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FOREWORD
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.

As one of the tools for assessing the stability of the Slovak financial sector, the Analysis should also be seen in the context of other NBS publications in the given area, particularly the Financial Stability Report and analytical data on the financial sector, all of which are published on the NBS’s website.

The aim of this report is to provide an overview of the current situation and developments in the domestic financial sector and to warn of potential risks. 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 last section supplements the text of the analysis with charts of selected macro-prudential indicators for the main risk areas in the financial sector.

This analysis evaluates the overall condition of the financial sector as at 31 December 2013, although in several parts it uses more recent data, where available. The analysis does not cover the exercise of supervision over particular institutions.
ANALYSIS
SUMMARY
**Analysis Summary**

2013 SAW THE ECONOMY PICK UP AND NO SIGNIFICANT FINANCIAL MARKET TURBULENCES

The euro area economy, a major part of the external environment of the Slovak financial sector, emerged from recession in 2013, with a majority of euro area countries reporting growth (albeit at diverse rates). This upturn was supported by a revival of private sector demand in the euro area as well as by signs of an end to negative trends in the labour market.

The improved economic situation in the euro area helped boost growth in the Slovak economy. Of particular note was the pick-up in manufacturing industry and construction, which stoked growth in investment demand.

Financial markets were relatively calm in comparison with the previous year, with no significant turbulence, although this situation was due in large part to supporting operations by central banks. Consequently, both credit spreads and the price volatility of riskier assets were relatively low, but at the same time less risky assets continued to provide meagre returns. This situation affected also the domestic financial market, as returns on investment funds, pension funds and unit-linked insurance products, although remaining positive, declined year-on-year.

Despite signs of recovery, the risks of the euro area economy deteriorating again remain significant and stem mainly from excessive levels of public and private sector debt as well as the possible overvaluation of certain riskier assets or currencies. It should be noted in this regard that the potential adverse impact of an increase in investor risk aversion could lead to a global decline in prices of riskier assets and in financial market liquidity. Deflation represents another risk, which could put further downward pressure on economic growth and diminish borrowers’ debt-servicing ability. Growth may also be constrained by the need for further fiscal consolidation measures.

Persisting concerns about the quality of assets in euro-area banking sectors are another cause of uncertainty. In 2014 a comprehensive assessment will be conducted, including asset quality review of euro area banks, as part of preparations for the banking union. Although this should enhance transparency, uncertainty remains about the level and the form of coverage of identified losses.

**Retail Loans Dominated the Domestic Lending Market, While the Downward Trend in Corporate Loans Did Not Begin to Moderate Until the End of the Year**

The most notable trend in the domestic banking sector was the continuing growth in retail loans, which at almost 10% was one of the highest rates in the EU. This stemmed mainly from low interest rates and stagnating property prices, which did much to increase the affordability of housing. The market share of small and medium-sized banks increased.

In contrast with the retail lending market, the amount of corporate loans maintained a downward trend. In the fourth quarter of 2013, however, the annual rate of decline in corporate lending moderated, as the partial economic recovery contributed to an increase in demand and to ending the gradual tightening of banks’ credit standards and margins. At the same time, the amount of loans provided to small and medium-sized enterprises started to increase year-on-year in the second half of 2013.

Other trends in the banking sector’s balance sheet included a further increase in retail deposits, although the share of sight deposits continued to increase at the expense of time deposits. The share of domestic debt securities in the banking sector’s portfolio fell slightly, but remains one of the highest ratios in the EU.

**Both the Profit and Capital Adequacy Ratio of the Banking Sector Increased**

The total profit of the banking sector increased again year-on-year in 2013, after falling in 2012. This increase was largely attributable to the still
relatively strong growth in retail loans which resulted mainly in an increase in banks’ net interest income. Although there was also a higher rise in non-performing loans and an increase in credit risk costs in the retail sector, this negative trend was offset by a decline in these costs in the corporate loan portfolio. Since the rate of loan-loss provisioning did not significantly lag the change in amount of non-performing loans (NPLs), the domestic banking sector continued to report relatively robust coverage of bad loans. The significance of the share of collateral in that coverage increased in 2013, thus allowing certain banks to reduce their loan-loss provisions.

A positive trend in the Slovak banking sector is the continuing increase in its capital adequacy ratio, which rose to 17.2% in 2013. That is higher than the euro area average and matches the average of other banking sectors in central and east European EU Member States. Nevertheless, the actual amount of capital in the domestic banking sector declined, owing to the transformation of one of the largest banks (UniCredit) into a branch of a foreign bank.

Thanks to the capital adequacy ratio and the ability of banks to generate net interest income, the banking sector would be resilient to adverse developments in the economy and financial markets. In such case, according to the results of macro stress tests, the banking sector would need additional capital equivalent to 0.2% of own funds in order for all banks meet the capital requirement of 8%.

Although overall credit risk costs fell moderately, the risk of them rising again remains present in both the retail and corporate sectors

Given the persisting economic risks, the most significant downward risk to the banking sector’s profitability is a deterioration in credit portfolio quality and increase in credit risk costs. In this context, the situation in 2013 cannot be said to have become significantly worse or better. Although the absolute amount of increase in non-performing corporate loans moderated year-on-year, that was largely because of their higher amount in 2012, when several major individual projects failed. While the corporate sector did experience several positive trends, including increases in sales and investment activity, a number of segments have still not rebounded to their pre-crisis level.

On the other hand, in the retail sector, growth in the amounts of NPLs and credit risk costs increased, although the ratio of NPLs to total loans declined thanks to strong lending growth. The main risk is the high rate of unemployment, which is also preventing stronger growth in domestic demand. Here, too, however, there were signs of improvement, particularly in the middle- and higher-income categories.

In the insurance sector, life insurance grew while non-life insurance was adversely affected by trends in motor insurance

The insurance sector saw no change in its aggregate profit and contrasting trends between life and non-life insurance. In life insurance, the overall amount of premiums increased. The principal risk in this sector is the ability of insurers to cover the returns guaranteed in insurance policies while investment returns on less risky assets remain depressed. Furthermore, the insurance sector is increasingly exposed to the ramifications of having to reinvest funds from the steady stream of maturing bonds that were purchased at a time of higher yields.

In the non-life insurance sector, both the technical result and premiums declined, due mainly to developments in motor third-party liability insurance and comprehensive motor vehicle insurance, including further falls in the average premium per policy and increases in the loss ratio, cost ratio and combined ratio. In the case of most insurers, the value of the combined ratio for comprehensive motor vehicle insurance increased beyond the point of profitability. In property insurance, the third largest line of non-life insurance, premiums increased and costs fell.

Second pillar (PFM) pension funds underwent substantial changes in the their portfolio composition and riskiness, as well as in the distribution of assets between different types of funds

The old-age pension saving scheme underwent substantial changes in 2013. As a result of legisllative amendments that cancelled the obligation to guarantee equity and mixed funds and
extended the performance assessment period, there was a major shift in the riskiness and potential returns of pension funds, particularly mixed and equity funds. The sector as a whole saw an increase in exposure to all principal types of market risk. For savers, however, the range of investment options in this sector became significantly broader. Due to the legislative changes there was at the same time substantial switching of savers, and their pension assets, between different types of pension fund. As from the beginning of May, more than 90% of second-pillar savers were enrolled in guaranteed bond pension funds.

In the third-pillar supplementary pension scheme, the number of participants and net asset value both increased. The composition of supplementary pension (SPMC) funds remained largely unchanged. As regards their risk exposure, moderate increases were observed in interest rate risk and foreign exchange risk, especially in growth funds.

**Inflow into investment funds rose sharply**
The amount of assets under management in the collective investment sector increased quite markedly in 2013. The sector’s net asset value climbed by a fifth, to record its highest annual rise since 2007, the year before the crisis started. This increase was driven mostly by positive net sales of investment funds to end investors, and only to a lesser extent by investments from banks. As in 2012, the largest inflows were observed in domestic special funds, specifically in public special real estate funds and public special securities funds. Investment in standard funds also picked up in 2013, after falling in the previous year.
MACROECONOMIC DEVELOPMENTS IN REGARD TO FINANCIAL SECTOR STABILITY
Chapter 1

MACROECONOMIC DEVELOPMENTS IN REGARD TO FINANCIAL SECTOR STABILITY

Mild Economic Recovery in Most Euro Area Countries
Economic conditions improved moderately in 2013, particularly in advanced economies. Importantly for Slovakia, the euro area was among the economies that picked up. In 2013 as a whole, as in the previous year, the euro area economy contracted, but in the second quarter it began to emerge from its one-and-a-half year long recession. At the same time, however, its quarter-on-quarter growth was very modest, and the nascent recovery remains highly susceptible to any shock.

Almost all euro area countries saw an economic improvement in 2013, particularly in the second half of the year, although growth rates remain divergent between countries. In the first quarter of 2013 nearly two-thirds of all euro area countries recorded negative GDP growth, whereas in the last quarter only three did so. In Italy and Spain, two large periphery economies, GDP began to increase slowly in the second half of the year after an extended negative trend, while Portugal's growth surpassed expectations in the last quarter.

Another aspect of the euro area's ongoing recovery is the important role of domestic demand. All components of domestic demand made a positive contribution to overall economic growth in the third quarter of 2013, in contrast with their performance during the previous period of recession.

In the labour market, too, initial signs of improvement appeared. In the second quarter of 2013, the unemployment rate's long-running upward trend came to an end, and towards the year-end the number of unemployed people even began to decline – not only in the euro area as a whole, but also in some periphery countries. This, however, still does not alter the fact that unemployment remains elevated in several countries.

Markedly lower inflation in energy and food prices in the context of a negative output gap had a disinflationary impact on the euro area during 2013. At the end of the year, the inflation rate slowed to 0.8% in year-on-year terms, which is far below the medium-term inflation target of the ECB. According to estimates by the ECB and European Commission, inflation is expected to begin increasing gradually; this, in NBS’s view, is positive since any deflation would not only have a direct adverse effect on economic activity through deferred consumption and investment, it would also greatly complicate deleveraging in the public and private sectors by increasing the real value of debt to be repaid.

So far, almost all forward-looking indicators suggest that economic growth in euro area should strengthen at the beginning of 2014, although they differ in their indications of the extent of its acceleration. The official forecasts of the European Commission and ECB each assume that GDP in 2014 will increase by 1.2%.
In 2014 for the euro area, external demand is expected to be largely coming from the United States, where activity picked up with increasing momentum in the previous half-year. On the other hand, some significant emerging countries show signs of emerging problems related to the accumulation of macroeconomic imbalances and to the neglect of structural reforms. Should the situation in these countries continue to deteriorate, the consequences for euro area exports could be significantly adverse.

Financial markets were relatively stable and prices of riskier assets increased
A key factor allowing the euro area economy to return to growth was the relative stability of financial markets, which supported a gradual return of confidence in the private sector. European markets did not experience any significant turbulence during 2013. Europe was not unduly affected even by the buffeting of global financial markets in May and June, triggered by the US Federal Reserve. In the second half of the year European markets, particularly equity markets, saw a substantial inflow of capital from other parts of the world, which pushed up their price indices. At the same time, risk premia declined across a broad range of bond markets, including markets in government bonds of euro area periphery countries. European markets also remained calm amid the recent rise in volatility associated with emerging countries.

