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Contents

EXECUTIVE SUMMARY 4

1 EXTERNAL CONDITIONS FOR FINANCIAL STABILITY 6
1.1 Financial stability assumptions for Slovakia based on developments in the global economy and financial markets 7
1.2 Financial position of the euro area banking sector and its effect on the domestic banking sector 12

2 FINANCIAL STABILITY DEVELOPMENTS IN THE SLOVAK ECONOMY 16
2.1 Overall development of the Slovak economy 17
2.2 Medium-term risks resulting from the domestic macroeconomic environment 21

3 NON-FINANCIAL CORPORATE AND HOUSEHOLD SECTORS 22
3.1 Non-financial corporate sector 23
3.2 Household sector 25
3.3 Medium-term risks in the non-financial corporate and household sectors 27

4 FINANCIAL SECTOR DEVELOPMENTS AND RISKS 29
4.1 The banking sector 31
4.1.1 Financial position of the banking sector 31
4.1.2 Risks in the banking sector 34
4.2 The insurance sector 37
4.3 The collective investment sector 39
4.4 The pension savings sector 40
4.5 Macro stress testing of the financial sector 43

ANNEXES
1 Indebtedness of advanced countries and its impact on economic growth 48
1.1 Possible causes of differences in debt levels between advanced and developing countries 48
1.2 Debt accumulation: contributions and risks 49
1.3 The current crisis in the light of previous financial meltdowns 49
1.4 Outlook for economic growth in advanced countries in regard to their debt burden – global and national factors 50
2 Macroeconomic imbalances in euro area countries and the position of Slovakia 60
2.1 Imbalances in euro area countries 60
2.2 Measures to correct excessive imbalances at EU level 63
2.3 Developments in Slovakia 64
2.4 Open questions relating to the Macroeconomic Imbalance Procedure and its effectiveness 67

ABBREVIATIONS 70

LIST OF CHARTS AND TABLES 72

Národná banka Slovenska has been publishing its Financial Stability Report on a regular basis since 2004 and twice a year since 2005. The report always includes annexes containing an article on a current topic, or an analytical study on a selected issue, relevant to financial stability.

The objective of the Financial Stability Report is to provide timely identification of risks to financial stability in Slovakia, and thereby to help prevent the emergence in the financial system of dysfunctionalities that could impair economic performance. The report focuses on risks arising in the external environment (in the global economy and financial markets) and in Slovakia (in the real economy, public finances, and financial sector).

Unlike previous reports, which covered periods of either half a year or a full year, this latest edition of the Financial Stability Report is prepared as at May 2012 using data from the beginning of 2011 to May 2012. The assessment of risks in the domestic financial sector is based on data available as at the end of the first quarter of 2012. The data used in the report are taken from Národná banka Slovenska (NBS), the European Central Bank (ECB), the Statistical Office of the Slovak Republic (SO SR), Eurostat, and other external sources.

Executive summary

Conditions for financial stability in Slovakia deteriorated during 2011 due mainly to developments in the external environment. Against a backdrop of various temporary shocks, forecasts for global economic growth over the next two years were already being revised down in the second quarter of 2011. The worsening outlook for GDP fuelled investor fears about public debt sustainability in several advanced countries. Through the summer and autumn these fears were to an increasing extent centred on the euro area, where the sovereign debt crisis was quite rapidly taking on a systemic character. Its escalation caused a further sliding of performance outlooks for key destination economies for Slovak exports.

Markets became somewhat calmer in the first months of 2012 for a combination of reasons: the Eurosystem's extensive non-standard measures; a political agreement on strengthening fiscal discipline in the euro area; and the fact that governments of the most vulnerable countries carried out specific reforms to support competitiveness and fiscal consolidation measures. Nevertheless, the situation in financial markets remained strained and highly uncertain in the context of elevated private and public debt as well as the weak state of several euro area economies. Since such conditions tend to result in a flaring of investor risk aversion, rather than early stabilisation, the risk of a further deepening of the euro area sovereign debt crisis remains high. This was evident in May 2012, when the outcome of Greece's general election resulted in rising fears for the integrity of the euro area and in related turbulences in financial markets. The risk of an escalation in the euro area crisis is therefore one of the most significant risks to financial stability in Slovakia. This is apparent from an indicator of strains in Slovakia's economic and financial system, which implies that these strains being amplified mainly by external factors.

