ANALYSIS OF THE SLOVAK FINANCIAL SECTOR FOR THE FIRST HALF OF 2012
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FOREWORD
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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.

This analysis evaluates the overall condition of the financial sector as at 30 June 2012, 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 developments, on the other hand. The systemic nature of the analysis is reflected mainly in the use of stress testing as a way of assessing the financial sector’s sensitivity to various scenarios. The Annex supplements the main text of the analysis with charts of a group of selected macro-prudential indicators for the main risk areas in the financial sector.

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

Activity picked up in the Slovak financial sector in the first half of 2012

Looking at developments in the Slovak financial over recent years, we see the relatively frequent alternation of different positive and negative trends that affect the sector’s stability to varying degrees. This pattern continued in the first half of 2012 with several new trends that differed particularly from those observed in 2011.

Although the whole domestic financial sector was showing heightened sensitivity to the euro area debt crisis towards the end of 2011, the immediate effect of the crisis began to ameliorate in the first six months of 2012. The direct repercussions through government bond prices – the principal channel between the domestic financial sector and foreign financial markets – became less negative. At the same time, however, there were continuing indirect effects from lower economic growth in the euro area and persisting uncertainty in foreign financial markets.

Slovakia’s economic performance, which is particularly crucial to the stability of the domestic banking sector, was relatively favourable. For banks, it was important that the economic growth in Slovakia in the first half of 2012 was sufficiently strong so as not to reduce the ability of borrowers to service their bank debts. On the other hand, economic activity was not robust enough to support the growth of lending to enterprises and households, which continue to slow.

The first half of the year saw a few legislative amendments that in various ways affected financial market participants. The key change for the banking sector was the introduction of a bank levy. Key provisions of the Retirement Pension Saving Amendment Act entered into force, and there were substantial changes resulting from the adoption of the new Act on Collective Investment in 2011, including the creation of new categories of special common funds.

On balance, these trends had a positive effect on the Slovak financial sector, with most segments recording stronger asset growth in the first half of 2012 than in the second half of 2011. Profit results varied according to the particularities of the different segments. In both the banking sector and insurance sector, a strong annual rise in the return on equity (ROE) in 2011 was followed by a decline in the period under review. On the other hand, ROE increased in the collective investment and pension sectors.

Bank lending growth continued to slow

The main asset item in the banking sector balance sheet – loans to enterprises and households – recorded a further slowdown in growth. In the case of household loans, housing loan growth fell by the largest margin, despite several banks reporting increased demand in this area. Banks’ behaviour became more cautious, and a number of them tightened credits standards for new loans. Growth in loans to enterprises also decelerated; at the end of June 2012 the outstanding amount of these loans recorded a year-on-year decline for the first time since September 2010, due mainly to tighter bank lending policies.

Yet despite these adverse trends, the lending market developments in Slovakia contrast with those in other euro area countries. The pace of lending growth is relatively strong and banks are seeing positive developments in demand from both enterprises and households.

The bank levy mentioned above did not have a marked or lasting effect on the asset and liability structure of the banking sector in the first half of 2012.

Banking sector profit declined

The total profit of the banking sector declined year-on-year by almost 40%. Disregarding the one-time impulse that boosted the sector’s profit in the first half of 2011, the annual rate of decline was 25%. The fall in profitability is related to several new trends in the composition of the sector’s profit. Banks felt the effect of the new bank levy in the first half of 2012, as it diminished the sector’s pre-tax profit by around 12%. Expenses related to the revaluation of...
The non-performing loan ratio declined
The exposure of banks to customer risks as measured by the ratio of non-performing loans to total outstanding loans developed positively. The NPL ratio for household loans declined while that for the corporate loans remained flat. Bank customers benefited from the period of low-interest rates, which reduced their debt-servicing burden. Several indicators for the corporate sector also picked up, particularly sales and exports.

On the other hand, developments in the months ahead could bring a return of higher credit risk. The prospects for improved performance of the corporate sector are unclear, given the deteriorating situation in the euro area and the concentration of positive developments in the domestic automotive industry, all of which may ultimately put upward pressure on household and corporate credit risk. In the expectation of elevated credit risk, banks tightened credit standards.

In some banks there was a rise in foreign exchange risk, with open foreign exchange positions rising since the beginning of the year.

The banking sector’s capital position strengthened markedly
As regards banking sector stability, the marked strengthening of the sector’s capital position in the first half of 2012 was positive. The capital adequacy ratio (CAR) climbed to 15.3% and the core Tier 1 ratio reached 14.1%. This was a broad-based trend, and the lowest CAR reported by any individual bank was 12.5%. As in previous years, the capital growth was largely driven by profits made in 2011. At the banking sector level, almost half of the earnings from the previous period were retained as equity capital.

The liquidity position of the banking sector also improved moderately in the first half of 2012, with the loan-to-deposit ratio even falling slightly. Banks increased their short-term liquidity.

The insurance sector saw a continuation of trends from the previous year
The total profit of the insurance sector in the first half of 2012 fell slightly year-on-year, but it was still high and its decline reflected more the elevated profits reported in 2011. The number of loss-making insurance companies decreased, and the distribution of return on equity narrowed and moved moderately towards higher profitability. The technical result for the period was worse than for the previous year, but profitability rose on the basis of the financial result. The solvency of insurance companies declined slightly, but remained at an adequate level.

The trends in the life insurance sector continued from 2011; the rise in premiums was driven mainly by strong growth in unit-linked and supplementary insurance products, while there was further decline in traditional life insurance premiums and insurance contracts. The amount and frequency of policy surrenders rose, but annuity expenses declined.

In non-life insurance, premium growth was largely attributable to property insurance, while premiums in motor vehicle insurance and motor third-party liability insurance continued to decline. There was also a drop in the number of motor insurance contracts. On the positive side, a greater stability was observed in the portfolios of insurance companies. The loss ratio fell further and fluctuated around its lowest levels since
2006. As for reinsurance, the situation remained unchanged from the previous year.

**The Retirement Pension Saving Amendment Act has not as yet had a significant effect on the asset structure of pension funds**

The Retirement Pension Saving Amendment Act adopted at the end of 2011 introduced several significant changes that influenced developments in the sector in the first half of 2012. For example, by allowing simultaneous saving in two pension funds, it resulted in a change to the stable ratio of participants and the amounts of assets in different types of pension funds. The share of equity pension funds fell and the share of bond pension funds rose. The amendment also required pension funds management companies to establish and manage a fourth category of pension fund called an index pension fund. The demand for saving in index pension funds, the returns on which should match those on equity markets, was minimal during the period under review. The conservative composition of funds in Pillar II of the pension system did not change notably, even though one of the objectives of the Amendment Act was to establish conditions for longer-term investment policies. It is, however, a positive signal that the average residual maturity and duration of pension funds has increased by more than half, albeit from very low levels.

Looking at Pillar III of the pension system, the longer-term trend decline in the number of participants in supplementary pension funds came to an end. As in previous years, a drop in participants recorded by large universal funds was offset by an increasing number of people saving in smaller specialised funds. Contributory supplementary pension funds in which a growth policy is followed saw a large rise in the equity component of their total assets, up to almost 60%. In the bond portfolio of supplementary pension funds there was an increase in exposure to securities issued by financial institutions.

Both the Pillar II and Pillar III of the pension system reported a year-on-year improvement in performance, due largely to the positive revaluation of bonds in the first quarter of 2012.

**Asset growth in collective investment**

The assets under management in the collective investment sector increased moderately in the first half of 2012 owing to positive net sales of domestic common funds. The full effects of the new Collective Investment Act, adopted in mid-2011, appeared during the period under review, as domestic management companies were permitted to establish three new categories of special common funds. The assets of the small number of special funds increased markedly to almost half a billion euro, with most of the inflow coming from the household sector. By contrast, most categories of standard common funds reported net outflows, with households accounting for most of the redemptions. Redemptions were highest in money market funds and short-term common funds, thus continuing a two-year-long trend. The performance of all common fund categories improved during the first half of the year. Aided by cost savings, the aggregate profit of management companies increased by around one fifth on a year-on-year basis.
MACROECONOMIC DEVELOPMENTS AS THEY AFFECT FINANCIAL SECTOR STABILITY
1 Macroeconomic developments as they affect financial sector stability

Despite signs of stabilisation in the first quarter, the euro area sovereign debt crisis has continued to have a dampening effect on the global economic situation.

In the first half of 2012, GDP growth was reported in almost all major economies apart from the majority of EU countries. This does not alter the fact, however, that the prevailing trends with regard to future developments and prospects were negative. There were many cases among both advanced and emerging countries where economic growth decelerated and where economic imbalances emerged or became more pronounced.

Different countries and regions were affected in different ways by economic problems and weakening growth, but all were affected to a greater or lesser extent by one common systemic phenomenon – the ongoing sovereign debt crisis in the euro area, the cyclical character of which continued during 2012. The beginning of the year saw moderate optimism across financial markets, with investor sentiment boosted primarily by the fact that the European Central Bank (ECB) had started to provide unrestricted three-year liquidity to the banking sector. In two three-year longer-term refinancing operations (conducted in December 2011 and March 2012) euro area banks borrowed more than €1 trillion in total. This inflow of relatively long-term and cheap funding had two effects. On the one hand, banks (especially those with limited access to the interbank market) were able to refinance, and therefore probably avoided a fire-sale of their assets at distressed prices. On the other hand, banks operating in lower-rated countries then used some of these funds to buy domestic sovereign debt securities. This pushed up the prices of these bonds on the secondary market and at the same time depressed the required yields to maturity on the primary market, thus allowing countries to issue debt under more favourable terms. The wave of optimism triggered by the avoidance of disorderly developments in the euro area spread to other segments of the financial market and beyond Europe. Prices of financial assets (including shares) mostly increased all over the world, while signals of stress implied from market data started to decline.

Situation in financial markets deteriorated again in the second quarter

The positive effect that the ECB’s non-standard liquidity-providing measures had on the euro area crisis had faded considerably by the beginning of the second quarter. After the incipient optimism of early 2012, markets and participants in the real economy turned their attention back to the fundamental roots of the crisis. The issues coming to the fore included the need for a second bail-out package for Greece, the elections in Greece, and the critical situation in the Spanish banking sector. There was increasing speculation about Greece leaving the euro area, as well as uncertainty about the future of monetary union in Europe. As risk aversion spread...
rapidly in financial markets there was a marked rise in demand for a limited group of safe-haven assets (including US, German, UK and Swiss government bonds), to the extent that the short-end of their yield curves even turned negative. By contrast, credit risk premia on other types of debt securities went up, asset prices declined, and most financial markets became more volatile. The credit ratings of sovereign debtors and banks were further downgraded. Spanish government bond yields were a particular cause of concern, as yields on several maturities reached new all-time highs at the end of June and in July. The heightened stress was also indicated by the flattening of the yield curve. Spain and Italy became the centre of attention for financial markets.

The first half of 2012 saw a relatively strong outflow of capital from euro area countries perceived as more risky, mostly in the direction of less risky euro area countries. The banking sectors of certain countries faced a sizeable outflow of deposits from both foreign banks and from resident enterprises and households.

FINANCIAL MARKETS PUSHED FOR ADOPTION OF UNPRECEDENTED ANTI-CRISIS MEASURES
The responsible public representatives and European institutions came under mounting pressure to find, and implement as soon as possible, a radical and systemic solution that would calm the crisis and prevent it spreading yet further. The toolkit of stabilisation measures for the euro area was extended to include, among others, recapitalisation of the Spanish banking sector with EFSF funding and the first steps towards a banking union. Nevertheless, financial indicators suggested that none of these measures were seen by the markets as sufficient. After an initial positive response, lasting no more than a few days, financial markets returned to a state of heightened concern.

Financial market strains eased significantly from the end of July through August 2012, after the ECB President announced that the ECB was ready to reactivate its government bond purchase programme, conditional on the respective country first submitting an official request for funding from the EFSF and complying with the related recovery programme. With the ECB announcing that its focus in such interventions would be on shorter-term bonds, the market reaction was most marked on the short-end of the yield curve of the selected countries’ bonds, which declined by several percentage points. As in the previous
similar episodes, prices of other riskier assets rose as well.

The seeming stabilisation in financial markets may, however, have been just another false signal, in this case amplified by the seasonal effect of the August holiday season. In autumn, with decisions to be taken on many key issues related to the euro area crisis and with financial markets in full flow, there remains the risk that financial markets will again react nervously to the course of events. Further negative pressure could come from governments and banks as they seek to secure the rest of their funding for 2012.

**IN THE UNITED STATES, THE CYCLICAL DEVELOPMENTS OBSERVED IN THE PREVIOUS TWO YEARS CONTINUED**

The US economy followed a similar, if slightly different, pattern for a third year in a row; it showed signs of a robust recovery at the beginning of the year, only for the positive trends to deteriorate towards the end of the second quarter and during the summer months. Quarterly GDP growth was an annualised 2% for the period January to March, and decelerated to 1.7% in the second quarter. Taking into account the composition of GDP, the difference between the growth results for the two quarters in terms of economic fundamentals was even more pronounced than appeared from the aggregated data. In the first quarter, a solid pace of growth was observed in the components of household consumption, fixed investment and net exports, although this was offset to some extent by negative contributions from changes in inventories and government consumption. In the second quarter there was no increase in growth, even though changes in inventories made a positive contribution and the impact of general government consumption was less negative.

Higher consumer confidence as well as the general sentiment of other participants in the US economy were closely related to an unexpected upturn in the labour market during the first months of the year, with net job creation reaching its highest levels since the outbreak of the financial crisis. From April, however, job creation plummeted to about a quarter of its previous level, thus fuelling uncertainty about the further trajectory of the economy.

Leading PMIs are a relatively reliable bellwether of the US economy, and the outlook according to them is not favourable either. In particular, the manufacturing PMI index has been declining sharply in recent months, and in June and July it was below the no-growth threshold for the first time since 2009.

A key factor for the US economy in coming years will be the scope and timing of public finance consolidation efforts. In the long term, reductions in the budget deficit and government debt are expected to support economic growth, but in the short term the consolidation process will weigh negatively on growth. Although public expenditure has already been declining for more than two years, the main phase of the austerity programme is due to begin in 2013. The planned spending cuts and tax hikes are so extensive in scope that they will most probably plunge the United States back into recession.

With the US macroeconomic situation deteriorating, attention turned to the Federal Reserve. Expectations for a further loosening of monetary policy increased. The Fed did not respond with any radical steps, but if the situation does not
improve, it may proceed with a third round of quantitative easing.

**The euro area as a whole moved closer to recession; the periphery countries in particular faced exceptional difficulties.**

The gravest economic difficulties in the first half of 2012 were observed in the euro area. After recording zero quarter-on-quarter growth in the first quarter of 2012, euro area GDP contracted by 0.2% in the second quarter. This decline was primarily due to developments in the euro area periphery, although other Member States also recorded weak or negative GDP growth. Euro area GDP did not shrink in the first quarter only because the German economy grew at a solid pace at the beginning of the year.

**Weak private sector demand in the euro area was compounded by fiscal consolidation measures**

The economic performance of the euro area has been deteriorating due to the contraction of domestic private sector demand. The decline in private sector consumption and investment reflects mainly decreasing confidence and considerable uncertainty about future developments, which has resulted in a preference for saving over consumption or investment. It is also to some extent caused by efforts to further repair the balance sheets of households and enterprises. After rising moderately in the first quarter of 2012, the European Commission’s Economic Sentiment Index (ESI), started to decline quite sharply again with negative contributions from all its components (covering individual sectors of economic activity). It is worth noting that while the lowest ESI values in absolute terms are recorded by the euro area periphery countries, the most pronounced ESI declines have recently been concentrated in economies with relatively stronger fundamentals. This suggests that concerns about the euro area sovereign debt crisis have finally reached the economically healthy “core” countries, including Germany, which had hitherto been least affected by the crisis.

The adverse trend in private sector demand was amplified procyclically by government consumption. In more normal circumstances, such a situation would call for an expansionary fiscal policy, but at present governments are being constrained by financial markets to make substantial cuts in public expenditure. On the one hand, declining government consumption makes a direct negative contribution to GDP growth; on the other hand, the expectations for further fiscal consolidation measures are weighing negatively on private sector demand. The repair of public finances can be expected to last at least until the end of the medium-term horizon. In an attempt to regain the confidence of financial markets, European countries have undertaken not only to reduce budget deficits to below 3% of GDP, but also to achieve a balanced structural budget and to reduce government debt to below 60% of GDP. Moreover, the countries under the strongest pressure to deleverage are falling into a downward spiral, as worse than expected economic performance necessitates further consolidation efforts which, in turn, translate into even lower economic growth. The high interest rates these countries have to pay in the bond market put further strain on public resources.

The effects of declining domestic demand were to some extent mitigated by positive developments in the euro area’s net exports during the period under review. The euro exchange rate may also have contributed positively to exports, given that it was weakening against the main world currencies from autumn 2011.

**The process of correcting serious macroeconomic imbalances in certain countries has only just begun**

The fundamental causes of the current euro area crisis include the macroeconomic imbalances that have accumulated in certain euro area countries. To resolve the euro area’s problems in a successful and sustainable way will require, inter alia, rigorous rebalancing and structural reform of individual economies with a focus on imbalance reduction. The recovery process in the countries with the largest imbalances began back in 2009 or 2010, but much remains to be done in the years ahead.

This can be illustrated by unit labour costs, which are an important indicator of external competitiveness. In the periphery countries, where unit labour costs rose at an above-average rate in the pre-crisis period, lost competitiveness has been partly regained in recent years, albeit due largely to cyclical factors. Unit labour costs came down...
as result of firms laying off workers and thereby increasing labour productivity. In this case, reducing wages would be a structural measure, but according to data for the period up to 2011, the closest that wages in the private sector came to declining was zero growth.

It is similar with the gradual reduction of excessive deficits in the balance of payments current account. The decline in balance of payment deficits was caused by increases in exports (supported by weakening of the previously overvalued real effective exchange rate) and to a considerable extent by decreases in imports. It should be noted in this regard that the previous accumulation of balance of payment deficits resulted in the respective countries having a substantial debtor position vis-à-vis the rest of the world. In order to reduce this external debt and thus also dependence on external sources of refinancing, it is necessary to ensure that the balance of payments does not simply show a lower deficit but is in surplus over the long term.

**Corporate lending rates in certain euro area countries went up despite a decline in the key ECB rates**

During the first part of 2012 the ECB reduced its key rate by 25 basis points to an all-time low of 0.75%. The deposit rate declined from 0.25% to 0%, and as a result banks withdrew a substantial amount of deposits from the ECB and used the funds to buy other assets, in particular government bonds issued by so-called "semi-core" countries.¹ Demand for the sovereign debt of these countries was further boosted by a shortage of high-quality investment opportunities; thus yields to maturity of these securities declined, even though the macroeconomic situation of the sovereign issuers was not improving.

According to market data from the end of August 2012, most investors do not expect the key ECB rate to be changed again, in either direction, before the end of the year.

A combination of low interest rates and the large three-year liquidity allocation to banks should in theory create the conditions for a recovery of the lending process in the euro area. Nevertheless, the annual growth rate of loans to the private sector decelerated, and in the case of loans to enterprises in the second quarter there was even a year-on-year decline in their outstanding amount. The weak lending activity was to a large extent explained by low demand, according to

¹ The term “semi-core” countries are usually understood to include France, Belgium, the Netherlands, and Austria.
the ECB’s Bank Lending Survey. But in some euro area countries, particularly those on the periphery, it is necessary to look for an explanation on the supply side. This is because the banks in these countries, which had in the past received much of their financing from foreign banks, found themselves shut out of the interbank market and remained to a large extent dependent on liquidity from the ECB. In addition, they are considerably undercapitalised due mainly to losses on loans extended during the property boom, to which are now being added loan defaults caused by the ongoing recession. The result is that lending rates for firms and households are far higher in these countries than in the rest of the euro area.

As mentioned earlier, one of the consequences of the euro area’s recession has been a decline in employment and the corollary of increasing unemployment, particularly in countries on the euro area periphery. Other countries too, however, have seen a moderate increase in the unemployment rate. Thus the average unemployment rate for the euro area rose from 10.7% in December 2011 to 11.2% in June 2012.

**Slovak economy not yet showing signs of slowdown**

The Slovak economy in the first half of 2012 proved to be surprisingly resilient to the crisis. In both the first and second quarters GDP grew by around 3% (on an annualised quarter-on-quarter basis), after recording similar growth for the whole of 2011. The economy was also growing at 3% in year-on-year terms. The better than expected performance in the first half of 2012 led to substantial revision of the GDP forecast for the whole of 2012. At the beginning of the year the GDP estimates of forecasting institutions, such as commercial banks and the Slovak Finance Ministry, were in the region of one percent, but by the summer these had been revised up to more than 2%. From late 2011 to the end of the period under review, Národná banka Slovenska maintained its more optimistic forecast for GDP growth in 2012 (at around 2.5%). On the other hand, expectations for future years remained unchanged.

