP;
- insurance market: non-life and life insurance premium to GDP;
- public sector debt securities: outstanding value of general government debt securities to GDP;
- debt securities of other sectors: outstanding value of debt securities of financial institutions and enterprises to GDP.

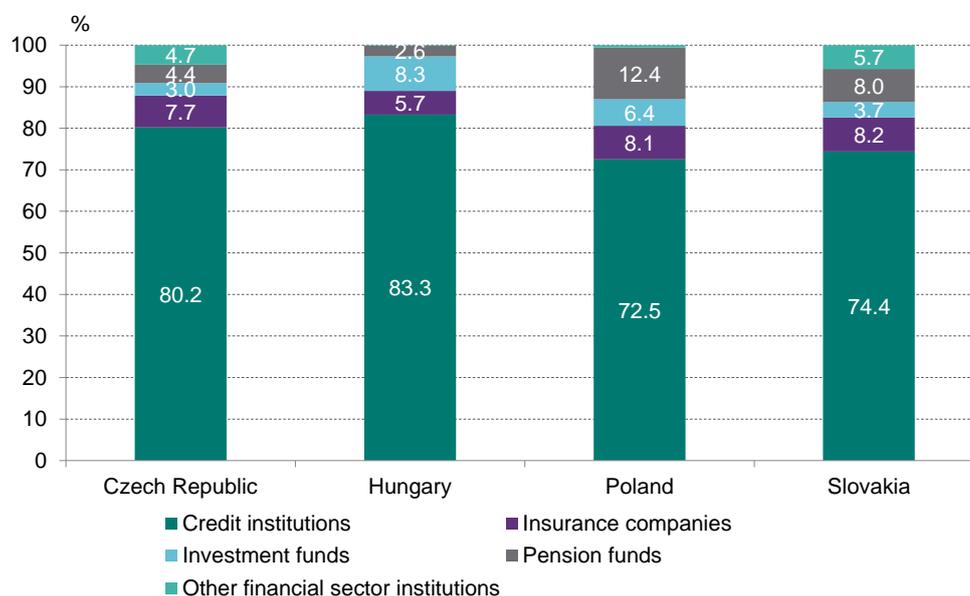
More in: T. Beck, A. Demirgüç-Kunt: *Financial institutions and markets across countries and over time: data and analysis*, World Bank Policy Research Working Paper, No. 4943, May 2009.

The regression function was estimated using the method Fixed Effects GLS in relation to the banking sector and equity market, and the method Random Effects GLS in relation to debt securities of the public sector, other sectors, and the insurance sector. The model was selected on the basis of the Hausmann test (compare M. Verbeek: *A guide to modern econometrics*, John Wiley & Sons, 2004, pp. 351–352).

Source: NBP calculations based on data of the International Monetary Fund (World Economic Outlook, 10/2012), the World Bank (Financial Structure Dataset, 11/2010) as well as NBP.

In 2011, both in Poland and the majority of other countries in the region, the banking sector continued to play the main role in financial systems. The Polish financial system was the least banking-oriented from among the financial systems of Central and Eastern European countries (Figure 1.2). All countries in the region had a relatively low level of banking sector's development as compared to euro area countries (Table 1.2).

**Figure 1.2.** Composition of financial systems in Central and Eastern European countries at the end of 2011, by value of assets



Source: for Slovakia – data on credit institutions and investment funds were derived from Slovakia’s central bank’s website at <http://www.nbs.sk>; data on insurance companies and pension funds were taken from the ECB Statistical Data Warehouse; for other countries – data provided by national central banks.

**Table 1.2.** Banking sector (commercial and cooperative banks) development levels in selected Central and Eastern European countries and in the euro area, 2009–2011 (%)

|                             | Assets/GDP |       |       | Loans <sup>1</sup> /GDP |       |       | Deposits <sup>2</sup> /GDP |      |      |
|-----------------------------|------------|-------|-------|-------------------------|-------|-------|----------------------------|------|------|
|                             | 2009       | 2010  | 2011  | 2009                    | 2010  | 2011  | 2009                       | 2010 | 2011 |
| Poland                      | 78.8       | 81.7  | 85.0  | 46.2                    | 47.7  | 50.4  | 41.5                       | 43.1 | 45.2 |
| Czech Republic <sup>3</sup> | 112.9      | 111.0 | 117.5 | 52.2                    | 53.1  | 55.3  | 70.2                       | 71.5 | 74.2 |
| Hungary                     | 111.3      | 105.2 | 102.3 | 53.4                    | 52.7  | 49.8  | 37.1                       | 35.2 | 35.3 |
| Euro area <sup>4</sup>      | 349.6      | 351.3 | 355.8 | 108.3                   | 107.3 | 105.7 | 80.8                       | 80.8 | 80.4 |

<sup>1</sup> Credits and loans from the banking sector to the non-financial sector in domestic and foreign currency.

<sup>2</sup> Deposits to the banking sector from the non-financial sector in domestic and foreign currency.

<sup>3</sup> The data also include loans to non-banking financial institutions and deposits of those entities.

<sup>4</sup> Assets, loans and deposits of the monetary financial institutions sector. The data for the euro area refer to 15 countries in 2008, 16 countries in 2009 and 2010 and 17 countries in 2011. The data are not fully comparable with the data published in earlier versions of the report due to the change of the source and scope of data.

Source: for the euro area – ECB Statistical Data Warehouse; for other countries – data provided by national central banks and GUS.

In 2011, Poland recorded an increase in the value of assets of nearly all types of financial institutions (Tables 1.1.3 and 1.1.4). Only the value of funds accumulated in investment funds decreased. The Polish financial system was characterised by a high growth dynamics of the

banking sector's assets and, like in other countries in the region, marginal use of bank asset securitisation. It was due to the fact that Polish banks focus on providing traditional banking services, primarily taking deposits and lending to non-financial clients.

**Table 1.3.** Assets of financial institutions in Poland, 2004-2011 (PLN billion)

|                                   | 2004         | 2005         | 2006           | 2007           | 2008           | 2009           | 2010           | 2011           |
|-----------------------------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Commercial banks <sup>1</sup>     | 499.7        | 539.3        | 624.0          | 727.1          | 963.2          | 977.2          | 1,062.1        | 1,188.3        |
| Cooperative and affiliating banks | 38.8         | 47.1         | 57.8           | 65.7           | 75.9           | 82.4           | 96.4           | 106.1          |
| Credit unions                     | 4.2          | 5.3          | 6.0            | 7.3            | 9.4            | 11.6           | 14.1           | 15.2           |
| Insurance companies               | 77.9         | 89.6         | 108.6          | 126.9          | 137.9          | 139.0          | 145.2          | 146.1          |
| Investment funds                  | 37.6         | 61.6         | 99.2           | 134.5          | 76.0           | 95.7           | 120.1          | 114.9          |
| Open pension funds                | 62.6         | 86.1         | 116.6          | 140.0          | 138.3          | 178.6          | 221.3          | 224.7          |
| Investment firms <sup>2</sup>     | 5.5          | 6.9          | 10.8           | 11.8           | 8.6            | 9.9            | 9.2            | 10.1           |
| <b>Total</b>                      | <b>726.3</b> | <b>835.9</b> | <b>1,023.0</b> | <b>1,213.3</b> | <b>1,409.3</b> | <b>1,494.4</b> | <b>1,666.9</b> | <b>1,805.4</b> |

<sup>1</sup> Banks that conduct operating activity. The number of commercial banks also includes branches of credit institutions.

