ANALYSIS

OF THE SLOVAK FINANCIAL SECTOR

FOR THE FIRST HALF OF 2013
## CONTENTS

**FOREWORD**

4

**ANALYSIS SUMMARY**

6

1 MACROECONOMIC DEVELOPMENTS IN REGARD TO FINANCIAL SECTOR STABILITY 10

2 DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR 16

2.1 The banking sector 21

2.1.1 Trends in the banking sector’s balance sheet 21

2.1.2 Financial position of the banking sector 29

2.2 The insurance sector 33

2.3 The pension sector 40

2.3.1 The old-age pension saving scheme 40

2.3.2 The supplementary pension scheme 44

2.4 Collective investment 47

2.5 Investment firms 52

3 RISKS IN THE SLOVAK FINANCIAL SECTOR 53

3.1 Credit risk in the banking sector 54

3.1.1 Credit risk in the household sector 54

3.1.2 Credit risk in the non-financial corporations sector 57

3.1.3 Concentration risk 58

3.2 Market risks and liquidity risk 59

3.2.1 Credit spread risk 59

3.2.2 Other market risks in the Slovak financial sector from a systemic perspective 60

3.2.3 The most significant market risks in particular financial market segments 62

3.2.4 Measuring market risks using value at risk (VaR) 64

3.2.5 Liquidity risk in the banking sector 66

4 MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR 68

4.1 Description of scenarios used 70

4.2 Scenario impacts 71

MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR 77

GLOSSARY AND ABBREVIATIONS 92

LIST OF CHARTS AND TABLES 97
FOREWORD

Národná banka Slovenska produces the Analysis of the Slovak Financial Sector for the needs of the NBS Bank Board, professionals and the wider public. The aim of this report is to analyse the current situation and developments in the domestic financial market and to warn of potential risks and threats to its stability.

This analysis evaluates the overall condition of the financial sector as at 30 June 2013, although in several parts it uses more recent data, where available. The main aim is to assess the financial system’s resilience to possible negative development, looking at both individual institutions and the sector as a whole. The analysis provides a more detailed view of the links between financial sector developments, on the one hand, and macroeconomic and microeconomic indicators, on the other hand. The systemic nature of the analysis is reflected mainly in the use of stress testing as a way of assessing the financial sector’s sensitivity to various scenarios. The Annex supplements the main text of the analysis with charts of selected macro-prudential indicators for the principal risk areas in the financial sector.

As in previous analyses, financial information on particular institutions is obtained primarily from NBS information systems and from documents produced by various departments of the NBS Financial Market Supervision Unit. Additional sources include the Statistical Office of the Slovak Republic (SO SR), Eurostat, the European Central Bank (ECB), and other external sources and commercial information systems. The analysis does not cover the supervision over individual institutions.
ANALYSIS
SUMMARY
Analysis Summary

Despite a moderate pick-up in global economic activity and relative stability in financial markets, there remain significant risks

Developments in the global economy and financial markets during the first half of 2013 do not allow clear conclusions to be drawn about their future course, nor about their potential impact on the Slovak economy and domestic financial sector. Although the global economy is expected at least to pick up moderately, and the euro area has emerged from recession, there are still risks which, if they materialised, could dampen activity significantly. Furthermore, while economic growth is positive, it remains at very low levels. Questions remain about potential effects of fiscal consolidation efforts in several euro area countries and about the trend in sentiment regarding future growth and the related development of domestic demand.

Financial markets were calmer during the period under review, owing to the effect of various measures, both completed and initiated. The growth of several market segments was supported to an appreciable extent by historically low yields on lowest-risk assets, which boosted demand for riskier assets offering higher yields. Here too, however, it is necessary to note the risks of any sharp correction in asset prices, which in future may arise, for example, if the Federal Reserve unwinds quantitative easing, thereby prompting an outflow of investment from riskier markets and from emerging economies.

A combination of weak economic growth and specific legislative amendments in certain sectors contributed to a slowdown in asset growth, and in some segments assets even declined. This trend was most apparent in the old-age pension saving scheme, due to several factors: the scheme being temporarily reopened; changes in the voluntariness of enrolment for people aged 35 or older, and a reduction in the share of contributions to the second pension pillar. By contrast, the collective investment sector saw substantial growth to levels close to an all-time high. Although the rate of return on financial assets was lower across financial market segments, returns increased in real terms owing to a decline in inflation.

While retail loans continued to grow, the volume of corporate lending declined amid weak economic activity and uncertainty about future developments

Retail lending growth continues to be driven mainly by housing loans. The annual growth rate of loans increased moderately during the period under review. Although demand is generally being supported by the continuing stability of property prices, in the first half of 2013 it was also significantly boosted by falling lending rates. Moreover, in an environment of low interest rates, competition between banks increased, supported also by the fact that housing loans could be repaid within their fixation period at no charge.

Question marks over future economic developments and the caution brought on by currently flaccid economic activity continued to put downward pressure on the outstanding amount of corporate loans. This decline remains relatively homogeneous, whether viewed from the perspective of individual sectors or banks, and it is affected by both demand-side and supply-side factors.

Credit risk increased slightly, although its negative impact on banks was sufficiently moderated by profits and capital buffers

Weak economic activity impinged on the quality of the credit portfolio. Banks recorded a slight rise in credit risk costs, particularly in the case of retail loans. In regard to corporate lending, the rise in these costs was concentrated in certain sectors, notably real estate. A key factor in mitigating this risk remains the low level of interest rates. Were lending rates to increase after being so low for so long, the consequent increase in loan repayments could heighten the downside risk to the financial situation of customers.

How credit portfolio quality develops will largely depend on what happens in the economy, where substantial uncertainty persists notwithstanding some positive signals from the domestic labour
Possible future sources of risk include the provision of loans at higher loan-to-value ratios, at shorter fixed-interest rate periods, or at higher repayment-to-income ratios. A particular risk in the Slovak banking sector is the high concentration of exposure among certain banks, mainly medium-sized and smaller institutions, to specific groups of customers or to parent financial groups. In some cases, the failure of an interconnected group of customers could cause substantial losses to several banks simultaneously.

At the same time, Slovak banks have a high share of domestic government bonds on their balance sheets, one of the highest shares in the EU. As regards the stability of the banking sector and the continuing risk of a further rise in credit risk costs, the fact that most banks have a high loss-absorption capacity is particularly important. This capacity stems mainly from the high capital ratio, which at 16.2% is at its highest level since 2005. Banking sector solvency was further bolstered by retaining around a quarter of the sector’s profit for 2012 to increase equity capital.

The sector’s positive results in macro stress testing are also linked to its strong capital position. Estimates confirmed the resilience of banks to headwinds from the real economy and from financial markets, and to the related marked increase in credit risk costs, since the amount of additional capital required would not be substantial under any of the scenarios.

**Banking sector profits increased slightly year-on-year**

Despite facing rising credit risk costs, the sector as a whole saw a moderate annual growth in profits that reflects the effect of several trends. The main drivers of profit growth were an increase in lending to households and a decline in banks’ funding costs. Not only, however, is credit risk a drag on profit growth, so too is the decline in interest income on assets as interest rates remain low. Net interest income is also being impaired by the downward trend in the outstanding amount of corporate loans.

**Looking at market risks, the most significant source of risk in most sectors is a change in government bond yields**

Over the short-term horizon, several financial market segments would be adversely affected by any further escalation of the sovereign debt crisis, with the related decline in confidence and widening of credit spreads on government bond. Such a negative situation would be significantly exacerbated if the uncertainty spread to bonds issued by countries in central and eastern Europe including Slovakia. The exposure of certain segments, particularly funds in the second pension pillar, to this risk increased quite sharply during the first half of the year as the duration of portfolios increased. In addition, these funds became increasingly sensitive to potential headwinds from equity markets.

The long period of low returns on less risky assets could have a relatively negative effect on profits in the life insurance sector. During the first half of 2013, this sector saw investment income from assets decline to a level just above the average guaranteed return.

**While traditional life insurance grew, non-life insurance saw continuing downward trends in motor insurance**

The profits of the insurance sector did not change significantly year-on-year and remained at adequate levels. The solvency of insurers increased significantly towards the end of 2012 owing to revaluation gains in the portfolio of securities available for sale. However, these gains resulting from falling interest rates serve as a buffer against a future rise in rates. Going forward, insurers should provision against interest rate increases that result in revaluation losses on the bonds they are currently purchasing.

In life insurance, premiums continued to grow but there was a change in their breakdown by insurance line. While premiums in traditional life insurance products increased, those in unit-linked products declined for the first time since 2009. The volume and frequency of surrenders continue to rise, albeit more slowly than before.

Non-life insurance saw further negative trends in motor insurance, related mainly to declining premiums in motor third-party liability insurance and comprehensive motor vehicle insurance.
Furthermore, developments in this insurance line are reaching a point that is unsustainable over the long-term, as is evident in the fact that the comprehensive motor vehicle insurance segment made a loss in the first half of 2013. In most other insurance lines, premiums increased and the loss ratio also rose slightly.

**The situation in the second pension pillar was affected mainly by legislative amendments**

The number of savers in the second pension pillar declined by more than 30,000 in the first half of 2013, mainly because reopening of the pillar resulted in withdrawals outnumbering enrolments. The key event in the old-age pension saving scheme during the period under review was a substantial reassignment of savers and assets among different types of pensions funds, all of which stemmed from new statutory law concerning the setting of guarantees. Consequently, from the beginning of May, more than 90% of savers found themselves enrolled in bond pension funds that alone remained guaranteed by law. Most pension funds management companies also altered their investment policy. The long-time risk-return profile of non-guaranteed mixed and equity funds was changed so that equity investments made up a significant proportion of their portfolios, thereby bringing back a differential composition of assets between different types of fund. Furthermore, the duration of pension fund portfolios increased significantly, even in the case of guaranteed bond pension funds (owing to the extension of the time horizon for replenishing portfolio assets).

In the supplementary pension scheme, the number of participants fell by almost ten thousand. Continuing a trend of recent years, enrolment increased in certain smaller contributory supplementary pension funds which have a more specialised investment strategy. In both the second and third pension pillars, the average year-on-year performance at the end of the period under review was positive, although the nominal return was largely attributable to asset price growth in the second half of 2012.

**Continuing asset growth in special investment funds**

The collective investment sector grew in the first half of 2013 at similar pace to its growth in 2012. Virtually all of the increase in managed assets was accounted for by special investment funds, in particular by special professional investor funds, although special real estate funds and special securities funds also continued to sell well. By contrast, net sales of standard investment funds remained flat. Funds with a money market profile continued their long-term trend of net redemptions. All other fund categories apart from special alternative investment funds reported a positive nominal return on investment as at 30 June 2013, albeit lower than at the end of 2012.
MACROECONOMIC DEVELOPMENTS IN REGARD TO FINANCIAL SECTOR STABILITY
1 Macroeconomic Developments in Regard to Financial Sector Stability

Global Economic Growth in 2013 is Expected to be Similar to the Previous Year

According to the IMF’s latest macroeconomic forecast, including information on developments in the first half of the year, global economic growth in 2013 is expected to be the same as in 2013, i.e. 3.1%. The growth projection was revised down slightly from the previous forecast to take account of some slowdown in emerging economies, which nevertheless continue to be the main driver of global growth. Across advanced economies, however, average performance remained low, although recent months have seen signs of a slight pick-up, in some cases even exceeding original expectations. The risks to the macroeconomic outlook nevertheless remain on the downside, and the potential threat to financial stability from macroeconomic developments continues to be high.

No Significant Financial Market Turbulences in the First Half of 2013

Global financial markets were relatively calm during the first eight months of 2013. Even European markets were less volatile and avoided a third summer of escalating tension and risk aversion. Although it would be premature and groundless to say that the euro area sovereign debt crisis is over, it is clear that a mix of measures, some just launched and others already completed, have at least quelled fears of an extreme scenario in the euro area, with favourable effects on volatility and asset valuations. Nevertheless, there remain in play many factors that could steer financial market sentiment in a largely negative direction.

In the first half of 2013, yields on government bonds of periphery countries and corresponding CDS spreads – the primary indicator of the debt crisis’s intensity – were quite far below their peaks of recent years, recorded when markets were under greatest stress. Signs of heightened volatility appeared temporarily in connection with the Cyprus crisis and with political instability in Italy and Portugal, but none of these events led to any marked change in investor sentiment. Ireland and Portugal, two countries subject to an EU/IMF recovery programme, even made a successful return to the primary bond market at the beginning of 2013, with several bond issues. Even so, by the end of August these two countries still did not have full access to sustainable market funding, and with the end of their three-year programme periods approaching at the end of 2013 and beginning of 2014 there could yet be a return to market turbulence.

Conditions in the European Banking Sector were also relatively stable

Signs of a return to more stable conditions were also observed in the euro area banking sector. Several banks prepaid three-year loans from the ECB, taking an option that became available one year after the launch of that programme. Of the total net inflow from two three-year longer-term refinancing operations, amounting to €523 billion, 61% had been repaid by the end of July 2013. It should be added that Germany and
French banks led the way in taking the prepayment option, while many banks in periphery countries retained this funding on their balance sheets.

Particularly during the first five months or so of 2013, with risk aversion falling and interest rates in most advanced economies at historically low levels, investors across the board were searching for additional yield. Hence across the world there was increasing demand for all riskier asset classes offering relatively higher returns. Demand for non-investment grade corporate bonds recorded particularly strong growth, with the effect that their yields fell to all-time lows even though their credit profile did not improve significantly. On the wave of this demand, share prices also increased. Stock markets in several countries have so far this year been reporting double-digit growth.

**INTEREST RATES INCREASED QUITE BROADLY AT THE END OF THE FIRST HALF OF 2013 AFTER THE FEDERAL RESERVE GAVE A FIRST INDICATION THAT IT MAY GRADUALLY TAPER ITS ASSET PURCHASE PROGRAMME**

The most significant event for global financial markets during the period under review was when the US Federal Reserve System (the Fed) advised investors to prepare for a possible turning point in the monetary policy cycle. The Fed announced at the end of May 2013 that assuming the economy performed as positively as expected, it might begin in the second half of 2013 with gradual tapering of monthly asset purchases under quantitative easing (QE) and the programme could be completely unwound sometime in mid-2014. The markets were somewhat startled by this plan, especially in their initial reaction. Following this forward guidance, the 10-year US government bond yield increased by almost one whole percentage point during May and June, up to around 2.6%. Consequently, with US government bonds being regarded as a benchmark risk-free asset, virtually all asset classes in every globally significant market recorded a fall in price.

The situation became more heterogeneous in July and August. Prices of many assets, including corporate bonds and emerging market equities, largely rebounded from their earlier declines. By contrast, assets such as US government bonds and emerging market equity indices remained at low valuations. It is therefore clear that the capital which recently flowed extensively into emerging economies could have a tendency to leave them should monetary policy in advanced economies begin to tighten; that situation could lead to funding difficulties.

**ALTHOUGH THE EURO AREA EMERGED FROM TECHNICAL RECESSION IN THE SECOND QUARTER OF 2013, ITS FUTURE OUTLOOK REMAINS UNCERTAIN**

The euro area’s financial markets and banking sector avoided any significant adversities, while at the same time there were signs of improvement on the macroeconomic front. Although euro area GDP contracted by 0.2% in the first quarter of 2013 – extending the length of the recession to one and a half years – the economy grew in the second quarter by a seasonally adjusted 0.3% over the previous quarter. While the return to growth had been widely anticipated, its level came as something of a positive surprise.

The improvement in the euro area’s aggregate performance was driven largely by the two largest economies, Germany and France, which reported GDP growth of 0.7% and 0.5% respec-
The moderate pick-up in the aggregate euro-area economy in the first half of 2013 reflected an improvement in sentiment in the context of no further escalation of the sovereign debt crisis. Despite a slight downward correction during February and March 2013, the European Commission’s Economic Sentiment Indicator (ESI) had a rising trend during the period under review. In July, the most recent month for which a figure is available, the ESI rose to its highest level since mid-2011, when the debt crisis was gathering in intensity. Other similar indicators are also pointing to rising optimism, both in the euro area as a whole and in individual member countries.

While the formal emergence from recession (along with the other positive developments mentioned above) is undoubtedly welcome, it remains to be seen whether this is the start of sustainable recovery that will become gradually stronger in time, or whether it is merely a temporary acceleration. Several factors suggest that the turnaround in GDP is built on fragile foundations.

One such factor is that the growth in euro area production in the second quarter of 2013 may have been largely attributable to improving expectations in the economy about the future production side of the economy, industrial output made a relatively significant contribution to ending the recession, as its growth accelerated from 0.2% in the first quarter of 2013 to 1.2% in the following quarter. There were even minor positive signs from the euro area construction sector in the second quarter after a long period of negative news. In Germany and France, growth was also supported by household consumption.

Looking at the production side of the economy, industrial output made a relatively significant contribution to ending the recession, as its growth accelerated from 0.2% in the first quarter of 2013 to 1.2% in the following quarter. There were even minor positive signs from the euro area construction sector in the second quarter after a long period of negative news. In Germany and France, growth was also supported by household consumption.

tively. In periphery countries, too, the difficult economic situation moderated. Although Spain and Italy remained in recession, their pace of contraction eased and was minimal in the second quarter. Portugal even reported growth of 1.1%.

The pick-up in euro area economic activity began to be reflected in improved labour market indicators. Although the unemployment rate for the euro area as a whole edged up by two-tenths of a percentage point between the end of 2012 and March 2013, to 12.1%, it remained at that level for the rest of the first half of 2013. A slight drop in the seasonally adjusted jobless rate at the end of the period under review was even reported by the periphery countries of Spain and Portugal.

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situation. A closer look at the components of the Purchasing Managers’ Index (PMI) or ESI shows that production grew faster than order books and that demand – both domestic and external – remains subdued.

The situation in bank lending provides further evidence of the weakness in domestic demand across the euro area. The annual rate of decline in the outstanding amount of loans to enterprises increased to -2.3%. This reflects, on the one hand, firms’ weak demand for loans (indicating subdued investment demand), and, on the other hand, tight credit conditions (particularly in periphery countries), which serve as a further obstacle to the development of investment activity. Household lending increased, but at a marginal pace.

Fiscal consolidation efforts constitute another risk to the medium-term outlook for euro area economic growth. Responding to worse than expected macroeconomic developments in 2012, the European Commission approved extensions to deficit-reduction deadlines for several countries (including France), allowing them an additional one or two years to bring their general government deficit below 3% of GDP. Despite these extensions, most national governments in the euro area face having to find significant savings and/or additional income in their budgets – amounting to several percentage points of GDP – which in the medium-term horizon will act as a drag on economic growth.

**Despite spending cuts, the US economy performed relatively well**

In the United States, the economic situation in the first half of 2013 can be considered favourable. The economy coped relatively well with the shock of tax and contribution increases at the beginning of the year (the “fiscal cliff”) and the activation of broad, automatic spending cuts from March (the “sequester”). Household final consumption remained robust over the first six months, at around two percent of GDP. The second core component of domestic demand – fixed capital investment – corrected slightly downwards in the first quarter and then returned to a growth trajectory.

The resilience of domestic demand was based on improvements in economic fundamentals, particularly an increase in net job creation and an accompanying decline in the unemployment rate. Another significant factor was the real estate market, as its recovery gradually gathered momentum. These trends together with rising asset prices in financial markets formed a positive feedback loop with consumer confidence, which in recent months has reached its highest level since the beginning of 2008. The upturn in the US economy prompted the Fed to signal the possibility of starting to unwinding its monetary policy stimulus programme. While the Fed did not give any precise timetable for its plans, and made such a move contingent on labour market developments and inflation, the prevailing consensus was that the Federal Open Market Committee could decide as early as September to begin the tapering of asset purchases.

Short-term risks to the US economy’s stable progress include the fact that the United States will soon hit its debt ceiling – the statutory limit on the amount of national debt that can be issued – unless the ceiling is raised. A political agreement on such an increase needs to be reached by October or November at the latest, but given the hitherto lack of political consensus on this issue there is a risk of a repeat of the summer 2011 scenario, which led to considerable volatility in financial markets.
Although Slovakia’s economic growth stopped slowing, a return to higher growth rates in the foreseeable future is unlikely.

