ANALYSIS OF THE SLOVAK FINANCIAL SECTOR FOR THE YEAR 2011
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FOREWORD
FOREWORD

Národná banka Slovenska produces the Analysis of the Slovak Financial Sector for the purposes of the NBS Banking Board as well as for professionals and the wider public. The aim of this report is to analyse the current situation and developments in the domestic financial market, to warn of potential risks and threats to its stability, and thus to help avoid potential crisis situations.

This analysis evaluates the overall condition of the financial sector as at 31 December 2011, although in several parts it uses later data, where available. The main aim is to assess the financial system’s resilience to possible negative developments, looking at both individual institutions and the sector as a whole. The analysis provides a more detailed view of the links between financial sector developments, on the one hand, and macroeconomic and microeconomic indicators, on the other hand. The macro-prudential nature of the analysis is reflected mainly in the use of stress testing, which may be used to guage the financial sector’s sensitivity under various scenarios. In the Annex there are charts of selected macroprudential indicators for the main risk areas in the financial sector.

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

**External developments significantly affected the domestic financial sector in 2011**

The stability of the domestic financial sector in 2011 was affected by many factors, including a number of relatively new and specific trends. These originated mainly from the external environment and were largely related to the euro area sovereign debt crisis. Most segments of the domestic financial market recorded a decline in assets or marked slowdown in their growth, particularly in the second half of 2011. Annual profitability growth also decelerated in the second half of the year. On balance, the effects of external developments on financial sector stability were more adverse than positive.

**Positive trends in the banking sector were most apparent in the first half of 2011**

The banking sector in Slovakia went through two distinct phases in 2011. The first half of the year saw the continuation of several positive trends that began in 2010. Particularly during the first quarter there were improvements in the economic situation in both Slovakia and abroad, as well as a certain degree of stabilisation in global financial markets. In Slovakia, bank lending to households rose markedly, and by the end of the first half of 2011 the stock of housing loans was already approaching pre-crisis levels. Lending to firms also began to pick up significantly during this period, after several years of stagnation. In addition, bank profits surged in the first six months and the sector’s total profit at the end of June 2011 was almost 90% higher year-on-year.

**The sovereign debt crisis in the second half of 2011 affected the Slovak financial sector**

For the domestic financial sector, including banks, the situation began to change appreciably in the second half of 2011. Several euro area countries were affected by a combination of three major risks – the sovereign debt crisis, a slowdown or decline in economic growth, and the state of banking sector stability in certain countries. These risks also affected the Slovak financial sector to varying degrees.

The principal risk was the sovereign debt crisis, which gained momentum towards the end of 2011 when its repercussions spread to almost all euro area countries. For the Slovak financial sector, the main impact of this phase of the crisis was on investments in Slovak government bonds, especially given the substantial exposure to this group of assets. The revaluation of government securities adversely affected the profitability and capital adequacy ratio of certain banks.

The insurance sector, too, was quite heavily exposed to the risk of a decline in government bond prices, due to both the relatively large holdings of these securities and also the relatively long duration of the portfolios. The situation in financial markets also had an adverse effect on supplementary pension funds and collective investment funds, which were exposed not only to market developments for bonds issued by Slovakia and other central European countries, but also to a large degree by stock market turbulences. As a result, the performance of several of these funds declined relatively sharply in the second half of the year. On the other hand, investments of pension fund management companies remained largely conservative in 2011 and their value was not affected to any significant extent even by the bond market developments in the last quarter of the year.

**Credit risk in the banking sector increased**

The second external risk that affected domestic banks was a slowdown in euro area economic growth, which gradually passed through to the Slovak economy. The Slovak growth forecast for 2012 was repeatedly revised down during the second half of 2011.

Certain indicators for the household and non-financial institution sectors also began to deteriorate during this period, which affected the ability of households and enterprises to repay their bank loans. The labour market situation worsened, and several segments of the non-financial institution sector reported a decline in sentiment indicators and performance.

Credit risk in banks was heightened by inflation, with the inflation rate in Slovakia being among...
the highest in the euro area throughout 2011. At the same time, however, households and enterprises benefited from the persisting low level of lending rates.

Although the amount of non-performing loans in the banking sector did not increase significantly, the NPL ratio stopped declining, which is another sign of mounting credit risk. Overall, we expect credit risk in the banking sector to increase in 2012 on the back of developments in the external environment.

**Lending and profit growth slowed in the second half of 2011**
The activities of domestic banks reflected the worsening outlooks for economic growth and several other economic indicators. Growth in lending to households began to decelerate in the second half of the year. According to several banks, one of the key reasons for this slowdown was declining household demand for housing loans amid weakening household confidence. This period also saw declining growth in loans to enterprises.

In addition, profitability growth in the banking sector moderated in the second half of 2011, since, as mentioned earlier, it was adversely affected by the revaluation of bond portfolios. In comparison with 2010, however, costs of non-performing loans were lower and interest income from the non-financial institution sector was higher. Interest income from loans to households recorded lower growth than in the previous year.

**Negative perception of euro area banks affected domestic banks only indirectly**
The specific external risks that banks faced during 2011 were related to the generally negative perception of the euro area banking sector and hence of the parent undertakings of Slovak banks. Banks in Slovakia were not exposed to this risk directly. No domestic bank reported significant adverse effects on its profitability, capital or liquidity position.

Risk was closely monitored by rating agencies. Deteriorating position of parent institutions was understood as a risk for subsidiaries given the lower probability that parent institutions will support their subsidiaries in case of need. The risk was generally applied to all banks in Central and Eastern Europe.

**Competition for household business remained high**
The financial position of banks was affected by the ongoing strong competition in household sector, and particularly in banks’ interest-rate policies. Interest rates on longer-term time deposits and on housing loans with longer initial rate fixation periods did not closely follow underlying fundamentals, but instead were at levels favourable for bank customers. Profitability was affected mainly by the decline in interest rate spreads for the household sector and the lower annual growth in interest income from this sector.

**The banking sector remained stable in 2011**
Despite facing certain adverse trends during the year, the banking sector in Slovakia remained in a sound and stable position in 2011. The risks to which the sector was exposed were covered by its very strong financial position. Although the sector’s profitability growth slowed in the second half of the year, its total profit for 2011 was around a third higher than the profit for the previous year. At the same time, domestic banks plan to retain a large proportion of their profits in their capital.

The banking sector’s capital adequacy ratio increased in 2011 and stood at 13.4% by the end of December, higher than the average for EU banking sectors. Most of that ratio was for core Tier 1 capital.

In 2011 the banking sector did not abandon its traditional model where the focus is on the domestic economy and risks.

**Banking sector has a stable liquidity position**
The banking sector in Slovakia, unlike many other countries, has a relatively robust liquidity position. Bank lending is financed primarily out of retail deposits, which means the sector is less sensitive to relatively unstable funding from financial markets. Most banks, in regard to liquidity, report minimal dependence on financing from parent undertakings. In view of the regulatory requirement laid down by Národná banka Slovenska, domestic banks maintain a significant amount of liquid assets, which means they are resilient to any sizeable decline of funds.
NBS ISSUED RECOMMENDATIONS ON STRENGTHENING THE STABILITY OF THE DOMESTIC BANKING SECTOR

The Slovak banking sector was also supported by the NBS decision to issue recommendations for the banking sector mainly in regard to its capital and liquidity positions. The recommendations were a response to an expected deterioration in the environment in which banks operate and their main purpose was the maintenance of adequate capital buffers. Given the strong position of the banking sector, the recommendations were largely a precautionary measure.

STRESS TESTING RESULTS INDICATE BANKING SECTOR STABILITY

The banking sector’s resilience to substantial adverse developments was confirmed by stress testing. The stress tests were designed to reflect on risks that the sector may face in the future. The scenario “Economic Downturn” simulated a slump in the domestic economy. The scenario “Sovereign Crisis” combined a downturn in the domestic economy with a worsening of adverse trends in the euro area sovereign debt market. In both scenarios, the banking sector as a whole reported strong resilience based largely on sound capital ratios.

INSURANCE SECTOR SHOWED RELATIVELY POSITIVE TRENDS IN 2011

Life insurance premiums continued to record moderate growth in 2011, as they had in previous year, driven mainly by unit-linked and supplementary insurance products. Non-life insurance premiums rebounded moderately in 2011 with growth in almost all insurance lines and the strongest growth in property insurance premiums.

The overall loss ratio reached its lowest level since 2006, largely due to a decline in the loss ratio in property insurance. By contrast, the expense ratio increased slightly. The reinsurance ratio increased modestly. At the same time, reinsurance appears to be efficient since the reinsurance of claim costs and premiums have very similar ratios.

The profitability of the insurance sector in 2011 increased substantially in year-on-year terms. Profitability was driven mainly by the technical results in life and non-life insurance, which outweighed the worsening of financial results due to the ongoing crisis.

The amount of technical provisions fell moderately, with the most pronounced declines in the provision for claims and the provision established on the basis of a provisions adequacy test. The asset coverage of technical provisions was sufficient, and these assets continued to be invested in a conservative and largely unchanged manner. The main change in 2011 was caused by a redemption of government bonds and their partial replacement by corporate bonds.

SUPPLEMENTARY PENSION FUNDS PERFORMED POORLY

In the area of pensions, the number of people enrolled in Pillar II (retirement pension funds) and Pillar III (supplementary pension funds) increased modestly in both cases. There was, however, a relatively marked difference in the increase in assets under management in the two sectors. Whereas the net asset value of Pillar II funds maintained its linear growth of previous periods, the NAV growth of supplementary pension funds was only one-third of the level of the previous year. This disparity was largely explained by the weak performance of Pillar III funds, which on average made a negative return of 2.6%. This was related to the difference in risk policies of the portfolios, the main difference being in their exposure to equity instruments.

The asset structure of Pillar II funds did not change significantly in 2011 and remained largely conservative.

The financial result of management companies in both the Pillar II and Pillar III sectors improved in 2011. Indeed, supplementary pension management companies (Pillar III) made their first ever aggregate annual profit.

ASSETS IN COLLECTIVE INVESTMENT FUNDS DECLINED

Trends in the collective investment sector were predominantly negative during 2011. The amount of assets under management in the sector declined by 15%. The household sector’s net sales of common fund shares amounted to almost half a billion euro, with money market funds recording the highest volume of redemptions. Redemptions were concentrated in the second half of the year and peaked in August. The decline in
the sector’s net asset value was further exacerbated by the average negative performance of common funds. Their returns, especially those of equity funds and funds of funds, were deeply in negative territory.

The actual asset structure of common funds remained largely unchanged. On the positive side, management companies in the collective investment sector managed to increase their profitability in 2011.
MACROECONOMIC DEVELOPMENTS AS THEY AFFECT FINANCIAL SECTOR STABILITY
1 Macroeconomic developments as they affect financial sector stability

Economic slowdown in advanced countries
The year 2011 was difficult in terms of economic growth, with the negative developments undoubtedly outweighing the positive ones. Real GDP growth undershot original estimates and, to an even greater degree, was lower than in the previous year. This was true not only for the global economy as a whole, but also for the majority of regions and individual countries.

Hence there was a further widening of the already considerable gap between growth in the still fast-growing emerging countries and growth in stagnating advanced economies. Outlooks for 2012 are even gloomier. According to Consensus Forecast1 medium-term projections, economic growth is expected to continue decelerating and several countries may even experience a contraction. More serious still is the escalating vulnerability and sensitivity to additional shocks and the overall unpredictability of developments. The downside risks to GDP growth forecasts are at present unusually high.

The mounting sovereign debt crisis in the euro area had major repercussions on global economic developments
By far the most prominent of the many economic issues in 2011 was the euro area sovereign debt crisis. As a result of this crisis, it was the euro area that experienced the greatest difficulties during the period under review and its future outlooks appear to be the least favourable. It should be added that the stress situation in Europe affected the whole world to a greater or lesser degree. The unsustainability of public finances in Europe had not been entirely new phenomenon; however its systemic dimension significantly intensified during 2011, not only for Europe, but for the entire world. During the year the euro area crisis went through several phases, which appeared to affect first financial markets and later also the real economy. Periods of elevated stress were...
interspersed with calmer periods, but the general trend clearly indicated a mounting range of problems.

Looking at the chronology of the sovereign debt crisis in 2011, the first key event was the request and subsequent approval of financial assistance for Portugal, which became the third country dependent on assistance of EU/IMF. Soon afterwards, towards the end of the first half of the year, the focus of attention turned again to Greece. It was becoming clear that the first rescue package for Greece would not be sufficient, since the implementation of the state budget was going less well than planned. As investors in Greek government bonds began to have serious doubts about the country’s ability to put its public finances back on a sustainable footing, the yields on Greek debt hit record highs. As part of a proposed recovery programme aimed at preventing a disorderly Greek default, the private sector was asked to bear part of the cost of restructuring the country’s debt. To a large extent because of this request, the crisis subsequently gathered momentum. Despite official assurances that such debt write-down at the expense of private creditors would be an exceptional measure applying only to Greece, financial markets became increasingly concerned that a similar approach may in time be taken with other countries.

Due to this fear, and accompanying circumstances such as decelerating economic growth, markets turned their attention to Spain and Italy. Given the size of these economies, the spread of contagion to them represented a substantial qualitative shift. The following period saw the escalation of a dangerous cycle of three mutually reinforcing negative trends – a deteriorating macroeconomic outlook, banking sector instability, and rising risk premia on new and outstanding sovereign debt. Despite intensive efforts by European leaders to adopt measures that would definitively end this cycle, the pessimism in financial markets became more entrenched, except during some short calmer periods. The sovereign debt crisis reached its peak, to date, in November and at the beginning of December when European bond markets were gripped by panic and even those countries that had hitherto been considered the most creditworthy saw investor flight from their government bonds. Not only market participants, but also credit rating agencies judged the situation to be critical. The credit ratings of most euro area countries were downgraded, often by several notches. These moves also contributed to mounting nervousness.

**Turbulence in financial markets, particularly in the second half of 2011**

High volatility and nervousness characterised financial markets for the most part of 2011; this...
was by no means confined to the European bond market. These strains had a number of direct sources in addition to the prevailing sovereign debt crisis. Investor nervousness was heightened at the beginning of the year by the civil unrest in several North African countries, which was primarily reflected in rising oil prices. At around the same time markets were further shaken by the repercussions of the Great East Japan Earthquake. Tensions were exacerbated in July by the dispute in the United States over the raising of the country’s debt ceiling. With an agreement on this issue not reached until the last possible moment, fears were raised that the amount of debt would hit the existing ceiling and subsequently result in the United States defaulting on its nearest debt payment obligations.

For most of the year financial asset trading was conducted in the form of “risk-on / risk-off” trades, meaning that investors, depending on the prevailing nature of incoming macroeconomic news, either sold off more risky assets and bought low risk assets, or did the opposite. The price movements of specific assets were to a large extent determined by the class to which they were assigned, with less than usual attention paid to the properties of individual assets. As a result there was an above-average correlation of prices both within and between classes. The downturns in sentiment were accompanied by sell-offs of equities, government bonds issued by higher-risk countries, and speculative-grade bonds, and by increased demand for selected sovereign debt of low-risk countries, dollars, and gold. In a climate of uncertainty, investors gravitated towards the least risky assets primarily so as to ensure a return of principal. As the group of risk-free assets shrank, demand for them increased. This phenomenon was best exemplified by US and German government bonds, which were traded at record low yields to maturity.

The subdued risk appetite in 2011 translated into relatively weak demand for equities, which lost value on average. Global equity index ended the year 10% lower than at the level of the start of the year. Among the worst performing equities were those from emerging countries and bank shares. Bank share prices were affected not only by negative sentiment, but also by a downward revision of the profitability outlook.

FUNCTIONING OF THE EURO AREA INTERBANK MARKET WAS SUBSTANTIALLY DISRUPTED

The euro area interbank market was among the spheres hardest hit by the sovereign debt crisis. Confidence among banks was undermined by uncertainty about the size and actual distribution of risks, with an adverse impact on the effective distribution of liquidity in the sector. Banks from the countries worst affected by the crisis and banks with substantial exposures to such countries found themselves all but shut out of wholesale funding markets, particularly in the second half of the year. Even when relatively strong banks did lend to each other, they extended mainly shorter-maturity loans. The proportion of secured transactions increased. While a rising number of banks remained reliant on ECB liquidity-supplying operations, it was also the case that banks with surplus liquidity preferred to deposit their funds with the central bank than to seek higher returns in the interbank market. The stress in the sector was evident from the rising trend of indicators such as the iTraxx Senior Financials and the Euribor/OIS spread, which reached record levels.

THE RANGE OF MEASURES TAKEN TO STABILISE THE CRISIS HAVE SO FAR HAD LIMITED EFFECT

As outlined above, for most of last year European governments and other competent institutions were making various attempts to stabilise...
the crisis situation. A strategy for safeguarding the euro area and euro was gradually formulated around four core pillars. The most pressing task was to prevent a disorderly Greek default. To this end, a €130-billion financial assistance programme was approved for Greece, involving, on the one hand, funding from the EU and IMF, and, on the other hand, the nominal value of privately-held Greek sovereign debt being written down by around 50% through swap arrangements. The real loss for investors stood at around 77% of the nominal amount. This private sector participation, a condition for the assignment of the remaining funds from the rescue package, was a source of great uncertainty in financial markets since it was not clear in advance whether the private sector bondholders would voluntarily participate to a sufficient extent. In the end, however, the Greek debt was successfully restructured in mid-March 2012 and the whole programme was given the green light.

On the positive side, Greece thus gained some manoeuvring room in which to continue with reforms. There is, however, already strong speculation that sooner or later the financial assistance will have to be raised again and that, as matters stand, the only genuine solution for the country is a complete default.

Another mean of tackling the crisis is by bolstering the financial capacity of European Financial Stability Facility (EFSF), which is primarily intended to prevent the crisis spreading to other countries. The EFSF currently has an outstanding capacity of around quarter of billion euro. From 2012 the EFSF is due to be replaced by the European Stability Mechanism (ESM), whose financial strength will be twice that of its predecessor. There is, however, considerable pressure to have both facilities running concurrently from the middle of the year in order to ensure greater effectiveness. This question will probably be considered in the near future. The markets are highly sceptical about any such prospect, since even the combined capacity of the two facilities would not suffice in the event that Spain or Italy remained reliant on financial assistance.

Any lasting solution to the sovereign debt crisis will require strengthening bank capital, given that the repercussions from the troubled countries are channelled to the banking sector in several ways and are impairing its balance sheet with consequent negative feedback loop. Following an agreement reached at the EU Summit in October 2011, the largest European banks will have until 30 June 2012 to increase their core Tier 1 capital ratio to 9%. For the financing of their recapitalisation, banks are expected to first use private sources of capital. If necessary, national governments should provide support.

The last of the core pillars is the repair of public finances of euro area countries. For this purpose, the so-called fiscal compact was proposed in 2011 and received final approval at the beginning of 2012. The fiscal compact is an agreement under which EU Member countries undertake gradually to reduce their structural deficit and at the same time to tighten controls and sanctions for violations of the set limits. The agreement is in line with the approach taken since the crisis erupted back in 2010, i.e. it stresses the large-scale consolidation of public finances. Under the commitment to deficit reduction, governments are required to implement substantial austerity measures while at the same time raising budget revenues through tax hikes. Spending cuts should be accompanied by robust structural measures aimed at increasing economic competitiveness.

FINANCIAL MARKETS DID NOT SETTLE DOWN UNTIL THE END OF THE YEAR WHEN THE ECB CONDUCTED THREE-YEAR LIQUIDITY OPERATIONS

Although the effectiveness of the above measures and overall strategy cannot be easily assessed, financial markets appear to have responded far more positively to the ECB’s anti-crisis measures. These include mainly a programme to purchase government bonds that were under elevated sell-off pressure by private investors, and operations to supply unlimited liquidity to the euro area banking sector. The ECB intervened particularly vigorously in selected secondary markets during the period from August to November. A substantial part of the euro area banking sector, particularly in the periphery, was supported by unlimited liquidity tenders in the form of regular two-week operations as well as by longer-term refinancing operations (LTROs) with maturities of up to six months. Towards the end of 2011, the ECB Governing Council took the unprecedented step of conducting three-year LTROs, at the current interest rate of 1%. There were two separate

2 The Fiscal Compact was not signed by the United Kingdom and the Czech Republic.
tenders for these operations, one at the beginning of December 2011 and another at the end of February 2012. This measure appeared to be crucial in averting a financial collapse in Europe and bringing some calm to the market. Demand among banks for the three-year liquidity exceeded expectations, and the total allotment in both procedures was more than €1 trillion. Italian and Spanish banks received the bulk of the funding. The risk of bank defaults due to insufficient liquidity was virtually eliminated, as banks were able to secure advance funding for the coverage of issues maturing during the course of the year. Banks also used the funds obtained from these operations to purchase bonds issued by their own countries; this allowed relatively smooth refinancing at a critical period when there was an above-average level of maturing debt. There was a decline in primary and secondary market yields on the sovereign debt of all countries, with the exception of Greece. Financial markets in the broader sense responded positively to this situation and investor risk aversion abated. However much this liquidity injection may have served to stabilise relations in the euro area banking sector, there is still no long-term solution to the sector’s fundamental problems. The erstwhile model of European banks, built on market financing and a high leverage, is no longer sustainable in the current economic climate. Banks very likely face a period of deleveraging, but it remains to be seen how fast this process will be and how far it will go.