The economic situation in Slovakia was relatively sound in the first half of 2011. Conditions in the corporate sector were more favourable than those in the household sector. There was increasing profitability, particularly at export-oriented firms and in sectors with a monopoly character. In the second half of 2011, however, the corporate sector reported decelerating export and sales growth as uncertainty mounted in the external environment. Real household income was pushed down by higher inflation. As for the relatively positive trends in the labour market, they also began to change in the last quarter of 2011. On the lending front, a number of households improved their financial position by refinancing their debts with new lower-interest loans. Meanwhile the consolidation of public finances was affected by one-time extra-budgetary effects. In the end, however, the situation was better than expected.

The Slovak economy in 2011 proved to be relatively resilient to heightened tensions in the external environment. On the one hand, this was related to factors conducive to the country's macro-financial stability (relatively low indebtedness of households, firms and the public sector, and the sound financial position of the banking sector); on the other hand, economic growth was driven by manufacturing industry (particularly the automotive industry) as external demand for Slovak manufactured goods held up despite the deteriorating conditions in export destination markets. The relatively strong resilience of the economy was confirmed by better than expected figures for GDP and employment growth in the first half of 2012.

The most significant risk in the domestic environment is that the fiscal consolidation plan is not implemented. According to the information published to date, the consolidation measures planned by the new government are heavily focused on increasing budget receipts, which as a strategy for sustainably meeting consolidation targets is more risky than spending cuts. At the same time, the risk of not meeting the consolidation targets directly affects conditions for domestic financial stability.

The situation in the banking sector reflected that in the real economy, including the trends mentioned above. The profitability of the banking sector as measured by ROE increased further in

2011, although it remained below pre-crisis levels. The main factors behind these higher profits were a decline in provisioning costs and an increase in interest income from operations with enterprises. The sector's focus on households continued to increase, as inter-bank competition for loans and deposits became more intensive. Bank lending to enterprises picked up in 2011 and this trend continued in the first quarter of 2012. After growing markedly in 2010, the portfolio of securities investments remained relatively unchanged in 2011. Then in the first quarter of 2012 the banking sector significantly reduced its investments in bonds issued by foreign governments. The capital adequacy ratio of the sector increased to solid levels.

Stress testing confirmed that in the event of external risks materialising, the financial stability of the sector would be maintained. The resilience of banks was further supported by their strong capital position and their ability to generate interest income even in adverse conditions. Although the banking sector as a whole remains exposed principally to corporate credit risk, several banks reported a higher exposure to household credit risk. Market risks – particularly in the form of risk premia on government bonds in the held-for-trading and available-for-sale portfolios – are significant only in certain banks and not in the sector as a whole. The main holdings in these portfolios are Slovak government bonds. The overall direct exposure of the banking sector to the lowest-rated EU countries constitutes less than 2% of its assets.

Contributing significantly to the overall stability of the sector and to its resilience to the shrinking of balance sheets by crisis-affected euro area banks is the fact that most domestic banks fund their lending activities out of domestic funds and the sector as a whole is not dependent on external funds. However, this positive feature of the banking sector has been fading for a long time.

CHAPTER 1

EXTERNAL CONDITIONS FOR FINANCIAL STABILITY

1

1 EXTERNAL CONDITIONS FOR FINANCIAL STABILITY

As the euro area sovereign debt crisis escalated and took on a systemic character in the second half of 2011, it had an adverse effect on conditions for domestic financial stability. This had a dampening effect on global economic activity, and as world growth slowed in the second half of 2011, the assumptions for domestic economic activity deteriorated. The related turbulences in financial markets adversely affected the financial asset portfolios and profitability of domestic financial institutions.[1] In regions of the world crucial for Slovak exports, we assume that economic and financial conditions will gradually improve, but remain very difficult, over the next one to two years.

The most significant external risks to domestic financial stability over this horizon are the following interconnected risks:

- an escalation of the euro area sovereign debt crisis due to mounting risk aversion based on various factors. The outlook for economic growth remains critical in this regard;[2]
- the still weak financial position of a large part of the EU banking sector, possibly exacerbated by subdued economic activity and a decline in value of banks' assets;
- the risk to the real economy from deleveraging by EU banks through excessive shrinking of their balance sheets, as a result of structural and cyclical factors.

1.1 FINANCIAL STABILITY ASSUMPTIONS FOR SLOVAKIA BASED ON DEVELOPMENTS IN THE GLOBAL ECONOMY AND FINANCIAL MARKETS

The world economy's performance in 2011 was adversely affected by several factors, but the most significant was the escalating sovereign debt crisis in the euro area in the second half of 2011.

Global economic growth slowed markedly in the second half of 2011 due mainly to the increasing intensity of the euro area sovereign debt crisis, which in the summer began for the first time to threaten the financial stability of larger countries in the monetary union (Italy and Spain). This raised fears about whether the euro area would be able to continue in its current form. The crisis subsequently began to spread from the euro area periphery to core countries (Belgium, France, Austria).

