



Financial Stability Review

First half of 2004

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1. Executive summary

In the first half of 2004, the financial system exhibited high stability, understood as the ability to provide financial intermediation and payment services without interruption. The standing of the most important segment of the financial system – the banking sector – improved: regulatory capital went up and average capital adequacy ratios and earnings increased as well. No unfavourable phenomena were observed with regard to non-banking financial institutions, either.

The economic recovery and the related improvement in the standing of the real sector undertakings had a positive influence on the situation of the banking sector. Credit risk can be assessed as lower than six months ago, since the debt burden of enterprises and households is still relatively low, and economic outlook for the immediate future is favourable.

During the first half of the present year, the exposure of financial institutions to interest rate risk originating from their portfolio of domestic Treasury securities decreased. Faced with an increase in market interest rates and expecting further rises, financial institutions reduced the duration of their portfolios. Despite such actions, in the second quarter of the year, banks incurred losses on Treasury securities, which were only partly offset by income from operations involving derivatives.

Other potential sources of bank financial instability – foreign exchange risk and the risk related to the property market – remained at a low level. The rise in Warsaw Stock Exchange indices and increased share trading volumes contributed to an increase in brokerage office income as well as the earnings of banks.

During the period under consideration a minor shift in the structure of financing of banks' operations was observed, namely an increase of deposits from financial institutions at the expense of deposits of the non-financial sector. At the same time, the liquidity gap remained at the level from December 2003 (although higher than the average in 2003). The situation on the interbank market has demonstrated that the short-term liquidity disruptions, which occurred in the banking system, posed no systemic threat.

The economic recovery has also contributed to an improvement in the earnings of non-bank financial institutions. This has been reflected in the earnings of banks' subordinate undertakings, subsequently increasing the profits of the banking sector.

The assessment of the standing of the banking sector in the first half of 2004 has been largely influenced by the changes in regulations that have been in force since the beginning of the year. The new regulation concerning the principles of claim classification and the establishment of specific provisions enhanced the reported quality of banks' loan portfolio, as well as reduced expenses related to establishing specific provisions, and improved earnings. The increase in capital adequacy ratio, in turn, was influenced by the adjustment of the regulation concerning the calculation of capital requirement to the laws in force in the European Union. Some regulatory changes had a one-time effect only. Therefore, it will be possible only in the coming quarters to provide a more precise assessment of the changes in the financial stability of the banking sector resulting from the influence of economic factors. The wide scope of changes in the principles of claim classification and the establishment of specific provisions will, however, turn their implementation into a prolonged process, and the changes will influence the banks for some time to come.

2. Banking sector stability

2.1. Credit risk

2.1.1. Real sector situation

The corporate sector

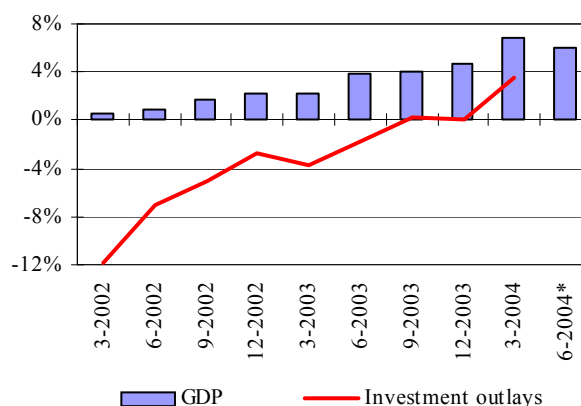
In the first quarter of 2004, the macroeconomic situation of the country significantly improved. The growth in the GDP amounted to 6.9% in the first quarter (and was higher than forecasted before), and to about 6% in the second quarter. The manufacturing industry had the most important influence on the quick pace of economic growth. Exports in euro terms rose by 24.4% in the first half of the year and remained the primary factor of the economic growth. Businesses also increased stocks, anticipating larger demand for their products in the second quarter of 2004.

A notable increase in investment, for the first time in three years, was a sign indicating that rapid economic growth may be sustained in the subsequent quarters (cf. Fig. 1). Moreover, the capacity utilization ratio (estimated on the basis of survey data) reached 80.7% at the end of June 2004, which meant that enterprises were approaching their capacity limits (cf. Fig. 2). Therefore, a more rapid growth in investment may be expected in the second half of 2004, which should also contribute to an increase in corporate lending. An increase in inflation in the first half of 2004, as well as the expectations of an interest rate rise may halt the increase of the domestic demand and the processes of taking investment decisions by enterprises.

In the first half of 2004, the amount of corporate loans decreased, as compared to June 2003, whilst deposits grew. These changes suggest that enterprises accumulated available funds while postponing new investments. Political risk in the second quarter, as well as the uncertainty concerning the future direction of the government's economic policy and the consequences of Poland's accession to the EU, were contributing factors here.

The decrease in corporate loan debt and the growing amount of deposits resulted from an improvement in the

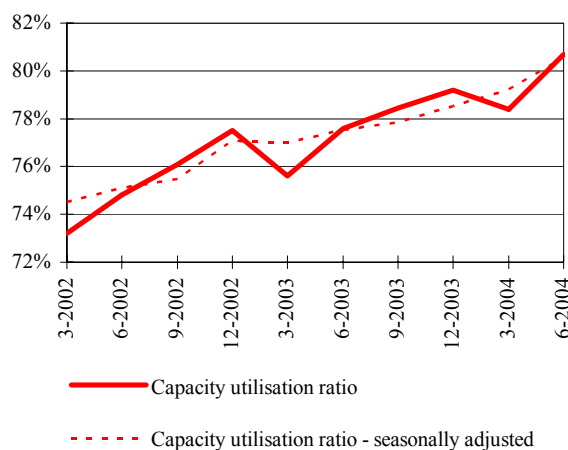
Figure 1
Growth of GDP and investment outlays (y/y)



* NBP estimate.
Source: GUS.

Figure 2

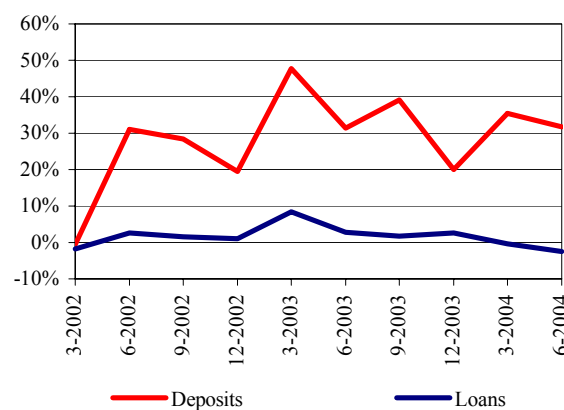
Capacity utilisation



Source: NBP

Figure 3

Increase in corporate loans and deposits (y/y)



Source: NBP.

financial standing of enterprises. In the first quarter of 2004, the profitability ratio in the sector amounted to 6.5%, the highest value ever recorded (cf. Fig. 4). Profitability improved in all sections of the economy. At the same time, liquidity in the corporate sector improved. The level 1 and 2 liquidity ratios went up in the first quarter, continuing the trend which appeared in 2003 (cf. Fig. 5).

The improving financial standing of enterprises and the decreasing amount of loans accompanied by stable interest rates lowered the debt burden and the costs of servicing it.

In the first half of 2004, the corporate loan and total debt burdens fell, what resulted, inter alia, from a decrease in long-term loans and other long-term liabilities (cf. Fig. 6).

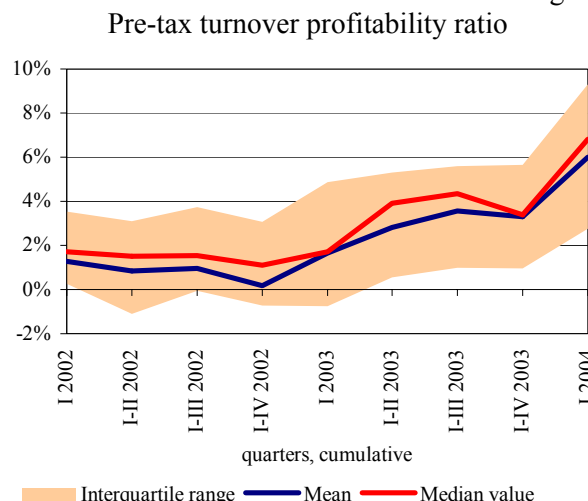
Due to the fact that interest rates on loans first decreased and then stabilised at the lowest level ever, the downward trend in bank interest burden (after adjusting for seasonal factors) was sustained. The financial cost burden ratio, which also includes the cost of servicing foreign debt, dropped to the lowest level since the fourth quarter of 1995, i.e. from the moment when the analysis was first conducted (cf. Fig. 7). The low level of this ratio resulted not only from the enterprises' high earnings on sales, but also from the lowest level of financial costs since 1997.

The household sector

In the first quarter of 2004, the financial standing of households improved as well. Compared to the first quarter of 2003, the average gross wages rose by 2.8% in real terms (cf. Fig. 9). In the same period, private consumption grew by 4%, which may point to a recovery in consumer demand¹. This increase could — to some extent — have stemmed from the anxiety about rises in the prices of certain goods after Poland's accession to the EU.

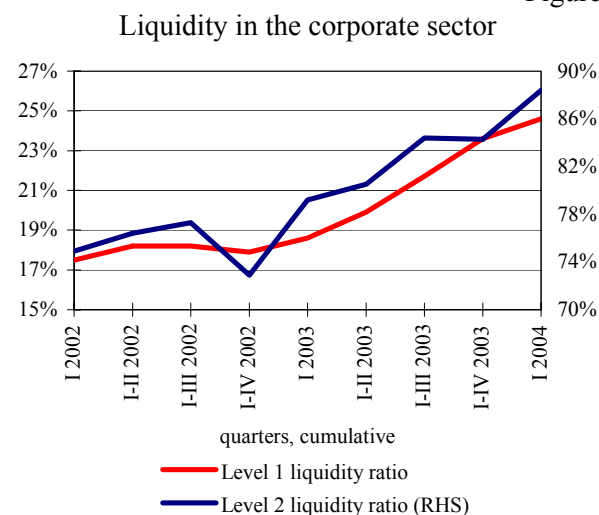
Labour market situation remained difficult, which limited the growth in household purchases. The decrease in unemployment rate to 19.5% in June 2004 was largely seasonal. Due to the high capacity utilisation and the expected initiation of new

Figure 4



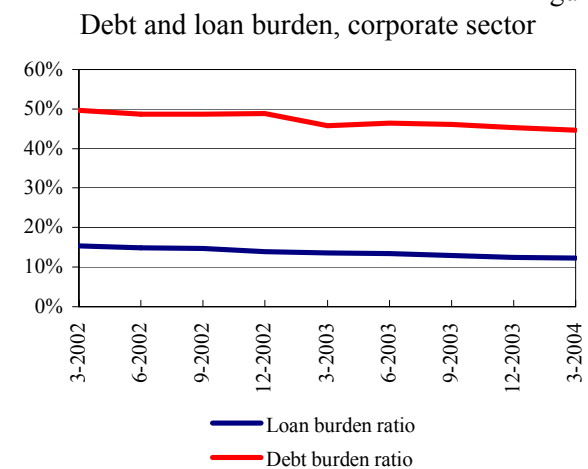
Source: GUS.

Figure 5



Source: GUS.

Figure 6



Notes: debt burden ratio = liabilities / total assets; loan burden ratio = loans / total assets.
Source: GUS.

investments by enterprises, it may be expected that the unemployment rate will fall in the second half of 2004. The gradual improvement on the labour market and diminished fear of job loss may contribute to an increase in consumer demand and demand for loans in the long run.

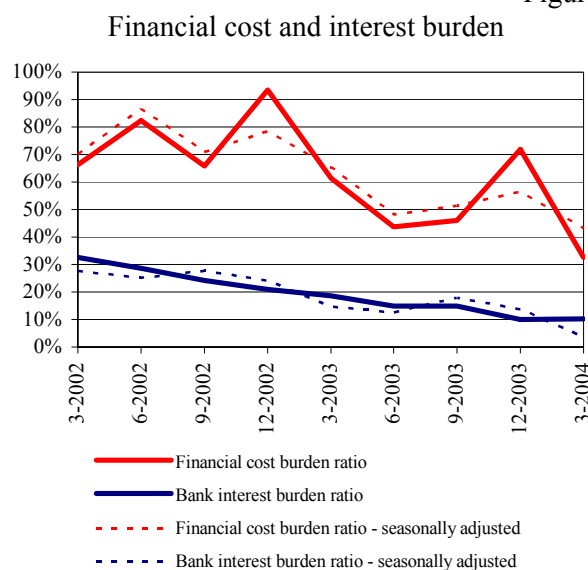
Loans to households increased both in the first and second quarters of 2004 (cf. Fig. 8). This increase resulted mainly from the rapid growth in housing loans, which were granted mainly in zloty from mid-2003 onwards. The results the bank lending survey² suggest that the intensified demand for housing loans was caused primarily by fears of rises in house prices after May 1, 2004 due to changes in VAT rates on construction materials and the purchase of land for property development.

In the first quarter, the households' loan burden ratio increased because the amount of loans grew faster than disposable income. It may be expected that in the second quarter the debt ratio also grew due to the significant growth in bank claims on households. However, the average household loan burden ratio is over four times lower than that in the majority of more developed European Union countries.

Due to the rapid increase of indebtedness, the coverage of loans by households' assets decreased (the proportion of loans to households' financial assets grew by 2.1 percentage points to 31.7%), despite the fact that households' assets rose in the first half of 2004 (cf. Table 1). The coverage of loans by assets is high and, as in the case of the loan burden ratio, does not signify a decrease in the households' capability to repay their liabilities to banks.

In the first half of 2004, the average interest rates on consumer loans remained stable. However, since in the initial stage of repayment of foreign currency housing loans the repayment of interest constitutes a significant part of debt instalments, the weakening of the zloty against the euro and the Swiss franc before May 2004 led to an increase in household interest burden (cf. Fig. 10). In the second half of the year, the interest burden ratio may continue to rise due to increasing loan interest rates. However, due to the low household debt level, the interest burden is low compared to more developed EU

Figure 7

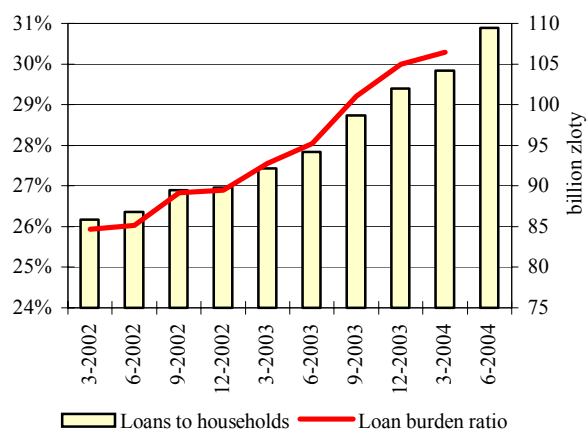


Notes: financial cost burden ratio = (corporate financial costs) / (corporate sales earnings + corporate financial income); interest burden ratio = (banks' interest income and net interest income at maturity) / (corporate sales earnings + corporate financial income)

Sources: NBP, GUS.

Figure 8

Loan burden vs. loans, household sector



Notes: loan burden ratio = household loans (residents) / (gross annual wages + gross annual social benefits).

Sources: GUS, NBP.

countries.

2.1.2. Loan portfolio quality³

Loans to the non-financial sector remain the primary source of credit risk in the Polish banking sector (cf. Table 2). Loans to corporates are the main component of the loan portfolio. The trend towards the increasing importance of loans to households (primarily to persons), which has been observed for several years, persists, however. As opposed to banks operating in more developed EU countries, from the point of view of Polish banks, debt securities issued by enterprises constitute an insignificant part of their exposure, while deposits with other financial institutions, mainly banks, and domestic Treasury securities are important items in bank balance sheets. Deposits, just as loans, carry the risk of the counterparty's default. On the other hand, investors treat Treasury securities as free of credit risk.

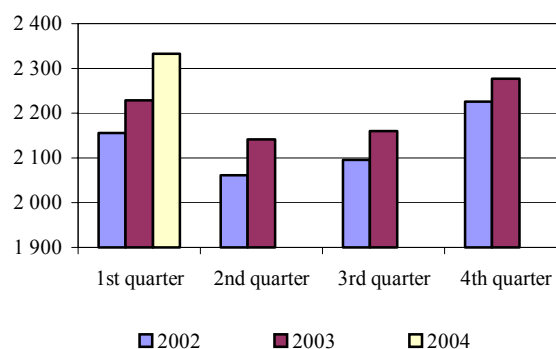
In the first half of 2004, the amount of irregular loans as well as the average level and differentiation of the irregular loan ratio (defined as the proportion of irregular loans in loans to the non-financial sector) in the banking sector decreased (cf. Figs. 11 and 12). At the end of June, the irregular loan ratio was 17.2%. A comparison between the median and the arithmetic mean demonstrates that smaller banks – mainly corporate banks providing services to multinationals and banks implementing rehabilitation programmes – have exhibited a larger improvement in loan quality.