Economic growth in 2011 was driven mainly by net exports, with Slovak manufacturers benefiting from strong links with Germany as well as from rapid growth in exports to China and to some neighbouring countries. Foreign trade is expected to continue making the largest contribution to economic growth in 2012, given the boost to exports from new production launched in the Slovak automotive industry. The annual growth rate of exports in each of the first six months of 2012 was around 10%, although in comparison with the rates of around 20% observed in 2010 and 2011 that represents something of a slowdown. The lower growth in exports of goods and services would appear to be a natural consequence of developments in the external environment, and particularly in the euro area. There is a downward trend in the index of average economic growth in a basket of countries importing from Slovakia (where each importing country is weighted by the share of total Slovak exports that it receives).

Other contributions to the increase in Slovakia’s overall economic output in the first quarter of 2012 came from government consumption and changes in inventories. In the case of general government consumption, this was probably a one-off effect possible related to an early General Election held during the period under review. Future general government expenditure is expected to damp economic growth, due to both ongoing fiscal consolidation measures and in particular those in the pipeline. According to Finance Ministry estimates, the impact of the consolidation effort

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**Chart 7 Spread and average rate of euro area unemployment (%)**

- Difference between highest and lowest unemployment rates
- Euro area average unemployment rate

*Source: Eurostat.*
Mounting pessimism about the further trajectory of the Slovak economy was evident not only among consumers but also among business people across a whole range of activities. The overall Economic Sentiment Indicator has been declining steadily since April and recorded a particularly sharp drop in July. As in previous periods, the best-performing sector on the production side of the economy was industry. Industrial production increased quite markedly in the first quarter, but then remained steady for the rest of the period under review.

Despite signs of slowdown, the Slovak economy remained fundamentally sound and this was reflected in a substantial decline in Slovak government bond yields. The required yield on five-year bonds fell from 4.4% at the beginning of 2012 to 2.3% at the end of August, which was an all-time low for Slovak bonds of that maturity.

Household consumption made a zero contribution to Slovakia’s economic growth in the first quarter of 2012 after having a dampening effect in previous years. Since retail sales from April through June declined, it is unlikely that household consumption will be a driver of economic growth in this period, either. Furthermore, consumer confidence fell steadily after recording a short-term improvement in April 2012. It should be added that, according to historical time series data, the restriction of spending during times of deteriorating consumer sentiment is more marked among consumers in Slovakia than among those in most EU countries. In Slovakia, however, household consumption is subdued not only by the atmosphere of uncertainty but also by declining real wages. In most sectors, with the principal exception of industry, the average real wage was lower in the first half of 2012 than in the previous year.

The purchasing power of the population is also affected by the less than favourable situation in employment. The number of employed people increased only marginally in the first half of the year (by 2,000 in seasonally adjusted terms), and in the construction and manufacturing sectors it even declined. The unemployment rate remained practically unchanged at just under 14%.

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Chart 8 A comparison of economic growth in the external environment and Slovak exports (%)

Source: Ministry of Economy of the Slovak Republic, Eurostat.
Notes: The index of average GDP growth in trading partners of Slovakia is the weighted average of annual GDP growth in the given quarter for countries importing goods and services from Slovakia, with each country weighted by the share of total Slovak exports.
The purpose of the SGP was to ensure that fiscal discipline would be maintained in all the EU countries. The three key requirements under this framework are to ensure that:

- the general government budget is balanced or in surplus over the medium-term horizon;
- the general government deficit does not exceed 3% of GDP; and
- public debt does not exceed 60% of GDP or, if higher, is diminishing sufficiently towards this limit.

If a Member State exceeded the deficit or debt limits, an excessive deficit procedure (EDP) could be triggered at the EU level, which should have led to correction. If the country did not comply with the EDP recommendations, the EU Council would abrogate its decision on the existence of an excessive deficit; if not, the EDP would continue and the country may ultimately face financial sanctions. Under the preventive arm of the SGP, each Member State was required to submit annual stability programmes (euro area countries) or convergence programmes (non-euro area countries) showing how they intend to comply with SGP rules. Since 2005 these programmes have included a medium-term objective and a description of the policy measures to achieve that objective.

As seen in the current debt crisis, however, the SGP has fallen short of ensuring long-term stability of monetary union. This was due, on the one hand, to shortcomings in the SGP framework itself and, on the other hand, to the fact that it was not implemented with sufficient rigour. In the end, the euro area crisis gave impetus to the “strengthening” of the SGP and to the introduction of further measures that should help prevent a similar crisis from occurring in the future. The rest of Box 1 provides a brief summary of the new legislation that has been adopted or drafted in this regard during the past year or so.

“Six-Pack”

On 13 December 2011 a package of five Regulations and one Directive, collectively known as the “Six-Pack”, entered into force. This legislation applies to all 27 EU Member States, with some specific rules for euro-area Member States. In the fiscal field, the Six-Pack strengthens the SGP, mainly by means of the following measures:

- The Six-Pack ensures stricter application of the fiscal rules by defining what is meant by a “significant deviation” from the medium-term objective (MTO) or the adjustment path towards it. Until the MTO has been achieved, the growth rate of general government spending is expected to be lower than the medium-term growth rate of the economy.

- The Six-Pack operationalises the debt criterion, so that an excessive deficit procedure (EDP) may also be launched on the basis of a debt ratio above 60% of GDP (this rule having been largely neglected in the past). Greater flexibility should be achieved by means of the “1/20 rule”, according to which a Member State will be put in excessive deficit procedure if the gap between its debt level and the 60% reference is not reduced by 1/20th annually. The pace of debt reduction is assessed on the basis of the three-year average. Each Member State in excessive deficit procedure for having exceeded the 3% deficit criterion (which at present is most Member States) is granted a three-year period following the correction of the excessive deficit during which it is not required to comply with the “1/20 rule”.

- A tougher EDP sanctions regime is established for euro area countries, including the introduction of reverse qualified majority voting (RQMV), where a proposal of the Commission is considered adopted in the Council unless a qualified majority of Member States votes against it. Financial sanctions may be imposed up to a maximum level of 0.5% of GDP.
Since the euro area crisis is not simply a consequence of fiscal recklessness, but is also to a large extent the product of serious macroeconomic imbalances, a further aspect of the Six-Pack is aimed at preventing and correcting such imbalances. Specifically, an alert mechanism is established based on the economic reading of a “scoreboard” of indicators that signal the emergence or existence of macroeconomic imbalances in different economic spheres. A list of the ten selected indicators and their indicative thresholds is presented in Table 1.

Comparing the indicator values with indicative thresholds should, however, be simply a first step towards identifying countries where macroeconomic developments are a cause for concern and warrant further in-depth analyses. The Commission is expected to produce annually an Alert Mechanism Report (AMR) that contains the indicator values and provides a brief reading of the results both thematically and per country. The first AMR was produced in February 2012 and on that basis the macroeconomic imbalances of 12 countries were subjected to subsequent in-depth analyses (the countries in question were Belgium, Bulgaria, Denmark, Spain, France, Italy, Cyprus, Hungary, Slovenia, Finland, Sweden, and the United Kingdom).

The procedure is not confined to monitoring, but also allows the Commission and the Council to adopt preventive recommendations for the countries concerned, before the imbalances become large. In more serious cases, where the imbalances are already too large, an excessive imbalance procedure (EIP) can be opened for the Member State. In this case, the Member State concerned will have to submit a corrective action plan with a clear roadmap for correcting the macroeconomic imbalances. Sanctions may be imposed if a Member State fails to comply with the recommended corrective action.

**Treaty on Stability, Coordination and Governance (TSCG)**

Unlike the Six-Pack, the TSCG is an intergovernmental agreement (i.e. it is not a piece of EU law). The TSCG was signed in spring 2012 by 25 EU Member States (all but the Czech Republic and United Kingdom). It will enter into force following ratification by at least twelve euro-area Member States. The TSCG will only be binding for all euro-area Member States, while other contracting parties are allowed to choose provisions they wish to comply with.

The core of this intergovernmental agreement is its fiscal part known as the “Fiscal Compact”.

### Table A Indicators of macroeconomic imbalances

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Indicative thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External imbalances and competitiveness</strong></td>
<td>-4% / +6%</td>
</tr>
<tr>
<td>3-year average of current account balance as a percent of GDP</td>
<td>-4% / +6%</td>
</tr>
<tr>
<td>net international investment position as a percent of GDP</td>
<td>-35%</td>
</tr>
<tr>
<td>percentage change of the real effective exchange rate based on HICP deflators</td>
<td>±5% for euro area</td>
</tr>
<tr>
<td>±11% for non-euro</td>
<td>-6%</td>
</tr>
<tr>
<td>percentage change (5 years) in export market shares</td>
<td>+9% for euro area</td>
</tr>
<tr>
<td>percentage change (3 years) in nominal unit labour cost</td>
<td>+12% for non-euro</td>
</tr>
<tr>
<td><strong>Internal imbalances</strong></td>
<td>+6%</td>
</tr>
<tr>
<td>year-on-year percentage change in deflated house prices</td>
<td>+6%</td>
</tr>
<tr>
<td>private sector credit flow as a percent of GDP</td>
<td>15%</td>
</tr>
<tr>
<td>private sector debt as a percent of GDP</td>
<td>160%</td>
</tr>
<tr>
<td>general government debt as a percent of GDP</td>
<td>60%</td>
</tr>
<tr>
<td>3-year average of unemployment rate</td>
<td>10%</td>
</tr>
</tbody>
</table>
Under the terms of the Fiscal Compact, the structural deficit limit is lowered to 0.5% of GDP (or 1% of GDP for Members States with a debt ratio significantly below 60% of GDP). Deviation from these limits or the adjustment paths towards them is permitted only in “exceptional circumstances” (such as a deep recession).

A key aspect, however, is that countries are to implement these budget rules in national legislation through provisions of “binding force and permanent character, preferably constitutional”. Under the TSCG, a contracting party may even bring an action against another contracting party before the European Court of Justice (CoJ) if it believes that the other contracting party has failed to comply with the obligation to implement the so-called “debt brake” in national law. The CoJ may impose a financial sanction (0.1% of GDP) if a country does not properly implement the new budget rules in national law.

In addition, the Fiscal Compact reiterates the “1/20 rule” and extends RQMV to all stages of the excessive deficit procedure. The TSCG also lays the basis for reinforced surveillance and coordination of economic policies.

**“Two-Pack”**

The “Two-Pack” refers to two draft Commission Regulation that at the cut-off date for this Analysis were still at the discussion stage and had not been finally adopted. These Regulations should apply to euro-area Member States only and they are aimed at strengthening economic surveillance in the euro area.

The first Regulation concerns the monitoring and assessment of countries’ draft budgetary plans. Under its proposed provisions, countries would be required to submit their draft budgetary plans for the following year to the Commission and the Eurogroup before 15 October, along with the independent macroeconomic forecasts on which they are based. The Commission would then analyse whether the draft budgetary plan is in line with the SGP. If the Commission assesses that the plan is non-compliant with the SGP, it can require the plan to be revised. This process builds on the SGP, under which Member States present the main characteristics of their medium-term public finance plans to the Commission and the Council in spring. In particular, it means that national budget plans can be independently scrutinised before being adopted by national parliaments. The draft Regulation also contains a requirement to set up an independent institution in charge of monitoring fiscal rules at the national level.

The second draft Regulation concerns euro-area Member States experiencing or threatened with financial difficulties. It proposes that such countries be subject to enhanced surveillance. Enhanced surveillance would be launched either on the basis of a Commission Decision, or automatically for countries receiving certain types of precautionary financial assistance. Countries subject to enhanced surveillance would be required to adopt measures to address the sources of instability, to admit regular review missions, and, if their administrative capacities are insufficient, to seek technical assistance from the Commission.
DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR
2 DEVELOPMENTS IN THE SLOVAK FINANCIAL SECTOR

Mild recovery in selected sectors; slowdown in lending activity.

For several financial market segments the first half of 2012 brought a moderate improvement in comparison with the end of 2011. In general, however, overall activity was weaker than in 2010 and in the first half of 2011.

The most marked upturn was observed in collective investment funds and unit-linked products, where asset growth was related to a revival of performance. Investment firms, too, saw a marginal improvement. On the other hand, overall lending activity weakened. Declines in the outstanding amount of loans to enterprises and in the growth rate of household loans (particularly housing loans) accounted for weaker asset growth in the banking sector and in the leasing and hire purchase sectors.

As usual, investments in Pillar II funds of the pension system recorded the highest growth. Since back in mid-2010 these funds have constituted the second largest component in growth of household financial assets. Their strengthening position vis-à-vis life insurance and investments in common funds continued in the first six months, as did their gradual catch-up with bank deposits. Supplementary pension funds fared less well and their position has been highly unstable since the middle of last year.

Looking at the shares of individual sectors in the domestic financial market there was no sizeable change except for a relatively marked rise in that of Pillar II pension funds.

Stable position vis-à-vis the rest of the world

The position of the domestic banking sector vis-à-vis the rest of the world sector strengthened in the first half of 2012. Overall net financing from non-residents fell to 1.8% of total assets. The banking sector also maintained its position as a net provider of intra-group liquidity. Although such a position minimises reliance on funds from parent undertakings, it also increases banks’ overall intra-group exposure. This trend should be viewed in the context of the mounting risk within the euro area banking sectors.

In contrast to the general trend in other European banking sectors, banks in Slovakia have not become reliant on central bank financing,
and this fact is very important in the long term perspective. The overall situation in regard to non-residents, parent financial groups, and the central bank therefore confirms the banking sector’s stable liquidity position.

**Mixed developments in profitability**

The profitability of financial institutions did not show a clear trend, but rather differed according to the particularities of individual segments. Return on equity (ROE) in the banking and insurance sectors fell year-on-year due largely to the base effect of exceptionally large profits in 2011, which in the case of the banking sector reflected also a surge in own funds. The only increases in ROE in the first six months were recorded by pension fund management companies (Pillar II) and asset management companies.

Total profits in all segments apart from PFMCs remained below their 2006 and 2007 levels.

**Household financial assets continued to grow, with a shifting of investments into shorter-term deposits**

As regards the financial situation of households, it is positive that the growth in households’ financial assets did not continue the decelerating trend observed in 2011 but increased to 5.6% year-on-year. This increase was largely driven by asset growth in Pillar II funds of the pension system.
The long-running trend of higher growth in longer-term deposits (with maturities of between one and five years) came to an end in 2012. The outstanding amount of these deposits fell slightly, while the growth in deposits with up to one year’s agreed maturity accelerated. In terms of investment horizon length, a similar trend was observed in collective investment funds, with special common funds recording the highest growth.

**Returns on household financial assets picked up moderately**

The performance of most household financial assets rebounded or improved in the first half of 2012 after deteriorating sharply in autumn 2011. Cases in point included unit-linked products, Pillar III pension funds, and several collective investment funds, which all reported positive returns following a loss in 2011. There was also an increase in returns on Pillar II pension funds and bank deposits.

The overall weighted average return on household financial assets oscillated around 1.7% in the first half of 2012, which represents a marked improvement as compared to the average of 0.8% reported at the end of 2011. Although the average weighted return on household financial assets increased, it remained in negative territory in real terms since the inflation rate declined only slightly. The only instruments that provided higher than inflation returns in the first half of 2012 were highly volatile, and a continuation in their trends is hardly to be expected.
Table 1 Selected financial relationships in the Slovak economy (EUR millions)

<table>
<thead>
<tr>
<th></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>NBS</td>
<td>Domestic banks</td>
<td>Insurers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,463 - 1,991</td>
<td>0 - 0</td>
</tr>
<tr>
<td>NBS</td>
<td></td>
<td>671 - 362</td>
<td>613 - 993</td>
</tr>
<tr>
<td>Domestic banks</td>
<td></td>
<td>0 - 0</td>
<td>787 - 790</td>
</tr>
<tr>
<td>Insurers</td>
<td></td>
<td>0 - 0</td>
<td>1,459 - 1,634</td>
</tr>
<tr>
<td>Pillar II and Pillar III funds</td>
<td></td>
<td>0 - 0</td>
<td>1,280 - 1,412</td>
</tr>
<tr>
<td>Common funds</td>
<td></td>
<td>0 - 0</td>
<td>0.6 - 1,300</td>
</tr>
<tr>
<td>Other financial companies</td>
<td></td>
<td>19 - 145</td>
<td>35 - 46</td>
</tr>
<tr>
<td>Households</td>
<td></td>
<td>40 - 38</td>
<td>24,522 - 25,918</td>
</tr>
<tr>
<td>Enterprises</td>
<td></td>
<td>0 - 0</td>
<td>9,338 - 8,853</td>
</tr>
<tr>
<td>General government</td>
<td></td>
<td>0.6 - 1,300</td>
<td>883 - 1,799</td>
</tr>
<tr>
<td>Rest of the world</td>
<td></td>
<td>16,046 - 10,578</td>
<td>8,484 - 8,445</td>
</tr>
</tbody>
</table>

Source: NBS.

Notes: Structure of cell data: December 2011 – June 2012 (for liabilities of enterprises to the rest of the world, data are as at March 2012).

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

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

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

2.1.1 TRENDS IN THE BANKING SECTOR BALANCE SHEET

The growth in loans to retail customers stabilised in the first half of 2012, but is still lower than its levels in previous years. The outstanding amount of housing loans increased at a slower pace due mainly to supply-side factors and the effect of property prices. Lending declined amid a tightening of credit standards (particularly through the lowering of loan-to-value ratios) and falling property prices, with the volume of property trading remaining unchanged. Upward pressure on housing loans in the first half of 2012 came from demand, the increase in which probably reflected an improvement in consumer confidence. The growth in new lending was based on a decline in the average interest rate on new loans which, since it was far lower than the average rate on existing loans, stimulated demand for loan refinancing. As for consumer loans there was little significant change in either demand-side or supply-side factors.

Turning to the composition of retail deposits, a shift of funds towards shorter-term deposits was observed in the first six months. Most notably, during the first quarter, deposits with up to one year’s agreed maturity increased as a share of total deposits, probably as a consequence of intra-bank competition that put upward pressure on the remuneration of these deposits. Deposit growth slowed in the second quarter, which may be explained by a lowering of interest rates on new time deposits. Lending to enterprises recorded gradually declining growth during the first six months, and at the end of June 2012 their outstanding amount stood lower in year-on-year terms for the first time since September 2010. This trend was probably a result of supply-side factors, as banks continued to tighten credit standards during the first half of the year amid negative expectations for the general economic situation as well as for developments in particular sectors. Unlike supply-side factors, net loan demand from enterprises made a positive contribution to the stock of corporate loans. The increased demand for corporate loans was in contrast with the weakening loan demand observed elsewhere in the euro area, and is probably explained by annual growth of exports and therefore of corporate sector sales as well. Another stimulant to demand may have been the continuing decline in the debt-servicing burden of enterprises. Nevertheless, the positive trends in the corporate sector are somewhat fragile and the expectations for demand are also in negative territory. The total value of the sector’s debt securities portfolio changed only slightly in the first half of 2012. A decline in the amount of foreign bonds was offset by an increase in investments in Slovak government bonds and Treasury bills. The restructuring of Greek debt was to a certain extent responsible for the reduction of the foreign bond portfolio. The securities issued by banks during the period under review comprised mainly mortgage bonds. The parameters of the issues were largely in line with long-run trends. It is worth noting that from January to June banks issued only fixed-coupon or zero-coupon mortgage bonds.

The interbank market was affected mainly by the three-year long term refinancing operations conducted by the ECB and the amendment of bank levy-related legislation. On the one hand, the liquidity provided by the ECB meant that on both the asset and liability side of the sector’s balance sheet, transactions with banks played a smaller role and transactions with the ECB a larger role; on the other hand, following the legislative amendment, a marked drop in interbank assets was observed towards the end of June, based largely on a decline in deposits held with the ECB. On the liability side of the balance sheet the decline was accompanied by a fall in funds considered to be relatively volatile.

2.1.1.1 CUSTOMERS

THE RETAIL SECTOR

Lending growth continued to weaken; lending conditions were tightened

The situation in the retail loan market became steady in the first half of 2012. Lending growth in absolute terms remained relatively stable except for weaker showings in February and April. The absolute increase in retail loans in the first half of 2012 declined year-on-year by 32%.

In certain banks, the slower growth in housing loans in the first half of 2012 was partly the result of a tightening of credit standards, i.e. the
conditions under which customers may take out loans. There were signs, even in the first quarter, that credit standards would be eased, but over the first six months as a whole net credit standards for retail customers were tightened. The adjustment of credit standards was to a large extent determined by outlooks for the property market as well as by expectations for the general economic situation, which were significantly influenced by the ongoing euro area sovereign debt crisis. The moderated but still sizeable effect of the competitive environment did not prevent credit standards in the Slovak banking sector from shifting in line with the long-running Europe-wide trend of increasingly stricter credit conditions amid the unfavourable economic situation.

According to the Bank Lending Survey, the tightening of credit conditions for customers reflected mainly the toughening of requirements for loan collateral, in particular through the lowering of loan-to-value ratios. Given the level of property trading, banks provided retail customers with less financing for these transactions and this was a further cause of the slower growth in overall lending. At the same time, however, certain banks began to ease LTV requirements.