Quarterly GDP growth in Slovakia indicates that the domestic economy recorded its largest slowdown at the end of 2012 and picked up moderately from the beginning of 2013.

After growing by a negligible 0.1% in the last quarter of 2012, over the previous quarter, seasonally adjusted GDP increased at a slightly faster pace in the first and second quarters of the period under review, by 0.2% and 0.3% respectively. Compared with the same period of the previous year, however, the economic growth decelerated to 0.8%. According to the latest NBS forecast, published in June 2013, the Slovak economy’s growth for the whole of 2013 is expected to be around 0.6%.

Despite its officially reported acceleration in the first quarter of 2013, the Slovak economy still showed only minimal signs of an upturn in fundamentals. In the second quarter, however, the economy began to move in a more favourable direction and the recovery acquired a sounder footing. This was seen primarily in the breakdown of GDP by expenditure for the second quarter. Growth was driven by exports, and also by domestic demand, which had declined during the previous five quarters. The rebound in exports of goods and services was accompanied by slower import growth, with the result that net exports made a positive contribution to GDP (1.5 p.p.). The contribution of domestic demand was lower (0.9 p.p.), but still substantial, owing to the pick-up in private consumption and fixed investment growth. Private consumption was boosted by increases in income of self-employed persons and in workers’s remittances from abroad, as well as improving consumer confidence. In real terms, however, household consumption has not yet returned to its pre-crisis level.

Overall sentiment in the economy, as measured by the European Commission’s Economic Sentiment Indicator, improved in July and August, although the ESI was still only around the level recorded in December 2012.

Sales in the Slovak corporate sector increased year-on-year in the first half of 2013, but more slowly than they did in 2012. Industrial production growth was also below its 2012 level, although it did start to accelerate gradually from April.

The increase in economic activity has not as yet had any significant impact on the labour market situation. Employment fell more sharply than originally projected, by 0.3% in the first quarter and by 0.4% in the second quarter.

The domestic economy did benefit from a marked slowdown in the headline inflation rate, which reflected a lower increase in administered prices as well as decelerating net inflation. Taking into account developments in the first months of the period under review, the average headline rate for 2013 is projected to be 1.7%, around half the level of the previous year. Given its positive effect on real income, lower inflation was evidently one of the factors behind the increase in household consumption.
DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR
2 Developments in the Slovak Financial Sector

Financial sector activity

Although the first half of 2013 did not see any significant shocks in either financial markets or the macroeconomic environment, the Slovak financial sector reported one of its weakest periods in terms of asset growth. Though the total assets of regulated and unregulated participants in the financial market increased, they did so by a marginal 0.5%, which was the sector’s second worst result for a calendar half-year in the post-crisis period (the worst being in the second half of 2009).

In three of the financial market segments under review, the total amount of assets actually declined. The segments in question were the second pension pillar, investment firms, and factoring, with investment firms being the only segment in which assets fell by more than one percent. The slight decline in assets managed by second-pillar pension funds also appeared to be notable, when compared to their previously strong linear growth. In this case, the explanation lies in a conjunction of two factors – a one-off outflow of assets due to reopening of the second pillar, and the fact that contribution income more than halved as the designated rate was lower than in the past. The drop in retail assets managed by investment firms (entities with an authorisation to provide investment services) followed their decline in the second half of 2012; however, the fall observed in the first half of 2013 stemmed largely from the fact that two significant participants in the domestic market ended their operation during this period.

The slower asset growth in the Slovak financial sector was mainly accounted for by the largest segment – the banking sector, whose total assets increased by only 0.3% during the first six months of 2013. While household lending growth during this period was similar to that in the previous year, lending to the corporate sector fell, and so did the exposure of domestic banks to non-resident banks.

Similarly with insurance companies, asset growth almost came to a standstill in the first half of 2013, reaching only 0.2%, in contrast with a rate of more than 6% for the previous calendar year.

The third pension pillar also saw far weaker growth in assets under management. In 2012, returns on assets contributed substantially to the growth in the net asset value of supplementary pension funds, but in the period under review their contributions was slightly negative. In the absence of other, more significant factors, the unfavourable movement of asset prices was most evident in the third pension pillar. However, it also had an appreciable impact on other segments focused on the management of customers’ assets.

One of the few segments to report relatively strong asset growth in the first half of 2013 was the collective investment sector (8%). As in 2012, the sector’s growth was driven mainly by positive net sales in the rapidly expanding categories of special investment funds.

The leasing and consumer credit sectors saw a recovery in assets, although in neither case was the growth accounted for by core components, but rather by an increased focus on new cus-

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Chart 6: Assets and managed assets in the Slovak financial sector (EUR billions)

Source: NBS.
tomer categories. There was a paradoxical situation in which consumer credit companies were building assets by lending to non-resident firms, while leasing companies were making headway by financing households.

**Financial sector profits**

Although the amount of assets in certain segments of the Slovak financial market grew more slowly in the first half of 2013 than in 2012, profit generation in year-on-year terms was not adversely affected. The return on equity (ROE) reported by banks, insurers, and collective investment management companies for the period under review was similar to that for the first half of 2012. In both the second and third pension pillars, the aggregate profit of management companies increased by around one-third. Further details are provided in Section 2.3 – The pension sector.

**The banking sector’s self-sufficiency was further confirmed in the first half of 2013**

Looking at the ongoing extensive utilisation of ECB liquidity by several European banking groups, it is positive that domestic banks minimised their net position vis-à-vis the Eurosystem in the first half of 2013. This development was based on a decline in the amount that domestic banks lent to their parent undertakings (see Section 2.1.1.3 – The interbank market).

Nevertheless, the Slovak banking sector continued to have a net creditor position against parent groups.

**Households’ financial assets grew more slowly**

Growth in households’ financial assets is not being supported by asset developments in financial market segments. Financial assets held by households increased at a slower pace dur-
ing the period under review, owing mainly to the decline in pension funds’ assets resulting from structural changes (see Section 2.3 – The Pension System). Another factor behind their slowdown was the weak growth in life insurance premiums, especially in unit-linked products (see Section 2.2 – The insurance sector). The shift of household investments from bank deposits with an agreed maturity of between 2 and 5 years to investment funds had a neutral effect.

These changes, however, had a relatively small effect on the overall composition of households’ financial assets, with bank deposits continuing to constitute by far the largest share (around 62%). This is positive from the view of the stability of household savings as well as in the context of long-term returns. In terms of cumulative returns over the past seven years, bank deposits have performed better than any other product in the financial market.

All the principal aggregates of household financial assets performed less well in the first half of 2013 than in December 2012. Since, however, the inflation rate declined, the real returns for households improved.
Table 1: Selected financial relationships in the Slovak economy (EUR millions)

<table>
<thead>
<tr>
<th></th>
<th>NBS</th>
<th>Domestic banks</th>
<th>Insurers</th>
<th>Pillar II and Pillar III funds</th>
<th>Investment funds</th>
<th>Other financial corporations</th>
<th>Households</th>
<th>Enterprises</th>
<th>General government</th>
<th>Non-resident banks</th>
<th>Non-resident investment funds</th>
<th>Foreign general government and international institutions</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic financial sector</td>
<td></td>
<td>1,996 - 695</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>11 - 10</td>
<td>3.6 - 3.6</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
<td></td>
</tr>
<tr>
<td>Domestic non-financial sector</td>
<td></td>
<td>763 - 717</td>
<td>734 - 738</td>
<td>15 - 15</td>
<td>883 - 822</td>
<td>17,039 - 18,612</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
<td></td>
</tr>
<tr>
<td>Rest of the world</td>
<td></td>
<td>0 - 0</td>
<td>921 - 884</td>
<td>0 - 0</td>
<td>14,000 - 14,972</td>
<td>18,839 - 19,839</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
<td></td>
</tr>
<tr>
<td>Foreign general government and international institutions</td>
<td></td>
<td>0 - 0</td>
<td>1,437 - 1,437</td>
<td>0 - 0</td>
<td>77 - 82</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
<td></td>
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<tr>
<td>Other financial corporations</td>
<td></td>
<td>0 - 0</td>
<td>1,604 - 1,773</td>
<td>327 - 347</td>
<td>361 - 369</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
<td></td>
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<tr>
<td>Other financial corporations</td>
<td></td>
<td>146 - 146</td>
<td>70 - 104</td>
<td>1,357 - 1,380</td>
<td>0 - 0</td>
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<td>0 - 0</td>
<td>0 - 0</td>
<td>11,236 - 16,384</td>
<td>16,384 - 16,384</td>
<td>2,672 - 2,734</td>
<td>488 - 410</td>
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<tr>
<td>Households</td>
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<td>38 - 38</td>
<td>26,596 - 27,054</td>
<td>3,706 - 3,723</td>
<td>6,778 - 6,772</td>
<td>2,943 - 3,002</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>630 - 666</td>
<td>0 - 0</td>
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<td>Enterprises</td>
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<td>9,559 - 9,978</td>
<td>80 - 83</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>630 - 666</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td></td>
</tr>
<tr>
<td>General government</td>
<td></td>
<td>2,607 - 5,640</td>
<td>910 - 1,392</td>
<td>0,9 - 1,0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>630 - 666</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td></td>
</tr>
<tr>
<td>Rest of the world</td>
<td></td>
<td>10,059 - 10,352</td>
<td>7,396 - 8,865</td>
<td>90 - 95</td>
<td>48,260 - 48,553</td>
<td>48,260 - 48,553</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>630 - 666</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td>0 - 0</td>
<td></td>
</tr>
</tbody>
</table>

Source: NBS.

Note: Structure of cell data: December 2012 – June 2013 (data for liabilities of enterprises to the rest of the world are as at March 2013).

Rows: overview of financial assets (loans and securities) invested in the institutions named in the columns.

Columns: overview of liabilities (deposits and loans received) to institutions named in the rows.

The figure for insurers represents technical provisions for life insurance and unit-linked products.
2.1 THE BANKING SECTOR

2.1.1 TRENDS IN THE BANKING SECTOR’S BALANCE SHEET

Loans to the retail sector continued to increase during the first half of 2013, due mainly to housing loan growth. The year-on-year growth rate was mildly improving during the whole six months. Competition between banks also increased during the period under review. Demand for loans continued to be supported by the continuing stability of property prices, and it was further boosted by lending rates, which reached historical lows as result of certain mid-sized and smaller banks reducing their rates in a successful effort to capture market share in new lending. The amount of new loans was also affected to some extent by the refinancing of existing loans.

Retail deposits grew at a slower pace during the first half of the year. As in the previous period, funds were shifted from time deposits to sight deposits, daily time deposits and deposits redeemable at notice, the main reason probably being the low remuneration on time deposits. There was also some movement of funds out of bank accounts and into investment funds.

Amid uncertain macroeconomic conditions in Slovakia and the euro area, the corporate lending market did not see any significant changes in the first half of the year. The outstanding amount of loans to enterprises continued to decline, and over the past 20 months it has dropped by 7.6%, more than it did during the first 20 months of the crisis in 2008 and 2009. This is a broad-based trend, observed in a majority of sectors and banks. As well as demand for loans being weak, credit standards maintained a moderately tightening trend that was reflected mainly in the interest margins on smaller loans. The margins on mid-sized and large loans remained on a stable trajectory.

The sector’s securities portfolio did not undergo any significant changes during the first half of 2013, with Slovak government bonds and Treasury bills maintaining their dominant share. Securities issued by banks during the period under review comprised mainly mortgage bonds, and most of banks’ new issues had fixed coupons – probably a response to low yields on domestic government bonds.

The profile of interbank market transactions was shaped mainly by the repayment of a large part of the funds borrowed at the beginning of the year under the ECB’s three-year refinancing operations. The movement of implied interest rates in the domestic interbank market remains in line with EURIBOR rates on the shortest maturities. As regards implied interest rates on funds received from non-resident banks, they fell in January 2013 and then increased, although without exceeding the 12-month EURIBOR level.

2.1.1.1. CUSTOMERS

THE RETAIL SECTOR

Lending growth caused mainly by interest rate movements

Retail lending maintained relatively strong growth in the first half of 2013. Retail loans amounting to €767 million were added to the aggregate balance sheet of the Slovak banking sector during the reference period, an increase that was more than 30% higher than the corresponding figure for the first half of 2012. The outstanding amount of retail loans grew by 9.5% year-on-year, with housing loans increasing by 11.83% and consumer loans by 13.25%.

Large banks saw the largest expansion in retail lending, although foreign bank branches, given their size, also reported relatively sizeable growth.

The first half of 2013 saw a significant level of loan refinancing, which accounted for around 35% of new lending. The effect of this above-average volume of refinancing was seen mainly in the amount of new loans, which increased substantially from the end of 2012 and, taking seasonal factors into account, maintained this level.
Although the amount of loans increased in year-on-year terms, their seasonally-adjusted month-on-month rate of change indicates that lending growth slowed gradually from its rate in the second half of 2012.

The month-on-month fall in lending growth may have been partly caused by the ending of marketing campaigns that larger banks had been conducting in the second half of 2012.

**Demand for housing loans did not show a clear trend; however, competition between banks increased**

The results of the regular NBS bank lending survey suggest that credit standards for customers were tightened moderately, although not by increasing margins but in other ways, such as the lowering of loan-to-value ratios.

The cost of borrowing, as represented by interest rates, became one of the determinants of demand for customer loans in individual banks. This was partly reflected in the fact that demand in the second half of 2013 developed differently than it did in the second half of 2012. In that period, the market share in new lending was heavily concentrated among larger banks which, in comparison with the rest of the sector, were offering relatively low interest rates.
est rates; in the first half of 2013, however, this situation changed.

Certain medium-sized and smaller banks used interest rates as an instrument of competition, and as these banks stimulated demand for their housing loans, so their share of new lending climbed.

Demand for loans may also have been supported by the continuing stability in property prices, which have long been at a low level and which in conjunction with low interest rates are increasing the affordability of housing.

**Demand for consumer loans rose**

Banks left credit standards on consumer loans largely unchanged; nevertheless, several of them reported an increase in demand for such loans.

Despite the higher demand for consumer loans (reflecting mainly an increase in consumer confidence) and their annual growth rate of more than 13%, month-on-month changes in the outstanding amount of these loans showed a trend of gradually slower growth in the first half of 2013. Overall, however consumer loan growth is oscillating at average pre-crisis levels.

**Interest rates reached an all-time low in the first half of 2013**

Interest rates remained volatile in the first half of 2013, as they had been since the beginning of 2012.

Rates climbed quite sharply in January and February after being at relatively low levels at the end of 2012. This movement was particularly evident in rates on housing loans other than mortgage loans, building loans and intermediate loans.

The rate increase in January and February 2013 reflected developments in certain banks, and it was sufficient to cause the average interest rate on new loans to deviate from expectations determined by market factors.
Only in the second quarter did the situation calm; average interest rates maintained a downward trend that reflected, on the one hand, developments in market factors and, on the other hand, increased competition from medium-sized and smaller banks.

Deposits growth fell in the first half of 2013; foreign bank branches made headway

Looking at retail deposits, they recorded several adverse developments in the first half of 2013. Although the amount of retail deposits increased by more than €461 million, their overall growth rate was slower compared with the rate in 2012 (at the level of around 70%), as well as with the rates in 2011 and 2010.

The trend observed in the last quarter of 2012 of retail customers shifting funds from time deposits to sight deposits, daily time deposits and deposits redeemable at notice (mainly notice of up to three months) continued in the first half of 2013. Hence customers continued to respond low interest rates on new deposits, although their level is still in line with market factors.

Abstracting from seasonal effects, deposit growth was more volatile in the first half of 2013, after being relatively stable from the beginning of the second half of 2011 with monthly increases of around €110 million. This volatility may be partly explained by retail customers searching for yield, since net sales of investment funds – an investment alternative to time deposits – were similarly volatile but with an opposite trend.

The corporate sector

No pick-up in loan demand

The situation in the corporate lending market remained largely unchanged during the first half of 2013. Although some banks saw demand increase in certain loan categories, in general the trend of relatively weak demand continued.
A key factor in this regard was the uncertain macroeconomic situation of Slovakia and the euro area, which naturally did not bring about any significant upturn in the corporate sector. Despite annual sales growth, several sectors continued to fall short of performance levels in 2007 and 2008, in particular the sectors of construction, sale of motor vehicles, retail trade, and accommodation and food service activities. Furthermore, sales growth in industry is usually robust but it slowed in the first six months of 2013, largely because export performance was weaker in several months than in the same periods of the previous three years.

Manufacturing industry was not supported in this period even by its major sector, the automotive industry. The complicated situation in the corporate sector during the first half of the year was also apparent from the economic sentiment indicator, which recorded its worst results since mid-2010.

Some positives could be found, however, for example in the OECD’s business confidence indicator, which increased moderately not only for Slovakia, but also for Slovakia’s main trading partners.

**Tightening of credit standards continued**

The trend of moderately tightening credit standards, like that of weakening loan demand, continued in 2013. This reflected mainly banks’ negative expectations for the macroeconomic situation and for the situation in individual sectors. The tightening concerned primarily interest margins on higher-risk loans. Most of the margin increases involved rates on small loans, while rates on mid-sized and large loans remained stable. The difference between interest rates on loans of more than €1 million and loans of up to €250,000 was around 3 percentage points, the highest level since 2009.

Also in the period under review, banks stated that their financial situation was not adversely affecting credit standards since they had sufficient reserves of capital and liquidity. Capital and liquidity reserves are crucial to enabling the easing of credit standards when the economic situation improves.

**The flow of loans further slowed**

Amidst weak demand and tougher lending conditions, loans to enterprises continued to decline. During the previous 20 months loans to enterprises fell by more than €1.1 billion or 7.6%, which by both measures is more than their decline during the first 20 months of the crisis (in...
As before, the decline in lending was broad-based, reported by a majority of sectors and banks. As a result of this negative trend, corporate loans declined as a share of the aggregate total assets of domestic banks. Furthermore, the share of domestic banks in corporate lending has fallen slightly, as firms have increased their liabilities to non-resident lenders over the past two years.

The relatively depressed activity in the corporate lending market is also evident from the drawing and repayment of loans. The high degree of correlation (-0.87) between loan drawns and repayments per month indicates that more loans are being renewed by existing customers than are being provided to new customers.

In addition, this correlation is highly significant at the level of individual banks, particularly large ones.

**No significant changes in corporate deposits**

Firms’ bank account balances in the first half of 2013 did not change significantly from the previous period and the movements observed did not point to a trend change; they rather reflected the usual volatility and seasonal movements.

**2.1.1.2 SECURITIES**

**The securities portfolio was broadly stable during the first half of 2013**

The banking sector’s aggregate securities portfolio did not undergo any significant changes in the first half of 2013. Slovak government bonds and Treasury bills continued to make up most (almost 90%) of the portfolio, as maturing bonds and bills maturing were gradually replaced with new issues towards the end of the period.

As for the portfolio’s non-resident securities, exposure to Irish government bonds declined as some of this paper matured, while the most notable increases in exposure were to Italian and Cypriot securities: in the former case, to government bonds, and in the latter case to bills issued by one Cypriot-registered company.

Securities held to maturity (HTM) constitute almost 60% of the sectoral portfolio and securities available for sale (AFS) for around one-third. These shares have been approximately constant for a long period.
Securities issued by banks in the first half of 2013 comprised mainly mortgage bonds

In line with the long-run trend, most (nearly 92%) of the securities issued by banks during the first half of the year were mortgage bonds.

Banks continued to issue mortgage bonds in accordance with changes in the amount of mortgage loans and in the amount of maturing mortgage bonds. Similarly, all banks met the statutory minimum requirement for mortgage-bond coverage of mortgage loans, although the average coverage fell at the end of 2012 and beginning of 2013 and remained at levels moderately lower than those of previous years.