Crisis-buffeted euro area slid into recession
The macroeconomic situation in the euro area was accompanied by many negative tendencies. Although annual GDP growth of 1.4% was only marginally lower than in the previous year, the developments of quarterly growth rates in time do not give much cause for optimism. After a relatively strong performance in the first quarter, economic growth in the euro area as a whole slowed sharply in the following periods. In the last quarter of the year there was even a non-negligible quarter-on-quarter contraction of GDP. The largest contributor to GDP growth was exports, but the last quarter saw their marked decline. Domestic demand in the private sector increased only very slowly, particularly in the case of household final consumption. From the second half of the year the effect of fiscal consolidation measures acted as a drag on the economy.

As economic growth deteriorated, the number of unemployed increased. The first half of the year remained neutral for the labour market, but then the unemployment rate began to rise linearly by a 0.1 percentage point per month. This trend continued into January 2012, when the unemployment rate reached 10.7%, its highest level since the establishment of the euro area.

Rising inflation was a feature of 2011 from the beginning of the year. This inflation was largely cost-push driven, with the overall price level being driven up by increasing prices of oil and food commodities. The annual inflation rate peaked towards the end of the year at three percent. According to the latest available data, inflation declined somewhat between December and February 2012. With tensions in the Middle East rising once again, the oil price is beginning to rise more sharply and therefore there is a risk of inflation pressures rebounding. The rise in prices of goods and services reduced the purchasing power of households, thereby contributing to the stagnation in consumption in real terms. Inflation growth in the first half of the year was such that the ECB twice raised its key policy rate, by 25 basis points in both cases. In the fourth quarter, however, the ECB responded to the economic slowdown by twice cutting its key policy
rate by 25 basis points, leaving them back at their original level (1%).

A major reason for the euro area reaching the brink of recession was the fact that firms and households remained cautious about increasing their consumption and investment. This caution is a natural response to the uncertainty pervading the region as a result of the sovereign debt crisis. The largest decline in sentiment in the real economy was observed during the summer months when the crisis began to take on a systemic character. The downward trend continued in subsequent months and it was only towards the end of the year that confidence indicators stabilised. While sentiment at the beginning of 2012 was slightly more optimistic, this increase in confidence should not be overestimated considering the fragile bases on which it stands.

Households and firms were unable to obtain the financing needed for some of their consumption and investment plans, as banks tightened credit conditions in the third quarter and, even more so, in the fourth quarter. The reduced availability of loans was due not only to concerns about the worsening economic outlook, but also to the capital and liquidity constraints in banks’ balance sheets. The crucial question determining the destiny of economic development in the euro area remains: to what extent will the funds from the three-year LTROs be passed on to the real economy?

EURO AREA PERIPHERY IN A DIFFICULT SITUATION

The picture of the economic situation in the euro area is not complete, if the region is assessed as a whole, since the aggregate data do not convey information about imbalances between groups of member countries. The economic reality in peripheral euro area countries at the epicentre of the sovereign debt crisis is far worse in comparison with the euro area average. In none of these countries did GDP grow by more than one percent and in two of them it contracted. Heavily dependent on domestic demand, these peripheral countries have high (and still rising) unemployment that is weighing down household consumption. The investment activity of firms is subdued due to their caution and to the drying up of loans, particularly for smaller firms. In addition, the government spending that in normal circumstances would make up the demand lost from the private sector has been radically cut under the countries’ fiscal consolidation plans. Hence the economies of these countries still lack any significant engine of growth. Governments are making more or less successful progress in the implementation of structural reforms intended to support economic recovery, but these will bring benefits only in the medium-term horizon.

It is therefore assumed that economic activity in the euro area periphery in 2012 will decline in year-on-year terms. Since this may result in a lower tax receipts, these governments may have to make further spending cuts if they are to meet the fiscal deficit targets to which they committed themselves back when the economic outlooks were brighter. Such developments may further weaken their economies and lead to an escalation of the recession and government debt, instead of the repair of public finances. In the years ahead the public finances of the periphery countries will most likely be on the edge of sustainability, and this may be reflected in volatile sentiment in their bond markets. Whether the countries can put their debt burdens on a stable trajectory will depend on a wide range of factors. Given the situation that the periphery countries...
are in, any sharp rise in oil prices (a scenario that is becoming more likely) would be very damaging to their economies.

**The German economy helped prevent an even sharper slowdown in the euro area economy as a whole**

The situation in Germany stood in stark contrast to that in peripheral euro area countries, as its economy grew by 3.0%. For countries whose main trade linkages are with Germany, the growth of the large German economy made a substantial contribution to their own economic growth. The growth in Germany was driven by exports, the significant part of which was destined for the United States and emerging countries. Nevertheless, the domestic demand component did not lag far behind. Households increased their consumption and firms reported strong investment activity. The economy was carried on a wave of optimism, which stemmed inter alia from successful job creation. The unemployment rate at the end of the year was at its lowest level for two decades.

Another major advantage that Germany had over much of the euro area was easy access to financing. The private sector had hardly any difficulties in obtaining funding for its activities.

Despite these strengths, the German economy was also finally affected towards the end of the year by the euro area sovereign debt crisis. The country’s economic activity even contracted slightly in the last quarter. Nevertheless, several indicators suggest that Germany may have avoided a formal recession and that its economy returned to growth in the first quarter of 2012. According to the latest forecasts, German economic growth is expected to be in the region of 0.5% throughout 2012.

Economic growth in the United States also declined, but it has recently shown signs of recovery.

The United States has been relatively unaffected by the crisis in Europe given that its economy is both the largest in the world and comparatively closed. Even so, the US economy remains a far from ideal state and faces the demanding task of coping with many domestic problems. Were the euro area situation to slide out of control, the shock would quickly be transmitted through the financial channel to the United States. The decline in GDP growth to 1.7% in 2011 (from 3.0% in 2010) seems at first glance to be quite sharp, but in structural terms GDP growth became more stable and sustainable. The largest contribution came from household consumption. There are, however, questions about whether consumption growth can rise much further, since disposable income lagged behind consumption and the savings ratio declined. In contrast to 2010, when changes in inventories accounted for more than half of the total economic growth, the contribution of fixed investment increased in 2011. The gradual introduction of fiscal consolidation measures reduced GDP growth by almost half a percentage point. Even more extensive cuts in public spending are already planned for the years ahead.

According to forecasts, US economic growth is expected to increase moderately in 2012, to 2%. In recent months there have been a series of relatively encouraging reports on the US economy and the values of several partial indicators of the macroeconomic situation have exceeded expectations. The main positive surprise has been the labour market situation: the unemployment rate fell between October and January, from its long-standing level of around 9%, to 8.3%. While real estate prices continue to fall to new lows there

**Chart 8 Net job creation in the United States (thousands)**

is at least a rise in property sales. This could re-move the excess supply from the market and lay the foundations for a recovery of what is a key component of the US economy. Other "soft" indicators of activity and confidence have picked up after recent declines and for the time being they imply that the country is not heading into recession.

**China relatively successful in its efforts to prevent overheating while at the same time maintaining strong growth**

The position of China in the global economy is becoming ever more important. Fears were often expressed in 2011 that the Chinese economy was on the verge of overheating and at risk of a sharp slowdown. These pessimistic expectations have not so far materialised. Through a combination of monetary policy tightening and the further macro-prudential measures taken at the end of 2010 and beginning of 2011, the Chinese government managed to strike a relatively favourable balance. The bubble in the residential property market stopped expanding and inflation eased after rising at a dangerous rate. Meanwhile, economic growth slowed only slightly, to 8.9%. It would be premature, however, to say that China no longer faces an adverse scenario.

**In 2011 Slovakia benefited from its linkages with the German economy, but its economic growth in the next future is expected to be far more subdued**

Thanks to its close links with Germany, the Slovak economy was one of the fastest growing in Europe in 2011. Its growth rate of 3.3% was the second highest among euro area countries, and economic activity grew at constant pace in all quarters of the year. In this context, domestic economy’s resilience to the slowdown experienced by most of the rest of the euro area in the last quarter can be assessed positively.

Exports accounted for almost all of Slovakia’s GDP growth during the period under review, and industrial production made up the bulk of the exports. The value of goods and services exported by Slovak firms in 2011 increased year-on-year by 10%. There was a small positive contribution to GDP growth from fixed capital formation in the private sector. Public investment expenditure played a restrictive role due to government efforts to reduce the fiscal deficit. Household consumption expenditure also declined in real terms on a year-on-year basis. Household consumption was adversely affected by declining real wages and high unemployment, while the propensity of households to consume fell in the prevailing climate of uncertainty. The savings ratio rose gradually over the course of the year and reached its highest level for 12 years.

Real wages declined as a consequence of the inflation, which was among the highest in the euro area. The annual HICP inflation rate at the end of December 2011 was 4.6%, with its main drivers being rises in administered prices and food prices.

Compared to the previous period, there were around 40,000 jobs more in Slovakia in 2011, concentrated mainly in the sectors of industry and market services. Nevertheless, the unemployment rate fell by less than half of a percentage point and ended the year at a still high 13.4%.

For most of the year, the euro area sovereign debt crisis has no more than a marginal effect on the Slovak government bond market. Investors took a largely positive view of country’s public finances in terms of their sustainability. In November, however, as uncertainty in European markets reached a peak, the price of Slovak government bonds also fell quite sharply. Yields to maturity on 10-year sovereign debt quickly rose by 1 percentage point, to 5%. They later declined moderately, but to a lesser extent than did the bond yields of other countries.

It is generally assumed that the Slovak economy will not be able to avoid a substantial slowdown in 2012. Growth is expected to fluctuate in the region of 1%. The forecast of economic deceleration is predicated mainly on a marked decline in external demand. Domestic demand is expected to remain subdued.

Certain indicators, however, are to some extent refuting projections that the economy will cool significantly. Not only did industrial production not show signs of slowing at the end of 2011, it increased at an exceptional pace in January (on a seasonally adjusted basis). A positive aspect is that industrial new orders have so far not declined to any significant degree.
DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR
2 DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR

ACTIVITY IN THE DOMESTIC FINANCIAL SECTOR SLOWED SOMewhat IN THE SECOND HALF OF 2011

The domestic financial sector was exposed to relatively heterogeneous developments over the course of 2011. The first six months saw positive trends in numerous areas, which stimulated a modest upturn in the activity of financial institutions. This was followed by a slowdown in the second half of the year, leading to a decline in assets in most of the sectors. Thus, asset growth in the Slovak financial sector turned into a moderate decline over the second half of 2011 (-0.4%, from a growth of 2% in the first half-year period).

The sharpest fall in assets (15% over the second half-year period) took place in collective investment funds, mainly as a result of redemptions, accompanied by a decline in performance. Limited fall in assets in that period was also reported by insurers, investment firms, and Pillar III pension funds. While the decrease in amount of assets in life insurance was correlated with the lower yields of these assets, the fall in net asset value (NAV) in supplementary pension saving was caused mainly by the negative performance of the relevant funds and only marginally by redemptions. A slight fall in assets was also recorded in the banking sector, despite the continuing growth in lending. Growth in assets was observed only in the case of Pillar II pension funds. As a result, the net value of assets in these funds exceeded the figure for collective investment funds.

In the context of the ongoing moderate decline in assets in the financial sector in the second half of 2011, the positions of individual sectors (except for the position of Pillar II in relation to collective investment) changed only slightly, in the range of 0.1 percentage point.

A paradox in this case was the growth in hire-purchase financing and the discontinued decline in leasing, which was the result of renewed growth in consumer loans (Chart 24).

The interconnection between the domestic financial sector and households also strengthened in 2011. Credit exposure to households rose from 20% to 23% of the financial sector’s assets and the share of household savings increased from...
44% to 46%. As for the corporate sector, its links to the domestic financial sector remained virtually unchanged. This also confirmed the growing significance of the household sector for the domestic financial sector, already mentioned in the previous analyses.

A positive fact was that the domestic financial sector’s dependence on external resources did not increase in 2011. Transactions with parent banks, foreign customers or central banks remained at a relatively low level. This indicates that the banking sector maintained a stable position in terms of liquidity.

Profitability continued to grow, but the rate of growth slowed in the second half of 2011
The profitability of financial institutions, measured by return on equity (ROE), continued to improve in 2011. In year-on-year terms, ROE increased in all segments of the financial market. For the first time, the retirement pension sector also entered positive territory (ROE 0.09%). The other sectors were also performing well. They closed the year with an ROE ratio ranging between 14.4% and 16.5%. These values, however, are still below the figures from the pre-crisis period, when profitability (except that of asset management companies under Pillar II) fluctuated between 15.3% and 22.3%. On the other hand, neither banks nor insurance companies, nor asset management companies (collective investment undertakings), reached the level of profitability from 2007.

However, profitability did not follow a linear course throughout the year. In the context of the aforementioned slowdown in activity in the financial sector, profit generation also slowed in the period under review. Banks, insurance companies, as well as supplementary pension asset management companies produced lower profits in the second half-year period than in the previous six months.

Slower growth in household financial assets in the second half of 2011, accompanied by a shift to higher maturities
The growth in household financial assets slowed in the second half of the year. This was mainly the result of share/unit redemptions in collective investment funds. Thus far, there has been little evidence that the funds so obtained have been deposited in bank accounts as it happened after redemptions at the end of 2008 and in the first three quarters of 2009.
A slowdown was also recorded in the growth rate of household savings in the form of life insurance. Therefore, the rate of growth in household financial assets slowed to the level of the first half of 2010.

The trend of faster growth in deposits with longer maturities (over 1 and up to 5 years) was confirmed in 2011. At the same time, the position of banks in relation to household savings continued to strengthen.

Since the slowdown in the growth rate of household financial assets was accompanied by a slowdown in lending to households at the end of the year, the ratio of loans to deposits recorded no substantial change. It continued to rise linearly in 2011 (from 44% to 49%).

**THE SECOND HALF-YEAR PERIOD SAW A DIMINISHING TREND IN RETURNS ON HOUSEHOLD FINANCIAL ASSETS, ACCOMPANIED BY A RISE IN PRICE LEVELS**

Numerous types of household financial assets yielded diminishing returns in the second half of 2011. The worst performers were assets invested in financial markets. Returns diminished mainly in the case of unit-linked products, Pillar III funds, and collective investment funds (except for money market funds, whose performance reached 1%).

On the other hand, competition in the banking sector led to a rise in long-term deposit rates, despite a fall in the level of interbank rates. In this context, a positive trend from the viewpoint of households was the aforementioned orientation of banks to long-term deposits. Investments in...
Chapter 2

Chart 16 Household financial assets by maturity and rate of return

Source: NBS.
Note: The data in the chart are as at 31 December 2011. For collective investment and pension funds, the gross return is given as at December 2011. The interest rate on new bank deposits is given as at December 2011. The inflation rate is for December 2011. For life insurance, the technical interest rate is given for 2011. Money market funds also include short-term investment funds.

products that suffered the most serious losses remained at a relatively low level. The highest surrenders in 2011 were recorded in segments that suffered the highest losses.

The weighted average return on household financial assets was positive in each month of 2011, owing mainly to the large amount of bank deposits earning positive returns. On the other hand, none of the main types of household financial assets earned returns high enough to compensate for the consumer-price inflation. In real terms, returns on household financial assets remained in negative territory throughout 2011.

Chart 17 Annual return on household financial assets in nominal and real terms

Source: NBS, SO SR.
Table 1: Selected financial relationships in the Slovak economy (EUR millions)

<table>
<thead>
<tr>
<th>NBS</th>
<th>Domestic financial sector</th>
<th>Domestic non-financial sector</th>
<th>Rest of the world</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic banks</td>
<td>Insurers</td>
<td>Pillar II and III funds</td>
</tr>
<tr>
<td>Domestic banks</td>
<td>1,055 - 1,463</td>
<td>0 - 0</td>
<td>0 - 0</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>762 - 671</td>
<td>1,167 - 613</td>
<td>0.05 - 0.04</td>
</tr>
<tr>
<td>Pillar II and III funds</td>
<td>0 - 0</td>
<td>794 - 787</td>
<td>166 - 236</td>
</tr>
<tr>
<td>Common funds</td>
<td>0 - 0</td>
<td>958 - 1,459</td>
<td>81 - 88</td>
</tr>
<tr>
<td>Other financial companies</td>
<td>0 - 0</td>
<td>1,544 - 1,280</td>
<td>298 - 234</td>
</tr>
<tr>
<td>NBS</td>
<td>71 - 119</td>
<td>67 - 39</td>
<td>1,259 - 1,342</td>
</tr>
<tr>
<td>Enterprises</td>
<td>0 - 0</td>
<td>9,701 - 9,358</td>
<td>40 - 56</td>
</tr>
<tr>
<td>General government</td>
<td>0.12 - 0.6</td>
<td>1,818 - 883</td>
<td>0.3 - 0.2</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>15,422 - 16,046</td>
<td>9,004 - 8,848</td>
<td>58 - 56</td>
</tr>
</tbody>
</table>

A direct relationship between the creditor and the debtor does not exist.

Data are not available.

Source: NBS.

Note: Structure of data in cells: December 2010 – December 2011 (for liabilities of enterprises to the rest of the world, the data in the cells are as of September 2011).

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

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

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

2.1.1 TRENDS IN THE BANKING SECTOR BALANCE SHEET

The year 2011 saw several conflicting trends in the housing loan market. After growing at an accelerating pace over the first six months, housing loans showed weakening dynamics in the second half-year period in most of the banks. The slower growth in housing loans in that period was influenced largely by subdued demand on the part of households. The falling household demand for new loans was caused by several factors, including a loss of confidence among households regarding the further trend in their financial situation, continuing fall in residential property prices, and the large amount of loans provided in the first half of 2011. Despite the weakening demand, there was still relatively strong competition among banks.

The above-average competitive pressure in the market for household deposits persisted in 2011. The strongest competition was recorded in the area of deposits with longer maturities. In the middle of the year, both demand and supply were influenced by increased redemptions in collective investment funds. The last quarter also saw a revival in the area of term deposits with an agreed maturity of up to one year, mainly to the detriment of sight deposits.

Lending to enterprises grew throughout the whole year of 2011. The year-on-year rate of growth slowed somewhat in the second half of the year. After June 2011, however, lending activity was more balanced in terms of its sectoral distribution, as well as in terms of the number of banks involved in corporate financing. The overall financial position of the non-financial institution sector improved slightly during 2011, mainly as a result of growth in external trade and its positive influence on the revenues of domestic enterprises. This factor, together with the relatively favourable interest rate developments, created room for an increase in demand for loans. On the other hand, demand was adversely affected by the low level of business confidence in both Slovakia and its main trading partners, and by an increase in funds inflows from abroad. Credit standards for new loans to enterprises remained relatively strict in 2011.

Investments in securities, mostly in Slovak government bonds, continued to account for a significant part of banks’ assets in 2011. The total amount of securities held in the portfolios of individual banks remained virtually unchanged in 2011.

The largest changes in the structure of interbank assets and liabilities took place at the end of the year, as a result of the ECB’s non-standard three-year refinancing operations. Banks used the funds so obtained as a replacement for interbank deposits and deposits from non-residents. The significance of interbank operations, except for daily liquidity management, was relatively small in 2011 for the majority of banks.

2.1.1.1 CUSTOMERS

THE RETAIL SECTOR

After a moderate revival in the first half of 2011, lending growth slowed in the second half-year period, mainly as a result of a fall in demand.

As a result of a gradual improvement in the economic situation and relatively low interest rates, bank lending was growing at an accelerating pace throughout the first half of 2011. In the second half of the year, however, the rate of growth slowed, in particular in housing loans, representing the most important retail loan product. The total amount of new loans provided in 2011 reached €1.62 billion, which was comparable with the figure for 2010.

The decelerating growth in housing loans in the second half of 2011 was influenced by several factors, the key factor being the falling demand for loans among customers. Numerous banks recorded subdued demand for new loans, compared with the first half of 2011.

An important factor influencing the level demand was a loss of confidence among households in the sustainability of their financial position. The
second half of 2011 saw negative developments in all components of consumer confidence, which reflect the employment situation, real incomes, and activity in the corporate sector.