The impact of lower LTV requirements on lending was to some extent amplified by the continuing, albeit now less pronounced, decline in property prices, which are an important factor in the amount of loans provided. Since demand
for housing loans is stable and property prices are falling, the overall nominal amount of loans needed to purchase properties is declining.

A further reason for the slower growth in housing loans may be that households are to some extent financing their housing needs (e.g. renovations, etc) with consumer loans.

**Demand for housing loans increased in the first half of 2012**

As regards demand for housing loans, banks reported a marked shift during the first half of 2012. In the first quarter, reduced retail customer demand for such loans was observed in a number of banks, but over the first half of the year it increased in the sector as a whole.

One of the factors driving demand for housing loans was consumer confidence, which from the beginning of 2012 indicated a moderate improvement in the situation of households – even though the individual components of the consumer confidence indicator remain low and below 2010 levels.

One key factor in boosting loan demand was a decline in the average interest rate on new loans towards the end of the first six months. The rate fell significantly below the average rate on existing loans and therefore increased household demand for refinancing, particularly in May. A similar situation was observed in the first half of 2011.

As regards consumer loans there was little significant change in either demand among households or in banks’ credit standards. In year-on-year terms, however, the growth in the outstanding amount of consumer loans was 20% lower.

**Interest rates on housing loans declined**

From the end of January 2012 a downward trend in interest rates was reported by almost all retail banks.

In comparison with previous periods, the average interest rate responded more strongly to economic fundamentals, and the effect of the competitive environment was less pronounced. This was evident in the lower short-term volatility of banks’ market shares in new housing loans, and particularly in the less marked divergence between the actual average rate on new loans and

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**Chart 20 Interest rates on new and existing loans (%)**

Inter-quartile range of interest rates on new housing loans
Average interest rate on new housing loans
Average interest rate on existing housing loans
10-year Slovak government bond yield
12-month Euribor (right-hand scale)

**Chart 21 Actual and modelled interest rates on new housing loans with an initial rate fixation period of over one year (%)**

Standard deviation band
Modeled rate
Actual rate
and the modelled rate that takes account of the impact of market factors.

The downward movement of average interest rates was to some extent related to the decrease in key ECB rates, which affected wholesale funding costs and subsequently retail funding costs through lower rates on term deposits. Another factor behind the decline in interest was the movement of yields on Slovak government bonds, which dropped significantly in the first quarter of 2012.

**DEPOSIT GROWTH SLOWED IN THE SECOND QUARTER OF 2012**

Although the year-on-year growth rate of overall retail deposits continued its long-running upward trend in the first half of 2012, the increase in deposits in absolute terms weakened to around 90%. This result largely reflected developments in the second quarter, when the absolute increase in deposits stood at 70% year-on-year.

Looking at the composition of the month-on-month increases in the total amount of deposits in the first six months of 2012, a different tendency was observed compared to the whole of 2011. Signs of change appeared in December 2011, when more pronounced inflows were recorded for term deposits with up to one year’s agreed maturity. Then in January 2012 customers shifted a large proportion of longer-term maturing deposits to deposits with up to one year’s agreed maturity, and in February almost the entire increase in overall deposits was accounted for by short-term deposits.
The amount and composition of deposits reflected interest rate movements to a certain extent. The effect of the competitive environment on short-term deposits was pronounced mostly in the first quarter of 2012. Due to this competitiveness, the average interest rate on current short-term time deposits was far greater than the level expected to be determined by market factors. This was the case in both smaller and larger banks, and as a result the shares of different banking groups in the short-term deposit market changed markedly. As for the average interest rate on longer-term deposits, however, in the second quarter of the year they moved closer to levels in line with the market situation. This movement was most evident in larger banks.

**Interest rates on households’ long-term time deposits declined, with early 2012 seeing strong competition for short-term deposits**

Like interest rates on new housing loans, rates on time deposits were significantly affected by changes in market factors, in particular by the lowering of key ECB rates. The most notable development in the first half of 2012 was the declining trend in the average interest rate on deposits with over one year’s maturity (falling by almost 70 basis points during the period), with the sharpest drop (of 44 basis points) recorded in June. The key trend-setters in this regard were large banks, while medium-sized and smaller banks tended to keep long-term rates at an above-average level.

Movement was also observed in interest rates on deposits with an agreed maturity of up to one year. When one of the larger banks sharply raised its rate on these products, it triggered a response from other larger banks, as well as from some medium-sized and smaller ones, which hiked their corresponding rates. The intra-bank competition peaked at the beginning of 2012 and resulted in significant changes in the shares of different banking groups in the short-term time deposit market.

**Comparison of the retail segments in Slovakia and in the euro area**

The lending trends in Slovakia in the first half of 2012 were in line with those observed in the euro area as a whole, i.e. the slower loan growth reported by the Slovak banking sector was not an isolated phenomenon. Nevertheless the annual growth rate of bank lending in Slovakia was, at more than 11%, the highest seen in any euro area country. By comparison, Malta had the second-highest rate, at 7.5%, and the euro area as a whole recorded growth of around 0.8%. The outstanding amount of bank loans increased in the first half of 2012 in almost all euro area countries except for those hardest hit by the sovereign debt crisis; also in this period, Belgium and in particular the Netherlands were affected by such contraction. Lending activity in Ireland showed signs of stabilising in the first six months, after a long period of contraction.

The movement of the average interest rate on new housing loans in Slovakia was in keeping with euro area trends. The average rate fell in all euro area countries with the exception of Cyprus, where it rose as a result of the economic strains facing the country and its banking sector.

In the second quarter of 2012 the average housing loan interest rate charged by Slovak banks was slightly higher than the euro area average; nevertheless, the spread between the average rates on housing loans and term deposits declined over the first six months in Slovakia, whereas in the euro area it moved in the opposite direction.
As for interest rates on new time deposits in the euro area as a whole, their movement was significantly affected by ECB operations. By conducting three-year long-term refinancing operations in December 2011 and in the first quarter of 2012, as well as by gradually reducing its key rates, the ECB caused a decline in wholesale funding costs. This led directly to lower rates not only in countries with an investment-grade rating, but also in speculative-grade countries. Looking, however, at the increasing quartile range of interest rates in individual countries in the first six months, the heterogeneity across the euro area can be expected to continue. The average interest rate on time deposits in Slovakia was at the level of the euro area median rate, or close to the average rate in France.

banks in the Slovak banking sector reported a further increase in demand for lending to non-financial corporations, continuing the trend from 2011. In a marked change, however, expectations for loan demand in the next quarter have fallen into negative territory for the first time.

**THE CORPORATE SECTOR**

**FRAGILE GROWTH IN LOAN DEMAND**

Demand for corporate loans in the euro area as a whole has been falling by around a half since mid-2011, but the situation in Slovakia has been far healthier. In the first half of 2012
The relative buoyancy of demand may be explained by the annual growth rate of exports and therefore of corporate sector sales and new orders. Data for the corporate sector have so far stood in contrast to developments elsewhere in the euro area and in several central and eastern European countries.

Another factor behind the revival in loan demand may have been the continuing decline in the debt-servicing burden of firms, which in June 2012 was at its lowest level since 2007 (See Annex, Chart P30).

On the downside, the current positive figures of several indicators are actually somewhat fragile. Sales growth in industry is insufficiently balanced, being heavily concentrated in the automotive industry. Disregarding results in the automotive industry, annual sales growth in other industry even declined slightly in the second quarter of 2012. Even though manufacturing of transport equipment accounts for around 14% of the industrial sector’s sales, the amount of loans extended by domestic banks to this segment constitutes only 2.3% of their total corporate loan portfolio.

Also raising a question mark over the prospects for loan demand is the uncertain economic situation in destination countries for Slovak exports. This uncertainty is evident in several indicators of industrial confidence.

**Further tightening of credit standards**

Bank credit standards were further tightened in the first half of 2012, mainly in response to negative expectations for the economic situation and/or expectations of adverse developments in particular industry sectors. In contrast to the situation in the euro area, liquidity and capital considerations were only a minor reason for the stricter borrowing conditions. Hence risk perception remains the key factor in the setting of credit standards, as is evident in banks’ expectations for a further tightening of standards in the second half of 2012.

The tightening of credit standards is most apparent in the price conditions, particularly in the raising of margins for higher-risk categories. Nevertheless, with interbank market rates falling, interest rates on corporate loans remain at low levels.

**Further slowdown in the flow of loans**

Lending to firms continued to increase year-on-year at the beginning of 2012, but its pace of growth was gradually decelerating and in June it edged into negative territory (at -1.7%). This was the first annual decline since September...
2010, when the lending market recovered from the slump in 2009. In the context of the previous analysis of demand and supply, the slowdown in lending activity is most likely to have been caused by banks tightening lending conditions for the corporate sector on the basis of lowered expectations.

Measured by their share in the banking sector’s total assets or overall loan portfolio, the significance of corporate loans declined slowly during the first half of 2012.

The flow of loans to most of the principal segments decreased. Loans to industry accounted for most of the overall decline as they fell by 7.6%. The least affected segment, not including water and gas supply, was commercial real estate lending, which maintained an annual growth rate of 4.3%.

The trend of a moderate decline or stagnation in the flow of corporate loans was recorded by most banks, while the five largest banks slightly increased their share of this market.

**No significant changes in corporate deposits**

Corporate deposits continued to display volatility in the first half of 2012. Although the stock of sight deposits became more stable, the shifts in time deposits were more pronounced in certain months.

Continuing growth in current account balances is usually associated with corporate activity or liquidity. In this case it is in line with the continuing rise in corporate sales.
2.1.1.2 SECURITIES

The amount of foreign bonds declined and that of domestic government bonds and Treasury bills increased

The overall value of the debt securities portfolio changed only slightly during the first six months of 2012 (to stand 1% higher than at the end of 2011). This stagnation reflected, on the one hand, growing investment in Slovak government bonds and Treasury bills, and, on the other hand, a decline in the amount of foreign debt securities.

A more pronounced fall in the amount of foreign bonds was already observed in the first quarter of 2012, with the largest declines occurring in the case of the Greek government bonds and Polish Treasury bills. Holdings of Irish, Spanish and Portuguese sovereign debt also fell. Slovak government bonds maturing in the second quarter of the year were replaced by other issues of Slovak government bonds. Purchases of Slovak Treasury bills pushed up the value of the securities portfolio, particularly so at one bank.

The share of Slovak government bonds and Treasury bills in the overall debt securities portfolio therefore increased during the first half of 2012, to more than 85% (compared to 81% at the end of 2011).

Securities held to maturity (HTM) continued to account for the largest share in the overall nominal value of the banking sector’s securities portfolio (56% of the total nominal value as at 30 June 2012). As it seems, the positive developments in Slovak government bond prices were contributing to the expansion of the portfolio of securities available for sale (AFS), the share of which in the overall securities portfolio increased from 31% as at 31 December 2011 to 33% as at 30 June 2012, after falling towards the end of 2011. The portfolio of securities held for trading continues to rank third in the overall portfolio (on the basis of month-end amounts). Nevertheless, this portfolio shows the highest fluctuation, for banks usually purchase the securities into this portfolio with the intent of selling them within a short period of time.

No significant changes in bond issuance

As in previous periods, the securities issued by banks in the first half of 2012 comprised mainly mortgage bonds. During the first six months of 2012 banks issued mortgage bonds with a nominal value of more than €370 million, of which 94% had been placed on the market by the end of June. Securities other than mortgage bonds were issued by three banks during the period under review, with a total nominal value of more than €103 million and almost 92% placed on the market by the end of June.
The main factors affecting the issuance of mortgage bonds continue to be the amount of mortgage lending and the amount of maturing mortgage bonds. With the annual growth rate of the total amount of mortgage loans running at 3%, the role of the maturity structure of the mortgage loan portfolio is still more significant. Every bank continued to meet the statutory requirement for mortgage-bond coverage of mortgage loans, with only one bank coming close to the minimum threshold towards the end of June 2012.

The average maturity and average spread in the first six months were in line with the longer-run trend. It is worth noting that the only mortgage bonds issued by banks during the period under review were either zero-coupon or fixed coupon bonds. In the first quarter this fact could be explained by the high proportion of bonds issued for retail investors (more than 50% of the total nominal amount), but in the second quarter that share stood at less than 3% and the mentioned factor no longer played a significant role. By contrast, banks may have responded to the relatively low level of interbank rates – which had fallen in the wake of the ECB’s three-year longer-term refinancing operations (since floating-coupon bond are linked to Euribor interest rates) – as well as to declining yields on Slovak government bonds. Since interbank rates can be assumed to rise again within the next three to four years, fixed-coupon yields constitute a form of hedge against interest rate risk. At the same time, however, the issuances might have been affected by demand-side factors as well.

### 2.1.1.3 INTERBANK MARKET

#### COMPOSITION OF INTERBANK ASSETS ALTERED BY EFFECTS OF THE ECB’S THREE-YEAR LTROS

The composition of interbank operations underwent certain changes during the first half of 2012. It was mostly affected by the three-year longer-term refinancing operations (3Y LTROs) conducted by the ECB in December and March. Both domestic banks and branches of foreign banks in Slovakia took part in these auctions; they used most of the new funding to settle their more volatile liabilities (funding from non-residents, enterprises, general government, interbank funds) and partially placed some of it in overnight deposits with the ECB. The total amount of interbank funds declined,
since the LTRO funding partly replaced wholesale funding.

**Interbank assets and liabilities fell sharply in June 2012**

After one of the ECB’s three-year LTROs was settled in March, overnight deposits with the ECB began to grow and by the end of May they stood at €1.8 billion, their highest level since February 2009 (following Slovakia’s entry into the euro area). The funds that banks deposited with the ECB comprised not just LTRO funds but also funds from non-residents, general government and enterprises which are usually placed on the interbank market. Towards the end of June, the amount deposited with the ECB by Slovak banks declined by more than €1 billion in total, mainly because a customer of the general government shifted funds from the commercial banking sector to an account with NBS. This development can be probably related to the bank levy. There was also a decline in interbank liabilities and other items on the liability side which constitute the assessment base for the bank levy.

**Interest rates in the domestic market remained in step with Euribor rates**

While implied rates in the domestic market continued to move in line with Euribor rates at the shortest maturity, the rates implied from operations with
non-resident banks gradually converged towards the 12-month Euribor. This movement, however, still did not indicate increased tensions in the interbank market. The relatively high rates reflected the decrease in shorter-maturity interbank operations on the liability side and the consequent gradual increase in the weight of longer-term intra-group term deposits held with certain banks, which are more highly remunerated.

Euribor rates showed a downward trend throughout the first six months of 2012 due to the abundance of liquidity provided in the context of the ECB’s three-year LTROs as well as to market expectations for a reduction in the key ECB rates. Despite these non-standard measures, however, credit risk premia – particularly on longer maturities – remained above the levels observed during the lifetime of 12-month refinancing operations provided by the ECB. Both Euribor rates and credit risk premia declined sharply at the beginning of July, when the ECB cut the main refinancing rate to 0.75%.
2.1.2 FINANCIAL POSITION OF THE BANKING SECTOR

The total profit of the banking sector declined relatively sharply in the first half of 2012, by almost 40% year-on-year. Disregarding a positive one-time contribution to the sector’s profit in 2011, the decline stood at 25%. There was an even more pronounced fall in return on equity, which took into account not only the lower profits but also an increase in equity capital in the banking sector.

The fall in profitability is related to several new trends in the composition of the sector’s profit. Banks felt the effect of the new bank levy in the first half of 2012, which diminished the sector’s pre-tax profit by around 12%. Expenses related to the revaluation of debt securities continued to rise in the first half of the year, even though losses on these operations were far lower than those recorded at the end of 2011; the losses were concentrated in certain banks. Credit risk costs increased in most banks during the period under review.

Banks have in recent years been increasingly focused on household sector business, and the fact that interest income from the household sector declined year-on-year is important, for it accounts for a substantial share of banks’ total income. Although the size of this decrease is not significant, the declining trend is important. Bank lending growth slowed, while competition for borrowers and depositors remained strong and squeezed banks’ profit margins.

Capital adequacy in the banking sector improved during the first six months, with the overall capital adequacy ratio (CAR) climbing sharply, to 15.3%, and the core Tier 1 ratio increasing to 14.1%. Almost all banks strengthened their capital position, and the lowest CAR reported by an individual bank was 12.5%. It is positive that nearly every bank complied with the NBS recommendation related to capital adequacy issued at the beginning of 2012.

2.1.2.1 PROFITABILITY

Banking sector profit declined

A number of changes affected the banking sector’s profitability in the first half of 2012, most of them negatively, and as a result the total profit slumped by almost 40% year-on-year, to €275.5 million. It should be noted, however, that the high sectoral profit of the previous year was amplified by certain banks reporting more-or-less one-time income from shares and other equity. Disregarding that contribution, the total annual decline in profit was only 25%. Moreover, the banking sector’s profit was almost 50% higher as at June 2012 than in the crisis year of 2009 and 14% higher than in 2010.

Almost a third of all the banks and branches of foreign banks in the sector saw their profit for the first six months fall in year-on-year terms. The number of loss-making institutions increased to eleven, including one bank and ten branches of foreign bank.

At the sectoral level, return on equity (ROE) declined sharply from the previous year. This reflected not only falling profits, but also an increase in banks’ own funds. The decline in ROE was more pronounced at large banks, and this factor was reflected in a decrease in the weighted average for the whole sector. The median ROE remained largely unchanged.

Chart 41 Profit and loss in the banking sector (EUR millions)

![Chart showing profit and loss in the banking sector](chart.png)

Source: NBS.
Bank levy weighed on banks’ profitability
The profit composition of the banking sector showed several changes from the previous year. Non-interest income recorded the largest annual decline, of almost €150 million. In addition to the above-mentioned fall in income from shares and other equity, profits were further squeezed by rising costs related to the bank levy, which diminished the sector’s pre-tax profit by around 12%. The impact of the levy was heterogeneous across banks.

The banking sector’s income from trading also fell, due largely to an increase in securities-related costs (which, however, was markedly lower than the increase reported for the last quarter of 2011). Since income from trading increased at a majority of banks, the negative sectoral trend was mainly attributable to declining income at a small number of banks.

One component of non-interest income that increased year-on-year was fee income, although its growth rate of 1.5% was relatively modest in comparison with levels of previous years (5% in the first half of 2011; 9% in the first half of 2010). In this component, fee income from deposit products rose by the largest margin while fee income from loan products declined, reflecting the downward trend in lending growth. Therefore changes in fee income in the first six months were significantly affected by changes in banks’ balance sheet items.

The sector recorded a first year-on-year decline in interest income
The largest component of the banking sector’s total profit was net interest income, the trends in which have a substantial effect on the sector’s profitability. Net interest income declined year-on-year in the first half of 2012. What matters is less the decline itself, which at around €10 million was not so large, but how the result compares with the performance of this component in previous years. The past trend in net interest income was one of relatively stable growth: at almost 16% in 2008, the year before the crisis, and around 8% in 2010 and 2011. The only exception was 2009, when net interest income grew by 2%. Average annual monthly growth of net interest income in respective months of the first half of 2012 stood at 3%, but it showed a strong downward trajectory and in May and June entered negative territory for the first time in many years. Almost all the banks active in the household sector reported an annual decline in this component.
The year-on-year drop in interest income was a result of several factors, including to a large extent developments in the household sector. A common trend in the lending and deposit markets was the continuing effect of intra-bank competition on interest rate policy. Banks’ income was squeezed by the continuing slowdown in household lending and the lowering of interest rates on new loans, all of which caused a decline in the annual rate of return on loans. On the funding side, by contrast, the volume of deposits continued to rise and so did interest rates on these deposits. Banks’ funding costs have therefore been rising for several years in a row. Overall, banks’ interest rate margin in the household sector declined. This fall was to some extent offset by an increase in the interest rate margin in corporate sector.

Credit risk costs increased
The banking sector’s credit risk costs increased in the first half of 2012, despite a slight decline in the amount of non-performing loans. There was, however, a more pronounced rise in the outstanding amount of loans past due by up to 90 days. As for loan loss provisioning in the first six months, the vast majority of provisions were made for household loans.

2.1.2.2 Capital Requirements

Capital adequacy ratio increased sharply
The capital adequacy ratio² of the banking sector increased from 13.3% as at December 2011 to 15.2% in June 2012 (with the lowest ratio standing at 12.5%). The core Tier 1 ratio also increased markedly, from 12.3% to 14.1%. The sharp rise in both ratios stemmed mainly from an increase in the banking sector’s own funds in total as well as from a decline in capital requirements.

The amount of own funds in the first half of 2012 was 11.8% higher than in the second half of 2011 and 13.4% higher year-on-year, with Tier 1 capital accounting for most of the increase. Nine banks reported an increase in own funds and five banks a decline. The increase in own funds was reflected mainly in the item retained earnings from previous years, with the sector retaining 46% of its total earnings from 2011.

At the end of 2011 most banks saw the revaluation of debt securities as having a negative effect on their capital adequacy ratio, but this effect eased significantly during the first half of 2012. The banking sector saw an increase in positive

² The banking sector average is weighted by the amount of risk-weighted assets.
valuation differences in the Tier 2 capital component, and a decline in negative valuation differences in the sector’s portfolio that lower the value of core Tier 1 capital capital.