Demand in the euro area for riskier assets was supported not only by the improving economic climate, but also by the extended period of low interest rates. In 2013 the ECB twice reduced its key interest rate, which from November stood at only 0.25%. In several asset classes there are signs that price growth was driven more by increased demand from investors searching for yield than by a commensurate improvement in real economic fundamentals. If it is the case that assets were actually overvalued, then their prices will have to correct downwards sooner or later. Yields on government bonds of stressed euro area countries may also increase if these countries backslide on reform efforts or if there is a sudden global rise in risk aversion.

Despite wholesale funding becoming more accessible to banks in euro area periphery countries, lending activity remained subdued
The relative stability of the euro area banking sector in 2013 was supported also by growing risk appetite among investors. As demand increased, wholesale funding became more accessible to banks in euro area periphery countries and, in addition, the costs of such funding declined. Nevertheless, funding costs for periphery banks are still far higher than those for banks in other euro area countries. Bank profits remain relatively low across the euro area, owing largely to the rising amount of non-performing loans. Efforts to reduce fragmentation of the banking system and establish a uniform and effective banking market in the euro area remain constrained by uncertainty surrounding the quality of the asset-side of balance sheets, at the level of both national sectors and individual banks. This situation is expected to be changed significantly by the ECB’s comprehensive assessment of banks, including an asset quality review, in advance of the launch of the ECB-led Single Supervisory Mechanism.

The lessening of constraints on banks’ access to funding did not, however, translate into a revival of lending to the real economy in the euro area. The annual rate of change in the outstanding...
amount of loans to non-financial corporations was negative throughout 2013 and became more negative as the year progressed. The bulk of this deleveraging occurred in the banking sectors of periphery countries. Nevertheless, according to the latest Bank Lending Survey, the credit cycle may be nearing a turning point since the tightening of banks’ credit standards for corporate loans has been minimal in the recent period.

The Slovak economy showed signs of picking up in late 2013

Slovakia’s GDP growth for 2013 was 0.9%, which was one of the lowest rates since 2009. However, the quarter-on-quarter growth rates (seasonally adjusted) suggest that economic activity reached the bottom of the cycle in 2012 and has since been gradually recovering. GDP growth in the last quarter of 2013 was somewhat higher than in the previous three quarters, indicating that the recovery may be steadily gaining momentum.

One of the sectors providing grounds for optimism for future development is manufacturing production. In the first eight months of 2013 the annual rate of change in manufacturing production was positive albeit not exceeding 5% on average. From autumn onwards, however, it increased sharply and in December stood at 16.5%. This was again due to significant ramping up of car production, apparently supported by the recent pick-up in European car markets. Another positive development was that industrial producers’ sales began to increase later in the year, after remaining flat during the first six months despite rising production.

In the construction sector, production began to rebound in the second half of 2013 after a long period of decline. This contributed positively to the stronger economic growth observed in the later part of the year. Given, however, the slump that the construction sector has endured in recent years, its quarter-on-quarter growth of 2.5% constitutes no more than modest catch-up.

Expectations for the Slovak economy were further improved by ‘soft’ indicators. The European Commission’s Economic Sentiment Indicator (ESI) climbed almost continuously from the second half of 2013 and by January 2014 it was close to its long-run average. Despite dropping in February, the ESI remains at a level that points to the continuance of economic growth in Slovakia over coming quarters.

Looking at the demand-side of the economy, no clear trends in the composition of growth were observed in the first three quarters of 2013. GDP growth in the first and third quarters was driven by changes in inventories and government consumption, while fixed capital formation, household final consumption and exports made negative contributions. These growth dynamics in the second quarter were exactly the opposite. In the last quarter exports increased, in line with improving economic developments in the euro area, particularly in Germany, and increased manufacturing production.

Although real wage growth increased as a result of low inflation, households took a cautious approach to consumption in 2013, keeping it at the same level as in the previous year. However, retail sales growth later in 2013 suggests that household final consumption may be accelerating.

A significant factor behind the stagnation in private consumption was the labour market. Employment continued to decline at an appre-
ciable rate in the first half of 2013 and did not stabilise until the third quarter. In the fourth quarter employment increased slightly. According to NBSS projections, consumer price inflation should remain low in 2014, at an average of only 0.6%; this, however, will support real wage growth and thus create scope for consumption growth.
INTEGRATED OVERVIEW OF THE FINANCIAL SECTOR
2 INTEGRATED OVERVIEW OF THE FINANCIAL SECTOR

ASSET GROWTH REPORTED IN MOST FINANCIAL MARKET SEGMENTS
Financial corporations reported favourable figures for assets and assets under management in 2013. All segments apart from investment firms reported year-on-year growth in assets or assets under management. Although the annual growth rate of assets and assets under management in the Slovak financial sector was the same as the year before, the growth in 2013 was more evenly spread between segments.

In the second pension pillar, asset growth was significantly lower in 2013 than in the previous year owing mainly to legislative amendments. Collective investment funds, on the other hand, enjoyed unprecedented asset growth. Households substantially increased their holdings of investment fund shares/units, while growth in bank deposits slowed sharply, especially during the first half of the year. Banks nevertheless maintained their dominant position in the financial market with a share of more than 70% of total assets. Upward trends were also observed in sectors not regulated by NBS, namely leasing, factoring, and consumer credit.

PROFITS ROSE IN MOST SECTORS
As assets and managed assets grew, the profit of the Slovak financial sector improved. The banking sector’s profit growth was largely attributable to lending growth and lower credit risk costs; nevertheless, its return on equity was still lower than it was in 2010 and 2011 and it is significantly below pre-crisis levels. In the insurance sector, the change in profit was only moderate and reflected one-off factors (e.g. the revaluation of participating interests in subsidiaries).

The aggregate profit of pension funds management companies (the second pension pillar) increased slightly in 2013, thus maintaining its upward trend of the previous two years.

BOTH CORPORATE AND HOUSEHOLD CREDIT RISK PARTIALLY MODERATED
The tentative improvement in the macroeconomic environment had a positive effect on the corporate and household sectors. The household sector benefited from an easing of labour market tensions, notably a decline in the number of job seekers. But although such trend points...
The corporate sector also responded to the brighter macroeconomic environment, most notably through increases in sales, business confidence, and new orders. Nevertheless, the quality of the corporate credit portfolios did not improve significantly. On the one hand, the amount of loans that defaulted was lower in 2013 than in the previous year, but, on the other hand, the ratio of non-performing loans increased as the total amount of loans.

**Market risks increased especially in PFMC funds**

Looking at the exposure of the domestic financial sector to market risks, the most marked change was the escalation of risk in second-pillar pension funds managed by pension funds management companies (‘PFMC funds’). This was largely the result of legislative amendments, including the cancellation of mandatory guarantees in all funds other than bond funds and the extending of the performance assessment period for those funds that remained guaranteed. Owing to these changes, the exposure of mixed funds and equity funds to equity risk increased substantially. As a component of the sectoral portfolio, equities and fund shares/units increased from 6% in 2012 to 10% in 2013. Bond funds also became more risky, however, since their duration was markedly increased by the lengthening of the average

**Table 1 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>Equities and investment fund shares/units</th>
<th>Foreign exchange positions</th>
<th>Share of debt securities</th>
<th>Duration of bond securities</th>
<th>Duration of the whole portfolio</th>
<th>Residual maturity of debt securities</th>
</tr>
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<tr>
<td></td>
<td>XII.12</td>
<td>XII.13</td>
<td>XII.12</td>
<td>XII.13</td>
<td>XII.12</td>
<td>XII.13</td>
</tr>
<tr>
<td>Banks</td>
<td>0.3</td>
<td>0.4</td>
<td>0.1</td>
<td>0.2</td>
<td>23.4</td>
<td>22.3</td>
</tr>
<tr>
<td>Insurers</td>
<td>1.4</td>
<td>2.8</td>
<td>0.8</td>
<td>0.7</td>
<td>72.7</td>
<td>74.7</td>
</tr>
<tr>
<td>PFMC funds</td>
<td>6.0</td>
<td>10.3</td>
<td>2.4</td>
<td>3.1</td>
<td>68.7</td>
<td>67.4</td>
</tr>
<tr>
<td>SPMC funds</td>
<td>19.2</td>
<td>20.0</td>
<td>13.1</td>
<td>8.7</td>
<td>64.8</td>
<td>66.9</td>
</tr>
<tr>
<td>Collective investment</td>
<td>20.6</td>
<td>23.6</td>
<td>12.2</td>
<td>15.3</td>
<td>31.6</td>
<td>25.9</td>
</tr>
<tr>
<td>Unit-linked insurance</td>
<td>77.0</td>
<td>74.3</td>
<td>13.2</td>
<td>11.8</td>
<td>21.7</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Source: NBS, 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.
residual maturity of the bond portfolio. Thanks to these changes, pension funds offered savers a broader choice of investment strategies.

Changes in other segments were less significant. In the insurance sector, the average residual maturity and duration of the securities portfolio continued a decreasing trend. In contrast, third-pillar pension funds managed by supplementary pension management companies (‘SPMC funds’) saw both the share of bonds in their overall portfolio and the average residual maturity of the bond portfolio increase moderately, albeit without significantly affecting the sensitivity to interest rate risk. The exposure of collective investment funds to equity risk and foreign exchange risk increased.

Although financial markets became less volatile, the risk of tensions returning remains present

As mentioned in the previous section, financial markets were not affected by turbulence in 2013 to the extent that they had been in certain previous years. Asset price volatility towards the end of 2013 was relatively low, even in comparison with the previous year. Therefore, in most segments of the financial market, portfolio risk as measured by VaR decreased. Credit spread risk decreased the most, and equity risk and foreign exchange risk fell more moderately. Only among PFMC funds was the lessening of asset risk insufficient to offset the increase in risk exposures.

The impact of risks in adverse scenarios was assessed using macro stress testing

Despite the moderation of risks in most financial market segments, the possibility of a further escalation of uncertainty remains relatively significant. The main risk in this regard lies in the unwinding of expansive monetary policy measures by central banks, which could push credit spreads back up as well as lead to adverse effects on emerging countries’ financial markets and to a decline in prices of riskier assets. The impact of

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**Chart 7: VaR across financial market segments (%)**

- Foreign exchange risk
- Equity risk
- Credit spread risk
- Total risk

**Source:** NBS, Bloomberg, internet.

**Notes:** VaR was calculated as the worst expected loss over a period of ten working days at a confidence level of 99%.

1) The figure for insurers does not include assets covering unit-linked insurance policies and risks arising from the revaluation of provisions. Interest rate risk and foreign exchange risk include also indirect interest-rate and foreign-exchange risk, i.e. the risk to which individual institutions or funds are exposed through investments in investment fund shares/units.