Other causes of mounting uncertainty in the world economy and financial markets during 2011 included armed conflicts in the Middle East and North Africa, natural disasters (the earthquake in Japan and floods in Thailand) that had serious humanitarian and economic repercussions, and the political impasse in the United States over fiscal consolidation. Overall, global economic activity in 2011 was considerably slower than in 2010 (Table 1) .

At the beginning of 2012, as tensions in the euro area eased, the outlook for global output and trade showed signs of improvement, but in April and May this optimism faded. Slovakia is highly exposed to the euro area, while the outlook for real activity in the euro area is far worse that for other regions of the world and it is subject to significantly higher downward risks.

The situation in the euro area was eased to some extent when the Italian and Spanish governments announced plans for fiscal consolidation and structural reform and when the ECB unveiled new non-standard measures at the beginning of December 2011. In addition the effects of the adverse events mentioned earlier had almost completely faded away. As investor risk appetite picked up and economic activity began to grow, the outlook for the global economy improved (Chart 1). However, the positive sentiments observed from the beginning of 2012 began to fade into the background relatively quickly, as new fears about the sustainability of economic recovery came to the fore. This turnaround in sentiment in April and May 2012 was related to a relapse in the euro area's situation and to worse than expected economic data from the United States.

In general, all the economic growth forecasts at this time reflected unusually high uncertainty,

1 *Profitability nevertheless increased year-on-year in all financial market segment (see Chapter 4 for more details).*
2 *A rapid economic recovery is being prevented by high levels of public and private debt in advanced countries, along with inadequate coordination of policy at the global level. This subject is further explored in Annex 1.*

Table 1 World output and world trade volume (annual percentage changes)

	2009	2010	2011	*2012*	*2013*
World output	**-0.6**	**5.3**	**3.9**	***3.5***	***4.1***
Advanced economies	**-3.6**	**3.2**	**1.6**	***1.4***	***2.0***
United States	-3.5	3.0	1.7	*2.1*	*2.4*
Euro area	-4.3	1.9	1.4	*-0.3*	*0.9*
Japan	-5.5	4.4	-0.7	*2.0*	*1.7*
Emerging economies	**2.8**	**7.5**	**6.2**	***5.7***	***6.0***
Central and eastern Europe	-3.6	4.5	5.3	*1.9*	*2.9*
Asia	7.1	9.7	7.8	*7.3*	*7.9*
China	9.2	10.4	9.2	*8.2*	*8.8*
Latin America	-1.6	6.2	4.5	*3.7*	*4.1*
World trade volume	**-10.5**	**12.9**	**5.8**	***4.0***	***5.6***

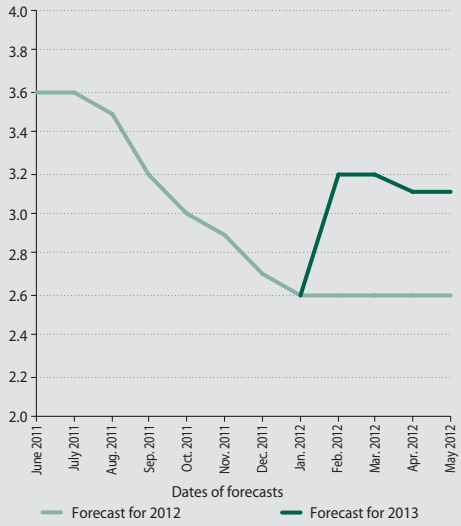
Source: IMF – World Economic Outlook, April 2012.
Note: Data for 2012 and 2013 are forecasts.

and the risks to these forecasts were predominantly on the downside. At the same time, the forecasts indicated marked differences between developments in advanced countries and emerging countries over the next two years, and also differences within the group of advanced countries, between Europe and the rest. A negative aspect of the Slovak economy is that it has the greatest exposure to the region that has the worst economic outlook and whose outlook is subject to largest downside risks.[3]

Since Slovakia is a strongly exported-oriented economy, positive impulses from regions and economies outside the EU/euro area could benefit the domestic economy.

As the European sovereign debt crisis escalated, real activity in the EU declined in the last quarter of 2011 (Table 2). In autumn 2011, in order to sta-

Chart 1 World GDP growth forecasts for 2012 and 2013 (%)



Source: Consensus Forecasts.