The sector’s capital adequacy ratio in the period under review was further boosted by capital requirements (and therefore risk-weighted assets) falling by 2.4%, as the second factor. This decreasing stemmed largely from a decline in the capital requirements for credit risk, which fell in most banks.

**Almost all banks in the sector fully complied with the NBS Recommendation on capital adequacy**

During the first six months all banks in the Slovak banking sector complied with the Recommendation on capital adequacy issued by the NBS Financial Market Supervision Unit in January 2012, according to which banks should maintain a Tier 1 capital adequacy ratio of at least 9%. As at 30 June 2012 a majority of banks reported a core Tier 1 capital ratio of more than the threshold 11.5% where they are not subject to constraints on the distribution of profit.

### Box 2

**Identifying Systemically Important Financial Institutions in the Slovak Banking Sector**

**Financial Stability Board Recommendations**

During the global economic and financial crisis that started in 2007, the failure or impairment of certain global systemically important financial institutions sent shocks through the financial system which, in turn, harmed the real economy. In October 2010 the Financial Stability Board (FSB) responded to these events by issuing a document with recommendations regarding a policy framework for addressing the risks associated with systemically important financial institutions (SIFIs).

The recommendations include, inter alia, the following:

1. All FSB jurisdictions should put in place a policy framework to reduce the risks and externalities associated with domestic and global systemically important financial institutions in their jurisdictions.

2. This policy framework should combine:
   - a resolution framework and other measures to ensure that all financial institutions can be resolved safely, quickly and without destabilising the financial system and exposing the taxpayer to the risk of loss;
   - a requirement that SIFIs and initially in particular global SIFIs (G-SIFIs) have higher loss absorbency capacity to reflect the greater risks that these institutions pose to the global financial system;
   - more intensive supervisory oversight for financial institutions which may pose systemic risk;
   - robust core financial market infrastructures to reduce contagion risk from the failure of individual institutions; and
   - other supplementary (prudential) requirements as determined by the national authorities.


The Basel Committee’s assessment methodology for G-SIFIs
An assessment methodology for global systemically important financial institutions has been developed by the Basel Committee on Banking Supervision (the Basel Committee). A document published by the Basel Committee lays down not only this methodology but also how to determine additional loss absorbency requirement for banks identified as globally systemically important institutions.

As is stated in the document, global systemic importance can be measured in two ways, – in terms of the impact that a failure of a bank can have on the global financial system and wider economy; and – by determining the risk that a failure can occur.

The assessment may be based on one of two approaches: – an indicator-based measurement approach – a quantitative model-based approach

The Basel Committee takes the view that global systemic importance should be measured in terms of the impact that a failure of a bank can have on the real economy according to selected indicators. The advantage of indicators over models is that they are clearer, easier to implement and allow the assessment of institutions to cover as many areas as possible.

The Basel Committee selected 12 indicators for determining global systemic importance and divided them into five categories (Table A).

Each category is attached a value ranging from 0 to 1, to give an overall score of between 0 and 5. Since no measurement approach can capture all aspects of systemic importance, the results obtained can be supplemented with qualitative information (incorporated through a framework for supervisory judgment). However, the overriding of the results on the basis of qualitative information should be confined to exceptional, necessary cases.

Based on quantitative and qualitative assessment, certain institutions are deemed to be G-SIFIs, these will be allocated into four buckets

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Table A: Indicator-based measurement approach for systemic importance

<table>
<thead>
<tr>
<th>Category (and weighting)</th>
<th>Individual indicator</th>
<th>Indicator weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-jurisdictional activity (20%)</td>
<td>Cross-jurisdictional claims</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Cross-jurisdictional liabilities</td>
<td>10%</td>
</tr>
<tr>
<td>Size (20%)</td>
<td>Total exposures as defined for use in the Basel III leverage ratio</td>
<td>20%</td>
</tr>
<tr>
<td>Interconnectedness (20%)</td>
<td>Intra-financial system assets</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Intra-financial system liabilities</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Wholesale funding ratio</td>
<td>6.67%</td>
</tr>
<tr>
<td>Substitutability/financial institution infrastructure (20%)</td>
<td>Assets under custody</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Payments cleared and settled through payment systems</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Values of underwritten transactions in debt and equity markets</td>
<td>6.67%</td>
</tr>
<tr>
<td>Complexity (20%)</td>
<td>OTC derivatives notional value</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Level 3 assets</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Held for trading and available for sale value</td>
<td>6.67%</td>
</tr>
</tbody>
</table>

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5 Global systemically important banks: assessment methodology and the additional loss absorbency requirement, Rules text: http://www.bis.org/publ/bcbs207.pdf
Table B Additional loss absorbency requirement for G-SIFIs

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Minimal additional loss absorbency (common equity as a percentage of risk-weighted assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (empty)</td>
<td>3.5%</td>
</tr>
<tr>
<td>4</td>
<td>2.5%</td>
</tr>
<tr>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td>2</td>
<td>1.5%</td>
</tr>
<tr>
<td>1</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Based on their scores of systemic importance, with varying levels of additional loss absorbency requirements applied to the different buckets. A fifth, empty category will be added to prevent moral hazard among institutions in the highest category (since it will always be possible to reach a higher category and consequently be subject to even higher additional loss absorbency requirements).

The additional capital should be of the highest quality (Core Equity – Tier 1 / going concern principle). In order to gauge the systemic importance of individual financial institutions, the quantitative and qualitative assessment should be reviewed periodically, each November.

In the first round of assessment using the published methodology, a total of 29 banks were identified as globally systemically important, including banks from the United States (8), the United Kingdom (4), France (4), Germany (2), Italy (1), Switzerland (2), Belgium (1), the Netherlands (1), Spain (1), Sweden (1), and Japan (3). These banks are expected to meet the additional loss absorbency requirement as determined by their bucket classification until the end of 2016.

Assessment methodology for domestic systemically important banks

Below the level of globally important financial institutions, it is crucial for national authorities to identify financial institutions, first of all banks, which may be important in the domestic context owing to their size and significance to the national economy, i.e. domestic systemically important banks (D-SIBs). National authorities should assess domestic banks and branches of foreign banks operating in their jurisdictions consolidated to include any of their own downstream subsidiaries.

Considering the heterogeneity between different countries in the structure of their financial sectors and economies, it is difficult to produce a uniform methodology for assessing D-SIBs in different countries. Nevertheless, the methodology should be based on the Basel Committee’s assessment methodology for G-SIFIs and should also take into account the Basel Committee’s recommendations published in a consultative document in June 2012.6 The document lays down a list of 12 principles that should serve as a basis for identifying D-SIBs as well as their higher loss absorption capacity (i.e. additional capital adequacy requirements). The principles are basically those taken into account for the assessment of G-SIFIs, the only difference being that they relate primarily to the effect of the respective banks on the domestic economy.

When using the assessment methodology for G-SIBs, national authorities should take into account all the categories used for the identification of G-SIFIS, with the exception of “cross-jurisdictional activity”. The methodology should be transparent and disclosed to domestic banks, while the results should be published and reassessed on a periodic basis. The higher loss absorbency requirement imposed on a bank should be commensurate with its systemic importance to the domestic economy. This requirement should likewise be determined transparently and reassessed on a regular basis. The higher loss absorbency requirement should be met fully by Common Equity Tier 1 capital.

It is important to note at this point that although the assessment methodologies for G-SIFIs and D-SIBs are similar, they are based on slightly different approaches. G-SIFIs constitute a potential risk to the global economy, and through additional loss absorbency requirements they are in some way being pe-
nalised for their size and complexity. These higher capital requirements are intended to encourage these institutions to “scale down” or become less complex within a process of optimisation. In the case of D-SIBs, on the other hand, the aim is to identify banks that are significant to the domestic economy, and therefore the objective of higher loss absorbency requirements is more to strengthen the resilience of these banks to adverse developments in financial markets and the real economy.

**A possible approach to identifying domestically important banks in Slovakia**

The assessment methodology for systemically important banks in Slovakia is based on the Basel Committee’s methodology. In identifying whether a bank is a D-SIB, account is taken of the impact that its failure would have on the financial sector and on the real economy. The methodology is based on an indicator-based measurement approach.

Research is now being conducted into a list of indicators that could be used to identify D-SIBs in Slovakia. On the one hand, the indicators are based on those used by the Basel Committee for the identification of G-SIFIs; on the other hand, they take into account the structure of the banking sector in Slovakia. Simply put, banks in Slovakia provide significant financing to the domestic economy through lending to non-financial corporations and the retail sector, as well as indirectly through investment in Slovak government bonds and, to a lesser extent, investment in bonds issued by other domestic entities. A substantial part of the banking sector’s liabilities comprises deposits from households and other protected deposits, which in the event of the failure of a given bank could represent a financial burden (direct or indirect) on the real economy.

For the reasons above, the indicators ruled out of the methodology included those in the category of “cross-jurisdictional activities” (used in the identification of G-SIFIs), as well as indicators considered less relevant to Slovak banks: values of underwritten transactions in debt and equity markets and the value of Level 3 assets. On the other hand, the methodology includes a new indicator for which banks are scored on the basis of the amount of guaranteed deposits in their balance sheet.

### Table C Assessment indicators for D-SIBs in Slovakia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Size</td>
<td>23.1%</td>
</tr>
<tr>
<td>2. Intra-financial system assets</td>
<td>7.7%</td>
</tr>
<tr>
<td>3. Intra-financial system liabilities</td>
<td>7.7%</td>
</tr>
<tr>
<td>4. Wholesale funding ratio</td>
<td>7.7%</td>
</tr>
<tr>
<td>5. Assets under custody</td>
<td>7.7%</td>
</tr>
<tr>
<td>6. Payments through payment systems</td>
<td>7.7%</td>
</tr>
<tr>
<td>7. OTC derivatives notional value</td>
<td>7.7%</td>
</tr>
<tr>
<td>8. Held for trading and available for sale value</td>
<td>7.7%</td>
</tr>
<tr>
<td>9. Amount of guaranteed deposits</td>
<td>23.1%</td>
</tr>
</tbody>
</table>

The indicators 1 to 8 are defined in exactly the same way as those used by the Basel Committee for identifying G-SIFIs. For banks and branches of foreign banks participating in the deposit protection system in Slovakia, the amount of guaranteed deposits is the total amount of deposits which are subject to statutory guarantee.

All indicators are assigned the same weighting, except for the indicators of size and amount of guaranteed deposits, which given their importance have threefold larger weightings. The sum of the weighting coefficients is 1.

The indicator values for banks are determined as in the Basel Committee’s methodology. For each bank, the score for a particular indicator is calculated by dividing the individual bank amount by the aggregate amount summed across all banks in the sample for a given indicator. In the case of indicator 4 (wholesale funding ratio), calculated as a percentage for each bank, the results are normalised so that the sum for the sector as a whole is 1.
Given the structure of the domestic banking sector, each methodology produces relatively similar results. Although branches of foreign banks cannot be required to increase their holding of equity capital, it is important for national authorities to be aware of the importance of individual branches vis-à-vis banks and other branches of foreign banks.

The next stage in implementing an assessment methodology for systemically important banks in Slovakia is expected to involve setting the threshold at which banks are deemed to be systemically important and determining loss absorbency requirements for banks based on their level of systemic importance. While the determination of banks' systemic importance and loss absorbency requirements is a matter for further analysis, it is clear that there are several banks which are systemically important in Slovakia.
2.2 THE INSURANCE SECTOR

The total profit of the insurance sector in the first half of 2012 fell slightly year-on-year, but it was still high and its decline reflected mainly the elevated profits reported in 2011. The number of loss-making insurance companies decreased, and the distribution of return on equity narrowed and moved moderately towards higher profitability. The technical result for the period was worse than for the previous year, but profitability was boosted by the financial result. The solvency of insurance companies declined slightly, but remained at an adequate level.

The trends from 2011 continued in the life insurance sector; the rise in premiums was driven mainly by strong growth in unit-linked and supplementary insurance products, while there was further decline in traditional life insurance premiums and contracts. While the amount and frequency of policy surrenders rose, there was a decline in expenses related to life assurance policies on survival to a stipulated age. The strongest growth in non-life insurance was observed in property insurance, but premiums in motor vehicle insurance and motor third-party liability insurance continued to decline. The number of motor insurance contracts also fell. On the positive side, insurers’ portfolios stabilised to a certain extent. The loss ratio fell further and fluctuated around its lowest levels since 2006. The situation in reinsurance remained unchanged from the previous year.

After the calming of financial markets turbulences in the first half of 2012, technical provisions for unit-linked insurance started to rise. Thus, a reversal in technical provisions was observed compared to the second half of 2011. The amount of technical provisions for non-life insurance claims declined. Investments of technical provisions remained conservative, without any significant change.

INSURANCE PREMIUMS

The insurance market in the first half of 2012 increased moderately year-on-year, due to results in life insurance.

Life insurance premium growth was driven by unit-linked and supplementary insurance products. In all lines of life insurance apart from pension insurance there were positive trends in new business. The total number of insurance contracts rose slightly.

In non-life insurance, the positive trend observed in 2011 was not maintained. Premiums declined due to results in the most significant line – motor insurance.

Total premiums amounted to €1.05 billion at the end of June 2012, representing a rise of 0.8% year-on-year. Life insurance premiums increased by 3.1% to €0.55 billion, and non-life insurance premiums fell by 1.5%, to €0.50 billion.

LIFE INSURANCE

The strongest performing line of business was unit-linked investment insurance (where the benefit depends on the value of common fund shares/units, with the policy holder bearing the investment risk). Unit-linked premiums increased year-on-year by 13.4%, and hence their share of all life insurance premium rose to almost 33%. The annual increase in new business stood at a substantial 40%, with new policy premiums accounting for 15.2% of the total annual amount. The number of contracts increased by 5.3% in year-on-year terms. Claim costs in unit-linked insurance increased (by 70%), mainly due to costs related to policy surrenders and assurance on

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7 Premiums can be defined as the price agreed in individual insurance contracts regardless of the method of their financial reporting.
8 The motor insurance line includes motor third-party liability (MTPL) insurance and comprehensive motor vehicle insurance.
survival to a stipulated age. The surrender rate slowed from 26.2% to 20%. The frequency of policy surrenders increased year-on-year by 0.7%, to 5.9%.

Traditional life insurance products experienced adverse developments with premiums falling by 2.7%. New business grew slightly in year-on-year terms, but the number of insurance contracts fell again (by 6%). The cost growth index slowed to 2.6% year-on-year with most of the cost growth attributable to policy surrenders.

In the third largest line of business, supplementary insurance, premiums grew by 6.7%.

The smallest segment of the life insurance market is pension insurance, which saw a further marked drop in premiums (by 15.4% year-on-year).

**Non-life insurance**

In the non-life insurance market, the trend of rising premiums observed in the previous year was not maintained in the first half of 2012. In motor insurance there was a more marked decline in premiums.

As well as in motor insurance, premiums declined in carrier’s liability insurance and reinsurance.

The largest slump was in motor vehicle insurance, which saw premiums fall by 5.6% year-on-year. Although the number of new policies in motor vehicle insurance increased by 9.9%, the number of extended contracts fell by 2% and consequently the total number of motor vehicle insurance policies fell by 0.4%. The trend of reduced premium prices in extended policies continued and the average premium price in new policies of motor vehicle insurance fell sharply (18.9%). Even though the number of claims increased, claim costs in motor vehicle insurance fell by 4.8% year-on-year.

As for premiums in MTPL, they saw an annual decline of 3%. The number of MTPL insurance policies increased by 2.7%, but while extended policies rose by 5.3%, new policies fell by 10.7%, which may be a sign of stabilisation in insurance portfolios. The average premium price fell further, by 4.9% (with a decline recorded in both new and extended contracts). The number of claims under MTPL policies declined year-on-year by a marked 14.9% and the amount of claims fell by 7.5%.

Property insurance premiums increased by 3.4%. The number of extended policies rose year-on-year, and although there was a slight drop in the number of new contracts, it did not affect the overall increase in the number of contracts. Claim costs in this line of insurance fell by 6.1% year-on-year.

The following chart shows the development of core performance indicators – the loss ratio,

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9 Traditional life insurance includes assurance on death, assurance on survival to a stipulated age, mixed assurance, etc.
expense ratio and combined ratio – in each segment of motor insurance over the last six years. Motor vehicle insurance is the less profitable.

CLAIM COSTS
Overall claim costs in life and non-life insurance in the first half of 2012 increased year-on-year by more than 2% or €0.59 billion. In life insurance claim costs rose by 10.6% (€358.6 million), while in non-life insurance they fell by 8.7% (€235.7 million).

Claim costs in life insurance were driven up mainly by an increase in the amount claimed through policy surrenders in both traditional and unit-linked insurance.
Claim costs in non-life insurance are assessed using loss ratio, i.e. the ratio of claim costs to earned premiums. The loss ratio for non-life insurance as a whole fell by 3.1 percentage points from the previous period, to 46.3%, its lowest level since 2006. Looking at loss ratio in the major lines of business, the largest annual decline was observed in property insurance (-9 p.p.), while in MTPL insurance and comprehensive motor vehicle insurance it increased (by 5.1 p.p. and 3.4 p.p., respectively).

The combined ratio, which takes into account not only technical costs but also operating expenses related to insurance activities, also declined slightly year-on-year, by 1.9 p.p. to 78.9%.

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

The reinsurance ratio\(^\text{11}\) stopped growing

The premiums that Slovak insurers ceded to reinsurers during the first half of 2012 amounted to €157 million, which was €2.5 million lower than in the first half of 2011. Reinsurance is more prevalent in non-life insurance, where the reinsurance ratio remained at 29%. In life insurance the ratio stayed below 2%.

The reinsurance ratio was unchanged in motor insurance, while in property insurance it fell from 43% to 40% and in active reinsurance it declined to 49.5%. In all other lines of business the ratio increased. The lines of business with the highest reinsurance ratios continued to be active reinsurance, legal protection insurance, and other transport insurance. The lowest ratios are traditionally observed in all lines of life insurance, accident and sickness insurance, motor vehicle liability insurance – supplementary insurance.

\(^{11}\) Premiums ceded to reinsurers as a share of total premiums.
insurance, and the category of credit insurance, surety insurance and miscellaneous financial loss insurance (with a reinsurance ratio of less than 18%).

The reinsurance ratio for claim costs\(^{12}\) is very similar to that for premiums, particularly in non-life insurance. The most highly reinsured lines were property insurance and legal protection insurance, with as much as 57% of the claim costs being ceded to reinsurers. The lowest reinsurance ratios for claim costs were observed in life insurance, accident and sickness insurance, motor vehicle insurance, and the category of credit insurance, surety insurance and miscellaneous financial loss insurance (with a reinsurance ratio of less than 10%).

**TECHNICAL PROVISIONS AND THEIR INVESTMENT**

Total technical provisions in the insurance sector increased further in the first half of 2012 and ended the period at €4.75 billion. The increase was driven mainly by technical provisions in life insurance, with provisions for unit-linked policies rising by €70 million from the beginning of the year and provisions for traditional life insurance policies by €14 million. In contrast, provisions for non-life insurance claims fell year-on-year by €60 million, including a decline of €47 million in provisions for reported but unsettled claims.

The amount of assets covering technical provisions remained almost unchanged year-on-year, at €4.4 billion. The asset coverage of technical provisions (not including provisions for liabilities arising from financial investments made on behalf of insured persons) was 116%.

\(^{12}\) The share of claim costs ceded to reinsurers in total claim costs.
The composition of provision investments remained substantially unchanged. The share of government bonds increased again, to almost 50%. Mortgage bonds also rose, while bank bonds declined. The risk exposure of the investment portfolio is described in more detail in Chapter 3 Risks in Slovak financial sector.

After a successful 2011, profitability fell slightly

The total profit of the insurance sector in the first half of 2012 fell by 15% year-on-year, which was, however, a strong result given that the sector reported a record profit in 2011. Two thirds of insurers increased their profit year-on-year and the number of loss-making insurers decreased to two. Profitability in sector is highly concentrated, with the three largest insurance companies accounting for almost 75% of the sector’s total profit, while their share in the sector’s total assets was only 62%. The subdued profit result is largely attributable to the technical account, particularly in life insurance, which fell by €60 million year-on-year and made a loss of €55 million. Approximately half of that amount is accounted for by a rise in provisions for unit-linked policies, due to income in financial markets, and it is offset by the financial result. The technical result in non-life insurance fell by €7 million to stand at €29 million. This decline stemmed largely from operating expenses, which in life insurance and non-life insurance combined increased by €15 million or 6%. The financial result improved by €48 million year-on-year, with income from unit-linked insurance accounting for €30 million of that amount. The remaining income was from assets not used to cover technical provisions.

The solvency of insurance companies remained unchanged in 2011

As at the end of 2011, all insurance companies satisfied the requirement that their available solvency margin (own funds) should be higher than the required solvency margin.

The available solvency margin decreased by 1.8% year-on-year, while the required solvency margin changed only slightly and the average solvency margin fell moderately, to 3.49.