<sup>2</sup> Up to and including 2009, the assets of investment firms include the assets of brokerage houses and offices. In 2010, the assets of investment firms include exclusively the assets of brokerage houses due to the lifting of the obligation to financially separate the brokerage activity of banks.

Source: NBP, Office of the Polish Financial Supervision Authority (UKNF), Anality Online, National Association of Credit Unions (KSKOK).

**Table 1.4.** Growth in assets of financial institutions in Poland, 2008-2011 (y/y, %)

|                                   | 2008        | 2009       | 2010              | 2011       |
|-----------------------------------|-------------|------------|-------------------|------------|
| Commercial banks <sup>1</sup>     | 32.5        | 1.5        | 8.7               | 11.9       |
| Affiliating and cooperative banks | 15.5        | 8.6        | 17.0              | 10.1       |
| Credit unions                     | 28.8        | 23.4       | 21.6              | 7.8        |
| Insurance companies               | 8.7         | 0.8        | 4.5               | 0.6        |
| Investment funds                  | -43.5       | 25.9       | 25.5              | -4.3       |
| Open pension funds                | -1.2        | 29.1       | 23.9              | 1.5        |
| Investment firms                  | -27.1       | 15.1       | -7.1 <sup>2</sup> | 1.1        |
| <b>Total</b>                      | <b>16.2</b> | <b>6.0</b> | <b>11.6</b>       | <b>8.3</b> |

<sup>1</sup> Banks that conduct operating activity. The number of commercial banks also includes branches of credit institutions.

<sup>2</sup> The decrease in the value of assets of investment firms results from the narrowing of this category of financial institutions in 2010 to include only brokerage houses (banks pursuing brokerage activity were not accounted for in the category). In 2010, the assets of brokerage houses increased by 10.8% in comparison with 2009.

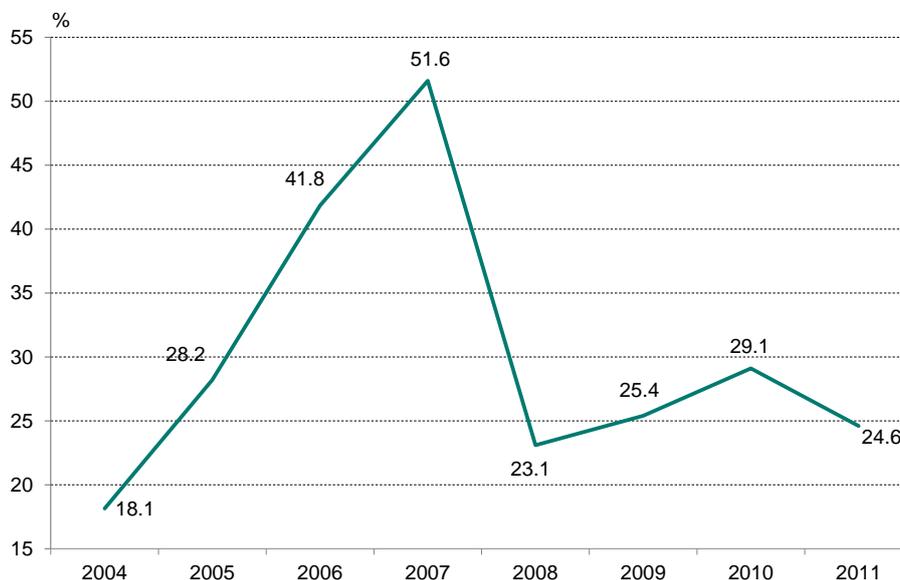
Source: NBP, UKNF, Anality Online, National Association of Credit Unions (KSKOK).

In 2011, the increase in the banking sector's assets was higher than in 2010. The bank assets to GDP ratio also increased. The increase in assets was mainly due to the development of lending to

the non-financial sector, although the ratio of loans to the non-financial sector to GDP remained lower than in euro area countries. The concentration of activity in the domestic banking sector continued in the segment of loans to households, which was characteristic also of other European countries. Yet for the first time in a number of years, the value of loans to enterprises increased at a faster pace than that of loans to households. This was related to, *inter alia*, a substantial tightening of lending policy of banks towards housing loans in the second half of the year and containing a reduction in the number of housing loans, in particular loans denominated in foreign currency. In turn, demand for bank loans from enterprises was stimulated by improvement in the economic situation, higher investment demand and the poor situation of the equity market that lowered attractiveness of market funding sources.

The reduction in the value of money in investment funds was largely the effect of a decrease in the valuation of their investment portfolios, largely due to declines in the equity market in the second half of 2011. As a result of uncertainty among investors and the downward trend of prices in the equity market, unit holders withdrew their money primarily from equity, balanced and stable growth funds. The high negative balance of inflows and outflows from investment funds in the period was the result of not only a reduction in investors' exposure in units, but it was also connected with complete withdrawal from this kind of investments by a part of customers.

**Figure 1.3.** Assets of investment funds as percentage of household bank deposits, 2004–2011



Source: NBP, Anality Online.

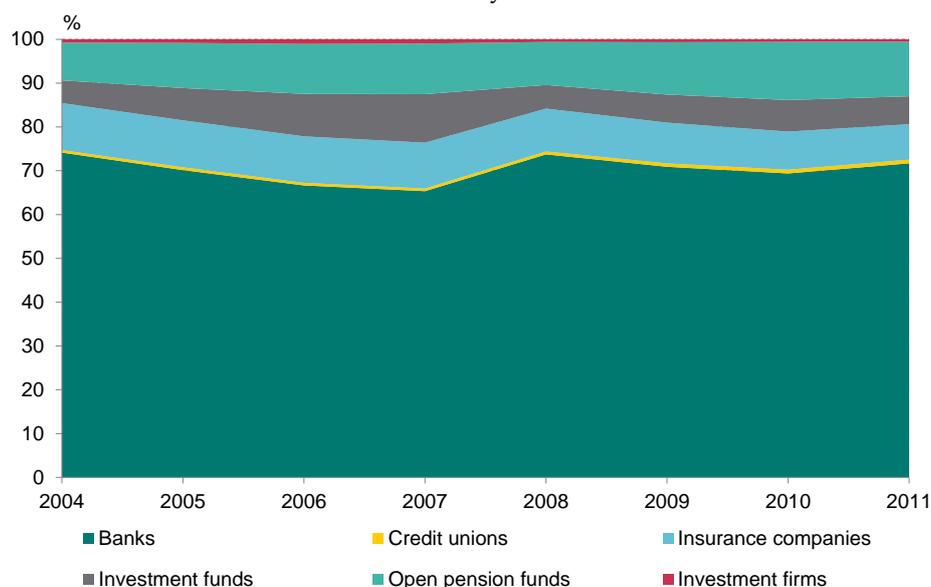
At the same time, intensified competition between banks for household deposits was observed, accompanied by an increase in average interest rates on term deposits in the second half of 2011. The highest increases in deposits were recorded in the fourth quarter. It was related, *inter alia*, to

a change in tax regulations that was in fact intended to eliminate the so-called anti-tax deposits (deposits with daily interest capitalisation). A part of households decided to place such deposits in the final months of 2011. Price decreases in the domestic equity market and the resulting considerable excess of investment fund unit redemptions over inflows of new funds in the second half of 2011, contributed to reducing the ratio of investment fund assets to household bank deposits (Figure 1.3).