Most mortgage bonds were issued with a fixed coupon, probably owing to the low yields on Slovak government bonds

The mortgage bonds issued by banks in the first half of 2013 were mainly fixed-coupon bonds, as was the case in 2012. As yields on Slovak government bonds fell, so did the coupon rates on mortgage bonds. This may have been partly why bonds were issued with fixed coupons, which in a low-yield environment allow banks to hedge against the risk of an increase in interest rates and hence interest expenses. The average maturity of mortgage bonds issued remained in line with the long term trend.

2.1.1.3 Interbank market

The interbank market in the first half of 2013 was affected mainly by the partial repayment of funds borrowed under the ECB’s three-year refinancing operations

The profile of interbank operations during the first half of the year was affected mostly by the partial repayment of funds borrowed under the ECB’s three-year longer-term refinancing operations, conducted in December 2011 and March 2012. About two thirds of the borrowed amount was repaid in the period from January to July of the year, with the bulk of the repayments made in February. Banks financed these repayments largely from intra-group loans and/or other funds from the interbank market or from customers (in particular general government). The decline in funds from the ECB was accompanied to a lesser extent by a decrease in interbank operations on the asset side.
Following February’s initial increase in intra-group borrowings, funding from banks became relatively volatile. Its decline in March, alongside increased funding from general government and the maturing of Slovak government bonds, was partially corrected in June, when intra-group borrowings were used to repay liabilities to general government.

**Implied Interest Rates in the Domestic Interbank Market Remained in Line with EURIBOR Rates**

The movement of implied interest rates in the domestic interbank market during the period under review remained in line with EURIBOR rates of the shortest maturities. As regards implied interest rates on deposits received from non-resident banks, they increased after declining in January 2013. While their initial increase may be put down to a significant fall in the amount of these funds – leaving only long-term funds that carry higher rates – the increase in June was caused by a hike in rates on deposits received by certain banks from within their parent group. Consequently, rates remained relatively high despite an increase in the amount of these funds; nevertheless, they did not exceed the 12-month EURIBOR level.
2.1.2 FINANCIAL POSITION OF THE BANKING SECTOR

The banking sector's profitability increased only slightly (by 5%) in year-on-year terms, while the composition of its aggregate profit underwent more significant changes. The environment of low interest rates contributed to a decline in yield on assets. Weak economic growth was a key cause of an increase in credit risk costs, largely associated with a deterioration in the household sector portfolio. In addition, the amount of lending to the corporate sector continued to decline. These negative effects were, however, largely offset by banks' declining funding costs, further growth in lending to households, and increased income from trading. The sector retained around a quarter of its profit for 2012 in order to increase equity capital, thus further increasing its solvency and confirming its capacity to absorb potential external or domestic risks. The capital ratio of the sector climbed to 16.2%, its highest level since 2005.

2.1.2.1 PROFITABILITY

Banking sector profits increased moderately

The banking sector's net profit for the first half of 2013 was €288 million, representing a moderate increase of 5% on its profit for the same period of the previous year. A net loss was reported by two banks and nine foreign bank branches.

Although the aggregate profit showed only a slight year-on-year change, there were several significant changes in its composition which reflected current developments in the Slovak economy. Most notably, returns on assets declined as the period of low interest rates continued. Furthermore, contracting economic activity in the euro area weighed on the economic situation in Slovakia and therefore put upward pressure on credit risk costs. These negative effects were offset, however, by income from relatively strong growth in retail lending. At the same time, a partial fall in interest rates increased the value of bonds in banks' portfolios.

<table>
<thead>
<tr>
<th>Table 2 Aggregate net profit for the first half of 2013 broken down by year-on-year changes (EUR millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor</strong></td>
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<tr>
<td>Net profit for the first half of 2012</td>
</tr>
<tr>
<td>Negative effects</td>
</tr>
<tr>
<td>Decline in returns on debt securities</td>
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<tr>
<td>Decline in returns on corporate loans</td>
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<tr>
<td>Decline in returns on retail loans</td>
</tr>
<tr>
<td>Increase in credit risk costs</td>
</tr>
<tr>
<td>Decline in amount of corporate loans</td>
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<tr>
<td>Increase in operating costs, taxes and levies</td>
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<tr>
<td>Positive effects</td>
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<tr>
<td>Interest in net interest income owing to growth in amount of retail loans</td>
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<tr>
<td>Increase in net trading income</td>
</tr>
<tr>
<td>Decline in expenses on corporate deposits</td>
</tr>
<tr>
<td>Decline in expenses on securities issued</td>
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<tr>
<td>Decline in expenses on retail deposits</td>
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<tr>
<td>Increase in dividend income</td>
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<tr>
<td>Other effects</td>
</tr>
<tr>
<td>Net profit for the first half of 2013</td>
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</tbody>
</table>

Source: NBS.
Composition of net interest income changed significantly

Banks’ net interest income remained virtually unchanged year-on-year, with several factors contributing to this situation. Most significant were the declines in returns on securities (from 1.9% to 1.7%), corporate loans (from 2.1% to 1.9%) and retail loans (from 3.3% to 3.2%). Returns on the securities portfolio have been falling since the second half 2012 as older, higher-yielding bonds gradually mature and are replaced by lower-yielding bonds; this trend is expected to continue going forward. In the corporate loan portfolio, the marked drop in returns stemmed mainly from the situation in the second half of 2012, and in fact the portfolio produced slightly higher returns in the first half of 2013. Interest margins on corporate loans are seemingly under less pronounced downward pressure than those on other types of asset. Margins on loans to smaller firms even increased during the period under review, and the difference between them and the margins on larger loans rose substantially. A different situation was observed in the retail loan portfolio, however, where returns fell more in the first half of 2013 than in the previous period. Given that the fixed interest rate period is longer for retail loans than for corporate loans and that rates on new loans are showing a marked downward trend in comparison with average rates for the whole portfolio, returns on retail loans are expected to continue falling.

As well as a decline in returns on assets, however, the environment of low interest rates has also brought lower funding costs and relatively strong growth in the retail lending market. These two factors fully offset the decline in interest income caused by falling returns. The decline in funding costs was most evident in corporate deposits and securities issued. Whether this trend will continue is doubtful, however, since the scope for further rate cuts is limited (the current average deposit rate for firms is 0.3%). A somewhat different trend was observed in retail deposits, the cost of which increased slightly in the first half of 2013 after declining in 2012. The turnaround stemmed mainly from the relatively strong competition in this market, reflected in an increase in the proportion of deposits being switched between banks as customers searched for higher yield. Another aspect of the increase in these transfers is that time deposits as a share of total deposits have been declining gradually since
April 2012 (the year-on-year drop in this share in the first half of 2013 was from 58% to 55%). Therefore, looking ahead, not even this retail segment is expected to produce any significant decline in deposit costs.

Hence the most significant factor in maintaining interest income appears to be growth in household lending, although that will be heavily dependent on macroeconomic developments, the lending market situation and interest rates.

In addition to these changes, banks also reported a modest increase in fee income from their retail portfolio, although that had less impact than did the decline in interest margins. The higher fee income in the first half of 2013 was due largely to an increase in the amount of transactions, while fee levels remained approximately stable. In the corporate portfolio, by contrast, fee levels declined year-on-year.

**Non-interest income increased at some banks**

Some banks reported a substantial decline in their year-on-year loss on non-interest income, or an increase in trading income. This was largely thanks to the non-recurrence in the first half of 2013 of something that happened in the previous year, namely that some banks suffered relatively heavy losses on sales of higher-risk securities held in the available-for-sale portfolio and/or on derivatives held to hedge bonds in the AFS portfolio. At some banks, an increase in dividend income from subsidiaries had a significantly positive impact.

**In the loan portfolio, a moderate increase in credit risk pushed up costs**

Banks’ profits were also negatively affected by credit risk costs, which increased year-on-year by €20 million (or 14%). This increase was caused mainly by a marked year-on-year rise in non-performing retail loans. The gross increase in non-performing retail loans for the first half of 2013 (not including NPL sales and write-offs) was 65% in comparison with such increase in the previous year. In the corporate loan portfolio, however, the increase in the amount of NPLs moderated, largely because several major property development projects failed in the previous half year and such a situation did not occur in the period under review.

Looking forward, the extent of the risk contained in the NPL portfolio will reflect in large part the extent to which NPLs are covered by provisions or by capital deductions. For the sector as a whole, this coverage amounted to 84% at the end of the first half of 2013, which was 2 p.p. lower than the coverage at the end of 2012. These figures indicate that the banking sector will not be exposed to an elevated risk of loan-loss provisioning for the current NPL portfolio.

**2.1.2.2 Capital ratios**

**Capital ratios increased further thanks to the partial retention of profits from the previous year**

The capital ratio of the banking sector increased further in the first half of 2013, from 15.7% to 16.2%, reaching its highest level since 2005. That increase – substantially lower compared with the previous year – was driven mainly by the fact that around a quarter of the sector’s profit for 2012 was retained to increase equity capital.
A similar trend was observed in the Tier 1 capital ratio, which increased from 14.7% to 15.2%. Looking at the capital ratios of individual banks, the lowest was 10.5%, meaning all banks had a capital ratio higher than the 9% level recommended by NBS in Recommendation No 1/2012 of 16 January 2012 on maintaining the stability of the financial sector.

**Other factors affecting capital adequacy were less significant**

Capital ratios were affected by other factors in addition to the retention of earnings, in particular by declines in the minimum capital requirement, in unrealised gains on the portfolio of financial instruments available for sale, in the reduced mismatch between provisions and expected losses, and in the lower amount of subordinated debt. None of these factors, however, had an impact greater than 0.15 p.p. on the sectoral capital ratio. The decline in required capital concerned mainly the requirement on the retail portfolio at banks using the internal rating based approach, and the capital requirement on interest rate risk, equity risk and operational risk at banks using the advanced measurement approach. At the same time, the amount of risk-weighted assets was affected by the declining amount of loans to enterprises and by the continuing growth in retail lending.

**Leverage ratio higher than European average**

One of the new bank solvency indicators in the toolkit of bank regulators is the leverage ratio as the ratio of core Tier 1 capital to total non-risk-weighted exposures (currently it is only used for monitoring purposes). The amount of exposures is calculated approximately as the sum of the net value of assets and provided guarantees and irrevocable standby letters of credit, and it also partially takes into account derivatives and revocable standby letters of credit. While 5% is currently being mooted as a future minimum level for this ratio, the average leverage ratio in the Slovak banking sector is around 7.5%. Over the first half of 2013, the ratio increased by around 0.2 p.p. owing to the above-mentioned increase in capital by the partial retention of profits for the previous year. Most banks in the sector have a leverage ratio higher than 5%. By comparison, the average ratio in the EU as at 31 December 2012 was close to 3%, according to the results of bank solvency monitoring. Hence, like the capital ratio, the leverage ratio confirms the self-sufficiency of the Slovak banking sector.
2.2 THE INSURANCE SECTOR

The profits of the insurance sector did not change significantly year-on-year and remained at a satisfactory level. The solvency of insurers increased significantly towards the end of 2012 owing to revaluation gains in the portfolio of securities available for sale. However, these gains resulting from falling interest rates serve as a buffer against a future rise in rates. Going forward, insurance companies should provision against interest rate increases that result in revaluation losses on the bonds they are currently purchasing. In life insurance, premiums continued to grow, but there was a change in their breakdown by business line. While premiums in traditional life insurance products increased, those in unit-linked insurance declined for the first time since 2009. It would be premature, however, to draw any conclusions about trend changes in life insurance. The volume and frequency of surrenders continue to rise, albeit more slowly than before.

Non-life insurance saw further negative trends in motor vehicle insurance, with continuing declines in premiums and in the average level of premiums per policy. Alongside a slight increase in claim costs, this situation resulted in the combined indicator for comprehensive motor vehicle insurance rising to 113.5% – a position that is unsustainable over the longer-term. In most other insurance lines, premiums increased and the loss ratio also rose slightly.

Technical provisions in both traditional life insurance and unit-linked insurance increased during the first half of 2013, while in non-life insurance there was no significant change in either the amount of technical provisions or their investment.

**Premises increased slightly**

The annual growth rate of insurance premiums increased only slightly in the first half of 2013, from 0.8% to 1.3%. Total premiums for the half year stood at €1.07 billion.

The increase was attributable to the life insurance segment, where premiums increased year-on-year by 3.8%, to €0.57 billion, with the growth concentrated in traditional policies and supplementary insurance.

In non-life insurance, however, premiums continued their downward trend, falling year-on-year by 1.5%, to €0.5 billion. The decrease was again caused mainly by declining premiums in motor third-party liability insurance and comprehensive motor vehicle insurance.

**Life insurance lines**

The most marked change from previous periods was in premiums for investment insurance policies (also known as unit-linked insurance), which fell year-on-year by 4.6%, to €171 million, bringing the market share of unit-linked products to below 30%. Annual premiums including new business fell year-on-year by 11.2%; new business alone dropped by 14.8%, but still accounted for a significant share of annual premiums (almost 15%). The number of unit-linked insurance policies increased by less than 0.7% year-on-year.

The smaller increase in unit-linked policies also reflected the rising number of surrenders and survival claims, even though these payments increased more slowly than before. The frequency of surrenders was 6.2% (compared to 5.9% in June 2012), and the annual surrender rate fell from...
20% to 6.5%. The total amount of surrenders was equivalent to 4.5% of the technical provisions in the unit-linked segment (4.9% in June 2012). The frequency of other claims in the unit-linked line (mainly survival claims) is less than 1%, while the amount of these claim costs is equivalent to 1.3% of unit-linked technical provisions.

In contrast to unit-linked insurance, traditional life insurance saw premiums rise in the first half of 2013 after two years of decline. As at the end of June 2013, these premiums amounted to €314 million, representing a year-on-year rise of 7.6%. Annual premiums in traditional life insurance increased by 3% year-on-year thanks mainly to new business (with growth of 18.5%).

Claim costs in the first half of 2013 climbed year-on-year by 7%, to €292 million (comprising mainly surrender claims, as was the case in unit-linked insurance), with the annual growth rate 4 p.p. higher compared with the same period of the previous year. However, the number of claims fell by more than 7%. The amount of claims costs as a share of technical provisions did not deviate significantly from its average level.

In supplementary insurance, premiums increased in the first half of 2013 by 10.8% year-on-year, to €79 million as at 30 June, and in pension insurance they fell by 8.4%, to €6 million.

**Non-life insurance lines**

Premiums in non-life insurance have fallen every year since 2009 with the exception of 2011. The downward trend continued in the first half of 2013, with premiums amounting to €496.5 million at the end of June and motor vehicle insurance again accounting for most of the decline.
The largest drop in premiums was observed in motor third-party liability (MTPL) insurance – a year-on-year decline of 4.9% (from €7.5 million to €147.4 million). This reflected the long downward trajectory of average premiums on both new policies (-4.7% year-on-year) and renewed policies (-6.3%). The annual rate of increase in the number of new insurance policies slowed in the period under review (to 2.1%), although new business grew by almost 5% after contracting by 10.7% in the corresponding period of the previous year. Although the number of insurance claims made fell by around 6.5% year-on-year, the overall amount of claims paid increased by almost 4%.

Similarly to MTPL insurance, in comprehensive motor vehicle insurance premiums declined year-on-year, but in falling to €124.5 million as at end-June 2013, their rate of decrease moderated to -3.8% (from -5.5% in the first half of 2012). The average level of premiums on new policies fell significantly, by 10.4% year-on-year (after a drop of 18.9% as at end-June 2012). The average cost of premiums on renewed policies recorded a more moderate year-on-year decline (-5.2%), but that was higher than it had been a year earlier (-2.2%). Claims paid during the period under review increased markedly in terms of both their number (by 7% year-on-year) and particularly their amount (10.5%).

The amount of premiums and claims paid in the comprehensive motor vehicle insurance line had a negative effect on the technical result. The combined ratio for comprehensive motor vehicle insurance rose above the 100% threshold largely because of the high loss ratio and further reduction in premiums on policies.

As for property insurance premiums, they edged up by 1.6% year-on-year, to almost €130 million. Although new business fell by 13%, premiums on renewed policies increased by more than 5%. The amount of claims paid during the period under review fell sharply year-on-year, by 23.4%, while the number of claims made declined only slightly.

**Claim costs continued to increase**

Total claim costs in the first half of 2013 increased year-on-year by almost 5.7%, to €628 million. In life insurance, claim costs in the first half of 2013 amounted to €388 million, their annual rate of increase being lower than at end-June 2012 (10.6% compared to 8.2%). In non-life insurance, claims paid edged up by 1.8% after reporting a sharp year-on-year decline at end-

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**Chart 35 The loss ratio, cost ratio and combined ratio in motor vehicle insurance (%)**

![Chart 35 The loss ratio, cost ratio and combined ratio in motor vehicle insurance (%)](chart35)

Source: NBS.

**Chart 36 Benefits/claims paid (EUR millions)**

![Chart 36 Benefits/claims paid (EUR millions)](chart36)

Source: NBS.
June 2012; they totalled €234 million for the first half of 2013.

The increase in claim costs in life insurance reflected the continuing growth in surrender benefits in both traditional life insurance and unit-linked insurance.

Claims paid in non-life insurance are assessed using the loss ratio, i.e. the ratio of claims paid to premiums earned. The loss ratio for non-life insurance as a whole increased by more than 4.5 p.p. in the first half of 2013 over the same period in 2012, to 50.8%. While the loss ratio increased in almost every insurance line, its increase was particularly marked in comprehensive motor vehicle insurance (almost 13 p.p. higher for the first half of 2013 than for the same period in 2012) and in other transport insurance (up from 33.3% to 65%).

The combined ratio for the sector as a whole, which takes into account not only technical costs, but also operating expenses related to insurance activities, increased by around 5.5 p.p. year-on-year. In the case of comprehensive motor vehicle insurance, the combined indicator rose to more than 113%, thus entering loss-making territory. By contrast, legal protection insurance saw its combined ratio fall below 100%, after being on the loss-making side in the first half of 2012. The combined ratio for other transport insurance increased by more than 27 p.p. and stood at a relatively higher level 90.5%. In accident and sickness insurance, the combined ratio is on a long rising trend. For the first half of 2013, it was more than 91%, up only 3.5 p.p. over the same period in 2012.
Table 3 The loss ratio, expense ratio, and combined ratio in non-life insurance lines for the first half of 2013 (%)

<table>
<thead>
<tr>
<th>Insurance Line</th>
<th>Loss ratio</th>
<th>Expense ratio</th>
<th>Combined ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life insurance – supplementary insurance</td>
<td>32.9</td>
<td>34.9</td>
<td>67.8</td>
</tr>
<tr>
<td>Accident and sickness insurance</td>
<td>48.6</td>
<td>42.5</td>
<td>91.1</td>
</tr>
<tr>
<td>Motor third-party liability insurance</td>
<td>49.4</td>
<td>29.6</td>
<td>79.0</td>
</tr>
<tr>
<td>Comprehensive motor insurance</td>
<td>80.8</td>
<td>32.7</td>
<td>113.4</td>
</tr>
<tr>
<td>Other transport insurance</td>
<td>65.0</td>
<td>25.5</td>
<td>90.5</td>
</tr>
<tr>
<td>Carrier’s liability insurance</td>
<td>32.7</td>
<td>33.4</td>
<td>66.1</td>
</tr>
<tr>
<td>Property insurance</td>
<td>31.4</td>
<td>36.5</td>
<td>68.0</td>
</tr>
<tr>
<td>General liability insurance</td>
<td>33.6</td>
<td>30.3</td>
<td>63.9</td>
</tr>
<tr>
<td>Credit insurance, surety insurance and miscellaneous financial loss insurance</td>
<td>28.5</td>
<td>42.3</td>
<td>70.9</td>
</tr>
<tr>
<td>Legal protection insurance</td>
<td>30.3</td>
<td>69.1</td>
<td>99.4</td>
</tr>
<tr>
<td>Assistance insurance</td>
<td>34.2</td>
<td>44.4</td>
<td>78.6</td>
</tr>
<tr>
<td>Active reinsurance</td>
<td>18.0</td>
<td>43.1</td>
<td>61.2</td>
</tr>
<tr>
<td>Total</td>
<td>50.8</td>
<td>33.6</td>
<td>84.4</td>
</tr>
</tbody>
</table>

Source: NBS.