The only insurer in which the value of own funds fell below that of the guarantee fund was a company that was transformed into a branch of a foreign insurer as at 1 January 2012.
2.3 THE PENSION SECTOR

The Retirement Pension Saving Amendment Act adopted at the end of 2011 introduced several significant changes that began to have an effect on the sector in the first half of 2012. The amendment allowing simultaneous saving in two pension funds resulted in a change in the stable ratio of participants and amounts of assets in different types of pension fund. The share of equity pension funds fell, while that of bond pension funds rose. In addition, under the Amendment Act, pension funds management companies were required to establish and manage index pension funds as a fourth category of pension fund. The demand for saving in index pension funds, the returns on which should match those on equity markets, was minimal during the period under review. The conservative composition of funds in Pillar II of the pension system did not change significantly, even though one of the objectives of the Amendment Act was to establish conditions for longer-term investment policies. There were, however, signs of movement in this regard as the average residual maturity and duration of pension funds increased by more than one half, albeit from very low levels in the main.

Pillar III of the pension system saw an end to the long-term trend decline in the number of participants in contributory supplementary pension funds. As in previous years, a drop in participants recorded by large universal funds was offset by an increasing number of people saving in smaller specialised funds. The contributory funds that were pursuing a growth policy recorded a large rise in the equity component of their total assets, up to almost 60%. In the bond portfolio of supplementary pension funds there was an increased exposure to securities issued by financial institutions.

Both pillars of the pension system reported a year-on-year improvement in performance, due largely to the positive revaluation of bonds in the first quarter of 2012.

2.3.1 RETIREMENT PENSION SAVING

The sector was significantly affected by the effects of the 2011 Retirement Pension Saving Amendment Act

The changes observed in Pillar II of the pension system in the first half of 2012 stemmed mainly from the Retirement Pension Saving Amendment Act, the key provisions of which entered into force on 1 April 2012. Among the most important amendments was the imposition of an obligation on pension funds management companies PFMCs to establish and manage a fourth type of fund called an index fund, in addition to the existing three pension funds (bond, mixed and equity funds).14 As regards investment strategy, the returns on such funds should closely track those on a selected equity index or a basket of equity indices. To save in index funds is less expensive than in other types of fund since the upper limit on the management fee is set lower than that for the alternatives and, furthermore, because PFMCs are not entitled to charge a performance-related fee on index funds.

Another legislative change that may bring greater flexibility to savers is the possibility to save in two types of pension fund at the same time. In such case, contributions are divided between the two funds in an arbitrary ratio set by the saver. There is a restriction, however, in that one of the funds must be a bond fund.

A third key amendment was the repeal of the obligation on PFMCs to supplement, out of their own funds, the assets of mixed and equity funds in the event of a decline in the value of the fund’s pension unit within predetermined reference time periods. This regulatory requirement was retained only for bond funds.

Shift of savers and assets from equity to bond pension funds

As a result of these new rules and the information campaign conducted by PFMCs before their coming into force, the numbers of savers in different types of pension fund changed mark-

14 The terms bond fund, mixed fund and equity fund were also introduced in the Amendment Act, as replacements for, respectively, conservative fund, balanced fund, and growth fund.
edly for the first time in several years. In particular, the number of savers\(^{15}\) in bond funds more than doubled during the period under review, to stand at 12% of the total. In equity funds, by contrast, the movement was almost entirely in the other direction, as savers switched either the entirety or a majority of their contributions from these funds to other types of fund. Equity funds lost around 50,000 savers, representing around 5% of their original number. A similar number of savers pulled out of mixed pension funds, and although around 25,000 people enrolled in them, they were not enough to prevent mixed funds from registering a net outflow over the period under review. The new index funds have yet to attract savers in significant numbers. A total of 471 savers were enrolled in index funds at the end of June 2012, in other words a negligible share of the total number of savers. Most of the savers who switched funds remained with the same PFMC.

Although switching between funds accounted for the majority of changes in the numbers of savers in different fund categories, another factor was the enrolment of around 4,000 new savers – a similar number of new savers to that observed in previous periods. As at 30 June 2012, a total of 1,448,877 savers were enrolled in the Pillar II system. In line with the trend of previous years, the same two PFMCs reported an increase in saver numbers while the other four PFMCs saw a slight decline.

At the sectoral level, the net asset value of pension funds maintained its linear growth in the first half of 2012 owing to contributions being mandatory and periodical. The net asset value of Pillar II funds increased by €495 million in the first half of 2012, to end the period at €5,087 million. Unlike in the past, however, not all types of pension fund maintained such a linear trend. The switching of savers between different fund categories was mirrored in the switching of assets under management. Where a saver opted to divide his contributions in a certain ratio between two selected pension funds, the amount already saved by him was divided likewise in the same ratio. Consequently, the amount of assets under management in bond funds rose sharply, while that in mixed funds and equity funds remained practically unchanged, with new enrolments serving only to offset the outflows.

### Chart 61 Composition of funds’ assets by principal types of investment (%)

![Chart 61 Composition of funds’ assets by principal types of investment (%)](chart61)

Source: NBS.

### Chart 60 Aggregate net asset value of PFMC funds broken down by fund category (%)

![Chart 60 Aggregate net asset value of PFMC funds broken down by fund category (%)](chart60)

Source: NBS.

For the purposes of this analysis, a saver is included in a particular type of fund if more than 50% of his contributions are made to that fund. Where the ratio of contributions is precisely 50:50, the saver is included in the bond fund. Therefore savers enrolled in two pension funds are not counted twofold.

\(^{15}\) For the purposes of this analysis, a saver is included in a particular type of fund if more than 50% of his contributions are made to that fund. Where the ratio of contributions is precisely 50:50, the saver is included in the bond fund. Therefore savers enrolled in two pension funds are not counted twofold.
ence between the structure at the beginning and at the end of the first half of 2012. Debt securities comprising bonds and Treasury bills accounted for almost 70% of the sector’s total assets as at 30 June 2012, and bank deposits made up the rest. The fluctuations observed in their ratios during the period under review were largely explained by the maturity of bond issues constituting a significant share of the portfolio, rather than by any notable change in investment strategy. Thus PFMCs gave a muted response to the legislative amendment, which had been intended, inter alia, to incentivise investments in assets likely to be higher-earning in the long run. Besides the abolition of the so-called “guarantees” in equity and mixed funds, the incentivisation measures included an extension of the reference period for assessing asset value in bond funds, from six months to five years.

Another change applicable to equity funds was to limit investments in debt and money market instruments to no more than 80% of the fund’s net asset value, so as to ensure that investments in equities, or in common funds in which equity investments predominate, make up at least 20% of the portfolio. PFMCs took advantage of the fact that they do not have to comply with the new limits until the end of 2012, as they made little or no progress during the period under review towards adjusting the composition of their equity funds. The only exception was one PFMC that started gradually to buy equity-index-linked common fund shares/units for its fund portfolios. Even in this case, however, the respective investments did not amount to more than 3% of the net asset value by the end of June 2012. In all other equity funds, as well as mixed funds, the share of such investments remained below 1.5% and in many cases it stood at zero.

At the level of individual types of funds, too, the asset structure was largely unchanged. Hence the composition of the portfolios of bond, mixed and equity funds remained substantially similar. Signs of a shift in investment policy were observed only in the bond funds of certain PFMCs. The asset structure of the newly established index pension funds was, of course, different. In their case, almost 90% of their assets comprised common fund shares/units linked to equity indices, with bank deposits accounting for the rest.

**Average maturity and duration of the pension fund portfolio rose relatively sharply**

Among the most significant changes in the sector’s portfolio was an increase in the average residual maturity of its debt instruments. After a relatively long period during which it ranged from 0.8 to 1 year, the average rose somewhat markedly in the first half of 2012, to 1.6 years. This trend was observed in almost all funds in the sector, although the average residual maturity of individual funds ranged from 1.0 to 2.6 years.

The average modified duration of this part of the portfolio increased along with the residual maturity, meaning in practice that the fair value of these assets became more sensitive to interest rate movements. Nevertheless, the increase in residual maturity was not fully reflected in the increase in modified duration, since the growing share of floating-coupon bonds put downward pressure on the average duration. The high share of variable-rate bonds also contributed significantly to keeping the value of the modified duration below 1. Furthermore, the development of modified duration and residual maturity in bond
funds was slightly different from that in equity and mixed funds.

Bank deposits developed differently, as their average residual term to maturity fluctuated at around four months during the first half of the year. As interbank market rates declined, however, the interest rates on these deposits fell across all maturities. The average interest rate declined by 0.3 percentage point in the first six months of 2012, to 1.5%. However, one PFMC managed to increase the remuneration of deposits in its funds, and it did so despite the shortening of their residual terms. An increase in the remuneration of these deposits, which even beforehand was the highest in the sector, was achieved by raising the amount of deposits held with Slovenian banks and, to a lesser extent, with Romanian banks, since deposits in these countries offered higher interest rates than those in Slovakia. Given, however, the current strains in Slovenia’s banking sector, the high share of deposits that these PFMC funds hold in that sector (amounting to almost a quarter of their net asset value) may pose a risk.

**YEAR-ON-YEAR PERFORMANCE INCREASED SLIGHTLY DUE MAINLY TO THE POSITIVE REVALUATION OF SLOVAK GOVERNMENT BONDS**

The year-on-year performance of pension funds increased moderately during the period under review. The nominal rate of return on assets increased from 1.5% at the end of 2011 to 2.3% at the end of June 2012. As in the past, the differences in performance between the different types of pension fund were minimal. The lowest and highest returns reported by funds in the sector were 1.7% and 3.1%. The funds of four PFMCs recorded similar rates of return in the region of 2%, while the return on funds in the other two PFMCs was almost one percentage point higher and pushed up the sectoral average. For mixed fund and equity funds, the long-term annualised performance calculated since the establishment of the Pillar II system improved by 0.1 percentage point, to 1.2% and 1.5% respectively, while for bond pension funds it stood at 2.6%.

The main cause of the increase in returns on Pillar II funds was the upward revaluation at fair value of debt securities in their portfolios. In this regard, Slovak government bonds were the key factor since their yields to maturity fell relatively sharply from February to April and thus their price rose. Czech and Polish bonds developed in a similar way.

**THE FINANCIAL RESULTS OF PFMCs MAINTAINED THEIR IMPROVING TREND**

PFMCs made a total profit of €3.87 million in the first half of 2012, which was a marked improvement on the results for the first half of 2011 (an aggregate loss) and the second half of 2011 (a profit of €1.43 million). The PFMC sector’s fee and commission income from savers increased by 41% year-on-year, while its fee and commis-
sion expenses declined slightly. Looking at fee and commission income, the largest increase was observed in income from performance-related fees, which quadrupled in comparison with the same period of 2011. The improvement in the financial result was also attributable to certain extraordinary income outside PFMCs' core activities, as well as to a year-on-year decline in operating expenses. The PFMCs that made a net profit in the first half of 2012 comprised the three that had been profit-making in previous periods plus, for the first time, a fourth one. The remaining two PFMCs also improved their results by significantly reducing their losses.

2.3.2 SUPPLEMENTARY PENSION SAVING

The total number of participants in the supplementary pension system (Pillar III) remained practically unchanged in the first half of 2012. There were, however, several relatively marked changes in composition of participants in the Pillar III system. A total of 852,486 participants were registered in the system as at 30 June 2012, i.e. 9,992 fewer than at the end of 2011. Nevertheless, the number of participants in the saving phase (i.e. those enrolled in contributory funds of the supplementary pension system) remained practically unchanged during the period under review, after previously declining over a relatively long period. Thus the decline in the total number of participants was fully attributable to payout funds, participation in which had more than doubled over the previous two calendar years.

As for contributory funds, the number of participants in the large principal funds of the different supplementary pension asset management companies (SPMCs) has been declining in recent years and continued to do so during the period under review. Also in line with the longer-term trend was the increasing participation in smaller contributory funds, which have more specialised investment objectives. Indeed, the participation growth rate of these funds accelerated during the six months.

It should also be noted that the number of passive participants in contributory funds, i.e. those who have not made any contribution for a period of at least six months, increased significantly (by 22,000). One of the reasons for this may have been the abolition of the possibility to deduct supplementary pension fund contributions from the personal income tax base. Looking at the age composition of participants in Pillar III funds, the average age of participants has gradually increased since 2010.

The total net asset value of supplementary pension funds increased more sharply in the first half of 2012 than over the whole of 2011. The increase of €50 million was of the same order as the average increase for the period from 2008 to 2010. The value of assets under the management of SPMCs at the end of June 2012 stood at €1.224 billion.

Nevertheless, net asset value showed uneven development during the first six months. The whole increase occurred in the first quarter, when the accumulation of contributions was amplified by the positive performance of supplementary pension funds. Returns on fund investments accounted for almost half of the increase in net asset value during that period. The situation changed significantly from April to June, when the amount of assets under management declined moderately for two reasons. First, the average performance of supplementary pension funds turned negative due to the worsening situation in financial markets. Second, many people disenrolled from contributory funds in April and this process entailed one-time payouts of contributions they had accumulated up to that point. The absolute increase in assets of large contributory funds was around €20 million in total, and so too was that of smaller specialised contributory funds even though they have far fewer participants. The disproportionality in this regard reflects both the disenrolment of participants and the fact that part of the assets of large contributory funds were switched to payout funds. In terms of NAV growth rate, however, there was minimal difference between the funds of the different SPMCs during the period under review.
The most marked change in asset structure was observed in supplementary pension funds pursuing a growth policy.

The largest change in the asset-class composition of contributory funds was observed in funds that pursue a growth policy. In these funds, investments in equities and common fund shares/units increased by around a half, to stand at 60% of total assets as at 30 June 2012. Consequently, the asset structure of these funds profiled further in line with their investment objectives. The purchases of equities and common fund shares/units were funded from new contributions as well as from bank account deposits and a slight reduction in the bond portfolio. The amount of such assets was further boosted to a certain extent by their upward revaluation.

As for the largest group of contributory funds – those with a balanced investment policy – the bond component of their portfolio increased by 5 percentage points during the period under review to stand at 64% by the end of June. The share of bank deposits declined by a similar margin, to around one-fifth of the portfolio. These developments were the opposite of those observed in 2011. In the first quarter of 2012, SPMCs were extensively buying equity and common fund shares/units for the portfolios of their contributory funds. In June, however, these assets started to be sold by SPMCs (possibly due in part to their downward revaluation in May) and by the end of the month their share in the portfolio was back to where it had been at the start of the year, around 17%. Looking at derivatives used primarily for the hedging of currency risk, their nominal value in the portfolio of supplementary pension funds with balanced strategy doubled in the first half of 2012 and did so, too, in the portfolio of contributory funds with growth strategy. In this way SPMCs hedged their funds’ exposure to foreign exchange risk, and in particular an increasing exposure to the US dollar.

In both contributory funds with conservative strategy and payout funds there was a slight change in the ratio between the much larger bond component and the bank deposit component (the only other asset in their portfolio). Whereas contributory funds saw the share of bank deposits increase, payout funds recorded a rise in the bond component.

The average weighted residual maturity of debt securities increased slightly at the beginning of the year, and then returned to a value of four years towards the end of June. The average maturity of the asset portfolios of individual funds changed in different ways and it was not possible to identify common trends, whether among particular fund types or in a specific SPMC. It was a similar situation with the average weighted modified duration of these instruments, which for the sector as a whole stood at just over 3 at the end of the period under review. The average weighted maturity of bank term deposits in the sector’s portfolio followed a similar trajectory: initially, it rose slightly, before correcting downwards to around one year, the level at which it began the period. The average interest rate on term deposits fell by 0.3 percentage point, to 2.0%, owing to the pass-through of the decline in interbank rates in the first half of the year. Total returns on bank deposits declined further due to an increase in the share of current account deposits, which at present attract nearly any interest. The declining remuneration of deposits could partly explain why some money was shifted out of bank deposits and into bonds.
**Bonds issued by financial institutions recorded an increasing share in the portfolios of supplementary pension funds**

The bond component of the aggregate portfolio of supplementary pension funds increased in the first half of 2012 due largely to purchases of domestic bank bonds. As a share of the total bond component, bonds issued by financial institutions grew by 10 percentage points to 36%, its highest level in recent years. The percentage share of government bonds declined slightly, but still constituted the largest component of this asset class with a share of more than half.

**Current values of pension units rose relatively sharply in the first quarter of 2012**

The current values of funds’ pension units improved in the first three months of the year. In contributory funds, the average value of the pension unit rose relatively sharply, thus cancelling out the declines recorded in the second half of 2011. From April to June there was no clear trend in the average pension unit value, notwithstanding a high volatility towards the end of the period. The average annual return on contributory funds was 0.2% as at 30 June 2012. Negative annual returns were reported by all funds with growth strategy and one fund with balanced strategy. The average nominal appreciation of all payout funds was 1.9%.

**Operating profit of SPMCs increased**

The total profit of SPMCs for the first half of 2012 declined by one-third year-on-year, to €3.1 million. That decline, however, concealed a marked increase in aggregate operating profit. Income from fees and commissions increased year-on-year by 12%, due mainly to performance-related fees and termination fees. At the same time, expenses related to fees and commissions and operating expenses remained unchanged. In both the second half of 2011 and first half of 2012, the sector’s total profit was significantly affected by the result of securities and derivatives transactions in one SPMC. The item made a negative contribution of around €1 million to the financial result of the sector as a whole in the period under review, whereas in the first half of 2011 it increased the profit by €2.4 million. All four SPMCs made a profit in the first half of 2012, and three reported a year-on-year increase.
2.4 COLLECTIVE INVESTMENT

The assets under management in the collective investment sector increased moderately in the first half of 2012 owing to positive net sales of domestic common funds. The full effects of the new Collective Investment Act, adopted in mid-2011, appeared during the period under review, as domestic management companies were permitted to establish three new categories of special common funds. The assets of the small number of special funds increased markedly by almost half a billion euro, with most of the inflow coming from the household sector. By contrast, most of standard common funds reported net outflows, with households accounting for most of the redemptions. Money market funds and short-term investment common funds had the highest redemptions, as has been the trend over the past two years. The performance of all common fund categories improved during the first half of the year, while the aggregate profit of management companies increased by around one-fifth, with support from cost savings.

The total amount of assets under management in the sector rose slightly after a slump in the second half of 2011

The net asset value of common funds in Slovakia stabilised in January and February 2012, following the high amount of redemptions that characterised the sector in the second half of 2011. The situation improved further in the next four months and the amount of assets under management began to show a rising trend, albeit a slow one. The sector’s net asset value for the first half of 2012 increased by €141 million, or 3.7 % in relative terms. The aggregate amount of assets under management in domestic common funds and foreign collective investment undertakings (CIUs) sold in Slovakia was €3.983 billion as at 30 June 2012. That remains relatively low in comparison with the corresponding figures in the previous seven years, standing at just over the all-time low recorded at the end of 2008 / beginning of 2009. Moreover, if only the adjusted net asset value is considered, the increase during the period under review would be only €34 million, or around one percent.

The overall development of the sector’s net asset value was determined mainly by domestic common funds representing approximately 85% of the sector. Foreign CIUs developed differently: the amount of assets under their management remained initially flat, and then, in contrast to domestic funds’ assets, declined significantly in April and May by around 8%.

The rise in net asset value was supported by positive net sales and also by improved performance

Net sales accounted for around four-fifths of the increase in the sector’s NAV, even though redemptions of fund shares/units were still relatively high in January and February. Over the next four months, sales of new shares/units exceeded redemptions. The increase in NAV at the sectoral level was further supported by higher

Chart 65 Net asset value of common funds sold in Slovakia (EUR billions)

Source: NBS, SASS

Notes: The percentage in the box above each bar represents the annual percentage change in the sum of the amounts of domestic and foreign funds for the respective half-year period.

16 The adjusted net asset value of a common fund expresses the net asset value less the amount of the common fund’s investments in other common funds of the same management company.
returns on investments in common funds. During the period under review the performance of common funds was strongest in the first two months.

Looking at the three largest management companies by amount of assets under management, their share of the sector’s NAV oscillated at around 83% in the first half of 2012, after showing a downward trend in 2011, and therefore the level of market concentration remained relatively high. The total number of common funds managed by domestic asset management companies remained at 82, although the number of funds offered to retail customers fell by four. The overall figure was unchanged due to the establishment of new special professional investor funds.

The rise in the sector’s NAV was concentrated in domestic special common funds

A notable aspect of the domestic part of the sector was that almost the entire increase in its NAV was accounted for by several special common funds. Among standard common funds, most of the more significant changes in NAV were negative.

Special funds were given fresh momentum by the new Collective Investment Amendment Act, which allowed management companies to establish special securities funds, special alternative investment funds and special professional investor funds, in addition to the special real estate funds that they had already been operating. The Act entered into force on 30 June 2011, and although the NAV of the new special funds was already rising towards the end of the year, it began to surge during the period under review. Until the second half of 2011 special common funds other than special real estate funds constituted a small fraction of the sector in terms of NAV and number of funds. As at 30 June 2012, however, the four types of special fund reported an aggregate NAV of more than €1 billion, representing one-quarter of the sectoral total and almost 30% of the NAV of domestic common funds. By comparison, these funds reported an NAV of around €550 million at the beginning of 2012 and only €360 million three months earlier. As mentioned above, the increase in this segment’s NAV was a corollary of the establishment of several new special funds.