**Chart 8: Distribution of the impact of macro-economic scenarios on the financial sector (%)**

- Median
- Weighted average
- Lower quartile
- Upper quartile

**Source:** NBS, RBUZ, ECB, Bloomberg.

**Notes:** The chart shows quartiles of the estimated profit/loss-to-asset ratio resulting from the application of the respective scenarios as at 31 December 2015. In the case of banks, the quartiles refer to the ratio of the total estimated net profit for the 2-year period under review to net assets as at 31 December 2013. The data for insurance companies include only the change in the fair value of assets and impact of insurance risks on their profitability. The stress testing does not include assets covering technical provisions for unit-linked insurance policies. Values are given as a percentage share of total assets (or NAV).
these risks was assessed using macro stress testing, and a summary of the stress scenarios and results is given in Section 6. As Chart 8 shows, PFMC funds would be the sector most adversely affected by conditions under the stress scenarios. However, the brunt of that impact would be borne by non-guaranteed funds, while the consequences for guaranteed funds would be relatively minor. Other sectors that would be exposed to a significant drop in asset value would be SPMC funds and collective investment funds with a higher-risk investment strategy.
3 THE BANKING SECTOR

3.1 TRENDS AND RISKS IN THE BANKING SECTOR’S BALANCE SHEET

3.1.1 LOANS AND CREDIT RISK

THE RETAIL SECTOR

LENDING GROWTH CONTINUED TO ACCELERATE IN THE RETAIL SECTOR; CUSTOMERS PREFERRED LOANS WITH A FIXATION PERIOD OF OVER ONE YEAR

The volume of retail loans continued growing in 2013, with the growth rate accelerating to the level of mid-2011. In year-on-year terms, retail lending increased by €1.78 billion (9.5%), while consumer loans and housing loans had grown equally by 11.7% by end-December 2013.

The market share of large banks decreased in favour of small and medium-sized banks throughout the year, especially over the first six months. The portfolio of foreign bank branches expanded by one third.

Retail lending continued to be dominated by loans with fixation period of one to five years, while loans with a fixation period of up to one year declined somewhat. In view of the high share of loan refinancing (around 35% of new lending), the preference for longer fixation periods can be partly explained by the attempt of borrowers to prolong the period of advantageous retail financing.

REAL ESTATE LOANS GREW AT A FASTER PACE AND SOME OF THE BANKS ACTIVELY INCREASED THEIR MARKET SHARE

The rate of growth in real estate loans accelerated, but then slowed somewhat in the middle of the year. The trend from the first half-year period continued at the end of 2013. The dynamic growth in real estate loans may be partly explained by the historically low interest rates. Another partial reason is the stagnating or slightly falling property prices, which stimulate demand in the real estate market and consequently demand for real estate loans.

Some of the banks, especially medium-sized banks, increased their market share in the first half of 2013 (using below-average rates), but then lost their lead in the second half of the year. To attract more customers, these banks used various instruments, including lower interest rates. Certain banks offered loans with a higher loan-to-value (LTV) ratio to increase their market share. Overall, the source of competitive pressure was concentrated in a relatively small number of banks.

CONSUMER LOANS INCREASED, COMPETITION PRESSURES INTENSIFIED IN SEVERAL BANKS ONLY

The growth in consumer loans accelerated over the first six months, then returned to the level of 2012 in the second half-year period. Demand for consumer loans showed a positive tendency throughout 2013, while credit standards were changed to a minimum extent only. The increase in the market share in new loans of certain banks was ascribable to the low interest levels, similarly as in other segments.

THE SHARE OF NON-PERFORMING LOANS DECREASED, BUT THEIR AMOUNT INCREASED CONSIDERABLY

The share of non-performing loans in total loans followed the decreasing trend that start-
ed in the middle of 2010, and reached 4.2% in December 2013. This decrease, however, was caused exclusively by the denominator, i.e. the outstanding amount of loans, because the amount of non-performing loans, including write-offs and sales, increased by as much as €42 million in 2013.

The increase in the amount of non-performing loans was not a sectorwide phenomenon, because it was only observed in some of the banks. Hence, the increase in the amount of non-performing loans was probably caused by factors that are specific to individual banks.

The share of non-performing real estate loans remained unchanged, at 3%, as well as the rate of growth in their amount. The share of non-performing consumer loans decreased to 7.5%, but their amount increased in the second half-year period by as much as 8%.

Credit risk was favourable affected by the positive trend in unemployment
The trend in loan defaults is closely connected with the trend in unemployment. In year-on-year terms, the number of registered job seekers increased slightly in the first half of the year, then trend changed and the rate of increase gradually slowed to 13.5% as at end-December 2013.

In terms of credit risk, an important factor is the number of new job seekers, who may run into loan repayment problems due to loss of employment. Their falling number during the year can be assessed as a positive trend from the view of credit risk. It is important that a falling trend was also recorded in the higher and medium-income categories, from which the majority of banking sector’s borrowers come from.

The average LTV ratio remained unchanged, but its distribution represented a certain risk
The average loan-to-value (LTV) ratio of new loans, i.e. the ratio between the amount of loans and the value of assets pledged as security, remained at the level of 71% in 2013, but some of the banks provided loans with an LTV ratio of over 85% (more than 40% of the new loans).

The provision of loans with a high LTV ratio increases the potential loss in the event of loan default. The trends observed, however, are to be examined in the context of other risks, including the risk of change in property prices. Amidst rising property prices, it is natural for the value of loan collateral to rise, too. Under such conditions,
the LTV ratio of a loan is falling during its maturity period, even if loan repayment is left out of consideration. At the present time, however, property prices are stagnating or falling slightly, and thus the value of collateral is declining, too. The risk arising from the provision of such loans is therefore more pronounced.

Another source of risk is competition between banks and a possible increase in the LTV ratio aimed at attracting new customers despite the increased risk. Although there are no signs of an increase in this risk across the sector, the provision of loans with a higher LTV ratio indicates that there are long-term competition pressures in this area.

DEPOSITS CONTINUED TO GROW AT A SLACKENING PACE, ESPECIALLY TIME DEPOSITS
Retail deposits grew by almost 2.8%, which was approximately 50% less than in 2012. The rate of growth had been gradually slackening since the beginning of 2012. On average, large banks recorded a year-on-year increase of 1.7%, while small and medium-sized banks reported a steeper increase (7.7%) than in 2012, mainly as a result of higher interest rates.

Looking at the breakdown of deposits by type, a certain deviation can be observed in the case of time deposits, which grew in year-on-year terms only slowly, then declined in the second half-year period, except for daily time deposits. Developments in the individual banks were closely connected with the interest rates offered.

Sight deposits grew at an average pace of 8% year-on-year throughout the year under review. Savings deposits, which represent the smallest category, grew by more than 40%, while this growth actually took place in two banks.

The negative trend in time deposits may be attributed to several causes. First, the low interest rates offered to customers do not represent a sufficient compensation for the shortage of liquidity. Hence, customers prefer to keep their savings in deposits, e.g. savings deposits, or to keep them on low interest-paying sight deposit accounts. Another partial explanation is the preference for collective investment, which is considered to be an investment alternative to time deposits. The third partial explanation is the weakening competition pressure, and smaller effort on the part of banks to attract new customers or to maintain the existing ones.

THE CORPORATE SECTOR

THE OVERALL SITUATION IN THE CORPORATE SECTOR IMPROVED SLIGHTLY
In the context of improving macroeconomic indicators, economic activity in the corporate sector started to recover moderately in the second half of 2013. This trend intensified towards the end of the year, when, for the first time in the last two years, even the construction sector recorded a year-on-year rise in revenues. This was due mainly to an increase in production in civil engineering construction, which recorded a sharp decline in 2012 and 2013. The improving situation in the corporate sector was also reflected in the indicators of economic sentiment and business confidence, which steadily increased in the second half of the year.

Although all the key sectors recorded a year-on-year rise in revenues at the end of 2013, numerous sectors remained well below their pre-crisis level in terms of output, especially construction, trade, motor vehicle sales, and accommodation and food service activities.

DEMAND FOR LOANS INCREASED SLIGHTLY, THOUGH LENDING CONDITIONS HAD NOT BEEN EASED
The improving situation in the corporate sector led to a modest increase in demand for loans. According to a survey of supply and demand in the loan market, large enterprises also showed increased demand for long-term investment loans. On the other hand, banks continued to perceive the situation as unstable and remained concerned about economic developments in the period ahead. Hence, lending conditions were kept relatively tight. The caution exercised by banks when assessing the economic situation was also reflected in the interest margins, which were higher than in 2012.

THE OUTSTANDING AMOUNT OF LOANS CONTINUED DECLINING, THOUGH AT A SLOWER PACE, WHILE GROWING IN SOME OF THE SEGMENTS
The aforementioned modest pick-up in demand did not lead to a general revival in bank lending. The volume of loans declined in year-on-year terms throughout 2013, in line with the downward trend continuing for 19 months. Thus, the
significance of lending to enterprises in the activities of domestic banks continued to diminish. The share of corporate loans in the overall loan portfolio decreased during 2013 from 40% to 37%.

The volume of loans decreased in the majority of sectors. On the other hand, the contrast between the long-term decline in loans in industry and the upturn in lending activity in agriculture and transport deepened in the second half of the year.

From the view of the flow of loans, however, it is positive that the rate of decline in the loan portfolio slowed somewhat in 2013 as a consequence of the above-mentioned combination of changes in the sectors under review. The volume of loans granted to small and medium-sized enterprises grew in year-on-year terms in the second half of the year. The trend of lending for the refinancing of existing loans continued in the second half of the year.

The amount of bank guarantees provided to corporate entities recorded an increase

Apart from the said slowdown in the pace of decline in corporate loans, the banking sector recorded an increase in exposures to this sector in the form of guarantees provided in the second half of 2013. The amount of guarantees increased in that period from €1.7 billion to €2.0 billion, after being broadly stable during 2012 and the first half of 2013.

Corporate deposits increased mainly in the second half of the year

After uncertain developments in deposits over the first half of 2013, the volume of deposits began to grow considerably in the second half-year period. The growth in deposits was in all probability connected with the growth in revenues, which generated an increase in the liquid assets of enterprises.

At the same time, the decline in lending to the corporate sector, accompanied by growth in deposits, led to a steady decrease in the proportion of loans to deposits. This proportion in December 2013 dropped to its lowest level recorded since the middle of 2008. This development has improved the financial position of the corporate sector as a whole and contributed to the balance-sheet stability of domestic banks in terms of long-term liquidity.

The loan repayment capacity of enterprises was positively affected by several factors

The second half of the year saw an improvement in some of the corporate sector’s performance indicators. An important factor was the improved export performance, but the growing domestic consumption also made a positive contribution. The growing revenues amidst the persistently low interest rates and declining lending moderated the credit burden of the corporate sector as a whole. The indicators of confidence and new industrial orders also signalled a certain improvement. The diminishing macroeconomic risks were also reflected in the credit standards, which, after more than two years, were no longer tightened in the second half of 2013. The unchanged credit standards and the relatively stable margins indicate that the credit risk has stabilised to some extent from the viewpoint of banks.