The share of premiums ceded to reinsurers continues to rise moderately.

In the first half of 2013, the premiums that Slovak insurers ceded to reinsurers amounted to €163.5 million, which compared with the same figure for the first half of 2012 was 4.4% higher. Ceded premiums as a share of total premiums stood at 15.3%, and as usual the share in non-life insurance was far higher (31%).

The non-life insurance lines that reported the highest increase in share of premiums ceded to reinsurers were other transport insurance (from 55.2% for the first half of 2012, to 60.2% for the period under review) and property insurance (from 40.1%, to 44.7%). There were no significant changes in MTLP insurance and comprehensive motor vehicle insurance. The least reinsured lines continued to comprise all lines of life insurance (under 10%), accident and sickness insurance (17.8%), comprehensive motor vehicle insurance (15.8%) and credit, surety and miscellaneous financial loss insurance (11.7%).

The share of claims paid under reinsurance contracts fell below the share of premiums ceded to reinsurers, by a margin of 5.7 p.p.

No significant change in technical provisions or in their investment.

Technical provisions increased in the first half of 2013 by 4.1% year-on-year, to €4.93 billion. The growth was accounted for entirely by technical provisions in life insurance, which increased by 5.3% or €196 million, while those in non-life insurance declined marginally, by €3.4 million.

In life insurance, technical provisions for unit-linked policies increased by €96 million and
those for traditional products by €93.5 million. In non-life insurance, all technical provisions were largely unchanged from their level of the previous year.

The amount of assets covering technical provisions (not including provisions for unit-linked financial investment liabilities) increased by €155 million from June 2012, to €4.55 billion. The asset coverage of technical provisions (excluding provisions for unit-linked financial investment liabilities) was 117% at end-June 2013, 2 p.p. lower than at the end of 2012.

Looking at the composition of assets covering technical provisions, the amount of government bonds increased year-on-year by 10%, bringing their share to more than 50%. There were also increases in time deposits (18% year-on-year), the reinsurers’ share (8%), and equities and investment fund shares/units (5%). The amounts of other assets declined, with the most marked drop observed in bonds other than government bonds. Most of the changes occurred in the second half of 2012, while the changes in the first half of 2013 were only slight.

**Insurers’ profitability remained largely unchanged year-on-year**

The total profit of the insurance sector for the first half of 2013 fell by a modest 0.8% year-on-year, to €93.7 million.

Five insurers reported an increase in profit, and two made a loss. The three largest firms account-
ed for 72% of the sector’s total profit, just over 61% of total assets, and almost 59% of premiums.

Technical income increased by 2.3% in the first half of 2013 and technical expenses declined by 2.4%, altogether producing a positive technical result in contrast to the negative result reported for the first half of 2012. On the income side, net premiums earned recorded the largest growth (1.3%), albeit it was lower than their increase in the first half of 2012. The decline in expenses stemmed largely from a change in the amount of provisions for unit-linked investment liabilities; these provisions fell by €53 million (89%). Operating expenses did not contribute significantly to the change in the technical result.

The sector’s aggregate profit was significantly reduced by the financial result, which fell by a quarter in year-on-year terms. The largest contribution to that decline was from unit-linked insurance, which reported a slight loss on investments. The financial result for investments held at own risk declined only moderately.

**The solvency of the insurance sector increased thanks to gains on the revaluation of Slovak government bonds**

At the end of June 2013, all insurance companies fulfilled solvency (own funds) requirements, that is, all insurers had their solvency margin higher than the required solvency margin. The overall solvency of the insurance sector increased year-on-year by 10.5%, to €1.17 billion, while the required solvency margin rose by just less than two percent. The aggregate solvency margin ended the period at 3.79, which was 0.3 p.p. higher than its level in 2011.

As mentioned in the Analysis of the Slovak Financial Sector for 2012, the increase in insurers’ solvency resulted entirely from unrealised gains on the revaluation of bonds in the available-for-sale portfolio (in response to falling interest rates). The share of this portfolio in the aggregate bond portfolio increased to 58% as at end-June 2013, and in several insurers it constituted 100% of the bond portfolio.

The increase in own funds has therefore created a certain buffer against any increases in interest rates. Towards the end of June, following a moderate rise in interest rates, the unrealised gains declined by €30 million. Attention should also be paid to the risk attached to bonds currently being bought for the held-for-trading portfolio. In the event of interest rates rising, the loss incurred on these bonds would be reflected in own funds, since there has not been any provisioning for these newly purchased bonds. Insurers should therefore create an adequate buffer against interest rate increases using gains from the revaluation of bonds in the AFS portfolio.
Chapter 2

2.3 THE PENSION SECTOR

The number of savers enrolled in the second pension pillar declined by more than 30,000 in the first half of 2013. This was mainly because January 2013 was the last month of a temporary reopening of the pillar and saw a surge in activity in which withdrawals outnumbered enrolments. The key event in the old-age pension saving scheme during the period under review was a substantial reassignment of savers and assets among different types of pension funds, which stemmed from new statutory law concerning the setting of guarantees. Consequently, from the beginning of May, more than 90% of savers found themselves enrolled in bond pension funds that alone remained guaranteed by law. Against this backdrop, most pension funds management companies altered their investment policies for non-guaranteed mixed and equity pension funds. After the relatively long time risk-return profile of these pension funds was changed so that equity investments made up a significant proportion of their portfolios. The upward trend in residual maturity and duration continued in all pension funds apart from index funds.

In the supplementary pension scheme, the number of participants fell by almost ten thousand, although that decline was accounted for entirely by distribution supplementary pension funds; the number of participants in contributory funds increased moderately. Continuing a trend of recent years, enrolment increased in certain smaller contributory supplementary pension funds which have a more specialised investment policy. The portfolios of supplementary pension funds did not undergo any significant changes in the first half of 2013. In the composition of balanced and growth funds there was a moderate increase in the share of debt securities.

In both the second and third pension pillars, the average year-on-year performance at the end of the period under review was positive, although the nominal return was largely attributable to asset price growth in the second half of 2012.

Pension funds management companies and, to an even greater extent, supplementary pension management companies each saw their aggregate profit increase substantially owing to higher income from pension fund performance fees.

2.3.1 THE OLD-AGE PENSION SAVING SCHEME

Several key provisions from the most recent amendment to the Act on the Old-Age Pension Saving Scheme entered into force in the first half of 2013

The second pension pillar underwent several relatively significant changes in the first half of 2013, most of which resulted from the entry into force on 1 January or early May 2013 of several key provisions contained in the 2012 amendment to the Act on the Old-Age Pension Saving Scheme (hereinafter “the Act”). No further new legislative amendments were adopted during the period under review.

One of the most substantial changes, effective from the beginning of 2013, concerned the number and type of pension funds that pension funds management companies (PFMCs) are required to establish by law. Previously, each PFMC had been required to establish and manage four pension funds (increased from three), each with a prescribed profile (bond, mixed, equity, and index), whereas under the new regime there are only two mandatory funds – one guaranteed bond fund and one non-guaranteed equity fund. In addition, however, PFMCs can now offer any number of additional pension funds, either guaranteed or not. The investment profile of these funds also remains a matter for the PFMCs (within the limits set by law). As part of these changes, each PFMC was required by the beginning of May 2013 to transfer to a guaranteed bond pension fund the assets of all savers who had not expressed a wish to be enrolled in another fund.

Another important aspect of the amendment to the Act was a change in the rules for the en-
rolment of new savers, making enrolment fully voluntary for all people below the age of 35. Certain technical provisions also came into force from 1 January 2013, including a change in the parameters for calculating the fees charged by PFMCs and an extension to the assessment period for guarantees in bond pension fund (up to ten years).

The total number of savers enrolled in the second pillar fell by 30,534, or just over 2%, in the first half of 2013. This decline arose primarily because the second pillar had been temporarily reopened to allow voluntary enrolment in, and withdrawal from, the scheme. The result was a net withdrawal of around 75,000 savers during the whole opening period, most of whom left the scheme in January 2013 – within the period under review – which was the last month of the reopening period.

The most significant outcome of the new statutory provisions was that most savers transferred to guaranteed bond pension funds

More significant than the moderate decline in the total number of savers was the reassignment of savers to different types of pension funds. Under the amended Act, savers not enrolled in bond pension funds had to be reassigned to a guaranteed bond pension as from 1 May 2013, unless by the end of March they had returned a slip expressing their intention to remain in their current pension funds notwithstanding the expiry of the guarantee for these funds. Given the widespread passivity among savers in this regard, the majority of them found themselves enrolled in bond pension funds from the beginning of May. According to figures reported as at 30 June 2013, fully 91% of savers were enrolled in bond pension funds, compared to just 14% at the beginning of 2013. Equity pension funds, which throughout the previous history of the second pillar had been the predominant funds, accounted for 7% of savers under the new regime. The share of mixed funds fell from around one-quarter, to 1.6%. Although the number of savers in index funds increased, their proportion of all savers was still marginal, at 0.4%. At the beginning of May, one PFMC merged its mixed and index funds into its equity pension fund. Other PFMCs continued to manage four pension funds after the change in rules, and in each case only one fund was guaranteed.

In the first half of 2013, for the first time since the second pillar was established, the net asset value (NAV) of funds under management in the scheme declined, although the absolute decrease in the NAV from the end of 2012 was relatively insignificant, at just under €20 million (or 0.3%). The turnaround from the previous growth trend was based on two factors: first, the transfer to the Social Insurance Agency (at the end of January/beginning of February) of around €280 million in assets belonging to savers who had withdrawn from the scheme during its reopening; second, a decline in the regular inflow of money into pension funds, after mandatory contributions to the second pillar were reduced from 9% to 4% of the assessment base. Inflow of new contributions combined with modest performance of pension funds were not sufficient to fully offset the abovementioned outflows from pension funds. The assets under management in the sector as at 30 June 2013 amounted to €5.458 billion.
With most savers being reassigned to guaranteed bond pension funds, the distribution of assets between different types of pension fund changed accordingly. By the end of June 2013, as much as 90.6% of the total assets under management in the second pillar were in bond pension funds, while the proportions in equity funds and mixed funds fell, respectively, to 7.4% and 1.6%. Although the asset share of index funds increased, it remained practically negligible (at 0.4%).

**Different Types of Pension Fund Came to Have Significantly Differentiated Asset Portfolios After a Long Period of Homogeneity**

Equity and mixed pension funds reported not only an outflow of assets to bond pension funds, but also an abrupt change in the composition of their asset portfolios. For years the asset portfolios of different fund types had in fact been uniformly conservative in their composition, but that situation changed during the period under review as the actual investment policies of equity and mixed funds were to a large extent brought in line with the profile indicated by the name of the funds.

This was apparent primarily in the marked rise in the average share of equities and investment fund shares/units in the asset portfolios of equity funds and mixed funds, which as at end-June 2013 amounted to 44% and 25% respectively. Such reprofiling of these asset portfolios was not, however, universal across the sector: two PFMCs continued to maintain a zero or negligible share of equities and investment fund shares/units in the assets of their equity and mixed funds. In the rest of the sector, these investments as a share of the NAV of individual equity and mixed funds ranged from 23% to 78%. All investment fund shares/units purchased for pension fund portfolios were shares/units in non-resident exchange-traded funds (ETFs), most of which – at the level of both the sector and individual pension funds – tracked the performance of major equity indices. In some pension funds, ETF investments also had partial bond profile.

Only one pension fund offered active access to stock market exposure through the selection and purchase of particular equities. Other pension funds provided such exposure almost entirely on a passive basis, through investment in ETFs.

As equities and investment fund shares/units accounted for an increasing share in the asset portfolios of equity and mixed pension funds, the proportion of the other main components of these portfolios – debt securities and bank deposits – declined. Between the beginning and end of the period under review, the share of bonds in the aggregate asset portfolio of equity pension funds fell from 62% to 49% and the share of bank deposits fell even more sharply, by 14 p.p. to 10%. As a proportion of the mixed funds’ asset portfolios, both bonds and bank deposits declined more moderately by comparison.

Bond funds, which from 1 May 2013 became the core of the sector, also underwent some changes in their asset portfolio. Debt securities even slightly increased their dominant share of the portfolio, which was around three-quarters as at end-June 2013. In the case of three bond pension funds, the bond component of their portfolio was indirectly increased further by what was a new development in the sector – investments in bond ETFs. The moves into bond securities...
were financed by reducing the bank deposit component.

In each of the sector’s five index funds, the composition of the asset portfolio remained unchanged, consisting almost entirely of equity ETFs.

Overall, the changes in the composition of pension fund asset portfolios brought not only desirable differentiation between different types of funds, but also increased heterogeneity within given fund types among PFMCs.

**Durations of debt securities in bond funds’ portfolios further increased across the sector**

Continuing its trend from 2012, the average weighted residual maturity of debt securities in the sector increased quite significantly, from 2.5 years to 3.9 years, while the situation in different types of fund (except for index funds) differed only marginally from the overall average. An increase in residual maturity was to a greater or lesser extent observed in all pension funds, thereby extending the already relatively high variation of this parameter across pension funds in the sector. As the residual maturity of debt instruments increased, so too did the average modified duration of pension funds’ portfolios, from 1.9 to 3.1.

The weighted contractual maturity of time deposits changed only in equity pension funds, becoming moderately shorter. Another change in the bank deposit component, observed also in mixed pension funds, was a substantial outflow from time to sight deposits/current accounts. As a result there was a drop in the average interest rate on deposits in equity and mixed funds’ portfolios.

Looking at the breakdown of debt securities by issuer, corporate bonds increased their share slightly, but government bonds remained the largest component, with a share of 57%.

Two equity pension funds and one mixed pension fund saw a marked increase in the share of investments denominated in foreign currency, to levels ranging from 17% to 60% of NAV, and these positions were not significantly hedged with derivative contracts. The largest share of these investments comprised USD-denominated assets (equities and ETFs).

Throughout the period under review, two PFMCs maintained in their pension fund portfolios a substantial share of assets where the counterparty was a country with a heightened credit risk or a bank based in such a country. Slovenian assets were the largest component of that asset group, with three pension funds having a relatively high concentration of this exposure – mostly to a small number (between one and three) of Slovenian banks; their exposure ranged between 7% and 14% of NAV.

**Increased volatility in current pension-point values of equity and mixed funds**

As the equity component and duration of pension fund asset portfolios increased, current pension-point values were more volatile than at any time in the previous four years, particularly towards the end of the period under review. In all pension funds apart from index funds, the cumulative effect of asset price fluctuations was virtually neutral and the return on these funds for the first half of 2013 was around zero. In index pension funds, the situation was better, as they produced an average nominal return of just under 6% for the six months under review.

Annual rates of return were higher thanks to the more favourable asset price developments in the second half of 2012. As at end-June 2013, all pension funds except for one equity fund re-

| Table 4 Annual return on pension funds as at June 2013 |
|-----------------|------------|------------|--------|
|                 | Min (%)    | Weighted average (%) | Max (%) |
| Bond funds      | 0.3        | 1.0         | 2.2    |
| Mixed funds     | 1.1        | 1.7         | 2.3    |
| Equity funds    | -1.4       | 0.7         | 2.2    |
| Index funds     | 11.2       | 15.0        | 20.9   |

Source: NBS.

Note: The methodology is set out in the section "Glossary and abbreviations".

3 For the purpose of this section, these countries include Cyprus, Greece, Ireland, Hungary, Portugal, Slovenia, Spain and Italy.
A positive annual return, with the figures ranging from 0.3% to 20.9%. By far the strongest performing funds were index funds, which earned an average nominal return of 15%. Behind them came mixed pension funds, with a substantially lower average return of 1.7%, and then bond funds (1.0%) and equity funds (0.7%).

The aggregate net profit of PFMCs for the first half of 2013 was 40% higher than for the same period of 2012, at €5.42 million. The improvement was based on fee and commission income, which increased year-on-year by 17%. That included a surge in income from pension fund performance fees (up by 106%), which occurred largely because legislative amendments in force from 1 January 2013 extended these fees to all types of pension fund and, in particular, increased the coefficient used to calculate them from 5.6% to 10% per year. Income from pension fund management fees increased by 12%, reflecting the higher average NAV in the first half of 2013. By contrast, income from personal pension account fees declined by more than half, since the monthly contribution to the second pillar was reduced in autumn 2012, from 9% to 4% of the assessment base. Savings in fee and commission expenses also contributed moderately to the sector’s profit growth. Operating expenses increased by around 3%. Three PFMCs made a higher profit in the first half of 2013 than in the same period of 2012, and only one PFMC reported a loss for the period (compared with two in the first half of 2012).

### 2.3.2 THE SUPPLEMENTARY PENSION SCHEME

**Smaller Specialised Supplementary Pension Funds**

**Maintained their growth trend in terms of number of participants and amount of assets under management**

The total number of participants in the third pension pillar declined by a moderate 9,365 in the first half of 2013, ending the period at 863,000. That result was caused mainly by one distribution supplementary pension fund in which the number of participants fell by more than twenty thousand. The total number of people enrolled in distribution funds consequently declined by just under 18,000. Participation in contributory supplementary pension funds increased slightly. In the case of smaller contributory funds with specialised investment policies, their participant base maintained a long-running growth trend, increasing by around twelve thousand. At the same time, the participant base of large balanced supplementary pension funds continued its downward trend (falling by 4,000 people), albeit at a more moderate pace.

The aggregate net asset value (NAV) of supplementary pension funds increased by €12.2 million in the first half of 2013, to end the period at €1.313 billion. That growth rate of less than one percent was substantially lower than the 11% rate recorded in 2012. The difference in NAV growth rates reflected mainly the performance of supplementary pension funds, since returns on assets made a significant contribution to the sector’s NAV growth in 2012, but a slightly negative contribution in the period under review.

Virtually all of the increase in sectoral NAV was attributable to smaller supplementary pension funds that have specialised investment poli-
cies, as the amount of their assets increased by 9%. Despite their continuing growth trend, this group of pension funds accounted for a relatively low share of the sectoral NAV at end-June 2013 (around 14%). Not only did the aggregate NAV of smaller supplementary pension funds increase, so did the NAV of each of the seven funds included in this group.

The aggregate NAV of the large balanced supplementary pension funds that make up the core of the scheme was marginally (0.4%) lower at 30 June 2013 than at the end of 2012. The inflow of new investment into these funds was lower than the outflow of assets caused by participants withdrawing from the third pension pillar or joining the distribution phase of the scheme. The NAV of distribution supplementary pension funds also changed only slightly during the period under review, increasing by 0.6%.

**INCREASE IN THE BOND COMPONENT OF BALANCED AND GROWTH SUPPLEMENTARY PENSION FUNDS**

The composition of the aggregate asset portfolio of supplementary pension funds did not change significantly in the first half of 2013. Across funds with a balanced investment policy, the bond component of their total assets increased by 5 p.p., to 73% at end-June 2013 – one of the highest levels in the history of the scheme. The next largest component of the balanced funds’ asset portfolio remained equities and investment fund shares/units, although their share declined slightly, to 16.5% of NAV. The drop in the sectoral average was, however, caused by changes at only two pension funds managed by one SPMC; in the other three balanced funds there was a slight increase in the component of equities and investment fund shares/units. The bank deposit component fell by a half during the first six months, to an all-time low of less than 10%.

Growth pension funds of the supplementary pension scheme reported basically the same changes in their asset portfolio as did balanced funds, except for the greater extent to which bonds displaced investment fund shares/units. Even though their share fell from 60% to 45% of NAV, equities and investment fund shares/units still constituted the largest component of the growth funds’ asset portfolio.

In the asset portfolio of conservative pension funds, the share of bank deposits increased to around one-fifth of NAV. The asset composition of distribution funds remained unchanged during the period under review, with the bond component standing at 72% and bank deposits at 28%.