Table 2 GDP growth (%)

	Quarterly rate of change								Annual rate of change				
	2010			2011				2012	2009	2010	2011	*2012*	*2013*
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1					
Euro area	0.9	0.4	0.3	0.7	0.1	0.1	-0.3	0.0	-4.3	1.9	1.5	*-0.3*	*1.0*
EU 27	0.9	0.4	0.3	0.6	0.2	0.3	-0.3	0.0	-4.3	2.0	1.5	*0.0*	*1.3*

Source: Eurostat.
Note: The figures for 2012 and 2013 are taken from the European Commission's European Economic Forecast of spring 2012 (released in May); seasonally-adjusted data.

3 *Slovakia is exposed to the EU/Eurosystem not only through business ties, but also through the significant participating interests of certain Member States in the Slovak financial sector.*

bilise what had become an acute crisis, EU governments adopted new fiscal policy measures. Under the reformed Stability and Growth Pact (SGP), a majority of euro area countries are committed to measures aimed at repairing public finances.[4] However, the effects of fast and wide-ranging fiscal consolidation, along with the weak financial position of much of the banking sector (see part 1.2), will very likely lead to a deepening of the recession in the EU countries hardest hit by the crisis.[5] This was indicated in the GDP figures for the first quarter of 2012, which showed that although the euro area economy as a whole remained flat, several countries slid further into recession.

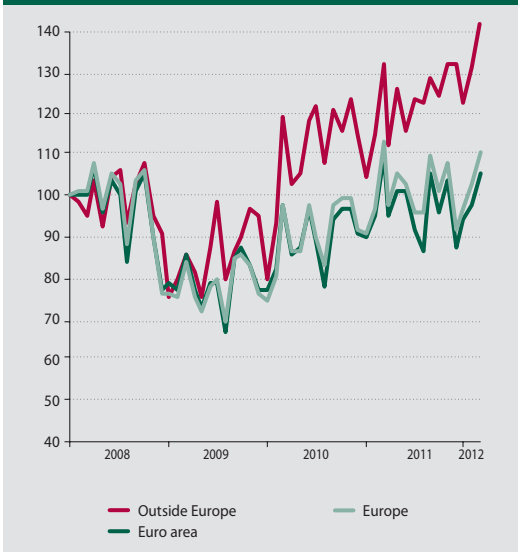
By contrast, export-oriented economies with relatively sound macroeconomic fundamentals (the Czech Republic, the Netherlands, Germany, Austria, Slovakia, and Scandinavian countries) could be better placed over the next two years to face an economic slump in Europe, mainly thanks to steady and relatively strong demand in emerging countries and increasing economic activity in the United States and Japan (Chart 2).

The intensification of the euro area debt crisis led to a marked deterioration in financial market conditions in the second half of 2011. The main reasons for the escalation of the crisis were a worsening outlook for economic growth, the strong interconnection between sovereign credit risk and the financial position of banks, and the slow adoption of remedial measures.

Between July and August 2011 market participants revised down their growth projections for several significant economies, largely on the basis of worse than expected second-quarter figures from the United States. Share prices plummeted, especially those of firms in cyclically more sensitive sectors. Risk premia on corporate bonds surged and energy prices fell sharply (Charts 3 and 4). That markets reacted so strongly to the deteriorating outlook for economic growth was related to the fact that, in the view of investors, the scope for stimulus policies had narrowed considerably in comparison with previous years.

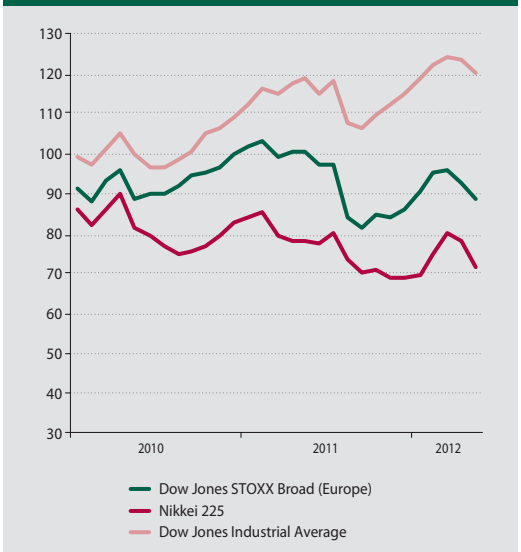
In summer 2011, amid declining expectations for the global economic growth that is essential for reducing elevated debt (private and public), investor fears about the ability of Greece, Ireland and Portugal to stabilise their public debt within the target horizon intensified significantly. The situation was not eased by the euro area summit of 21 July 2011. On the contrary, fears about the sustainability of public debt spread at the beginning of August to include the largest countries of southern Europe: Italy and Spain. These fears were founded on the weak growth in the two countries as well as the inadequate capacity of

Chart 2 German export developments (index: 2008 = 100)



Source: Deutsche Bundesbank; NBS calculations.