The improvement in the quality of banks' loan portfolio has been caused by economic and regulatory factors. The most important among them have been:

- Rapid economic growth, the improving condition of many industries and low real interest rates have enhanced the performance of loans;
- The new, more lenient regulation concerning the classification of loans to risk categories and the principles of establishing specific provisions⁴, which has been in force since the beginning of 2004, has caused some irregular loans to be reclassified as satisfactory. This applied to consumer loans with delinquency periods not longer than 6 months, and loans to corporates with suitable security defined in

Figure 9

Average monthly gross wage (in zloty)



Source: GUS

Table 1

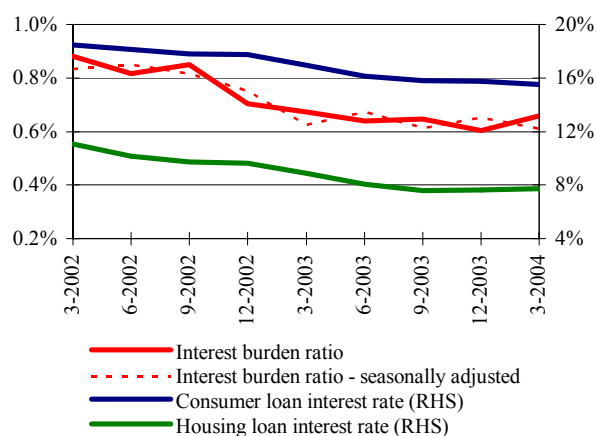
Assets structure, the household sector

	June 2004 (billion zloty)	Structure (%)	Change on December 2003 (% points)
Total, of which:	345.6	100.0	0.4
Bank deposits in zloty	169.3	49.0	-2.7
Foreign currency bank deposits	35.9	10.4	-0.3
Investment fund assets	31.5	9.1	3.9
Life insurance undertakings	32.3	9.3	6.6
Deposits at credit unions	3.4	1.0	8.6
Treasury bonds	17.1	4.9	7.3
Treasury bills	3.6	1.0	16.2
Notes & coin in circulation (excluding vault cash)	50.5	14.6	2.2
Bank bonds	2.1	0.6	-5.4

Source: NBP

Figure 10

Quarterly interest burden vs. loan interest rates



Notes: interest burden ratio = interest income from households (residents) plus net interest income at maturity / (gross wages + gross social benefits).

Sources: GUS, NBP.

the Ordinance of the Minister of Finance. Certain loans have also been upgraded, due to the replacement of the evaluation of the debtor's economic standing with the evaluation of the collateral issuer's standing.

Due to the lack of data, it is impossible to fully estimate the impact of the new regulation. It may be said, however, that changes in the classification of claims on persons and posting *loss* classifications as memo items have accounted for around 69% (around 61% and 8%, respectively) of the decrease in the irregular loan ratio in total. It should be stressed that the changes in irregular loan ratio resulting from amendments to prudential regulations have not been caused by changes in the credit risk level, but have facilitated comparisons with other countries in terms of its scale.

The irregular loan ratio presented on the figures, albeit lower (by 4 percentage points) than at the end of the previous year, still significantly deviated from the EU average (3.1% in 2002)⁵. The abovementioned supervisory regulation has introduced significant changes compared to previous loan classification rules. Taking full advantage of the opportunities it creates, and thus the reduction of the irregular loan ratio, will require some time, as banks are currently facing a challenge of the necessity to adjust their internal accounting and reporting systems and procedures.

The proportion of loans classified irregular in the entire loan portfolio significantly exceeded the proportion of non-performing loans (cf. Fig. 13). The gradual convergence of the irregular loan ratio to the level of the non-performing loan ratio will follow banks' adjustment to the new regulation mentioned above.

Among the irregular loans, *loss* classifications constituted the majority (cf. Fig. 14). This was a result, inter alia, of the past accumulation of such loans in bank balance sheets⁶. Since December 2003, banks may charge off *loss* loans against specific provisions without surrendering them at the same time, provided that the loan is fully covered by specific provisions and has been classified as *loss* for at least one year⁷. The earlier uncertainty concerning the legality of such operations was one of the reasons for the accumulation of loss

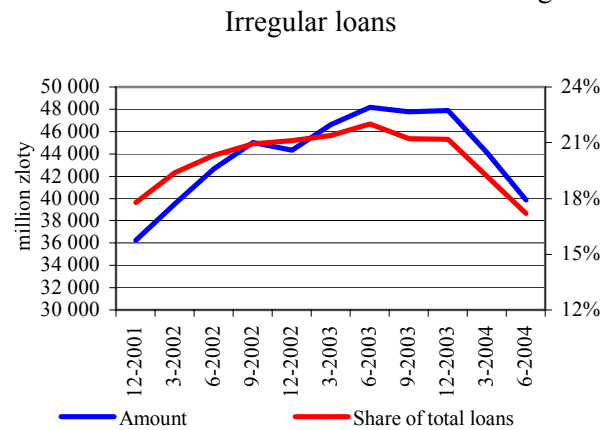
Table 2

Major assets subject to risk
(% of total assets)

	Dec 03	Mar 04	Jun 04
Total, of which:	61.1	62.3	62.8
- Claims on the financial sector	15.7	17.4	18.7
- Claims on the non-financial sector, of which:	44.4	44.0	43.2
- Corporates	23.4	23.1	21.8
- Households (persons)	18.5	18.5	19.0
- Debt securities of the non-financial sector	13.7	13.7	14.1
	1.0	0.9	0.9

Source: NBP.

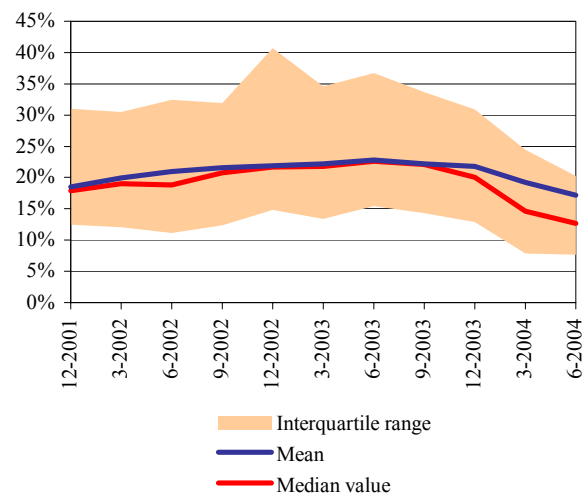
Figure 11



Source: NBP.

Figure 12

Ratio of irregular loans, commercial banks



Source: NBP.

classifications. In the first half of the year, several banks used the opportunity created at the end of the last year, but the amounts written off have so far been insignificant as compared to *loss* classifications (around 1 and 2.5% in the first and second quarters).

Irregular loans are covered by security and specific provisions in the amount stipulated in the regulations (at least 20% of the provisioning base for *substandard* claims, 50% for *doubtful* ones and 100% for claims classified as *loss*). With regard to *loss* loans, most of which (81%) were granted before 2003, banks established provisions covering around three quarters of their value. The remaining claims are secured. With regard to *doubtful* and *substandard* loans, which were mostly granted recently, the proportions between specific provisions and security are reversed (cf. Fig. 15). This is, among other things, a result of changes in banks' lending policies and paying greater attention to the quality of security accepted.

Prudential regulations, particularly those that came into force in 2004, have created strong incentives to accept high quality security. They reduce the cost of establishing specific provisions if the loan quality deteriorates, and make it possible to avoid classifying claims as irregular. The issue of security quality is of great importance in the Polish market, as banks' experience to date indicates that the process of collecting on non-performing loans is long (2–3 years) and inefficient (in the years 2001–2003 the proportion of recovered claims in the claims with regard to which collection procedures were initiated ranged from 11% to 31%).

Loan quality by type of borrower

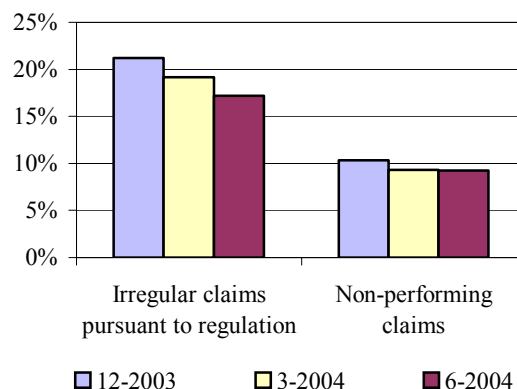
In the first half of 2004, the ratios and amounts of irregular loans in all borrower groups decreased. Loans extended to households, and particularly to persons, were of the best quality⁸ (cf. Table 3).

Particular types of loans to persons significantly differed in terms of timely servicing (cf. Fig. 16). In terms of quality, housing loans were the best, while the consumer loan portfolio was much worse.

With regard to loans to persons, the proportion of

Figure 13

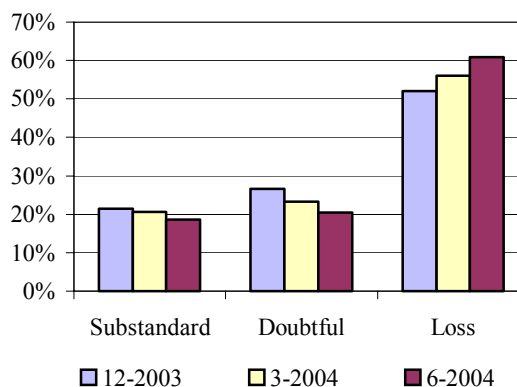
Irregular loans as percentage of total loans



Source: NBP.

Figure 14

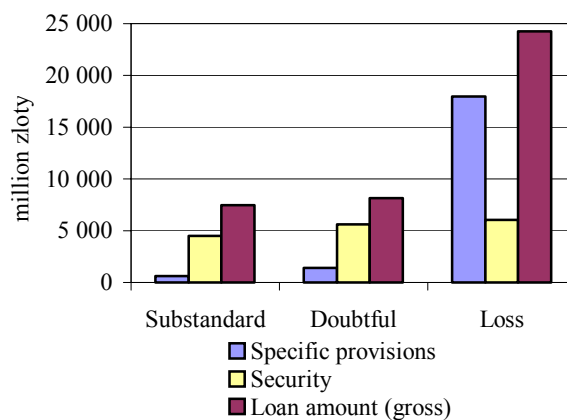
Structure of irregular loan portfolios



Source: NBP.

Figure 15

Coverage of irregular loans by security and specific provisions



Source: NBP.

housing loans increased at the expense of consumer loans, e.g. instalment loans and authorised overdrafts, i.e. the lowest quality loans. This has been the result of a significant demand for houses, which was financed with loans, as well as less restrictive lending policies with regard to housing loans.

The results of quarterly bank lending surveys indicate that in the first half of the year the number and market share of banks which eased the criteria and conditions of granting consumer and housing loans prevailed over the number and market share of banks which did not change their lending policies or tightened them.

Loan quality by currency

Loans in foreign currencies form a large part of banks' loan portfolios. This has been primarily the result of a large demand for foreign currency loans in the recent past, when differences between the zloty interest rates and the rates applicable to EU, U. S. and Swiss currencies were significant.

The currency structure of the portfolio indicates that foreign currency loans and exchange-rate indexed loans are of great importance to the overall quality of the portfolio and the cost of establishing specific provisions.

Despite the depreciation of the zloty in the second half of 2003 and at the beginning of 2004, the quality of foreign currency loans was better than that of zloty loans. This may be explained by the fact that foreign currency loans have been present in bank loan portfolios for only a short time, and also by banks' stricter requirements regarding borrowers taking out foreign currency loans.

The financial pressure on banks resulting from the potential depreciation of the zloty, related to the borrowers' FX risk becoming the banks' credit risk, is gradually diminishing. This has been caused by the decreasing demand for foreign currency loans on the one hand and banks' abovementioned tighter criteria of granting foreign currency loans on the other hand⁹.

Table 3

	Dec 03	Mar 04	Jun 04
Corporates	27.4	25.2	22.7
Households	13.2	11.3	10.6
- of which: persons	11.7	8.5	7.9
Other	20.0	16.7	n/d

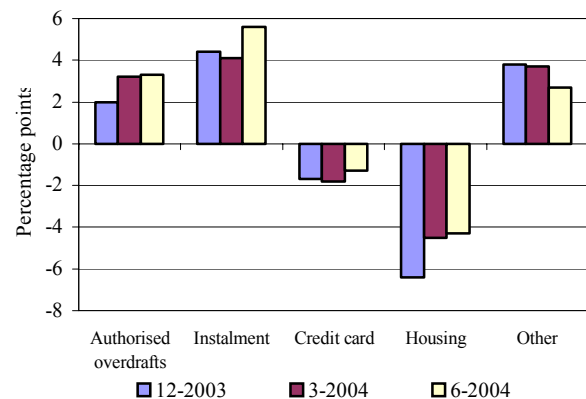
¹ Loans to residents.

Note: Proportion of irregular loans in a given borrower group to the entire portfolio for that group.

Source: NBP.

Figure 16

Irregular loan ratios (difference in percentage points with regard to the average quality of loans to persons¹)



¹ Loans to residents.

Source: NBP.

Table 4

Share of foreign currency and exchange-rate indexed loans in total bank portfolios, %

	Dec 03	Mar 04	Jun 04
Corporates	18.7	18.1	16.3
Persons	11.2	11.3	11.2
Other	1.8	1.6	1.4
Total	31.7	31.0	28.9

Source: NBP.

Table 5

Proportion of irregular loans, by currency

	Dec 03	Mar 04	Jun 04
Zloty loans	21.9	20.9	18.3
Foreign currency loans	19.2	16.7	14.4

Note: All figures refer to residents.

Source: NBP

Box 1: Quality of large exposures by section of activity (NACE)

The structure of claims on corporates broken down into sections of activity may be analysed on the basis of the so-called large bank exposures, i.e. claims amounting to more than 500,000 zloty, which constitute a large part of claims on the non-financial sector.

Based on the figures for June 2004, banks extended the most loans to enterprises from three sections: (1) manufacturing, (2) trade and repairs, and (3) real estate, renting, research and business activities (74% of large exposures in total). In the first two sections, the quality of loans was lower than the average for the entire loan portfolio discussed in this box. During the first half of the year, however, the quality of loans to those sections improved to a larger degree than the portfolio average. This has been largely a result of the security accepted earlier and used to reclassify claims as well as of the evaluation of the collateral issuer's economic standing instead of that of the debtor.

The quality of loans to enterprises belonging to the manufacturing section (35% of the large exposure portfolio) varied widely: irregular loans ranged from 8% (subsection: manufacture of electrical machinery and apparatus n.e.c.) to 51% (subsection: manufacture of basic metals and fabricated metal products) of the portfolio. The quality of loans to undertakings manufacturing food products was the most important due to the relatively large portfolio (ca. 9% of the large exposure portfolio) and the increasing investment risk in this industry.

Quality of large exposures by section of activity (NACE), %. Data for June 2004 and December 2003 (in parentheses)

Section	Breakdown of total loans by section	Breakdown of irregular loans by section	Irregular loans by section	
			percentage of portfolio for section	of which classified loss
A – Agriculture	2.3 (1.6)	3.0 (1.8)	36.0 (27.4)	27.7 (20.4)
B – Fisheries	0.01 (0.01)	0.04 (0.03)	51.6 (52.4)	47.2 (47.7)
C – Mining & quarrying	1.1 (1.4)	0.4 (0.7)	7.2 (13.2)	1.9 (1.7)
D – Manufacturing	35.3 (36.3)	39.5 (40.2)	22.1 (27.6)	12.3 (13.0)
E – Electricity, gas & water supply	9.2 (8.9)	0.8 (0.7)	1.9 (2.0)	0.2 (0.2)
F – Construction	6.8 (7.1)	10.1 (9.2)	27.0 (32.5)	16.1 (17.9)
G – Trade & repairs	23.1 (22.7)	26.1 (26.7)	22.4 (29.3)	11.2 (11.8)
H – Hotels & restaurants	1.4 (1.0)	2.5 (1.7)	50.7 (41.0)	18.2 (18.7)
I – Transport & communications	3.8 (6.3)	3.2 (4.4)	11.1 (17.5)	3.5 (4.5)
J – Financial intermediation	8.7 (7.8)	4.4. (5.2)	10.7 (16.8)	7.8 (9.1)
K – Real estate, renting, research & business activities	15.5 (13.0)	12.3 (12.0)	18.8 (16.8)	7.5 (7.0)
L – Public administration	14.1 (11.3)	0.4 (0.4)	0.7 (0.9)	0.2 (0.2)
M – Education	0.4 (0.3)	0.3 (0.2)	16.4 (15.4)	4.0 (3.8)
N – Healthcare	0.5 (0.5)	0.9 (1.0)	41.0 (50.8)	17.5 (20.3)
Other	0.9 (0.9)	1.7 (1.4)	37.9 (38.2)	23.5(23.3)
Total (excluding sections J & L)	100.0	100.0	20.2 (24.9)	10.3 (10.8)
Total amount (excluding sections J & L), billion zloty	167.3 (170.3)	-	33.8 (42.4)	17.3 (18.3)

Source: NBP.

In the middle of 2004, investment risk in industry and certain non-industrial sectors decreased¹. On the other hand, the risk in wholesale trade has remained at a medium level and it remains at an increased level in the hotels and restaurants section. The risk has also increased in retail trade and in non-market services. The debt of enterprises from sections in which investment risk remained stable or increased constituted from ca. 20% to 35% of the large exposure portfolio. The proportions of debt from individual sections of activity in banks' portfolio and

the varied standing of those sections let us expect that the quality of loans to corporates will improve moderately, due to economic reasons. The regulatory factor should continue to have a strong impact here.