On the other hand, some of the banks recorded increased demand for new loans; certain banks even reported a substantial rise in demand. This indicates that, despite the weakening de-
mand, there was relatively strong competition among banks. This trend was also confirmed by the marked changes recorded in banks’ market shares in new housing loans.

The downturn in bank lending in the second half of 2011 was attributable to the excessive exploitation of demand capacities in the second quarter, when customers took advantage of the lower interest rates to refinance old loans with new, cheaper loans. The lower demand for housing loans was also influenced by the continuing fall in residential property prices, as households tended to postpone their property purchases in expectation of a further fall in prices.

On the part of banks, no serious attempt was made to restrict the provision of new loans. Credit standards for housing loans (i.e. the criteria for customers applying for such loans) had been eased to some extent over the past two years. In 2011, however, the standards were eased to a lesser extent than in 2010. The easing of credit standards was necessitated by the fierce competition in the market. Competition also caused an increase in less secured loans. A positive signal, however, was that the share of these loans stabilised over the course of 2011, before decreasing at the year-end. An exception was the category of risky loans, for which banks tightened their lending conditions, primarily through interest margins.

**INTEREST RATES ON NEW HOUSING LOANS ROSE**

An important factor influencing developments in the housing loan market in 2011 was interest rates on new housing loans. These loans recorded relatively heterogeneous developments. Lending rates showed a falling tendency throughout the first half of 2011, especially in June. The rates subsequently rose, before they stabilised in the final quarter.

A significant role in this development was played by the aforementioned strong competition among banks. This caused that, despite a rise in interbank rates, lending rates did not actually rise in most of the first six months. In the final quarter, when long-term rates for government bonds rose, customer interest rates remained virtually unchanged.

The competition was reflected first and foremost in interest rates with a fixation period of up to five years. Modelled rates, which take into ac-
with longer maturities. Interest rates on new loans were to some extent influenced by an increase in Slovak government bond yields, too. Similar developments were also recorded in most of the euro area countries.

**Consumer Loans Increased in Absolute Terms, to the Pre-crisis Level**

Consumer loans experienced a certain revival in 2011, with the amount of loans increasing in the second part of the year to the level of 2008. For comparison, retail consumer loans were provided in the second half of 2011 in the amount of €180 million, compared with €85 million in the same period of 2010. However, the marked increase in the amount of consumer loans was concentrated in several banks only.

Credit standards for consumer loans were eased to a greater extent than those for housing loans, but the easing of standards took place in several banks only.

**Competition Among Banks for Term Deposits Increased with the Withdrawal of Customers from Collective Investment Funds**

The total amount of household deposits increased in 2011 by €1.59 billion (in December by €466 million), which was 29% more than in 2010. Thus, household deposits amounted to €25.2 billion at the year-end.

The above-average competition pressure persisted in 2011. Banks made increased efforts to stabilise their balance sheet, mainly on the liability side. They concentrated on deposits with longer maturities. This was also indicated by the actual rate of interest on deposits with an agreed maturity of over 1 year and the modelled rate, which takes into account the market factors, too. In the case of shorter-term rates, the modelled rate did not deviate too much from the expectations, but in the case of longer-term rates, the actual rate differed considerably from the modelled rate. The difference between rates for shorter and longer maturities increased, but to a lesser extent (about 1.1 percentage points) than in 2009 (about 1.5 percentage points).

Competition among banks intensified in the middle of 2011 in connection with the increased redemption of shares/units in collective investment funds. This was the reaction of customers to the poor performance of funds (which resulted in negative returns in the second half of the year) and to the relatively advantageous and safe returns on fixed-term bank deposits. The market also saw a rise in interest levels in large banks, which made every effort to maintain their customers shifting funds from asset management
companies within the same financial group. Funds coming from collective investment funds were concentrated mainly in term deposits with a maturity of over 1 and up to 2 years. Competition among banks led to significant changes in the market shares of banks and to growth in new term deposits with the same maturity.

The strong competition on the part of medium-sized and smaller banks reduced the share of the three largest banks in the total amount of deposits.

**TERM DEPOSITS WITH A MATURITY OF UP TO ONE YEAR HAD INCREASED BY THE END OF 2011**

The period under review saw differentiation between the deposits products offered by individual banks. This led to a change in the structure of deposits in the final quarter of 2011. Under the effect of strong competition, funds continued to be shifted from deposits with shorter maturities into deposits with longer maturities up to the end of the third quarter of 2011. In the final quarter of the year, funds also started to be shifted from sight deposits into fixed-term deposits with short maturities. Hence, in contrast with the previous years, the amount of funds on sight deposit accounts stagnated over the course of 2011, and then started to fall at the year-end. This was mainly indicated by a change in the structure of deposits at the year-end, when the total amount of deposits usually records a large seasonal increase, mainly in sight deposits and long-term deposits, but in December 2011 sight deposits were replaced by short-term deposits.

**INTEREST RATES ON TERM DEPOSITS IN SLOVAKIA WERE AT THE LEVEL OF THE EURO AREA AVERAGE**

In comparison with the other euro area countries, the average deposit rate in the Slovak banking sector in 2011 was at the level of the median value for the euro area. However, developments in euro area countries in the second half of 2011 indicated that the heterogeneity of interest rates on new deposits was increasing. This shows that, in searching for resources in certain countries, the banking sector cannot rely solely on the financial markets, which are now under the pressure of uncertainty, and such financing is more and more expensive. Hence, above-average interest rates are mainly offered by banks in countries that have been harder hit by the debt crisis (Greece, Cyprus, Portugal, and Italy).

**THE CORPORATE SECTOR**

**DEMAND FOR LOANS SHOWED SOME SIGNS OF RECOVERY AT THE YEAR-END**

Some of the conditions for demand for loans among enterprises continued to improve in 2011. An important factor was external demand
and its positive influence on the revenues of domestic enterprises. Although the rate of growth slowed gradually in both exports and corporate revenues, the corporate sector’s overall financial position improved somewhat. In line with the trend in interbank rates, lending rates for enterprises ceased to rise in the middle of 2011. The relatively favourable course of interest rates, combined with a modest but steady rise in revenues in most sectors, contributed to the reduction in the non-financial sector’s overall credit burden (see Chart P30 in the Annex).

On the other hand, business confidence in the corporate sector remained weak and continued to deteriorate during 2011, mainly in construction and industry. In 2011, confidence also weakened in countries that are Slovakia’s main trading partners (see Chart P23 in the Annex).

The weak confidence was partly the result of falling demand, especially external demand, which was connected with the aforementioned moderate slowdown in exports. A slowdown in orders from abroad was mainly recorded in industrial production, where orders even declined slightly at the year-end in year-on-year terms. A similar situation was observed in that period in most of the EU countries. The share of foreign orders in the domestic industry was still below the figure for the pre-crisis period.

An additional factor that could have an adverse effect on corporate demand for loans in domestic banks was a modest increase in the inflow of funds from abroad (see Chart P34 in the annex). The decreasing credit burden, coupled with persistent uncertainty, led into a modest recovery in demand for loans at the end of 2011.

**Credit standards for new corporate loans remained relatively tight**

As it was stated in the analysis for the first half of 2011, the gradual tightening of banks’ lending policies as from 2009 came to a halt at the beginning of 2011. The situation changed in the second half of 2011, when banks again tightened their credit standards. This was due partly to the imposition of internal restrictions in specific banks and, in particular, to the overall risk perception, which deteriorated as a result of the ongoing crisis in the euro area. In addition, the majority of banks expect a further tightening in credit standards for corporate customers in the first half of 2012.

**The second half of 2011 saw more balanced growth in the amount of loans**

Against a background of increased uncertainty, the amount of loans provided continued to grow on a year-on-year basis in the second
half of 2011, though at a somewhat slower pace than in the first half of the year (6.5% in December, compared with 7.6% in June). On the other hand, lending activity was more balanced. This was mainly reflected in the more even distribution of loans among the individual sectors. Compared with the first half of the year, the increase in loans was not generated solely by certain sectors, such as, for example, water and gas supply or commercial real estate. A recovery was also recorded in industrial production and retail trade. A persistent problem was the reduced lending to the wholesale trade and construction sectors.

Corporate financing was relatively balanced at the end of the year, even in terms of the number of banks involved. In other words, the increase in amount was more evenly distributed among the financing banks, which means that the market shares of banks remained virtually unchanged in this period.

**Corporate deposits in banks decreased in the final quarter of 2011**

The slowing trend in deposit growth mentioned in the analysis for the first half of 2011 was confirmed in the next half-year period. The final quarter even saw a year-on-year decline in corporate deposits, in both sight and term deposits. This trend was in line with the overall decline in the financial assets of enterprises in the second half of 2011, but the impact of the bank levy introduced at the end of 2011 cannot be excluded either. This levy is directly proportional to the...
amount of deposits received from the corporate sector.

During 2011, a relatively close correlation was observed between movements in corporate deposits and corporate revenues. This was a repetition of the situation from the end of 2008, when a slowdown in corporate activity was surpassed to some extent by a decline in corporate deposits.

**2.1.1.2 SECURITIES**

**BANKS HELD LARGELY GOVERNMENT BONDS IN THEIR PORTFOLIOS AT THE END OF 2011**

As at the end of 2011, securities accounted for approximately one-quarter of the banking sector’s total assets. The securities portfolios of banks were still dominated by government bonds, especially by Slovak government bonds. Bonds issued by non-residents were concentrated in several banks. Three banks with the largest holdings of such bonds owned more than three-quarters of the total amount.

According to the issuer’s residence, four countries had significant share in the total portfolio (in addition to Slovakia), but none of them accounted for more than 3.5% of the total amount of debt securities in nominal value terms (Greece 3.5%, Poland 2.3%, Hungary 2.2%, and Ireland 1.6%).

**INCREASE IN THE SHARE OF SECURITIES HELD TO MATURITY TO THE DETRIMENT OF SECURITIES AVAILABLE FOR SALE**

The total nominal value of bonds held in the available-for-sale (AFS) portfolio decreased, probably in connection with the introduction of a deductible item for own funds from the revaluation of debt securities in the AFS portfolio, and with the negative debt market developments in 2011 and the consequent revaluation of investment strategies by banks.

As at the end of 2010 and the end of the first half of 2011, banks held bonds in this portfolio in the total nominal amount of almost €5 billion. By the end of 2011, this amount had decreased by €0.5 billion. Some of the banks recorded a decrease owing to the maturity/sale of bonds. In other banks, the bonds were shifted to the held-to-maturity (HTM) portfolio.

**SECURITIES ISSUED BY BANKS CONSISTED PREDOMINANTLY OF MORTGAGE BONDS**

In 2011, Slovak banks continued to issue mostly mortgage bonds, which make up about 90% of the securities issued by banks (a long-term trend). At the beginning of the year, the issuance of mortgage bonds was influenced mainly by the maturity structure of previous issues while the amount of mortgage loans provided was more or less stagnant. In the second quarter, however, the year-on-year rate of growth in these loans started...
to accelerate gradually. Thus, the weight of this factor in decisions for new issues increased, too. It should be noted that, despite a gradual increase, the year-on-year change in the amount of mortgage loans did not exceed 3% even at the end of the year, and thus the need to replace maturing mortgage bonds with new issues remained the main factor. In 2011, banks providing mortgage loans continued to meet the statutory minimum coverage level prescribed for the backing of mortgage loans by mortgage bonds.

The effects of the sovereign debt crisis and the rising key ECB interest rates were most apparent in the first half of 2011

Influenced probably by the rising key ECB interest rates and uncertainty caused by the sovereign debt crisis, banks issued mostly fixed-coupon or floating-coupon mortgage bonds with relatively short maturities in the first half of 2011. In the second half of the year, floating-coupon bonds started to be issued with longer maturities, though at the expense of larger margins against EURIBOR interbank rates. However, the most significant increase was recorded in the maturity of fixed-coupon bonds, which reached an average (weighted by the nominal value of issues) of more than 14 years in the fourth quarter. Coupon yields remained relatively low. In the final quarter, none of the issues offered coupon yields at the level of Slovak government bond yields with a comparable maturity.
Bonds other than mortgage bonds were issued in 2011 in a relatively small amount

Bonds other than mortgage bonds were issued by banks in a smaller amount in 2011. Three banks issued bonds in the total nominal amount of €80 million. After a longer period, banks also issued subordinated bonds in 2011, in order to increase their additional own funds. The total nominal value of subordinated bonds issued in the year under review stood at €44 million. These bonds were offered to both institutional and retail investors.

2.1.1.3 Banks

The biggest structural changes in interbank operations took place at the end of 2011 as a result of the ECB’s non-standard operations

Interbank operations and operations with central banks continued to be the banking sector’s most volatile balance-sheet items in 2011, on both the asset and liability sides. Banks used such operations largely for the management of daily liquidity, and/or for the compensation of movements in other volatile balance-sheet items.

Despite their volatile course during the year, interbank operations underwent the most significant structural changes in the month of December. At the end of the month, numerous banks took advantage of the possibility of participating in 3-year long-term refinancing operations (3-year LTROs) or dollar-based refinancing operations with the ECB.

Since banks used these funds mainly to replace interbank deposits and deposits from non-residents, this development was also reflected in the falling amount of interbank operations with domestic and foreign banks. This indicates that banks regarded ECB funding as a stable and cheap source of financing for improving their liquidity position, rather than for speculative operations.

The approach of Slovak banks to the utilisation of ECB funding corresponds to some extent to the approach of banks in other euro area countries. Unlike Slovak banks, other euro area banks also used this source to obtain funds for replacing their medium-term and/or long-term resources. This was due to the large amount of maturing bonds in euro area banks in 2012 and the practically non-functional markets for unsecured bank bonds. A slightly different approach in comparison with domestic banks was also apparent on the asset side. Banks in general indicated that they would, to some extent, use these funds for the purchase of government bonds and secured bank bonds, too.

At the year-end, a decrease was also recorded in the amount of operations with foreign banks on the asset side.

Interbank interest rates remained in line with the EURIBOR rates

The implied interest rates in the domestic interbank market remained in line with the EURIBOR interbank rates. At the end of 2011, declines were recorded in operations with both domestic and foreign banks, probably as a result of the fact that the vast majority of operations with foreign banks (75–90%) took place within the own group. Nonetheless, the actual difference between the implied rates calculated for operations with domestic and foreign banks was somewhat higher than earlier in favour of domestic operations.

The spreads also reached a record level, compared with the previous two years. In the case of
Chart 39 Interest rates in the domestic interbank market (%)

Chart 40 Counterparty risk indicators in the euro area interbank market (p.p.)

Source: NBS.
Note: Average rate for non-residents – average interest rate on interbank deposits taken from non-resident banks.
Average rate for residents – average interest rate on interbank deposits taken from resident banks.
The interest rates were calculated on the basis of the stock of short-term loans and deposits (up to 1 year) received in euro as at the end of each month.
The rates were calculated as an average weighted by the volume of individual transactions.
The spreads were calculated as the difference in interest rates between the bank with the highest average rate and the bank with the lowest average rate.

operations with residents, the high spread was caused by a fall in the minimum value, but in the case of operations with non-residents, the maximum value also rose slightly. This rise was probably caused by an increase in the residual maturity of interbank operations, rather than by a rise in interest rate levels. Moreover, in the case of banks that recorded a steeper rise in the implied rates at the end of the period under review, such operations took place almost exclusively within their own groups.

Risk margins in the euro area interbank market increased
Although the implied rates of Slovak banks do not reflect increased credit margins in comparison with the euro area average, the risk margin of EURIBOR interest rates increased in itself at the end of the year. This means that, though the Slovak sector is not perceived as excessively risky, the increased uncertainty in the euro area interbank market led to increased costs in Slovakia, too. The falling trend in the risk margin at the beginning of 2012 can be to some extent ascribed to the ECB’s non-standard operations carried out at the end of 2011 (at the first auction in three-year LTROs).
2.1.2 FINANCIAL POSITION OF THE BANKING SECTOR

Total profits in the banking sector increased by 34% in year-on-year terms. Return on capital for the sector reached 15%, the level of the pre-crisis period (2008), but the differences in profitability between the individual banks were higher than in 2008. The year-on-year increase in profits was caused mainly by a reduction in loan loss provisioning at banks and, in part, by an increase in net interest income from transactions with enterprises. On the other hand, some of the banks recorded considerable losses from the revaluation of their securities portfolios as a result of the deepening debt crisis in the euro area, which caused a relatively significant fall in the prices of government bonds issued in numerous euro area countries. In the coming period, the banking sector’s profitability is expected to fall, owing to the introduction of a special bank levy, which could push down the value of return on capital by approximately 2 percentage points.

The capital adequacy ratio rose in year-on-year terms, from 12.7% to 13.4%. The rise took place mainly in the second half of 2011, when the amount of own funds in the banking sector increased, while the own funds requirement was reduced. The aforementioned fall in the value of euro area government bonds in November, however, unfavourably affected the capital adequacy ratio, for the amount of own funds was reduced by the net loss from the revaluation of financial instruments in the available-for-sale portfolio. As at the end of the year, the majority of banks met the prescribed capital requirement with a sufficient margin. In order to maintain the stability of the Slovak banking sector, NBS recommended that banks with a capital adequacy ratio of less than 11.5% should restrict the distribution of dividends from profits generated in 2011.

2.1.2.1 PROFITABILITY

The banking sector’s profitability increased further again and reached its pre-crisis level.

According to the sector’s unaudited financial results, total net profit amounted to €674 million as at 31 December 2011, representing an increase of 34% year-on-year. This increase, however, was in part generated by a special one-off effect. The annual rate of profit growth excluding this effect would have been 25%.

The individual banks recorded marked differences in profitability (Chart 41). Profit growth was driven mainly by the five largest banks. On the other hand, losses were reported by two banks and eight branches of foreign banks.

The growth in the sector’s profits can be attributed mainly to a reduction in loan loss provisioning and, in part, to an increase in interest income from transactions with enterprises (Chart 42). At the same time, profit growth was negatively affected by losses stemming from the revaluation of bonds in the portfolios of banks.

The aforementioned fall in loan loss provisioning was connected with a slowdown in the growth rate of non-performing loans, mainly during the first half of 2011. In the second half-year period, banks recorded increase again, but smaller than in 2009 or 2010 (Chart 43). The fall in provisions had a positive effect on profit-
ability in some of the large banks. On the other hand, relatively higher loan loss provisioning (expressed as a share of total loans) was recorded in the category of medium-sized banks. High loan loss provisioning was also recorded in the banking sector for bonds in the held-to-maturity portfolio.

The growth in net interest income from transactions with enterprises (16% year-on-year) was stimulated mainly by a partial revival in the market for corporate loans, accompanied by a fall in the amount of corporate deposits. Expenses on corporate deposits and returns on corporate loans increased, in roughly equal measure (by 0.5 percentage point). As the amount of loans was larger than the amount of deposits, this also contributed to the growth in net interest income in this sector.

The profits of some of the banks were adversely affected by losses incurred in connection with the revaluation of debt securities in the held-for-trading portfolio. Chart 44 illustrates that, until the first quarter of 2011, the banking sector had been able to large extent mitigate any volatility in the revaluation of bonds to fair value through interest rate swaps. The subsequent deepening of the debt crisis in the euro area, however, was accompanied by a heterogeneous and in some cases steep increase in the
credit spreads of government securities in most of the euro area countries. As a result, efforts to hedge depreciating bonds of individual countries by means of interest rate swaps, which are in general intended for securing changes in interest rates rather than idiosyncratic credit surcharges, were still less successful. Thus, in November and December, the banking sector recorded a fall in net gains from the revaluation of debt securities in the amount of €104 million (i.e. 15% of the total profit).

2.1.2.2 CAPITAL REQUIREMENTS

The average capital adequacy ratio of the banking sector (weighted by the amount of risk-weighted assets) rose over the fourth quarter of 2011, from 12.7% to 13.4%. The average Tier I capital adequacy ratio also rose in that period, from 11.5% to 12.4%. This was due mainly to a reduction in the capital requirement (by 3.1%).

In the first half of 2011, the capital adequacy ratio remained virtually unchanged, because the growth in own funds from retailed earnings was almost cancelled out by new deductible items and by an increase in risk-weighted assets. On the other hand, this ratio rose by 0.7 percentage point over the second half-year period, owing to a reduction in the capital requirement and an increase in own funds.

The capital requirement reduction, which contributed 0.4 percentage point to the decrease in the ratio, affected mainly the large banks through the reduced requirement for credit risk coverage in the retail portfolio. The increase in the amount of own funds was due mainly to an increase in Tier I capital, which contributed to the rise in the capital adequacy ratio (by 0.3 percentage point). This increase was concentrated in a relatively small number of banks.