In May 2011, significant amendments to the Polish pension system entered into force. They consisted in, inter alia, reducing the contribution to open pension funds from 7.3% of the calculation basis of the pension insurance to 2.3% thereof. As a result of the change, the value of funds transferred to open pension funds decreased by over 30% as compared to 2010.

The above trends translated into an increase in the banking sector's significance in the structure of assets of the domestic financial system, while the share of assets of non-bank financial institutions decreased (Figures 1.1.4 and 1.1.5).

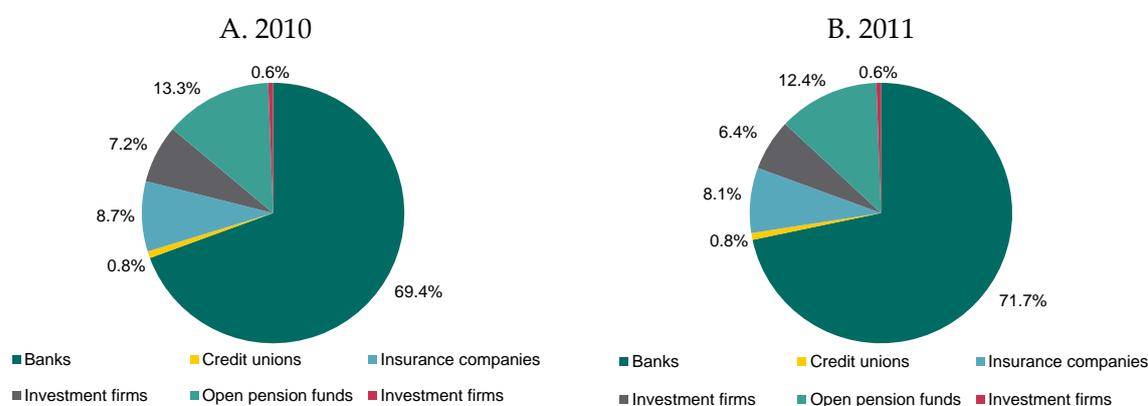
**Figure 1.4.** Asset structure of the Polish financial system, 2004-2011



Source: NBP, UKNF, Anality Online, KSKOK.

As at the end of 2011, in Poland there were 66 commercial banks, including 21 branches of credit institutions. The number of cooperative banks and insurance undertakings decreased by two, and the number of investment firms increased by one. The number of pension fund management companies that manage open pension funds did not change. In 2011, there was further significant increase in the number of investment funds (Table 1.5). In addition, Polish financial supervision bodies received further notifications about the intention of foreign entities to conduct business in the territory of Poland.

**Figure 1.5.** Share of individual financial institutions in the asset structure of the Polish financial system in 2010 and 2011



Source: NBP, UKNF, Analityz Online, KSKOK.

**Table 1.5.** The number of financial institutions in Poland, 2004–2011<sup>1</sup>

|  | 2004        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        | 2011        |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Commercial banks <sup>2</sup>  | 54          | 58          | 60          | 61          | 67          | 64          | 67          | 66          |
| Affiliating banks  | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 2           |
| Cooperative banks  | 596         | 588         | 584         | 581         | 579         | 576         | 576         | 574         |
| Credit unions  | 83          | 76          | 70          | 67          | 62          | 62          | 59          | 59          |
| Insurance companies <sup>3</sup>                                     | 69          | 68          | 65          | 67          | 66          | 65          | 63          | 61          |
| Investment funds (investment fund management companies) <sup>4</sup> | 154<br>(20) | 190<br>(23) | 241<br>(26) | 277<br>(33) | 319<br>(39) | 369<br>(43) | 417<br>(50) | 484<br>(50) |
| Open pension funds (pension fund management companies) <sup>5</sup>  | 15          | 15          | 15          | 15          | 14          | 14          | 14          | 14          |
| Investment firms <sup>6</sup>  | 40          | 42          | 47          | 53          | 58          | 59          | 64          | 65          |

<sup>1</sup> The table presents the number of institutions whose assets were taken into account in Table 1.3. It does not include foreign entities which can pursue cross-border activity (without their legal and organisational presence in Poland), branches of insurance companies or branches of foreign investment companies.

<sup>2</sup> Banks that conduct operating activity. The number of commercial banks also includes branches of credit institutions. In 2004, there were three, in 2005 – seven, in 2006 – twelve, in 2007 – fourteen, in 2008 and 2009 – eighteen, and in 2010 and 2011 – twenty-one branches of credit institutions.

<sup>3</sup> Entities conducting operating activity in the area of insurance and reinsurance.

<sup>4</sup> Up to and including 2007, the number of established investment funds and investment fund management companies (TFIs) (pursuant to a decision by the UKNF); since 2008, the number of entities registered in the Investment Fund Register held by the Regional Court in Warsaw.

<sup>5</sup> The number of pension fund management companies equals the number of open pension funds.

<sup>6</sup> The number of investment firms includes brokerage houses and banks pursuing brokerage activity.

Source: NBP, UKNF, KSKOK.

The Polish stock market remained the largest in the region in terms of both capitalisation and the number of listed companies (Table 1.6). Trends on global stock markets resulted in price drops in

the Warsaw Stock Exchange. In 2011, the WIG broad market index fell by 20.8%. In 2011, thirty eight new Polish and foreign companies conducted initial public offerings (IPOs) on the regulated market (compared to 34 in 2010), and there were 172 IPOs on the non-regulated NewConnect (compared to 86 in 2010). The value of new issues of those companies<sup>4</sup> was PLN 2.3 billion (PLN 1.5 billion in the previous year). The liquidity of the Polish equity market remained low.

**Table 1.6.** Characteristics of stock markets in selected Central and Eastern European countries and in the euro area, 2009–2011<sup>1</sup>

| Country                | Stock market capitalisation<br>(EUR billion) |         |         | Stock market capitalisation<br>to GDP (%)                            |           |           |
|------------------------|--|---------|---------|--|-----------|-----------|
|                        | 2009   | 2010    | 2011    | 2009   | 2010      | 2011      |
| Poland                 | 105.2  | 142.3   | 107.5   | 32.1   | 39.8      | 29.1      |
| Czech Republic         | 31.3   | 31.9    | 29.2    | 22.8   | 22.0      | 18.9      |
| Hungary                | 20.9   | 20.6    | 14.6    | 22.5   | 21.0      | 14.6      |
| Euro area <sup>2</sup> | 4,766.2                                      | 5,183.4 | 4,481.2 | 53.3   | 56.6      | 47.6      |
|                        | Liquidity ratio <sup>3</sup> (%)             |         |         | Number of listed companies (including<br>new companies) <sup>4</sup> |           |           |
|                        | 2009   | 2010    | 2011    | 2009   | 2010      | 2011      |
| Poland                 | 39.4   | 42.0    | 65.3    | 486 (39)   | 585 (120) | 777 (210) |
| Czech Republic         | 56.1   | 48.2    | 51.8    | 25 (0)   | 27 (2)    | 26 (2)    |
| Hungary                | 89.6   | 97.1    | 94.5    | 46 (4)   | 52 (6)    | 54 (6)    |
|                        | 2009   | 2010    | 2011    | Number of listed companies   |           |           |
|                        |  |         |         | 2009   | 2010      | 2011      |
| Euro area <sup>2</sup> | 104.0  | 125.2   | 137.4   | 7,328  | 7,129     | 6,977     |

<sup>1</sup> All the values given here also include alternative trading systems, if such platforms were run by the operator of a given stock exchange.