In terms of net asset value, special real estate funds constituted the largest of the special com-
mon fund categories in the first half of 2012. The total NAV of special real estate funds increased by almost 20% during the period under review, thus continuing an upward trend going back to the end of 2010. Most of that growth comprises inflows from household sector, which is supported by relatively high reported returns on these funds in comparison to those on standard common funds.

The largest increase in NAV among special common funds was not, however, recorded by special real estate funds, but by special securities funds. The total amount invested in these funds in the first half of 2012 was around €300 million, which was far higher than the inflows registered for any of the other fund categories (including standard common funds). Although these inflows were predominantly from households, they also included some investments from the corporate sector.

Special professional investor funds are the last of the larger categories of special common funds. Their NAV growth in the first half of 2012 stood at €70 million, similar to the increase recorded by special real estate funds. In the case of special professional investor funds, no sectoral breakdown of their net sales is available. In principle, however, their shares/units may be issued to any professional investor who satisfies the requirements for a professional customer or qualified customer as laid down in Act No 566/2001 as amended. The first two special alternative investment funds were established in March 2012 and their combined net sales by the end of June stood at €16 million. Two-thirds of that amount consisted of investments from within the same management company by funds of funds. Only the remaining third, from the household sector, represented a real inflow of new investment into the sector.

**Net sales of domestic standard funds remained negative**

Turning to domestic standard common funds, absolute changes in the amount of assets under management were most marked in money market funds, short-term investment funds, and other funds, and in each case the change was negative.

As regards money market funds and short-term investment funds, the negative trend in their net sales was extended to more than two years. The net redemptions of these funds over that period amounted to almost €1 billion, of which €216 million (18% of the total NAV as at the beginning of 2012) was reported during the period under review. On the positive side, monthly net redemptions showed a decreasing tendency over the first six months of 2012. Again the household sector was the driver of the outflow from these funds, which would have been even more pronounced but for the fact that several funds in other categories increased their investment in domestic money market funds and short-term investment funds.

Although redemptions of money market funds and short-term investment funds show a certain correlation with financial market stress cycles, at least one other factor other than risk aversion appears to be behind the outflows from these funds, namely rationalisation processes in the parent financial groups of the funds’ management companies. As it seems, this rationalisation included efforts to shift unit-holders’ investments
out of common funds and into the banks at the head of the respective financial group.

One consequence of the Collective Investment Amendment Act of 2011 was a significant decline in the number of money market funds. Only two such funds were still in operation at the beginning of 2012, compared to eight at the end of 2011. In accordance with the CESR’s Guidelines on a common definition of European money market funds (transposed into the Act), the rest of the funds originally classified as money market funds were reclassified as either short-term investment funds or bond funds. Those common funds failing to comply with the criteria, limits and restrictions that must be satisfied by short-term money market funds and money market funds under the Collective Investment Act were required to omit the words “money market fund” or “money fund” from their names by 31 December 2012.

As for the category of other funds, their total NAV slumped by €64 million, or almost 30%, in the first half of 2012. In the case of other funds, too, the amount of assets under management has been in decline for several years. Whereas the outflow from money market funds was a result of step-by-step withdrawals by unit holders over a long period, the NAV of other funds has dropped sharply at intervals coinciding with the end of the reference period of secured funds within this category.

Funds of funds recorded a 10% drop in their total NAV due to redemptions by households, although in absolute terms such a decline was not systemically significant. In the remaining categories of standard common funds, namely bond funds, equity funds and mixed funds, assets under management increased moderately, but in no case did the increase relative to the value at the start of the year exceed 5%. Equity and bond funds would have ended the first half of 2012 in negative territory if the return on their assets had not been positive. Therefore mixed funds were alone among domestic standard common funds in reporting positive net sales for the period, with inflows from insurers and other common funds exceeding redemptions by households.

**Household investments in domestic common funds increased slightly in the first half of 2012**

As is clear from the partial evaluation of the sector by fund category, the sector most active in buying and selling fund shares/units was households. That is, of course, in line with the sector’s long-term predominance in collective investment. Overall there was a moderate net inflow into the collective investment sector from households during the period under review, resulting mainly from shifts of investments from standard common funds to special common funds.

If, however, the key substitution between standard money market funds and short-term investment funds on one hand, and special securities funds on the other hand, is seen in the context of the funds’ portfolio compositions, then there were practically no changes of any significance. As in money market funds and short-term investment funds, bank deposits are the key component of the asset portfolio of these special funds, and a further 20% of the assets are indirectly akin to them in that they comprise investments in money-market-type common funds.

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**Chart 69 Net sales of domestic common funds by fund category (EUR millions)**

<table>
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<tr>
<th>Fund Category</th>
<th>2010</th>
<th>2011</th>
<th>H1 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIF + SAF</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>BF</td>
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<td>MF</td>
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<td>EF</td>
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<tr>
<td>FF + MMF + SPF</td>
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</tbody>
</table>

Source: NBS, SASS.
Notes: SIF = short-term investment funds; MMF = money market funds; BF = bond funds; EF = equity funds; MF = mixed funds; FF = funds of funds; OF = other funds; SRF = special real estate funds; SSF = special securities funds; SAF = special alternative investment funds; SPF = special professional investor funds.
The possibility to establish and manage new categories of special common fund is advantageous for management companies in that it makes for less restricting limits on the exposure to a specific counterparty. This means in practice that a management company may, for example, invest a larger proportion of a special fund’s assets in its parent company, which in most cases will be a bank. Therefore funds accumulated in special common funds may be used to finance the parent bank of the management company’s financial group. It may be supposed that the switching of unit-holders from standard common funds to special common funds is to a certain extent the result of an active policy on the part of management companies.

Almost the entire decline in the NAV of foreign collective investment undertakings was at the expense of money market funds and other funds, which to some extent mirrors the situation in the domestic part of the sector. Both the mixed and bond funds of foreign CIUs saw a decline in the amount of assets under management. On the other hand, equity funds and funds of funds reported a smaller increase.

Looking at the composition of domestic common fund portfolios, the most significant changes were an increase in the share of bank deposits and a decline in the bond component. This pattern was observed to varying extents in several categories of common fund (money market funds, short-term investment funds, bond funds, and other funds). In equity funds, the share of directly purchased equities declined, while indirect exposure through common funds with an equity investment policy increased.

**Improved performance in all common fund categories**

The performance of common funds in the first half of 2012 was relatively favourable. All fund categories managed to achieve positive returns on the assets under their management. The increase in net values of fund shares/units was most pronounced in the first quarter, when the values of a broad range of assets increased amid an easing of market tensions related to the euro area crisis. Equity funds reported the largest nominal appreciation, more than 10% in annualised terms, closely followed by bond funds (9%). At the other end of the performance spectrum were money market funds and short-term investment funds with returns of less than three percent. In other categories, the annualised return for the six months was in the region of around five percent.

In year-on-year terms, the aggregate return for all categories was higher as at 30 June 2012 that at the end of 2011. Nevertheless, some categories directly or indirectly featuring an equity component (equity funds, mixed funds, funds of funds) remained in negative territory. The performance of bond funds improved significantly year-on-year, with the rate of return increasing from a slightly negative level to almost 4%. Special real estate funds continued to be the best performing category, with an annual rate of return of 5%.

The sector maintained profitability growth on the basis of cost reductions

The total net profit of domestic management companies for the first half of 2012 amounted to €4.424 million, which was 21% higher than the profit for the first half of 2011. Income from fees and commissions, which accounts for a major part of management companies’ revenue, nevertheless declined by 12%. The increase in profit-
ability was achieved by cutting costs to a greater extent. Fee and commission expenses fell by as much as one-quarter year-on-year and savings were also made in operating expenses. All management companies made a profit for the period, although in three cases it fell short of the profit reported for the first half of 2011.
2.5 INVESTMENT FIRMS

The total volume of securities trading in the first half of 2012 fell year-on-year by 13%, but this decline did not affect trading in financial derivatives. The amount of assets managed by companies holding an investment firm licence increased by 3% during the period.

The year-on-year decline in the volume of securities trading stemmed largely from lower trading in the following: securities issued by foreign collective investment undertakings, money market instruments, bonds, and other securities. As for transactions in financial derivatives, their amount remained unchanged and in nominal terms they accounted for more than 80% of all transactions.

Banks consolidated their pre-eminent position in the investment market. By 30 June 2012 banks’ investment arms were conducting 99.6% of the transactions in this sector.

The amount of customer assets managed by entities licensed to manage a customer securities portfolio (investment firms, banks and certain management companies) increased from €1.96 billion to €2.03 billion in the first half of 2012.
RISKS IN THE SLOVAK FINANCIAL SECTOR
3 Risks in the Slovak Financial Sector

The quality of the banking sector’s household loan portfolio improved in the first half of 2012. Loan repayment behaviour was generally sound during the period under review, supported by the relatively positive developments in certain indicators affecting households’ debt-servicing burden. Households were benefitting in particular from a period of low interest rates. An important aspect of banks’ credit risk was that unemployment did not increase significantly. On the other hand, the changing composition of unemployment can be assessed negatively since people in higher-income and middle-income categories – the main recipients of bank loans – constitute an increasing share of the total unemployed.

A more pronounced increase in the loan-to-value (LTV) ratio for new housing loans was observed in certain banks during the first six months of the year. In the context of falling residential property prices, this represented a negative development despite being confined to a few institutions. Banks were using higher LTV ratios as a means of competition, with a possible adverse effect on the behaviour of other banks.

The corporate sector saw a number of positive trends (e.g. growth in sales, exports, new orders). The prospects for these trends are uncertain due to the deteriorating situation in the euro area and the fact that they are heavily concentrated in the domestic automotive industry. Since banks expected credit risk to rise, they tightened credit standards; nevertheless, the ratio of non-performing loan remained stable. After the serious turbulences in financial markets towards the end of 2011, the situation calmed somewhat in the first half of 2012 with share prices and exchange rates becoming less volatile. Nevertheless, persisting fears about the sustainability of public finances in some euro area countries continued to influence bond yields of certain sovereigns. As a result of the positive developments, some of the losses incurred at the 2011 from the revaluation of portfolios could be recouped. In almost every sector, the riskiness of the portfolio increased to some extent due to changes in the portfolio composition. In particular, the equity investment component increased and the duration of the bond portfolio became longer.

The main risk for banks and insurance companies was an increase in credit spread risk on debt securities in marked-to-market portfolios. The share of these portfolios in the insurance sector is particularly high. Pension funds, collective investment funds and unit-linked insurance funds were exposed mainly to equity risk (which increased in the first half of 2012) and to credit spread risk. Following amendments to the Act on Retirement Pension Saving, the risk exposure of PFMC pension funds began to increase in the first half of 2012. Equity investments reappeared in their portfolios and the duration of the portfolios become longer. Nevertheless, the PFMC sector remains far less risky than other segments of the Slovak financial market.

Fears about a prolonged period of low yields on risk-free assets posed another risk. Such a situation could lead to investors in pension funds and less risky collective investment funds earning lower than expected returns. In such a situation, insurance companies may find it difficult to ensure the returns guaranteed in insurance contracts unless they increase the risk exposure of their investment portfolios.

3.1 Credit Risk in the Banking Sector

3.1.1 Credit Risk in the Household Sector

Improvement in the quality of household loan portfolios

In the second half of 2011 the ratio of non-performing loans (NPLs) in the household loan portfolio ceased declining, thereby suggesting a change in the positive trend observed since the beginning of the year. In fact, however, the ratio resumed its downward trajectory in the first six months of 2012. The NPL ratio for loans to households improved in almost all banks and across most types of household loan. The overall NPL ratio at the end of June 2012 stood at 4.25%
(down from 4.63% in December). The NPL ratio for consumer loans fell even more markedly, and there was also an improvement in the quality of the intermediate loan and mortgage loan portfolios.

The outstanding amount of non-performing household loans declined as well, and the changed composition of loans contributing to this amount was also favourable. Most of the decline was attributable to the repayment, or improvement in quality, of non-performing loans, i.e. to non-performing loans being partly reclassified as performing. If there had been no sales or write-downs of NPLs, the total amount of NPLs would have increased, albeit only marginally and with only a slight effect on the decline in the NPL ratio.

The first six months saw minimal reclassification of loans, i.e. easing of credit conditions in order to smooth the repayment of a loan.

The only detraction from the overall positive picture in households’ debt servicing was an increase in the ratio of loans past due by up to 90 days (loans past due by over 90 days are usually classified as non-performing). But although the ratio increased to 5.6% of the total amount of household loans in the period under review, it remained at its long-run average.

**Housing affordability did not change significantly**

After falling sharply towards the end of 2011, the consumer confidence indicator rallied in the first half of 2012 and ended the period at the level recorded in the beginning of 2011. Thereafter, consumer sentiment remained more or less flat.

A simplified calculation of how selected variables affect the debt-servicing burden implies that there were no significant changes in the burden during the first half of 2012. As interest rates declined further, households continued to lower their debt-servicing costs by arranging new interest rate fixation periods or refinancing old loans with new loans. The debt-servicing burden was also alleviated by an increase in nominal wages in the first half of the year. On the other hand, higher inflation had an adverse effect.

Further confirmation that household credit risk barely changed was provided by the housing af-
The housing affordability index, which indicates the accessibility of housing loans on the basis of household income. Affordability increased primarily due to a continuing decline in property prices, rise in income, and decline in interest rates. There was, however, a downward pressure from the tightening of bank credit standards (see Chart P44 Housing Affordability Index).

The labour market situation remained largely unchanged in the first half of 2012.

The effect of the labour market situation on household credit risk did not change significantly in the first half of the year. Unemployment fell moderately, and the decline in the total number of unemployed largely comprised mainly people in lower-income and middle-income categories. An important aspect of the long-term trend is that people in higher-income and middle-income categories constitute an increasing share of the total number of registered unemployed. This share has risen from 40% at the start of 2009 to more than 50% at present, the significance being that bank loans are heavily concentrated among these groups of households.

Employment remained flat, continuing its trend from the end of 2011. There was, however, a decline in employment in some sectors (manufacturing, construction). Expectations for the future employment situation are mostly negative. After a long positive trend, employment expectations in industry entered negative territory in the second quarter.

The loan-to-value (LTV) ratio increased in the first half of 2012.

The average LTV ratio for new housing loans from banks increased moderately during the first half of 2012. This is an adverse trend, particularly in the context of the continuing decline in residential property prices, since banks are increasing their credit risk by reducing the collateral coverage of the unpaid principal in the event of loan default. This situation is largely reflective of the strong competition in the banking sector, since raising the LTV ratio is one of the ways that a bank can compete with its rivals. Only in certain banks was there a marked increase in the LTV ratio from the beginning of 2012.
Housing loans are among the most promising and fastest-growing products in the domestic banking sector. The banking sector’s exposure to housing loans has soared over the past five years, from 11% to 21% of total assets. The issue of banks’ sensitivity to this market segment is raised by a combination of the increasing importance of housing loans, movements in property prices (mainly downward since 2009), and the relatively dynamic policies of banks regarding loan-to-value ratios.

This sensitivity test therefore focuses on the effect of a decline in property prices combined with an increase in the ratio of non-performing loans. In general, banks are not at significant risk from a decline in property prices if the ratio of non-performing loans remains constant. A key factor in banks’ relatively low sensitivity to declining property prices is that the average loan-to-value (LTV) ratio has been fluctuating between 63% and 73% since 2009, which on average provides a buffer against prices falling by up to around 30%. Another factor is that almost four years have passed since the period when loans were being extended with an average LTV of close to 100%; the principals of these loans have gradually declined, which in turn has improved the current LTV ratio and therefore resulted in a lower amount of loans not covered by collateral. It remains the case, however, that as regards the provision of loans with insufficient collateral, the greatest risk lies in loans dating back to the first half of 2008, which today have an average LTV of more than 100%. On the other hand, their share of the total portfolio is not significant.

The combination posing the greater risk to the banking sector is a decline in property prices and increase in non-performing loans. On average, however, only a relatively harsh worsening of both variables would result in significant losses to the banking sector. Even with property prices declining by 50% and the NPL ratio increasing to 50%, the banking sector as a whole would maintain a Tier I ratio of 10%. These results are far more robust than those from a similar calculation carried out in the first quarter of 2010. The reason is not only that more time has passed since the high-LTV period, but mainly that the Slovak banking sector now has a much stronger capital position, which determines its overall resilience to any negative shocks. At the same time, however, the relatively strong general resilience to the average LTV ratio is not shared by those banks which provided a higher proportion of loans with relatively higher LTV ratios.

Source: NBS, NBS calculations.
Note: The chart shows how a combination of a decline in property prices and the NPL ratio affect core capital adequacy ratio.
3.1.2 CREDIT RISK IN THE NON-FINANCIAL CORPORATIONS SECTOR

Uncertain prospects in the corporate sector

Several indicators of corporate sector developments showed an improvement in the first half of 2012. In particular there were favourable results in foreign trade, continual growth in overall sales in the corporate sector, and, in the industry segment, an increase in new orders and labour productivity. But while these developments appear positive, they also raise a number of issues.

The first is that several economic and business statistics for Slovakia stand in contrast to unfavourable statistics for the euro area, including trading partners of Slovakia (Chart 8). It is therefore assumed that the Slovak corporate sector cannot over the longer term sustain results which are better than those of its trading partners. This nexus is reflected in business sentiment in Slovakia, which has showed an uncertain development in response to declines in confidence in destination countries for Slovak exports.

A second issue is the degree of concentration in the Slovak corporate sector, referring in particular to the significant contribution made by the automotive sector to export growth and total sales during the period under review. Furthermore, strong results in this segment may not necessarily affect firms that are customers of domestic banks, given that the banking sector provides only minimal financing to the automobile industry. Thus there remains an asymmetry between concentration of performance in the corporate sector and the degree to which banks finance top-performing firms.

A separate problem is sales in the construction sector, which have been falling at an increasing pace since the end of 2011. The annual rate of decline in construction sales stood at 14% in June, meaning that sales were down to 81% of their pre-crisis level. Segments of the corporate sector in which sales were back to pre-crisis levels were more the exception than the rule.

Increased stability in the commercial real estate market

Lending to the commercial real estate market remains one of the highest risks of the domestic banking sector, and its importance has con-
continued to increase. It is therefore positive that the situation in this market stabilised somewhat during the period under review, although there was little change in several problematic development projects.

The office vacancy rate in Bratislava fluctuated between 10.2% and 11.2% during the last four months, which in comparison with rates elsewhere in central Europe is very favourable and is not putting downward pressure on prices. In the residential segment, the marketability of new apartments was moderately higher than in summer of 2011, although it has been slowing down since the beginning of 2012.

**Banks Expect an Increase in Credit Risk**

The uncertainty about the future macroeconomic situation weighed heavily on banks’ expectations for corporate credit risk, and a majority of banks tightened credit standards in the first half of 2012. This was particularly apparent in interest rate margins, which increased throughout the period under review, mainly on the smallest loans (by almost 1 percentage point).

**Stability in Loan Quality**

An important development for the stability of the banking sector is the relative stability in non-performing loans, in terms of both their ratio to total loans and absolute amount. In contrast to the situation in 2009 and 2010, the portfolio is being actively cleansed and therefore the amount of NPLs is falling relatively sharply month-on-month. This decline may also be related to changes in tax legislation, under which claim write-down costs may be recognised only after a period of three years. Since the bulk of NPLs dates back to the beginning of the crisis in 2009, they have, naturally, to a large extent been written down in 2012.

Cleansing of NPLs was observed in the loan portfolios of almost every segment. The only exception was the loan portfolio for the commercial real estate and hotel segment, which continued to record steady growth in the amount of NPLs.
3.2 MARKET RISKS AND LIQUIDITY RISK

3.2.1 CREDIT SPREAD RISK

Although the markets calmed to some extent, credit spread risk remains the most significant market risk for all segments of the financial market.

After experiencing serious turbulences towards the end of 2011, the bond markets – particularly in euro area countries – became somewhat calmer during the first half of 2012. The government bond yields of most countries either declined or remained flat during the period under review. An exception was Greece, which underwent debt restructuring in March. At that time there were three companies in the Slovak financial market which held Greek bonds in their portfolios, with a total value of €220 million.

The situation in high-rated countries continued to improve in the second quarter of 2012, as their sovereign bond yields fell to all-time lows. Spreads also narrowed on some lower-rated countries, namely Hungary and Portugal, while yields on sovereign debt of Italy, Spain and Ireland increased sharply in the second quarter, towards the 7% threshold. Slovenian’s government bond yields also rose significantly, but remained lower than Spain's.