The capital adequacy ratio rose in 2011, but in some of the banks it was rather negatively affected in November by a fall in the value of government bonds in most of the euro area countries in the available-for-sale portfolio (a fall of 0.3 percentage point at the level of the whole sector). The effect of changes in valuation differences in this portfolio on the amount of own funds was responsible for a fall of €104 million. The majority of banks that experienced this effect in November recorded no substantial correction in December.

Box 1

RECOMMENDATION OF NBS CONCERNING BANKING SECTOR STABILITY

In connection with the deepening debt crisis in the euro area, NBS issued a recommendation in January 2012, concerning the minimum capital position of banks that is necessary for maintaining a stable and self-contained banking system in Slovakia. NBS recommends that banks should maintain their Tier I capital adequacy ratio at the level of at least 9%. In addition, NBS recommends that, in distributing their profits, banks should take into account the need to create sufficient provisions for the coverage of possible losses in the current period of growing
concerns about the course of economic development. Banks should restrict the distribution of profits unless they have enough own funds for maintaining an adequate capital buffer in line with Table 2.

In practical terms, the significance of this recommendation lies in the central bank’s effort to maintain the capital position of banks at an adequate level. For the time being, the majority of banks has an adequate capital buffer against unexpected losses. As at 31 December 2011, the recommended 9% capital requirement was met by all banks (according to the sector’s unaudited financial results). Most of the banks even met the 11.5% Tier I capital requirement recommended for the distribution of dividends without restrictions. Five banks had a capital adequacy ratio of less than 11.5%. The recommendation also includes measures for the maintenance of long-term liquidity. In addition to measures designed to increase the amount of long-term and stable deposits, NBS recommends that banks should monitor the ratio of loans to stable funds in order to ensure stable bank financing. The value of this ratio should not exceed 110%. The banking sector as a whole meets this ratio with a safe margin, so the lending market is safe for the time being.

<table>
<thead>
<tr>
<th>Adequacy of own funds</th>
<th>Share of profit to be retained (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9.625%</td>
<td>100%</td>
</tr>
<tr>
<td>From 9.625% to 10.25%</td>
<td>at least 80%</td>
</tr>
<tr>
<td>From 10.25% to 10.875%</td>
<td>at least 60%</td>
</tr>
<tr>
<td>From 10.875% to 11.5%</td>
<td>at least 40%</td>
</tr>
<tr>
<td>More than 11.5%</td>
<td>without restriction</td>
</tr>
</tbody>
</table>

Source: NBS.
2.2 THE INSURANCE SECTOR

The profitability of insurance companies in 2011 rose sharply in year-on-year terms, to the second highest level seen in the sector’s history. In this connection, the distribution of ROE across the insurance sector shifted towards higher profitability, the number of loss-making insurance companies dropped to 5, and their overall loss decreased as well. Profit growth was driven mainly by the technical result for life and non-life insurance, which overcame also the slump in the financial result caused by the ongoing crisis.

The mild growth in life insurance premiums from 2010 continued in 2011, backed mainly by unit-linked insurance and supplementary insurance. By contrast, traditional life insurance recorded a fall in premiums, new businesses, as well as in the number of insurance policies. Payouts for policy surrenders and for survival to a stipulated age continued to increase, mainly in unit-linked insurance.

The trend in non-life insurance was reversed; premiums started to grow at a modest pace, in almost all lines of business. This growth was driven mainly by property insurance, but premiums increased also in motor third-party liability insurance, mainly as a result of the growing number of insurance policies. Premium prices in motor vehicle insurance continued to fall. In terms of the loss ratio, 2011 was the most successful year after 2006, mainly owing to the falling loss ratio in property insurance. At the same time, the expense ratio rose somewhat. The share of reinsurance increased slightly. Reinsurance seems to be effective, since the shares of reinsurance for insurance claim costs and premiums are very similar.

The amount of technical reserves decreased slightly, mainly the claims reserves and the deficit reserve. Sufficient assets were available for the coverage of technical reserves. Their investment remained conservative and showed no marked changes. The most significant change in 2011 was caused by the maturity of government bonds, which were partly replaced by corporate bonds.

**Insurance premiums increased slightly**

The insurance market rose somewhat in 2011, in both life and non-life insurance. However, it remained below the pre-crisis level.

In the life insurance, the year-on-year rate of premium growth slowed, mainly as a result of a decline in traditional life insurance. New businesses in life insurance showed a positive tendency in 2011, but their year-on-year growth was slower than in 2010. The total number of insurance policies decreased.

After following a negative trend for two years, non-life insurance experienced a certain revival in 2011, with premiums showing a rising tendency. Almost all lines of non-life insurance contributed to this recovery. The situation in the most important segment, i.e. motor insurance, remained unfavourable (a long-term trend).

The total amount of premiums reached €2.04 billion in 2011, representing an increase of 1.3% compared with the previous year. Of this amount, life insurance accounted for €1.09 billion (an increase of 1.3%) and non-life insurance for €0.95 billion (an increase of 1.2%).

**Lines of life insurance**

Premiums in traditional life insurance and pension insurance decreased, but the other lines of life insurance recorded an increase in premiums.
The best performer was unit-linked insurance, where premiums increased by 7.42% year-on-year. This type of insurance continued to grow during the year, with its share of the life insurance market reaching 31% as at 31 December 2011. Insurance claim costs increased by 51% in this insurance line, mainly as a result of payouts for policy surrenders and for survival to a stipulated age. The surrender rate slowed somewhat in year-on-year terms (from 16.5% to 16.1%), but the absolute number of surrenders increased by roughly 1,300. The frequency of surrenders rose by 0.8% year-on-year, to 9.3%. New businesses accounted for 8.7%, and the number of contracts increased by 5.9% year-on-year.

Traditional life insurance performed poorly in several key indicators. In year-on-year terms, new businesses declined, premiums fell by 2.7%, and the number of insurance policies decreased by 7%. Claim costs showed a growing tendency, but the rate of growth was much slower than in 2010. This was due to policy surrenders. The number of surrenders dropped significantly in year-on-year terms. This indicates that the policies surrendered had a longer-term duration and that the provisions made for them were relatively high.

In the third largest line of business, i.e. supplementary insurance, premiums grew by 7.2%. The smallest segment of the life insurance market is pension insurance, and here premiums fell again in year-on-year terms, by 8.9%.

**Lines of non-life insurance**

In non-life insurance, already the results for the first half of 2011 indicated that this segment experienced a certain revival in the period under review.

A substantial upturn was observed mainly in property insurance, with premiums rising by 6.1%. This contributed significantly to the overall growth in non-life insurance premiums in year-on-year terms. The number of prolonged and new contracts increased in year-on-year terms, with the amount of new property insurance businesses growing by 6.2%. Claim costs in this segment fell by almost 8.6% year-on-year.

The loss ratio in 2011 dropped by 43 percentage points year-on-year, to 31.4%.

Except for motor vehicle insurance and general liability insurance, all lines of non-life insurance reported growth.

The largest line of non-life insurance – motor insurance8 – reported below-par figures in the previous period and this trend continued in 2011.

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8 The motor insurance line includes motor third-party liability (MTPL) insurance and motor vehicle insurance.
Premium prices continued to fall, and even though the number of new and prolonged insurance policies increased, the amount of premiums fell. The average premium price per policy fell sharply in new motor vehicle insurance contracts.

For the first time since 2008, premiums in MTPL insurance rose in year-on-year terms, to 0.9%. The number of insurance policies increased by 5.6% (new businesses went up by 3% and prolonged policies by 6.7%).

In motor vehicle insurance, premiums declined by 3.8% year-on-year. Although the number of new policies increased by 8.8%, prolonged contracts dropped by 3.7% and consequently the total number of insurance policies fell by 0.4% in this segment.

The long downward trend in premium prices is putting upward pressure on the core performance indicators – loss ratio, expense ratio, and combined ratio – used in assessing the rate of return in non-life insurance. In the case of motor insurance, these ratios have added importance due to the strength of competition in this line of business.

Chart 49 shows the development of these ratios in the last five years for both segments of motor insurance. Motor vehicle insurance appears to be less profitable. It is evident that there has been little fluctuation in the loss, expense and combined ratios of the motor insurance line as a whole and that the two motor insurance lines are interconnected.

**Claim costs**

Overall claim costs in life and non-life insurance in 2011 increased by 3.9% year-on-year, to €1.18 billion. Claim costs in life insurance rose by 8.2% (to €658.9 million), while those in non-life insurance fell by 1% (to €517.7 million).

In life insurance, the rise in claim costs was largely due to higher payouts for policy surrenders and for survival to a stipulated age in unit-linked insurance. In traditional life insurance, the higher claim costs were caused by policy surrenders. The annual rate of growth in claim costs in life insurance had been steadily falling since 2008.

In non-life insurance, claim costs are evaluated using the loss ratio, i.e. the ratio of claim costs to earned premiums. The loss ratio for non-life insurance as a whole fell by 13.9 percentage points in comparison with the previous period, to 48.4%, its lowest level since 2006. This decline was driven mainly by the improving situation in property insurance, which saw a drop in the number of insurance events. Among the major

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9 NBS analysed the technical costs of insurance claims similarly as it did premiums. Hereinafter, the term ‘claim costs’ means ‘technical claim costs’.
lines of business, the loss ratio in MTPL insurance fell by 1.2 percentage points, while the figure for motor vehicle insurance rose by almost 0.1 percentage point.

The combined ratio, which takes into account not only technical costs but also operating expenses related to insurance activities, declined by 12.9 percentage points year-on-year, to 81.4%. This decline – caused by higher income from premiums and a drop in insurance claims – increased the profit margin on earned premiums.10

Legal protection insurance was the only line of non-life insurance to make an overall loss for the period under review.

**The reinsurance share**11 **continued to rise moderately**

The premiums that Slovak insurers ceded to reinsurers during 2011 amounted to €275 million, representing a year-on-year increase of 14.4% (one of the highest in recent years). In non-life insurance, where reinsurance is more prevalent than in life insurance, the reinsurance share in June 2011 exceeded 29% and remained at that level until the end of the year.

The reinsurance share had been on a steady upward trajectory since 2008, although it was still lower than its peak levels between 2002 and 2004.

The reinsurance share grew in all the main lines of non-life insurance (MTPL, motor vehicle, property). The rise in ceded premiums was caused mainly by the increased ceding of premiums in supplementary life insurance, MTPL insurance, and property insurance. Insurance lines with

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**Table 2** The loss ratio, expense ratio and combined ratio in non-life insurance for 2011 (%)

<table>
<thead>
<tr>
<th></th>
<th>Loss ratio</th>
<th>Expense ratio</th>
<th>Combined ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life insurance – supplementary insurance</td>
<td>26.1</td>
<td>33.8</td>
<td>59.9</td>
</tr>
<tr>
<td>Accident and sickness insurance</td>
<td>42.7</td>
<td>37.5</td>
<td>80.1</td>
</tr>
<tr>
<td>Motor third-party liability insurance</td>
<td>54.5</td>
<td>28.7</td>
<td>83.2</td>
</tr>
<tr>
<td>Motor vehicle insurance</td>
<td>65.7</td>
<td>32.5</td>
<td>98.2</td>
</tr>
<tr>
<td>Other transport insurance</td>
<td>33.4</td>
<td>28.4</td>
<td>61.8</td>
</tr>
<tr>
<td>Carrier’s liability insurance</td>
<td>41.2</td>
<td>32.3</td>
<td>73.5</td>
</tr>
<tr>
<td>Property insurance</td>
<td>31.4</td>
<td>36.8</td>
<td>68.2</td>
</tr>
<tr>
<td>General liability insurance</td>
<td>36.2</td>
<td>30.3</td>
<td>66.5</td>
</tr>
<tr>
<td>Credit insurance, surety insurance and miscellaneous financial loss insurance</td>
<td>24.1</td>
<td>47.9</td>
<td>71.9</td>
</tr>
<tr>
<td>Legal protection insurance</td>
<td>25.8</td>
<td>75.9</td>
<td>101.7</td>
</tr>
<tr>
<td>Assistance insurance</td>
<td>31.3</td>
<td>42.5</td>
<td>73.8</td>
</tr>
<tr>
<td>Active reinsurance</td>
<td>14.3</td>
<td>29.4</td>
<td>43.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48.4</strong></td>
<td><strong>33.0</strong></td>
<td><strong>81.4</strong></td>
</tr>
</tbody>
</table>

Source: NBS.
a reinsurance share of more than 50% comprise active reinsurance, legal protection insurance, and other transport insurance. They are followed by property insurance and general liability insurance with a reinsurance share of about 40%. Insurance lines with a traditionally low share of reinsurance (15% or less) include all lines of life insurance, accident and sickness insurance, and motor vehicle insurance.

The share of claim cost reinsurance is very similar to the share of premium reinsurance, mainly in non-life insurance. The breakdown of reinsurance by segment shows that the most effectively reinsured segment was property insurance, where 65% of the claim costs were ceded to reinsurers.

**Technical Provisions and Their Investment**

Technical provisions in the insurance sector fell in 2011, to €4.64 billion at the year-end. This was the first fall ever recorded in the sector’s overall technical provisions.

The fall was caused mainly by developments in non-life insurance, where provisions for claim costs dropped by 9% year-on-year (by a total of €67 million). Provisions fell mainly for reported but unsettled claims. This was connected with the lower loss ratio in 2011. A significant year-on-year fall (down by almost €21 million, i.e. 25%) was also recorded in provisions for liabilities towards the Slovak Insurers’ Bureau. At the same time, provisions for claim costs rose by almost €16 million, which was substantially more than the figures for the previous years. This was probably connected with the fact that more and more
more contracts are made for the technical year, rather than for the calendar year.

The fall in technical reserves took place partly in life insurance, where provisions for traditional life insurance rose by only 0.5% year-on-year, representing a significant slowdown in comparison with the previous year. Deficit provisions, created on the basis of a reserve adequacy test, fell by €25 million, representing a fall of 55% in year-on-year terms. Technical provisions for unit-linked insurance also grew at a much slower pace (2.8%) than in the previous years. Since June 2011, they have fallen by €17 million, mainly as a result of policy surrenders.

The asset coverage of technical provisions stood at 114.7% as at the end of 2011; the covering assets amounted to €4.3 billion, excluding those covering provisions for liabilities arising from investment on behalf of the insured. The structure of invested provisions remained virtually unchanged, only matured government bonds were replaced by corporate bonds and mortgage bonds. A more detailed description of the risks involved in the investment portfolio is available in Chapter 3 Risks in the Slovak financial sector.

Insurance companies recorded a sharp rise in profitability as a result of improved technical results

In 2011, the insurance sector achieved a total profit of €193 million, representing the second highest profit in its history. The highest profit (€5 million higher than in 2011) was recorded in 2007. The sector’s total profit increased by 44% year-on-year, representing a slowdown in comparison with the result for the first six months (a record increase of 71% year-on-year).

Profit growth was reported by a majority of insurers; nine companies recorded a profit increased by more than 25%. The number of loss-making insurers dropped to 5 and their total loss fell by 31%. Profits in the insurance sector were heavily concentrated: 84% of the profits were produced by the three largest insurance companies, which, however, owned only 62% of the sector’s total assets. The main driver of profitability was the technical result, in both life and non-life insurance, as it was mentioned in the Analysis for the First Half of 2011. The technical result entered positive territory, at €127 million (from a loss of €75 million in the previous year), representing the highest positive figure in history. An improvement was seen in all areas of insurance. The technical result in life insurance improved by €140 million, in non-life insurance by €56 million, and in active reinsurance by €6 million. The overall rise in the technical result exceeded the slump in the financial result (by €106 million, i.e. 44%). The average annual return on assets remained virtually unchanged in comparison with 2010, at 3.96%. Returns on government bonds and term deposits increased as interest rates rose, while returns on bank and corporate bonds, as well as on real estate, equity and common fund units decreased.

The improvement in the technical result was attributable mainly to a fall in the loss ratio in property insurance, the rise in earned premiums in life insurance, and a reduction in deficit provisions on the basis of a reserve adequacy test. A significant contribution to the technical result came from a slowdown in the growth of provisions for unit-linked products (by €95 million). This, however, was almost fully offset by a fall in the financial result from assets used for the coverage of provisions for unit-linked products. The fall in the financial result took place almost exclusively in unit-linked insurance.

![Chart 55 Profit ratios of individual insurers and changes in the sector’s total profit (%)](chart55.png)
2.3 THE PENSION SECTOR

A common trend in both pillars of the pension system in 2011 was a gradual increase in the number of savers. In terms of growth in the amount of assets under management, however, the two pillars differed considerably. While the net value of assets in Pillar II funds continued to rise linearly, the amount of assets in supplementary pension funds increased at about one-third of the pace seen in the previous period. This difference was to a large extent caused by the factor of performance, to the detriment of the supplementary pension segment, where funds recorded an average loss of 2.6% in nominal terms. This was associated with the different risk profiles of different portfolios, resulting mainly from different exposures to equity instruments. The financial results of companies managing the funds improved in both segments in the period under review. In the case of pension fund management companies, 2011 was the first year when an aggregate profit was achieved.

2.3.1 RETIREMENT PENSION SAVING

Although the year 2011 witnessed a sharp escalation of the European debt crisis, the retirement pension system of Slovakia remained virtually unaffected; it continued to follow the stable trend from the previous year. This was mainly the result of two facts. The first is the obligatory nature of participation in pension saving, which guarantees the stability of pension funds on the liability side and the revenues of pension companies from fees. Turbulences on the asset side were hindered by the application of conservative investment strategies across the entire spectrum of pension funds. This was also supported by legislative stability in 2011. Although an amendment to the Retirement Pension Savings Act was adopted with effect from 1 November 2011, the effect of provisions which could possibly lead to the pension system's recalibration, has been postponed until 1 April 2012.

SAVERS GRADUALLY SWITCHED FROM GROWTH FUNDS TO FORMALLY MORE CONSERVATIVE TYPES OF FUNDS

The number of savers enrolled in Pillar II of the pension system increased by 8,000 over the period under review. This increase slightly exceeded the figure for the previous year. As at 31 December 2011, the number of savers registered in the system stood at 1,445 thousands. The largest net increase in the number of savers (by 14,000) took place in balanced pension funds. This increase, however, was due in large part to the switching of savers from growth funds within the same pension fund management company. A somewhat smaller absolute increase (11,900), which was quite significant in relative terms (16%), was reported by conservative funds. This was the result of enrolment of savers switching from other funds and savers entering the system for the first time. The dominant part of the new savers in 2011 decided to join a conservative fund. This phenomenon culminated in the second half of the year, owing in part to the atmosphere of great economic and financial uncertainty, which was also reflected in the preferences of savers. This also applies to growth funds, which were left by roughly 19,000 savers during the year, while very few new savers entered these funds. As regards the distribution of savers among the different types of funds, the process of gradual switching from the biggest group of growth funds to other two types of funds was continuing.

The total increase in the number of savers was unevenly distributed among pension fund management companies. The number of savers increased in only two companies; the remaining four lost a certain number of savers. In absolute terms, the percentage change in the number of savers did not exceed 2% in any of the companies.

At the level of pension fund management companies, only one significant change occurred in 2011. ČSOB d.s.s. (a pension fund management company) was taken over from its former majority shareholder, i.e. ČSOB bank, by Poštová banka. The name of the company was subsequently changed to DSS Poštové banky (Pension Fund Management Company of Poštová banka).

The amount of assets under management in this sector did not deviate from the linear trend that started in the previous period. During the calen-
The net asset value increased by €874 million, representing the largest increase in the sector’s history. As at 31 December 2011, the sector managed assets in the total amount of €4.59 billion. The regular contributions of savers accounted for 97% of this increase. In percentage terms, the largest increase in assets occurred in conservative pension funds and the smallest increase took place in growth funds.

The structure of pension fund assets remained virtually unchanged and maintained its conservative character.

In the portfolios of assets under management at the level of sector and to a large extent at the level of individual funds, there were no substantial changes in the investment strategy employed. The principally low risk profile was preserved in all funds.

The most noticeable change in the structure of assets under management was a shift in the relationship between bond investments and Treasury-bill investments. Over the course of 2011, bonds became the dominant class of assets under Pillar II of the pension system. The evenly growing amount of bonds in funds resulted in a year-on-year increase in their share, from 41% to 59% of the sector’s total net asset value, as at the end of December 2011. In the individual funds, the intensity of this trend varied, but irrespective of this trend bonds were, in terms of amount, the most significant asset component in all eighteen funds (as at 31 December 2011).

The rise in net asset value in the form of bonds, exceeding the inflow of new contributions at the aggregate level, was the result of a fall in the amount of Treasury bills in absolute terms. Only a limited part of the maturing Treasury bills was reinvested in this asset class. Thus, the share of Treasury bills in the sectoral portfolio was reduced by 16 percentage points, to 13% of the net asset value. This development was characteristic of the funds of three pension fund management companies, in the case of which Treasury bills exceeded the other types of assets (in terms of amount) at the beginning of the period under review.