<sup>2</sup> Indices calculated for the euro area include the following stock exchanges: Athens Exchange, Deutsche Börse, NYSE Euronext (European part), Irish Stock Exchange, Ljubljana Stock Exchange, Luxembourg Stock Exchange, NASDAQ OMX Helsinki, Spanish Exchanges (BME), Wiener Börse, Cyprus Stock Exchange, Malta Stock Exchange and Bratislava Stock Exchange.

<sup>3</sup> The ratio of net turnover value to stock market capitalisation.

<sup>4</sup> Includes domestic and foreign companies.

Note: The data may differ from those presented in previous editions of the report due to adjustments.

Source: FESE, Eurostat.

In 2011, the money bills market remained the largest segment of the short-term debt securities market. The significant increase in value of these instruments resulted from the growing excess

<sup>4</sup> The value of new issues concerns domestic and foreign companies that conducted IPOs in the WSE Main List and the NewConnect market.

liquidity in the domestic banking sector. The strategy of extending maturity dates of public debt, consistently pursued by the Ministry of Finance, resulted in a significant reduction of the scale of issue of Treasury bills and in an increase in the outstanding value of Treasury bonds. Enterprises and banks financed their current operations by issuing short-term debt securities only to a slight extent.

The Treasury bond market, whose size increased in the period under analysis, remained the dominant segment of the debt securities market (Table 1.7). In response to the intensifying debt crisis in certain euro area countries, foreign financial institutions rebalanced their debt security portfolios by increasing the share of Polish government bonds. They were encouraged by the stable situation of public finance and the optimistic outlook for economic growth in Poland. In effect, similar to the previous year, foreign entities significantly increased their exposure on the instruments' market. The market of non-Treasury long-term debt securities was still underdeveloped, although all of its segments recorded a marked increase in issues. The outstanding value of these instruments of domestic enterprises and banks increased. In addition, BGK conducted subsequent bond issues for the National Road Fund (KFD).

**Table 1.7.** Outstanding value of individual instruments of money and capital markets as of year-end, 2008–2011 (PLN billion)

|   | 2008  | 2009  | 2010  | 2011  |
|---|-------|-------|-------|-------|
| Treasury bills                              | 50.4  | 47.5  | 28.0  | 12.0  |
| NBP bills                                   | 10.2  | 41.0  | 74.6  | 93.4  |
| Short-term bank debt securities             | 2.1   | 3.0   | 2.6   | 7.7   |
| Short-term corporate bonds                  | 11.6  | 6.2   | 11.7  | 15.9  |
| Marketable Treasury bonds                   | 360.8 | 405.4 | 471.3 | 495.2 |
| BGK bonds for the National Road Fund        | –     | 7.9   | 13.9  | 21.7  |
| Long-term corporate bonds                   | 16.0  | 15.5  | 19.9  | 26.6  |
| Municipal bonds                             | 4.5   | 6.9   | 10.9  | 14.4  |
| Long-term bank debt securities <sup>1</sup> | 6.6   | 5.5   | 5.2   | 10.4  |
| Mortgage bonds                              | 2.9   | 3.0   | 2.5   | 2.9   |
| NBP bonds                                   | 7.8   | 0.0   | 0.0   | 0.0   |

<sup>1</sup> The data include only bonds and bank securities, denominated in PLN and in foreign currency, issued by banks operating in Poland. European Investment Bank bonds and bonds issued by EU credit institutions have been also traded in the domestic market.

Note: Due to adjustments, the data may differ from those presented in previous editions of the report.  
Source: NBP.

In 2011, the domestic money market saw a decrease in counterparty credit risk aversion reflected e.g. in the margin decrease in the unsecured interbank deposit market. Compared to 2010, the activity of banks in this market was slightly lower, whereas the liquidity of the FX swap market and conditional transactions market increased considerably.

Turnover increase was also observed in the spot transactions and FX forward transactions market, as well as in the OTC interest rate derivatives market (Table 1.8). As in previous years, the majority of PLN exchange transactions and OTC foreign exchange derivatives operations were concluded in the offshore market (with no resident participation). The activity of investors in the exchange-traded derivatives market was concentrated in the segment of WIG20 index futures.

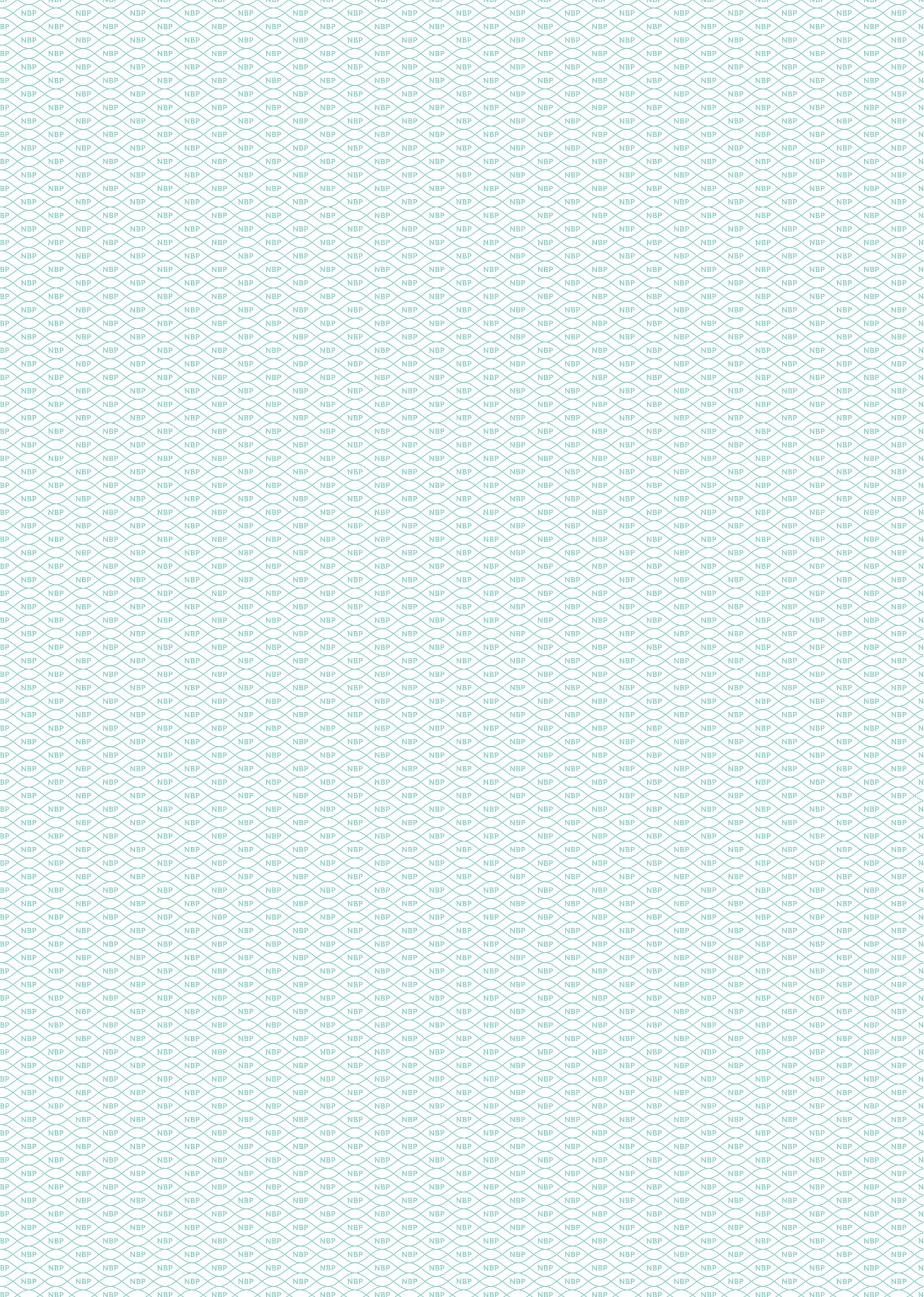
**Table 1.8.** Average daily net turnover in the domestic financial market, 2008–2011 (PLN million)