Large exposure portfolio by investment risk, %

Large exposure portfolio by investment risk, %					Unclassified portfolio
Low	Medium	Elevated	High	Very high	
13	21	16	6	3	41

Sources: Calculations based on IBnGR (Gdańsk Institute for Market Economics) and NBP data.

¹ Source: "Mapa ryzyka inwestycyjnego w branżach polskiej gospodarki. Raport nr 23. II połowa 2004," IBnGR, Warsaw, June 2004.

2.1.3. Loan quality prospects

Corporates

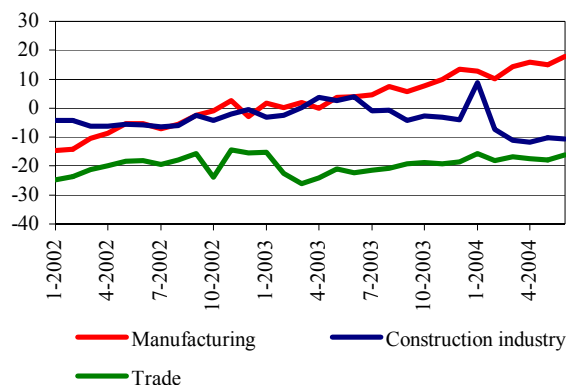
The increased production of the manufacturing industry was one of the most important factors behind the rapid economic growth in the first half of 2004. Business tendency surveys indicate that the situation in the manufacturing industry will continue to be favourable in the third quarter (cf. Fig. 17). There has been no noticeable improvement with regard to the construction industry and trade, however. Thus the ability to repay loans should gradually improve in the manufacturing industry, while the lack of significant upturn in construction and distribution makes any major short-term improvements in the quality of loans to enterprises from those sections unlikely.

The accelerated economic growth and the first significant rise in investment, which emerged in the first quarter of 2004 (cf. Section 2.1.1), may indicate that the expansion phase of the business cycle has gained strength. This may translate into increases in investment and consumer demand in the coming quarters. This scenario will prevail unless economic conditions are disturbed by an increase in risk from outside the economy, e.g. an excessive rise in oil prices or political risk. In such case, due to a high risk premium, entrepreneurs may still be reluctant to make investment decisions, in spite of the improvement in financial standing.

Banks expect that in the third quarter of 2004, corporate demand for loans will increase. Among the banks surveyed, none expected a decrease in the demand for loans in the small and medium-sized enterprise sector and in the large enterprise sector, with

Figure 17

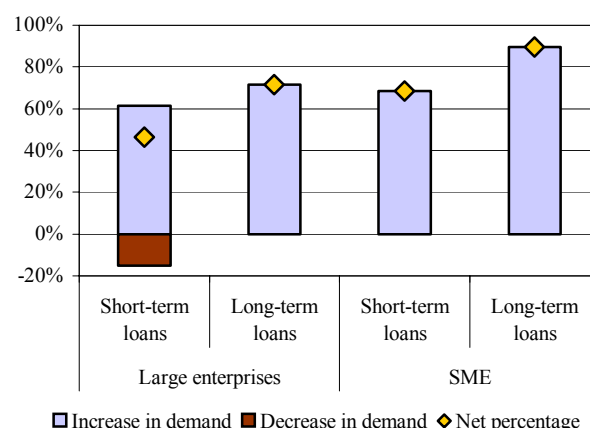
General economic climate indicators (seasonally adjusted)



Sources: GUS, seasonal adjustment by NBP.

Figure 18

Corporate loan demand, Q3 2004 (bank forecasts)



Note: Net percentage is the difference between the asset-weighted percentages of banks forecasting increases and decreases in demand.

Source: NBP bank lending survey.

regard to long-term loans (cf. Fig. 18). Expectations concerning a rise in demand are higher in the long-term loan segment. NBP surveys show that at least half of long-term loans to corporates are used to finance investment. Therefore the expected increase in demand for long-term loans indicates that – according to banks – the number of enterprises intending to implement new investments will rise in the third quarter. This conclusion is also confirmed by surveys among enterprises, which indicate that investment activity is on the rise. New investments are planned by exporters and large enterprises¹⁰.

At the same time, most banks surveyed do not plan to tighten the conditions and criteria for granting loans. There is also a trend to ease lending policies with regard to the small and medium-sized enterprise sector (cf. Fig. 19).

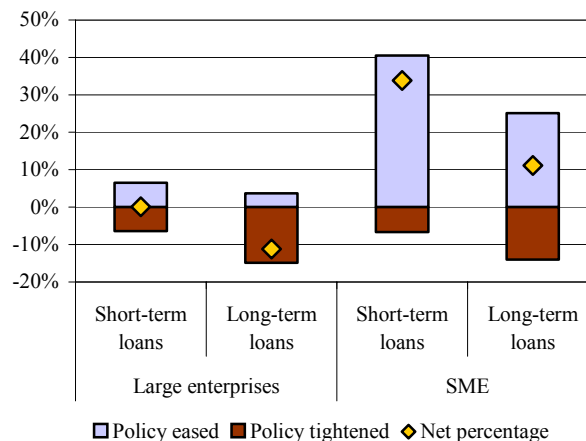
The results of the Q3 2004 survey suggest that the recovering investment demand may lead to an increase in lending to the corporate sector in the coming quarters unless banks' lending policies are significantly tightened. Moreover, some investments may be financed from accumulated own funds.

Households

Business tendency surveys conducted by IRG (Instytut Rozwoju Gospodarczego – Research Institute for Economic Development) indicate that the situation of households will improve slightly. In the third quarter of 2004, the household barometer rose; households predict that Poland's overall economic situation, as well as conditions in the labour market, will improve within one year (cf. Fig. 20). The remaining two barometer components – the future financial standing and the propensity to save – have depressed its value. Households expect a slight deterioration in their financial standing. On the other hand, the propensity to purchase durables has risen considerably.

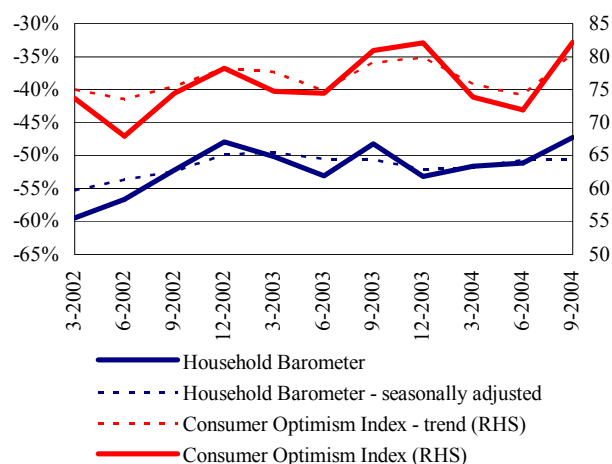
The results of the IRG survey concur with those of the consumer attitude survey conducted by Ipsos. In May and June 2004, the *Consumer Optimism Index* was 4.5 to 5 points higher than last year's average. The increase in the index resulted from a more favourable assessment of Poland's economic prospects and a

Figure 19
Bank corporate sector lending policies, Q3 2004



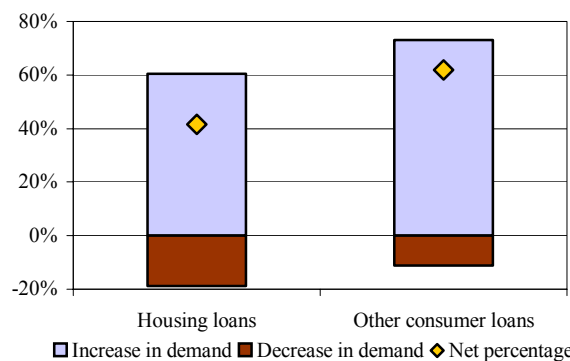
Note: Net percentage is the difference between the asset-weighted percentages of banks intending to ease and tighten their lending policies.
Source: NBP bank lending survey.

Figure 20
Household standing in the coming year



Sources: Instytut Rozwoju Gospodarczego SGH, Ipsos.

Figure 21
Household loan demand, Q3 2004 (bank forecasts)



Note: Net percentage is the difference between the asset-weighted percentages of banks forecasting increases and decreases in demand.
Source: NBP bank lending survey.

greater propensity to purchase durables.

The growing propensity to purchase goods may be a sign of an increase in consumer demand, which should, at least in part, be financed by loans. This is also confirmed by the results of the bank lending survey. In banks' opinion, demand for loans to households will grow in the third quarter (cf. Fig. 21). The increase in demand with regard to housing and consumer loans has continued since the beginning of 2004. The demand for housing loans in the first half of the year was also the result of the extraordinary situation in the property market before May 1, 2004. Due to fears of rising house prices, households tried to finalise transactions by the end of April. Although that factor no longer influences the demand for housing loans, banks expect an increase in demand in this segment.

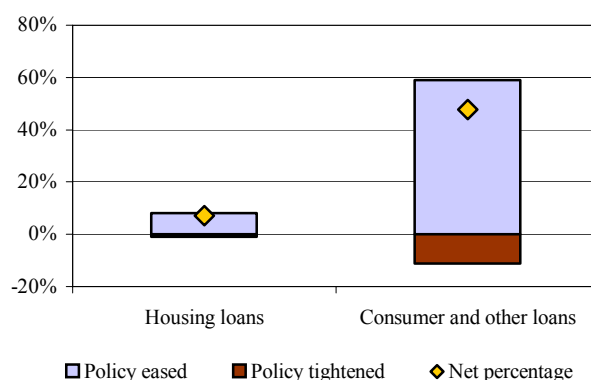
Banks do not intend to tighten their lending policies with regard to housing loans in the third quarter of 2004. As regards consumer loans, banks expect that the criteria and conditions of granting them will be eased (cf. Fig. 22). Since the demand for loans is rising and lending policies are not being tightened, it may be expected that lending in the consumer and housing loan segments will also increase in the third quarter. Thus there are no short-term threats to the improvement in the household portfolio quality.

Loan portfolio quality in the long run

If trends concerning the demand for loans to the non-financial sector – particularly to enterprises – and banks' lending policies are sustained in the coming quarters, lending will rise faster. In the short term, a statistical improvement in bank loan portfolio quality will occur, resulting from the accumulation of new claims, which will initially be classified as *satisfactory* loans. In the long run, loan quality will depend on changes in the borrowers' financial standing.

The issue of statistical improvement in loan portfolio quality is particularly important with regard to housing loans, which are repaid over long periods of time. A decrease in the quality of such loans may occur at any point in time, not only when the borrower's financial standing suddenly deteriorates, but also when property prices fall. The banking supervision has taken actions

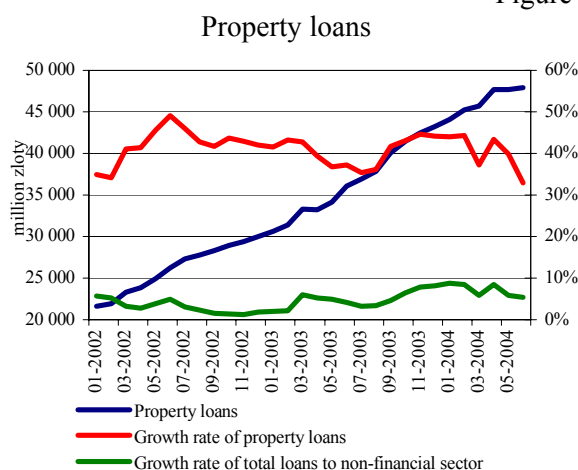
Figure 22
Bank household sector lending policies, Q3 2004



Note: Net percentage is the difference between the asset-weighted percentages of banks intending to ease and tighten their lending policies.

Source: NBP bank lending survey.

Figure 23



Source: NBP.

Table 6

	Property loans		
	Dec 2003	Mar 2004	Jun 2004
Value of property loans (million zloty)	43,249	45,716	47,892
Annual nominal growth in property loans (y/y)	44.1	37.3	32.9
Share of property loans in the banks' total claims on non-financial sector (%)	20.5	22.2	23.2

Source: NBP.

aimed at limiting banks' credit risk in this area (cf. Section 2.2).

2.2. Property market risk

Banks are the main source of financing investment on the property market, both in the case of households and developers. The importance of property loans granted by banks is constantly rising, as evidenced by the growth in property loans and the increasing share of property loans in total in total claims on the non-financial sector (cf. Fig. 23 and Table 6).

In the first half of 2004, around 73% of property loans granted were loans to households. Housing loans constitute ca. 90% of property loans to the non-financial customers (77.2% are loans to households and 22.8% – loans to corporates). A comparison of banks' involvement in the residential housing market and in the commercial property market shows that price movements in the residential housing market would have a greater impact on banks' financial standing.

In the first half of 2004 the prices of houses, both newly built and sold on the secondary market, rose sharply, mainly due to an increase in the VAT rate on construction materials. A rise in demand, resulting from the buyers' fears that after Poland's accession to the EU prices would go up, contributed to the growth in house prices. The further increase in demand for housing loans forecasted by banks will probably contribute to sustaining the upward trend in residential property market prices. Property market analysts predict that house prices will rise by 5–10% within the next few months.

There has been a slight downward trend with regard to office rentals. A decrease in *effective* rents has also been noticeable, due to various financial incentives offered by property managers (e.g. rent-free periods). Due to the high vacancy rate in the first half of 2004, a further decrease in effective rents may be expected. The falling commercial property rentals may influence the capacity to repay loans by the investors, and thus may contribute to a deterioration in loan quality. Because the proportion of commercial property loans in banks' assets is relatively low, the potential detrimental impact

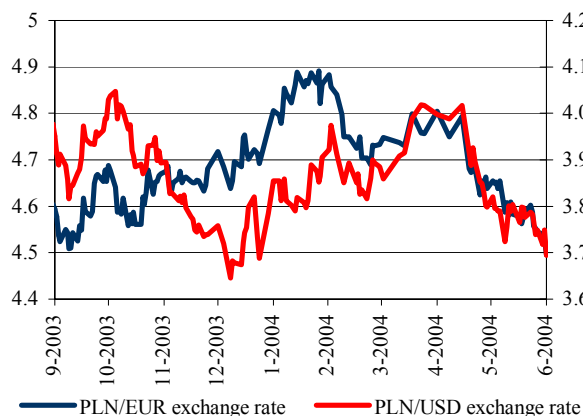
Table 7

Irregular loan ratio (%)			
	Dec 2003	Mar 2004	Jun 2004
Property loans			
Zloty loans	8.9	7.6	7.0
Foreign currency loans	6.0	4.8	4.4
Total	7.3	6.1	5.7
Housing loans			
Zloty loans	8.5	7.3	6.7
Foreign currency loans	4.8	3.4	3.0
Total	6.6	5.3	4.8

Note: All figures refer to residents.

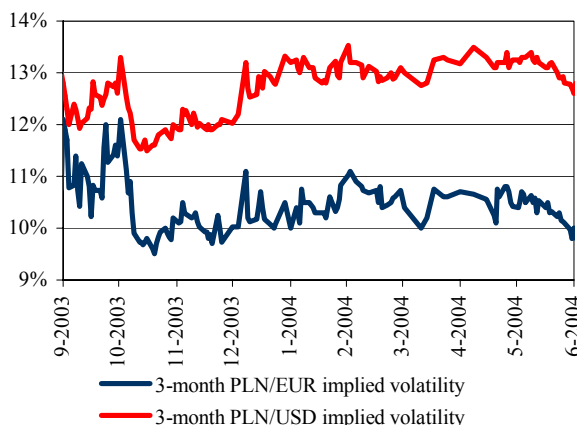
Source: NBP.

Figure 24
Zloty exchange rate against the US dollar and the euro



Source: NBP.

Figure 25
Implied volatility of the zloty exchange rate



Sources: NBP, Reuters.

on the banks' earnings will be limited.

The current dynamic increase in the value of extended housing loans, together with the rising demand for such loans and the simultaneous easing of the banks' lending policies, indicates that banks are aggressively competing to capture the largest possible share in the growing housing loan market. The easing of lending policies by banks when the households' incomes are improving and the demand for loans is increasing shows signs of a pro-cyclical behaviour that may increase the future amplitude of business cycles. The long-term impact of the present high housing loan growth rate on the banks' standing (and – indirectly – on the condition of the entire economy) will largely depend on the quality of the banks' current credit risk management.

The quality of property loans, and particularly housing loans, is much higher than the average quality of loans to the non-financial sector (cf. Table 7). However, the specific character of property loans precludes any unequivocal statement that they carry a low risk. The long maturity of property loans (15–25 years) and the relatively short period during which the banks have been offering them (around 8–10 years) make banks' knowledge of the property loan quality deterioration cycle imperfect.

The rapid rate of increase in housing loans and the uncertainty concerning the future portfolio quality have led the banking supervision to consider introducing principles of prudent valuation of property taken as collateral and the permissible Loan-to-Value ratio. Such actions are expected to contribute to stabilising the housing loan portfolio quality in the future.