Some supplementary funds had derivative instruments in their asset portfolio, too, and these instruments had varying uses. In some they were used for hedging against exchange-rate or interest-rate risk, in others they served for the taking of speculative currency positions, and/or position-taking in commodity markets.

No uniform trends were evident in the average residual maturity and modified duration across individual supplementary pension fund portfolios, result of which is an unchanged level of this indicator at the sector level.

In several fund portfolios, the contractual maturity of time deposits declined, although in one fund the maturity increased substantially and this pushed up the average for the sector. An analogous development occurred in the level of interest rates on these time deposits.

Government debt securities as a share of debt securities held by supplementary pension funds...
increased to almost 60%, from just over half in December 2012.

**The average performance of supplementary pension funds for the first half of 2013 was slightly negative**

As indicated above, the aggregate nominal return on supplementary funds for the first half of 2013 was slightly negative (-0.8%). Current pension-point values were rising during most of the period, but then declined following a relatively sharp correction in financial markets at the end of May and beginning of June. Consequently, their level at end-June was similar to where it was at the start of the year.

Each of the fifteen supplementary pension funds achieved a positive return on a year-on-year basis as at end-June 2013. Growth funds were the best performers, with an average return of 6.5% which, since the average inflation rate for the period was 3.6%, translated into a relatively healthy real yield. Balanced funds managed an average nominal return of 3.4%, distribution funds 2.7%, and conservative funds 1.5%.

The aggregate profit of SPMCs for the first half of 2013 increased by 64% year-on-year, to €5.1 million. Income from pension fund performance fees increased almost twofold from its 2012 level and was a key element of the overall profit growth, even though the performance of supplementary pension funds was on average lower in the first half of 2013 than in the first half of 2012. The statutory formula for calculating the performance fee does not, however, take into account the current return in the given period under review, but is based on the principle of exceeding the highest current pension-point value recorded since 1 January 2010. Furthermore, the coefficient used in this formula has a slightly higher value for 2013 than it had for 2012 (0.13 compared with 0.12). Income from pension fund management fees increased gradually, reflecting the year-on-year growth in the average NAV level. The sectoral profit was further boosted by a moderate reduction in operating expenses. All four SPMCs reported a profit for the six-month period, and in three cases it was higher than the profit for the first half of 2012.
2.4 COLLECTIVE INVESTMENT

The collective investment sector grew in the first half of 2013 at a similar pace to its growth in 2012, measured by the amount of assets under management. The increase in net asset value (NAV) was largely driven by domestic investment funds, although foreign collective investment undertakings operating in Slovakia also registered a modest increase. The NAV growth was based almost entirely on net fund sales, while the contribution of investment returns was insignificant. The structure of the change of NAV by categories of domestic funds also mirrored that in 2012. Virtually all of the increase in managed assets was accounted for by special investment funds, in particular by inflows into special professional investor funds, although special real estate funds and special securities funds also continued to sell well. By contrast, aggregate net sales of all standard investment funds were close to zero, while funds with a money market profile continued their long-running trend of net redemptions. All other fund categories apart from special alternative investment funds reported a positive nominal return on investment as at 30 June 2013, albeit lower than at the end of 2012. The aggregate profit of management companies in the sector declined year-on-year by 15%.

The sectoral NAV of investment funds increased and approached its all-time high

The growth of Slovakia’s collective investment sector in the first half of 2013 was similar to its growth in the previous year. The aggregate net asset value (NAV) of domestic investment funds and foreign collective investment undertakings (CIUs) increased during the period under review by 7.7% or €341 million, to stand at €4.74 billion by the end of June. The only time that the aggregate NAV has been higher was during a period of approximately twelve months preceding the outbreak of the global financial crisis in autumn 2008. In order to reach its previous peak, the NAV would have to increase by just under 12% from its end-June level.

The NAV growth was based almost entirely on positive net fund sales, and although investment returns for the six months were also positive, their contribution to the growth was relatively negligible.

Whereas in 2012 cross investment between funds in the sector made a relatively large contribution to NAV growth, in 2013 it accounted for a marginal share of the growth. As at end-June 2013, the NAV adjusted for cross investment would be around one-tenth lower than the unadjusted NAV.

The monthly increases in NAV during the first half of 2013 did not show any clear trend; they were relatively volatile, but also consistently positive.

The absolute increase in sectoral NAV for the first half of 2013 was largely driven by domestic investment funds. In relative terms, too, foreign CIUs performed less well, as their aggregate NAV for the period rose by 5.6% while that of domestic funds rose by 8.1%. This result is part...
of a trend going back to mid-2011, and consequently the share of foreign CIUs in the Slovak collective investment market has been steadily falling.

Five domestic management companies reported NAV growth that was within a band of plus or minus 4 p.p. around the sectoral average. Another domestic management company far exceeded that average, as the NAV of its investment funds increased by 33%; its market share increased relatively significantly, too. Around the turn of 2013, one domestic management company that had long been losing market share ended its operation and placed its investment funds under the management of its Czech affiliate. These funds, however, continued to operate as domestic funds in the first half of 2013 since they remained domiciled in Slovakia.

The number of domestic investment funds in Slovakia at end-June 2013 was 85, four more than at end-December 2012 following the termination of two funds and establishment of six new funds. Four of the new funds were special professional investor funds.

**Special investment funds continued to enjoy strong net sales, while the NAV of standard investment funds remained flat**

The NAV of domestic investment funds broken down by fund category followed a similar pattern to that observed in 2012. In money market funds and short-term investment funds – the most conservative vehicles in the sector – the long-term downward trend in NAV continued. The aggregate NAV of these two categories fell by 6% during the period under review, although this decline was around half of that recorded in 2012. The cause of the decrease was the same as before, net redemptions by the household sector.

One other fund category that saw NAV decrease in the first half of 2013 was other investment funds (including so-called secured funds), as the value of their assets slumped by 31%. This category, too, has continued to lose market share in the domestic sector.

Among standard investment funds, funds of funds achieved the largest absolute NAV growth in the first half of 2013 and their relative growth was by far the highest (23%). In doing...
so, they reversed a negative trend in NAV and redemptions that had lasted for almost two years without interruption. The turnaround was based on the establishment of two new funds that sparked an inflow of investment, primarily from the household sector. Nevertheless, most of the longer established funds in this category continued to report slightly negative net sales.

Bond funds, equity funds and mixed funds each reported similar NAV growth, ranging between 5% and 9%. In the case of bond and mixed funds, the growth was driven entirely by net sales, while the equity fund growth included a substantial contribution from investment returns. The net sales in the bond fund category were almost wholly accounted for by a single fund that attracted increased inflows from households and, to a lesser extent, from other funds in the sector. Demand for mixed funds was somewhat more broadly spread across several funds.

Across all the standard funds mentioned so far, the aggregate NAV growth for the first half of 2013 was a negligible €5 million on a de facto zero balance of sales and redemptions. As in the previous year, the growth in the domestic sector was driven by special investment funds, and in particular by special professional investor funds, which alone accounted for almost half of the NAV growth on the domestic side of the sector. The NAV in the special professional investor fund category soared by 71% during the period under review, with almost the entire inflow received by one of four newly established funds. The largest part of the new investment into this fund category was made by banks.

The NAV of special real estate funds increased by around €80 million or 16%. This fund category maintained the strong growth that has characterised its performance in recent years, and augmented its position as the third-largest category by NAV.

The absolute NAV growth of special securities funds was only marginally lower than that of
special real estate funds, although the net sales of these funds were far weaker than in 2012, when they amounted to around half a billion euro.

Special alternative investment funds remained by far the smallest fund category in the sector, despite reporting 15% NAV growth in the first six months of 2013.

Looking at foreign investment funds sold in Slovakia, their aggregate NAV growth in the first half of 2013 was largely accounted for by funds with a money market profile (money market funds and short-term investment funds), mixed funds, and the category of other funds, each with a roughly equal share. Bond funds reported a smaller increase in assets under management, while the NAV of equity funds and funds of funds declined slightly, by less than one percent.

One change in investment portfolio composition which was common to all categories of standard investment fund except for one (other funds), and also to special real estate funds, was that the bank deposit component increased by several percentage points. No other significant changes in the composition of asset portfolios were recorded.

**The positive annual returns on all investment fund categories as at 30 June 2013 were based mainly on favourable market developments in the second half of 2012**

All but two fund categories (covering both domestic and foreign funds) reported a nominal return for the first half of 2013 that was within the range of -1.1% to 0.4%. Only equity funds and special real estate funds achieved higher returns, 2.5% and 1.7% respectively.

The annual return on investment funds as at end-June 2013, like the return on funds in the second and third pension pillars, was boosted by share price growth in the second half of 2012. All fund categories apart from special alternative investment funds reported a positive annual return on average. Equity funds achieved the highest return of 11%, followed by funds of funds, other funds and special real estate funds (with returns of between 4% and 4.7%). Remaining categories recorded returns in the range from 0.4% (money market funds) to 3.1% (bond funds).

The aggregate profit of domestic management companies for the first half of 2013 was €3.75 million, down by 15% year-on-year. This decline, however, was largely attributable to one management company.
company’s substantial loss on trading in equity securities. Abstracting from this item, the sectoral profit for the period would be higher than that for the same period in 2012. Net fee and commission income increased by 5% year-on-year and general operating expenses fell by just under one-tenth. All six domestic management companies reported a profit for the first half of 2013.
2.5 INVESTMENT FIRMS

The growth in overall trading volume in the sector was driven mainly by an increase in derivatives trading. At the same time, however, the amount of customer assets fell by 18%, to its lowest level for five years.

The amount of assets traded in the first half of 2013 through institutions licensed as investment firms increased by 30% year-on-year, marking a turnaround from the downward trend of recent years. Derivatives trading accounted for the bulk of this growth, and constituted 84% of the total amount of transactions. A significant increase in activity was also observed in bond trading.

As for customer assets under management at 30 June 2013, their amount was 18% lower than at the end of 2012, down to its lowest level since 2007. That decline was almost entirely attributable to two management companies ceasing to provide investment services to customers in Slovakia. Nevertheless, management companies retained by far the largest share in the amount of customer assets under management.
RISKS IN THE SLOVAK FINANCIAL SECTOR
3 RISKS IN THE SLOVAK FINANCIAL SECTOR

3.1 CREDIT RISK IN THE BANKING SECTOR

The persisting climate of uncertainty surrounding both the domestic and external macroeconomic environment was reflected in credit risk developments in the first half of 2013. Moderate increases were observed in credit risk costs and in default rates in both the retail and corporate sectors, which were more pronounced in certain segments. These increases, however, did not point to a significant worsening of the current situation. Nevertheless, the risk of adverse future developments remains relatively elevated.

The main headwind facing the retail sector is the long-running high unemployment rate, with an accompanying increase in the number of long-term unemployed. On the other hand, the costs of non-performing loans are to a certain extent compensated for by other factors. Downward pressure on default rates is coming mainly from low interest rates, as well as from a moderate decrease in the number of job-seekers in middle- and higher-income categories. In addition, the loss given default would be mitigated to some extent by the LTV ratio, which has long been close to 70%, as well as by the debt service cushion existing in the segment of middle- and higher-income households.

Another risk to the future situation, however, in addition to the uncertainty about macroeconomic developments, is credit standards, because at certain banks, despite stagnating property prices, a significant share of the credit portfolio comprises loan provided at a higher LTV ratio or with a short fixed-interest rate period.

In the corporate sector, too, there are a number of negative signals. Subdued demand for loans is reflected in the commercial real estate segment, where high vacancy rates persist, and increases in new apartment sales are being achieved only by cutting profit margins. It is primarily the group of mid-sized banks that have a particularly high exposure to non-performing loans.

In both the retail and corporate credit portfolios, these risks are being significantly reduced by the ongoing period of low interest rates. Any increase in interest rates could therefore substantially increase customers’ debt-service burden. Furthermore, persisting low rates could increase the banking sector’s sensitivity to this risk. Banks will therefore need to take an increasingly cautious approach when setting requirements for LTV ratios or loan repayments, having regard to the income situation of customers.

At the same time, stagnating property prices and continuing uncertainty in the commercial real estate segment underlines the necessity of a conservative approach to the valuation of collateral and setting of LTV ratios.

Several banks are also exposed to a higher concentration risk in the corporate loan portfolio and/or to contagion risk from external financial sectors as a result of relatively high exposure to the parent group. Another risk with a potentially substantial impact on the domestic banking sector could be the default of any systemically important customers to which several banks are significantly exposed at the same time.

3.1.1 CREDIT RISK IN THE HOUSEHOLD SECTOR

Certain banks provided loans with short initial rate fixation periods

At the level of the banking sector as a whole, initial rate fixation periods for new housing loans did not show any significant tendency to become shorter.

Nevertheless, in the first half of 2013, certain banks that were using low interest rates to make their products more competitive and reported an increase in demand for loans, provided loans
with a variable rate or with a short initial rate fixation period.

L**oan-to-value (LTV) ratio did not change significantly in the first half of 2013**

The average LTV ratio for new loans continued to hover around 70% during the first half of 2013. In most banks, the average LTV ratio was lower than the sectoral average, while a few large banks accounted for 40% of all new loans with an LTV ratio of between 85% and 100%. It may be a risk for these banks to have such a sizeable share of high LTV loans.

**Unemployment developments in the first half of 2013 did not imply an increase in credit risk in the banking sector, the number of long-term unemployed grew**

The number of job seekers in middle- and high-income categories – the categories to which belong the majority of people who qualify for bank loans – either did not change or decreased. The only exception in this trend was a 4% year-on-year increase in the number of middle-income unemployed in May and June 2013.

Another factor other than changes in unemployment which may affect retail credit risk is the situation in long-term unemployment. The sharp rise in unemployment in 2009 resulted in some households not having enough income to cover loan repayments. Middle- and higher-income households may have a debt-service cushion sufficient to cover repayments for on average four to five years, allowing them to avoid immediate default. It is already more than four years since the beginning of 2009, and according to figures from the Central Office of Labour, Social Affairs and Family the number of job seekers who have been out of work for more than four years continued to increase during the first half of 2013. This could significantly increase retail credit risk.
more than four years has increased by over 30% since the beginning of January 2012. Thus the continuation of the long-running period of higher unemployment may be putting pressure on households that have so far been able to service their debts, and it could therefore lead to a higher default rate.

**Inflow of non-performing loans increased slightly, while the ratio of NPLs to the total amount of loans remained stable**

The ratio of non-performing loans (NPLs) to the total amount of loans remained stable during the first half of 2013, at around 4.3%. NPL ratios varied between different loan categories, including mortgage loans (below 3%), building loans and intermediate loans (around 4.4%), other housing loans (below 3%), and consumer loans (7.4%).

In the broad category of housing loans, the inflow of NPLs (gross value) as share of the total amount of loans was the same in the first half of 2013 as in the second half of 2012, while its moderate decrease in nominal terms, from 1.21% to 1.15%, may be attributed to the increase in the total amount of loans. On a year-on-year basis, however, the ratio increased from its 0.97% level for the first half of 2012.

As for consumer loan category, the inflow of NPLs as a share of total loans was 2.22% for the period under review, compared with 2.04% in the second half of 2012 and 0.68% in the first half of 2012. Although the amount of non-performing...
consumer loans fell sharply in March and June 2013, it did so because certain banks carried out substantial sales of NPLs.

### 3.1.2 CREDIT RISK IN THE NON-FINANCIAL CORPORATIONS SECTOR

**No easing of credit risk yet**

Despite several positive signals from the euro-area macroeconomic environment, corporate credit risk has not yet begun to ease. The general development points more to a continuation of the uncertainty that has marked the past two years.

The elevated level of credit risk is reflected in the behaviour of banks, which in the first half of 2013 moderately tightened credit standards further. It also affected the cost of borrowing, especially for small and medium-sized enterprises.

Credit risk also continued to be strongly affected by low interest rates, which kept loan repayments relatively cheap. It is positive that the historically low debt-service burden remained stable during the first half of 2013, with a slight rise in interest rates being offset by a decrease in the amount of loans (Chart P 30). It remains the case, however, that corporate lending rates are very low and that any deterioration in the economic situation and accompanying credit risk could not be offset by further rate cuts, as it was in 2009.

**Default rate increased**

The default rate increased further, after rising markedly at the end of the previous year, and by the end of the first half of 2013 it had returned to its 2011 level. This deterioration reflected the non-performance of loans that had previously been categorised as classified loans for a long period. The default rate increase was to some extent restrained by the reclassification of certain non-performing loans as standard loans.

**Mixed situation in the commercial property market**

The commercial property segment continues to be a major source of credit risk owing to the concentration of exposure to it. This is the most significant portfolio, accounting for more than 21% of the total corporate credit portfolio and 29% of total non-performing corporate loans.

The office segment did not see an improvement in the first half of 2013, and although the vacancy rate declined slightly from March to June (from 14.3% to 13.6%) it was still at one of its highest levels since 2001. Furthermore, the year-on-year increase in the vacancy rate in Bratislava was higher than that in any other central European capital, and the June rate in Bratislava was higher than in Prague or Warsaw. As in the previous period, sub-lease rents did not react at all to the increase in the vacancy rate, possibly reflecting supply-side concentration.

Some improvement was observed in the residential segment. Net sales of new apartments were stronger in the first half of 2013 than at any time since 2009, and the number of fully sold residential projects increased during this period. This upturn in sales was accompanied, however, by a further decline in prices of new apartments.

**Slight deterioration in credit portfolio quality**

In June 2013, the credit portfolio’s quality declined significantly for the first time since the end of 2010, with the NPL climbing to the 8% threshold after a period of relative stability. This rise was driven by non-performing loans in the...
real estate portfolio, as they soared by €74.6 million and accounted for 90% of the increase in corporate NPLs. This confirmed the primacy of the commercial property segment in terms of credit risk concentration in the corporate credit portfolio. In June 2013, as mentioned above, this segment of the portfolio accounted for 29% of the total amount of NPLs.

Although the NPL ratio increased at most banks during the first half of 2013 (mainly at the end of the period), the longer-term trend of widening differences between the quality of corporate credit portfolios of individual banks continued.

3.1.3 CONCENTRATION RISK

Some banks have a relatively high concentration risk exposure

Looking at the domestic banking sector’s exposure to corporate credit risk, a number of banks are at significant risk from their highly concentrated exposure to groups of closely-linked customers. Although the maximum exposure to one group of economically-related customers is set by law at 25% of own funds, this risk could be of a systemic nature, since more than one bank can be exposed to one and the same group. This risk is related to so-called systemically important customers, which if they defaulted could trigger a slump in the capital ratios of more than three banks.

Concentration risk is evident not only in the significant default risk attached to systemically important customers, but also in the higher exposure of certain banks to their own parent group, since exemptions from the above-mentioned 25% limit are allowed for exposure to a parent undertaking or other non-resident bank that is a member of the parent group. At no bank does exposure to subsidiaries exceed 25% of own funds.
Chapter 3

3.2 MARKET RISKS AND LIQUIDITY RISK

Although the situation in financial markets did not deteriorate significantly from the previous year, the risk of regression to a state of mounting uncertainty and volatility remains significant. The financial segment that saw the most marked change in its portfolio’s exposure to market risk was the second pension pillar. This stemmed mainly from changes in the regulation of the old-age pension saving scheme, which included abolishing the guarantees that PFMCs had been providing for higher-risk funds. The increased risk exposure of the PFMC funds’ asset portfolio was largely attributable to growth in the equity component and to lengthening of the pension funds’ duration. Non-guaranteed PFMC funds therefore became far more sensitive to a potential decline in share prices or increases in interest rates or credit spreads. It should be noted, however, that the market share of these higher-risk funds fell sharply, since the vast majority of assets were switched to bond funds that remained guaranteed. The risk exposure of these bond funds also increased, however, and the overall average value at risk (VaR) in the PFMC fund sector roughly doubled during the first half of 2013.