Loan portfolio quality remained virtually unchanged

Although the tension in the corporate sector’s financial situation had eased to some extent, loan portfolio quality did not improve substantially, though credit risk costs fell on a year-on-year basis. This was due to the favourable trend in the amount of non-performing loans, which decreased by 39% year-on-year in 2013. As a result of a fall in the outstanding amount of loans,
however, the share of non-performing loans increased during the year, from 7.5% to 8%. This was due in large part to an increase in the share of non-performing loans in the commercial real estate and construction sectors in certain banks. Excluding these sectors, the share of non-performing loans was stable in 2013.

3.1.2 SECURITIES

THE VOLUME OF SLOVAK GOVERNMENT BONDS FELL IN THE SECOND HALF OF 2013

The banking sector’s securities portfolio underwent only minor changes during 2013. Although Slovak government bonds and Treasury bills still formed a substantial part of the portfolio, their amount was falling steadily over the second half-year period. The total amount of Slovak government bonds and Treasury bills stood at almost €12 billion as at end-2012 and at more than €12 billion as at end-June 2013; this figure remained below €11 billion as at end-2013. The total amount of Slovak Treasury bills stood at less than €10 million, the lowest level since September 2008. The amount of these securities fell in all large banks.

The amount of foreign government bonds had grown slightly by the end of the year, as a result of increased investment in Italian government bonds by some of the banks.

MORTGAGE BONDS MAINTAINED THEIR DOMINANT SHARE OF THE SECURITIES ISSUED

Debt securities issued during 2013 continued to be dominated by mortgage bonds. The growth in new mortgage bond issues exceeded the growth in mortgage loans. Hence the amount of mortgage loans as a percentage of the amount of mortgage bonds increased somewhat. The issues were dominated by fixed-coupon mortgage bond issues. The average yield offered decreased gradually over the first three quarters in line with the trend in government bond yields, which resulted in stable interest rate spreads between mortgage bond yields and Slovak government bond yields. This indicates that the risks involved in these bonds remained virtually unchanged in comparison with those in Slovak government bonds.

While the previous analyses identified a decreasing trend in the share of mortgage bonds in the portfolio of domestic financial corporations, the current analysis shows that this trend has come to a halt, at least for a short time. The share of mortgage bonds dropped from almost 60% as at end-2008 to less than 40% as at end-2012. This was followed by stagnation in 2013 and a minimal increase at the end of the year.

3.1.3 INTERBANK MARKET

THE VOLUME OF INTERBANK OPERATIONS WAS AFFECTED MAINLY BY THE PARTIAL REPAYMENT OF FUNDS BORROWED UNDER THE ECB’S THREE-YEAR REFINANCING OPERATIONS

The volume of interbank operations was affected greatly, particularly at the beginning of the year, by the repayment of the funds borrowed under the ECB’s three-year refinancing operations. Banks had had these funds at their disposal since December 2011 or since March 2012. Banks repaid approximately three quarters of these funds in 2013. From the view of financial stability, it is important that the repayment of these funds did not affect substantially the ability of banks to finance the real economy.

Other interbank operations were, as in the previous years, rather volatile in 2013 and compensated for the changes in the other volatile balance-sheet components of banks (mainly funds and loans provided to the corporate and general government sectors). The total amount of de-
posits kept with the ECB showed an interesting tendency: it increased to almost €1.3 billion as at end-December 2013, the highest amount recorded since May 2012 (before the bank levy was introduced).

The implied interest rates remained in the band delimited by the 1-week and 12-month EURIBOR rates, though funds from both domestic and foreign banks increased at the end of the year.

### 3.1.4 Market Risks and Liquidity Risk

**The potential negative impact of rising interest rates on banks’ net interest income increased**

Some of the trends in the Slovak banking sector observed in 2013 contributed to the slightly rising vulnerability of banks to interest rate risk. As a result of an increase in the share of retail loans with longer fixation periods, the duration of the loan portfolio increased from 1.34 to 1.40 years. At the same time, the duration of the securities portfolio increased from 3.16 to 3.54 years. On the other hand, the duration of customer deposits decreased from 0.51 to 0.45 years, owing to the gradually diminishing significance of time deposits. This means that the time horizon of the impact of potential interest rate changes would increase on the asset side and decrease on the liability side, which would increase the probability of an unfavourable impact occurring, mainly in the case of an interest rate rise. The impact of this risk could, however, be moderated by an increase in the interest margin on the part of banks. The overall duration of banks’ balance sheets, including interest rate derivatives, increased slightly in year-on-year terms, from 1.62 to 1.72 years. Changes of the same nature were also recorded in the domestic banking sector in 2012.

**Large exposures**

The total amount of exposures to a single customer or to a group of connected customers, exceeding 10% of the bank’s own funds, decreased only slightly at the sectoral level in 2013 (by 2%), as well as in the majority of banks. This was caused by the above-mentioned declining trend or stagnation in the market for large corporate loans.

### 3.2 Financial Position of the Banking Sector

#### 3.2.1 Profitability

The total net profit of the banking sector increased by 12% year-on-year, to €549 million in 2013. At the pre-tax level, the sector’s profit increased by as much as 24% year-on-year. This increase was caused primarily by an increase in
net interest income and in fee income, coupled with a decrease in credit risk costs and in losses arising from the revaluation of securities.

The growth in net interest income continued to be driven mainly by the retail segment
The growth in net interest income in 2013 was, as in the previous period, stimulated mostly by developments in the retail segment. Hence, banks with a large share of operations taking place in this segment were chiefly responsible for this trend. The most significant factor was the continuing growth in retail loans. In addition, a positive contribution came from the falling interest costs of retail deposits in the second half of 2013. This was due to the weakening competition on the side of retail deposits, coupled with the decreasing share of time deposits, mainly during the second half of 2012 and the first half of 2013.

Credit risk costs decreased, mainly in the corporate sector
The credit risk costs of claims decreased by 8% year-on-year in 2013. This decrease was associated with the falling number of new non-performing loans, i.e. by 12% in gross terms (not including write-offs and sales).

The situation in the corporate and retail sectors, however, differed markedly in this respect. Credit risk costs of claims fell most significantly in the corporate sector (by as much as 37%), while the growth in non-performing loans, not including write-offs and sales, moderated to a similar extent (by 39%).

On the other hand, non-performing loans in the retail segment increased, as well as credit risk costs (by approximately one-third) in year-on-year terms.

The coverage of non-performing loans remained at a high level
In a European banking sector, one of the major risks is the risk of insufficient loan-loss provisioning in banks’ portfolios. For the needs of a deeper analysis of this risk, the ECB has decided to carry out detailed asset quality review in banks during 2014. In regard to these facts, it is important that the coverage of defaulted loan by provisions, deducted from the bank’s capital, and by collateral is relatively high in the domestic banking sector. The level of coverage fell slightly during 2013, from 92% to 90%.

The composition of this coverage was dominated by provisions, which accounted for 57% of the total gross value of non-performing loans. Their significance, as well as the share of funds deducted from capital, decreased somewhat during 2013 and were partly replaced by the growing importance of collateral.

Among other factors affecting profits, trading income was the most significant
Apart from the above-mentioned factors, a relatively significant impact on the year-on-year changes in the domestic banking sector’s profitability was also exerted by a fall in costs arising from the revaluation of bonds in the portfolios of banks. This impact was caused by the situation in 2012, when, as a result of the debt crisis in the EU, some of the banks sustained losses from the sale or revaluation of bonds issued in risky countries. Such losses were not recorded in 2013.
3.2.2 CAPITAL ADEQUACY AND LEVERAGE RATIO

Capital adequacy increased still further

Capital adequacy in 2013 remained one of the pillars of the banking sector’s resilience to external risks. The capital adequacy ratio continued to rise in 2013, from 15.8% to 17.2%. The ratio of Tier 1 capital increased, too. As Chart 15 shows, this ratio was somewhat higher than the median value for EU Member States and considerably exceeded the weighted average for the parent companies of domestic subsidiaries as at June 2013. At the same time, the ratio was broadly in line with the median value for EU Member States in Central and Eastern Europe. It is therefore not a case of excessive capital conservation in the domestic banking sector.

Although the Tier 1 capital ratio in individual banks dropped from 11.0% to 9.9%, this figure was still above the level set by NBS in its Recommendations No 1/2012 of 16 January 2012, in support of the financial sector’s stability (9%).

In this connection, it should be noted that a major amendment to the Banking Act will come into force in 2014, under which banks will be required to maintain apart from a regulatory level of own funds (8% of the risk-weighted assets), a capital conservation buffer, probably with effect from 1 October 2014 (2.5% of the risk-weighted assets).

The main factor behind the rise in capital adequacy was the retention of part of the profit from 2012, coupled with a fall in corporate loans and risk weights

The main factor behind the rise in capital adequacy was the retention of approximately one-quarter of the profit achieved in 2012. Another positive factor was that, unlike in 2012, banks did not suffer substantial losses in 2013. The volume of additional own funds also increased, in the form of a subordinated debt issue.

The rise in the capital adequacy ratio was also influenced by a fall in the amount of risk-weighted assets, though its impact was approximately 50% weaker than the impact of growth in own funds. The main reason was a decrease in exposures to the corporate sector, coupled with a fall in risk weights in banks using their internal models for the calculation of capital requirements. The average risk weight (weighted by the amount of capital requirement) decreased in year-on-year terms from 83% to 76% in corporate exposures and from 35% to 28% in retail exposures. However, these average values remained above the average level of risk weights in the EU.

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For the purpose of consistent comparison in time, the aggregated indicators for this segment are calculated on the basis of data from banks that were not branches of foreign banks as at 31 December 2013.
In December 2013, the European Banking Authority (EBA) released a report, containing an international comparison of the parameters of internal models of the individual EU countries on the basis of data from December 2012. Although Slovak banks were not directly involved in the survey, data for the individual countries were reported via their parent companies. On the basis of this report, the parameters of internal models used in Slovakia and other countries can be compared in two exposure classes.

In the exposure class secured by residential properties, the risk weights in Slovakia are among the highest within the EU. Their average value (30%) exceeds the value of the upper quartile (22%). Although the probability of default is at an average level, high values are shown mainly by the estimates of loss given default.

A similar situation was observed in exposures to small and medium-sized enterprises, which do not fall within the retail exposure class. Risk weights exceed the value of the upper quartile for EU countries in this class, too. This is caused by the relatively high probability of default and the high loss given default.

**Leverage ratio**

Apart from an acceptable level of capital adequacy, Slovak banks also have an adequate level of leverage ratio, which is a new indicator defined in the CRR Regulation. While the average value of this ratio in the domestic banking sector fluctuated during 2013 between 7.6% and 7.8%, the average value for large international European banks stood at 3.0% as at 30 June 2013, and that for other significant European banks at 3.6%. With the exception of one bank, the value of this indicator as at 31 December 2013 was above the level of 6% in all domestic banks.

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5 It should be noted that, since this indicator is not included in the regular reports, the values used are only NBS estimates.
THE INSURANCE SECTOR
4 The insurance sector

The profitability and solvency of insurers remained virtually unchanged

The insurance sector’s profit for 2013 reached €158 million, representing a year-on-year increase of 16%. Profits in 2012 were influenced by one-off effects (e.g. the valuation of participating interests in subsidiaries, etc.). With these effects taken into account, profits changed only minimally. The profitability of individual insurers varied considerably. Two insurance companies ended the year with a loss, but their total loss decreased from €12.5 million in 2012 to €1 million in 2013.