|                                   | 2008     | 2009     | 2010     | 2011     |
|-----------------------------------|----------|----------|----------|----------|
| Shares and allotment certificates | 661.7    | 700.5    | 933.3    | 1,076.1  |
| Treasury bonds                    | 17,155.1 | 13,827.8 | 23,923.6 | 29,555.3 |
| Treasury bills                    | 1,244.5  | 2,454.7  | 2,110.3  | 1,250.3  |
| Interbank deposits                | 10,263.5 | 7,259.9  | 7,025.4  | 6,195.4  |
| FX swap transactions              | 10,709.2 | 9,385.6  | 10,855.2 | 12,928.0 |
| Spot FX market                    | 4,236.4  | 3,906.6  | 4,280.0  | 5,219.1  |
| Forwards                          | 1,493.6  | 1,222.4  | 1,318.1  | 1,379.6  |
| CIRS transactions                 | 117.1    | 156.3    | 154.4    | 113.3    |
| Currency options                  | 1,833.0  | 579.5    | 341.7    | 321.5    |
| FRAs                              | 7,625.9  | 2,399.4  | 3,504.9  | 5,572.6  |
| IRSs                              | 1,827.0  | 682.5    | 1,353.0  | 2,218.8  |
| OISs                              | 1,912.5  | 868.2    | 963.7    | 1,215.0  |
| WIG20 futures contracts           | 1,198.7  | 995.1    | 1,319.6  | 1,381.6  |

Notes:

1. Average daily net turnover means the value of the transaction (transactions calculated individually). In the case of FX swap market transactions, turnover value was calculated for only one currency of the transaction.
2. For Treasury bills and bonds, the value of conditional transactions (repo and sell-buy-back) was calculated according to the initial exchange value. For FX swap transactions, the net transaction value was calculated according to the initial exchange value.
3. For the following markets: FX swap, foreign exchange, forward transactions, FX options and interest rate derivatives, the values represent the value of an exchange transaction involving PLN or PLN-denominated instruments. The influence of Money Market Dealers population changes was eliminated.
4. The turnover in stocks includes the value of session and package transactions.
5. The turnover in WIG20 futures contracts was calculated according to settlement values, taking into account session and package transactions.
6. The turnover in the foreign exchange market includes only domestic transactions. It does not include offshore market transactions.
7. Turnover in the interest rate derivatives markets refers to domestic money market rates instruments.

Source: NBP study based on data provided by the WSE, the Ministry of Finance and NBP.



## 2. Households and enterprises on the financial market in Poland

The financial system facilitates the flow of capital between entities with surpluses and entities which report resource needs. The circulation of funds in the financial system may take place via banks or via the financial market, where businesses issue equities (stocks or bonds). Investors, including households, may acquire equities either directly in the financial market or via financial institutions (e.g. investment funds, pension funds).

### 2.1. Financial assets of households

Households' choice of saving forms is determined by both microeconomic factors (e.g. their financial standing) and macroeconomic factors (resulting from the country's economic situation). Depending on the impact of individual factors, households decide on the volume of their savings (the savings rate) and select particular savings products.

Public sentiment surveys conducted in the Polish market<sup>5</sup> indicate that at the end of 2011 only 30.4% of respondents said they had savings, and 14.9% saw the possibility of making savings within a year (a decline from 16.3% in 2010). Among households that had savings, the majority of respondents held funds whose value amounted to between one and six monthly household incomes.<sup>6</sup> The surveys also demonstrate the cyclic nature of public expectations concerning the generation of own financial resources and making savings. These expectations are influenced, inter alia, by changes in disposable income of households (Figure 2.1).

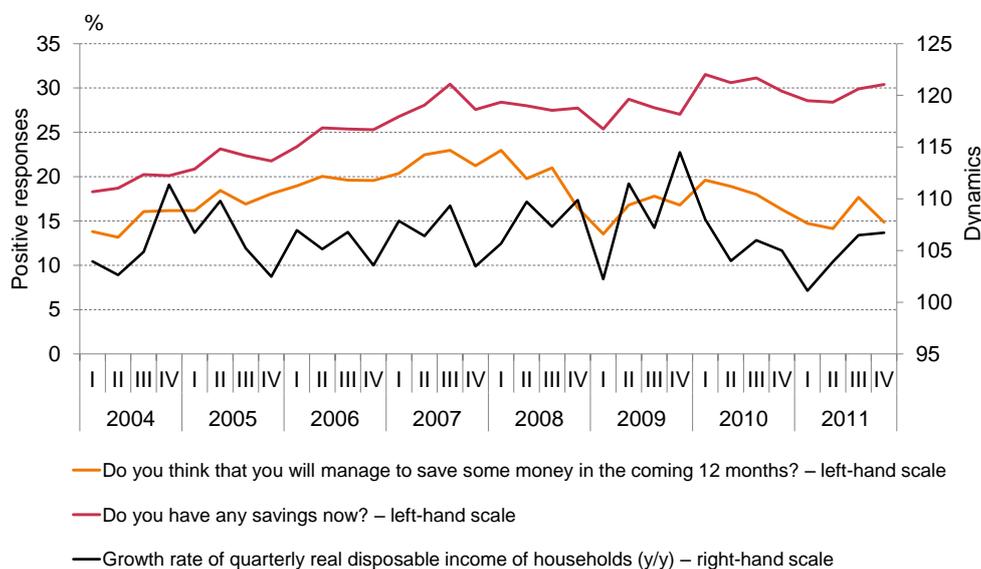
In 2011, the value of household financial assets<sup>7</sup> increased by 4.0% as compared to the end of 2010 and amounted to PLN 991.5 billion at the end of December 2011. The value of assets accounted for 65.1% of GDP, which represents a decrease by 2.3 p.p. as compared to the previous period (Figure 2.2). The growth of the assets was again influenced mainly by changes in the value of bank deposits. In 2011, the value of investment fund units, unit-linked assets, stock listed on the WSE (Main List and NewConnect) and Treasury securities in households' portfolios fell significantly.