Chart 3 Equity indices (2005 = 100)

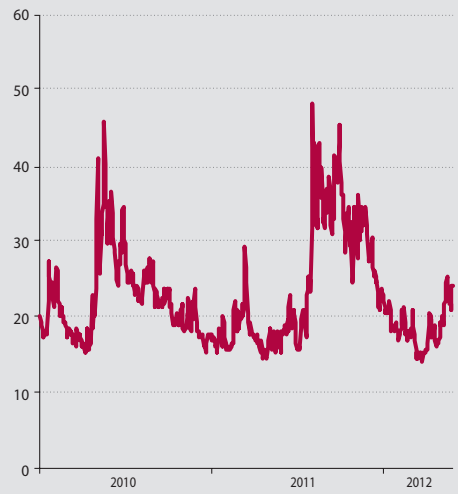


Source: Eurostat.

4 *The new SGP rules require, for example, that structural deficits be cut to 0.5% of GDP by 2016 and that the differential between excessive public debt and the target of 60% of GDP be diminished by one-twentieth per year.*

5 *Four countries plan to improve their primary balance by 2013 in comparison with 2009: Greece by 12 percentage points of GDP, Ireland and Portugal by 10 p.p. and Spain by 7 p.p.*

Chart 4 Implied volatility in equity markets measured by the VIX index



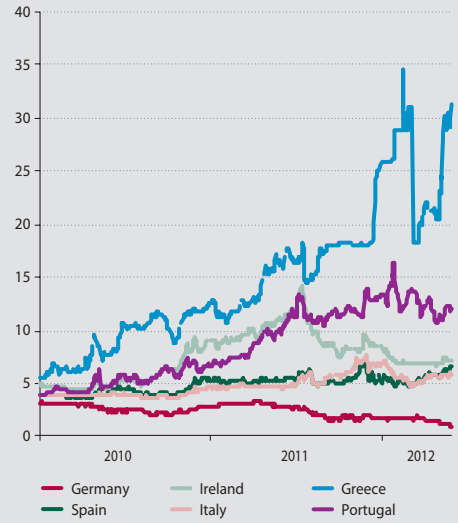
Source: CBOE.
Note: The VIX expresses the size of investors' risk aversion – a value of more than 20 indicates a high aversion to risk and a value of more than 50 indicates that investors have very serious concerns.

the European Financial Facility (EFSF) vis-à-vis the countries' outstanding sovereign debt.

Growth forecasts for advanced as well as emerging countries over the next two years continued being revised down between August and the end of 2011; however, it was investor fears about the sustainability of euro area debt levels that became the main determinant of asset prices. A combination of recession and difficulties in meeting fiscal consolidation targets put further upward pressure on government bond yields of „programme countries" Greece and Portugal (Irish bond yields fell sharply in response to Ireland's stronger export performance).[6] Political uncertainty and the downgrading of credit ratings caused Spanish and Italian bond yields to rise again (Chart 5).[7] This, together with mounting tensions in the bond markets, meant that banks found it much more difficult to tap wholesale funding. The results of the euro area summit of 26 October 2011 boosted equity markets and corporate debt markets, but the situation in government bond markets was only partly calmed.

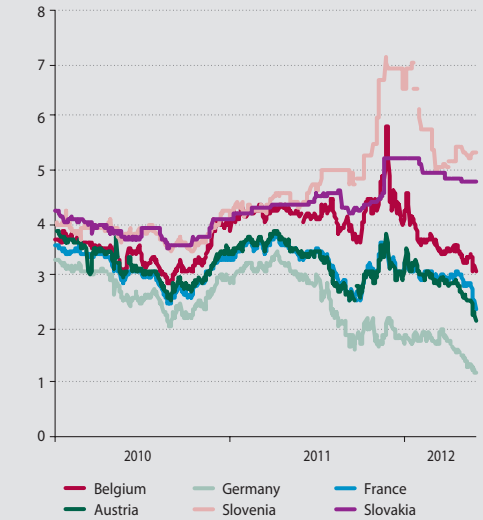
The situation in financial markets took a further dramatic turn from 1 November 2011, after the unexpected announcement of a Greek referendum on the Government's austerity measures. Although the referendum was soon called off, and despite technocratic governments taking charge in Greece and Italy, interest rate spreads on government bonds began to rise sharply again. Yields and spreads climbed in other euro area countries too, including those at the core of the monetary union which had previously been seen as safe havens (Chart 6). Even in Germany, on 23 November 2011, there was the unusual oc-

Chart 5 Yields on long-term government bonds of selected euro area countries (%)



Source: Eurostat.