The third significant asset item in Pillar II funds of the Slovak pension system are funds held on current and fixed-term deposit account at banks. In regard to the sharper rise in total NAV, the gradual growth in bank account balances led to a moderate decrease in their share of the overall portfolio, to 29% as at the last day of 2011.

Leaving proportions amounting to a hundredth of a percent out of account, we can say that funds held practically no equities nor unit certificates in 2011. The only exceptions were a balanced fund and a growth fund run by one pension management company, in which investments in equities and unit certificates were made in the amount of roughly one percent in the first quarter.

As far as the diversity of funds’ investment strategies is concerned, the situation in the sector remained unfavourable. There were minimal differences in the asset structure of funds (three types) in the case of each pension management company. The similarity between the funds of individual companies deepened still further during the year.

The share of non-government bonds in the portfolios of funds increased.

Substitution between bonds and Treasury bills had an impact on various parameters of the debt securities portfolio. One of them was a decrease in the share of government debt securities. Even after a 12 percentage point downward correction, which took place during the first months of
Chapter 2

Chart 57 Structure of the debt securities portfolio by type of issuer (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate debt securities</th>
<th>Debt securities of banks and other financial institutions</th>
<th>Government debt securities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 2009</td>
<td>30</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>June 2010</td>
<td>20</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Dec. 2010</td>
<td>10</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>June 2011</td>
<td>20</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Dec. 2011</td>
<td>30</td>
<td>20</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: NBS.

the year, government bonds remained a dominant component of the sector’s debt securities portfolio (with a share of 62%). A significant increase in amount was recorded in investment in debt securities issued by banks and financial institutions. Their share approached one-third of all debt instruments as at the year-end. The increasing weight of bonds issued by the financial sector at the expense of government bonds was a continuation of a similar trend from 2010. The corporate sector’s debt securities portfolio increased fourfold in volume, with its share reaching 8% as at December 2011 (compared with less than 3% a year earlier).

In terms of the type of coupon rate, debt securities under Pillar II of the pension system were represented in roughly equal parts (1/3) by fixed-coupon, variable-coupon, and non-coupon instruments as at the end of the period under review. This was a significant change in comparison with the previous period, when non-coupon issues accounted for two-thirds of the portfolio.

The sector reduced its exposure to risky countries
During 2011, pension funds reduced their exposure to countries with elevated credit risk. The amount of debt securities falling into this category in relation to the sector’s total assets fell by 3 percentage points, to 4.5%. This was influenced significantly by the activity of one of the pension fund management companies, whose funds had exposures to debt securities from aforementioned countries at the level of almost 40% as at the beginning of the period under review. However, some of the funds slightly increased their investment activity in relation to bonds and Treasury bills from higher-risk countries. At the end of 2011, the share of these securities in a majority of funds ranged from 5% to 9%; the sectoral average was reduced by the funds of one particular pension fund management company with exposures not exceeding 1.5%. A substantial part of the decrease was caused by the maturity of securities, but there were also sales in the case of certain securities. The highest representation pertained to instruments of Slovenian issuers and, to a lesser extent, those from Spain and Italy. Greek debt securities were no longer held in the sector in 2011. Portuguese debt securities had been held only until September. It is to be noted that some of the pension fund management companies bought a certain amount of Italian and Spanish government and bank bonds in the last few months of 2011, when nervousness in the respective markets actually culminated.

The sector’s orientation towards domestic securities deepened still further in 2011, mainly in the last few months of the year. As at 31 December 2011, the share of debt securities from Slovak issuers increased to 36% of the net value of assets in the system.

The maturity of interest-sensitive instruments increased
The average weighted maturity of the sector’s debt securities portfolio increased by almost six months in the first half of 2011. This was followed by a period of stagnation until the end of the year, when a slight decrease was recorded, to 1.05 years. In the individual funds, the weighted maturity ranged from 0.7 to 1.8 years as at 31 December 2011.

The first six months of the year saw an increase in the average maturity of terms deposits, into which funds were investing. In the second half of the year, the value of this parameter stabilised between 7 and 8 months. However, sectoral developments were largely determined by the activity of one of the pension fund management companies, whose funds had exposures to debt securities from aforementioned countries at the level of almost 40% as at the beginning of the period under review. However, some of the funds slightly increased their investment activity in relation to bonds and Treasury bills from higher-risk countries. At the end of 2011, the share of these securities in a majority of funds ranged from 5% to 9%; the sectoral average was reduced by the funds of one particular pension fund management company with exposures not exceeding 1.5%. A substantial part of the decrease was caused by the maturity of securities, but there were also sales in the case of certain securities. The highest representation pertained to instruments of Slovenian issuers and, to a lesser extent, those from Spain and Italy. Greek debt securities were no longer held in the sector in 2011. Portuguese debt securities had been held only until September. It is to be noted that some of the pension fund management companies bought a certain amount of Italian and Spanish government and bank bonds in the last few months of 2011, when nervousness in the respective markets actually culminated.

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activities of funds managed by one particular pension fund management company.

Still higher share of funds earmarked for deposit taking institutions was being deposited with Slovak banks in comparison with past. As at December 2011, deposits held at banks operating outside Slovakia accounted for only 22% of all deposits, compared with 40% at the beginning of the year.

The performance of funds fluctuated towards the year-end as a result of increased bond market volatility

The current values of pension units continued to follow the linearly rising trend from the past one and a half years. A slight downward fluctuation in their values was caused by increased volatility in the European bond markets in November and December. This negatively influenced the revaluation of a wide range of debt securities held by funds. Bonds that were affected by an increase in required yields to maturity also included Slovak government bonds, which represent a significant portion of the assets of all funds. In wider context of developments in the values of pension units since the establishment of funds, however, this degree of volatility can be assessed as very limited. This is also indicated by the difference in the average annual performance of funds before and after that episode (not exceeding 0.2 percentage points). The sector’s annual performance improved somewhat during the year. Performance increased by 0.6 percentage point, mainly in the period between May and October. This was, among other things, caused by the funds’ increased exposure to bank and corporate bonds, and by the gradually rising interest rates on deposit products. As at 31 December 2011, the average weighted annual yield reached 1.5% in nominal terms in all three types of funds. With inflation exceeding 3%, the real performance of all funds was in negative territory. In regard to the annualised value of nominal yield calculated for the entire period since the establishment of funds, the marked differences between conservative funds on the one hand (2.6% p.a.) and balanced and growth funds on the other hand (1.4% p.a. and 1.1% p.a. respectively) persisted.

For the first time, the sector as a whole was profitable in 2011

The year 2011 was the first calendar year in which pension fund management companies were profitable at the sectoral level. They achieved a total profit of €147,000. As in 2010, three pension fund management companies were profitable. The remaining three were loss-making, though one of them reduced its loss by a half, and thus contributed significantly to the positive comparison of the sector’s financial result in 2010 and 2011. The profit and loss account recorded improvements on both the income and expenditure sides. Net income from fees and commissions increased by 9%, while operating expenses fell slightly. This statement also applies to a majority of the individual pension fund management companies.

Table 3 Annual yields of pension funds as at December 2011

<table>
<thead>
<tr>
<th></th>
<th>Min (%)</th>
<th>Weighted average (%)</th>
<th>Max (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative funds</td>
<td>1.1</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Balanced funds</td>
<td>1.2</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Growth funds</td>
<td>1.1</td>
<td>1.4</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Source: NBS.
Note: The methodology is described in the chapter Glossary and Abbreviations.
2.3.2 SUPPLEMENTARY PENSION SAVING

The number of participants in specialised funds and payout funds increased

Interest in supplementary pension saving experienced a certain revival in 2011. The number of participants in the supplementary pension system increased by 12,700, to 862,000, which more than offset the decrease recorded in 2010. Despite new enrolments, the number of participants in contributory funds dropped by more than 11,000. This was partly the result of the fact that some of the participants had terminated their contracts for supplementary pension saving and left Pillar III, and the fact that roughly 24,000 participants had completed the saving phase and their personal pension accounts were shifted from a contributory fund to a payout fund. Thus, the share of participants enrolled in payout funds of the total number of participants increased from 6% to 9%. The increase in the number of participants took place in two supplementary pension fund management companies; the remaining companies recorded a moderate decrease. In the development of contributory funds, the trend from 2010 continued: smaller funds with a specialised investment strategy recorded an increase in the number of participants (new participants or participants coming from other funds) and large universal funds recorded a decrease in the number of participants.

One supplementary pension fund management company discontinued its operations

In the year under review, Aegon d.d.s., supplementary pension fund management company, ended its operations. The prior approval of NBS to cancel the company’s two pension funds became effective on 24 June 2011. These funds actually stopped operating in September and the savings were paid out to the participants in October. There is no information available about the number of participants switching from the funds of Aegon d.d.s. (out of a total of 5,000 participants) to the funds of the remaining four supplementary pension fund management companies. Since the market share of Aegon d.d.s. had been below one percent (in terms of the number of participants or assets under management), the conditions for competition in the sector remained virtually unchanged after the company’s withdrawal from the market.

The legislative framework was kept unchanged in 2011, in terms of crucial clauses influencing functioning of supplementary pension system.

Total assets in the supplementary pension sector increased by €30 million during the year, to €1,175 million as at the end of December 2011. The net asset value rose at one-third of the pace recorded in the previous years. The second half-year period saw a certain fall in the amount of assets. The slowdown was influenced significantly by the negative revaluation of equities and unit certificates, as well as some other instruments in the second half-year period in funds that are exposed to such securities. A certain contribution also came from the departure of participants, whose savings were paid out in a single amount. The stagnating net asset value in large funds was in contrast with the net asset value in smaller funds, which rose by 23%.

Changes in the asset structure of funds in favour of bank deposits

In 2011, the structure of assets in supplementary pension funds saw substantial changes in some of the trends of the previous years. As in

Chart 59 Structure of funds’ asset holdings by type of investment and type of fund (%)

<table>
<thead>
<tr>
<th>Type of Investment</th>
<th>Type of Fund</th>
<th>Dec. 2010</th>
<th>Dec. 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank accounts</td>
<td>Payout funds</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Treasury bills</td>
<td>Contributory funds with a balanced strategy</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Equities and common fund units</td>
<td>Contributory funds with a growth strategy</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Other assets</td>
<td>Contributory funds with a conservative strategy</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
<td>5%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: NBS.
Note: The classification of funds is based on the investment strategies of individual funds.
2010, the percentage share of bonds continued to decrease in 2011. The difference in this case was that the amount of investments in this asset category also fell in absolute terms. Despite their reduced share (59% as at December 2011), bonds still represented the most significant asset item in terms of the net asset value. In the case of conservative funds, this share was even larger.

In 2011, banks deposits became the preferred investment instrument for supplementary pension funds. Their share in total assets doubled during the year, to almost 26%. In this way, the sharp cumulative fall in bank account balances from the years 2007-2010 was offset partly. The amount of deposits increased most noticeably in the case of balanced and growth funds.

A downward correction of 4 percentage points (to 17% as at 31 December 2011) was recorded in the category of equities and unit certificates. The fall in the amount of these instruments was related to their sale, mainly during the hectic third quarter, and was further exacerbated by the negative revaluation of equities and common fund shares/units that are relatively sensitive to volatility in the market factors. This development was typical of growth funds in particular, where the average weight of equities and common fund shares/units decreased from 64% at the beginning of 2011 to 40% at the year-end.

Derivatives also represent a non-negligible asset item for some of the funds. Owing to their strong correlation in terms of proportion with equities and common fund shares/units, the amount of derivatives also decreased at the year-end, mainly in the portfolios of growth funds. Although most of the derivatives in supplementary pension funds serve as hedge against currency risk and, to a lesser extent, against interest rate risk, signs of speculative use for the purpose of performance enhancement were also observed in selected funds.

The debt securities portfolios of Pillar III pension funds remained oriented to government instruments, which account for a stable share of about 57%. In the second half-year period, bonds issues by banks and other financial institutions were substituted by corporate debt securities.

The average maturity of debt instruments in the sector shortened somewhat, from 4.3 to 4.1 years during the first half of the year, and remained at this level until the end of the period under review. The individual funds, however, recorded heterogeneous developments in this area, with the year-end weighted maturities ranging from 1.7 to 10.8 years. Compared with Pillar II of the pension system, supplementary pension funds (Pillar III) have relatively long duration and thereby sensitivity to changes in interest rates.

In most of the supplementary pension funds, the average interest rate on term deposits rose by roughly 0.5 percentage point, mostly during the first six months. This was connected with the increasing maturities of these deposits. The average interest rate on fixed-term deposits remained unchanged in the sector, because two large funds recorded a fall in interest levels.

Non-zero exposures to countries in the centre of the European debt crisis (Ireland, Greece, Portugal, Spain, Italy) through debt securities were maintained by four funds. However, only two of these funds belonging to the same SPMC held such debt securities in significant amounts, accounting for 11% and 16% respectively of the total net asset value as at 31 December 2011. They comprised mostly Italian and Spanish bonds, but Irish and Greek debt instruments were also represented in smaller amounts. The increased credit risk in these two funds was underlined by their exposures to numerous developing countries. In addition, further four funds held bonds from the Slovenian government and Slovenian banks, which can be classified as risky. The share of these bonds in the funds’ assets ranged from 1% to 14%.

At the sectoral level, the share of Slovak bonds stood at 30% at both the beginning and end of the period under review.

Contributory funds showed negative performance in 2011

In year-on-year terms, contributory funds recorded relatively significant variations in...
performance during the year. In the first six months, except in March and April, the annual nominal yield fluctuated between one and two percent. In August, however, performance fell sharply, into negative territory, and continued to fall in the following months, though at a slower pace. As at the last day of 2011, the performance of contributory funds was at the level of -2.8%. The negative trend in pension units in the second half-year period was a consequence of the falling prices of a wide spectrum of assets in the financial markets. This was observed mainly in growth and balanced funds, where seven out of eight such funds showed negative performance in the calendar year 2011. The poorest performing fund reported a yield of almost -12%. Two conservative funds, as well as four payout funds, were performing better and managed to maintain their performance in positive territory throughout the period under review. The average performance of payout funds fell to 0.5% at the year-end, which was only slightly more than one-third of the nominal performance for the calendar year 2010.

Profit growth was mainly driven by the extraordinary earnings of one particular supplementary pension asset management company. The profitability of supplementary pension asset management companies rose, on average, by 36% in 2011. The sector as a whole produced a total profit of €5.9 million. With the economic result calculated exclusively from current activities, however, the year 2011 would be very similar to the previous one. Income from fees and commissions increased slightly in year-on-year terms, when a fall in income from asset performance fee was offset by an increase in fees collected for the management of funds. The smaller range of depreciation represented certain savings on the side of operating costs, but expenses on fees and commissions increased. A relatively large increase in profits resulted mainly from the extraordinary earnings of one supplementary pension asset management company from transactions in own securities and derivatives. All four supplementary pension fund management companies which continue operating in the market achieved a positive economic result in 2011, with three of them recording a better result than in 2010.
2.4 COLLECTIVE INVESTMENT

A positive development in 2011 for the collective investment sector was an increase in the profits of asset management companies. Otherwise, the sector experienced mostly negative trends. The amount of assets under management in the sector fell by 15%. Worried about the euro area crisis, households redeemed fund shares/units in the amount of almost half a billion euros. The largest redemptions were reported by money market funds. Redemptions were concentrated in the second half of 2011, with a significant maximum in August. Fall in the net value of assets at the sectoral level was further exacerbated by the negative average performance of common funds, which was deeply negative in equity funds and the funds of funds in particular. Despite developments in the rest of the sector, special common funds (whether real estate or of other type) recorded high net sales during the year.

The amount of assets under management in the sector fell sharply as a result of mass redemptions

In 2011, collective investment sector of Slovakia followed the pattern seen in 2008. This was characterised by significant redemptions by unit holders and thereby decrease of assets under management in the sector. While withdrawals from common funds in 2008 were caused by the collapse of Lehman Brothers and the threatening global collapse of the financial sector, the negative sentiment in 2011 was fuelled by the deepening debt crisis in the euro area.

Although the fall in the aggregate net value of assets in funds was more moderate than in 2008, it amounted to €655 million (i.e. 15% in relative terms), which is a serious decline. This means, among other things, that the overall increase in the amount of assets under management from the previous two years was practically offset. In terms of the percentage rate of decline, domestic common funds differed only minimally from foreign collective investment undertakings operating in Slovakia. In absolute terms, however, domestic funds accounted for a disproportionately larger part of the decline (€557 million).

The redemptions of unit certificates by households culminated in August

Turbulent developments were concentrated in the second half of the year. In the first seven months of the year, the amount of assets managed by common funds remained virtually unchanged. The inflow of funds received from unit-holders was roughly in balance with the withdrawals. The balance was upset in August. This was caused largely by an intense inflow of negative news in July regarding the ability of the euro area to handle the debt crisis, which had just taken on a new dimension. At the beginning of August, the crisis was underlined by a sharp fall in equity prices. Confronted with the worsening situation, which was also reflected in the performance of numerous funds, part of the unit-holders arrived at the conclusion that the value of their savings in common funds may be at risk. For that reason, they chose to redeem their unit certificates and part of them deposited funds obtained in banks. Although the withdrawal of funds from this sector culminated in August, negative net sales in relatively large amounts continued in the remaining months of the year under review. Apart from redemptions, which were responsible for 90% of the fall in as-

![Chart 60 Net value of common fund assets sold in Slovakia (EUR billions)](chart60)

Source: NBS, SASS.

Note: The percentage above each bar represents the percentage change in the sum of the amounts of domestic and foreign funds for the respective half-year period.
sets managed in this sector, the net asset value was also affected negatively by the performance of common funds in 2011. The structure of negative net sales by the sector of unit-holders was clearly dominated by households.

**One domestic asset management company ended its operations, but number of domestic funds increased slightly**

The conditions for competition among domestic asset management companies changed to some extent in 2011. In December, the common funds of Allianz Asset Management were taken over by IAD Investments; the former company discontinued its operations. Thus, also owing to this event, the number of domestic asset management companies decreased from ten to seven over the past three years. This actually led to a consolidation in the sector, because in all three cases the asset management companies concerned belonged to the category of companies with a smaller market share. The market shares of asset management companies gradually evened out in the period under review, partly as a result of different developments in net sales. These were most apparent in the case of funds managed by companies with the largest market share. The net value of assets under management in the three largest companies in proportion to the value of the entire sector recorded non-negligible decline in 2011, from 88% to 82%.

In the net balance, the number of funds managed by domestic asset management companies increased by 4 funds. The increase in the number of funds was also stimulated by an amendment to the law on collective investment, which provides more room for the establishment of new special funds and defines their subcategorisation. The amendment also defines the terms ‘money market fund’ and ‘short-term money market fund’. In this connection, the categorisation used by the Association of Asset Management Companies was extended in December to include a new category, short-term investment funds. Numerous former money market funds were shifted into this category, funds that no longer met the specific requirements imposed on money market funds. Thus, short-term investment funds acquired a dominant position among the categories according to the assets under management, which had previously belonged to money market funds.

**The largest redemptions were reported by money market funds**

In 2011, as in the previous years, the sectoral trends in the net asset value and sales of domestic common funds were determined largely by...
money market funds. Investor interest in this category of funds was falling throughout the year. This was also reflected in the negative value of net sales. The first half of the year saw withdrawals from money market funds at a relatively slow pace, as in the previous year. Among other things, the withdrawal of savings from common funds was motivated by rising interest rates on fixed-term deposits at banks, which are considered as alternative investment. In August and December, negative net sales increased several times, to a level around €100 million per month, under the influence of developments related to the euro area debt crisis as discussed above. Redemptions were made in the largest amounts since the autumn of 2008, though the reaction of unit-holders was relatively moderate in comparison with the mass redemptions in October 2008. Despite this, the overall outflow of savings exceeded half a billion euros, i.e. almost one-third of the total net asset value in this category as at the beginning of the period under review. Almost the entire amount of redeemed fund shares/units can be ascribed to the household sector.

Developments in the category of domestic bond funds were very similar to those in money market funds, though the corresponding amounts were smaller in both absolute and relative terms.

Developments in the net asset value showed common features in equity funds, mixed funds, and the funds of funds. The net balance of their sales in the first seven months of the year was slightly positive (equity funds, mixed funds), or neutral (funds of funds). The month of August, however, saw increased redemptions in all three categories. The largest redemptions were recorded in the funds of funds, where unit-holders withdrew funds in an amount of about 15% of the assets under management during the time span of these months. Unlike in money market funds for example, the growth in negative net sales slowed in the following months, or even came to a halt.