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<sup>5</sup> Public mood surveys conducted by Ipsos.

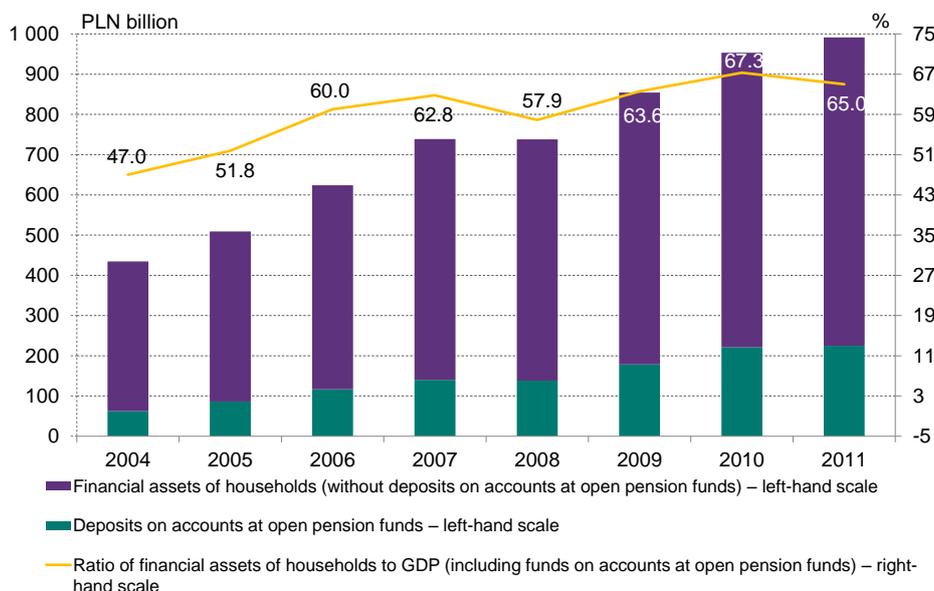
<sup>6</sup> J. Czapiński, T. Panek (eds.), *Diagnoza Społeczna 2011. Warunki i jakość życia Polaków [Social Diagnosis 2011. Objective and Subjective Quality of Life in Poland]*, Warsaw 2011, Rada Monitoringu Społecznego, p. 77.

<sup>7</sup> In this analysis, the financial assets of households include the following items: deposits at banks and credit unions, investment fund units (equal to amounts of net assets of investment funds except for the assets of funds which are known to be addressed to corporate entities only), units-linked assets (UFK) and life insurance savings premiums, funds on accounts in open pension funds, Treasury securities, stocks quoted on the WSE, cash in circulation excluding vault cash and non-Treasury debt securities.

**Figure 2.1.** Public sentiment survey on savings, and dynamics of disposable income, 2004–2011

Note: quarterly values are the arithmetic means of monthly data. Quarterly amounts of disposable income were deflated by the quarterly CPI. Quarterly dynamics is calculated with reference to the same quarter of the previous year.

Source: the calculations based on data provided by Ipsos and GUS.

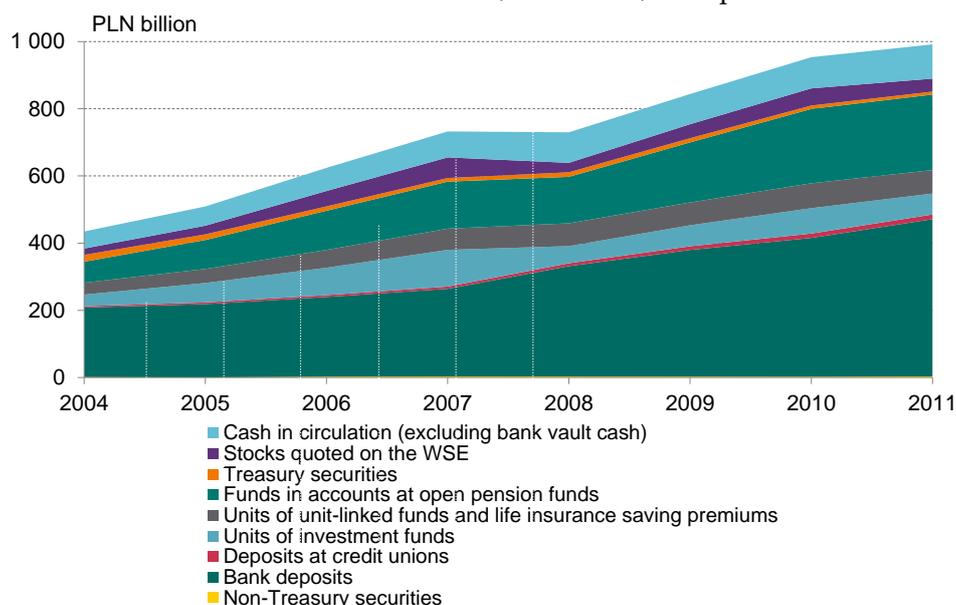
**Figure 2.2.** Financial assets of households, 2004–2011

Note: due to the change of sources, data for 2007–2010 may differ from the data presented in previous versions of the document.

Source: NBP estimates based on data provided by GUS, KSKOK, UKNF, Anality Online, NBP.

Bank deposits remained the main item of household financial assets (Figure 2.3). Their value increased from PLN 413.1 billion at the end of 2010 to PLN 467.8 billion at the end of 2011. Saving in the form of bank deposits was attractive due to: increasing average interest rate (the average interest rate on new zloty deposits rose from 3.6% in December 2010 to 4.7% in December 2011<sup>8</sup>) and a decrease in stock prices and units in investment funds in the second half of the year. The highest growth in deposits was recorded in the fourth quarter. It was the result of, inter alia, the expected entry into force of the amendment to the Act – Tax Ordinance<sup>9</sup> pursuant to which the new method of rounding tax bases and tax amounts was introduced from 31 March 2012. The purpose of the amendment was to eliminate the possibility to evade the capital gains tax, including the tax on interest on one-day deposits. In the last months of 2011, some households decided to open the so-called anti-tax deposits, which was reflected by banks' current deposit liabilities towards this sector of customers. The increase in the value of deposits in December was seasonal and related to payment of additional benefits by employers (bonuses, annual bonuses) that are usual in the period of the year.

**Figure 2.3.** Structure of household financial assets, 2004–2011, as at period-ends



Note: Due to the change of sources, data for 2007–2010 may differ from the data presented in previous versions of the document.

Source: NBP estimates based on data provided by GUS, KSKOK, UKNF, Anality Online, NBP.

<sup>8</sup> Source: NBP.

<sup>9</sup> Article 63 of the Act of 29 August 1997 – Tax Ordinance (consolidated text: Dz.U. 2012, No. 749).