As for other financial market segments, portfolio risk exposures either remained stable or increased only slightly. The moderate increase of insurers’ exposure to stock markets and the slight rise in the duration of the bond portfolios of banks and pillar-three pension funds were less significant in their impact.

For most segments, the most significant risks were interest rate risk or credit spread risk, but in the portfolios of the collective investment sector and SPMC funds the more prominent exposures were to foreign exchange risk and equity risk.

No significant changes in banking sector liquidity, whether short-term or long-term occurred during the first half of 2013.

3.2.1 CREDIT SPREAD RISK

Financial markets did not worsen significantly, but the risk of strains returning and asset prices falling remains significant.

After improving somewhat during the second half of 2012, the situation in financial markets did not worsen significantly in the first half of 2013. Despite moderate increases in volatility, investor risk aversion and credit spreads in June 2013, the market conditions were far more favourable than it had been in the first half of 2012. Nevertheless, there remains a relatively strong risk of returning strains and falling asset prices in European financial markets, as is also evident from the still comparatively high systemic risk of a simultaneous failure of European banks.6

The exposure of Slovak financial institutions to higher-risk EU countries declined slightly.

Amid the persisting risk of a potential downturn in government bond prices, it is positive that the exposure of the Slovak financial sector to stressed EU countries remains relatively low. In no segment of the financial market does this exposure exceed 5% of assets. The only moderate increase in bond exposure to such countries during the period under review was observed in funds of the third pension pillar (in this case the countries were Italy, Ireland and Slovenia) and in unit-linked insurance (Italy).

In June 2013, the PFMC and SPMC sectors had the largest exposure to higher-risk EU countries.

It should be noted, however, that most of the new investments in bonds issued by these stressed countries had a relatively short duration, thereby reducing their sensitivity to any increase in credit spreads.

Further details of the exposure of different funds to higher-risk EU countries are given in Table 5.

6 Source: ESRB Risk Dashboard
### Table 5 Investments in debt securities of selected countries as a share of total assets (%)

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<th>Greece</th>
<th>Hungary</th>
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<th>Spain</th>
<th>Portugal</th>
<th>Cyprus</th>
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<td><strong>PFMC funds</strong></td>
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Source: NBS.

Notes: Values are given as percentages and represent debt securities issued by the respective country (or institutions established in that country) as a share of total assets or NAV.

An empty cell denotes a zero value.

The figure 0.0 denotes not a zero value but a negligible value (less than 0.05).
average investment return fell to just below the average guaranteed return. In comparison with 2012, however, the capacity of insurers to earn the necessary investment returns has diminished.

A risk for insurers (as well as for other financial market participants) is that maturing bonds are replaced with new investments while interest rates are low (so-called reinvestment risk). At present, around 18% of the insurance sector’s bond portfolio was purchased during the period of lowest interest rates (from the first quarter of 2012). The risk pertains mainly to the further 15% of the bond portfolio that is expected to mature within two years. Thanks, however, to a moderate increase in interest rates at the end of the first half of 2013, the impact on interest income of financial market participants has been lower than it would have been had rates remained at their end-2012 level.
3.2.3 THE MOST SIGNIFICANT MARKET RISKS IN PARTICULAR FINANCIAL MARKET SEGMENTS

Duration of the pension funds’ portfolio continued to increase

One of the most significant changes concerning the riskiness of PFMC fund portfolios was the increase in their average duration. This stemmed mainly from the debt securities portfolio of PFMC funds, which recorded sharp increases in duration (from 1.9 to 3.1 years) and residual maturity (from 2.5 to 3.9 years); these were only slightly offset by a moderate drop in the residual maturity of bank deposits. This development continued a trend going back to the beginning of 2012.

PFMC funds became notably more sensitive to interest rate risk, particularly to an increase in interest rates or credit spreads. A rate hike of 1 percentage point would cause the current pension point value to fall by more than 2%.

The duration of all PFMC funds lengthened, most markedly in equity funds, but also in the portfolios of the least risky guaranteed funds. One reason may have been the extension of the performance assessment period for guaranteed funds under the obligation to compensate losses, which was extended as of 1 April 2012 from six months to five years and then again, as of 1 January 2013, to ten years.

SPMC funds, too, saw a further increase in the duration of their portfolio during the first half of 2013. In this case, however, the cause was not only an increase in the bond portfolio duration, but principally an increase in bond investments as a share of the total NAV.

As well as an increase in duration, the PFMC funds’ portfolio changed also in the breakdown of debt securities by country of issuer. Notable in this regard was the decline in bonds issued in the central European region (Slovakia, Poland, the Czech Republic) and their replacement with bonds issued in the Benelux countries and, in part, in certain higher-risk countries (Slovenia, Italy and Ireland), as well as to a lesser extent by international institutions (EBRD, EU). The in-

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Chart 69 Profile of insurers’ bond portfolio maturities (%)

Source: NBS.
Note: The horizontal scale shows bond maturities in years. The left-hand scale shows the share of the overall portfolio accounted for by bonds covering technical provisions (excluding provisions for unit-linked insurance).

Chart 70 Decline in income from bonds and time deposits where interest rates remain low over the long-term horizon (%)

Source: NBS.
Notes: The vertical axis shows future interest income where rates remain low compared with interest income for the first half of 2013 (represented as 100%) in the case of insurers, investments in which the customer bears the risk are not taken into account.
In the case of banks, only income from securities is taken into account, not income from loans and deposits. The horizontal scale shows bond maturities in years. The left-hand scale shows the share of the overall portfolio accounted for by bonds covering technical provisions (excluding provisions for unit-linked insurance).
increase in duration was driven mainly by bonds issued in Austria and Australia and by international institutions.

**EQUITY RISK IN PFMC FUNDS CONTINUED TO RISE**

Equity risk in the PFMC funds’ portfolio maintained the rising trend that emerged in the second half of 2012, with most of the increase attributable to investments in ETFs that most frequently replicated investments in major stock markets.

**INTEREST RATE RISK IN THE TRADING BOOK REMAINS LOW IN MOST BANKS**

The impact of interest rate movements on the revaluation of debt securities remains relatively low, owing to the small proportion of securities held for trading and their short duration. Hence the adverse effect of a rise in interest rates is expected to be relatively modest. However, as was seen last year, the profits of some banks could be vulnerable to a decline in interest rates,

---

**Table 6 Changes in the share of equity, foreign-exchange and interest-rate positions in different segments of the financial market**

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Insurers</th>
<th>PFMC funds</th>
<th>SPMC funds</th>
<th>Collective investment</th>
<th>Unit-linked insurance 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities and investment fund shares/units</td>
<td>XII.12</td>
<td>0.3</td>
<td>1.4</td>
<td>6.0</td>
<td>19.2</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>0.4</td>
<td>2.7</td>
<td>8.8</td>
<td>17.3</td>
<td>19.6</td>
</tr>
<tr>
<td>Foreign exchange positions</td>
<td>XII.12</td>
<td>0.1</td>
<td>0.8</td>
<td>2.4</td>
<td>17.0</td>
<td>18.5</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>0.2</td>
<td>0.8</td>
<td>2.5</td>
<td>13.9</td>
<td>18.5</td>
</tr>
<tr>
<td>Share of debt securities</td>
<td>XII.12</td>
<td>23.4</td>
<td>72.7</td>
<td>68.7</td>
<td>64.8</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>23.9</td>
<td>73.1</td>
<td>72.3</td>
<td>71.2</td>
<td>29.2</td>
</tr>
<tr>
<td>Duration of bond securities</td>
<td>XII.12</td>
<td>3.2</td>
<td>6.8</td>
<td>1.9</td>
<td>3.4</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>3.5</td>
<td>6.6</td>
<td>3.1</td>
<td>3.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Duration of the whole portfolio</td>
<td>XII.12</td>
<td>1.0</td>
<td>6.1</td>
<td>1.4</td>
<td>2.1</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>1.1</td>
<td>5.9</td>
<td>2.3</td>
<td>2.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Residual maturity of debt securities</td>
<td>XII.12</td>
<td>4.0</td>
<td>8.6</td>
<td>2.5</td>
<td>4.0</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>VI.13</td>
<td>4.3</td>
<td>8.4</td>
<td>3.9</td>
<td>4.1</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: NBS, Reuters, Bloomberg.

Notes: Values are given as a percentage share of total assets (or NAV) and represent the asset-weighted average for the given group of institutions.

Foreign exchange positions are given as a percentage share of assets (or NAV); they were calculated as the sum of the absolute values of the positions for each institution.

Equity positions are given as a percentage share of assets (or NAV); they do not include participating interests in subsidiaries and affiliates.

Durations and residual maturities are given in years.

1) Assets invested by insurers under unit-linked insurance policies.
since the bonds held in their available-for-sale portfolio (not fair valued through profit or loss) are hedged with interest rate derivatives in the held-for-trading portfolio. In this case, however, the decline in gains on derivative transactions would be offset by an increase in own funds based on an upward revaluation of bonds in the AFS portfolio.

Interest rate risk in the banking book increased moderately during the first half of 2013 because, on the one hand, the bond portfolio duration increased slightly (from 3.2 to 3.5 years) and, on the other hand, the residual maturity of liabilities to banks declined.

The most pronounced increases in bond duration were observed in the portfolio of securities available for sale and, to a lesser extent, in the portfolio of securities held to maturity. These had a slight upward effect on the risk that a revaluation of the AFS portfolio in response to higher interest rates would adversely affect bank capital ratios.

The impact of interest rate risk on the banking sector is, however, largely confined to the long-term horizon, largely through the net interest margin. In this regard, banks’ interest income is affected not only by changes in the amount of deposits and loans, but mainly by the intensity of competition and the maturity breakdown of deposits, particularly in the retail portfolio. This issue is looked at in more detail in the section “Financial position of the banking sector”.

### 3.2.4 MEASURING MARKET RISKS USING VALUE AT RISK (VAR)

**Total VaR increased, with pension funds recording the highest rise**

During the first half of 2013, total value at risk was affected mainly by the previously mentioned changes in the asset portfolios of PFMC funds and SPMC funds (the second and third pension pillars), which led to an increase in the risk exposure of these funds. This impact was most pronounced in the second-pillar portfolio, as increases in the risk of bond and, to a lesser extent, equity investments pushed up the 10-day, 99% VaR to more than twice its end-2012 value.

**Lengthening durations caused rises in interest rate risk in several sectors**

A moderate increase was observed in VaR for interest rate risk and credit spread risk, this being most evident in PFMC funds, in the asset revaluation risk of insurers and, to a lesser extent, in PFMC funds. The main cause of this increase was the lengthening of the average duration of the debt securities in these types of institutions. In the case of PFMC funds, it even led to a rise in the VaR for the whole portfolio.

It should be noted, however, that asset risk assessment reveals relatively substantial diversification effects. At the end of the period under review, these effects were most apparent between equity and bond investments, while the downward revaluation of equity investments is expected to be partially offset by appreciation of the US dollar or other foreign currencies. In re-
cent months, a partial diversification effect has also appeared between the risks of interest-rate and credit-spread movements. These effects are most pronounced in SPMC funds.

**Funds became increasingly differentiated in terms of their riskiness**

As Chart 74 shows, the easing of the obligation to guarantee the rate of return in mixed and equity funds resulted in a relatively clear differentiation between different types of second-pillar funds in terms of their overall riskiness. Whereas all fund types (except for index funds) are exposed to interest rate risk, mixed funds and equity funds are additionally exposed to equity risk and foreign exchange risk as well. But although the risk exposure of these funds has risen quite sharply, it is still lower than the risk exposure of comparable investment fund categories.
Table 7 VaR across financial market segments (%)

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Lower quartile</th>
<th>Median</th>
<th>Upper quartile</th>
<th>Weighted average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurers</td>
<td>0.7</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Unit-linked insurance</td>
<td>1.1</td>
<td>1.6</td>
<td>2.3</td>
<td>1.6</td>
</tr>
<tr>
<td>PFMC funds</td>
<td>0.7</td>
<td>1.3</td>
<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Mixed funds</td>
<td>0.7</td>
<td>1.1</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Equity funds</td>
<td>0.7</td>
<td>1.6</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Bond funds</td>
<td>0.5</td>
<td>0.8</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Index funds</td>
<td>7.0</td>
<td>7.6</td>
<td>9.0</td>
<td>8.3</td>
</tr>
<tr>
<td>SPMC funds</td>
<td>0.8</td>
<td>1.2</td>
<td>1.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Distribution funds</td>
<td>0.5</td>
<td>0.7</td>
<td>0.8</td>
<td>0.6</td>
</tr>
<tr>
<td>Contributory funds</td>
<td>1.0</td>
<td>1.5</td>
<td>1.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Investment funds</td>
<td>0.5</td>
<td>1.3</td>
<td>3.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Lower-risk funds</td>
<td>0.0</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Bond funds</td>
<td>0.5</td>
<td>0.8</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Special real estate</td>
<td>0.1</td>
<td>0.6</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Mixed funds</td>
<td>1.2</td>
<td>2.6</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Funds of funds</td>
<td>1.5</td>
<td>2.1</td>
<td>2.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Equity funds</td>
<td>3.4</td>
<td>7.5</td>
<td>8.5</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Source: NBS.

Notes: The values are given as a percentage share of total assets (or NAV); they represent quartiles or the asset-weighted average for each group of institutions.

VaR was calculated over a period of 10 days at a confidence level of 99%.

Lower-risk funds include short-term investment funds, money-market funds, and special securities funds.

Investment funds have the largest exposure to foreign exchange risk and equity risk. Their exposure to credit spread risk is small (unlike that of other sectors) and is almost entirely confined to bond funds. Since assets in these funds have a relatively short duration, their exposure to interest rate risk is relatively low.

Further details about the distribution of risk across different financial market segments are provided in Table 7.

3.2.5 LIQUIDITY RISK IN THE BANKING SECTOR

Looking at the banking sector’s liquidity in both the short term and long term, no significant changes occurred during the first half of 2013. Banks’ liquid asset coverage of their volatile funds was sufficient, at 146%. Although the amount of volatile funds increased moderately (by 7%) during this period, this increase was offset by a rise in holdings of liquid assets. Hence the liquid asset coverage of volatile funds remained basically unchanged.
When analysing short-term liquidity, however, it is necessary to pay attention to two facts.

First, certain larger banks report a liquid asset ratio that is close to the regulatory minimum level, and these banks saw a further slight deterioration in that ratio during the first half of 2013. As a result, they may find themselves compelled to make some adjustments to their business strategy.

Second, the composition of the liquid assets that banks use to cover their volatile funds shows considerable heterogeneity. In most banks (with the exception of foreign bank branches), at least 40% of liquid assets comprise unencumbered securities, and the remainder consist mostly of positive cash flows from claims on customers. A higher share of securities is considered preferable since it is possible, if necessary, to liquidate securities immediately, whereas positive cash flows are tied to the agreed payment date.

The long-term liquidity of the Slovak banking sector did not change significantly, and the deposit to loan ratio of most banks remains at a sound level.
CHAPTER 4

MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR
4 Macro stress testing of the Slovak financial sector

Macro stress tests conducted at the end of the first half of 2013 gauged the resilience of the financial sector to potential headwinds from the global economy and financial markets in the period from the second half of 2013 to the end of 2015. The scenarios used in the testing were a Baseline scenario based on the official NBS Medium-Term Forecast and two stress scenarios, entitled ‘Economic Downturn’ and ‘Sovereign Crisis’. The Baseline scenario assumes that economic growth will increase moderately in 2013 and then accelerate under upward pressure from the pick-up in external demand and also, gradually, in domestic demand. Inflationary pressures are not envisaged. The Economic Downturn Scenario assumes a decline in external demand that pushes the domestic economy into recession. Under the Sovereign Crisis scenario, the adverse impact of weakening external demand is expected to be exacerbated by elevated financial market strains brought on by a further escalation of the sovereign debt crisis.

The banking sector’s high capital ratio is assumed to be the main factor behind the relatively positive stress test results for banks. Under the Baseline scenario, all banks would meet the regulatory minimum capital requirement (8%) at the end of the period under review. Under the Economic Downturn scenario, the total amount of additional capital needed for all banks to meet that threshold would be €8 million (0.2% of own funds as at 30 June 2013), and under the Sovereign Crisis scenario it would be €89 million (1.8%). As in previous tests, these scenarios assume that the impact of losses stemming from respective risks on banks would be mitigated by banks’ capacity to generate net interest income, although as the stress scenarios increase in gravity, the amount of net interest income would gradually decline.

The most significant risk to the sector remains credit risk on loans to non-financial corporations, followed by household credit risk. Only certain banks face sizeable market risks. Interest rate risk and the risk of an increase in credit spreads are mitigated by the high share of securities purchased for the portfolio of securities held to maturity.

The increased riskiness of PFMC funds’ asset portfolios was evident in the stress test results, particularly in losses under the Sovereign Crisis scenario, caused mainly by an increase in credit spreads on government bond holdings. Index funds have the largest risk exposure, followed by certain mixed funds and equity funds.

Investments in funds of the third pension pillar would also be exposed to a relatively sharp drop in performance in the event of market turbulences. As with PFMC funds, the most adverse impact on SPMC funds would be from an increase in credit spreads on bonds. In some funds, losses would be significantly exacerbated by a downward revaluation of equities, although that effect would be partially offset by an assumed strengthening of the US dollar against the euro.

The average impact of the stress test scenarios on investment funds was moderately more positive than it was on PFMC and SPMC funds, largely because investment funds have the lowest sensitivity to interest rate risk and increasing credit spreads. In this sector, unlike the pension sector, equity risk would have the most significant negative impact, although its impact would be highly uneven across the funds.

Due to the structure of insurers’ asset portfolios, interest rate risk is the most elevated financial risk while other market risks are less significant. A highly unfavourable situation for insurers would be a combined shock in non-life insurance and financial markets. In that case, every insurer would make a loss, and the sector’s aggregate loss as a share of own funds would be around 14% under the Economic Downturn scenario and 26% under the Sovereign Crisis scenario.
4.1 DESCRIPTION OF SCENARIOS USED

The purpose of macro stress testing is to gauge the resilience of the financial sector to potential headwinds from the global economy and financial markets. Scenarios are designed to simulate the impact of the largest number of risk factors that are considered to be relevant to the Slovak financial sector.

The resilience of the Slovak financial sector was tested, as usual, using three scenarios: a Baseline scenario and two stress scenarios. Each scenario covers a period from July 2013 to the end of 2015, with results estimated from data as at 30 June 2013.

Since stress tests require a relatively large number of simplifying assumptions, the results should not be construed as a forecast of future developments.

**Baseline scenario**

The Baseline scenario is based on the official Medium-Term Forecast published by NBS as of the second quarter of 2013.7 Under this scenario, economic growth in 2013 will be driven entirely by net exports, but with the euro area experiencing the longest recession since its establishment, domestic growth is assumed to be modest. In coming years, the scenario envisages a pick-up in external demand and consequently also in domestic demand. No significant inflationary pressures are expected to appear during the reference period.

**Economic Downturn scenario**

This scenario assumes that worse than projected results in certain world economies cause a slump in external demand that will be most pronounced in 2014. Demand then picks up in 2015, together with a revival of the domestic economy. Inflation is slightly lower under this scenario than under the Baseline scenario, owing to the weakening of demand.

Since the scenario assumes a decline in economic activity at the global level, there are no significant movements in exchange rates. However, the scenario does include a decline in stock markets and increases in credit spreads.

**Sovereign Crisis scenario**

In addition to the adverse trends of the Economic Downturn scenario, this scenario includes a re-escalation of the euro area’s sovereign debt.


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**Chart 77 Annual GDP growth – Baseline and stress scenarios (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline</th>
<th>Economic Downturn</th>
<th>Sovereign Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>-10</td>
<td>-8</td>
<td>-10</td>
</tr>
<tr>
<td>2013</td>
<td>-8</td>
<td>-6</td>
<td>-8</td>
</tr>
<tr>
<td>2014</td>
<td>-6</td>
<td>-4</td>
<td>-6</td>
</tr>
<tr>
<td>2015</td>
<td>-4</td>
<td>-2</td>
<td>-4</td>
</tr>
</tbody>
</table>

Source: NBS.