The technical result achieved in non-life insurance fell by approximately one-third, to €40.7 million. This fall was caused mainly by a decrease in premiums earned, coupled with a modest increase in claims costs and operating expenses.

The technical result in life insurance, by contrast, improved by €104 million year-on-year. The main factors in this improvement were growth in premiums earned, decelerating growth in claims costs and, in particular, decelerating growth in unit-linked provisions (by €67 million, two-thirds of which were caused by a fall in investment returns, where the risk is born by the customer).

The financial result from investment, where the risk is borne by the customer, fell by €49 million to €33 million. The financial result from investment, where the risk is borne by the insurer, remained at the level of €200 million. Returns on assets covering technical provisions in life insurance fell by 0.4 percentage point, to a level closely below 4% p.a. The average yield on bonds of all types dropped considerably, by 0.5 percentage point.

Equity capital in the insurance sector fell by €37 million (2.6%) year-on-year. This was caused in equal measure by a decrease in valuation differences and by the distribution of retained profits from previous years. It was positive that equity capital was reduced mainly in insurance companies with the highest solvency margin.

Life insurance

After two weaker years, insurance premiums in 2013 grew at a faster pace, i.e. at 5.3% year-on-year. Unlike in the previous years, premiums grew most rapidly in traditional life insurance, by 7.2%, for the first time since 2007. Growth was observed mainly in new business (14%) and annual premiums (6%), despite a decrease in the number of contracts (by 4%). This growth was probably associated with the technical interest rate cut to 1.9% with effect from 1 January 2014, causing a rise in insurance prices.

In traditional life insurance, the number of surrenders decreased by 50,000 (one-third), but their amount increased by €20 million, while the average claim paid increased to €3,435. Other insurance claims paid remained virtually unchanged, in both number and amount. The frequency of surrenders fell by 2 percentage points, to 5.3%.

By contrast, unit-linked insurance premiums were stagnant in 2013, while new business and the number of policies decreased. It is positive, however, that both the number and amount of surrenders fell in the second half of 2013 (by €9 million), after increasing until June. The frequency of surrenders stabilised at the level of

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Chart 16 Total profit of the insurance sector and its distribution across insurance companies (%)

Source: NBS. Note: Data on the left-hand scale show the values of return on equity (ROE).
11%, while the ratio of surrenders to technical provisions decreased in unit-linked insurance.

Accelerated growth in premiums (13%) was also recorded in supplementary insurance, where both new business and the number of policies increased. The amount of claims paid also grew at the same pace as before. In pension insurance, the decline from the previous years continued. Reinsurance contracts in life insurance remained insignificant.

**Non-life insurance**

The downward trend in non-life insurance premiums continued in 2013, with premiums falling by 1.3% to €912 million as at end-December. This trend was supported by the continuing decline in premiums in motor third-party liability (MTPL) insurance and comprehensive motor vehicle insurance, while premiums in other insurance lines increased. However, MTPL insurance and comprehensive motor vehicle insurance maintained their leading position in the non-life insurance market, though property insurance was already catching up with them.

Motor insurance premiums continued to decline (by 3.4% year-on-year), despite growth in the number of insurance contracts and in new business. The average premium per contract decreased (6% in MTPL insurance and 5.5% in comprehensive motor vehicle insurance), under both new and prolonged contracts. The difference between the average premiums per contract in MTPL insurance and comprehensive motor vehicle insurance has evened out over the last few years.

The continuing decrease in premiums, coupled with a steep increase in operating expenses (by 11% year-on-year), contributed to the rise in the combined ratio for MTPL insurance (by 5 percentage point, to 85.4%). If the method used for calculating the combined ratio takes into account the transfer of part of the premiums to the Slovak Interior Ministry’s account, the contribution to the SIA, and change in technical provisions for the coverage of liabilities to the SIA, the combined ratio will rise to 90.8% and, in one insurance company, will exceed 100%. Although the number of claims paid continued to fall, the average amount of a claim paid increased, so the total amount of claims costs remained relatively stable.

In comprehensive motor vehicle insurance, the growing amount of claims paid (owing to the growing number of events), combined with the falling amount of premiums, led to a rise in the loss ratio by 9 p. p., while the combined ratio increased from 102% in 2012 to 109% in 2013. Of eight insurance companies providing comprehensive motor vehicle insurance, only one achieved a combined ratio lower than 100%.
The situation in the property insurance line was favourable in 2013. The increase in premiums (by 1.1%), coupled with a decrease in claims paid, led to a fall in the loss ratio, as well as in the combined ratio. In the other segments, the combined ratio fluctuated well below 100%. Owing to the transformation of the D.A.S. insurance company to a branch with effect from 4 October 2013, the premiums of insurers based in Slovakia dropped by 85% year-on-year in the legal protection insurance line.

In non-life insurance, premiums ceded to reinsurers continued to increase, as well as the share of reinsurance (to 30.6%).

**Technical provisions and their investment remained broadly unchanged**

Technical provisions increased slightly in 2013, to €4.53 billion. The trend from the previous years, i.e. growth in technical provisions in life insurance (both traditional and unit-linked insurance) and decline in non-life insurance (mainly in provisions for reported but unpaid insurance events), continued in 2013.

The amount of assets covering technical provisions for liabilities arising from financial investments made on behalf of the insured fell somewhat in 2013, to €4.53 billion, but still covered these technical provisions to 116%. In the structure of assets invested, time deposits decreased substantially in both absolute and relative terms (by €110 million, i.e. 66%). A smaller decrease was also recorded in bank bonds. The assets were invested mostly in corporate bonds, government bonds, and mortgage bonds. The share of equities and investment fund shares/units increased to a significant extent.

**Risks in the insurance sector**

The most significant risk in the insurance sector, especially in traditional life insurance, was the sustained period of low interest rates. Although the decline in interest rates came to a halt in 2013, and long-term rates started to rise gradually in the second quarter of 2013, interest levels remained depressed.

The insurance sector as a whole managed to achieve investment returns above the level of returns guaranteed in life-insurance policies. In 2013, however, the difference diminished to 0.2 percentage point and the spread of this indicator shifted downwards, too. More than one-quarter of the insurers did not achieve sufficiently high investment returns for the coverage of returns guaranteed in insurance policies, and the median value of this
From the view of reinvestment risk, an important factor is that 23% of the insurance sector’s bond portfolio was purchased in the period of low interest rates (after the first quarter of 2013). Another 15% of the bond portfolio will mature during 2014, so these investments will have to be replaced. In the coming years, the reinvestment risk will be somewhat lower, because 4% to 6% of the portfolio will mature in 2 to 5 years.

Another significant risk is that of a possible change in interest rates. A large part of the bonds owned by insurers (67%) is held in portfolios revalued to fair value, mainly in held-for-trading portfolios (62.6%). This share increased by 3 p. p. in 2013. A similar situation was in the majority of insurance companies. The sector’s bond portfolio shows a relatively long duration (6.5 years), which is desirable from the view of asset and liability management and, to some extent, protects the insurance sector from the effects of a decline in bond yields. In the case of a rise in interest rates, however, this portfolio would produce a loss. The loss from bond revaluation in the case of a rise in risk-free interest rates would be compensated for by a fall in technical provisions. In the case of rise in credit surcharges, there would be no such compensation and the loss would be incurred by the insurer.

In regard to credit risk, the previous conservative investment strategy continued to be employed. Approximately 40% of the investments were made in Slovak government bonds, 13% in other government bonds and bonds issued by international institutions, 10% in Slovak bank bonds, 13% in bonds issued by other banks, and 6% in bank deposits, mainly in Slovak banks. The share of government bonds issued in countries with high credit surcharges was relatively insignificant at the level of individual insurers or the sector as a whole. Such bonds came from Hungary, Italy, and Slovenia. In addition to Slovak bank bonds, exposures to bank bonds include bonds from Austria, Italy, Netherlands, and the United States with a share of 2% to 2.5%, and from Germany and France with a share of 1%.

The foreign exchange risk and equity risk remained minimal as a result of the low open foreign-exchange position and the small share of equity investments.
OTHER SECTORS OF THE FINANCIAL MARKET
5 OTHER SECTORS OF THE FINANCIAL MARKET

5.1 THE OLD-AGE PENSION SAVING SCHEME

THE MAJORITY OF SAVERS WERE REASSIGNED TO NON-GUARANTEED BOND FUNDS

After growing for a longer period, the number of participants in the old-age pension saving scheme declined by roughly 20,000 in 2013. This decline, however, accounted for only 1.3% of the total number of savers recorded at the beginning of the period under review. The decline in the number of savers was connected mainly with the opening of the scheme in January 2013, when the number of existing savers leaving the scheme voluntarily exceeded the number of new savers enrolling in the scheme voluntarily. In the second half of 2013, which was no longer affected by the opening of the scheme, the number of savers began to grow again.

A key event in the sector, which was far more significant than the fall in the number of savers, was a radical reassignment of savers among different types of pension funds. As from 1 May 2013, the majority of savers enrolled in equity and mixed pension funds were reassigned to bond pension funds. This phenomenon resulted from a legal regulation that required savers to decide by the end of March 2013 to which pension fund or combination of pension funds they wish pay compulsory contributions. If a saver had failed to deliver a completed registration form to the relevant pension fund management company by May, the company automatically reassigned the saver to a bond fund, i.e. the only type of pension fund where compulsory guarantees were maintained. From that time to the end of 2013, more than 90% of the savers were enrolled in bond pension funds (owing to the passive approach of savers). The proportion of equity pension funds decreased in year-on-year terms from 62% to 7%, and the roughly 25% share of mixed funds dropped to 1%. The number of savers in index pension funds more than doubled, but their share remained at the level of 0.6%. The reassignment of savers was accompanied by the redistribution of assets among different types of pension funds.

The amount of assets under management in second pillar pension funds increased by €261 million in 2013. This increase, however, was more than 50% smaller than in any of the previous calendar years during the old-age pension saving scheme's existence. The slower rate of increase in net asset value (NAV) was caused by two factors. The first was an outflow of savings from pension funds to the Social Insurance Agency (with the leaving savers) in an amount of roughly €280 million. The second factor was a smaller inflow of new funds as a result of the fact that the monthly contributions of savers accounted for only 4% of the assessment base throughout 2013, rather than 9% as they had until the autumn of 2012.

THE EQUITY COMPONENT IN THE PORTFOLIOS OF NON-GUARANTEED MIXED AND EQUITY FUNDS INCREASED CONSIDERABLY

The asset structure of bond pension funds, dominating the sector since May 2013, changed only slowly over the course of the year. The share of debt securities, representing the key component of these pension funds, remained virtually unchanged at the sectoral level, at 71% of NAV.
as at 31 December 2013. In individual pension funds, debt securities accounted for 50% to 90% of NAV as at the end of the period under review. The share of funds held on bank accounts decreased by 7 percentage points during 2013, to 23% of NAV as at end-December. A new trend in bond funds was the increasing share of ETF-type securities in their portfolios. These consisted exclusively of instruments replicating the bond yields. Their share in total assets increased from 1% to 6%. This was not a sectorwide phenomenon, investments in ETFs were made by three pension fund management companies via their bond funds.