On the other hand, the rate of decline in the net value of assets in these funds was accelerated by their negative performance, which, in the case of equity funds, accounted for more than two-thirds of the total decrease per calendar year. While the unit certificates of mixed funds and the funds of funds were redeemed mostly by households, the holdings of equity unit certificates were mainly

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**Chart 63 Changes in the amount of assets under management in 2011 by type of fund (EUR millions)**

![Chart 63](image1.png)

**Chart 64 Net sales of domestic common funds by category (EUR millions)**

![Chart 64](image2.png)

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14 Part of the money market funds was switched into the category of short-term investment funds (a new category). For the sake of consistency, however, the flow variables of these two categories are evaluated and presented together.
reduced by the funds of funds, which thus obtained liquidity, indirectly via equity funds, for the payout of unit certificates to households. The chaining of redemptions in this way, which took place exclusively in funds managed by the same asset management company, was the reason for a slight overestimation of the actual amount of net sales and the fall in amount of assets managed in the sector in comparison with the actual outflow of funds from end investors, but this distortion was not significant. The set of categories of funds experiencing negative net sales also included 'other funds'.

Unlike in standard common funds, investors showed increased interest in special funds

A certain counterweight against the negative trends prevailing in all categories of domestic standard funds was special funds. According to the new legislation, special funds comprise four subcategories. Special real estate funds increasingly followed the trend from the end of 2010 and recorded positive net sales each month. These culminated in the middle of the year. Paradoxically, this happened at the time when other funds recorded the sharpest decreases in assets under management. Owing to the strong demand among investors, i.e. almost exclusively households in this case, the assets of these funds almost doubled in year-on-year terms. In terms of the amount of assets under management, special real estate funds approached the level of domestic bond and mixed funds, which occupy the shared second and third positions according to this indicator. An even higher rate of growth in net sales was recorded in two new funds in the subcategories of special funds of professional investors and special funds of securities. These funds were established in October 2011, but, despite the short time horizon, they managed to attract investments in the amount of €165 million.

In the case of foreign collective investment undertakings, the fall in net asset value was also concentrated in the third quarter, even though the falling trend (a more moderate version) continued until the end of the year. The sharpest decreases in assets were recorded in the funds of funds, money market funds, and other funds. The positive net sales of equity funds and mixed funds sufficiently offset the negative effect of yields produced by these funds, which led to a year-on-year increase in the net value of assets in the mentioned categories.

The structure of portfolios of domestic common funds by category underwent only two significant changes in 2011. In the case of equity funds, the share of bank deposits increased threefold during the year, to 40%, at the expense of investments in common fund shares/units. Real estate

In the case of foreign collective investment undertakings, the fall in net asset value was also concentrated in the third quarter, even though the falling trend (a more moderate version) continued until the end of the year. The sharpest decreases in assets were recorded in the funds of funds, money market funds, and other funds. The positive net sales of equity funds and mixed funds sufficiently offset the negative effect of yields produced by these funds, which led to
funds continued to increase their exposure to profiled asset classes (up to 80%) through investment in equity participations in real estate companies. The share of bank deposits in money market funds increased in year-on-year terms, mainly because part of the funds had separated. So this does not indicate a change in the funds’ investment strategy. Funds that are now included in the category of short-term investment funds (according to the new classification) were between money market funds and bond funds in terms of structure.

**Sharp decline in performance was recorded in funds that are exposed to the equity market**

The complicated situation in the financial markets, characterised by increased volatility and falling asset prices, did not create adequate conditions in 2011 for profitable investment in common funds. Positive yields in nominal terms, but not exceeding 1%, were produced by money market funds and short-term investment funds, which have the most conservative investment strategy. The highest yields in nominal terms, close to five percent, were offered to unit-holders by special real estate funds. The other categories, including bond funds, which are classified as relatively low-risk funds, sustained losses in both nominal and real terms. The poorest performers were funds with exposures to the equity market, i.e. equity funds (-13%), the funds and funds (-9%) and, to a lesser extent, mixed funds (-3%). In absolute value, the negative results of funds in these three categories corresponded to their positive results achieved in 2010.

**The profits of asset management companies rose slightly**

During the calendar year 2011, domestic asset management companies produced a total profit of €7,898,000. This represented a rise of 21% in the sector’s profitability in comparison with 2010. On the other hand, the rate of profit growth slowed by one-third. Income from fees and commissions increased by 4% year-on-year. The relatively small increase in this key revenue item in comparison with the change recorded a year earlier was, in large part, connected with the falling amount of assets under management in the sector. This is also evidenced by the relatively high correlation between the revenues of individual companies and trajectory of the net value of assets in funds run by the relevant asset management company. Profitability was positively influenced by a marginal reduction in expenses on fees and commissions. For the first time in the last three years, operating costs increased in the sector as a result of an increase in personnel expenses. Except for one company, which withdrew from the market in the period under review, the remaining seven asset management companies achieved a profit in 2011. However, not all of them managed to accelerate the generation of profits; the year-on-year increase in the sector’s total profit was concentrated in two asset management companies.
2.5 INVESTMENT FIRMS

The volume of trading in securities in 2011 increased by an average of 11% compared with the previous year. The structure of traded instruments, however, changed substantially during the year. The amount of customer assets managed by companies holding an investment firm licence remained virtually unchanged in year-on-year terms.

The largest year-on-year increase in 2011 was recorded in the amount of trading in bonds and financial derivatives. By contrast, money market instruments and securities issued by foreign collective investment undertakings were traded in much smaller amounts than in the previous year. As in the previous years, most of the transactions were carried out via banks, specifically 95% of their nominal amount.

The amount of customer assets managed by entities licensed to manage a customer securities portfolio (investment firms, banks, and certain asset management companies) remained virtually unchanged, at €2.2 billion.
RISKS IN THE SLOVAK FINANCIAL SECTOR
3 RISKS IN THE SLOVAK FINANCIAL SECTOR

The ratio of non-performing loans (NPLs) to households in the banking sector continued to decline in 2011, and the increase in the stock of non-performing loans to households also decreased. There were, however, differences in NPL developments between the first and the second halves of 2011. The positive trends observed towards the end of 2010 continued in the first six months of 2011, but in the second half of the year there was a more marked rise in non-performing loans, which put a halt to the downward trend in the NPL ratio.

This situation seems to reflect developments in factors that affect household credit risk. The debt burden of households increased owing to rising interest rates in the second half of 2011, decelerating nominal wage growth, and inflation remaining high almost throughout the year. On the other hand there was downward pressure on household indebtedness from the refinancing of old loans, with lending rates, despite rising, still at lower levels in comparison with the previous years. The risk of an adverse impact from interest rate hikes was mitigated by the lengthening of initial rate fixation to periods from 1 up to 5 years on newly granted loans. In the first nine months of the year, rising employment was accompanied by a falling rate of unemployment. In the last quarter, however, employment growth decelerated and unemployment rose, which had an adverse effect on employment expectations.

The quality of the banking sector’s corporate loan portfolio deteriorated slightly in 2011, and the ratio of non-performing loans rose to 7.9% towards the end of the year. Differences in the quality of credit portfolios within the banking sector remained large.

The corporate sector was affected by negative trends mainly in the second half of 2011, owing to a slowdown in export growth and the related weakening of sales growth. Another factor behind the lower increase in corporate sector activity may be that sales in most sectors had already returned to 2007 and 2008 levels by the end of the first half of 2011. The debt burden of enterprises in 2011 increased moderately in comparison with 2009 and 2010. A positive aspect is that banks have mostly remained oriented to the sectors whose sales are less adversely affected by the current situation.

The commercial real estate market saw somewhat negative trends in the second half of 2011. The vacancy rate in the office segment rose and apartment sales in the residential segment decelerated. Loans for commercial real estate continued to be a significant source of credit risk in the banking sector. Although market volatility was relatively moderate in the first half of 2011, risks intensified in the second half of the year. Equity markets in particular performed poorly in the third quarter with share indices slumping significantly in value. The prices of government bonds of several countries also declined, especially those of Italy. Equity market volatility remained elevated in the fourth quarter, with the fall in bond prices of several EU countries. This development had a negative effect on many financial market sectors.

The main risk facing banks at the end of 2011 was a rise in credit spreads. This risk had a negative impact on banks’ profitability and capital adequacy ratios mainly in November 2011, when bond markets (and also Slovak government bond prices) plummeted. Since the risk was specific for individual countries, it was not sufficiently hedged by interest rate swaps.

Insurance companies, too, had a relatively high exposure to the risk of credit premium increases, since their portfolios included a significant share of debt securities that were valued at fair value against equity and also had a relatively long duration.

Investments of funds managed by pension fund management companies (PFMCs) remained relatively conservative in 2011 and their value was not significantly affected even by the bond market movements in the last quarter of the year. On the other hand, SPMC funds and collective investment funds were more exposed to equity risk and the risk of increases in sovereign credit spreads. The performance of several funds was strongly affected by the adverse market situation prevailing during the second half of 2011. In most cases, the weaker performance was caused by the decline in prices of bonds issued by Slovakia and/or other central European countries, as these form a substantial part of their portfolios.
3.1 CREDIT RISK IN THE BANKING SECTOR

3.1.1 CREDIT RISK IN THE HOUSEHOLD SECTOR

Loans to households were repaid in a relatively timely manner in 2011

Household behaviour in repaying bank loans showed a positive tendency in 2011. In 2011 the increase in outstanding non-performing loans fell by almost a half compared to 2010. The ratio of non-performing loans to total loans decreased as well. This positive trend was observed in almost all categories of household loans, and the ratio fell quite markedly in the case of classic housing loans. On the other hand, the NPL ratio for loans extended by home savings banks increased slightly.

At no point during the year did banks record an increase in the amount of loans past due by up to 90 days.

NPL developments did, however, differ between the first half and second half of the year. The trends observed at the end of 2010 continued with a declining rise of the amount of NPLs in the first six months. In the second half of 2011, however, their growth accelerated, particularly in the case of consumer loans. This was reflected in the ratio of non-performing loans to total household loans which stopped declining in the second half of 2011.

Higher inflation negatively affected the household debt burden

Household credit risk, i.e. the ability of households to service their bank debts, may be assessed in several ways. One is to focus on changes in variables that affect the debt burden (defined as the ratio of loan repayments to income). Of particular importance here are developments in nominal income, inflation, and interest rates, each of which may raise or lower the burden.

A second way is to assess the labour market situation, since employment and unemployment developments influence households’ income to a significant extent.

Changes in variables affecting households’ debt burden can be estimated using a theoretical ex-
ample, where the effect of changes in interest rates, wages and inflation on the average household debt burden is estimated. On this basis, the household debt burden seems to have increased. In 2009 and 2010 households could benefit from falling interest rates and saw nominal wages rise, but in 2011 these variables did not have a downward effect on their debt burden. Interest rates on housing loans stagnated or rose. Particularly in the second half of 2011, rising interest rates may have contributed to the increase in loan payments.

Similarly, the annual rate of growth in nominal wages slowed throughout 2011. In the last quarter, nominal wages virtually stagnated in year-on-year terms.

On the other hand, the disposable income of households in 2011 was adversely affected by inflation in particular. In 2009 and 2010, the negative effects of consumer price growth were offset by falling interest rates, whereas in 2011 the effects of rising inflation were more pronounced than nominal wage growth or decline in interest rates.

**Loan refinancing has a positive effect; longer initial rate fixation periods**

The debt burden was also mitigated by the fact that borrowers were continuing to pay off loans with new loans at lower interest rates. Although interest rates increased during the year, they remained at relatively low levels and households were taking advantage of this fact throughout 2011. At the same time, however, the difference between interest rates on old and new loans shrank and therefore the incentive to refinance loans in this way will be lower in the future.

It was also positive that most new loans in 2011 were provided with interest rate fixation periods from one to five years. The trend from 2010 thus continued and helped households to mitigate the risk of their debt burden being increased by a rise in interest rates.

**Labour market deterioration in the last quarter of 2011**

The labour market situation has a significant effect on the ability of households to repay their loans. The situation was positive for most of 2011, although differences in employment growth between sectors were relatively large (it was particularly strong in industry). Unemployment fell in most of the months of 2011.

This trend started to change in the last quarter of 2011. Employment growth decelerated, and expectations as to its development were also worsened. In addition, the unemployment rate in that
Chapter 3

3.1.2 CREDIT RISK IN THE NON-FINANCIAL CORPORATIONS SECTOR

Activity growth in the corporate sector slowed; debt burden is slightly higher

Despite relatively positive GDP figures, certain negative trends were observed in the corporate sector in 2011, particularly in the second half of the year when there was a slowdown in export growth and in the sector’s related sales growth. From the banking sector’s viewpoint, a further indication of the uncertainty about future developments was the fact that the growth reported by a sample of enterprises at the end of 2011 was lower than the average for the whole corporate sector in Slovakia. On the other hand, this sample reported exceptionally high sales growth in 2010, and therefore a certain slowdown was to be expected.

A positive aspect is that banks remain to a large extent oriented to segments whose sales are less adversely affected by current developments. Sales growth weighted by the amount of bank loans to the respective segment was higher than

quarter increased. The level of unemployment rose mainly among lower-income and middle-income groups. That the number of newly registered unemployed did not increase significantly implies that the sharper increase in total unemployment was attributable to a low drop in the number of unemployed, in keeping with slower employment growth mentioned above.
the overall average sales growth in 2011 (Chart 31).

The trend of sales growth decelerating as export growth slows is naturally apparent in industry, where new orders declined towards the end of the year. On the other hand, industry remained one of the fastest-growing segments of the Slovak economy. The second half of 2011 saw falling sales in wholesale trade and in the motor vehicle sales segment, and almost zero sales growth in the hotels and restaurants segment and the retail trade. Construction sector sales also decreased slightly at the end of 2011, after recovering during the year. The overall slowdown in corporate sector activity may have resulted not only from falling export growth, but also from the fact that sales in most segments had already returned to 2007 and 2008 levels by the end of the first half of 2011, therefore stemming the immediate pressure to make up the gap caused by the decline in activity in 2009.

In the first half of 2011 the debt burden in the corporate sector slightly increased, as sales growth was not able to keep up with interest rate increases, which were accompanied by a rise in the stock of loans. The rising trend in interest rates came to an end only at the end of the year, causing a modest drop in the corporate sector’s instalment burden. This burden remains slightly higher than in 2009 and 2010 (see Chart P23 in the annex).

The ambiguous developments in corporate sector activity in 2011 were reflected in confidence indicators, which deteriorated both in Slovakia and in destination countries for Slovak exports. Confidence in Slovakia remained below the long-term average (see Chart P23 in the annex), due mainly to expectations for future demand and output which, among other things, reflected the mentioned decline in industrial new orders.

**DEVELOPMENTS IN THE COMMERCIAL REAL ESTATE MARKET DETERIORATED SOMEWHAT**

The situation in the commercial real estate market changed slightly during 2011. While positive trends such as a declining office vacancy ratio and rising apartment sales were predominant in the first half of the year, there was less room for optimism in second half. The vacancy rate in the office segment increase both in and outside the centre of Bratislava.

In the residential segment, apartment sales growth decelerated and in the last quarter it even fell slightly. Sales were concentrated in new projects that reflected qualitative changes in demand. It means some problematic projects still remain unsold, and the financing banks cannot expect any immediate improvements. Loans for
commercial real estate therefore remain a significant source of credit risk in the banking sector.

**Quality of the Corporate Loan Portfolio Deteriorated Slightly at the End of 2011**

The ratio of non-performing loans (NPLs) to enterprises stopped declining in the second half of 2011 and even rose slightly, to 7.9%, at the end of the year. Not only was the ratio far higher than its pre-crisis levels, but it also approached its maximum level of 8.2%, recorded in October 2010. On the positive side, the default rate continued to decline slowly during 2011.

Differences in the quality of credit portfolios within the banking sector remained large. Looking at the breakdown of loans by segment, the highest annual rise in non-performing loans was observed in the segment of commercial real estate and hotels, where the amount of such loans increased by €53 million year-on-year.

**Loans-at-Risk Indicator Increased Slightly**

The slowdown in economic activity in the second half of 2011 (which was more pronounced in a sample of firms) was reflected in the rise of the loans-at-risk ratio. This implied that banks were still exposed to the enterprises, whose activity had not yet recovered from the crisis.

One particular risk is an increase in the difference between the upper quartile and the maximum value of the indicator, which signals that banks falling into the last quartile have an elevated risk.
3.2 MARKET RISKS AND LIQUIDITY RISK

3.2.1 MARKET RISKS IN BANKS

The most significant risk for banks is the risk of a change in credit spreads on government bonds in their portfolios. This is because mainly in the last quarter of 2011 credit risk premiums recorded a sharp increase in volatility. Another reason is that debt securities revalued at fair value constitute a relatively significant share in banks' portfolios, notwithstanding that the share of financial instruments held-to-maturity increased in the last quarter of 2011 (Chart 34). The third reason is that, in contrast to general interest rate risk, this part of the risk of change in government bond prices cannot be effectively hedged through interest rate swaps (Chart 44).

A rise in credit risk premiums may adversely affect profitability and capital adequacy of banks

The portfolio of debt securities revalued at fair value through profit and loss represented 2% of the sector’s assets as at 31 December 2011. Slovak debt securities (mainly government bonds and mortgage bonds issued by Slovak banks) accounted for approximately 75% of that portfolio value, while Polish government bonds accounted for as much as 17%.

The banks also revalue at fair value securities held in the portfolio of financial instruments available for sale. Although a negative revaluation in this portfolio has no impact on banks’ profitability, it does reduce their capital and thus their capital adequacy ratio. The available-for-sale portfolio accounted for 8% of the balance sheet total at the end of 2011. In the second half of 2011, the average duration of the portfolio remained largely unchanged, at 2.6 years. This implies that if credit spreads increased by 100 basis points, the portfolio value would fall by 2.6%, causing the capital adequacy ratio to fall by approximately 0.3 percentage point. At the banking sector level, this portfolio comprises mainly Slovak bonds (85%). At certain banks, the available-for-sale portfolio includes securities that fell sharply in price in 2011.

As Chart 81 shows, the general interest rate risk, to which banks are exposed, especially in the banking book, remained largely unchanged during 2011.

The overall exposure to the lowest-rated countries declined, but it is concentrated

As Table 4 shows, the banking sector’s overall direct exposure to the lower-rated EU countries through the securities portfolio (including securities in held-to-maturity portfolio) is relatively low (under 2% of assets) and it even declined during 2011. With regard to individual institutions, however, the higher concentration constitutes a risk.

Banking sector exposure to equity and foreign-exchange risks is minimal

Exposure to equity risk and foreign-exchange risk remained low throughout 2011. In most banks, the net foreign-exchange position as at the last day of each month did not exceed 10% of own funds. Investments in equities and common fund shares/units remained low throughout 2011 (up to 4% of own funds).

16 This reduction in own funds is due to the introduction of a new deductible item as of 31 May 2011.
3.2.2 MARKET RISKS OF OTHER NON-BANK SEGMENTS OF THE SLOVAK FINANCIAL MARKET FROM A SYSTEMIC VIEW

THE RISK OF AN INCREASE IN CREDIT SPREADS REMAINS THE MOST SIGNIFICANT MARKET RISK, AND IT ESCALATED IN THE LAST QUARTER OF 2011

As in the banking sector, the most significant risk in other financial market sectors at the end of 2011 was the risk of a further decline in prices of government bonds issued by euro area countries.

A specific feature of the last quarter was the way in which the debt crisis put downward pressure on prices of bonds of most euro area countries, not only the lowest-rated countries. The situation in the government bond market was particularly difficult in November 2011. The exposure of each financial market sector to those countries whose bonds fell more sharply in price during the first three quarters of 2011 was relatively low and did not rise significantly (Table 4); nevertheless, the value of bond portfolios fell, due mainly to a decline in the real value of these investments.

### Table 4 Investments in debt securities of selected countries as a share of total assets (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>XII.10</th>
<th>VI.11</th>
<th>XII.11</th>
</tr>
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<td>0.6</td>
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<td>0.3</td>
<td>0.3</td>
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<tr>
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<td>0.1</td>
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<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Cyprus</td>
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<td>0.1</td>
<td>0.1</td>
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<tr>
<td>SPMC funds</td>
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<td></td>
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<tr>
<td>Hungary</td>
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<td>0.2</td>
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<td>0.9</td>
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<td>0.9</td>
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<td>0.1</td>
<td>0.1</td>
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<td>Cyprus</td>
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<td>0.1</td>
<td>0.1</td>
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<tr>
<td>PFMC funds</td>
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<tr>
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<td>0.3</td>
</tr>
<tr>
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<td>0.9</td>
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<td>0.1</td>
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<tr>
<td>Insurers (excl. unit-linked)</td>
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<td></td>
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<tr>
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<tr>
<td>Hungary</td>
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<tr>
<td>Cyprus</td>
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</tr>
</tbody>
</table>

Source: NBS.