Funds deposited in accounts at open pension funds were the second important item of household financial assets. However, they are of different nature than other types of capital investment: they are mandatory, which determines a constant inflow of funds. Moreover, it is not possible to pay out capital gathered in open pension funds before the retirement age. At the end of 2011, the value of those savings amounted to PLN 224.7 billion (with a 22.7% share in financial assets of households), with only a 1.6% increase as compared to the end of 2010 (Table 2.1). That was the lowest growth rate of net open pension fund assets from the beginning of the capital part of the pension system. It was due to negative results of the funds' investments, mainly arising from declines in stock prices on the WSE and changes in the legal setting of the pension fund sector. From 1 May 2011, open pension funds received only 2.3% of the remuneration basis, not 7.3% as was the case before. As a result, the funds transferred to open pension funds via the Social Insurance Institution (ZUS) were 31.8% lower than in the previous year.

**Table 2.1.** Structure and changes (y/y) in selected items of household financial assets, 2008–2011, as at period-ends

|   | 2008  | 2009 | 2010  | 2011  |
|---|-------|------|-------|-------|
| <b>Share in total assets of households (%)</b>        |       |      |       |       |
| Bank deposits   | 45.6  | 45.4 | 43.3  | 47.2  |
| Funds on accounts at open pension funds               | 18.7  | 20.9 | 23.2  | 22.7  |
| Units of investment funds                             | 6.9   | 7.3  | 7.9   | 6.3   |
| Unit-linked assets and life insurance saving premiums | 9.2   | 8.0  | 7.8   | 7.0   |
| Stocks quoted on the WSE                              | 3.8   | 4.9  | 5.4   | 3.9   |
| Treasury securities                                   | 1.8   | 1.5  | 1.1   | 0.9   |
| Non-Treasury securities                               | 0.4   | 0.3  | 0.3   | 0.4   |
| Deposits at credit unions                             | 1.2   | 1.3  | 1.4   | 1.4   |
| Cash in circulation (excluding vault cash)            | 12.3  | 10.5 | 9.7   | 10.3  |
| <b>Increase in household assets (y/y, %)</b>          |       |      |       |       |
| Total financial assets                                | -0.1  | 15.8 | 13.0  | 4.0   |
| Bank deposits   | 26.0  | 15.1 | 9.6   | 13.2  |
| Funds on accounts at open pension funds               | -1.2  | 29.1 | 23.9  | 1.6   |
| Units of investment funds                             | -53.3 | 22.5 | 20.8  | -17.5 |
| Unit-linked assets and life insurance saving premiums | 7.5   | 0.2  | 9.1   | -5.7  |
| Stocks quoted on the WSE                              | -54.1 | 48.1 | 22.6  | -24.3 |
| Treasury securities                                   | 26.3  | -7.2 | -19.5 | -13.4 |
| Non-Treasury securities                               | -8.6  | -9.4 | -17.2 | 45.8  |
| Deposits at credit unions                             | 28.3  | 26.0 | 20.2  | 7.4   |
| Cash in circulation (excluding vault cash)            | 17.7  | -1.1 | 3.3   | 7.2   |

Note: Due to the change of sources, data for 2007–2009 may differ from the data presented in previous versions of the document.

Source: NBP estimates based on data provided by GUS, KSKOK, UKNF, Anality Online, NBP.

As in previous years, the third item among household assets – in terms of value – was cash in circulation (excluding bank vault cash). As at the end of 2011, the value of this category of household financial assets amounted to PLN 101.9 billion.

Unit-linked assets and life insurance saving premiums were other items among household assets. Their value in households' portfolio diminished from PLN 74.1 billion at the end of 2010 to PLN 69.9 billion at the end of 2011. Lower interest in this type of saving was probably due to households preferring to place their money in higher interest-bearing bank deposits, including the above-mentioned one-day anti-tax deposits, and withdrew their savings from insurance companies. In addition, due to low sales margins, the majority of insurance companies limited their offer of anti-tax insurances and structured insurance products.

As at the end of the year, the value of investment fund units held by households (excluding units acquired by insurance companies in connection with the conclusion by natural persons of life insurance agreements with an insurance capital fund) amounted to PLN 62.3 billion, a significant decrease compared to the value at the end of 2010 (by 17.5%). The observed change in value of this portion of household assets was mainly due to declines in prices on the domestic equity market and the resulting significant advantage of investment fund unit redemption over inflows of new funds in the second half of 2011. A significant outflow of funds took place in August (Figure 2.4), when investors withdrew net PLN 2.6 billion, i.e. the highest amount since October 2008. Throughout the year, the majority of funds were withdrawn from equity and mixed funds. Households acquired mainly units in money market funds and bond funds.

Due to declines in stock prices on organised markets, household exposure in the stock market of companies listed on the WSE listed declined significantly (from PLN 51.1 billion as at the end of 2010 to PLN 38.7 billion at the end of 2011).<sup>10</sup>

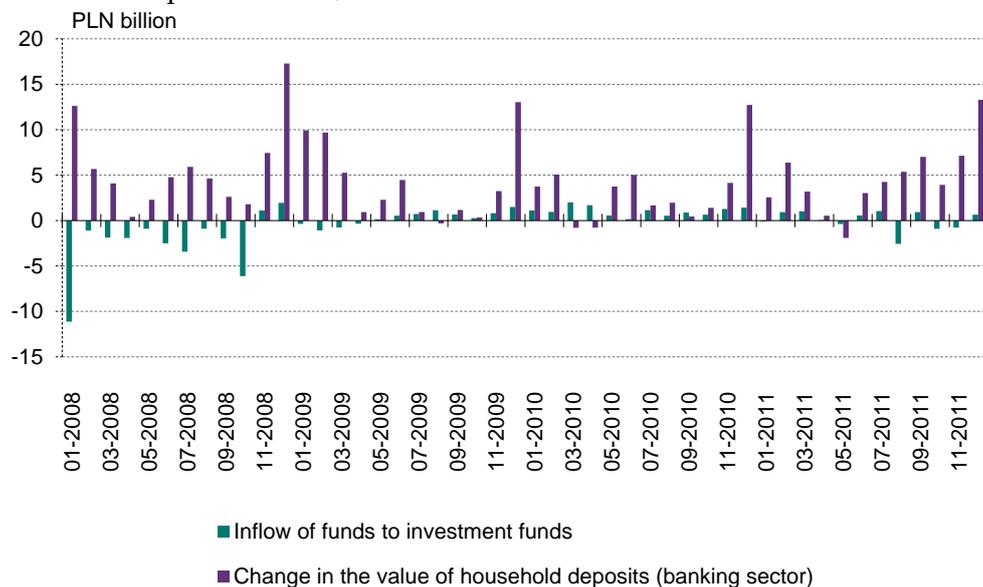
The value of Treasury bonds in the portfolio of households declined again and amounted to PLN 8.8 billion at the end of 2011 (PLN 10.1 billion at the end of 2010). Low interest rates on government bonds for retail customers as compared to interest rates on deposits offered by banks resulted in a situation where households preferred to keep their savings in the latter financial institutions.

Deposits in credit unions rose from PLN 13.0 billion as at the end of 2010 to PLN 14.0 billion as at the end of 2011, and they remained of minor importance in the structure of the financial assets of households (1.4%). The growth rate of such deposits was the lowest in the history of credit unions.