**Chart 78 Average annual inflation – Baseline and stress scenarios (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline</th>
<th>Economic Downturn</th>
<th>Sovereign Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: NBS.
crisis. Consequently, no significant improvement in the domestic economy is envisaged even in 2015. In contrast to the Economic Downturn scenario, a weakening of the euro against the US dollar is expected, as well as a depreciation of the currencies of Slovakia’s neighbours against the euro. Credit spreads are assumed to increase significantly amid mounting strains in financial markets.

4.2 SCENARIO IMPACTS

The large capital buffer as at the end-June 2013 is expected to make the banking sector quite strongly resilient to economic headwinds

Under the Baseline scenario, the capital ratio of each bank at the end of the stress period would be higher than the statutory minimum level of 8%. Under the Economic Downturn scenario, the additional capital needed for the sector to meet this threshold would be €8 million (equivalent to just under 0.2% of own funds as at end-June 2013), while under the Sovereign Crisis scenario it would be €89 million (1.8%).

This positive result is based mainly on two factors. First, the sector as a whole has a relatively large capital buffer, with an aggregate capital ratio of 16.2% as at end-June 2013. It follows that even though the number of banks that would report a loss at the end of the stress period increases with the gravity of the scenario, the banks in question appear to be sufficiently capitalised to avoid incurring a sharp capital ratio drop in such an event (the number of banks reporting a loss at the end of the stress period would be three under the Baseline scenario, five under the Economic Downturn scenario, and nine under the Sovereign Crisis scenario).

The different scenarios had moderately different effects on the sector’s aggregate capital ratio. Under the Baseline scenario, the capital ratio would rise slightly, supported by an assumed increase in own funds. However, an increase in risk-weighted assets resulting from the projected rise in lending would have a restraining effect on this ratio. Under the Economic Downturn scenario, the sector’s capital ratio increase would be slightly higher. Although the overall amount of capital would increase less under this scenario than under the Baseline scenario, the capital ratio would increase more owing to different developments in risk-weighted assets. In this scenario, unlike the Baseline scenario, the amount of loans decreases, but the amount of risk-weighted assets is assumed to remain constant owing to the higher riskiness of the loan portfolio. The Sovereign Crisis scenario envisages a drop in the aggregate capital ratio based on assumptions of a decline in the amount of own funds and a constant amount of risk-weighted assets.

As regards insurance risks, both stress scenarios assume a rising mortality rate in life insurance and, in 2013, an increased loss ratio in non-life insurance. Insurance and financial risks are treated as independent events. The task of the Sovereign Crisis scenario is to assess the impact of a combined shock in insurance and financial risk, and the insurance risk situation is not related to macroeconomic developments.
The second factor is the assumed capacity to generate net interest income. Although the overall amount of this income falls in both stress scenarios in comparison with the Baseline scenario (owing to the lower amount of lending), it still enables banks to mitigate the impact of losses stemming from different risks on their capitalisation.

**Corporate credit risk remains the most significant risk to the sector as a whole**

As under previous stress tests, the sector would suffer its highest losses on the portfolio of loans to non-financial corporations. The overall losses reflect the assumed increase in the default rate (causing the outstanding amount of non-performing loans to rise) and decline in the value of loan collateral, which affects the amount of the loss on the given amount of NPLs.

The second most significant risk remains household credit risk. Under the Economic downturn scenario, several banks reported higher losses on household loans than on loans to enterprises, while under the Sovereign Crisis scenario, corporate credit risk is predominant.

Market risks are the third risk affecting the overall loss. Equity risk and foreign exchange risk are generally quite low at the sectoral level, representing a more serious factor only in a few
banks, while the risk of losses on the revaluation of securities are limited by the relatively high share of securities in the held-to-maturity portfolio.\(^8\)

**Sensitivity of PFMC funds to any adverse developments in financial market increased**

The rise in the risk exposure of the PFMC funds’ asset portfolio (related to increases in the duration and equity positions) was evident in stress test results that pointed to relatively high losses in the event of financial market strains. These losses are highest under the Sovereign Crisis scenario and would be caused mainly by an increase in spreads on government bonds held by PFMC funds.

The most exposed PFMC funds are index funds, as the current pension-point value of these funds could fall by between 30% and 50% under the Sovereign Crisis scenario. However, index funds account for only a very small share of the total. The next most exposed funds under the stress scenarios would be certain mixed and equity funds, with a potential decline of around 15%.

**For SPMC funds, the greatest exposure would be to credit spread increases**

Investments in funds of the third pension pillar would also be exposed to a relatively sharp drop in performance in the event of market turbulences. Under the Sovereign Crisis scenario, most of these funds would see their performance decline to between 0% and 10%. As with PFMC funds, the most adverse impact on SPMC funds would be from an increase in bond spreads. In some funds, losses would be significantly exacerbated by a downward revaluation of equities, although that effect would be partially offset by an assumed strengthening of the US dollar against the euro.

**With most funds pursuing a relatively conservative investment policy, only a few higher-risk funds would be significantly affected by the stress scenarios**

The impact of the stress scenarios would be slightly more positive on the collective investment sector than on PFMC and SPMC funds. This is largely because investment funds have the lowest sensitivity to interest rate risk and an increase in credit spreads, which in other finan-\(^8\)
Several insurers would make a significant loss in the event that insurance risk increased alongside a deterioration in financial markets.

Looking at the composition of insurers’ asset portfolios, the most elevated financial risk in this sector is interest rate risk. Since all three social market segments are the most significant risks. This lower sensitivity reflects the shorter average duration of the collective investment sector’s overall portfolio, as well as the shorter average residual maturity of its debt securities portfolio.

Nevertheless, the stress scenarios would have a highly uneven impact on investment funds. This sector, unlike pension funds, would be most vulnerable to equity risk. The stress scenarios would have the most adverse impact on certain equity and mixed funds, as well as on a few bond funds with a higher exposure to foreign exchange risk.

<table>
<thead>
<tr>
<th>Table 8 Impact of the Sovereign Crisis scenario on collective investment funds as at 30 June 2014 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>&quot;Conservative funds&quot;</td>
</tr>
<tr>
<td>Special real estate funds</td>
</tr>
<tr>
<td>Bond funds</td>
</tr>
<tr>
<td>Mixed funds</td>
</tr>
<tr>
<td>Equity funds</td>
</tr>
<tr>
<td>Funds in total</td>
</tr>
</tbody>
</table>

Source: NBS, ECB, Bloomberg, internet.
Note: "Conservative" funds include money market funds, short-term investment funds and special securities funds.
In the table, the net asset value of funds that recorded a gain or loss in the stated range under the Sovereign Crisis scenario as at 30 June 2014 is shown as a share of the total net asset value of investment funds in the respective category.
scenarios assume at least some increase in interest rates, the economic value of the sector’s portfolio would decline. That decline would be more marked under the Sovereign Crisis scenario, owing to the increase in credit spreads. While a decline in technical provisions would mitigate the effect of higher interest rates, the extent to which it would do so is not quantified. Other market risks are less significant at the level of the insurance sector as a whole.

The size of the losses on non-life insurance under the Sovereign Crisis and Economic Downturn scenarios are similar. The probability of a simultaneous increase in losses in all lines of non-life insurance is, however, small, owing to the low correlation between the different types of insurance claim.

A highly unfavourable situation for insurers would be a combined shock in non-life insurance and financial markets. In that case, every insurer would make a loss, and the sector’s aggregate loss as a share of own funds would be around 14% under the Economic Downturn scenario and 26% under the Sovereign Crisis scenario. Most insurers would report a loss for 2013, but would return back to profit in 2014. Losses would be to some extent offset by a decline in technical provisions.
### Table 9 Stress test parameters

<table>
<thead>
<tr>
<th>Baseline assumptions</th>
<th>Baseline scenario</th>
<th>Economic Downturn scenario</th>
<th>Sovereign Crisis scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st year</td>
<td>later</td>
<td>1st year</td>
</tr>
<tr>
<td>Change in external demand</td>
<td>4%</td>
<td>8%</td>
<td>-18%</td>
</tr>
<tr>
<td>Change in USD/EUR exchange rate</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Change in exchange rates of the CHF, JPY, GBP, DKK, CAD, HRK and LVL against the EUR</td>
<td>0%</td>
<td>0%</td>
<td>-10%</td>
</tr>
<tr>
<td>Change in exchange rates of other currencies against the EUR</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Change in equity prices</td>
<td>0%</td>
<td>0%</td>
<td>-35%</td>
</tr>
<tr>
<td>Change in 2-year discount rate (EUR)</td>
<td>76 b.p.</td>
<td>32 b.p.</td>
<td>64 b.b.</td>
</tr>
<tr>
<td>Change in the 5-year iTraxx Senior Financials index</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>100 b.p.</td>
</tr>
<tr>
<td>Increase in 5-year spreads on bonds of GR and PT</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Increase in 5-year spreads on bonds of ES, IT, SI and IE</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Increase in 5-year spreads on bonds of SK, BE and HU</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Increase in 5-year spreads on bonds of AT</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Increase in 5-year spreads on bonds of GB, CH, US, FI and NL</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Increase in the slope of the credit spread curve</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
</tr>
<tr>
<td>Annual real GDP growth</td>
<td>0.64%</td>
<td>2.32%</td>
<td>3.30%</td>
</tr>
<tr>
<td>Average HICP inflation</td>
<td>1.75%</td>
<td>1.61%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>14.4%</td>
<td>14.0%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Non-sensitive sectors</td>
<td>0.72%</td>
<td>0.68%</td>
<td>0.55%</td>
</tr>
<tr>
<td>Moderately sensitive sectors</td>
<td>1.57%</td>
<td>1.37%</td>
<td>1.27%</td>
</tr>
<tr>
<td>Sensitive sectors</td>
<td>4.32%</td>
<td>4.17%</td>
<td>3.65%</td>
</tr>
<tr>
<td>Non-performing loan ratio for household loans</td>
<td>4.94%</td>
<td>5.37%</td>
<td>5.43%</td>
</tr>
<tr>
<td>Life insurance – supplementary insurance</td>
<td>As in 2012</td>
<td>Max. loss ratio + 10 p.p. or market average</td>
<td>As in 2012</td>
</tr>
<tr>
<td>Life insurance – increase in mortality rate</td>
<td>0%</td>
<td>+ 10%</td>
<td>+ 20%</td>
</tr>
</tbody>
</table>

Source: NBS.

1) Note: In this case, the slope of the yield curve is defined as the difference in yields between 5-year and 1-year government bonds.
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR

GENERAL:
The formulation ‘index: 31 December 2012 = 1’ means that the given index was set in such a way that its value as at that date (31 December 2012) was 1.

MACROECONOMIC RISK INDICATORS

Chart P1 Manufacturing Purchasing Managers’ Index (PMI) in selected economies

Source: Bloomberg.
Note: A definition of the indicator is given in the section “Glossary and abbreviations”.

Chart P2 Services Purchasing Managers’ Index (PMI) in selected economies

Source: Bloomberg.
Note: A definition of the indicator is given in the section “Glossary and abbreviations”.
**Chart P3** Consumer confidence indicators in the United States

- Conference Board Consumer Confidence Index
- University of Michigan Consumer Sentiment Index

Source: Bloomberg.
Note: The Chart refers to US consumer confidence indices produced by two different institutions.

**Chart P4** Economic sentiment indicators in the euro area

- ESI
- ZEW (right-hand scale)

Source: Bloomberg.
Note: A definition of the indicator is given in the section "Glossary and abbreviations".

**Chart P5** Unemployment rate in selected economies (%)

- Slovakia
- Euro area
- United States

Note: Seasonally adjusted.

**Chart P6** Consumer price inflation in selected economies (annual percentage changes)

- Slovakia
- Euro area
- United States

**Chart P7 Industrial production indices in selected economies**

Notes: Rebalanced (average 2007 = 100). Seasonally adjusted.

**Chart P8 Industrial new orders indices in selected economies**

Source: Eurostat, US Department of Commerce.
Notes: Rebalanced (average 2007 = 100). Seasonally adjusted.

**Chart P9 General government balances of EU countries in 2012 (%)**

Source: Eurostat. Note: Percentage of GDP.

**Chart P10 Gross government debt of EU countries in the first quarter of 2013 (%)**

Source: Eurostat. Note: Percentage of GDP.
FINANCIAL MARKET RISK INDICATORS

Chart P11 Price commodity indices (31 December 2012 = 1)

Source: Bloomberg, NBS calculations.

Chart P12 Exchange rate indices (31 December 2012 = 1)

Source: Bloomberg, NBS calculations.

Chart P13 Equity indices (31 December 2012 = 1)

Source: Bloomberg, NBS calculations.

Chart P14 Share price indices of the parent undertakings of the 5 largest domestic banks (31 December 2012 = 1)

Source: Bloomberg, NBS calculations.
**Chart P15 Yield curve slope in selected economies**

Source: Bloomberg, NBS calculations.

Note: The yield curve slope is expressed as the difference between the yield on 10-year and 3-month government bonds.

**Chart P16 Volatility of equity indices**

Source: Bloomberg.

**Chart P17 CDS spread indices (b.p.)**

Source: Bloomberg, NBS calculations.

**Chart P18 CDSs of the parent undertakings of the largest Slovak banks (b.p.)**

Source: Bloomberg, NBS calculations.
Chart P19 3-month rates and the OIS spread (%; p.p.)

Source: Bloomberg, NBS calculations.

Chart P20 Inflation-linked swap prices

Source: Bloomberg, NBS calculations.
Note: The price of inflation-linked swaps is defined in the section “Glossary and abbreviations”.

Chart P21 Credit spreads on 5-year government bonds issued by stressed bonds with higher degree of risk (p.p.)

Source: Bloomberg, NBS calculations.
Note: The left-hand scale shows percentage differences between yields on 5-year bonds issued by the different countries and 5-year OIS rates, representing the 5-year interest rate on with low degree of credit risk.

Chart P22 Credit spreads on 5-year government bonds issued by central European countries and Germany (p.p.)

Source: Bloomberg, NBS calculations.
Note: The chart shows percentage differences between the yield on 5-year government bonds denominated in the domestic currency of the given country and the 5-year swap rate for the respective currency.
NON FINANCIAL CORPORATION CREDIT RISK INDICATORS

Chart P23 Exports and the business environment

Source: NBS, OECD, SO SR.
Note: ESI – Economic Sentiment Indicator.

Chart P24 Exports and corporate sales

Source: SO SR, Slovak Ministry of Economy, OECD, NBS calculations.

Chart P25 Sales in selected sectors compared with their level for the period June 2007 to June 2008

Source: SO SR.

Chart P26 Labour productivity and wages in industry

Source: NBS, SO SR.
Chart P27 Interest rate spreads on new loans to enterprises (%)

Source: NBS, EBF.
Note: The spread is defined as the difference between the monthly EURIBOR rate and the average rate on new loans in the respective category.

Chart P28 Non-performing loans and default rates

Source: NBS.
Note: The default rates are calculated as the ratio of the number/amount of loans that became non-performing during the reference period to the number/amount of standard loans at the beginning of the period.

Chart P29 Loans at risk (%)

Source: NBS.

Chart P30 Debt-service burden by component (%)

Source: NBS, SO SR.
Chart P31 Commercial real estate: prices and occupancy rates in the office segment

Source: CBRE, NBS calculations.
Note: The chart shows prices and occupancy rates in Bratislava.

Chart P32 Commercial real estate: sales in the residential segment – new apartments

Source: Lexxus, NBS calculations.

Chart P33 Comparison of non-financial corporation balance sheet and sales (%)

Source: NBS, SO SR.

Chart P34 Liabilities of non-financial corporations (%)

Source: NBS.
Chart P35 Household indebtedness in Slovakia and in selected countries – total debt to disposable income ratio (%)

Source: Eurostat.

Chart P36 Changes in household financial assets (month-on-month changes)

Source: NBS.

Chart P37 Changes in the number of unemployed by income category

Source: Central Office of Labour, Social Affairs and Family.
Notes: Left-hand and right-hand scales: numbers of job seekers in thousands of persons.
The income categories are defined in the section “Glossary and abbreviations.”

Chart P38 Index of employment in selected sectors

Source: SO SR.
Note: Index – year-on-year changes.
Chart P39 Index of employment expectations in selected sectors

2008 2009 2010 2011 2012 2013

-60 -40 -20 0 20 40 60

Source: SO SR.

Chart P40 Index of real wages in selected sectors

2008 2009 2010 2011 2012 2013

90 95 100 105 110

Source: SO SR.

Chart P41 The consumer confidence index and its components

2008 2009 2010 2011 2012 2013

-100 -80 -60 -40 -20 0 20 40 60 80

Source: SO SR.

Chart P42 Non-performing household loans

(EUR millions)


60 40 20 0 -20 -40 -60 -80

Source: NBS.
**MARKET RISK AND LIQUIDITY RISK INDICATORS**

**Chart P43 Loan-to-value (LTV) ratio (%)**

Source: NBS.

Note: The ratio is defined in the section "Glossary and abbreviations".

**Chart P44 Housing affordability index**

Source: NBS, SO SR.

Note: The household affordability index is defined in the section "Glossary and abbreviations".

**Chart P45 Value at Risk for investments in different types of financial instruments (%)**

Source: Bloomberg, NBS calculations.

Notes: The data represent the highest loss (as a percentage of the given investment) that would not be exceeded over a period of 10 days at a confidence level of 99%. This loss was determined on the basis of a risk factor volatility calculation, using exponentially weighted moving averages.

**Chart P46 Sensitivity to different risk types in the banking sector**

Source: Bloomberg, NBS calculations.

Notes: The data represent the loss (as a percentage of assets) under individual scenarios of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".
Chart P47 Sensitivity to different risk types in the PFMC funds' sector

Source: Bloomberg, NBS calculations.
Notes: The data represent the loss (as a percentage of NAV) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".

Chart P48 Sensitivity to different risk types in the SPMC funds' sector

Source: Bloomberg, NBS calculations.
Notes: The data represent the loss (as a percentage of NAV) under individual scenarios of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".

Chart P49 Sensitivity to different risk types in the collective investment sector

Source: Bloomberg, NBS calculations.
Notes: The data represent the loss (as a percentage of NAV) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".

Chart P50 Sensitivity of insurance companies’ assets to different risk types

Source: Bloomberg, NBS calculations.
Notes: The data represent the percentage decline in the value of assets under individual scenarios of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".
Chart P51 Loan-to-deposit ratio (%)

- Loan-to-deposit ratio (excluding ARDAL deposits and mortgage bonds issued)
- Loan-to-deposit ratio (including ARDAL deposits and excluding mortgage bonds issued)
- Loan-to-deposit ratio (including ARDAL deposits and mortgage bonds issued)
- Loan-to-deposit ratio (retail)

Source: NBS.
Note: ARDAL – Debt and Liquidity Management Agency.

---

Chart P52 Liquid asset ratio

Source: NBS.
GLOSSARY AND ABREVIATIONS
Glossary

**AFS portfolio** – portfolio of assets available for sale.

**Average annual return on pension funds** – an indicator calculated as a weighted average of the annual percentage changes (APC) in the daily values (DV) of pension points of the respective pension funds. The year-on-year percentage changes in the daily values of pension points are calculated as at 30 June 2013 (APCDVPP30.6.2013) according to the following formula:

$$\text{APCDFVPP}_{30.6.2013} = \left( \frac{\text{PP}_{30.6.2013}}{\text{PP}_{30.6.2012}} - 1 \right) \times 100\% ,$$

where PP is the value of a pension point on the given day.

The weight applied is the ratio of the respective fund’s net asset value (NAV) to the sum of NAVs of funds of the same type. The return is given in nominal terms, which means that inflation is not deducted. As a rule, the return on various types of investment is calculated in nominal terms, according to the standard statutory methodology.