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

An empty cell means that the missing value is zero or negligible.
In November 2011 individual institutions and funds were negatively affected by a drop in the prices of Slovak government bonds which constituted the largest proportion of their portfolios (Chart 82). The price movements of Slovenian and Polish government bonds also had a relatively adverse impact on the portfolio revaluation. As for bonds issued by countries deemed to be a higher risk on the basis of previous developments, the drop in their prices accounted for a relatively less significant part of the total portfolio loss, largely because their share was low.

Finally, as the sovereign debt crisis may have a systemic impact on Slovak bonds or bonds issued by other central European countries, these investments are also exposed to a potential loss. On the level of individual financial market sectors, the degree of exposure to other types of risk remained largely unchanged during 2011 (Table

### Table 5 Changes in the share of equity, foreign-exchange and interest-rate positions in different sectors of the financial market

<table>
<thead>
<tr>
<th></th>
<th>XII.10</th>
<th>XII.11</th>
<th>VI.11</th>
<th>PFMC funds</th>
<th>SPMC funds</th>
<th>CI</th>
<th>Unit-linked insurance</th>
</tr>
</thead>
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<tr>
<td>Equities and common funds shares/ units</td>
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<td>0.0</td>
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<td>81.2</td>
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<td></td>
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<td>2.6</td>
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<td>22.1</td>
<td>19.1</td>
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<td></td>
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<td>15.3</td>
<td>15.3</td>
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<td>0.1</td>
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<td>45.6</td>
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<td>1.3</td>
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<tr>
<td>Duration of entire portfolio</td>
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<td>0.9</td>
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<td>1.5</td>
<td>0.9</td>
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<td>2.1</td>
<td>1.5</td>
<td>4.3</td>
<td>0.8</td>
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<td>Residual maturity of debt securities</td>
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<td>0.8</td>
<td>1.0</td>
<td>4.3</td>
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<td>2.2</td>
<td></td>
<td></td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: NBS, Bloomberg.

Note: Values are given as a percentage share of assets or NAV and they represent the asset-weighted average for the given group of institutions. Durations are given in years.

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.

Assets invested by insurers under unit-linked insurance policies.
The only exception was a gradual decline in the overall average duration of bond portfolios in unit-linked insurance, which fell gradually from 5.9 to 4.5 years since the end of 2009. This was mainly due to a gradual decline in the average residual maturity of the whole portfolio. Another significant change comprised a rise in the US dollar open foreign-exchange position in certain SPMC funds.

### 3.2.3 The Most Significant Market Risks in Individual Non-Bank Sectors of the Financial Market

**Turning to Other Market Risks, Insurance Company Assets are Exposed Mainly to Interest Rate Risk and the Risk of a Credit Spread Change**

For assets of insurance companies, the principal market risk was that of changes in the required yields to maturity on the bonds in the portfolio of insurance companies which were revalued at fair value (approximately 43% of the balance sheet total). This risk may be caused by two factors: by a change in the risk-free interest rate (the so-called general interest rate risk) and by a change in the credit risk premium on the issuer of a particular security (the counterparty risk). The effects of these two types of risk differ. If the risk-free interest rate increases, the adverse effect on assets revaluation is partially offset by depreciation of reserves, as the risk-free interest rate is used as a discount rate in calculating their value. By contrast, when the securities drop in value owing to a rise in the credit risk premium on their issuers, there is no offset. As a majority (97%) of debt securities revalued at fair value is held in the assets-for-sale portfolio, the effects on profitability are not expected to be significant. On the other hand, the rise in the credit risk premiums may adversely affect the equity capital. This risk is significantly higher in comparison with other sectors (Chart 88), mainly owing to high duration and residual maturity of the debt security portfolio (Table 4).

As Chart 83 shows, the rise in the credit risk premiums on Slovak government bonds would most significantly affect negative revaluation of a part of debt securities portfolio valued at fair value. In terms of the countries whose bonds recorded a more significant drop in prices in 2011, insurance companies were only exposed to Italy, where these bonds accounted for 4% of the bond portfolio valued at fair value. Developments in the last quarter of the year suggest that there may be a slight drop in the bond portfolio value in the case of Austrian and French government bonds.

Assets invested by insurance companies under unit-linked insurance business (where the risks are borne by the policyholders themselves) are relatively highly exposed to market risks. They are investments mainly in shares/units of collective investment funds, and, to a lesser extent, in bond portfolio with long but gradually contracting duration. These investments are exposed mainly to equity risk and interest rate risk.

**The Risk of a Fall in Value of the Pension Unit in PFMC Funds Remained Low**

The most significant risk in the portfolio of PFMC funds was that of debt securities drop due to counterparty risk. This risk was relatively low.


**Source:** NBS.

**Note:** The chart shows shares in the total volume of debt securities portfolio revalued at fair value as at 31 December 2011. The item “Other” includes debt securities issued by countries with the share in the total debt securities portfolio revalued at fair value below 1.5%.

17 Source: Standard of Best Practice No 1 of the Slovak Society of Actuaries (Adequacy test for life insurance technical reserves).
compared to other financial market sectors. This was also confirmed by a relatively modest impact of the adverse situation in the government bond market in November 2011 when total losses on the bond portfolio reached 0.3% of its value (see Chart 82). This is mainly because its duration remained permanently very low, as did the residual maturity of bond portfolios in these funds (1 year on average). As Table 4 shows, the funds exposures to riskier countries were low (those to Italy and Spain were the highest). Besides Slovak, Slovenian and Polish bonds, also Belgian and French bonds, which accounted for 11% of bond portfolio and recorded a drop in prices in November 2011, might cause losses if the debt crisis continued.

Other risks were negligible. Assets in funds might be more adversely affected only if one of the banks collapsed in which the funds have their deposits; however, the likelihood of this risk seems to be very low.

**The exposure of SPMC funds to equity risk and the risk of an increase in credit risk premiums is relatively high**

The risk exposure of SPMC funds was substantially higher than in the case of PFMC funds and, at the sector level, even higher than the average risk exposure of collective investment funds (Chart 88). This was also confirmed by developments in the value of the pension unit in the second half of the year. Although these developments were rather heterogeneous across the SPMC sector, some funds recorded a relatively sharp decline. The decline was due primarily to two factors which correspond with the two identified types of risks. In the course of the third quarter (particularly between 22 July and 10 August 2011) equity markets witnessed strong turbulences resulting in a decline of 17%. The following wave of adverse developments was seen in November 2011, particularly in bond markets, leading to a fall in prices for government bonds of many countries, including Slovakia (the price of Slovak five-year government bonds went down by 17%). In this period, equity prices declined as well, however, they were corrected later. As bond markets also weakened, these corrections did not fully translate into a correction of the average current value of the pension unit (Chart 85). The value of the pension unit was reduced by 2.3% during both of the two mentioned periods as a result of the size of SPMC funds' exposure to equity risk and the risk of credit spread movements.

Growth and equity funds were exposed to a relatively high equity risk, and they recorded a fall in the current value of their pension unit of 7 to 11% at the end of July and the beginning of August, as equity prices plummeted. The market share of these funds is relatively low (approximately 4%). However, this risk was also carried by certain other funds which had a higher market share of equity investments. The total share of investment in equity and shares/units of SPMC contributory funds slightly declined in the second half of 2011 and reached 18% at the end of the year.

As already mentioned, the second important risk to SPMC funds is the risk of a decline in the bond portfolio value owing to growing credit risk premiums. Chart 82 illustrates a relatively marked fall (of 2.0%) in the value of bond portfolios of the sector in November 2011. The highest share in this decrease can be attributed to Slovak government bonds owing to their high proportion (a half) of the total bond portfolio of these funds.
Alike in other sectors, the losses were also due to Slovenian bonds.

As indicated in Chart 86, which shows the structure of the debt securities portfolio in SPMC funds by country of issuer, this sector might be exposed to a higher risk of widening credit spreads in the case of Slovakia, France, the Czech Republic and Slovenia. This risk was higher when compared with the PFMC fund and collective investment sectors, owing to longer duration of those bonds. Exposure to the countries whose credit risk premiums increased markedly over 2011 was relatively low, but concentrated.

As mentioned above, foreign exchange risk in funds went up slightly because long foreign exchange positions against the USD were extended in certain more risky funds. Except for these funds, the foreign exchange risk exposure of the majority of other funds is relatively low.

The collective investment sector is mainly exposed to equity risk, bond funds also to the risk of growing credit risk premiums

The collective investment sector faces mainly equity risk; this refers especially to equity funds and funds of funds, which were markedly affected by adverse developments in equity markets in the third quarter of 2011. Both types of funds reported relatively high annual losses; the year-on-year performance of equity funds was markedly negative (-13%). In 2011, equity funds’ investments in equities and common fund shares/units declined relative to funds’ total assets. This decline reflected adverse developments in the value of these portfolios (see Chart 87). At the same time, it also resulted from adjustments in the re-orientation of investment strategy towards more conservative assets and was compensated by the increasing share of bank accounts, which, in the case of equity funds, rose from 13% to 40% during 2011. Similar developments of investments in common fund shares/units were also observed for mixed funds in 2011.

The collective investment sector, particularly bond funds, was also exposed to growing credit risk premiums. Losses resulting from this risk led to a negative month-on-month performance of bond funds of -2.3% in November 2011. In this type of funds, the major risk was that of falling prices of Slovak bonds (owing to their high volumes) and bonds issued by other central European countries (particularly Poland, Slovenia and the Czech Republic). Declining prices...
of these bonds accounted for 90% of the total negative revaluation of bond portfolios of these funds. However, for the collective investment sector as a whole, this risk was less pronounced compared to equity risk. This stemmed inter alia from relatively short duration of these funds’ portfolios.

Developments in the second half of 2011 suggested that further intensification of sovereign debt crisis might lead to repeated redemptions of units of collective investment funds. These redemptions can be affected also by increased competition of banks in the retail deposit market, with banks offering more attractive yields on deposit products with the aim of increasing the proportion of primary funds.

3.2.4 MEASURING MARKET RISKS USING VALUE AT RISK (VAR)

Value at Risk increased moderately due to a rise in equity risk
The riskiness of portfolios in individual financial market segments rose only slightly during the first half of 2011. However, it went up relatively sharply in the second half, as shown in Chart 88, due mainly to a dramatic rise in risks related to credit spreads. As already mentioned, this was a consequence of the deepened debt crisis in the euro area reflected in higher riskiness of bonds of most of the countries. A particularly increase in riskiness was observed especially in the SPMC funds’ portfolios and, to a lesser extent, also in those of insurance corporations, because the portfolios of these two segments were to large part made up of government bonds of euro area countries revalued at fair value.

On the other hand, the mentioned increase in the credit spread risk was at least pronounced in collective investment funds. Among funds, riskiness rose only in bond funds, which are more exposed to the risk of increased volatility of government bond prices, and in funds of funds, due to a growing equity risk seen in the majority of these funds.
3.2.5 LIQUIDITY RISK IN THE BANKING SECTOR

**Loan-to-deposit ratio increased**

The rise in the loan-to-deposit ratio slightly accelerated throughout 2011. The reason behind this development was a slowdown in growth of corporate deposits or their decline by the end of the year and a rise in loans to non-residents accompanied by a fall in their deposits. Unlike in 2009 and 2010, the observed increase in the loan-to-deposit ratio was not primarily due to the rise in housing loans in 2011. At the end of 2011, the value of this indicator was 84% (after taking account of issued mortgage bonds and the deposits of ARDAL – see Chart P51 in annex).

**No substantial change in short-term liquidity**

The liquid asset ratio, which indicates the liquidity risk in the horizon of 1 month, hardly changed during 2011. That year saw a continuation of the trend of relatively lower value of the indicator for retail banks (Chart P52 in annex). When analysing short-term liquidity, account...
has to be taken of the fact that, due to the crisis, interbank trades are concentrated within own financial groups.

**Mortgage bond repayment at the level of sector does not involve any direct risk**

Mortgage bonds are the most important long-term source of financing for retail banks. As banks focused more on other types of housing loans than mortgage loans, the volume of mortgage bonds stagnated in 2011. Despite that, the banking sector will have to issue mortgage bonds in the value of €615 million in 2012 to cover maturing bonds. This amount represents around 18% of the total volume of mortgage bonds issued, which does not place a significant burden on the sector. Even if the 2012 issues of mortgage bonds were unsuccessful, the repayment of principals to investors would only account for 13% of surplus liquid assets of the banking sector (i.e. of liquid assets above the level implied by the liquid asset ratio).

*Chart 90 Mortgage bond issues and surplus liquidity in the banking sector (%)*

Source: NBS.

Note: Surplus liquid assets (LA) refer to the difference between liquid assets and volatile liabilities, i.e. liquid assets above the level implied by the liquid asset ratio.
MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR
4 Macro stress testing of the Slovak financial sector

At the end of 2011, the resilience of the Slovak financial sector to adverse developments of global economy and in financial markets was examined using macro stress testing. Three scenarios were created for stress testing purposes. The Baseline Scenario was based on the official forecast of the Národná banka Slovenska. The scenario expects a gradual GDP growth driven mainly by external demand, with an increasing weight of the domestic demand. A gradual slowdown in price growth and a falling rate of unemployment are also expected. The scenario “Economic Downturn” assumes a decline in domestic GDP and rising inflation and unemployment due to a fall in external demand. The global economic downturn should also be reflected in deteriorating financial market indicators. In the “Sovereign Crisis” scenario, negative developments assumed in the “Economic Downturn” scenario would be exacerbated by deepening of the sovereign debt crisis in the euro area. Beside a more pronounced downturn in financial markets, a marked decline in domestic GDP and increasing unemployment are forecasted. Both latter scenarios also assume an increase in the non-life insurance loss ratio, thus taking insurance risks into the testing exercise for the first time.

As at the end of 2011, the banking sector again reported relatively strong resilience to unfavourable macroeconomic developments. The total additional capital requirement for the sector amounts to 0.7% of own funds under the Baseline Scenario, 2.2% under the “Economic Downturn” scenario and 3.5% under the “Sovereign Crisis” scenario. The resilience is based on the sector’s capital buffer which was fairly large at the end of 2011, and on ability to generate interest income even in difficult periods. The sector’s largest losses would be incurred in connection with the corporate loan portfolio, nevertheless, in certain banks the loss from loans to households would be higher. A reduction in value of securities held by banks would bring about a lower loss, since a majority of these securities are in portfolios of securities held to maturity. Other risks were of marginal importance for the sector as a whole at the end of 2011.

The stress testing of the PFMC sector confirmed that the funds are not significantly exposed to risks assumed in the stress scenarios, due to their conservative structure of investments. The downward pressure on SPMC funds would be relatively strong under the stress scenarios. The impact on individual funds would be different, however, and it would depend mainly on the proportion of equity investments, since performance of SPMC funds would be significantly affected by the equity risk. With regard to the conservative structure of investments with a high share of short-term bank deposits, the effect on a majority of the payout SPMC funds would not be significant.

Under the stress scenarios, the greatest risk for the collective investment sector would be posed by equity investments, but the effect on individual funds would be different; mainly funds with relatively smaller market shares would be affected. Bond funds which are more exposed to the risk of an increase in credit spreads would also report losses; nevertheless, the distribution of these losses would be rather heterogeneous.

In the insurance sector, the portfolio of debt securities has a relatively long duration and therefore only a small impact on the level of interest income is expected under the scenarios. Moreover, this interest income would be sufficient to partly cover any losses from the revaluation of assets. These losses would be mainly caused by an increase in the credit spreads of bonds. Together with large losses on the technical account, such developments could pose a potential risk to the insurance sector.

4.1 Description of scenarios used

As in previous analyses, macro stress testing examines resilience of the financial sector to unfavourable macroeconomic developments and negative tendencies in financial markets. As stress testing covers all sub-sectors of the Slovak financial sector, the scenarios were prepared to
include the broadest scope of risks which domestic financial institutions have to face. The stress testing also included some insurance risks for the first time.

Two stress scenarios and one baseline scenario, serving as a base for assessing the impact of particular scenarios, were created. All three scenarios cover the two-year period 2012 to 2013.

When interpreting the results of stress testing, it should be noted that the results are used to give better information on the risk profile of particular financial corporations or sectors, and to compare the resilience of the tested corporations to particular types of risk.

The stress testing results cannot be regarded as a projection of the future developments in the Slovak financial sector, due to a fairly large number of simplifying assumptions required for such estimation.19

**Baseline Scenario**
The Baseline Scenario was based on the official medium-term forecast of Národná banka Slovenska20. In 2012, economic growth is expected to be driven mainly by external demand which should slow in comparison with 2011. This implies a more moderate GDP growth throughout 2012 as compared to the previous year. External demand should speed up slightly in 2013, since increasing domestic demand reflecting the effect of stronger final consumption and growth of investments should support domestic economic growth, too.

After a significant rise in 2011 (due to higher prices of goods and services), inflation should diminish gradually during the period of two years under review. Unemployment is also expected to have a falling rate, while its more pronounced decline will mainly in 2012 be prevented by a lower external demand than in 2011.

From the view of insurance risks, the Baseline Scenario expects the same technical results in life insurance as in 2011. In the non-life insurance, the average net loss ratio21 was calculated for each insurance company and for each year of the period 2007 to 2011. In the Baseline Scenario, the net loss ratio is expected to equal the arithmetic mean of net loss ratios for that period. This net loss ratio is used to calculate the technical result for non-life insurance.


21 The net loss ratio means the loss ratio after taking reinsurance into account.
together with the need for fiscal consolidation are expected to boost price increases. Unemployment is assumed to grow as a result of the economic decline throughout the period under review.

**THE “SOVEREIGN CRISIS” SCENARIO**

The adverse developments described in the previous scenario are to be exacerbated by deterioration in the euro area sovereign debt crisis. A rise in nervousness in financial markets at the beginning of the two-year period under review could lead to a sharp decline in external demand and the negative mood is assumed to remain throughout the stressed period. No significant upward corrections in financial markets are therefore expected.

Similarly to the “Economic Downturn” scenario, the decline in external demand and negative mood in financial markets will pass through to a sharp fall of the domestic economy. Inflation is expected to remain at relatively high levels for reasons similar to those under the “Economic Downturn” scenario. Throughout the period under review, unemployment growth is also expected.

Concerning insurance risks, both scenarios are identical. In non-life insurance, the stressed net loss ratio is calculated as the maximum net loss ratio for each insurance company over the period 2007-2011 plus 5 percentage points. The same method is used to calculate life insurance and supplementary insurance with the exemption that where such loss ratio is lower than the average for the whole insurance sector, it is adjusted to the sector average. For the remaining life insurance, only death risk was tested. Average mortality for the period 1999-2010 was calculated based on the mortality charts published on the NBS website. The value was increased by 10% and additional loss from death risk for 2012 was calculated. These losses will affect the profitability of the insurance sector in 2012. In 2013, insurance risks will again follow the Baseline Scenario with the exception of death risk. The death risk assumes an increase of mortality by another 10%.

A detailed description of stress testing parameters is to be found in Table 8.

### 4.2 SCENARIO IMPACTS

**BANKING SECTOR RELATIVELY RESILIENT TO STRESS SCENARIOS**

As at the end of 2011, the banking sector again reported relatively strong resilience to unfavourable real economy and financial market developments. In general, the banks were able to maintain capital adequacy above the recommended threshold of 9%. Although this positive conclusion applies to the sector as a whole, certain banks would end the test period under that threshold, depending on the scenarios. The additional capital required to achieve the recommended threshold of 9% for all banks would amount to €36 million under the Baseline Scenario (0.7% of own funds at the end of 2013), €105 million (2.2%) under the “Economic Downturn” scenario and €159 million (3.5%) under the “Sovereign Crisis” scenario.
Chart 93 Impact of macroeconomic scenarios on the financial sector as at the end of 2012 (percentage share of assets or NAV)

Source: Source: NBS, Register of Bank Loans and Guarantees, ECB, REUTERS, BLOOMBERG.
Note: The Chart shows quartiles of the estimated profit/loss-to-asset ratio resulting from the application of the respective scenarios as at 31 December 2012. The data for insurance companies include only the change in the fair value of assets and negative repercussions of insurance risks on their profitability. The stress testing does not include assets covering technical provisions in unit-linked insurance.

Chart 94 Capital adequacy ratio of the sector according to the selected scenario (%)

Source: NBS.
Note: Estimates as at the end of 2013 also include a share of this year’s earnings that should be used to increase own funds.