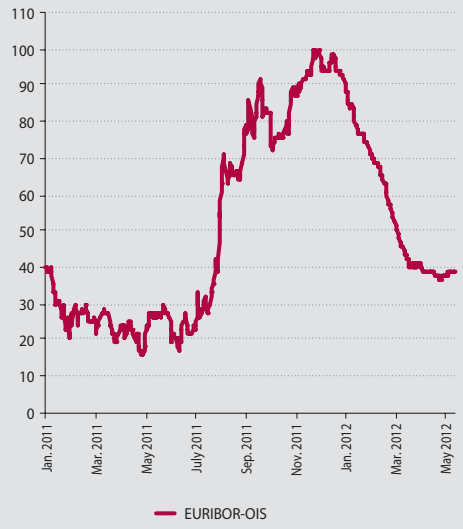
Chart 6 Yields on long-term government bonds of selected euro area countries (%)



Source: Eurostat.

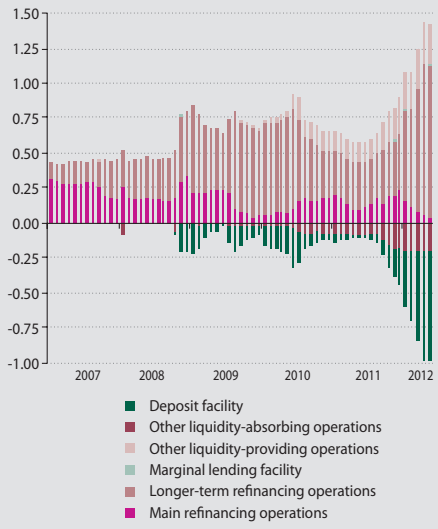
6 *A first package of EU/IMF joint financial assistance for Greece was provided on 2 May 2010, and further packages for the country were approved on 21 July 2011 and 26 October. The other countries included in the EU/IMF assistance programme are Ireland (since 28 November 2010) and Portugal (since 4 May).*
7 *The temporary decline in these countries' bond yields during August was largely due to Eurosystem purchases of these bonds.*

Chart 7 Spreads in the euro area interbank market (basis points)



Source: EURIBOR-EBF.
Note: The wider the spread, the greater the perception of counterparty risk in the interbank market.

Chart 8 Eurosystem monetary policy operations (EUR billions)



Source: ECB.

currence of an undersubscribed bond auction, with only 65% of the offer taken up. The highly elevated sovereign risk (counterparty risk) began to raise questions about the solvency of banks, which further hampered the ability of banks to obtain wholesale funding. Several banks from southern Europe were shut out of secured markets and experienced deposit flight, but French banks, too, faced considerably tighter access to new funding. The functioning of the interbank market (Chart 7) was also constrained by the ebbing of confidence, and its roles were increasingly assumed by the Eurosystem. Banks' deposits with central banks and their borrowings from central banks increased markedly (Chart 8).[8]

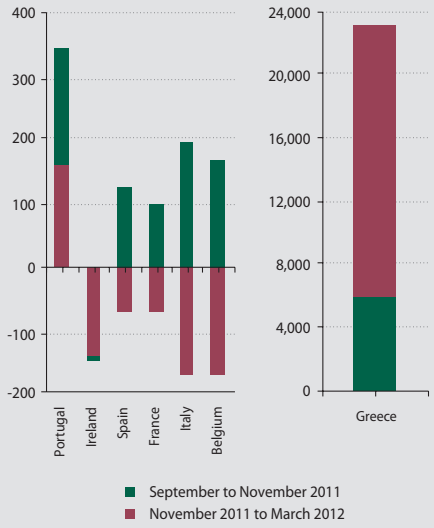
Financial conditions in the euro area banking sector became more relaxed from the beginning of December 2011 after central banks took non-standard measures (non-standard mainly in terms of their scope). This supported a decline in sovereign risks and a recovery in financial markets.

Sentiment in financial markets, including European government bond markets, received significant support at the end of November 2011 when, in a coordinated move, the Federal Reserve agreed to reduce the cost of its dollar swap line with major central banks, including the ECB. An even stronger boost for global financial markets came on 8 December, when the ECB announced it would offer unlimited amounts of collateralised loans to euro area banks through three-year longer-term refinancing operations (LTROs) and expand the pool of collateral eligible for those transactions. In two such LTROs (on 21 December 2011 and 29 February 2012) banks borrowed more than €1 billion, which constitutes approximately 80% of their outstanding debt maturing between 2012 and 2014. These measures improved market funding conditions for banks, and consequently there was a surge in bank bond issuance in the first quarter of 2012 (including in unsecured bonds issued by banks from the euro area periphery) and a decline in banks' short-term and long-term borrowing costs.