This return, however, is not identical to the return in the saver’s personal pension account, which is determined on an individual basis. The input data were the pension point values from the different pension funds reported to Národná banka Slovenska by pension funds management companies for 30 June 2012 and 30 June 2013, which are available on the website of Národná banka Slovenska.

**Average return of market rivals** – the arithmetic average of the moving averages of the following: the year-on-year percentage changes in the daily pension point values of the pension fund’s market rivals, calculated for the previous 24 months and rounded up to 2 decimal places.

**Average return on a PFMC’s pension fund** – the moving average of the following: the year-on-year percentage changes in the daily pension point values of a PFMC’s pension fund, calculated for the previous 24 months and rounded up to 2 decimal places.

**Capital ratio** – ratio of own funds and 12.5 times the capital adequacy requirement.

**Combined ratio** – the value of claims and expenses relative to premiums earned.

**Cost-to-income ratio** – the ratio of total operating costs and net income from banking activity (purchased performances + staff costs + social costs + amortisation of tangible and intangible assets + taxes and fees / revenues from equities and ownership interests + net income from fees and commissions + net income from securities transactions + net income from derivatives transactions + net income from foreign exchange transactions + net income from other transactions).

**CR n index** – the concentration of the n largest banks, i.e. the sum of their assets as a share of total assets.

**Default rate** – the percentage of loans defaulting over the period monitored.

**Enterprises** – non-financial corporations.

**Expense ratio** – ratio of operating expenses to premiums earned.
**General government** – central and local government bodies.

*Herfindahl index (HHI)* – an index representing the sum of the squares of the shares of individual banks’ assets in total assets.

*Household disposable income* – an indicator calculated as the sum of the components of the gross personal income of all members of a household (gross financial income from employment and closely related income, gross non-financial income from employment, gross financial gains or losses from self-employment [including royalties and fees], unemployment benefits, old-age pension benefits, survivor’s pension benefits, sickness benefits, invalidity benefits and contributions for education) plus components of the gross income at the household level (income from rented assets or land, family benefits and contributions paid to families with children, the social exclusion not classified elsewhere, housing benefits, financial transfers regularly received between households, interests, dividends, capital gains from a non-registered business, income of persons younger than 16 years of age less regular property taxes, regular paid financial transfers between households, income tax, and social insurance contributions).

*Household income categories* – a categorisation based on the KZAM employment classification and KZAM income data; it consists of three categories: *higher-income category (income of over €800 per month)* – legislators, senior officials and managers, scientists, professionals, technicians, health professionals, and teaching professionals; *middle-income category (income between €600 and €800 per month)* – office workers, craft and skilled workers, processors, and plant and machinery operators; *lower-income category (income of up to €600)* – service and retail workers, agricultural and forestry workers, auxiliary and unskilled workers.

*Households* – the population, i.e. the accounts of individuals.

*Housing affordability index* – an index representing the ratio of disposable income to loan instalments. The calculation of disposable income takes into account the average wage and average expenditure of households; the calculation of the instalment amount takes into account the average apartment price, average interest rate, average maturity, and a constant LTV ratio (75%). The calculation methodology for the housing affordability index is set out in the following paper: Rychtárik, Š., Krčmár, M. (2011), “Vývoj na trhu úverov na bývanie a jeho interpretácia” (Developments in the housing loan market and their interpretation), Nehnuteľnosti a bývanie 2010 (Real Estate and Housing), Vol. no 2, Bratislava, 2010.

*HTM portfolio* – portfolio of assets held to maturity.

*Interest rate spreads* – the difference between interest rates on loans/interest rates on deposits and the respective interbank rates.

*iTraxx index* – an index of credit default swaps.

*Liquid asset ratio* – the ratio of liquid assets to volatile liabilities over a horizon of one month. Its level should not fall below 1.

*Loans at risk (LAR)* – an indicator of corporate credit risk that measures the share of loans to non-financial corporations whose financial position has sharply deteriorated. LAR represents, as a share of total loans to non-financial corporations, loans to non-financial corporations which in the given quarter have reported a loss and a drop in sales of more than 30%. The reference period is from July 2007 to June 2008.
**Loan-to-deposit ratio** – the ratio of customer loans to the sum of retail deposits, deposits of non-financial corporations, deposits of financial corporations, and issued mortgage bonds. It indicates the extent to which loans are financed with stable funds from customers. The lower the value, the greater the extent to which loans are financed with customer deposits, and therefore the lesser the extent to which they are financed through the more volatile financial markets.

**Loan-to-value ratio** – the loan value divided by the value of the collateral used.

**Loss ratio** – the percentage ratio of:
- the sum of claims paid and the change in the gross technical provision for claims, to
- premiums earned, i.e. the gross premium after deducting the change in the gross technical provision for unearned premiums.

**Net balance-sheet / off-balance-sheet position** – the difference between foreign exchange assets and liabilities in the balance sheet / off-balance sheet.

**Net interest rate spread** – the difference between the rate of return on loans (interest income on loans as a share of total loans) and the cost of deposits (interest expenses on deposits as a share of total deposits).

**Non-bank financial corporations (NBFCs)** – other financial companies, financial intermediaries, pension and mutual funds, insurance companies.

**Non-performing loans** – loans with impairment of more than 50% of their value or with debtor payment past due more than 90 days.

**PMI (Purchasing Managers’ Index)** – an indicator of the economic health of the manufacturing or service sector: an index value of more than 50 represents expansion, while a value of below 50 represents contraction.

**Premium** – the price agreed in individual insurance contracts regardless of the method of their financial reporting.

**Provisions for unit-linked insurance policies** – technical provisions created for life insurance business associated with investment funds in the A4 insurance line.

**Retail sector** – households, sole traders and non-profit institutions mostly serving households.

**Total net position** – the sum of the net balance-sheet position and net off-balance-sheet position.

**VSTOXX** – an indicator of implied volatility for the Dow Jones EURO STOXX 50 index, derived from options in this index. The higher the value, the higher the level of volatility.
# Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APCDVPPI</td>
<td>year-on-year percentage change in daily values of pension points</td>
</tr>
<tr>
<td>b.p.</td>
<td>basis point</td>
</tr>
<tr>
<td>CDS</td>
<td>Credit Default Swap</td>
</tr>
<tr>
<td>CI</td>
<td>collective investment</td>
</tr>
<tr>
<td>CLI</td>
<td>composite leading indicator</td>
</tr>
<tr>
<td>CR n</td>
<td>index of the concentration of n largest institutions</td>
</tr>
<tr>
<td>CZK</td>
<td>Czech koruna</td>
</tr>
<tr>
<td>ECB</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>ETF</td>
<td>exchange-traded fund</td>
</tr>
<tr>
<td>EUR</td>
<td>euro</td>
</tr>
<tr>
<td>EURIBOR</td>
<td>Euro Interbank Offered Rate</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>HHI</td>
<td>Herfindahl index</td>
</tr>
<tr>
<td>IRB</td>
<td>internal ratings-based (approach)</td>
</tr>
<tr>
<td>KZAM</td>
<td>Klasifikácia zamestnaní (employment classification)</td>
</tr>
<tr>
<td>LAR</td>
<td>loans at risk</td>
</tr>
<tr>
<td>LGD</td>
<td>loss given default</td>
</tr>
<tr>
<td>LI</td>
<td>life insurance</td>
</tr>
<tr>
<td>LTRO</td>
<td>longer-term refinancing operation</td>
</tr>
<tr>
<td>LTV</td>
<td>loan-to-value (ratio)</td>
</tr>
<tr>
<td>MTPL</td>
<td>motor third-party liability (insurance)</td>
</tr>
<tr>
<td>NAV</td>
<td>net asset value</td>
</tr>
<tr>
<td>NBS</td>
<td>Národná banka Slovenska</td>
</tr>
<tr>
<td>NLI</td>
<td>non-life insurance</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PFMC</td>
<td>pension funds management company</td>
</tr>
<tr>
<td>p.p.</td>
<td>percentage point</td>
</tr>
<tr>
<td>RBLG</td>
<td>Register of Bank Loans and Guarantees</td>
</tr>
<tr>
<td>ROA</td>
<td>return on assets</td>
</tr>
<tr>
<td>ROE</td>
<td>return on equity</td>
</tr>
<tr>
<td>SO SR</td>
<td>Statistical Office of the Slovak Republic</td>
</tr>
<tr>
<td>SPMC</td>
<td>supplementary pension management company</td>
</tr>
<tr>
<td>SR</td>
<td>Slovak Republic</td>
</tr>
<tr>
<td>Tier 1, Tier 2, Tier 3</td>
<td>types of capital measured for the purposes of capital adequacy ratios</td>
</tr>
<tr>
<td>ULC</td>
<td>unit labour cost</td>
</tr>
<tr>
<td>UPSVaR</td>
<td>Office of Labour, Social Affairs and Family</td>
</tr>
<tr>
<td>USD</td>
<td>US dollar</td>
</tr>
<tr>
<td>VaR</td>
<td>value at risk</td>
</tr>
</tbody>
</table>
LIST OF CHARTS AND TABLES
LIST OF CHARTS

Chart 1 Selected CDS spread indices
Chart 2 Principal equity indices and their volatility
Chart 3 Quarter-on-quarter real GDP growth in the euro area
Chart 4 Amount of lending in the euro area
Chart 5 US government bond yield curve
Chart 6 Assets and managed assets in the Slovak financial sector
Chart 7 Return on equity in the Slovak financial sector
Chart 8 Net position against parent groups and the Eurosystem
Chart 9 Composition of household financial assets
Chart 10 Distribution of cumulative returns on household financial assets in the financial sector
Chart 11 Annual performance of household financial assets and consumer prices
Chart 12 Loans to households – changes in outstanding amount in month-on-month and year-on-year terms
Chart 13 Changes in household demand for loans and in credit standards
Chart 14 Share of the three largest banks in new lending and in the change in the outstanding amount of loans to households
Chart 15 Trends in new consumer loans and in the month-on-month change in the outstanding amount of consumer loans to households
Chart 16 Actual and simulated interest rate on housing loans to households
Chart 17 Estimated amount of retail customers’ funds moved between banking groups
Chart 18 Retail euro deposits – changes in amount and composition
Chart 19 Sales, exports and economic sentiment
Chart 20 Corporate loans
Chart 21 Breakdown of changes in the outstanding amount of loans
Chart 22 Debt securities issued by selected countries as a share of the banking sector’s total holdings of debt securities
Chart 23 Mortgage bond coverage of mortgage loans
Chart 24 Average spreads and maturities of fixed-coupon mortgage bonds
Chart 25 Selected items of interbank assets and liabilities
Chart 26 Interest rates in the domestic interbank market
Chart 27 Profit composition changes
Chart 28 Factors affecting changes in net interest income and fee income for half-year periods
Chart 29 Credit risk costs compared with increase in non-performing loans
Chart 30 Capital ratios
Chart 31 Insurance premiums
Chart 32 Life insurance premiums
Chart 33 Benefits paid as a share of technical provisions in unit-linked insurance
Chart 34 Non-life insurance premiums
Chart 35 The loss ratio, cost ratio and combined ratio in motor vehicle insurance
Chart 36 Benefits/claims paid
Chart 37 Benefits paid in life insurance
Chart 38 Average benefits paid in life insurance
Chart 39 Average claims paid in non-life insurance
Chart 40 Reinsurance
Chart 41 Composition of technical provision investments as at end-June 2013
Chart 42 Composition of technical provision investments broken down by change in components
Chart 43 Total profit of the insurance sector and its distribution across insurance companies
Chart 44 Decomposition of the solvency margin in 2012
Chart 45 Aggregate net asset value of PFMC funds broken down by fund category
| Chart 46 | Composition of the PFMC funds' asset portfolio broken down by type of fund and type of investment | 42 |
| Chart 47 | Current pension-point value for different fund types | 44 |
| Chart 48 | Composition of funds' assets by type of investment and type of fund | 45 |
| Chart 49 | Net asset value of investment funds sold in Slovakia | 47 |
| Chart 50 | Net asset value of investment funds managed by domestic management companies | 48 |
| Chart 51 | Net asset value by category of investment fund as at 30 June 2013 | 48 |
| Chart 52 | Changes in the amount of assets under management in the first half of 2013 broken down by fund category | 49 |
| Chart 53 | Net sales of domestic investment funds by fund category | 49 |
| Chart 54 | Asset composition of domestic investment funds by fund category | 50 |
| Chart 55 | Average annual return on investment funds broken down by fund category | 50 |
| Chart 56 | Breakdown of transactions by investment instrument | 52 |
| Chart 57 | Amount of customer assets managed by licensed entities | 52 |
| Chart 58 | New housing loans broken down by initial rate fixation period | 55 |
| Chart 59 | Loan-to-value ratio | 55 |
| Chart 60 | Inflow and total number of jobseekers | 55 |
| Chart 61 | Employment in selected sectors | 56 |
| Chart 62 | Non-performing loan ratios in selected loan categories | 56 |
| Chart 63 | Changes in the credit quality of housing loans and consumer loans | 56 |
| Chart 64 | Outstanding amounts of NPLs broken down by sector | 57 |
| Chart 65 | Bonds issued by higher-risk countries as a share of total assets | 60 |
| Chart 66 | Selected interest rates | 61 |
| Chart 67 | Guaranteed interest rate versus actual return | 61 |
| Chart 68 | Distribution of the insurance sector's coverage of guaranteed returns with actual returns | 61 |
| Chart 69 | Profile of insurers' bond portfolio maturities | 62 |
| Chart 70 | Decline in income from bonds and time deposits where interest rates remain low over the long-term horizon | 62 |
| Chart 71 | Risk parameters in the PFMC funds' portfolio | 63 |
| Chart 72 | Distribution of the duration of bank-held bonds broken down by portfolio type | 64 |
| Chart 73 | VaR across financial market segments | 65 |
| Chart 74 | VaR of PFMC funds | 65 |
| Chart 75 | VaR of mutual funds and of assets invested under unit-linked insurance policies | 65 |
| Chart 76 | Composition of liquid assets across individual banks | 66 |
| Chart 77 | Annual GDP growth – Baseline and stress scenarios | 70 |
| Chart 78 | Average annual inflation – Baseline and stress scenarios | 70 |
| Chart 79 | Aggregate capital adequacy ratio of the banking sector under different scenarios | 71 |
| Chart 80 | Projected profit/loss of the banking sector under different scenarios | 72 |
| Chart 81 | Main factors affecting the level of own funds under different scenarios | 72 |
| Chart 82 | Stressed losses of the banking sector broken down by risk type | 72 |
| Chart 83 | Impact of the Baseline scenario and stress scenarios on PFMC funds | 73 |
| Chart 84 | Impact of the Baseline scenario and stress scenarios on SPMC funds | 73 |
| Chart 85 | Impact of the Baseline scenario and stress scenarios on collective investment funds | 74 |
| Chart 86 | Impact of the Baseline scenario and stress scenarios on the assets of insurance companies | 74 |
| Chart 87 | Additional expenses that the insurance sector would incur under the Baseline and stress scenarios | 75 |
### Analysis of the Slovak Financial Sector

#### Part 2

**List of Charts and Tables**

| Chart P1 | Manufacturing Purchasing Managers’ Index (PMI) in selected economies | 78 |
| Chart P2 | Services Purchasing Managers’ Index (PMI) in selected economies | 78 |
| Chart P3 | Consumer confidence indicators in the United States | 79 |
| Chart P4 | Economic sentiment indicators in the euro area | 79 |
| Chart P5 | Unemployment rate in selected economies | 79 |
| Chart P6 | Consumer price inflation in selected economies | 79 |
| Chart P7 | Industrial production indices in selected economies | 80 |
| Chart P8 | Industrial new orders indices in selected economies | 80 |
| Chart P9 | General government balances of EU countries in 2012 | 80 |
| Chart P10 | Gross government debt of EU countries in the first quarter of 2013 | 80 |
| Chart P11 | Price commodity indices | 81 |
| Chart P12 | Exchange rate indices | 81 |
| Chart P13 | Equity indices | 81 |
| Chart P14 | Share price indices of the parent undertakings of the 5 largest domestic banks | 81 |
| Chart P15 | Yield curve slope in selected economies | 82 |
| Chart P16 | Volatility of equity indices | 82 |
| Chart P17 | CDS spread indices | 82 |
| Chart P18 | CDSs of the parent undertakings of the largest Slovak banks | 82 |
| Chart P19 | 3-month rates and the OIS spread | 83 |
| Chart P20 | Inflation-linked swap prices | 83 |
| Chart P21 | Credit spreads on 5-year government bonds issued by stressed bonds with higher degree of risk | 83 |
| Chart P22 | Credit spreads on 5-year government bonds issued by central European countries and Germany | 83 |
| Chart P23 | Exports and the business environment | 84 |
| Chart P24 | Exports and corporate sales | 84 |
| Chart P25 | Sales in selected sectors compared with their level for the period June 2007 to June 2008 | 84 |
| Chart P26 | Labour productivity and wages in industry | 84 |
| Chart P27 | Interest rate spreads on new loans to enterprises | 85 |
| Chart P28 | Non-performing loans and default rates | 85 |
| Chart P29 | Loans at risk | 85 |
| Chart P30 | Debt-service burden by component | 85 |
| Chart P31 | Commercial real estate: prices and occupancy rates in the office segment | 86 |
| Chart P32 | Commercial real estate: sales in the residential segment – new apartments | 86 |
| Chart P33 | Comparison of non-financial corporation balance sheet and sales | 86 |
| Chart P34 | Liabilities of non-financial corporations | 86 |
| Chart P35 | Household indebtedness in Slovakia and in selected countries – total debt to disposable income ratio | 87 |
| Chart P36 | Changes in household financial assets | 87 |
| Chart P37 | Changes in the number of unemployed by income category | 87 |
| Chart P38 | Index of employment in selected sectors | 87 |
| Chart P39 | Index of employment expectations in selected sectors | 88 |
| Chart P40 | Index of real wages in selected sectors | 88 |
| Chart P41 | The consumer confidence index and its components | 88 |
| Chart P42 | Non-performing household loans | 88 |
| Chart P43 | Loan-to-value (LTV) ratio | 89 |
| Chart P44 | Housing affordability index | 89 |
| Chart P45 | Value at Risk for investments in different types of financial instruments | 89 |
| Chart P46 | Sensitivity to different risk types in the banking sector | 89 |
| Chart P47 | Sensitivity to different risk types in the PFMC funds’ sector | 90 |
| Chart P48 | Sensitivity to different risk types in the SPMC funds’ sector | 90 |
| Chart P49 | Sensitivity to different risk types in the collective investment sector | 90 |
| Chart P50 | Sensitivity of insurance companies’ assets to different risk types | 90 |
| Chart P51 | Loan-to-deposit ratio | 91 |
| Chart P52 | Liquid asset ratio | 91 |
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Selected financial relationships in the Slovak economy</td>
<td>20</td>
</tr>
<tr>
<td>Table 2</td>
<td>Aggregate net profit for the first half of 2013 broken down by year-on-year changes</td>
<td>29</td>
</tr>
<tr>
<td>Table 3</td>
<td>The loss ratio, expense ratio, and combined ratio in non-life insurance lines for the first half of 2013</td>
<td>37</td>
</tr>
<tr>
<td>Table 4</td>
<td>Annual return on pension funds as at June 2013</td>
<td>43</td>
</tr>
<tr>
<td>Table 5</td>
<td>Investments in debt securities of selected countries as a share of total assets</td>
<td>60</td>
</tr>
<tr>
<td>Table 6</td>
<td>Changes in the share of equity, foreign-exchange and interest-rate positions in different segments of the financial market</td>
<td>63</td>
</tr>
<tr>
<td>Table 7</td>
<td>VaR across financial market segments</td>
<td>66</td>
</tr>
<tr>
<td>Table 8</td>
<td>Impact of the Sovereign Crisis scenario on collective investment funds as at 30 June 2014</td>
<td>74</td>
</tr>
<tr>
<td>Table 9</td>
<td>Stress test parameters</td>
<td>76</td>
</tr>
</tbody>
</table>