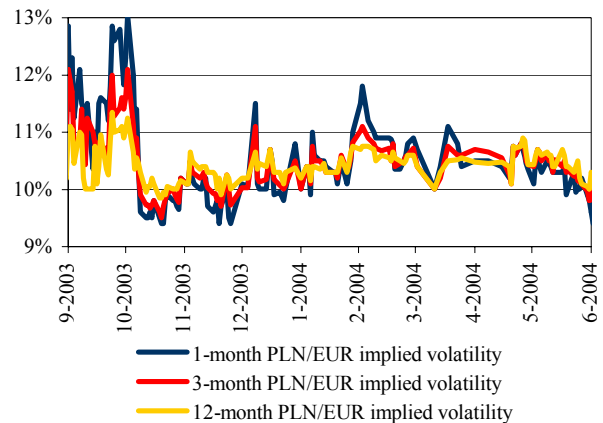
2.3. FX risk

Movements in the zloty exchange rate in the first half of 2004

In January and February a strong depreciation of the zloty caused its exchange rate against the euro to drop to the lowest level ever recorded. Anxiety concerning the implementation prospects of the public expenditure reduction programme, resulting in increased uncertainty regarding Poland's medium-term fiscal position, was

Figure 26

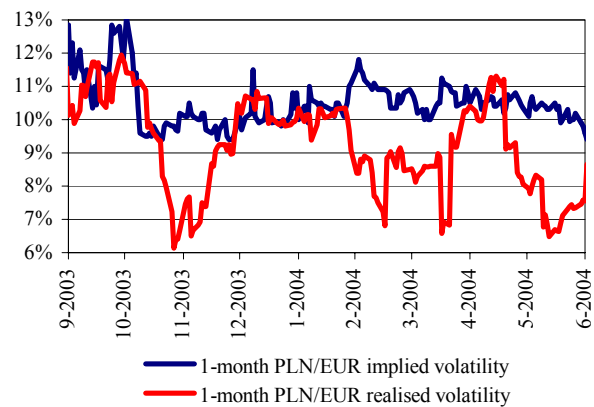
Implied volatility of the PLN/EUR exchange rate by maturity



Sources: NBP, Reuters.

Figure 27

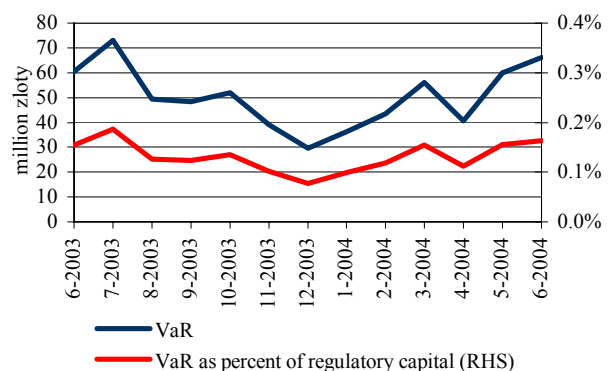
Implied and realised volatility of the PLN/EUR exchange rate



Note: One-month realised volatility is the exchange rate volatility observed within one month after a given date. A comparison with implied volatility indicates differences between expectations concerning the exchange rate volatility and the actual situation.
Source: NBP, Reuters.

Figure 28

Value at Risk for FX position, banking sector



Source: NBP.

one of the causes of the weakening of the zloty. Additional factors behind the depreciation of the zloty against the euro were the strengthening of the euro against the US dollar and the increasing political uncertainty related to disturbances in the ruling coalition and the potential early elections, which would put the fate of public finance reform in question.

From March, the exchange rate stabilised and then the zloty strengthened. The appreciation was assisted by good macroeconomic results, including growing exports and accelerating economic growth, as well as the related expectations concerning an increase of the interest rates. Moreover, investors perceived the appointment of a new government in June as a factor reducing political risk, which also drove up the value of the zloty.

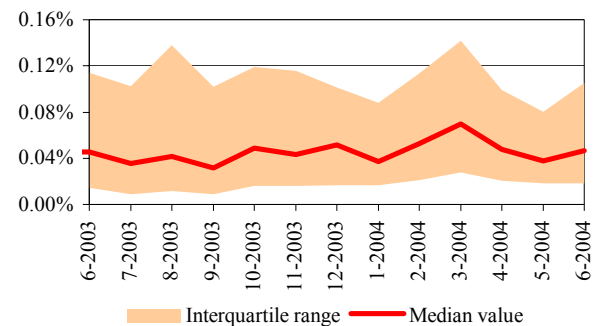
Zloty exchange rate volatility, expected and actual

During the period under consideration, the implied annual volatility of the PLN/EUR exchange rate was quite high, but stable and oscillated within the range of 9.5–11%. A significant increase in implied volatility, which could be construed as an increase in the FX risk perceived by market participants, only occurred after the strongest depreciation of the zloty at the beginning of March. With the appreciation of the zloty in the second quarter of 2004, implied volatility stabilised due to the reduced risk of another strong depreciation of the zloty¹¹.

Throughout the period under consideration, the implied volatility for options with longer maturity (12 months) changed to a lesser degree than that for short-term options. The depreciation of the zloty and the short-term increase in the exchange rate volatility were not reflected by expectations concerning the volatility of the zloty exchange rate in the long run, which may mean that investors considered FX market disturbances to be only temporary.

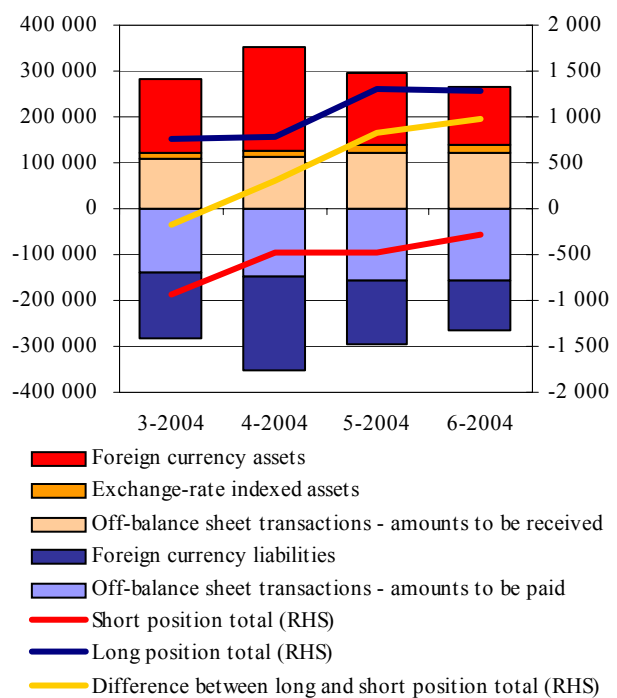
During most of the first half of 2004, the implied volatility was higher than the realised volatility of the exchange rate. The relatively high (compared to the actual volatility) level of the implied volatility was caused by the considerable historical volatility of the EUR/USD exchange rate and the uncertainty

Figure 29
Distribution of FX Value at Risk expressed as percentage of regulatory capital, commercial banks



Note: VaR calculated for 10-day periods on the basis of historical daily exchange rate movements during one year. The probability of a loss higher than VaR being incurred does not exceed 1%. Source: NBP.

Figure 30
Components of commercial banks' FX position (million zloty)



Source: NBP.

Table 8
Banks' foreign currency assets and liabilities

	Dec 2003	Mar 2004	Jun 2004
Gross foreign currency assets (billion zloty)	125.5	129.6	130.7
Share of gross assets (%)	24.0	24.1	23.7
Foreign currency liabilities (billion zloty)	88.9	94.1	93.4
Share of liabilities (%)	18.2	18.8	18.1

Source: NBP.

concerning the permanent character of the trend towards increasing the share of the euro in the zloty basket¹², which was observed in the market. Other factors keeping the implied volatility at a level exceeding the actual volatility were the continuing anxiety about the state of public finances and political uncertainty. Despite an increase in the historical volatility when the appreciation trend started in May and June, the implied volatility decreased slightly, which was related to the reduced risk of rapid depreciation. Differences between the movements in the actual and implied volatility mean that market participants expected some disturbances on the FX market which did not materialise. Those expectations led banks to limit their FX risk.

Value at Risk for FX position

The Value at Risk related to banks maintaining open FX positions increased in the first half of 2004 as compared to the end of 2003. This was the result of an increase in the historical volatility of the zloty exchange rate and a slight rise in open FX positions. However, FX risk was not a significant threat to the banking sector stability – the sum total of ten-day VaRs did not exceed 0.2% of banks’ regulatory capital (cf. Figure 28).

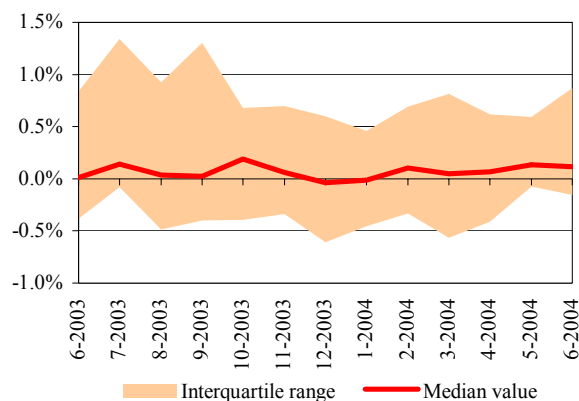
Foreign currency financial instruments constitute a significant part of banks’ balance sheet and off-balance sheet items (cf. Figure 30 and Table 8) but banks consistently limit FX risk by maintaining small open FX positions, which explains the low VaR level.

Individual banks were exposed to FX risk to varying degrees, which was the result of their different FX exposures. In the great majority of banks, however, the Value at Risk did not exceed 1% of the regulatory capital, which confirms the hypothesis that direct FX risk has little influence on banks’ soundness.

FX positions of banks

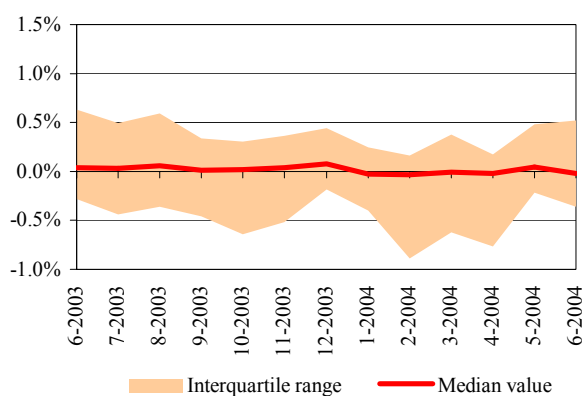
In the first half of 2004, most banks with open FX positions maintained long euro positions, as evidenced

Figure 31
Distribution of open FX positions in euro expressed as percentage of regulatory capital, commercial banks



Note: A positive value denotes a long FX position.
Source: NBP.

Figure 32
Distribution of open FX positions in US dollars expressed as percentage of regulatory capital, commercial banks



Note: A positive value denotes a long FX position.
Source: NBP.

by the positive median value of the distribution (cf. Fig. 31). These positions, however, were smaller in relation to regulatory capital than those maintained by banks in autumn 2003, during the simultaneous disturbances in the FX and Treasury bond markets.

Large banks' FX positions were subject to larger movements than those of smaller banks. However, the exposures of large banks were minor in relation to their capital, and did not threaten their safety.

2.4. Interest rate risk

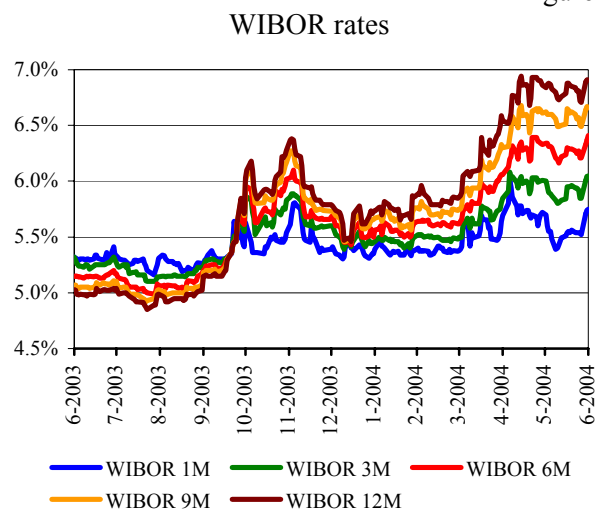
Movements in interest rates in the first half of 2004

In the first two quarters of 2004, the expectations of financial market participants regarding future interest rate changes fluctuated considerably. Changes in expectations concerned not only permanent shifts in interest rate levels, but also their increased volatility.

In the first half of January the prices of financial instruments indicated that market participants strongly expected rapid cuts in central bank interest rates. This was primarily caused by market speculations concerning the future composition of the Monetary Policy Council. After the disturbances, which occurred in the fourth quarter of 2003, had ended, interest rate volatility, and thus also bond price volatility, diminished. However, information pointing to the possibility that the public finance reform programme might not be fully implemented according to the draft presented earlier, caused the expectations regarding cuts in interest rates to wane in the second half of January.

The increasing uncertainty concerning the budget and political situation, as well as the February statement of the MPC, suggesting that its monetary policy stance might change to restrictive, caused the emergence of expectations regarding interest rate rises by the end of 2004, which were reflected by, among other things, the gradual increase in forward and (to a smaller degree) spot interest rates in February and March. The second half of January and February were also a period of marked increase in interest rate volatility. Even then, however, volatility was lower than during the disturbances in financial markets, which occurred in the

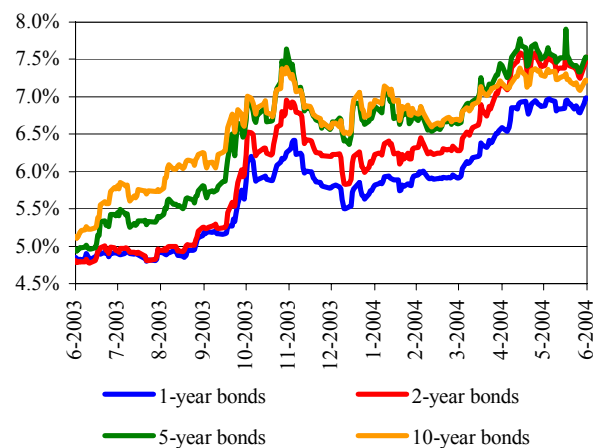
Figure 33



Source: NBP.

Figure 34

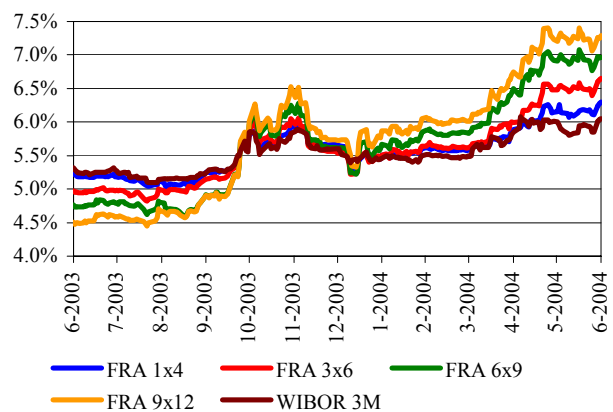
Theoretical zero-coupon Treasury bond yields



Source: NBP.

Figure 35

3-month FRA contract quotations vs. WIBOR 3M rates



Source: NBP.

fourth quarter of 2003.

In April and in the first half of May a dynamic increase in spot rates was observed, which on the one hand reflected firming expectations regarding the rises of interest rates by the MPC (caused by the higher-than-expected inflation), and on the other hand was caused by an increase in risk premium due to the uncertainty regarding the feasibility of forming a new government and the potential early elections.

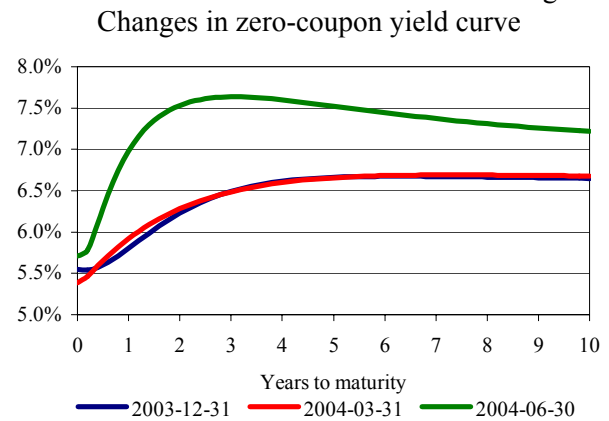
The mentioned strengthening of expectations and the increase in risk premium also caused an upward shift in the entire yield curve, which was especially noticeable in the second quarter (cf. Fig. 36). The largest changes in the zero-coupon yield curve were observed for maturities of between 1 and 4 years.

Banking sector net gains/losses on debt securities operations

After sustaining losses on financial operations involving debt securities in the last two quarters of 2003, the banking system achieved positive earnings in this area in the first quarter of 2004. However, the fact that the earnings of the entire banking sector on financial operations involving debt securities were negative again in the second quarter confirms that banks incurred losses due to the discrepancies between their expectations and the actual developments in financial markets. A closer look at the structure of profit and loss account items reveals, however, that at least some positions were hedged in the derivative market. This is indicated by the relatively high net gains on operations involving interest rate derivatives. In the second quarter, however, losses on debt securities operations, even when net gains on operations involving derivatives are taken into account, exceeded 120 million zloty.

An analysis of the dispersion of net gains/losses on debt securities operations in relation to assets suggests that position directions with regard to debt securities were not differentiated between individual banks (cf. Fig. 40). This indicates a risk related to the limited possibility of reversing positions with regard to those financial instruments. As dominant domestic financial market participants, banks are unable to enter into

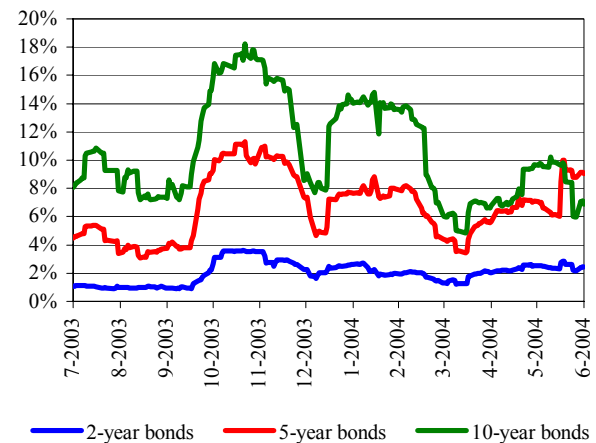
Figure 36



Source: NBP.