<table>
<thead>
<tr>
<th>Table 4 Investments in debt securities of selected countries as a share of total assets (%)</th>
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<tbody>
<tr>
<td>Banks</td>
</tr>
<tr>
<td>XII.10</td>
</tr>
<tr>
<td>VI.11</td>
</tr>
<tr>
<td>XII.11</td>
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<tr>
<td>VI.12</td>
</tr>
</tbody>
</table>

SPMC funds

| XII.10 | 0.1 | 0.9 | 0.6 | 0.8 | 0.8 | 7.4 |
| VI.11  | 0.1 | 0.6 | 0.2 | 0.9 | 1.0 | 2.7 |
| XII.11 | 0.0 | 0.5 | 0.2 | 0.9 | 1.3 | 2.6 |
| VI.12  | 0.0 | 0.6 | 0.2 | 1.1 | 0.8 | 2.1 |

PFMC funds

| XII.10 | 0.3 | 2.1 | 1.9 | 0.4 | 0.4 |
| VI.11  | 0.9 | 0.1 | 0.1 | 0.9 | 1.9 |
| XII.11 | 0.3 | 0.1 | 0.6 | 0.9 | 2.4 |
| VI.12  | 0.0 | 0.6 | 1.4 | 2.4 | 2.9 |

Mutual funds

| XII.10 | 0.2 | 1.4 | 0.3 | 0.5 | 0.1 | 0.1 | 0.8 |
| VI.11  | 0.1 | 1.5 | 0.3 | 0.4 | 0.1 | 0.0 | 1.5 |
| XII.11 | 0.1 | 1.5 | 0.1 | 0.4 | 0.1 | 0.0 | 1.6 |
| VI.12  | 0.2 | 0.2 | 0.5 | 1.0 | 0.0 | 1.3 |

Insurers (excl.-unit-linked insurance policies)

| XII.10 | 0.1 | 0.1 | 0.2 | 2.6 | 0.2 | 0.1 | 0.3 |
| VI.11  | 0.1 | 0.2 | 0.2 | 2.5 | 0.1 | 0.0 | 0.6 |
| XII.11 | 0.2 | 0.2 | 0.2 | 2.4 | 0.1 | 0.0 | 0.6 |
| VI.12  | 0.2 | 0.2 | 0.2 | 2.3 | 0.0 | 0.0 | 0.6 |

Unit-linked insurance policies

| XII.10 | 0.3 | 0.3 | 1.2 |
| VI.11  | 0.1 | 0.3 | 1.2 |
| XII.11 | 0.1 | 0.3 | 1.2 |

Source: NBS.

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

An empty cell denotes a non-zero value.

The figure 0.0 denotes not a zero value but a negligible value (less than 0.05).

The lower-rated countries here include Cyprus, where the exposure of the banking sector is 0.1% of assets and that of other sectors is zero.
**Banks’ overall exposure to the lowest-rated countries fell, but remains concentrated**

As Table 4 shows, the banking sector’s overall direct exposure to the riskiest EU countries through the securities portfolio (including financial instruments held-to-maturity) is relatively low (less than 1.5% of assets), and it declined further during the first half of 2012 due mainly to the restructuring of Greek debt. However, the risk is concentrated among a few institutions.

**Exposures of other financial market participants changed slightly in composition**

The largest exposures in the sectors of PFMCs, SPMC and collective investment are to Slovenian sovereign debt, and in the insurance sector, to Italian sovereign debt. The exposure composition in each sector changed only slightly and it is difficult to identify a common trend. For example, the SPMC sector’s exposure to Spanish and Slovenian debt declined, while the PFMC sector’s exposure to these sovereigns increased.

### 3.2.2 A SYSTEMIC VIEW ON OTHER MARKET RISKS IN THE SLOVAK FINANCIAL SECTOR

The exposure of financial institutions to certain market risks changed quite significantly during the first half of 2012. Firstly, each segment saw...
an increase in the duration of its overall asset portfolio, based mainly on lengthening of the securities portfolio duration (except in the banking sector, where it increased only slightly). In the PFMC and collective investment sectors, the increase in duration was largely attributable to an increase in the residual maturity of the bond portfolio.

Except in the insurance sector, the share of equity investments rose moderately, at the expense of either bond investments (in the PFMC and collective investment sectors) or deposits (SPMC sector). Relatively large changes were also observed in exposures to foreign exchange risk, with the banking sector reporting an increase in its open position and other segments a decline. The largest open positions were in US dollars, Czech korunas and Polish zlotys. The koruna and zloty positions declined during the period under review, while the dollar position increased.

### 3.2.3 THE MOST SIGNIFICANT MARKET RISKS IN INDIVIDUAL SEGMENTS OF THE FINANCIAL MARKET

**Interest rate risk in the banking book increased**

The portfolio of debt securities revalued at fair value through profit and loss constituted 2.6% of the banking sector’s assets as at 30 June 2012. Of that share, Slovak debt securities (mainly government bonds and mortgage bonds issued by Slovak banks) accounted for approximately 90%.

Other securities that banks mark to market include bonds in the available-for-sale portfolio. A downward revaluation in this portfolio does not, however, affect the bank’s profit, but it does reduce its capital and therefore its capital adequacy ratio as well.18 The average duration of this portfolio remained largely unchanged, to stand at 2.5 years as at the end of June. This implies that if credit spreads increased by 100 basis points the portfolio value would decline by 2.5%, causing the capital adequacy ratio to fall by approximately 0.4 percentage point. In the banking sector as a whole, the AFS portfolio is dominated by Slovak bonds with a share of 87%, but in certain individual banks it includes securities issued by lower-rated countries.

As for general interest rate risk in the banking sector, occurring mainly in the banking book, it increased during the period under review due also to an increase in duration.

**The overall exposure of the banking sector to equity and foreign-exchange risk remains low**

In most banks, neither the overall net foreign exchange position nor the amount of equity investments exceeded 5% of own funds. Hence foreign exchange risk and equity risk can be considered as low.

**Concerning other market risks, insurers are exposed mainly to interest rate risk**

Since insurers report low proportions of equities and common fund shares/units in their asset portfolio and have a small foreign exchange position, their main exposure is to interest rate risk and credit spread risk. These risks are accentuated by the long duration of the bond portfolio and by the large share of bonds in marked-to-market portfolios, which by 30 June 2012 had increased to 66%.

Around 7% of this portfolio consists of bonds covering technical provisions for unit-linked insurance policies. Since the customer bears the risk under unit-linked insurance policies, this part of the portfolio does not constitute a risk to insurers. A change in the valuation of these

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18 This reduction in own funds is due to the introduction of a new deductible item as of 31 May 2011.
bonds is reflected in the insurer’s liabilities by a change in the provision for unit-linked insurance policies. The rest of the portfolio, however, is an exposure of the insurer.

This risk may materialise either through a movement in the risk-free interest rate curve (i.e. general interest rate risk) or by an increase in credit spread risk. If the risk-free interest rate increases, the adverse effect on the valuation of assets will be partially offset by a decline in reserves, as the risk-free interest rate is used as a discount rate in the calculation of their value. On the other hand, where bonds drop in value owing to a rise in the issuer’s credit risk premium, there is no offset. The exposure of insurers to lower-rated countries is concentrated on Italy. They would be affected most by an increase in the credit spread risk on Slovak government bonds, which make up 59% of the portfolio.

The assets used by insurers to cover technical provisions for unit-linked insurance policies consist mainly of equities, common fund shares/units, and bonds with a longer duration. These assets are therefore exposed mainly to equity risk and interest rate risk. The only higher risk sovereign debt in the bond portfolio consists of Hungarian and Irish government bonds, which account for less than 2% of the total portfolio.

The risk of low interest rates was most pronounced in the insurance sector, since insurance portfolios include life insurance contracts under which returns are guaranteed. In an environment of low in-

The risk of a prolonged period of low interest rates increased

After government bond yields increased towards the end of 2011, long-term yields on less risky sovereigns fell to record levels during the period under review. At the same time there was a decline in inflation expectations, and therefore an increase in the risk that interest rates would remain low for a longer period. Due, however, to uncertainty in financial markets, an increase in credit spread risk was observed. With these spreads rising there has so far not been any significant decline in yields on financial asset investments. Nevertheless, the risk of lower returns on assets could materialise in the near future. In the insurance sector, moreover, low risk-free rates put downward pressure on the valuation of technical provisions. Because of credit spread risk, assets were not revalued upwards and therefore the profits, and in some cases solvency, of insurance companies declined.
terest rates, insurers may struggle to ensure guaranteed returns and may therefore be constrained to make riskier investments. Chart 86 shows the guaranteed interest rate in life insurance, which in 2011 remained unchanged at 3.86% per annum, one of the lowest levels in Europe.\(^\text{20}\) In 2011 the average return on 10-year Slovak government bonds was higher in 2011 than in 2010, it declined again in the first half of 2012 to below 3.5% per annum. At present the residual maturity of the insurance sector’s bond portfolio remains sufficiently high. If, however, insurers continued to face low interest rates and were therefore constrained to reinvest a significant part of their portfolio in current circumstances, they would struggle to achieve the guaranteed investment return.

### THE RISK OF A DECLINE IN THE PENSION UNIT VALUE FOR PFMC FUNDS REMAINED LOW DESPITE CHANGES IN THE ASSET STRUCTURE

Despite the abolition of so-called “guarantees” in equity and mixed pension funds and the introduction of index funds, the risk exposure of PFMC portfolios did not increase significantly in the first half of 2012. The funds with the highest exposure were index funds, since between 83% and 92% of their assets were investments in ETFs\(^\text{21}\) tracking a stock index. The indices tracked are usually broad ones such as MSCI World, DJ Eurostoxx, and so on. The volatility of the current pension unit value for index funds is large and is similar to that for equity funds and collective investment funds. The assets invested in these funds, however, constitute less than 0.5% of the total assets in PFMC funds.

Equity investments (including EFTs) began to reappear in equity and mixed funds, but their amount is not yet so large that the exposure to such investments would significantly affect the volatility of the pension unit. The largest downside risk to the pension unit value is therefore that the duration of the bond portfolio will be lengthened by an increase in the residual maturity of the bonds in the portfolio. Since all funds have a duration within the range of 0.6 year to 1.6 years, their risk exposure increased only slightly. Although investments in Spanish and Slovenian sovereign debt increased, exposure to lower-rated countries remained limited.

Other risks are negligible. The only significant downside risk to funds’ assets is the failure of a bank or banks in which funds have deposits, but the risk to deposits is very low unless they are held with banks based in higher risk countries.

### THE RISK EXPOSURE OF SPMC FUNDS INCREASED; EQUITY RISK REPRESENTED THE HIGHEST RISK

The risk profiles of SPMC funds range from those of conservative funds that have no investments in equities or common fund shares/units to those of funds that invest between 50% and 60% of their assets in such instruments. As a share of the assets managed by all SPMC funds, these investments represent 17.5%. The exposure of the SPMC funds’ portfolio to interest rate risk and credit spread risk is increasing as the duration of securities in the portfolio lengthens.

The exposure of SPMC funds to fiscally troubled countries lies mainly in investments in sovereign debt of Italy and Slovenia. The sector’s exposure to these countries is not large, but it is concentrated.

Although the exposure to foreign exchange risk declined, it remains higher than in any other sec-

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\(\text{20}\) Source: The European Insurance and Occupational Pensions Authority.

\(\text{21}\) ETF – exchange-traded funds. The objective of the investment policy for such funds in the PPFO portfolio is to track the value of the selected stock index.
tor. The main components of this exposure are open positions in US dollars and, to a lesser extent, in Polish zlotys, resulting from investments by higher-risk funds in foreign currency denominated assets. Other funds have a low exposure to this risk.

**The collective investment sector is exposed mainly to equity risk; bond funds are also exposed to credit spread risk**

The principal risk facing the collective investment sector as a whole is equity risk. For equity funds, mixed funds and funds of funds, equity risk remains the largest risk. As a share of the net asset value (NAV) of collective investment funds, investments in equity instruments were almost unchanged from December 2011 and moved largely in line with stock market developments. Bond funds are exposed mainly to interest rate risk, consisting largely of credit spread risk. Although only a small proportion of the sectoral portfolio consists of investments in securities issued by lower-rated countries, namely Slovenia (4%) and Italy (1.5%), these exposures are, as a rule, concentrated among a few funds and constitute a significant part of their investment portfolios. Slovenian sovereign debt accounts for between 25% and 35% of the portfolio in three funds, Italian debt for more than 10% in two funds, Irish debt for between 9% and 22% in four funds, Hungarian debt for between 10% and 24% in seven funds, and Spanish debt for more than 10% in four funds.
3.2.4 MEASURING MARKET RISKS USING VALUE AT RISK (VAR)

Value at Risk increased due to a rise in equity risk

Overall VaR increased in all segments apart from insurance in the first half of 2012, due mainly to an increase in equity risk (even in the insurance sector). The higher equity risk reflected a rise in equity investments as a share of portfolio value. Foreign exchange risk declined in all segments owing to a decline in open foreign exchange positions as well as an increase in exchange rate volatility.

Among the individual segments, the risk exposure of PFMC sector increased by the largest margin, but remained the lowest. This increase was most attributable to equity risk and interest rate risk, which mounted due to increases in equity positions and duration.

With bond markets becoming somewhat calmer and exposure to the most fiscally troubled countries declining, a decrease in credit spread risk was observed in the SPMC, insurance, and collective investment sectors. This was most pronounced in the insurance sector due to the long duration of its portfolio. General interest rate risk increased in the collective investment sector as a result of the longer duration of the collective investment portfolios.

In the collective investment sector, credit spread risk is concentrated in bond funds. Other funds are exposed mainly to equity risk and interest rate risk. As for special real estate funds, they are low risk because the VaR model does not capture the risk of a change in the prices of the properties to which they are most exposed. The risk exposure of unit-linked insurance policies is similar to that of the highest-risk types of common fund.

<table>
<thead>
<tr>
<th>Table 6 VaR in financial market segments (%)</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Insurers</td>
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<tr>
<td>Unit-linked insurance</td>
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<td>PFMC funds</td>
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<tr>
<td>Mixed funds</td>
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<tr>
<td>Equity funds</td>
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<tr>
<td>Bond funds</td>
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<tr>
<td>Index funds</td>
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<tr>
<td>SPMC funds</td>
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<tr>
<td>Payout funds</td>
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<tr>
<td>Contributory funds</td>
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<tr>
<td>Common funds</td>
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<tr>
<td>STI funds</td>
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<tr>
<td>Bond funds</td>
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<tr>
<td>SRE funds</td>
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<tr>
<td>SS funds</td>
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<tr>
<td>Nixed funds</td>
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<tr>
<td>Funds of funds</td>
</tr>
<tr>
<td>Equity funds</td>
</tr>
</tbody>
</table>

Source: NBS, NBS calculations.
Notes: The values are given as a percentage share of total assets (or NAV); they represent quartiles or the asset-weighted average for each group of institutions.
VaR was calculated over a period of 10 days at a confidence level of 99%.
STI funds – short-term investment funds, SRE funds – special real estate funds, SS funds – special securities funds.
3.2.5 LIQUIDITY RISK IN THE BANKING SECTOR

SLIGHT IMPROVEMENT IN THE OVERALL LIQUIDITY POSITION OF THE SLOVAK BANKING SECTOR

A number of liquidity risk trends observed in 2011 continued in the first half of 2012. The key positive trend was the further growth in household deposits, which are a stable source of funding for banks. Household deposits as a share of total liabilities stood at almost 43% in June 2012. It is also positive that the highest growth was recorded by term deposits with an agreed maturity of between three months and one year. Furthermore, the composition of liabilities in terms of liquidity is highly stable in the Slovak banking sector when compared to other euro area countries. The Slovak banking sector reports the highest share of primary deposits in total liabilities and has the lowest reliance on external and interbank funding.

A slight increase in the proportion of mortgage bonds maturing within two to five years put a downward pressure on the liquidity risk. Long-term refinancing operations (LTROs) conducted with the central bank can be considered neutral...
from the liquidity risk perspective, since the collateral used for these operations was predominantly in the form of Slovak government bonds, one of the most liquid financial instruments in banks’ portfolios. Therefore the liquidity of the Slovak banking sector has not been artificially overvalued by the effect of monetary policy operations.

Stability in long-term liquidity
The loan-to-deposit ratio\(^\text{22}\) remained balanced in the first half of 2012, due largely to a combination of, on the one hand, robust growth in household deposits and, on the other hand, a continuing slowdown in lending to enterprises and the onset of a slowdown in lending to households.

The value of the loan-to-deposit ratio, after taking into account mortgage bonds issued and including deposit holdings of the Debt and Liquidity Management Agency (ARDAL), stood at 82% in June 2012, down from 84% in December 2011 (see Annex, Chart P51).

Moderate improvement in short-term liquidity
The liquid asset ratio\(^\text{23}\), which indicates the degree of liquidity risk over a horizon of one month, improved moderately in the first half of 2012, increasing from 1.34 to 1.47. This reflected both an increase in liquid assets and a decline in volatile liabilities from March. Those banks focused on the household sector continued to have relatively low liquid asset ratios (see Annex, Chart P52).

\(^{22}\) The loan-to-deposit (LTD) ratio is an indicator of long-term liquidity; it is defined as the ratio of customer loans to customer deposits after taking into account the obligation to issue mortgage bonds. An LTD ratio of less than 1 indicates sound long-term liquidity and self-sufficiency of the banking sector, while an increase in the ratio indicates a weakening of this position.

\(^{23}\) The liquid asset ratio is defined as the ratio of liquid assets to volatile liabilities over a horizon of one month. Its level should not fall below 1.
MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR
4 MACRO STRESS TESTING OF THE SLOVAK FINANCIAL SECTOR

Macro stress testing aims at assessing the resilience of the Slovak financial sector’s to adverse trends in the real economy and in financial markets. In the recent exercise, three scenarios were designed for that purpose, each covering the period from the end of the first half of 2012 to the end of 2014 (2.5 years). The baseline scenario is based on Národná banka Slovenská’s official medium-term forecast made in the second quarter of 2012. This scenario assumes a gradual growth in real GDP and declines in inflation and unemployment. The stress scenarios “Economic Downturn” and “Sovereign Crisis” assume that a decline in external demand causes a marked downturn in the domestic economy at the beginning of the period under review. The Sovereign Crisis scenario anticipates adverse trends resulting mainly from the intensification of the euro area sovereign debt crisis.

The banking sector’s resilience to negative scenarios as at 30 June 2012 was similar to its level at the end of 2011. Whereas losses on Greek sovereign debt worsened the outcomes slightly under the previous stress testing, the negative impact of the scenarios is somewhat heavier in the latest testing owing both to the scenarios being more stringent and to the effect of legislative changes in case of bank levy. Under the baseline scenario, the total additional capital needed to meet the threshold by all banks is 0.1% of own funds (as at 30 June 2012) for the sector as a whole, while under the Economic Downturn and Sovereign Crisis scenarios it stands at 1.5% and 3.0% respectively. There are, however, two factors that continue to help banks contain the adverse impacts of the stress scenarios. The first is banks’ relatively robust capital buffer as at 30 June 2012 and the second is the sector’s assumed ability to generate net interest income. Corporate credit risk remains the principal risk to the sector as a whole, although in some banks, depending on the scenario, household loan losses would exceed corporate credit risk losses. There are also banks in which market risk losses would constitute a substantial share of total losses. PFMC funds continue to show negligible sensitivity to the risk factors in the stress tests. The only exception is index funds, which would be highly sensitive to a decline in equity prices. As for SPMC funds, they would record relatively high losses under the stress test conditions, although the distribution of these losses would be quite heterogeneous across funds. The key loss-determining factor for SPMC funds would be the proportion of equities and common fund shares/units in their investment portfolio; the highest losses of the funds would result from their exposures to equity risk, indirect interest rate risk and indirect foreign exchange risk.

Looking at collective investment funds, the composition of their investments did not change significantly from the end of 2011, and this was reflected in the stress test results. The principal risks for collective investment funds are equity risk and indirect foreign exchange risk; the effect of these risks shows considerable cross-fund heterogeneity, varying according to the proportion of equities and common fund shares/units in a fund’s total assets.

Insurance companies would be affected mainly by interest rate risk (including sovereign risk) and to a lesser extent by equity risk. Nevertheless, the impact of interest rate risk would be dampened by the relatively long duration of the debt securities portfolio. Together with large losses on the technical account, however, such a development could be a potential threat to the insurance sector.

4.1 DESCRIPTION OF SCENARIOS USED

A standard part of the Analysis of the Slovak Financial is macro stress testing; as usual, it is aimed at assessing the financial sector’s resilience to adverse macroeconomic developments and financial market strains. Scenarios are designed so as to simulate the impact of the largest...
number of risk factors that appear to be relevant to the Slovak financial sector.

As usual, the scenarios comprise one baseline and two stress scenarios. In this case all three scenarios cover the period from the end of June 2012 to the end of 2014.

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

**Baseline scenario**
The baseline scenario is based on the official medium-term forecast of Národná banka Slovenska. Hence the domestic economy’s growth is expected to be driven mainly by external demand, although in 2012 it is expected to reflect also the relatively low level of demand at the turn of the year. Investment activity is not assumed to record any significant upturn in 2012, but it should accelerate moderately in subsequent years as a corollary of growth in economic activity. The main component of investment activity is expected to be private investment. At the same time, household consumption is expected to increase gradually in line with income developments.