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<sup>10</sup> The direct exposure of households in the domestic equity market is significantly smaller than their indirect exposure.

**Figure 2.4.** Net inflow of funds from households to investment funds and the change in the value of household bank deposits in PLN, 2008–2011



Source: NBP calculations based on data provided by Anality Online and NBP.

## 2.2. External sources of financing of Polish enterprises

In 2011, the economic condition of non-financial enterprises improved, mainly thanks to slowly but visibly increasing domestic demand, and the import demand of Poland's trading partners.<sup>11</sup> Total revenues from total corporate activity increased faster (by 13% in nominal terms) than operating costs (by 12.9%), which resulted in improved pre-tax profit of the non-financial enterprise sector by 16.2%, as compared to 2010. The net profit margin of the entities also improved slightly.

After two subsequent years of nominal decrease, 2011 saw an increase in investments in the enterprise sector, by 11.1% as compared to 2010. Due to uncertainty as to the economic situation in the euro area and its impact on the outlook for economic growth in Poland, investment activity of enterprises focused on modernisation of the existing machines and equipment, and concerned expanding their fixed asset resources to a lesser extent. Fixed investments were partially financed from external sources, which in the first half of the year were fuelled by: a lenient lending policy of banks, high demand for securities in the domestic capital market and the upward trend of stock prices on the WSE.

<sup>11</sup> *The financial condition of the enterprise sector in 2011 Q4*, NBP, April 2012.

In the first half of 2011, banks moved to ease their standards of granting corporate loans due, inter alia, to their improved capital position and strong competitive pressure.<sup>12</sup> In the second half of the year, the standards were tightened again (particularly towards the SME sector), which may be due to the above-mentioned economic situation in certain euro area countries and the worse outlook for economic growth in Poland. In 2011, the value of new bank loans to non-financial enterprises was approximately PLN 111 billion – it was close to PLN 6 billion higher than in 2010.<sup>13</sup> At the end of 2011, total corporate loan debt was 8.2% higher than at the end of 2010, and the fastest increase in liabilities due to these loans was recorded by construction sector entities (by 27%).

Leasing was an important non-banking external source of financing of Polish non-financial enterprises (Figure 2.5). The value of assets leased in 2011 was PLN 31.1 billion, an increase of PLN 3.8 billion on the previous year. The increase in value of new leasing contracts was due to higher corporate investment activity<sup>14</sup> and infrastructure outlays connected with preparations for the European Football Championship in 2012. The highest interest in leasing was observed at the end of 2011, which can be attributed to the said tightening of lending policy by banks and the first raising of spreads on loans to SMEs from the first quarter of 2010. Financing of tangible fixed assets by means of leasing is of significant importance in the SME sector, where many business entities with short credit history face difficulties in accessing alternative external financing sources, such as loans or issuing debt securities.

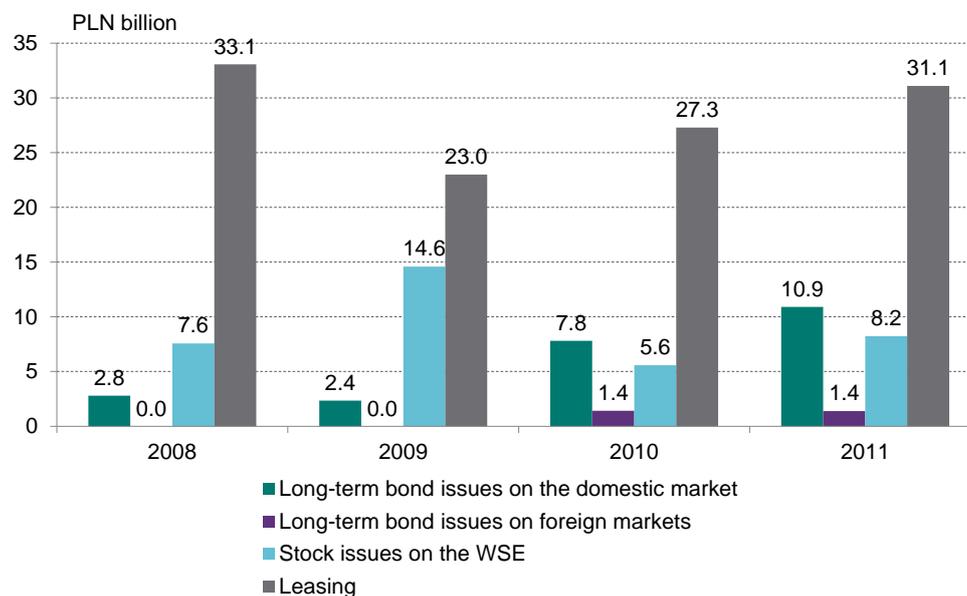
In 2011, the value of issues of new shares of domestic non-financial enterprises traded in the WSE organised markets (the WSE Main List and NewConnect) was PLN 8.62 billion (PLN 2.6 billion higher than in the previous year). The increase was connected with a favourable situation on the equity market in the first half of 2011, which encouraged many companies to conduct IPOs on the WSE Main List or the alternative trading system NewConnect, or to increase their share capital by issuing new shares on organised markets. In 2011, a total of 210 domestic companies conducted IPOs on the WSE Main List and NewConnect, of which over 80% traded their stock in the alternative trading system. Even small entities and companies with short business record could raise capital on NewConnect due to relatively low issue costs, lower disclosure requirements and fees charged on the issuer for quotations of its shares as compared to the WSE Main List.

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<sup>12</sup> *Senior loan officer opinion survey on bank lending practices and credit conditions – 2011 Q3*, Warsaw 2011, NBP.

<sup>13</sup> The data cover a group of banks whose share in the banking sector's assets is 72.1%.

<sup>14</sup> *Financial results of non-financial enterprises in 2011*, GUS, Warsaw, 2012.

**Figure 2.5.** Selected non-banking external sources of financing of Polish enterprises, 2008–2011

Source: NBP calculations based on data from the National Depository for Securities (KDPW), Fitch Polska and NBP.

In 2011, companies raised PLN 10.9 billion by issuing long-term bonds in the domestic financial market (an increase of PLN 3.1 billion compared to 2010). Large companies from the energy and construction sectors mainly showed interest in this source of financing, and issues by only several such entities accounted for over 50% of the value of funds obtained in this way in 2011. The demand for the bonds by, inter alia, investment funds and pension funds facilitated placing the bonds in the market. Institutional investors were mainly interested in bonds issued by large companies with a sound financial position. The acquisition of corporate bonds allowed them to earn higher rates of return than return on investments in Treasury bonds. Furthermore, the access to financing through issuing bonds was facilitated by introducing Catalyst, the platform for trading debt instruments, in the second half of 2009. Investors who purchased bonds on the Catalyst platform accepted lower margins due to lower liquidity risk of those bonds as compared to bonds traded in the OTC market. The value of corporate bonds issued in 2011 and traded on Catalyst was PLN 4.3 billion, an increase by PLN 2.0 billion as compared to 2010.

Bond issues in foreign markets had a small share in the structure of external financing of domestic enterprises. It resulted, inter alia, from disturbances in the Treasury bond markets of certain euro area countries in the second half of 2011, which reduced investor's appetite for risk.

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