Figure 37

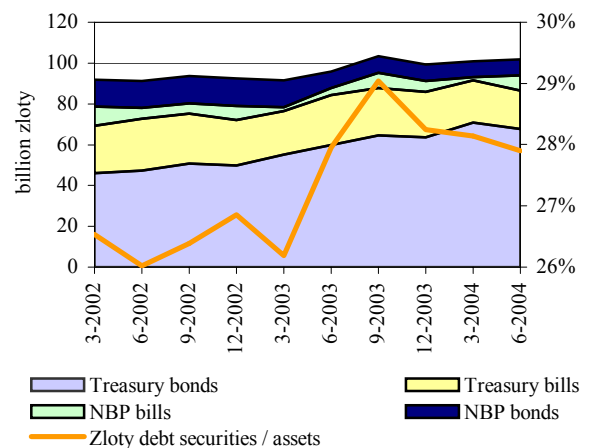
Annualised theoretical zero-coupon Treasury bond price volatility



Source: NBP.

Figure 38

Amount of selected items in the debt securities portfolio of the Polish banking sector vs. its relation to banking sector assets



Source: NBP.

reverse transactions in the domestic market on a scale sufficiently large to fully hedge them against interest rate risk. The scale of their operations with foreign banks is also insufficient. Due to the significant debt securities portfolios (consisting primarily of Treasury securities) already accumulated by banks, the interest rate risk level in the entire banking sector exhibits considerable inertia. This may negatively impact the sector's earnings if the upward trend in interest rates is sustained.

Exposure to interest rate risk

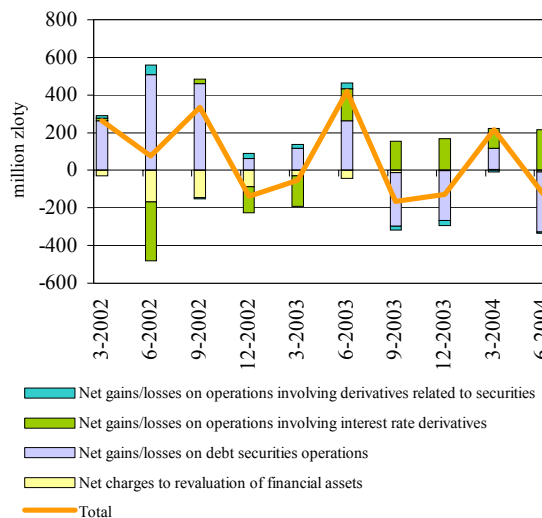
The shortening of the average maturity of debt securities held by banks suggests that they are gradually limiting their interest rate risk (cf. Fig. 41). This may be related to the gradual decrease (until the first quarter of 2004) in expectations concerning interest rate cuts. During the earlier series of interest rate cuts banks could safely maintain open long positions in debt securities, taking profits and not exposing themselves to any significant risk. After the rate cut cycle had ended, the risk in this regard increased.

As already mentioned, it is difficult for banks in the entire banking sector to reverse their positions in terms of market interest rate risk. In such circumstances, reducing the average maturity of the held debt securities portfolio makes it possible to limit losses that could be caused by an increase in market interest rates. This observation is confirmed by the downward trend in the risk of capital loss, due to a shift in the yield curve, which is associated with the wholesale Treasury bond portfolio held by residents (cf. Fig. 42). During the period under consideration, domestic financial institutions took actions aimed at reducing the duration of the Treasury bonds portfolio they held. As a result, the loss associated with the held Treasury bond portfolio, to which domestic financial institutions were exposed as the result of a shift in the yield curve, stabilised in absolute terms.

Banks' share in the abovementioned portfolio amounts to about 55%. On the basis of end June 2004 data, it may be estimated that in the case of a parallel upward shift in the yield curve by one percentage point, the banking sector would incur capital losses on the

Figure 39

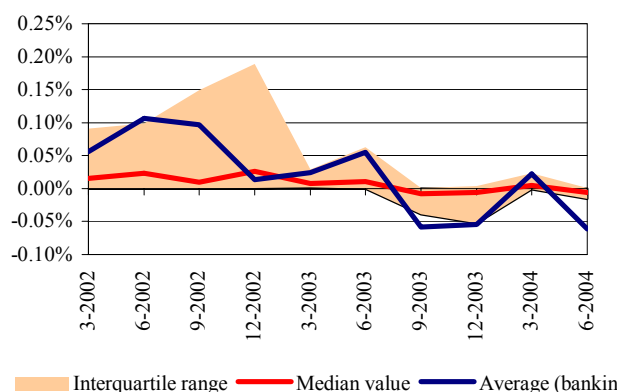
Selected profit and loss account items related to interest rate-sensitive instruments



Note: Earnings for individual quarters.
Source: NBP.

Figure 40

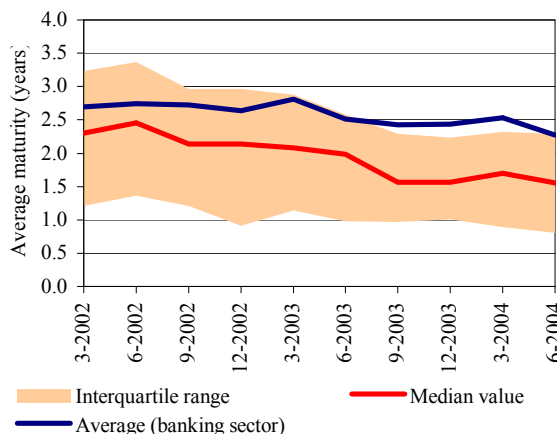
Dispersion of the relation of net gains/losses on debt securities operations to assets



Source: NBP.

Figure 41

Average maturity of debt securities



Source: NBP.

held Treasury securities portfolio at the level of 11% of the net income from banking activity generated in the first half of 2004. An analysis of recent quarters' earnings indicates that around 50% of this loss could be offset by income from operations involving interest rate derivatives.

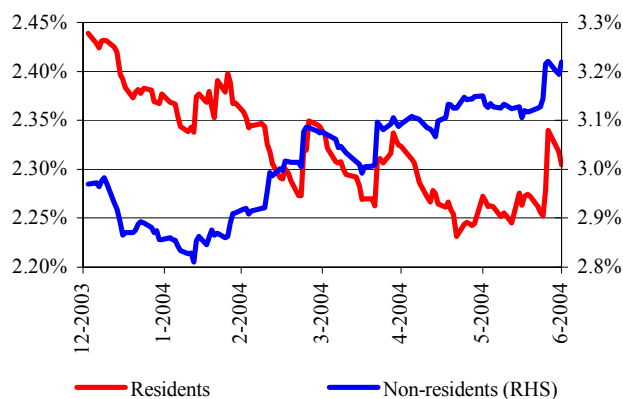
A comparison of the duration of Treasury bond portfolios held by residents and non-residents indicates that during the first half of 2004 (and particularly in the second quarter) part of banks' interest rate risk was transferred to international financial institutions. This phenomenon should be considered favourable from the point of view of the stability of the domestic financial system. Under high expectations concerning interest rate increases, the demand among international financial institutions for debt securities in zloty may result e.g. from speculation on zloty appreciation and attempts to diversify risk. However, the total exposure of domestic financial institutions to interest rate risk still remains significantly higher than that of non-residents.

A comparison of the dispersion of net gains/losses on debt securities operations and the average maturity of debt securities with the average values of those variables for the entire banking sector indicates that the largest banks expose themselves to a relatively larger interest rate risk. Taken in the context of the entire system, however, it may be stated that the interest rate risk taken by banks does not threaten the stability of the banking sector.

2.5. Equity price risk

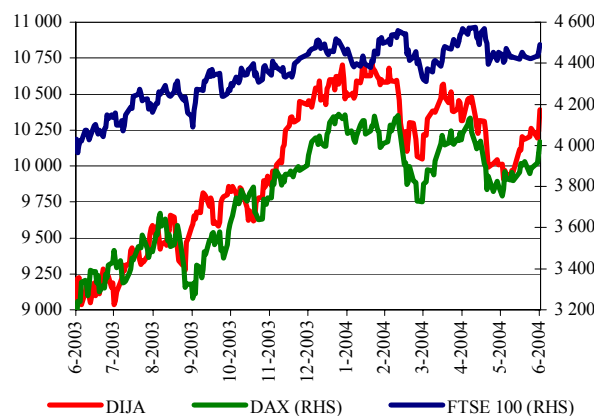
In the first half of 2004, no long-term upward or downward trends were evident in the index values of major American and European stock exchanges. The Dow Jones dropped by 1.15% in the period under consideration, mainly due to strong expectations concerning Fed interest rate rises and the uncertainty regarding the sustainability of the US economic recovery. The increase in oil prices was another factor influencing stock exchange indices, which led to temporary slumps in share prices of listed companies from various sectors (e.g. chemical companies and airlines) and forecasts stating that the earnings of listed

Figure 42
Exposure to the risk of a parallel shift in the yield curve in the wholesale Treasury bond portfolio held by residents and non-residents (duration)



Note: The figure presents the capital loss on the wholesale Treasury bond portfolio held by residents and non-residents that would be incurred if the yield curve were shifted upwards in a parallel manner by 1 percentage point in relation to the current valuation of this portfolio, based on the current zero-coupon yield curve.
Source: NBP.

Figure 43
Movements in stock exchange indices: Dow Jones, DAX and FTSE 100



Source: www.bossa.pl

companies would deteriorate. The favourable fundamental data currently announced by public companies have contributed to a gentle upward trend, which has emerged again on the stock exchanges.

In the first half of 2004, major European stock exchanges followed the trend prevailing in the American market (cf. Fig. 43). The correlation between the DAX and DJIA index values was 70.2% in the first half of 2004, and the correlation ratio between weekly changes in those indices was 52.8%.

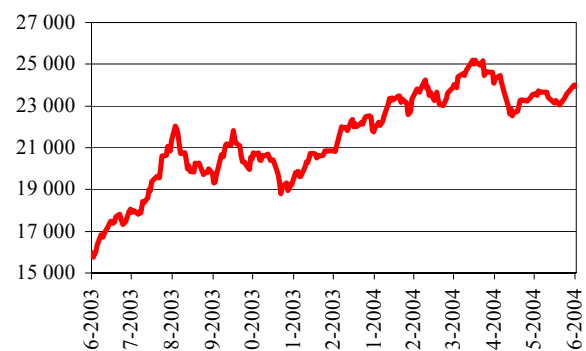
The WIG (Warsaw Stock Exchange index) rose 15.03% in total in the first half of 2004 (15.5% increase in the first quarter and a small downward adjustment in the second quarter) (cf. Fig. 44). In the first quarter, the movements of the WIG were strongly influenced by highly active foreign investors. Global (e.g. oil prices and expectations concerning interest rate changes on the American market) and domestic (e.g. political situation, expectations regarding interest rate rises, good fundamental data from listed companies) factors also had an impact throughout the period considered.

The real influence of movements in stock exchange indices on the financial standing of the banking sector, and thus on its stability, was limited because:

- The amount of banks' own investments in equities was small (cf. Table 9).
- The share of loans granted for the purchase of securities was insignificant (in June 2004 loans extended to fund purchases of securities constituted around 0.22% of the portfolio of loans to non-financial customers, and 0.09% of total assets). The quality of those loans is much worse than that of other types of loans. Nevertheless, it improved in the first half of the year, slightly enhancing banks' earnings.
- Favourable trends on the Warsaw Stock Exchange and the consequent rise in the turnover of brokerage offices and houses had a favourable influence on their earnings. This was also beneficial (albeit to a small degree) to banks' consolidated earnings.

Figure 44

Movements in the Warsaw Stock Exchange index (WIG)



Source: Warsaw Stock Exchange.

Table 9

Banks' own investments in equities

	Dec 2003	Mar 2004	Jun 2004
As % of banks' securities portfolio			
Publicly traded equities	0.70	0.71	0.62
Equities not traded publicly ²	0.67	0.63	0.45
As % of total assets			
Equities traded and not traded publicly	0.33	0.32	0.25
Equities issued by non-residents ³	0.05	0.05	0.05

¹ Stocks issued by residents in zloty, traded publicly.

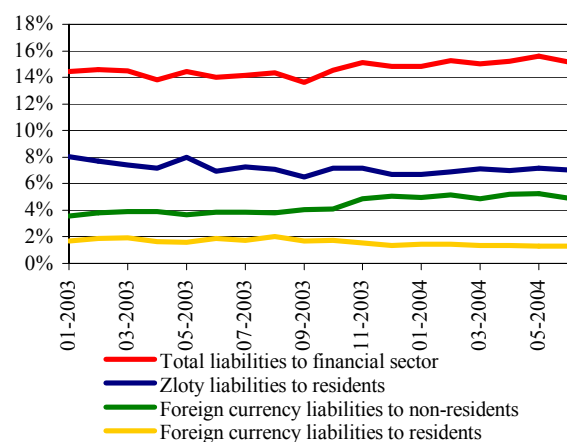
² Stocks issued by residents in zloty, not traded publicly.

³ Stocks issued by non-residents in foreign currencies, not traded publicly.

Source: NBP.

Figure 45

Share of particular types of liabilities to financial institutions in the total assets of the banking sector



Source: NBP.

2.6. Banking sector liquidity

In the first half of 2004 a minor shift in the financing of banking sector assets was observed. The share of the most stable source – deposits from the non-financial sector – decreased (by 2.5 percentage points), while the share of deposits from financial institutions went up (by 0.4 percentage points).

The structure of liabilities to the financial sector changed: foreign currency liabilities to non-residents rose as well (cf. Fig. 45). This was caused by an increase in the amount of foreign currency loans received from international financial institutions. On the other hand, time deposits in zloty from residents remained stable.

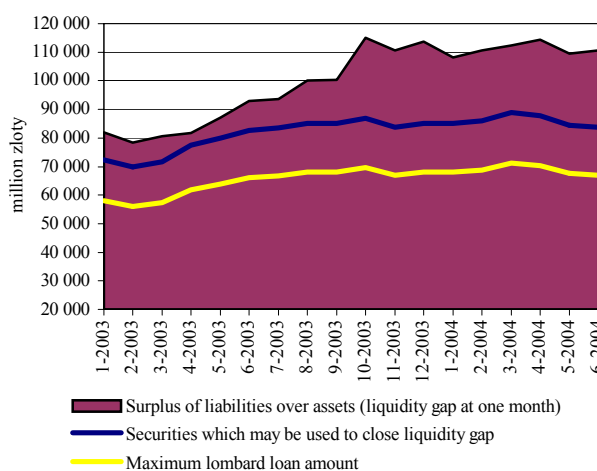
During the first half of 2004, the liquidity gap at one month remained at the level similar to that at the end of the previous year (cf. Fig. 46). From February 2004, the amount of liabilities with a maturity of up to one month started to rise gradually, largely due to an increase in demand deposits of persons. The still relatively small difference between returns on current accounts and time deposits increased the willingness of bank customers to deposit their funds on current accounts. However, this trend will probably weaken, because banks have responded to NBP interest rate changes by raising deposit rates. In the period until May 2004, the amount of assets with a maturity of up to one month fluctuated insignificantly, and then started to rise steadily.

From the point of view of liquidity management, the value of securities held by banks, which may serve as collateral when contracting a lombard loan, is important. At the end of June 2004, the equivalent of the maximum lombard loan that could be granted to the banking sector would cover 61% of the gap. This proportion has not changed significantly compared to the end of the previous year.

The loan to deposit ratio (taking into account only the operations with the non-financial sector) rose to 76.4% in the first quarter, and then gradually dropped to 75% in the second quarter of 2004 (cf. Fig. 47). A change in trends concerning loans and deposits was also noticeable. In the first half of 2004, the amount of loans increased by 5.7 billion zloty, while deposits grew by 2.5 billion zloty. The loan to deposit ratio

Figure 46

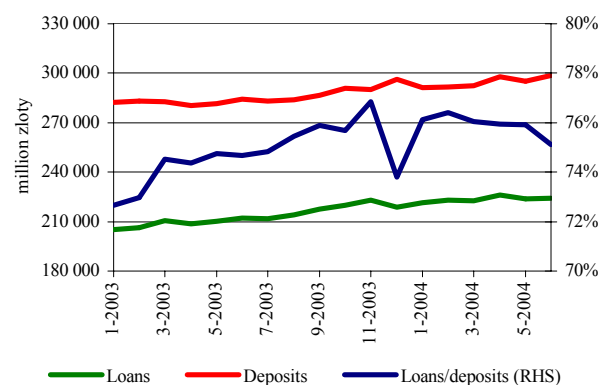
Liquidity gap at one month vs. securities held and maximum lombard loan amount



Source: NBP.