The cancellation of guarantees in mixed and equity pension funds caused profound changes in the composition of assets under management in these funds. The share of debt securities, which had stood at around 70% of NAV in the first quarter of 2013, decreased to 50% of NAV in mixed pension funds and to 30% of NAV in equity pension funds (as at end-December). Despite this, the share of equities and investment fund shares/units increased considerably, to 40% of NAV (mixed funds) and to 53% of NAV (equity funds) as at 31 December 2013, from less than 10% of NAV at the beginning of the period under review. The reassignment of bonds on the one hand and equities and investment fund shares/units on the other hand took place in large part at the turn of April and May, but then continued to a lesser extent during the rest of the year. As for investment fund shares/units, investments were made almost exclusively in ETF-type instruments. Most of these instruments were designed to replicate the main equity indices. The rest of them were earmarked for the pursuit of bond-specific strategies. One of the management companies had a smaller share of commodity ETFs (about 3%) in its mixed and equity pension funds. Direct investments in individual equity issues were made in larger amounts in one equity pension fund only. The share of bank deposits was reduced by a half, to almost 10% of NAV.

Apart from currency swaps, representing a long-term asset component in the portfolios of pension funds, interest rate and currency instruments (futures) were also included in the portfolios of funds belonging to one management company (including bond funds), in short-sale position.

Overall, the changes made in the basic asset structure of mixed and equity pension funds may be evaluated as a deviation from the conservative nature of bond pension funds, mainly through a marked increase in equity market exposures. Thus, after a longer period, the new portfolio settings in mixed and equity funds have justified the existence of different types of pension funds.

The assets of index pension funds comprised ETF instruments, supplemented with a smaller amount of bank deposits. All exchange-traded funds (ETFs) were equity oriented.

**The riskiness of pension funds rose somewhat in year-on-year terms, as a result of an increase in the duration of bonds and in equity positions**

The debt securities portfolio underwent relatively significant changes in 2013, the most pronounced being a marked increase in residual maturity (by roughly two years). The average maturity of debt instruments reached almost 4.4 years as at the end of 2013. This led to a nearly twofold increase in the indicator of modified duration, which reached 3.4 for the sector as a whole at the end of the period under review. This trend was of sectorwide nature and took...
place across virtually all types of pension funds, except for index funds.

Relatively significant changes were recorded in the structure of bonds by the sector of issuer. The share of bonds issued by non-financial corporations increased year-on-year from 11% to 23%, and thus approached the share of bonds issued by financial institutions. At the same time, the dominant share of government debt securities (over 60%) decreased to roughly 50% of the bond portfolio. The increased orientation to private sector bonds, coupled with a shift to a higher maturity band, led to an increase in the average coupon rate on debt instruments.

The link between second-pillar pension funds and the domestic economy weakened in 2013. Among bonds and bank deposits, the share of Slovak assets decreased from 55% to 40% of the total volume. This was due mainly to a decrease in the concentration of Slovak government bonds.

The massive investment in equity ETFs was accompanied by growth in the exposure of certain pension funds to currencies other than the euro. The most frequent currency in this context was the US dollar. These foreign-currency positions were largely unsecured.

After rising considerably in the first half of 2013, the riskiness of pension funds, expressed in terms of the value-at-risk (VaR) ratio, fell in the second half-year period, but remained somewhat higher than at the beginning of the period under review. The increased riskiness of pension funds in the middle of the year was mainly caused by a rise in financial market volatility in that period. The situation in the markets subsequently calmed down and the degree of risk increased slightly in year-on-year terms. This was due to an increase in several pension funds’ exposure to equity risk and to an increase in duration in this sector. The highest risk was clearly identified in index pension funds, where the ten-day VaR ratio fluctuated around the level of 5% of NAV. In bond pension funds, which form a substantial part of the sector, the year-end VaR ratio did not exceed 0.5%, which was an indication of low overall risk.

The asset structure of pension funds underwent several changes, which led to increased volatility in the values of pension points in comparison with the previous three years. There were noticeable differences in the case of mixed and equity funds, which were increasingly affected by the equity market volatility, but bond funds also recorded certain fluctuations in the values of pension points.

In general, the highest returns in 2013 were earned by investment strategies with the highest share of equity investments. In the case of Slovakia’s old-age pension sector, this meant that the highest return (17%) was achieved by index pension funds. In nominal terms, the rate of return in mixed and equity pension funds was much lower (2.8% and 3.9% respectively), but was still high enough to cover the annual inflation rate. The least favourable situation for savers was recorded in bond pension funds, where the average return reached only one percent.

In 2013, pension fund management companies generated a total profit of €6.7 million, which was 22% more than in 2012. Thus, the improving trend in the sector’s financial result continued. Income from fees and commissions, however, remained at the previous year’s level, but its internal structure changed considerably. As a result of

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**Chart 25 Value-at-Risk of PFMC funds (%)**

The values in the chart show the maximum loss with a probability of 99% over a period of 10 working days.

Source: NBS, Reuters, Bloomberg, Internet.

Notes: The vertical scale shows data in % of NAV.
lower contributions paid to the second pension pillar, income from account management fees dropped by almost 50%. On the other hand, income from asset appreciation in pension funds increased in year-on-year terms. As revenues remained stagnant, the improved financial results of pension fund management companies were due to cost reduction, i.e. savings in fee and commission expenses, as well as in operating expenses. Regarding the profits of individual pension fund management companies, a positive trend was that the number of loss-making companies decreased, for the first time, to one.

5.2 THE SUPPLEMENTARY PENSION SCHEME

Supplementary pension funds pursuing a specialised investment strategy maintained their growth trend in terms of the number of savers and amount of assets under management

The number of participants in the supplementary pension scheme increased by almost 12,000 in 2013, to a new all-time high of 884,000. The rate of increase in the number of savers was close to the figures recorded in the previous two years. Another feature from the past was the distribution of this change across the different types of supplementary pension funds. The increase in the number of savers took place exclusively in smaller supplementary pension funds with a specialised investment strategy (+28,000). Large balanced supplementary pension funds lost about 2,000 savers, i.e. much fewer than in the previous years. The number of savers in payout supplementary pension funds decreased by 14,000.

The aggregate net asset value (NAV) of supplementary pension funds increased by €50 million year-on-year, representing one of the smallest NAV increases recorded in the sector's history. The relatively small NAV increase was associated with the latest amendment to Act No 650/2004 Coll. (effective since 1 January 2014), which has, inter alia, restricted the conditions for the withdrawal of pension savings before retirement age. In the last quarter of 2013, i.e. the period between the enactment and entry into force of this amendment, savers were allowed to decide to make a one-off settlement and to enter into a new contract under the existing rules.

The steepest NAV increase, in both percentage (+19%) and absolute terms (+€32 million), was recorded in contributory supplementary pension funds with growth-oriented and conservative investment profiles. This group of supplementary pension funds continued to grow dynamically, though at a somewhat slower pace than in 2012. The NAV of large contributory pension funds with a balanced investment strategy increased by only 1.5% and that of payout supplementary pension funds recorded only a slightly steeper increase.

The portfolios of supplementary pension funds remained virtually unchanged

The structure of assets in third pillar pension funds changed only minimally in the period under review. The most significant change was an increase in the share of bonds in the portfolio of contributory supplementary pension funds with a growth-oriented strategy from 12% of NAV as at end-2012 to 27% of NAV as at end-2013. The increased share of bonds was reflected in roughly the same measure in the reduced share of bank deposits, equities and investment fund shares/units. In conservative supplementary pension funds, however, the average share of bonds decreased year-on-year from 93% of NAV to 69% of NAV, while the significance of funds held on bank accounts increased. The assets of contributory supplementary pension funds with a balanced investment strategy and those of payout supplementary pension funds had a virtually identical structure as at end-2013. In both types of funds, the share of time deposits in bank deposits increased to 50% in the second half of 2013. Thus, the trend from 2012 and the first months of 2013 was partially corrected: the amount of time deposits was reduced to a significant extent and replaced with current account deposits.

The parameters of the bond portfolio changed only very slowly during the period under review. The average weighted residual maturity of debt securities in the sector increased slightly, from 4.1 to 4.5 years. As a result, the modified duration of this portfolio also increased, to such an extent that interest-sensitivity rose only minimally.
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Chart 26 Composition of assets managed by different types of supplementary pension funds (%)

The weighted average contractual maturity of time deposits in five supplementary pension funds increased, causing the sectoral average to rise above the level of eight months. At the beginning of 2013, the value of this indicator fluctuated around five months. Despite a shift to slightly longer maturities, the average interest rates on these deposits remained unchanged in year-on-year terms.

In several supplementary pension funds, the share of assets denominated in foreign currencies increased in 2013. As at 31 December 2013, there were six supplementary pension funds in the sector with relatively large exposures to non-euro denominated instruments, ranging from 25% to 37% of NAV. A large part of these exposures were not secured through derivative transactions.

The performance of supplementary pension funds in the period under review was weaker than in 2012, which was a successful year in this respect. Although all supplementary pension funds achieved positive returns in nominal terms, the sectoral average (1.6%) was roughly at the level of annual inflation. Higher nominal returns, close to five percent, were only achieved by supplementary pension funds pursuing a growth-oriented investment strategy, owing to the equity component.

Supplementary pension companies managed to improve their aggregated financial result for the third consecutive year. The sector’s total net profit increased by 10%, to €9.2 million. Total income from fees and commissions grew by only 2%. The year-on-year fall in income from supplementary pension fund performance fees was offset by increased income from termination fees. Increased profits were achieved mainly as a result of savings in operating expenses, which were reduced by 14% year-on-year. All four supplementary pension management companies achieved a positive financial result in 2013, with three of them recording a better result than in 2012.

5.3 COLLECTIVE INVESTMENT

The amount of assets under management in this sector increased considerably
Collective investment in Slovakia showed strong dynamics in 2013, in terms of the amount of assets under management. Net asset value (NAV) in the sector increased by one-fifth or in absolute terms by €893 million, representing the steepest increase since the pre-crisis year of 2007. The steady growth accelerated still further in the second half of 2013. As at 31 December 2013, domestic and foreign investment funds operating in Slovakia held assets in the total amount of €5.3 billion.

The degree of risk in the sector fell somewhat in the second half of 2013
In supplementary pension funds, unlike in second-pillar pension funds, the degree of risk increased only slightly in the first half of 2013, and then decreased at the end of the year, to two-thirds of the figure recorded at the beginning of the year. This decrease resulted from the falling level of general and specific interest rate risk. To a lesser extent, the reduction in foreign-exchange positions in the sector as a whole also contributed to the overall risk. The year-end VaR ratio in the aggregated portfolio accounted for 0.7% of NAV and comprised all types of risks, each with a roughly equal share, i.e. equity, foreign exchange, interest rates, and credit spread risks.
Almost the entire increase in NAV took place in domestic investment funds, where the amount of assets under management as at the end of the period under review reached the record level seen in the middle of 2008. The rate of increase in NAV in foreign investment funds (9%) was more than 50% slower than in domestic investment funds. This trend had begun roughly two years earlier and gradually led to a decrease in the share of foreign investment funds in total assets in this sector.