Euro area sovereigns also saw an improvement in funding conditions in the first quarter of 2012. The decrease in government bond yields was partly reflected in a reduction of sovereign credit risk, which was further confirmed by a fall in CDS premia (Chart 9). The decline in sovereign credit risk was a corollary of the improvement in banks' funding conditions, which reduced both the risk of banks failing and probably also the need to support them with public funds (Chart 10). As the pressure on bank funding eased, so too did fears of aggressive deleveraging and its impact on economic growth; this shift was also

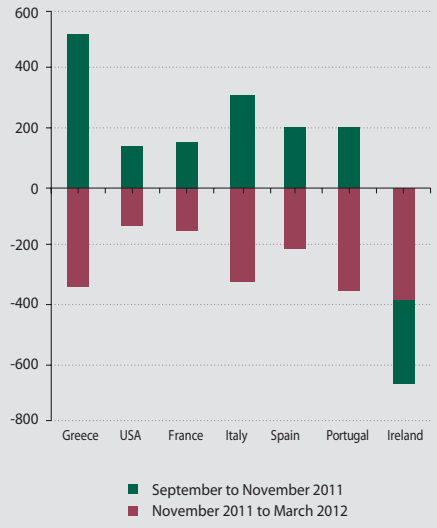
8 *More than 50 percent of the Eurosystem's total lending was to banks from France, Ireland and Italy.*

Chart 9 Changes in sovereign CDS premia (basis points)



Source: IMF – Global Financial Stability Report, April 2012.

Chart 10 Changes in bank CDS premia (basis points)



Source: IMF – Global Financial Stability Report, April 2012.

reflected in government bond prices. Another positive impulse for financial markets came from the EU Summit of 8 and 9 December 2011 when agreement was reached on the strengthening of mechanisms to secure fiscal discipline.

The positive effects of the ECB's non-standard measures were temporary. There is a risk that these measures are delaying the adoption of more effective solutions to the euro area's existential problems.

In April there were signs that the positive effects of the non-standard three-year LTROs may be weakening. Ten-year Spanish bond yields began to rise again at the beginning of March, and they were soon followed in this direction by ten-year Italian bond yields. Yields continued to climb in April, and the cost of Spanish bonds exceeded 6%. This was probably related to the fact that financial market participants had increasingly begun to attach importance to the economic growth outlook. The countries in question submitted ambitious plans for fiscal consolidation and announced a raft of measures and reforms for implementing them. These measures, however, are adversely affecting the already weak economic situation of these countries, which in turn is undermining the credibility of their fiscal targets.

Banks in Spain and Italy used new funds from the LTROs to significantly increase their holdings of government bonds.[9] This had the effect of further bolstering the interconnection and feedback loops between banks' risks and the sovereign's risks. On the other hand, one of the key measures for ensuring the long-term stabilisation of the situation in the euro area should be the mitigation or interruption of these feedback loops through the restructuring and recapitalisation of the banking sectors in the countries concerned.

Thus the reappearance of mounting investor fears is related to the impacts of fiscal consolidation on economic growth (in countries with larger fiscal multipliers) and hence the stability of banks, as well as to the feedback loops mentioned above.[10]

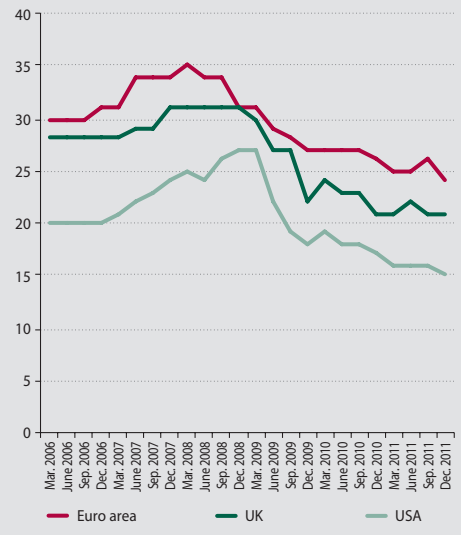
1.2 FINANCIAL POSITION OF THE EURO AREA BANKING SECTOR AND ITS EFFECT ON THE DOMESTIC BANKING SECTOR

Although the ECB's non-standard measures contributed significantly to easing the manifestations of systemic crisis in the euro area banking sector, the risks to the stability of much of this sector remain elevated.