Chart 95 Main factors affecting the level of own funds (EUR billions)

Source: NBS.
Note: Figures represent estimates as at 31 December 2013. The second and fourth columns comprise contributions to own funds increase/drop by individual profitability items. Other income/expenditure comprise in particular total operating costs which decrease the amount of profit.

NEGATIVE EFFECTS OF PARTICULAR SCENARIOS WOULD BE MITIGATED MAINLY BY INITIALLY STRONG CAPITAL ADEQUACY AND ABILITY TO GENERATE NET INTEREST INCOME

There were mainly two factors behind the relatively positive results of stress testing for the sector as a whole. The first of these factors is a positive initial capital adequacy at the end of 2011 and the second factor is the assumed ability of the sector to generate net interest income even during periods of escalated stress.

The weighted average for capital adequacy of banks included in stress testing reached 13.4% as at 31 December 2011. Assuming that own funds are increased by at least 50% of the profits for 2011 the indicator would increase to 14.4%. As a result of these relatively high capital buffers at the end of 2011, the sector would need no additional capital under particular scenarios, though four of 14 banks tested would end the two-year period under review with a cumulated loss under the Baseline Scenario and the number of banks reporting a cumulative loss for the two-year period under review would double under both stress scenarios.
Net interest income is the most significant source of income for the sector. The ability to generate the income of the banks ensures their ability to mitigate the impact of losses from individual types of risks and remain profitable, or reduce the losses\textsuperscript{22}.

**Credit Risk Remains the Most Significant Risk**

Corporate credit risk remains the most significant risk for the banking sector. Cumulative losses incurred in the corporate loan portfolio would exceed losses from other types of risks. However, household credit risk is at a comparable level in the banking sector as a whole, while in a number of institutions losses on the household loan portfolio would exceed those on the corporate loan portfolio.

Market risks remain less significant compared to the credit risk. The main source of losses, however, are writedowns of securities held in banks’ portfolios which include both interest and sovereign risks. These losses would only be significant in selected banks. Equity and foreign exchange risks remain a marginal source of losses for the banking sector.

**The Stress Scenarios Are Not Expected to Have a Negative Impact on PFMC Funds**

Stress testing of the PFMC sector confirmed that the funds are not exposed to significant risks under stress scenarios because of a more conservative composition of investments. The funds would not record significant losses or changes to the value of the pension unit. Even a simulated raising of the credit risk premium for the countries whose bonds the funds hold (including Slovakia) are not expected to cause significant losses.

**Several SPMC Contributory Funds Could Record Relatively Significant Losses Due to Equity Risk Exposure**

The downward pressure on SPMC funds would be relatively strong under the stress scenarios. This impact was quite divers, however, and it was dependent mainly on the share of equity investments as the equity risk would be particularly pronounced in the SPMC funds performance under the stress scenarios. Several larger funds would also be exposed to significant losses as some of them hold a significant share of equity investments. The impact of the negative revaluation of government bonds that is covered mainly under the second scenario would be less pronounced.

In the “Economic Downturn” scenario, a trend of negative performance would continue at similar level as in the second half of 2011; in the “Sovereign Crisis” scenario the negative trend would be even more pronounced.

\textsuperscript{22} The estimate of net interest income did not take account of potential effect of changes in the competition environment that may affect the overall developments in interest incomes.
The impact on this sector would be quite divers, however, (Table 7) and the losses from equity risk would affect funds with relatively smaller market shares. Bond funds which are more exposed to the risk of an increase in risk premiums would also report losses (up to 20%), but they would be divided rather heterogeneously within this type of funds. As recent developments have shown, redemptions could be another risk for the collective investment sector in the case of more significant losses.

With regard to the conservative composition of investments with a high share of short-term deposits in banks (39% of the overall net asset value), the effect on a majority of the payout SPMC funds would not be significant.

The high proportion of less risky funds in the collective investment sector is apparent in the case of stress scenarios

In the stress scenarios, equity risk would be the greatest risk to the collective investment sector.

### Table 7 Breakdown of the impact of the “Sovereign Crisis” scenario as at 31 December 2012 (%)

<table>
<thead>
<tr>
<th>Profit</th>
<th>Loss (% of NAV)</th>
<th>0 – 5</th>
<th>5 – 10</th>
<th>10 – 20</th>
<th>20 – 30</th>
<th>30 – 40</th>
<th>more than 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money market funds</td>
<td>98.6</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Bond funds</td>
<td>62.6</td>
<td>19.7</td>
<td>0.0</td>
<td>17.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Funds of funds</td>
<td>2.9</td>
<td>7.7</td>
<td>10.7</td>
<td>9.6</td>
<td>59.4</td>
<td>7.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Equity funds</td>
<td>34.1</td>
<td>0.0</td>
<td>32.8</td>
<td>0.0</td>
<td>0.0</td>
<td>19.0</td>
<td>14.2</td>
</tr>
<tr>
<td>Mixed funds</td>
<td>38.9</td>
<td>29.9</td>
<td>4.2</td>
<td>4.1</td>
<td>17.0</td>
<td>5.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Funds – total</td>
<td>65.4</td>
<td>17.1</td>
<td>4.2</td>
<td>3.6</td>
<td>6.5</td>
<td>2.3</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Source: NBS, ECB, Bloomberg.

Note: In the table, the net asset value of funds that recorded a profit or loss in the stated range under the “Sovereign Crisis” scenario as at 31 December 2012 is shown as a share of the total net asset value of investment funds in the respective category.
Several insurance companies would record a loss in case of insurance risk rise combined with a deteriorated situation in financial markets

In the insurance sector, the portfolio of debt securities has a relatively long duration and therefore the stress scenarios had only a small effect on the level of interest income. This interest income would, moreover, be sufficient to cover potential losses from any revaluation of assets under the stress scenarios. These losses result mainly from the expected systemic effect of the debt crisis on an increase in the credit spreads of bonds issued by less risky countries (e.g. Slovakia). This is because Slovak government bonds revalued at fair value account for a large proportion of asset portfolios in the insurance companies.

Together with large losses on technical account, the development could be a potential risk to the insurance sector. Given a lack of data, the calculation does not include the revaluation of insurance companies’ liabilities. A potential decrease in liabilities as a result of a rise in risk-free rates would mitigate the impact of particular scenarios.

Chart 100 shows the results of stress testing of the insurance sector by different types of risk. Although the highest costs of insurance companies relate to life insurance, their impact under the stress scenarios is rather low as the testing did not include the longevity risk. The financial risks from the revaluation of securities constitute the largest losses that exceeded those from non-life insurance. The losses from non-life insurance are much higher than in 2011, given the very favourable developments in the loss ratio in non-life insurance in that year.

Under the Baseline Scenario, nine insurance companies would suffer a loss; five of them suffered a loss also in 2010. The losses relate mainly to the revaluation of securities. Total profits in the insurance sector would achieve €106 million. In the “Economic Downturn” scenario, 16 insurance companies would suffer a loss and losses for the sector as a whole would amount to €123 million. In the “Sovereign Crisis” scenario, the situation would be the same as in the “Economic Downturn” scenario but the aggregate loss would amount to €218 million.

Chart 100 Impact of the Baseline Scenario and stress scenarios on the assets of insurance companies (%)  

![Chart 100](image)

Source: NBS, ECB, Bloomberg.

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

Chart 101 Costs of stress testing in the insurance sector by types of risks (EUR millions)  

![Chart 101](image)

Source: NBS.
### Table 8 Stress testing parameters

<table>
<thead>
<tr>
<th>Basic assumptions</th>
<th>Baseline scenario</th>
<th>Economic Downturn</th>
<th>Sovereign Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>External demand (year-on-year change)</td>
<td>4.9%</td>
<td>7.0%</td>
<td>-16.2%</td>
</tr>
<tr>
<td>USD/EUR (year-on-year change)</td>
<td>0%</td>
<td>0%</td>
<td>-20%</td>
</tr>
<tr>
<td>Exchange rates of CHF, JPY, GBP, DKK, CAD, HRK, LVL against EUR (year-on-year change)</td>
<td>0%</td>
<td>0%</td>
<td>-20%</td>
</tr>
<tr>
<td>Equity prices (year-on-year change)</td>
<td>0%</td>
<td>5.0%</td>
<td>-30.0%</td>
</tr>
<tr>
<td>iTraxx Senior Financials index (year-on-year change)</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>increase by 150%</td>
</tr>
<tr>
<td>Increase in the slope of the credit spread curve</td>
<td>0 b.p.</td>
<td>0 b.p.</td>
<td>increase to 2011 maximum</td>
</tr>
<tr>
<td>Macroeconomic variables estimated using a model</td>
<td>2.3%</td>
<td>3.5%</td>
<td>-3.5%</td>
</tr>
<tr>
<td>GDP growth (year-on-year change)</td>
<td>2.7%</td>
<td>1.5%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Inflation (GDP)</td>
<td>12.7%</td>
<td>12.0%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>2.3%</td>
<td>3.5%</td>
<td>-3.5%</td>
</tr>
<tr>
<td>Non-life insurance</td>
<td>Average loss ratio</td>
<td>Average loss ratio</td>
<td>Maximum loss ratio+ 5 p.p.</td>
</tr>
<tr>
<td>Life insurance – death risk</td>
<td>Death ratio + 10%</td>
<td>Death ratio + 20%</td>
<td>Death ratio + 10%</td>
</tr>
<tr>
<td>Variables for credit risk estimated using macroeconomic variables</td>
<td>Annual probability of default</td>
<td>Non-sensitive sectors</td>
<td>Less sensitive sectors</td>
</tr>
<tr>
<td>Ratio of non-performing household loans</td>
<td>5.9%</td>
<td>5.6%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Source: NBS.

1) In the stress scenarios, a uniform declining trend is assumed throughout 2012.
2) In the Sovereign Crisis scenario, a decline of 30% is assumed for the first quarter, and of 20% for the following three quarters.
3) In the Sovereign Crisis scenario, an increase in the first quarter is assumed.
4) The entire increase in credit spreads is assumed to occur during the first quarter. The credit spread increase refers to an additional increase on zero coupon rates.
5) Increase in the slope of the credit spread curve refers to the difference between 1Y and 5Y credit spreads.
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR

GENERAL NOTES:
The broken vertical line denotes the preparation data of the analysis (31 December 2011). The formulation 'index: 31 December 2010 = 1' means that the given index was set in such a way that its value as at that date (31 December 2010) was 1.

MACROECONOMIC RISK INDICATORS

Chart P1 Indicator of sentiment (PMI) in industry in selected economies

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

Chart P2 Indicator of sentiment (PMI) in services in selected economies

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

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

Chart P4 Economic sentiment indicators in the euro area

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

Chart P5 Unemployment rates in selected economies (%)

Note: Seasonally adjusted.

Chart P6 Consumer price inflation in selected economies (%)

Note: Annual percentage change in the Consumer Price Index.
**Chart P7 Industrial production indices in selected countries**

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

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

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

**Chart P9 General government balances of EU countries in 2010 (%)**

Source: Eurostat.
Note: Each balance is represented as a percentage share of GDP.

**Chart P10 Gross government debt of EU countries in 2010 (%)**

Source: Eurostat.
Note: Each gross debt represented as a percentage share of GDP.
FINANCIAL MARKET RISK INDICATORS

Chart P11 Price commodity indices (31 December 2010 = 1)

- Brent oil price index
- Gold price index

Source: Bloomberg, NBS calculations.

Chart P12 Exchange rate indices (31 December 2010 = 1)

- USD / EUR
- CZK / EUR
- HUF / EUR
- PLN / EUR

Source: Bloomberg, NBS calculations.

Chart P13 Equity indices (31 December 2010 = 1)

- EUROSTOXX
- S&P 500
- NIKKEI

Source: Bloomberg, NBS calculations.

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

- Unicredit
- Erste Bank
- Intesa
- KBC
- RZB

Source: Bloomberg, NBS calculations.
ANNEX 1

Chart P15 Steepness of the yield curve in selected economies

Source: Bloomberg, NBS calculations.
Note: The steepness of the yield curve is expressed as the difference between the yield to maturity on 10-year and 3-month government bonds.

Chart P16 Volatility of equity indices

Source: Bloomberg.

Chart P17 CDS spread indices (b.p.)

Source: Bloomberg, NBS calculations.

Chart P18 CDSs of the parent undertakings of the 5 largest Slovak banks (b.p.)

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

Source: Bloomberg, NBS calculations.

Chart P20 Inflation-linked swap prices

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

Chart P21 Credit spreads on 5-year government bonds issued by countries under stress (p.p.)

Source: Bloomberg, NBS calculations.
Note: The left-hand scale shows the yield difference between, on one hand, the 5-year bonds issued by each country and, on the other hand, the 5-year OIS rate, representing a 5-year interest rate with low credit risk.

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

Source: Bloomberg, NBS calculations.
Note: The Chart shows the difference between, on one hand, the percentage yield on 5-year government bonds issued by each country in their domestic currency and, on the other hand, the 5-year swap rate for the respective currency.
CORPORATE CREDIT RISK INDICATORS

Chart P23 Exports and the business environment

Source: NBS, OECD, SO SR.

Chart P24 Exports and corporate sales

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

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

Source: SO SR.

Chart P26 Labour productivity and wages in industry

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

Source: NBS, EBF.

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

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**Chart P28 Non-performing loans and probabilities of default**

Source: NBS.

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**Chart P29 Loans at risk (%)**

Source: NBS.

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**Chart P30 Debt-servicing burden – breakdown into components**

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

Source: CBRE, NBS calculations.
Note: The Chart plots prices and occupancy rates in Bratislava.

Chart P32 Residential real estate: sales

Source: Lexxus, NBS calculations.

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

Source: NBS, SO SR.

Chart P34 Liabilities of non-financial corporations by composition (%)
HOUSEHOLD CREDIT RISK INDICATORS

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

Source: Eurostat.

Chart P36 Changes in household financial assets

Source: NBS.
Note: Monthly changes are stated in EUR millions.

Chart P37 Changes in the number of unemployed by income category

Source: Central Office of Labour, Social Affairs and Family.
Note: Left-hand and right-hand scales: number of jobseekers. The income categories are defined in the section Glossary and abbreviations.

Chart P38 Index of employment in selected sectors

Source: SO SR.
Note: The index represents year-on-year changes.
Chart P39 Expected employment in selected sectors

Source: SO SR.

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.
Note: 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 (%)

Chart P44 Housing affordability index

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

Chart P46 Sensitivity to different risk types in the banking sector

Source: Bloomberg, NBS calculations.
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 P47 Sensitivity to different risk types in the sector of PFMC funds

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

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

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

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

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

Chart P50 Sensitivity of insurers’ assets to different risk types

Source: Bloomberg, NBS calculations.
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.
An Analysis of the Slovak Financial Sector

Annex 1

Chart P51 Loan-to-deposit ratio (%)

- Loan-to-deposit ratio (without ARDAL deposits and mortgage bonds issued)
- Loan-to-deposit ratio (including ARDAL deposits and without mortgage bonds issued)
- Loan-to-deposit ratio (including ARDAL deposits and mortgage bonds issued)
- Loan-to-deposit ratio (retail)

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

Chart P52 Liquid asset ratio

- Quartile band
- Weighted average
- Median - retail banks except for home savings banks
- Median - banking sector

Source: NBS.
GLOSSARY OF TERMS USED

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

*Average annual return on pension funds* – it is calculated as a weighted average of the annual percentage changes (APC) in the daily values (DV) of pension units of the respective pension funds. The annual percentage changes in the daily values of pension units are calculated as at 30 June 2011 (APCDVPU 30.6.2011) according to the following formula:

\[
APCDVPU_{30.6.2011} = \left( \frac{PU_{30.6.2011}}{PU_{30.6.2010}} - 1 \right) \times 100\%
\]

where PU is the value of a pension unit on the given day.

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

This return, however, is not identical to the return in the saver’s personal pension account, which is determined on an individual basis. The input data were the values of pension units from the different pension funds reported to Národná banka Slovenska by pension fund management companies for the days 30 June 2010 and 30 June 2011, which are available on the website of Narodna banka Slovenska.

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

*Average return on a pension fund of a pension fund management company* – the moving average of the following: the annual percentage changes in the daily pension unit values of a pension fund, calculated for the previous 24 months and rounded up to two decimal places.

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

**CLI index** – an index of the weighted average of composite leading indicators for selected countries, with each country weighted according to its share of Slovak exports. Published by the OECD, the CLI is a composite indicator of changes in economic activity.

**Combined ratio** – a ratio representing the expense ratio and loss ratio relative to earned premiums.

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

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

**Cumulative gap** – the sum of open positions (long or short) in certain time bands.

**Default rate / delinquency rate** – the percentage of loans defaulting over the period monitored.
Deleveraging – the process of reducing the share of borrowed funds, or increasing the share of own funds (capital), in a balance sheet.

Emerging markets – developing markets undergoing rapid growth and industrialisation.

Enterprises – non-financial corporations.

ESI (Economic Sentiment Indicator) – an indicator of economic sentiment produced by the European Commission.

Euro Libor/OIS spread – an indicator that takes account of how banks perceive the credit risk of inter-bank lending.

Expense ratio – ratio of operating expenses to earned premiums.

Financial intermediation – for the purpose of this analysis, financial intermediation is understood to mean financial flows between entities and not the mediation of financial services.

General government – central and local government bodies.

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

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

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

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

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

HTM portfolio – portfolio of assets held to maturity.
**Inflation-linked swaps** – swap transactions in which one counterparty pays a fixed rate (a swap price) and the other pays a rate corresponding to the return on a selected price index (e.g. the euro area HICP or the US consumer price index). The inflation-linked swap price is calculated on a non-coupon basis (i.e., both payments are made when the swap matures).

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

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

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

**Loans at risk (LAR)** – an indicator of corporate credit risk that measures the share of corporate loans provided to enterprises whose financial position has sharply deteriorated. LAR represents the share of total corporate loans that comprises loans to enterprise which in the given period have reported a net loss and a drop in sales of more than 30%. The reference period is from July 2007 to June 2008.

**Loan-to-deposit ratio** – the ratio of loans to customers and the sum of retail deposits, deposits of enterprises, 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 amount divided by the value of the collateral used for the loan.

**Long position** – a position in which assets are greater than liabilities

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

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

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

**Net percentage share** – a figure used in the evaluation of responses to the Bank Lending Survey; it is calculated by taking the lending of banks that relaxed lending standards and those that tightened lending standards and finding the difference between the percentage share of each in total lending. The individual responses of banks are weighted by the average amount of loans of the respective type.

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

**Non-performing loans** – loans are non-performing when the bank finds that they have lost more than 50% of their value or that the borrower is in arrears with payment by more than 90 days.

**Open position for up to 3 months** – the difference between, on one hand, the sum of claims against customers and debt securities issued by banks and enterprises which have a residual maturity of up
to 3 months, and, on the other hand, the sum of liabilities towards customers and issued securities which have a residual maturity of up to 3 months.

*PMI (Purchasing Managers’ Index)* – an indicator of the economic health of the manufacturing and/or services sectors: 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.

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

*Sensitivity analysis* – an analysis of sensitivity which includes four scenarios as follows: share prices declining by 10%; other currencies weakening against the euro by 5%; interest rates increasing in parallel by 0.3 percentage point; and credit spreads on bonds issued by Greece, Portugal, Ireland, Spain and Italy widening by 2 percentage points. In the case of interest rate risk, the impact on the revaluation of instruments valued at fair value is calculated, as is the impact on the economic value that represents the revaluation of all financial instruments. Individual risk types include also indirect risks that institutions are exposed to by virtue of their investments in common fund shares/units. The calculation of these indirect risks was based on the mapping of the different types of fund units/shares into the set of risk factors.

*Short position* – a position in which liabilities are greater than assets.

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

*Unit-linked provision* – a technical provision created for life insurance business involving investment into funds falling into A4 insurance line.

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

*ZEW survey* – a survey of economic sentiment conducted by Zentrum für Europäische Wirtschaftsforschung (Centre for European Economic Research), a private economic research institute based in Germany.
ABBREVIATIONS

APCDVPU annual percentage change in daily values of pension units
BF balanced funds
b.p. basis point
CAR capital adequacy ratio
CF conservative fund
CI collective investment
CLI composite leading indicator
CR n index of the concentration of n largest banks
CZK Czech koruna
ECB European Central Bank
EIB European Investment Bank
ECJ European Court of Justice
ETF exchange-traded funds
EU European Union
EUR euro
EURIBOR Euro Interbank Offered Rate
GDP gross domestic product
GF growth funds
HHI Herfindahl index
IRB Internal Rating Based (approach)
KZAM klasifikácia zamestnani / employment classification
LAR loans at risk
LGD loss given default
LTRO long-term refinancing operations
LTV loan-to-value (ratio)
MB mortgage bond
MV motor vehicle (insurance)
SO SR Statistical Office of the Slovak Republic
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