Figure 47

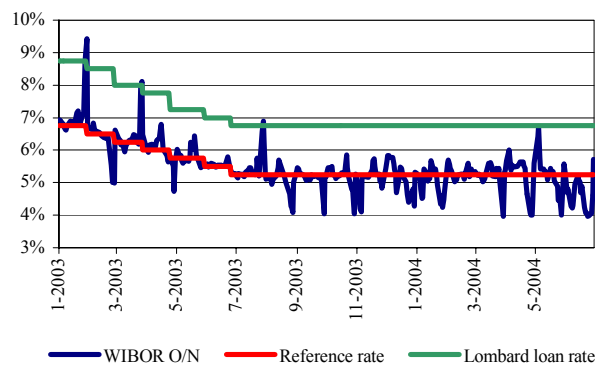
Loans to deposits (non-financial sector) vs. nominal values of loans & deposits



Source: NBP.

Figure 48

WIBOR O/N rate vs. NBP key interest rates



Source: NBP.

approximately reflects the demand of the banking sector for the financing of its core activities. It should be remembered, however, that some smaller banks owned by foreign entities do not use deposits from the non-financial sector and finance their activities solely with funds from their parent banks and other undertakings within the group, as well as with funds obtained in the interbank market, which limits the usefulness of this ratio. The current level of this ratio is not high, although it has been rising for quite a long time.

From the point of view of individual banks, the possibility of meeting short-term liquidity needs in the money market and at the NBP is important. The short-term WIBOR O/N rate oscillated around the central bank reference rate in the last half of the year (cf. Fig. 48). An exception was the period between April and the first half of May, when short-term O/N rates rose significantly, reaching their highest levels at the beginning of April and at the beginning of May. Market liquidity in this period was disturbed by a considerable increase in the funds held by the Ministry of Finance at the NBP. This made the cost of funds approach the lombard rate and some banks needed to be refinanced by the NBP. The probability of such a situation repeating dropped considerably after it had been made possible for the Ministry of Finance to deposit funds with other banks through Bank Gospodarstwa Krajowego.

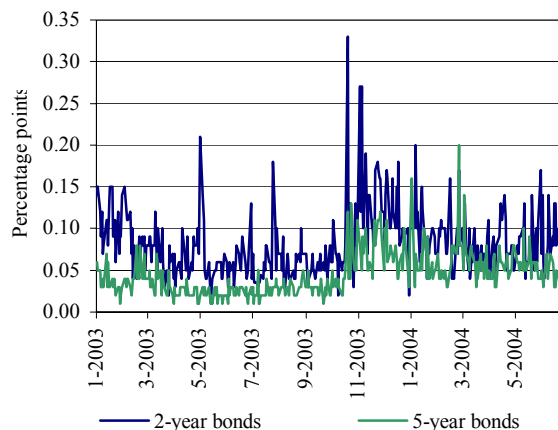
Another way of raising liquid funds when a bank faces liquidity needs is selling the Treasury securities held, thus observing the liquidity of the market of those securities is important (cf. Fig. 49). One of the ratios under observation is the spread between bid and offer prices with regard to two- and five-year bonds. In the first half of 2004 it was larger than in the first half of 2003. However, larger transaction spreads were not due to the market's lower liquidity but to an increase in uncertainty regarding future trends with regard to interest rate movements (cf. Section 2.4), because turnover in the Treasury bond market increased in the last half of the year (cf. Fig. 50).

Intraday credit facility at the NBP

Banks have been taking advantage of the intraday credit facility increasingly often. The extension of the range of

Figure 49

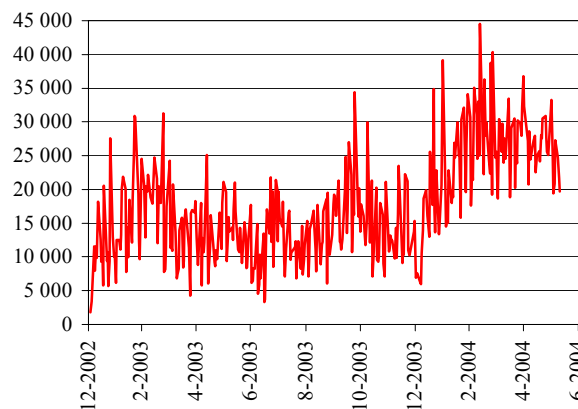
Bid/offer spreads on Treasury bonds



Source: NBP.

Figure 50

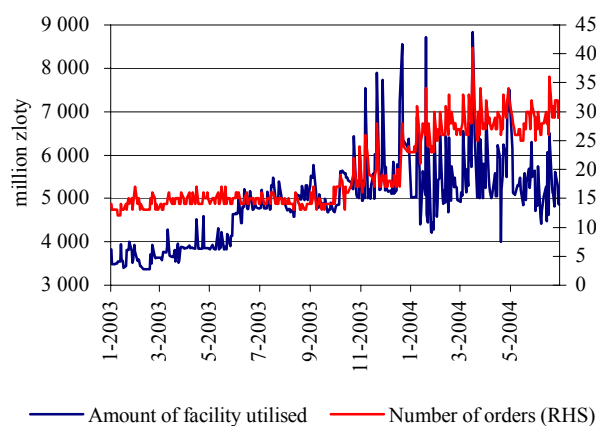
Bond market turnover



Source: NBP.

Figure 51

Intraday credit facility utilisation



Source: NBP.

instruments eligible as collateral in October 2003 and the introduction of electronic handling of transactions and collateral made access to the facility considerably easier (cf. Fig. 51).

In the first half of 2004, the average daily number of orders placed by the banks rose from 18 to 29. The amount of the facility utilised also increased noticeably. At the end of the first quarter of 2004, the maximum amount of the facility utilised (8.8 billion zloty) was recorded. It may be assumed that this instrument will be gaining significance with regard to bank liquidity management.

2.7. Earnings¹³

In the first half of 2004, the earnings of the banking sector, as well as most performance indicators, improved. Pre-tax earnings were ca. 37% higher compared to pre-tax earnings in the first half of 2003, and net earnings were ca. 87% higher¹⁴. The larger increase in net earnings was caused by a cut in the corporate income tax rate amounting to 8 percentage points, introduced as of January 1, 2004.

The following factors contributed to banks' improved earnings in the first half of 2004:

- an increase in income from traditional sources, primarily net interest income (cf. Table 10);
- the introduction of a new regulation concerning the principles of establishing specific provisions, which reduced net charges to specific provisions against irregular loans;
- an increase in interest income as a result of the reduction in reserve requirement from October 2003 and the fact that it bears interest from May 1, 2004¹⁵;
- positive net earnings of banks' subordinate undertakings (cf. Section 3).

Net income from banking activity

The increase in net income from banking activity has been primarily the result of higher net interest income and net fee income. Net gains/losses on financial

Table 10
Selected profit and loss account items (billion zloty)

	Jun 2003	Jun 2004	change, %
Interest income	14.09	14.10	0.10
Interest expense	6.86	6.08	-11.4
Net interest income	7.23	8.02	10.9
Net fee income	3.59	4.03	12.3
Net gains/losses on financial operations	0.809	0.450	-44.6
Net FX gains/losses	1.54	1.54	-0.6
Net income from banking activity	13.47	14.30	6.2
General expense	7.75	8.04	3.7
Depreciation	1.19	1.22	2.5
Net movement in provisions and revaluations	1.51	0.999	-33.8
Pre-tax earnings	3.1	4.24	36.8
Net earnings	2.0	3.73	86.5

Source: NBP.

Table 11
Selected performance indicators
(% assets), ROE (% equity)

Performance indicators	Jun 2003	Jun 2004
Net interest income (NIM)	1.50 (3.20)	1.61 (3.16)
Net non-interest income	1.31 (2.58)	1.30 (2.46)
Net income from banking activity	2.80 (5.84)	2.86 (5.56)
General expense	1.86 (3.86)	1.85 (3.76)
Net charges to provisions	0.31 (1.06)	0.20 (0.71)
Tax	0.19 (0.33)	0.15 (0.35)
ROA ¹	0.64 (0.85)	0.85 (1.14)
ROE ¹	7.74 (10.34)	9.73 (13.13)
ROA ²	0.41 (0.49)	0.75 (0.83)
ROE ²	4.98 (5.92)	8.55 (9.51)

¹ Indicators calculated on the basis of pre-tax earnings.

² Indicators calculated on the basis of net earnings.

Note: Data in parentheses are annualised.

Source: NBP.

operations (cf. Section 2.4) and, to a small degree, net FX gains/losses had a negative impact on net income from banking activity.

The increase in net interest income has been linked to interest expense. 94% of the improvement in net interest income can be attributed to a reduction in interest expense related to the non-financial sector. This reduction was largely caused by a decrease in the amount of zloty deposits from households, and partly by lower interest rates on deposits with longer maturities.

Average deposit interest rates were subject to small adjustments in the first half of 2004. Banks responded to the rise in NBP base rates at the end of June 2004 by raising deposit rates relatively quickly. Some of them increased their deposit rates by more than the rise in NBP base rates. The scale and rapidity of increases may mean that the competition for deposit funds has become more intense, and that the opportunities of enhancing net interest income by cutting expenses will be limited in the future. The shift in the financing of banking sector assets from the non-financial sector (mainly households) deposits towards financial institution deposits may be an additional factor stimulating the competition for deposits and an increase in deposit rates.

Factor analysis indicates that the amount of interest income was mainly influenced by changes in the amount of claims, while the change in interest rates was the primary factor conditioning interest expense (cf. Table 12). Due to the expected further increases in the amount of claims as well as in market interest rates, and the subsequent rises in bank interest rates, interest income should grow faster in the coming quarters than during the first half of 2004. Unless significant changes occur in household preferences regarding depositing savings with banks, the possible intensification of banks' competition for deposits mentioned above and the related increase in deposit rates should also cause interest expense to rise in the second half of the year. However, the net impact of those processes on earnings is difficult to estimate, and will largely depend on the influence of economic growth on the effective increase in lending, and the intensity of competition among banks.

Table 12
Impact of changes in the volume of deposits and loans, and changes in interest rates in the first half of 2004 on changes in interest income and expense (million zloty)

	Impact of changes		
	volume only	rates only	volume and rates
Zloty claims on households	+988.0	-307	-34.9
Zloty claims on corporates	+207.3	-1.1	-0.035
Foreign currency claims on the non-financial sector	-227.4	+85.1	-6.2
Zloty deposits from households	-139.7	-296.7	+7.5
Zloty deposits from corporates	+133.8	-120.3	-8.8
Foreign currency deposits from the non-financial sector	+25.3	-119.2	-4.0

Methodology notes:

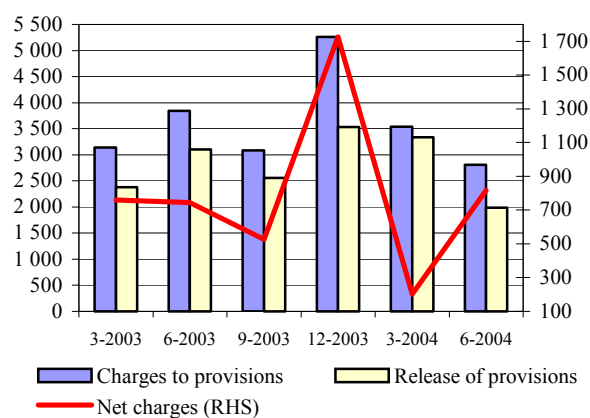
Factor analysis was conducted using the *indicator method*. Subsequent table columns present the impact on changes in interest income and expense of, respectively: only the relative change in the volumes of claims and deposits (with no interest rate change), only the relative change in interest rates (with no volume change) and the product of relative volume and interest rate changes.

Interest rate changes calculated as differences between the arithmetic means in June 2003 and December 2003 and between the arithmetic means in December 2003 and June 2004.

Source: NBP

Figure 52

Movements in provisions
(million zloty)



Source: NBP.

Box 2: Differences in the earnings of individual banks

The earnings of individual commercial banks in the first half of 2004 varied widely.

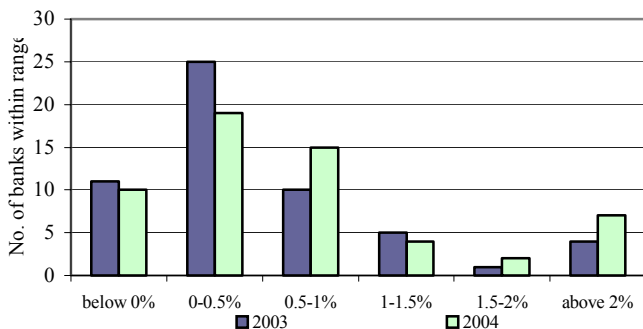
An analysis of the banks' performance indicates that in the first half of 2004 both the number of the least profitable banks (with the ROA¹ below 0.5%) and their share in the sector's assets decreased, as compared to the first half of 2003 (cf. Figs. 1 and 2). An analysis of the distributions of banks and their assets by ROA leads to the conclusion that small banks attained a higher return on assets than large ones. The banks recording the highest return on assets included mainly car finance banks and retail banks.

An improvement in banks' performance has also been observed in the analysis of the distribution of bank assets by ROE. In the first half of 2004 the number and assets of banks with the ROE² below 5% significantly dropped, and the share of banks with the ROE in the range between 5–10% and 10–15% in the sector's assets considerably increased (cf. Figs. 3 and 4). An analysis of the diversification of bank performance indicators allows to infer that large banks are more highly leveraged, which makes their ROE higher than the average.

¹ ROA for the first half of 2004 has been calculated on the basis of net earnings for the first half of 2004 and the arithmetic mean of the value of assets for December 2003 and June 2004.

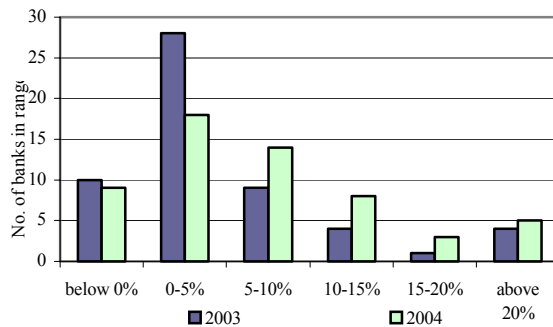
² ROE for the first half of 2004 has been calculated on the basis of net earnings for the first half of 2004 and the arithmetic mean of the value of assets for December 2003 and June 2004.

Figure 1
Distribution of commercial banks by ROA (not annualised)



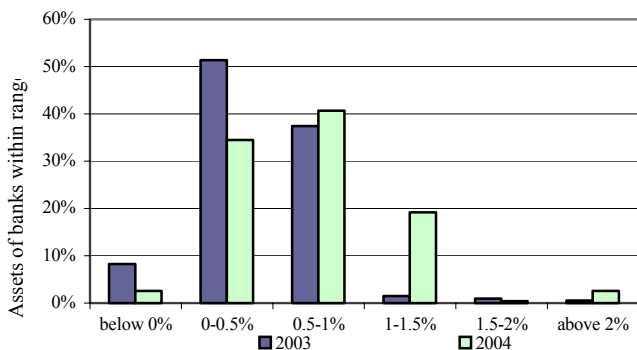
Source: NBP.

Figure 3
Distribution of commercial banks by ROE (not annualised)



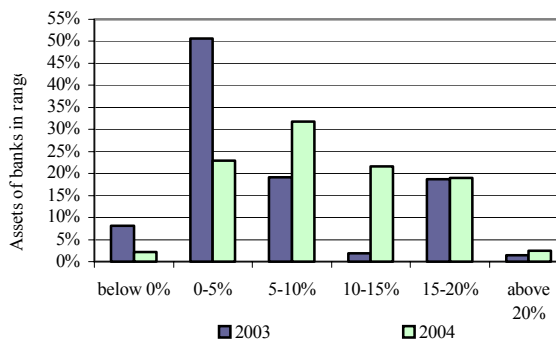
Source: NBP.

Figure 2
Distribution of commercial bank assets by ROA (not annualised)



Source: NBP.

Figure 4
Distribution of commercial bank assets by ROE (not annualised)



Source: NBP.

Allocation of net income from banking activity

The favourable trends with regard to net income from banking activity observed in the first half of 2004 have been partly offset by an increase in banks' general expense, as well as the depreciation of fixed assets and amortisation of intangibles.

In the first half of 2004, compared to the first half of 2003, the net charges to provisions diminished considerably (by 485 million zloty). The smaller amount of charges to specific provisions (a decrease by 9.2%) was the major cause of the reduced net movement in specific provisions. The relatively low net movement in specific provisions was largely the result of a less restrictive regulation concerning claim classification and the establishment of specific provisions coming into force, which improved the quality of the loan portfolio (cf. Section 2.1.2).

2.8. Banks' capital positions and loss-absorbing capacity

The structure of the regulatory capital in the banking sector was favourable and sound from the point of view of absorbing potential losses: the core capital prevailed. Therefore the capital adequacy ratio calculated using the core capital did not deviate much from the ratio calculated using the regulatory capital (cf. Table 13).