The baseline scenario assumes a gradual decline in inflation, with no upward pressure on prices from the real economy.

**Scenario: Economic downturn**
The scenario assumes that external demand will decline at the beginning of the stress period due to global economic performance being worse than expected. Demand should be further dampened by supply-side inflation pressures stemming from unrest in the Middle East. Demand is not expected to show any significant improvement during the stressed period, while adverse developments in the real economy are expected to weigh on financial markets. The scenario assumes that the euro will depreciate vis-à-vis the US dollar, that credit spreads will increase and will be reflected in money market rates and government bonds yields, and that stock indices will fall.

These adverse developments are expected to result in a downturn in the domestic economy, entailing both a slowdown in GDP growth and an increase in unemployment. The inflation rate is assumed to come under upward pressure from the abovementioned factors as well as from the fiscal consolidation requirements.

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**Chart 91 Annual GDP growth – baseline and stress scenarios (%)**

**Chart 92 HICP inflation – baseline and stress scenarios (%)**
**Scenario: Sovereign Crisis**

In the Sovereign Crisis scenario, the negative developments described in the previous scenario are assumed to be amplified by an escalation of the euro area sovereign debt crisis. Due to mounting uncertainty about the future situation in euro area countries, external demand would decline more sharply and the deterioration in market indicators would be more severe in this scenario than in the Economic Downturn scenario.

As under the previous scenario, these developments would result in an economic downturn and increases in unemployment and inflation, but under the Sovereign Crisis scenario the negative effects would be more pronounced.

### 4.2 Scenario Impacts

**The banking sector’s resilience was slightly weaker in the latest stress tests than in the previous ones**

The stress testing results for the banking sector are comparable to those obtained in the previous testing. The number of banks failing to meet the minimum capital adequacy requirement of 9% would be one under the baseline scenario, two under the Economic Downturn scenario and five under the Sovereign Crisis scenario. The total additional loss absorbency required to meet the 9% threshold would be €4 million (0.1% of own funds as at 30 June 2012) under the baseline scenario, €73 million (1.5%) under the Economic Downturn scenario, and €148 million (3.0%) under the Sovereign Crisis scenario.

Losses on Greek sovereign debt made a negative contribution to the results of the stress test performed at the end of 2011. In addition to the negative impact of these losses, the negative effects are even more pronounced in the latest testing owing both to the scenarios being more stringent and to the new bank levy being applicable over the whole stress testing period. Disregarding the bank levy, the total additional loss absorbency requirement would be €41 million (0.8%) under the Economic Downturn scenario and €81 million (1.6%) under the Sovereign Crisis scenario. In the baseline scenario, no bank
would fall below the minimum capital adequacy requirement (9%).

**A Robust Capital Buffer and an Ability to Generate Net Interest Income Continue to Strengthen the Banking Sector’s Resilience to Adverse Economic Developments**

As observed in previous stress testing exercises, the banking sector’s resilience is strengthened by its relatively strong capital buffer. As at 30 June 2012 no bank in the sector reported a capital adequacy ratio of less than 12.5%. As a consequence, many of the banks would not fall below the regulatory capital threshold even under scenarios where they are projected to make a loss over the given period. In the case of the baseline scenario a total of five banks would make a loss for the 2.5-year period (after taking into account the bank levy). That number would increase to seven banks under the Economic Downturn scenario and to eleven banks under the Sovereign Crisis scenario. At the same time, however, no bank would have a CAR of less than 8% under the baseline scenario. The number of banks falling below that threshold under the Economic Downturn and Sovereign Crisis scenarios would be two and three respectively.

Along with the capital buffer, the ability to generate net interest income is a key factor in helping banks to contain the effects of adverse economic developments. It should be noted, however, that the stress testing does not take account of the fact that an economic downturn may be accompanied by increasing competition between banks, with the possible result of decreasing net interest income.

**Credit Risk Remains the Most Significant Risk in the Sector, Although Some Banks Would Report Also Significant Market Risk Losses**

For the banking sector as a whole, corporate credit risk remains most significant, since estimated losses on the corporate loan portfolio would exceed other risk losses.

Household credit risk continues to be the second most significant risk in the banking sector. But although, at the sectoral level, the estimated loss on corporate loans is higher than that on household loans, in some banks these positions are reversed. Under the baseline scenario, three banks would report higher losses on the household loan portfolio than on the corporate...
loan portfolio, and under both of the stress scenarios that number would rise to five.

Estimated market risk losses (comprising losses on equity investments, foreign exchange investments and the revaluation of securities) remained lower than credit risk losses. Nevertheless, there were two banks in which market risk losses under the Economic Downturn scenario would exceed corporate loan losses or household loan losses. This number increased to four under the Sovereign Crisis scenario. In one of the four banks the market risk loss was largely attributable to the revaluation of bonds (mainly Slovak government bonds); in the other banks it was caused principally by losses on foreign exchange and equity investments.

A Further Risk to the Banking Sector is the Outflow of Profits

Given the composition of the Slovak banking sector, a further risk to domestic banks and branches of foreign banks is the outflow of profits. The stress testing results were therefore adjusted to include the assumption that the profit (less bank levy deduction) would be paid out in full (100%) as a dividend.

Although the application of this assumption did not alter either the number of banks that would exceed the regulatory capital requirement, nor the total loss absorbency requirement, the average capital adequacy ratio for the sector as a whole fell relatively sharply under all scenarios. Thus the sector’s capital buffer is assumed to decline. Nevertheless, even under this assumption, the sector’s CAR is at an acceptable level.

Along with index funds, PFMC funds would not be severely affected by financial market strains

Bond, mixed and equity PFMC funds would in general not be seriously affected by the adverse market developments simulated in the stress testing. Owing to the composition of their investment portfolios, funds would be most exposed to interest rate risk (along with sovereign risk) and, in the case of mixed and equity funds, to equity risk. Although PFMC funds generally saw their risk exposure increase slightly, not one would make a total loss exceeding 1.8% of assets.

Far worse results would be reported by index funds, again owing to the composition of their investments. Since index funds invest almost exclusively in exchange-traded funds, the sharp
drop in stock indices simulated in the stress scenarios would impair the asset value of all of these funds by more than 40%.

**THE PRINCIPAL RISK TO SPMC FUNDS WOULD ARISE FROM INVESTMENTS IN EQUITIES AND COMMON FUND SHARES/UNITS, BUT THE IMPACT WOULD BE CONSIDERABLY HETEROGENEOUS**

SPMC funds would make relatively large losses under the stress test conditions, although the distribution of these losses would show significant cross-fund heterogeneity. The key loss-determining factor for SPMC funds would be the proportion of equities and common fund shares/units in their investment portfolio; the funds reporting the highest losses would be those with the largest exposures to equity risk, indirect interest rate risk and indirect foreign exchange risk. The largest losses as a share of total assets as at 30 June 2012 would be observed under the Sovereign Crisis scenario, and they would range from 1.2% to 67.4%.

Since SPMC payout funds have conservative investment portfolios, containing a high share of short-term bank deposits, the most of them would not be significantly affected under the stress scenarios.
from the end of 2011, and this was reflected in the stress test results. The principal risks for collective investment funds are equity risk and indirect foreign exchange risk; the effect of these risks shows considerable heterogeneity across funds, varying according to the proportion of equities and common fund shares/units in a fund’s total assets. Interest rate risk (together with sovereign risk) exceeded these risks mainly in bond funds.

**Several insurance companies would make a loss if an increase in insurance risk was accompanied by a deterioration in financial market**

Insurance companies would be affected mainly by interest rate risk (including sovereign risk) and to a lesser extent by equity risk. The impact of interest rate risk would, however, be dampened by the relatively long duration of the bond securities portfolio. Because of this duration, the level of interest income is only slightly impaired under the stress scenarios.

In conjunction with heavy losses in the technical account, this situation would represent a potential risk to the insurance sector.\(^{26}\) The highest losses would stem from the revaluation of securities, exceeding also losses in non-life insurance. The losses in non-life insurance are much higher than in 2011, which saw highly favourable developments in the loss ratio in non-life insurance.

The highest losses of insurers under the stress tests would be recorded mostly in 2012, when market risk losses are expected to peak and

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\(^{26}\) Due to a shortage 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.
claim costs in non-life insurance are assumed to increase markedly. Insurers’ losses would moderate in subsequent years under the stress scenarios, even while claim costs in life insurance increase as a result of higher death rates.

At the end of the period under review, a total of six insurers would be loss-making. This number would rise to 13 under the Economic Downturn scenario and 14 under the Sovereign Crisis scenario.
### Table 8 Stress testing parameters

<table>
<thead>
<tr>
<th>Baseline assumptions</th>
<th>Baseline assumptions</th>
<th>Baseline assumptions</th>
<th>Baseline assumptions</th>
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</thead>
<tbody>
<tr>
<td>Change in external demand</td>
<td>3%</td>
<td>6%</td>
<td>7%</td>
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<tr>
<td>Change in USD/EUR exchange rate</td>
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<td>0%</td>
<td>0%</td>
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<td>Change in exchange rates of the CHF, JPY, GBP, DKK, CAD, HRK, LVL against the EUR</td>
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<td>0.0%</td>
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<tr>
<td>Change in exchange rates of other currencies against the EUR</td>
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<td>0.0%</td>
<td>0.0%</td>
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<td>Change in equity prices</td>
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<td>0.0%</td>
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<td>Change in the ECB key rate</td>
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<td>0 b.b.</td>
<td>25 b.b.</td>
</tr>
<tr>
<td>Change in the 3-month Euribor</td>
<td>8 b.b.</td>
<td>-1 b.b.</td>
<td>27 b.b.</td>
</tr>
<tr>
<td>Change in 1-year discount rate (EUR)</td>
<td>5 b.b.</td>
<td>-31 b.b.</td>
<td>22 b.b.</td>
</tr>
<tr>
<td>Change in 2-year discount rate (EUR)</td>
<td>42 b.b.</td>
<td>24 b.b.</td>
<td>18 b.b.</td>
</tr>
<tr>
<td>Change in 5-year discount rate (EUR)</td>
<td>60 b.b.</td>
<td>75 b.b.</td>
<td>17 b.b.</td>
</tr>
<tr>
<td>Change in the 5-year iTraxx Senior Financials index</td>
<td>-0.7%</td>
<td>-50%</td>
<td>-50%</td>
</tr>
<tr>
<td>Change in 5-year German government bond yields</td>
<td>60 b.b.</td>
<td>75 b.b.</td>
<td>17 b.b.</td>
</tr>
<tr>
<td>Change in 5-year Slovak government bond yields</td>
<td>60 b.b.</td>
<td>75 b.b.</td>
<td>17 b.b.</td>
</tr>
<tr>
<td>Change in German government bond yield curve</td>
<td>8 b.b.</td>
<td>0 b.b.</td>
<td>0 b.b.</td>
</tr>
<tr>
<td>Change in Slovak government bond yield curve</td>
<td>-13 b.b.</td>
<td>0 b.b.</td>
<td>0 b.b.</td>
</tr>
<tr>
<td>Macroeconomic variables</td>
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</tr>
<tr>
<td>Annual real GDP growth</td>
<td>2.5%</td>
<td>3.1%</td>
<td>4.3%</td>
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<tr>
<td>HICP inflation</td>
<td>2.9%</td>
<td>1.8%</td>
<td>2.0%</td>
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<tr>
<td>Unemployment</td>
<td>13.8%</td>
<td>13.0%</td>
<td>12.1%</td>
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<td>Credit risk variables</td>
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<tr>
<td>Annual probability of default</td>
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<tr>
<td>Non-sensitive sectors</td>
<td>1.5%</td>
<td>1.1%</td>
<td>0.8%</td>
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<tr>
<td>Less sensitive sectors</td>
<td>1.8%</td>
<td>2.1%</td>
<td>1.7%</td>
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<tr>
<td>Sensitive sectors</td>
<td>4.8%</td>
<td>4.6%</td>
<td>4.1%</td>
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<tr>
<td>Non-performing loan ratio for household loans</td>
<td>5.5%</td>
<td>5.4%</td>
<td>5.0%</td>
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<tr>
<td>Insurance risks</td>
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<tr>
<td>Non-life insurance</td>
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<tr>
<td>Average loss ratio</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
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<tr>
<td>Life insurance – supplementary insurance</td>
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<td></td>
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<tr>
<td>Average loss ratio</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
</tr>
<tr>
<td>Life insurance – risk of death</td>
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<td></td>
<td></td>
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<tr>
<td>Average loss ratio</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
<td>Identical to the situation in 2011</td>
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</tbody>
</table>

Source: NBS:

1) In the case of the baseline assumptions, the column for the second half of 2012 shows the change occurring between the end of June 2012 and the end of 2012, while the columns for the other years show the annual rate of change.

2) The slope of the yield curve for government bonds is in this case defined as the difference between the yields on 5-year and 1-year government bonds.
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR
MACROPRUDENTIAL INDICATORS OF THE FINANCIAL SECTOR

GENERAL NOTES:
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. 
Notes: 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. 
Notes: A definition of the indicator is given in the section Glossary and abbreviations.
Chart P3 Consumer confidence indicators in the United States

Source: Bloomberg.
Notes: The Chart shows US consumer confidence indices constructed by two different institutions.

Chart P4 Economic sentiment indicators in the euro area

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

Chart P5 Unemployment rates in selected economies (%)

Notes: Seasonally adjusted.

Chart P6 Consumer price inflation in selected economies (%)

Notes: Annual percentage change in the Consumer Price Index.
Annex 1

Chart P7 Industrial production indices in selected countries

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

Chart P8 Industrial new orders indices in selected economies

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

Chart P9 General government balances of EU countries in 2011 (%)

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

Chart P10 Gross government debt of EU countries in 2011 (%)

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

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

Source: Bloomberg, NBS calculations.

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

Source: Bloomberg, NBS calculations.

Chart P13 Equity indices (31 December 2010 = 1)

Source: Bloomberg, NBS calculations.

Chart P14 Share price indicies of the parent undertakings of the 5 largest domestic banks (31 December 2010 = 1)

Source: Bloomberg, NBS calculations.
**Chart P15 Steepness of the yield curve in selected economies**

Source: Bloomberg, NBS calculations.
Notes: 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.
Notes: 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.
Notes: 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.
Notes: 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.
Notes: ESI – Economic Sentiment Indicator.

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.
Chart P27 Interest rate spread on new loans to enterprises (%)

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

Chart P28 Non-performing loans and probabilities of default

Source: NBS.

Chart P29 Loans at risk (%)

Source: NBS.

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

![Chart P31 Commercial real estate: prices and occupancy rates in the office segment](chart1.jpg)

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

### Chart P32 Residential real estate: sales

![Chart P32 Residential real estate: sales](chart2.jpg)

Source: Lexxus, NBS calculations.

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

![Chart P33 Comparison of corporate balance sheets and sales (%)](chart3.jpg)

Source: NBS, SO SR.

### Chart P34 Liabilities of non-financial corporations by composition (%)

![Chart P34 Liabilities of non-financial corporations by composition (%)](chart4.jpg)

Source: NBS.
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.

Chart P37 Changes in the number of unemployed by income category

Source: Central Office of Labour, Social Affairs and Family.
Notes: The income categories are defined in the section Glossary and abbreviations.
Vertical axes: number of jobseekers.

Chart P38 Index of employment in selected sectors

Source: SO SR.
Notes: 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.
Notes: Left-hand scale: ratio of non-performing household loans to total household loans.
M A R K E T  R I S K  A N D  L I Q U I D I T Y  R I S K  I N D I C A T O R S

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.

Source: Bloomberg, NBS calculations. Notes: The data represent the loss (as a percentage of assets) under each scenario of the sensitivity analysis. The sensitivity analysis is described in more detail in the section Glossary and abbreviations.
**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.
**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.
Notes: ARDAL – Debt and Liquidity Management Agency.

**Chart P52 Liquid asset ratio**

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

Source: NBS.
GLOSSARY AND ABBREVIATIONS
GLOSSARY OF TERMS USED

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

**Average annual return on pension funds** – an indicator calculated as a weighted average of the annual percentage changes (APC) in the daily values (DV) of pension units of the respective pension funds. The year-on-year percentage changes in the daily values of pension units are calculated as at 30 June 2012 (APCDVPU 30.6.2012) according to the following formula:

\[
PMZDIHDJ_{30.6.2012} = \left( \frac{DJ_{30.6.2012}}{DJ_{30.6.2011}} - 1 \right) \times 100\%
\]

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 funds management companies for the days 30 June 2011 and 30 June 2012, which are available on the website of Národná banka Slovenska.

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

**Average return on a PFMC's pension fund** – the moving average of the following: the year-on-year percentage changes in the daily pension unit values of a pension fund managed by a pension funds management company, 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** – the sum of expense ratio and loss ratio.

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

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

Household income categories – a categorisation based on the KZAM employment classification and KZAM income data; it consists of three categories: higher-income category (income of over €800 per month) – legislators, senior officials and managers, scientists, professionals, technicians, health professionals, and teaching professionals; middle-income category (income between €600 and €800 per month) – office workers, craft and skilled workers, processors, and plant and machinery operators; lower-income 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 bývanie a jeho interpretácia” (Developments in the housing loan market and their interpretation), Nehnutelnosti a bývanie 2010 (Real Estate and Housing), Vol. no 2, Bratislava, 2010.

HTM (held to maturity) portfolio – portfolio of financial instruments 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 inter-bank 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 enterprises 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 claims cost 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 common 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.
PFMC – pension funds management company.

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

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

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

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

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.

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 fur Europäische Wirtschaftsforschung (Centre for European Economic Research), a private economic research institute based in Germany.
## Abbreviations

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<th>Description</th>
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<tr>
<td>APCDVPU</td>
<td>year-on-year percentage change in daily values of pension units</td>
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<td>BF</td>
<td>balanced fund</td>
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<td>b.p.</td>
<td>basis point</td>
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<td>CAR</td>
<td>capital adequacy ratio</td>
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<td>CF</td>
<td>conservative fund</td>
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<td>CI</td>
<td>collective investment</td>
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<tr>
<td>CLI</td>
<td>composite leading indicator</td>
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<tr>
<td>CMV</td>
<td>comprehensive motor vehicle (insurance)</td>
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<tr>
<td>CR n</td>
<td>index of the concentration of n largest institutions</td>
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<tr>
<td>CZK</td>
<td>Czech koruna</td>
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<tr>
<td>ECB</td>
<td>European Central Bank</td>
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<td>ECJ</td>
<td>Court of Justice of the European Union</td>
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<tr>
<td>EIB</td>
<td>European Investment Bank</td>
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<tr>
<td>ETF</td>
<td>exchange traded funds</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>EUR</td>
<td>euro</td>
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<tr>
<td>Euribor</td>
<td>Euro Interbank Offered Rate</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>GF</td>
<td>growth fund</td>
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<td>HHI</td>
<td>Herfindahl index</td>
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<tr>
<td>IF</td>
<td>investment firm</td>
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<tr>
<td>IRB</td>
<td>internal rating based (approach)</td>
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<tr>
<td>KZAM</td>
<td>Klasifikácia zamestnani / Employment Classification</td>
</tr>
<tr>
<td>LAR</td>
<td>loans at risk</td>
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<tr>
<td>LGD</td>
<td>loss given default</td>
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<tr>
<td>Li</td>
<td>life insurance</td>
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<td>LTV</td>
<td>loan-to-value (ratio)</td>
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<tr>
<td>MB</td>
<td>mortgage bond</td>
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<tr>
<td>MTPL</td>
<td>motor third-party liability (insurance)</td>
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<tr>
<td>NAV</td>
<td>net asset value</td>
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<tr>
<td>NBS</td>
<td>Národná banka Slovenska</td>
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<td>NLJ</td>
<td>non-life insurance</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OF</td>
<td>own funds</td>
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<td>PFMC</td>
<td>pension funds management company</td>
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<tr>
<td>p.p.</td>
<td>percentage point</td>
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<td>RBLG</td>
<td>Register of Bank Loans and Guarantees</td>
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<tr>
<td>ROA</td>
<td>return on assets</td>
</tr>
<tr>
<td>ROE</td>
<td>return on equity</td>
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<tr>
<td>SKP</td>
<td>Slovenská kancelária poistovateľov / Slovak Insurers’ Bureau</td>
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<tr>
<td>SMEs</td>
<td>small and medium-sized enterprises</td>
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<td>SPF</td>
<td>supplementary pension fund</td>
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<tr>
<td>SPMC</td>
<td>supplementary pension funds management company</td>
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<td>SO SR</td>
<td>Statistical Office of the Slovak Republic</td>
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<td>SR</td>
<td>Slovak Republic</td>
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<tr>
<td>Tier 1, Tier 2</td>
<td>types of capital measured for the purposes of capital adequacy ratios</td>
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<tr>
<td>ÚPSVaR</td>
<td>Office of Labour, Social Affairs and Family</td>
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<tr>
<td>USD</td>
<td>US dollar</td>
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<td>VaR</td>
<td>value at risk</td>
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