The amount of assets managed by investment funds grew at a pace close to the sectoral average in the majority of domestic asset management companies. An exception was a management company, whose investment funds accounted for 60% of the total NAV. This is the only asset management company to be able to increase its market share for a longer period. It is gradually catching up with the three dominant asset management companies in the sector.

The most significant source of NAV increase was the positive net sales of investment fund share/units to end-investors. A less significant factor (though far from being negligible) was the performance of investment funds. In addition, a certain contribution to the increase in the sector’s NAV came from so-called cross investments, i.e. some of the investment funds purchased, for their portfolios, shares/units from other funds belonging to the same management company.

**Positive net sales were mainly concentrated in special pension funds**

As in 2012, the most intense inflow of funds in 2013 was recorded in domestic investment funds marked as ‘special’, though this inflow was smaller than in 2012. The strongest demand was reported by special real estate funds, which had recorded steadily growing net sales over the past four years. The customers of these funds were largely households.

The second category of funds in high demand within the domestic sector was that of public special securities funds. Since 2012, when these funds completely dominated the market, their net sales have decreased to one-third. Demand from investors (mainly households) was concentrated almost entirely in one investment fund.

A marked increase in NAV, caused by the issuance of investment fund shares/units, was also recorded in special professional investors funds. In this case, however, the major part of new funds came from the domestic banking sector.

Although standard investment funds generated only slightly more than one-third of the total increase in NAV in the domestic sector, certain indicators point to a revival in demand for these funds, compared with a fall in the amount of assets under management in 2012. This mainly applies to the funds of funds, which recorded positive net sales in aggregate terms for the first time in the last six calendar years and the steepest increase in assets among standard investment funds. Household demand for collective investment was concentrated in mixed and bond pension funds. In equity funds, NAV growth was driven mainly by inflows of funds from financial sector entities and by the relatively high returns earned on their asset portfolio.

Money market funds recorded an outflow of funds in the period under review, in an amount...
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50% smaller than in 2012. Negative net sales were also recorded in the other funds category, the significance of which for the domestic sector continued to diminish.

The dynamics of NAV in the individual categories of foreign investment funds did not correspond to the trend observed in the domestic sector. The amount of assets under management increased in money market funds, mixed funds, and other investment funds. Equity funds that dominated the foreign investment funds category were stagnant, while bond funds recorded a decrease.

In conservative investment funds (money market funds and bond funds), the scenario from 2012 continued, so the significance of bank deposits in the composition of assets increased still further, to the detriment of bond investments. The increase in the share of investment fund shares/units in the overall portfolio took place in mixed funds. Within the structure of assets held by funds of funds, the share of bond-type investment fund shares/units increased, indicating that the risk profiles of funds of this category became somewhat more conservative.

The average degree of risk in domestic collective investment funds, expressed in terms of the VaR ratio, dropped by almost 50%. The lower VAR ratio, compared with the previous year, can be attributed to the fall in equity and foreign exchange risks, which traditionally contribute most significantly to the overall risk in investment funds. Thus, the degree of risk fell most significantly in equity funds, mixed funds, and the funds of funds, because these categories comprise investment funds with the highest equity and foreign exchange positions. Despite this, the said categories remained seriously threatened by a possible NAV fall as a result of unfavourable financial market developments. The highest risk was faced by savers in equity funds, where the average VaR ratio reached 4% of NAV over the horizon of ten days.

Annual returns earned by investment funds fell by a half

In terms of returns, investment funds in 2013 were less successful than in the previous calendar year. The average annual nominal return (2.7%) was more than 50% lower than in 2012. A marked decrease in returns was recorded in all categories of funds, except in equity funds,
which surpassed the other funds with an average return of 13%. Relatively high returns, i.e. three to four percent, were offered by the funds of funds and public special real estate funds. Returns in other categories were below the level of 1.5%. After achieving a nominal return of almost 10% a year earlier, bond funds produced a negative result in the year under review. The worst situation was recorded in special alternative investment funds, which ended the year with an average return of -2.2%.

In 2013, asset management companies in the collective investment sector achieved an aggregate profit of €7.4 million, which was 11% less than in the previous year. This was the first fall in the sector’s profitability in the last four years. On the other hand, it should be noted that the worsened financial result was caused almost entirely by the increased costs of transactions in equity securities in one management company. The other significant items affecting the total net profit followed a relatively favourable trend. Income from fees and commissions increased by 12%, while operating expenses recorded a non-negligible decrease. All six domestic asset management companies achieved a positive financial result.

### 5.4 INVESTMENT FIRMS

Investment firms (including banks) operating in the Slovak market carried out transactions in 2013 in the total amount of €178 billion, which was 22% more than in the previous year. Activity in this sector reached a record level in the period under review, i.e. the highest since 2009. Almost the entire year-on-year increase in the volume of transactions took place in derivatives, so their dominant position in the structure of transactions by asset type strengthened still further.

On the other hand, the amount of assets managed by investment firms on behalf of their customers declined for the third successive year. It should, however, be noted that the decline in 2013 resulted from the fact that two asset management companies had ended their operations in the Slovak market. Adjusted for this effect, the rest of the sector grew somewhat in terms of the amount of assets under management.
MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR
6 MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR

While the Baseline scenario assumes a recovery of the domestic economy, the stress scenarios again envisage a contraction of GDP and escalation of financial market tensions

As in previous tests, the stress testing involved a Baseline scenario and two stress scenarios. The Baseline scenario is based on the official Medium-Term Forecast published by NBS as of the fourth quarter of 2013. It therefore assumes that over the stress test horizon, comprising 2014 and 2015, economic activity will gradually pick up amid increasing external demand and will be supported also by rising domestic demand and a loosening of fiscal policy. Inflation is expected to be relatively low, but to rise steadily in 2015 up to around 2%.

The stress scenario ‘Economic Downturn’ assumes that external demand declines because the impact of the unwinding of quantitative easing especially on developing countries is more negative than expected and because growth in global economies is weaker than projected. The result in Slovakia is that the economy contracts, inflation falls moderately, and unemployment rises. Nervousness spreads to financial markets, resulting in falls in equity indices and rising risk premia on interbank rates and government bonds yields.

In the stress scenario ‘Financial Market Crisis’, the assumptions of the Economic Downturn scenario are combined with headwinds from the euro area banking sector, triggered mainly by a further ebbing of confidence in banking groups. It is therefore assumed that financial market strains increase, the euro depreciates against the US dollar, and the effect of the shock on the real economy entails a longer lasting economic downturn, low inflation and moderately higher unemployment.

Further details of the stress test parameters and assumptions are provided in the Annexes to this Analysis of the Slovak Financial Sector.

The banking sector is resilient to headwinds owing mainly to its high capital adequacy ratio and assumed ability to generate net interest income

The banking sector as a whole appears still to be relatively resilient to headwinds from financial markets and the real economy. That resilience remains underpinned by banks’ high levels of capital, as reported at the end of 2013, and their ability to generate interest income even in stress periods. The sector’s capital adequacy ratio at the end of 2013 was 17.2%. Assuming that banks increased their equity capital by retaining a commensurate part of the profit for 2013, the capital adequacy ratio would rise to 17.8%.

Under the Baseline scenario, the overall capital adequacy ratio (compared to the adjusted ratio) would increase to 19.2% as at the end of 2015. The Economic Downturn scenario envisages a slight increase in the overall capital adequacy ratio (compared to the adjusted ratio as at the end of 2013), due to a slightly higher amount of capital and the projected unchanged volume of risk weighted assets. The Financial Market
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Analysis of the Slovak financial sector

2013

Chart 31 Capital adequacy ratio and profit of the banking sector under different scenarios

Source: NBS.

Note: The capital adequacy ratio at the end of 2013 is adjusted to take account of the assumed impact of capital increase.

Chart 32 Losses arising from different types of risk under different scenarios (EUR millions)

Source: NBS.

Note: The chart shows the total loss for the stress period.

Crisis scenario envisages a slight drop in the overall capital adequacy ratio, as the amount of own funds is lower at the end of 2015 while the amount of risk-weighted assets remains unchanged.

Under the Economic Downturn scenario, the amount of additional capital required to ensure that, as at the end of 2015, all banks meet the regulatory capital adequacy ratio of 8% is €3 million (or 0.1% of own funds as at 31 December 2013), while under the Financial Market Crisis scenario it is €7 million (or 0.2% of own funds). Under the Baseline Scenario, the capital adequacy ratio of all of the banks would not decline below the threshold of 8%. Assuming that the sector is required to maintain a full capital conservation buffer (2.5% of RWAs), the total amount of additional capital required as at the end of 2015 would be €26 million (0.5% of own funds as at 31 December 2013) under the Economic Downturn scenario and €30 million (0.6%) under the Financial Market Crisis scenario.

The number of banks reporting a loss at the end of the two-year stress period would be one under the Baseline scenario, six under the Economic Downturn scenario and seven under the Financial Market Crisis scenario, but even in these cases the capital adequacy ratio remains high.

Under the stress scenarios, and as in previous stress tests, losses on the portfolio of loans to non-financial corporations would be higher than losses on other exposures. Under the Baseline and Economic Downturn scenarios, losses on household loans exceeded market risk losses, while under the Financial Market Crisis scenario market risk losses were higher, owing mainly to the increase in the risk premium on government bonds.

Stress test results for other sectors

The stress test results are shown in Charts P53 to P58 in Section 7. In the case of PFMC funds, the increase in their risk exposure is reflected in the changing impact of stress scenarios on this sector, from being only marginally adverse as at end-2012 to be significantly more so in the latest testing. The impact of the Economic Downturn scenario on the sector of PFMC funds would to a large extent be offset by interest income on bonds and bank deposits; the overall result is around 1.2% worse under this scenario than under the Baseline scenario. As for the impact of the Financial Market Crisis scenario – which includes not only equity risk and foreign exchange risk,

9 It is assumed that banks in Slovakia will be required to maintain the full capital conservation buffer as from October 2014. This buffer is designed to absorb significant unexpected losses, and therefore a bank's failure to meet the buffer will result only in restrictions on the payment of dividends and bonuses.
but also a sizeable drop in bond prices due to rising credit spreads – the average current value of pension point would be 3% below its level under the Baseline scenario, and in the case of mixed funds and equity funds it would be lower by 6% and 7%, respectively.

SPMC funds would also be quite heavily exposed to financial market strains. In contrast to PFMC funds, this sector would report a loss also under the Economic Downturn scenario. The loss for one year of the stress period under the Financial Markets Crisis scenario would, in comparison with the Baseline scenario, be around 6% of net asset value.