In the first half of 2004, the average capital adequacy ratio in the banking sector rose, among other things due to:

- regulatory changes¹⁶, which caused a one-off decrease in capital requirement against market risk, particularly with regard to general interest rate risk, due to the fact that capital requirements for zloty and foreign currency positions were equalized;
- increased banks' capital. The changes were concentrated in three banks, of which one required a capital infusion, one allocated almost the entire profit generated in 2003 to raise its capital, and one conducted a share issue (the total increase in the regulatory capital of those banks accounted for ca. 70% of the capital growth in the entire sector). The remaining banks allocated much smaller sums to

Table 13

Regulatory capital and capital adequacy ratio

	Dec 2003	Jun 2004
Regulatory capital ¹ , billion zloty	40.6	43.2
- of which: core capital ²	37.7	39.5
Capital adequacy ratio (%)	13.8	15.6
Capital adequacy ratio when core capital is taken into account (%)	12.8	14.3

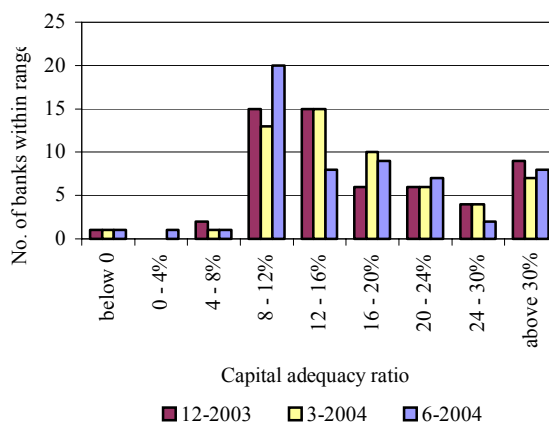
¹ Regulatory capital consists of core and supplementary capital, less any shortfall in specific provisions and other regulatory deductions plus trading book ancillary capital.

² Core capital less regulatory deductions from core and regulatory capital.

Source: NBP.

Figure 53

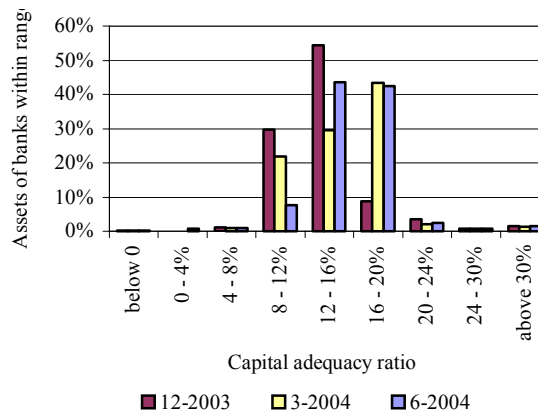
Distribution of banks by capital adequacy ratio



Source: NBP.

Figure 54

Distribution of banks' assets by capital adequacy ratio



Source: NBP.

increase their capital.

The impact of changes in the capital requirement level on the growth of the capital adequacy ratio in June 2004 was comparable to that of the capital increase.

Favourable shifts in the distribution of banks' assets by the capital adequacy ratio occurred in the first half of the year: most banking sector assets belonged to banks, whose capital adequacy ratios were in the range between 12–20% (cf. Figs. 53 and 54). Lower capital adequacy ratios, including those below the 8% regulatory minimum, were exhibited by small and medium-sized banks. The concentration of the banking sector assets in banks that are very well endowed with capital demonstrates that the system stability has not been threatened.

Simulations of the capacity to absorb loan losses

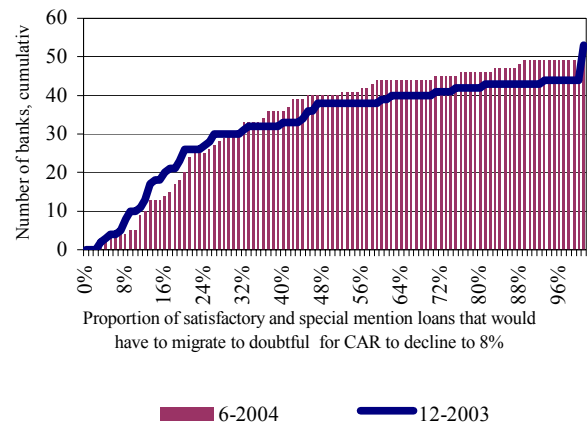
Three simulations have been conducted in order to determine whether banks' capital is sufficient to absorb potential losses due to credit risk.

The results of the **first simulation** give an answer to the following question: what share of *satisfactory* and *special mention* loans would have to migrate to *doubtful* for the capital adequacy ratios of particular banks to fall to 8%.

The simulation conducted for the data from June 2004 yielded better results than that for the data from year-end 2003. Among the most important changes is a decrease in the number of banks with low percentages of *satisfactory* and *special mention* loan portfolios that would have to be reclassified *doubtful* in order for the capital adequacy ratio to fall to 8%. The share of banks with weakest capital base in the assets of the banking sector has also decreased (both in Figs. 55 and 56 the solid line lies above the bars on the left-hand side of the chart), which demonstrates an improvement of the loss-absorbing capacity of the largest banks. For example, should 20% of the *satisfactory* and *special mention* loan portfolio migrate to *doubtful*, the capital adequacy ratios of 20 banks with assets totalling 115 billion zloty will fall below 8%. For a comparison, in December 2003 such a situation would have occurred with regard to 26 banks with assets totalling 292 billion zloty.

Figure 55

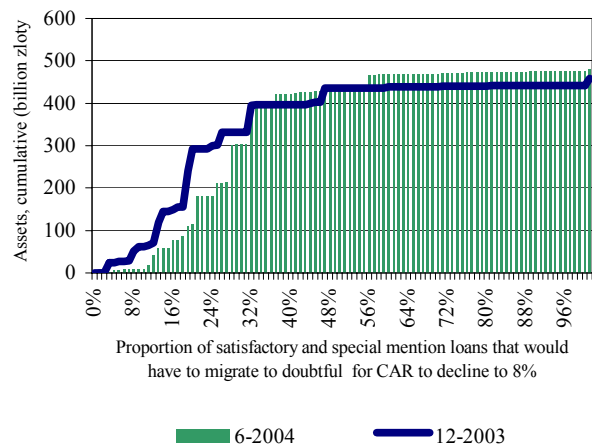
Number of commercial banks with 8% capital adequacy ratio (CAR) under assumed scenario of *satisfactory* and *special mention* loans migrating to *doubtful*



Source: NBP.

Figure 56

Assets of commercial banks with 8% capital adequacy ratio (CAR) under assumed scenario of *satisfactory* and *special mention* loans migrating to *doubtful*



Simulation assumptions:

- Loan portfolio (*satisfactory* loans to non-financial customers) as of December 2003 (solid line) and June 2004 (bars).
- Numerator and denominator of the capital adequacy ratio has been adjusted by the full amount of specific provisions against doubtful loans. (It is assumed that the loans are unsecured and that the downgraded classifications attract a 100% risk weight. The adjustment to the denominator has been divided by 12.5, in accordance with the methodology for calculating the capital adequacy ratio).
- No releases of specific provisions envisaged (it is thereby assumed that there is no improvement in the quality of the remaining loans).
- No consideration given to banks with the capital adequacy ratio below 8% or over 100%.

Source: NBP.

The **second simulation** was intended to establish the level of the capital adequacy ratio in the event of an abrupt deterioration of the quality of irregular loans and a decrease in the value of loan security. In the first scenario it was assumed that all *substandard* and *doubtful* claims on the non-financial sector migrated to *loss*. In the second and third scenarios it was additionally assumed that the loan security value dropped by 25% and 50%, respectively. The simulation was conducted for a group of 10 largest banks.

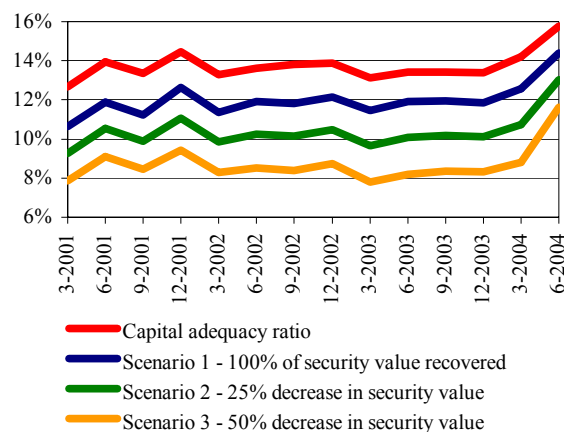
The results of the simulation indicate that the banks' loss-absorbing capacity improved, as compared to the end of 2003, which was caused both by a rise in the banks' regulatory capitals and a decrease in the proportion of irregular claims in the banks' balance sheets (cf. Fig. 57). In the first and second scenarios no banks record capital adequacy ratios below the regulatory minimum of 8%, and only in the third scenario – the least probable one – such a situation occurs at two banks.

The results of both simulations presented above, which are much better than in December 2003, have been influenced by the regulatory changes causing an improvement in loan quality. The assessment of the real changes in the capacity to absorb losses due to credit risk will only be feasible in the following quarter.

The third simulation aimed to examine the impact that a simultaneous bankruptcy of the three largest borrowers of the banking sector (according to the data from end-June 2004) would have on the sector. Two of those firms belong to the electricity supply sector, while the third one is a manufacturing company. The simulation assumes that all loans extended to those firms are reclassified as loss, and that the expenses of the established specific provisions are deducted from the banks' regulatory capital, which results in a decrease of the capital adequacy ratio.

The bankruptcy of the three largest borrowers would affect 17 banks and cause a rise of the cost of establishing specific provisions by 4.3 billion zloty. The affected banks held 74% of the banking sector assets. The decrease in capital adequacy ratios of individual banks would range from 0.1 to 4.5 percentage points, but thanks to high regulatory capitals the capital adequacy ratio would not drop below 9.8% at any of the

Figure 57
Average capital adequacy ratio at ten largest commercial banks assuming all irregular loans to non-financial customers are reclassified as *loss*



Assumptions:

- All irregular loans to non-financial customers reclassified as loss.
- Loans classified satisfactory and special mention remain unchanged.
- Numerator and denominator of capital adequacy ratio is reduced by the shortfall in specific provisions and – under scenarios 2 and 3 – also by the amount of reduction in loan security value. (25% of the value of eligible security under scenario 2 and 50% under scenario 3).
- Average capital adequacy ratio calculated for aggregate portfolio of all banks.

Analysis conducted for ten largest banks as of end June 2004. Where banks were involved in mergers and acquisitions during the period under investigation, analysis includes all component banks prior to merger.

Source: NBP.

banks. The capital adequacy ratios of the majority of the 17 banks under analysis would remain at the level above 11.5%. The bankruptcy of the largest borrowers, despite causing a considerable depletion of the banks' capitals, would not constitute a systemic threat. A comparison of those results with the results of a corresponding simulation conducted for the data from December 2003 demonstrates that the banks' soundness has improved (the simulation conducted for the December data indicates that the capital adequacy ratio of one of the banks would drop below the regulatory minimum of 8%, and those of three others — below 10%).

2.9. Market assessment of banks

Rating agencies

Moody's deposit ratings of Polish banks indicate a low level of credit risk related to claims on those banks. Both the short-term and long-term ratings are investment grade.

A comparison of deposit ratings with financial strength ratings shows that good deposit ratings are the result of taking into account the possibility of the owners supporting the banks. Only one bank has been assessed as having sufficient "internal" financial strength to operate without any need for external support. The banks that have obtained the lowest grade are currently undergoing the process of capital infusion, which has been reflected in their ratings. The ratings of all banks remained unchanged throughout the first half of 2004, which means that rating agencies consider the banks' standing stable.

Market valuation of banks

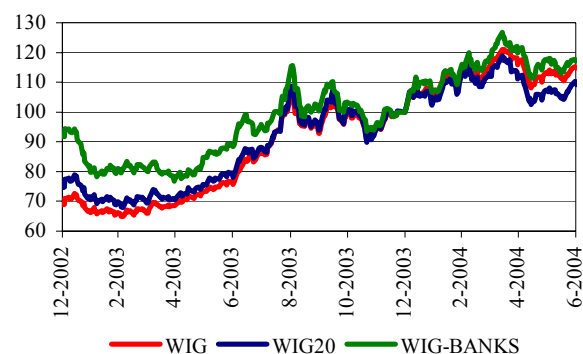
In the first half of 2004 the WIG-Banks industry index increased more strongly than the primary indices of the Warsaw Stock Exchange (WIG and WIG-20). This situation differed from that observed in the second half of 2003, when the industry index lagged behind the market. On this basis the conclusion may be drawn that investors expect a favourable impact of the economic

Table 14
Moody's ratings for Polish banks (June 2004)

Bank	Long-term rating	Short-term rating	Financial strength rating
BGŻ	Baa1	P-2	E+
Bank Handlowy	A2	P-1	D+
Bank Millennium	A3	P-1	D-
Bank Pekao	A2	P-1	C
Bank BPH	A3	P-2	D+
BZ WBK	A2	P-1	D+
BRE Bank	A3	P-2	D-
ING Bank Śląski	A2	P-1	D
Kredyt Bank	A2	P-1	E+
PKO BP	A2	P-1	D+
Rheinhyp-BRE Bank Hipoteczny	A3	P-2	D-

Note: The financial strength rating describes the soundness of a bank as an independent undertaking, whilst deposit ratings describe the probability of a bank meeting its liabilities, taking into account the probability and amount of possible third party support to the bank, e.g. from owners or government institutions. A better financial strength rating means lower probability of the bank requiring third party support in its operations. Source: www.moodyseurope.com.

Figure 58
WIG-Banks index relative movements against the key WSE indexes



Note: Index values on December 31, 2003 standardised to 100. Source: www.bossa.pl

recovery on the earnings of listed banks, and estimate that the effects of the economic slowdown in the years 2001–2002, still present in the banks' balance sheets, will not weaken the banks' future standing. The expectations of an improvement in the banks' earnings, following the regulatory changes introduced at the end of 2003, could have constituted an additional factor contributing to the relatively large growth of the banks' market valuation.

3. Stability of non-bank financial institutions

In terms of total assets, banks are the most important constituent of the Polish financial system. Despite their dynamic growth, the total value of assets of insurance undertakings, pension funds and investment funds only amounts to about 30% of the assets of the entire financial system (cf. Table 15).

In many cases banks are parent undertakings in capital groups operating within the Polish financial system. Due to capital links among undertakings within a group, there is a risk of the transfer of losses of subordinate undertakings to the parent undertaking. From the point of view of financial stability it is necessary to analyse both the banks' links to other undertakings within capital groups and the financial standing of those undertakings¹⁷.

In the first half of the year, subordinate undertakings valued by the equity method increased the net earnings of the banking sector by 227 million zloty, i.e. around 6%. The 2003 dividend payouts made by investment firms, pension companies and insurance undertakings in which banks held shares significantly contributed to this result.

Banks' credit exposure and liabilities to pension funds and insurance undertakings

Banks' credit exposure to pension funds and insurance undertakings has been marginal (26 million zloty) and has little influence on the level of banks' credit risk.

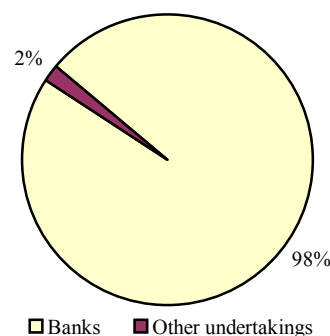
The amount of deposits from open pension funds and insurance undertakings held with banks, and the

Table 15
Assets of open pension funds, insurance undertakings, investment funds and banks (million zloty)

	Dec 2003	Mar 2004	Jun 2004
Investment funds	33,229	35,361	34,943
Open pension funds	45,439	49,956	51,772
Insurance undertakings	65,723	70,032	n/d
Banks	488,790	502,090	515,826

Sources: NBP, KNUiFE, STFI.

Figure 59
Banks' share in consolidated capital group assets



Note: The figure refers to ten largest banks which are parent undertakings in capital groups.
Source: NBP.

Table 16
Banks' liabilities to open pension funds and insurance undertakings due to deposits and debt securities

	Dec 2003	Mar 2004	Jun 2004
Liabilities to open pension funds and insurance undertakings (million zloty)	3,873	2,951	3,232
As % of total assets	0.8%	0.6%	0.6%

Note: Data refers to all open pension funds and insurance undertakings, not only to undertakings belonging to capital groups.
Source: NBP.

amount of bank securities held by them were low enough not to pose any threat to the banks' financial liquidity (cf. Table 16).

3.1. Pension funds

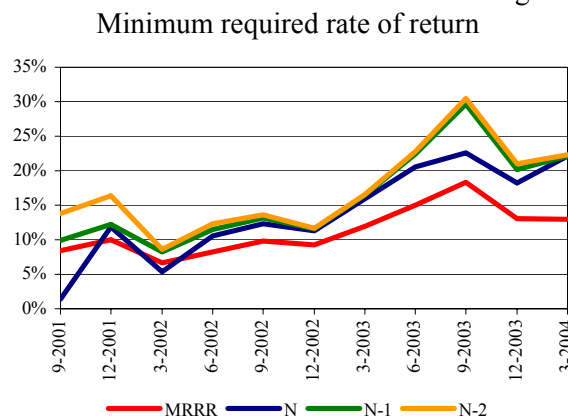
Pension companies have developed efficient methods of fund management allowing them to minimise the risk of not attaining the minimum required rate of return (MRRR) by the managed fund, and being forced to compensate the accounts of the open pension fund members with their own funds. Last time when the returns of any open pension fund were lower than the MRRR was March 2002 (cf. Fig. 60). The deteriorating earnings of large undertakings, which have the greatest influence on the MRRR, have contributed to reducing the abovementioned risk.

From April 2004, the method of calculating the minimum required rate of return has changed. It will be calculated at the end of March and September of each year for a 3-year period. The MRRR will still be based on the average asset-weighted rate of return¹⁸ but the principles of determining the weights of individual funds will change. The weight of any individual fund will not exceed 0.15. If the actual market share of a given fund indicates a larger weight, it will be assigned the maximum weight and the weights of the remaining funds will be increased in proportion (cf. Fig. 61).