The collective investment sector is distinctive in that a relatively large proportion of the assets under management are invested quite conservatively. Consequently, under the Financial Market Crisis scenario, customer investments amounting to fully three-quarters of the sector’s total assets would not report a loss of more than 5%. However, riskier investments in equity funds, mixed funds, and special real estate funds may produce far higher losses.

In the insurance sector, net interest income would not change significantly even in the event of greater shifts in market conditions over the two-year horizon. Under the Economic Downturn scenario, income would be sufficient to cover the decline in the fair value of financial instruments in insurers’ portfolio. If that shock were combined with significant additional losses from insurance risks, insurers would see their aggregate profit or equity decline by around €200 million (the total profit in 2013 was €158 million). The decline would be even more marked under the Financial Market Crisis scenario, with insurers reporting a negative result also for financial operations.

The overall results concerning the estimation of capital adequacy ratio as at end-2012 are satisfactory. The overall capital adequacy ratio of the banking sector as at the end of 2012 was 15.7%, while under the first scenario it was estimated at 14.3% and under the second scenario, at 13.9%. For all banks and under both scenarios, the difference between the estimated and actual capital adequacy ratio was within the range +/-6%.

10 When interpreting stress test results for the insurance sector, it should be noted that the testing was based on several simplifying assumptions owing to a shortage of data. No account was taken of the revaluation of provisions, nor of the impact of changes resulting from the risk of survival.

Box 2

RESULTS OF BACK-TESTING OF MACRO STRESS TESTS

Back-testing of macro stress tests was carried out in order to validate the models and assumptions used in the test and to identify any deviations between the results estimated under the Baseline scenario and the actual figures.

Back-testing was performed for 2012, meaning that data as at the end of 2011 were used. Two scenarios were used for the back-testing. In the first scenario, the input was the actual figures for particular basic macroeconomic and financial variables. The second scenario used the assumptions applied in the Baseline scenario of the stress test conducted as at the end of 2011, the results of which are given in the Analysis of the Slovak Financial Sector for 2011. Therefore, under the second scenario, the difference between the scenario and the actual developments is affected also by the assumption for input parameters, whereas under the first scenario the differences are affected only by errors in the modelling and in the additional assumptions (e.g. the assumption of constant levels of fee income, trading income, etc.).
A detailed summary of the back-testing results is provided in the Annexes to this Analysis of the Slovak Financial Sector. The principal findings were as follows:

- the setting of assumptions for risk-weighted assets requires further analysis, especially given the more accurate estimation of developments in IRB portfolios;
- the estimation of net interest income still requires regular checking of the results on a bank-by-bank basis and, if necessary, manual adjustment;
- the modelling of the amount of corporate loans requires in-depth analysis, especially with regard to the form of the estimation and to possible structural changes on the demand and supply sides of this type of lending;
- the revaluation of securities following the back-testing was more in accord with the current regulatory regime.
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR

GENERAL NOTES:
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

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

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

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Chart P3 Consumer confidence indicators in the United States

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

Chart P4 Economic sentiment indicators in the euro area

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

Chart P5 Unemployment rates in selected economies (%)

Notes: Seasonally adjusted.

Chart P6 Consumer price inflation in selected economies (%)

Notes: Annual percentage changes in the consumer price indices.
Chart P7 Industrial production indices in selected economies

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

Chart P8 Retail sales 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.
Notes: Balance expressed as a percentage of GDP.

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

Source: Eurostat.
Notes: Percentage shares of GDP.
FINANCIAL MARKET RISK INDICATORS

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

Source: Bloomberg, NBS.

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

Source: Bloomberg, NBS.

Chart P13 Equity indices (31 December 2012 = 1)

Source: Bloomberg, NBS.

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

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

Source: Bloomberg, NBS.

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

**Chart P16 Volatility of equity indicies**

Source: Bloomberg.

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

Source: Bloomberg, NBS.

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

Source: Bloomberg, NBS.
ANALYSIS OF THE SLOVAK FINANCIAL SECTOR 2013
CORPORATE CREDIT RISK INDICATORS

Chart P23 Exports and the business environment

- Business sentiment – main trading partners (left hand scale)
- Business sentiment – Slovakia (left hand scale)
- ESI according to the SO SR – (left-hand scale)
- Exports – annual rate of change (right-hand scale)

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

Chart P24 Exports and corporate sales (%)

Source: SO SR, Ministry of Economy of the SR, OECD, NBS.

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

Source: SO SR.

Chart P26 Corporate loans and sales (%)

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

Source: NBS, EBF.
Notes: 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: Default rates refer to the number/volume of loans re-categorised as defaulted to the number/volume of non-defaulted loans at the beginning of the period under review.

Chart P29 Loans at risk (%)

Source: NBS.

Chart P30 Debt-servicing burden by component (%)

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

- Price per m²/month – inner centre
- Price per m²/month – outer centre
- Price per m²/month – outside centre
- Office vacancy rate – inner centre (right-hand scale)
- Office vacancy rate – outer centre (right-hand scale)
- Office vacancy rate – outside centre (right-hand scale)

Source: CBRE, NBS.
Notes: The chart plots prices and vacancy rates in Bratislava.

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

- Number of apartments whose sale fell through (left-hand scale)
- Number of apartments sold (left-hand scale)
- Net apartment sales (left-hand scale)
- Number of projects with positive net apartment sales (right-hand scale)

Source: Lexxus, NBS.

Chart P33 Comparison of corporate balance sheets and sales (%)

Source: NBS, SO SR.

Chart P34 Liabilities of non-financial corporations (%)

Source: NBS.
HOUSEHOLD CREDIT RISK INDICATORS

Chart P35 Household indebtedness in Slovakia and in selected countries

Source: Eurostat.
Note: The ratio of total debt of households to disposable income (%).

Chart P36 Changes in household financial assets

Source: NBS.
Note: Date refer to month-on-month changes.

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.
The income categories are defined in the section "Glossary and abbreviations".

Chart P38 Index of employment in selected sectors

Source: SO SR.
Notes: Year-on-year changes.
Chart P39 Expected employment in selected sectors

Source: SO SR.
Note: Index data.

Chart P40 Index of real wages in selected sectors

Source: SO SR.

Chart P41 The consumer confidence index and its components

Source: SO SR.

Chart P42 Non-performing household loans

Source: NBS.
Notes: Left-hand scale: ratio of non-performing household loans to total household loans.
MARKET RISK AND LIQUIDITY RISK INDICATORS

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

Source: NBS. Notes: The ratio is defined in the section "Glossary and abbreviations".

Chart P44 Housing affordability index

Source: NBS, SO SR. Notes: The housing 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. Notes: The data represent the highest loss (as a percentage of the given investment) that would be expected 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. Notes: The data represent the loss (as a percentage of assets) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the section "Glossary and abbreviations".
Analysis of the Slovak Financial Sector 2013

Annex 1

Chart P47 Sensitivity to different risk types in the sector of PFMC funds

Source: Bloomberg, NBS.
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.
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 P49 Sensitivity to different risk types in the collective investment sector

Source: Bloomberg, NBS.
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 insurers’ assets to different risk types

Source: Bloomberg, NBS.
Notes: The data represent the percentage decline in the value of assets under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the section “Glossary and abbreviations”.

Data as at 31 December 2013
Data as at 31 December 2012
**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.
Notes: ARDAL – Debt and Liquidity Management Agency.

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**Chart P52 Liquid asset ratio**

Source: NBS.

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**Chart 53 Impact of the Baseline scenario and stress scenarios on PFMC funds**

Source: NBS, ECB, Bloomberg, Internet.
Note: The left-hand scale shows the average of the index of the current value of pension point weighted by the net asset value of individual funds.

---

**Chart 54 Impact of the Baseline scenario and stress scenarios on payout PFMC funds**

Source: NBS, ECB, Bloomberg, Internet.
Note: The left-hand scale shows the average of the index of the current value of pension point weighted by the net asset value of individual funds.
Chart 55 Impact of the Baseline scenario and stress scenarios on collective investment funds (%)

Source: NBS, ECB, Bloomberg, Internet.
Note: The left-hand scale shows the estimated profit or loss as a share of the net asset value weighted by net asset value of individual funds.

Chart 56 Impact of the Baseline scenario and stress scenarios on the assets of insurance companies (%)

Source: NBS, ECB, Bloomberg, Internet.
Note: The left-hand scale shows the estimated profit or loss as a share of assets (except for assets covering technical provisions for unit-linked insurance) weighted by the asset value of individual insurance companies. The impact of stress scenarios on the value of liabilities was not taken into account.

Chart 57 Additional expenses that the insurance sector would incur under the Baseline and stress scenarios (EUR millions)

Source: NBS.
Note: CC LI – claim costs in life insurance; CCNI – claim costs in non-life insurance.

Chart 58 Impact of the Baseline scenario and stress scenarios on the assets of unit-linked insurance (%)

Source: NBS, ECB, Bloomberg, Internet.
Note: The left-hand scale shows the estimated profit or loss as a share of net asset value weighted by the net asset value covering unit-linked insurance of individual insurance companies.
GLOSSARY AND ABBREVIATIONS
Capital adequacy 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.

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

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.

Interest rate spreads – the difference between lending rates/deposit rates and the respective interbank rates.

Leverage ratio – the ratio of Tier 1 capital to the total value of all exposures (not risk weighted) in the on-balance sheet and off-balance sheet.

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

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 loan collateral.

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-performing loans – loans with impairment of more than 50% of their value or with debtor payment past due by 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.
# Abbreviations

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<th>Full Form</th>
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<tr>
<td>b.p.</td>
<td>basis point</td>
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<tr>
<td>CPPV</td>
<td>current pension-point value</td>
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<td>CI</td>
<td>collective investment</td>
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<tr>
<td>CIF</td>
<td>collective investment fund</td>
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<tr>
<td>ETF</td>
<td>exchange-traded funds</td>
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<tr>
<td>EURIBOR</td>
<td>EURO InterBank Offered Rate</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>IES</td>
<td>economic sentiment index</td>
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<tr>
<td>KZAM</td>
<td>Klasifikácia zamestnani / Employment Classification</td>
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<tr>
<td>LAR</td>
<td>loans at risk</td>
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<tr>
<td>LTV</td>
<td>loan-to-value (ratio)</td>
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<td>MB</td>
<td>mortgage bond</td>
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<td>MTPL</td>
<td>motor third-party liability (insurance)</td>
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<td>NAV</td>
<td>net asset value</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>PFMC</td>
<td>pension funds management company</td>
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<tr>
<td>p.p.</td>
<td>percentage point</td>
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<tr>
<td>RBLG</td>
<td>Register of Bank Loans and Guarantees</td>
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<tr>
<td>ROE</td>
<td>return on equity</td>
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<td>RWA</td>
<td>risk-weighted assets</td>
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<td>SPMC</td>
<td>supplementary pension funds management company</td>
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<td>SO SR</td>
<td>Statistical Office of the Slovak Republic</td>
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<tr>
<td>Tier 1, Tier 2, Tier 3</td>
<td>components of own funds types of capital measured for the purposes of capital adequacy ratios</td>
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<td>UPSVaR</td>
<td>Office of Labour, Social Affairs and Family</td>
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<td>VaR</td>
<td>value at risk</td>
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