The risk of additional compensatory payments will increase considerably for the shareholders of the pension companies managing the largest pension funds (the amount of additional payments is proportional to the amount of funds accumulated by the open pension fund). Until now the performance of the largest funds had such an influence on the level of the minimum required rate of return that such funds would have to attain very low returns in order to fail this requirement. After the weights of the largest open pension funds are reduced to 0.15 for the purposes of estimating the MRRR, the risk of additional payments will increase.

Polish banks and insurance undertakings are among the major shareholders of pension companies (cf. Table 17). Thus if pension companies were required to make

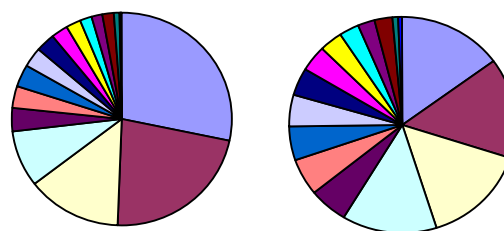
Figure 60



Note: N, N-1 and N-2 denote the investment performance of the worst, the second worst and the third worst fund when calculating the two-year rate of return in a given month, respectively.
Source: KNUiFE.

Figure 61

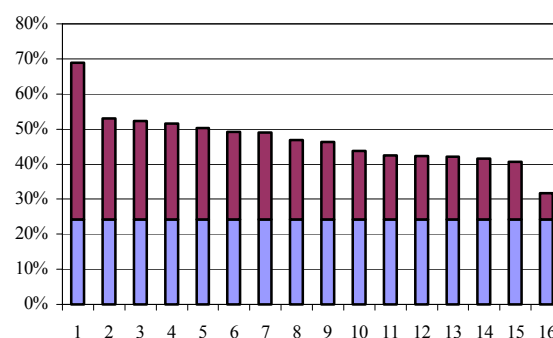
Open pension funds weight distribution at the calculation of the MRRR in September 2004



Note: The left-hand figure illustrates hypothetical weights calculated according to the old scheme; the right-hand figure illustrates weight distribution under the new MRRR calculation system. Open pension fund market share is calculated as the arithmetic mean of its market shares at the beginning and at the end of the period under consideration (July 2004 has been assumed as the end of the period).
Sources: NBP calculations based on KNUiFE data.

Figure 62

Open pension fund investment performance, September 2001 – July 2004



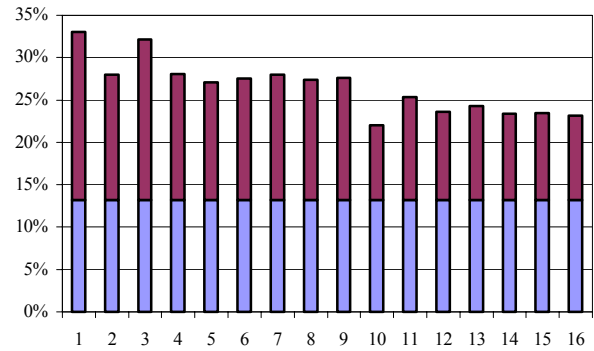
Note: Blue bars denote the hypothetical MRRR value for the analysed period. The next MRRR will be determined with reference to the performance in the period September 2001 – September 2004.
Sources: NBP calculations based on KNUiFE data.

large additional contributions to open pension funds, this might adversely affect the stability of certain financial institutions from outside the pension sector. The amount of potential additional payments increases together with rising pension fund assets. Therefore it is important to monitor open pension fund performance with regard to the probability of any additional payments being required when the MRRR is determined again.

To this purpose, open pension fund investment performance in the periods from September 2001 to July 2004 and from March 2002 to July 2004 has been analysed (cf. Figs. 62 and 63). During those periods, all pension funds achieved investment results that should allow them to meet the MRRR requirement both in September 2004 and in March 2005:

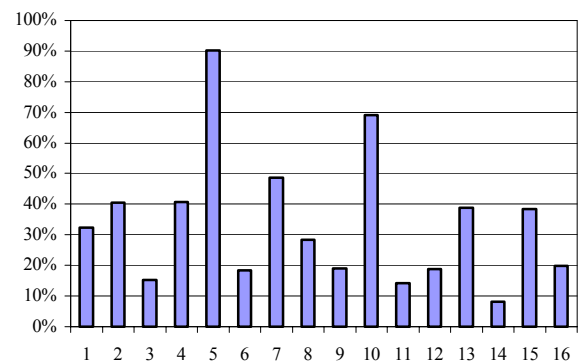
- Two months before the determination of the September MRRR the worst open pension fund exhibits returns of almost 7.5 percentage points above the required minimum; all other open pension funds are at least 16.5 percentage points above the minimum.
- In the case of investment results which will be taken into account when determining the MRRR in March 2005, a different situation obtains. No fund exhibits returns that are significantly lower than the *average* rate of return. It should, however, be noted that the worst results have been recorded by the fund for which 1% of open pension fund assets constitutes over three quarters of the equity of the pension company (cf. Fig. 64). Thus in the case of this pension company any significant additional payments would necessitate a rapid capital injection by shareholders.

Figure 63
Open pension fund investment performance,
March 2002 – July 2004



Note: Blue bars denote the hypothetical MRRR value for the analysed period. The next MRRR will be determined with reference to the period from March 2002 to March 2005.
Sources: NBP calculations based on KNUiFE data.

Figure 64
Ratio of 1% of open pension fund assets to the equity
of the pension company managing the fund



Note: The chart denotes the scale of the financial threat to pension companies of potential additional payments due to a failure to attain the MRRR. The ordering of pension companies in the figure corresponds to the ordering of open pension funds in Figs. 62 and 63.
Source: NBP calculations based on KNUiFE data.

3.2. Insurance undertakings

Earnings and performance

In the first quarter of 2004, the technical result and the earnings of the insurance sector improved compared to the first quarter of the previous year (cf. Table 18). To a large extent, this was a result of an increase in deposit income. The insurers' earnings from their core business (the so-called technical result) increased only in life insurance undertakings. It should, however, be kept in mind that the performance of the PZU Group had a considerable influence on the overall performance of life and property & casualty insurance undertakings.

In the first quarter of 2004, the average profitability of the insurance sector, measured as the return on assets and equity, also improved (cf. Figs. 65 and 66).

The property & casualty insurance sector recorded a higher return on assets than the life insurance sector. This was caused by the difference in the amount of technical provisions, which was lower in the property & casualty insurance sector than in the life insurance sector (67% and 82% of total assets, respectively). In the case of life insurance, the provisions are accumulated over the entire insurance period. Property & casualty insurance agreements, on the other hand, are concluded for shorter periods and after the policy has expired, the provisions are released. Higher "fund turnover" results in higher profitability in the case of property & casualty insurance.

The higher return on equity in the life insurance sector in 2004 has been a consequence of net earnings being over twice as high as in the first quarter of 2003. Larger deposit income and the fact that the amount of premiums rose faster than insurance activity expenses significantly contributed to the rise in earnings.

Table 17

Polish financial institutions – pension company shareholders

Pension company	Shareholders	Amount of shares
AIG PTE SA	Pierwsze Amerykańsko-Polskie Towarzystwo Ubezpieczeń na Życie i Reasekuracji Amplico Life SA	50%
PTE Allianz Polska SA	TU Allianz Polska SA	58%
Commercial Union PTE BPH	CU Tow. Ubezp. na Życie SA BPH SA	50%
CU WBK SA	Bank Zachodni WBK SA	10%
PTE "Dom" SA	TUiR Warta SA (Polska)	50%
PTE Ergo Hestia SA	Sopockie Towarzystwo Ubezpieczeniowe Ergo Hestia SA	100%
ING Nationale-Nederlanden Polska PTE SA	ING Bank Śląski SA	20%
PTE Kredyt Banku SA	Kredyt Bank SA	100%
Pekao Pioneer PTE SA	Bank Pekao SA	65%
PTE Bankowy SA	Powszechna Kasa Oszczędności Bank Polski SA	100%
PTE Polsat SA	Invest-Bank SA	19%
PTE PZU SA	PZU Życie SA	100%
PTE Skarbięc-Emerytura SA	BRE Bank SA	100%
Generali PTE SA	Generali TU SA	96%

Sources: KNUiFE, pension companies.

Table 18

Earnings (E) and technical results (TR) in Q1 (thousand zloty)

		2003	2004	change, %
Life insurance undertakings	E	176,172	388,143	120
	TR	279,315	378,174	35
Property & casualty insurance undertakings	E	281,967	443,296	57
	TR	185,473	70,376	-62

Source: KNUiFE.

Relation of gross benefits paid to gross premium written

In the first quarter of 2004, property & casualty insurance undertakings recorded a low loss ratio (the ratio of benefits to premiums). This is a seasonal phenomenon, which results from an increase in motor third party liability insurance premiums in the first quarter¹⁹.

The loss ratio of life insurance undertakings is rising. This is caused by the slow transition of the life insurance market from the “capital accumulation” phase typical for young life insurance markets to the “claim payment” phase typical for more mature insurance markets. It should be expected that this ratio will continue to rise moderately in the coming quarters. However, due to the sufficient coverage of projected payments by deposits accumulated in the past, this does not threaten the stability of insurance undertakings.

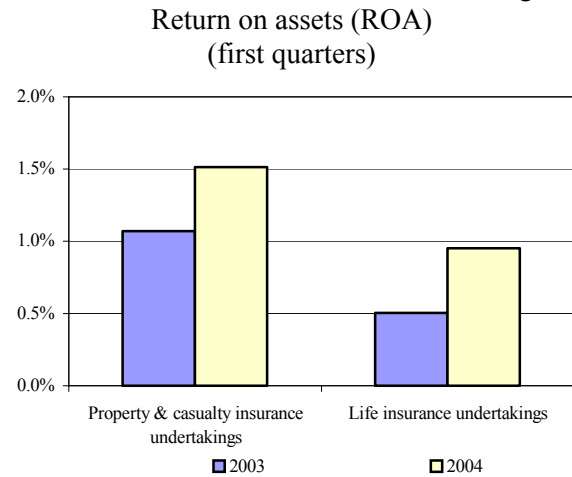
Investment activity

As in previous periods, debt securities, and particularly fixed income debt securities, have been the primary component of the investment portfolio of life insurance and property & casualty insurance undertakings (cf. Fig. 68). The share of individual assets in the investment portfolio has remained quite stable.

Most debt securities in the insurance undertakings’ portfolio are held to maturity. Accordingly, insurers use the amortised cost method to value debt securities. This means that the value of the securities held in the portfolio (provided they are held to maturity) is not sensitive to changes in demand and supply – as is the case with market value – which reduces fluctuations in portfolio value.

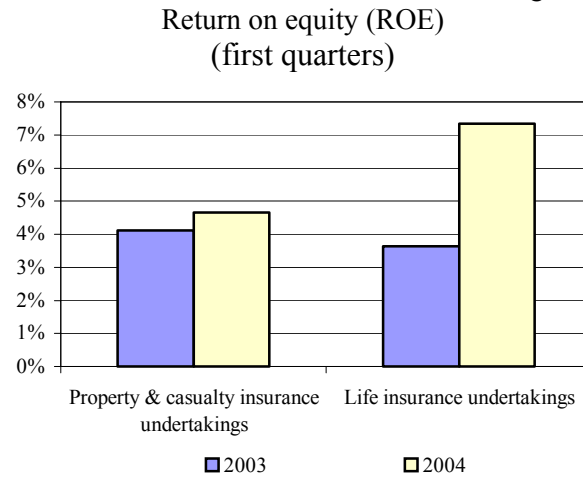
From January 1, 2004 the Insurance Activity Act has permitted investments in derivatives in order to hedge the risk associated with other assets covering technical provisions. At the end of March, no insurance undertakings held derivatives in their investment portfolios. Therefore the value of the portfolio is not hedged against interest rate volatility.

Figure 65



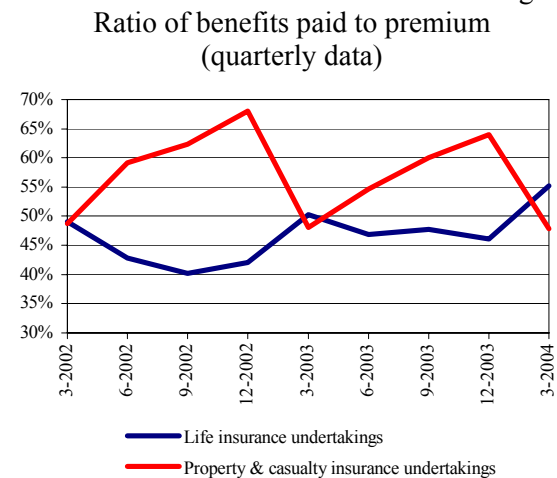
Note: data not annualised.
Source: KNUiFE.

Figure 66



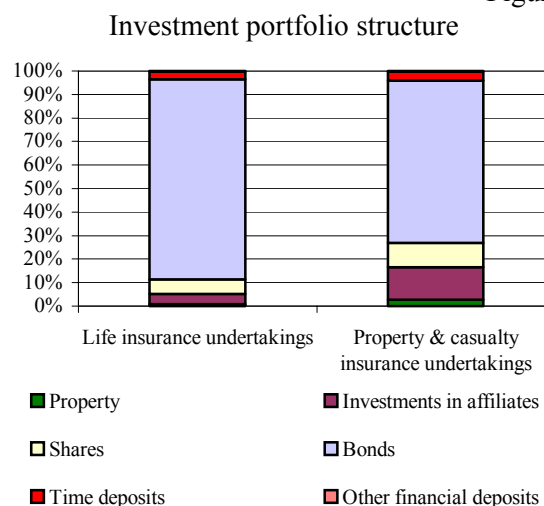
Note: data not annualised.
Source: KNUiFE.

Figure 67



Source: KNUiFE.

Figure 68



Source: KNUiFE.

¹ The fact that private consumption rose faster than wages also means that the purchases were at least partly financed, apart from the reduction in deposits, by a growth of debt.

² Cf.: “Senior loan officer opinion survey on bank lending practices and credit conditions”, Q1 and Q2 2004 editions, to be published from October 2004 on NBP website: <http://www.nbp.pl>.

³ The section describes the quality of claims on the non-financial customers.

⁴ The changes are listed in the “Financial Stability Report. 2003,” NBP, May 2004, p. 56. Cf.: Ordinance of the Minister of Finance on procedures for establishing specific provisions against the risk of banking operations of December 10, 2003 (as published in *Dziennik Ustaw* No. 218/2003, item 2147).

⁵ Source: “EU banking sector stability,” ECB, November 2003, p. 19.

⁶ “Financial Stability Report,” NBP, 2003 and 2004 editions.

⁷ Cf.: Ordinance of the Minister of Finance amending the Ordinance on special bank accounting procedures of December 2, 2003 (as published in *Dziennik Ustaw* No. 211/2003, item 2061).

⁸ The new regulation has limited the number of quality categories for consumer loans. Banks classify such loans as *satisfactory* or *loss* for supervisory reporting purposes.

⁹ Cf.: “Senior loan officer opinion survey on bank lending practices and credit conditions”, Q1 and Q2 2004 editions, to be published from October 2004 on NBP website: <http://www.nbp.pl>.

¹⁰ Cf.: “Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2004”, <http://www.nbp.pl>

¹¹ This phenomenon is typical for emerging market currencies. Such currencies usually depreciate rapidly, whilst their appreciation is slower. This is why implied volatility usually increases with the depreciation of domestic currency and decreases with its appreciation.

¹² The share of the euro in the theoretical zloty basket, determined as the weighted average of zloty exchange rates against the US dollar and the euro with weights adjusted to minimize the variance of the basket, rose from around 55% in December 2003 to 70% in February 2004 and has oscillated within the range of 70–80% ever since.

¹³ This section presents cumulative profit and loss account data for the first half of 2004, and annualised data. The annualisation consists in summing up the earnings generated in the first half of 2004 and in the second half of 2003.

¹⁴ The annualised pre-tax earnings were around 42% higher than the annualised pre-tax earnings for the first half of 2003 and net earnings were around 76% higher.

¹⁵ Cf.: Resolution No. 14/2003 of the Monetary Policy Council on the banks’ required reserve rate of September 30, 2003 (Official Gazette of the NBP No. 17/2003, item 28), Resolution No. 1/2004 of the Monetary Policy Council on the banks’ required reserve rate and interest on the required reserve of March 30, 2004 (Official Gazette of the NBP No. 2/2004, item 2), and Resolution No. 15/2004 of the Management Board of the NBP on the principles and procedure of calculating and maintaining required reserves by banks of April 13, 2004 (Official Gazette of the NBP No. 3/2004, item 4).

¹⁶ Cf.: Resolution No. 1/2003 of the Commission for Banking Supervision amending the resolution on the scope and detailed principles of determining capital requirements against particular types of risk... of June 4, 2003 (Official Gazette of the NBP No. 11/2003, item 16).

¹⁷ A more comprehensive analysis of links between capital group undertakings can be found in the "*Financial Stability Report. 2003*," NBP, May 2004, pp. 90–92.

¹⁸ The MRRR is the average weighted rate of return divided by two or decreased by 4 percentage points (whichever is lower).

¹⁹ The larger amount of premiums in the first quarter is typical for the Polish insurance market. This is a legacy of past regulations which required that motor third party liability insurance agreements be concluded at the beginning of the year.