9 *According to the BIS Quarterly Review of March 2012, net purchases government of bonds in December 2011 and January 2012 by Spanish banks amounted to more than €45 billion and those by Italian banks to almost €20 billion.*

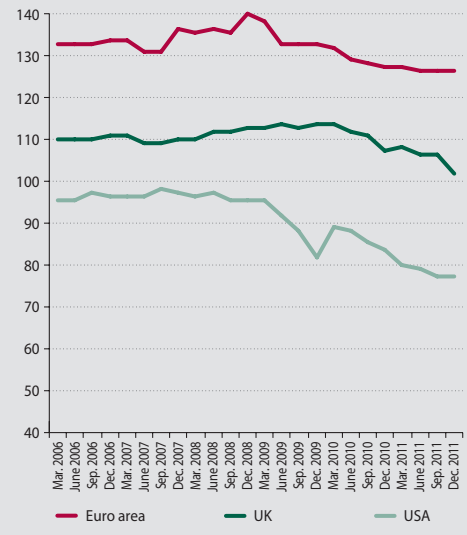
10 *May brought further uncertainty to European financial markets, owing to the presidential election in France and, in particular, the general election in Greece. The outcomes of these elections, as well as provincial elections in Germany and municipal elections in Italy, made clear the rising public opposition to government austerity measures.*

Chart 11 Bank leverage (tangible assets to Tier 1 capital)



Source: IMF – Global Financial Stability Report, April 2012.

Chart 12 Bank loan-to-deposit ratios (%)



Source: IMF – Global Financial Stability Report, April 2012.

While the non-standard LTROs helped to avert an immediate collapse of a large part of the euro area banking sector, the financial position of the sector will remain vulnerable. On the one hand, this is because banks still have high leverage (indebtedness measured at the ratio of asset to own funds) in comparison with the past and with the current standard abroad, and they are highly reliant (again in comparison with external banks) on funding from financial markets (Charts 11 and 12). On the other hand, euro area banks are exposed to elevated financial risks associated with the poor state of public finances in certain countries, the high leverage of the private sector, and adverse outlooks for economic growth and the real estate market. The negative feedback loops between all of these factors are severely complicating the situation in several banking sectors in the euro area.

The adverse conditions in financial markets and the economy are making it difficult to put banks on a stable footing through funding-side measures. Banks will have to shrink their assets.

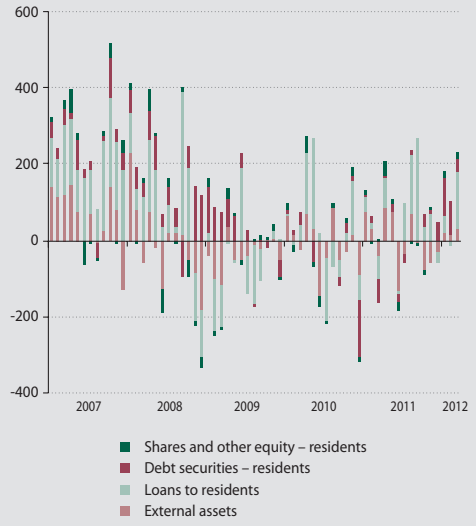
In order to alleviate pressure on their capital ratios and long-term (structural) liquidity, banks may look to shrink their assets. The alternatives to large-scale sell-offs of assets are capital increases (typically via equity issuance or retained earnings) and increasing the ratio of stable funding (retail deposits, long-term market funding). In the period between 2008 and the beginning of 2012, euro area banks increased their capital by more than €200 billion. Due to the sovereign debt crisis, however, it has been extremely difficult for them to obtain further funds from capital markets. In an adverse economic climate banks are also seeing their profits decline owing to deterioration in asset quality (and increasing provisions) and lower income.

Considering the market conditions, as well as the regulatory pressure to bolster capital and liquidity positions, it is highly probable that further strengthening of banks' financial positions will increasingly have to take place on the asset side of the balance sheet.[11] The IMF estimates that a sample of 58 large EU-based banks could shrink their combined balance sheet by €2 billion (or 7% of total assets) between the beginning of 2012 and the end of 2013. About a quarter of this deleveraging is projected to occur through a reduction in lending (by not refinancing maturing loans and/or restricting the provision of new loans). The IMF therefore assumes that most of the deleveraging will be due to sales of securities and non-core assets (for example, insurance and asset management arms of banking groups).

Deleveraging by non-resident banks is not expected to have a significant direct impact on

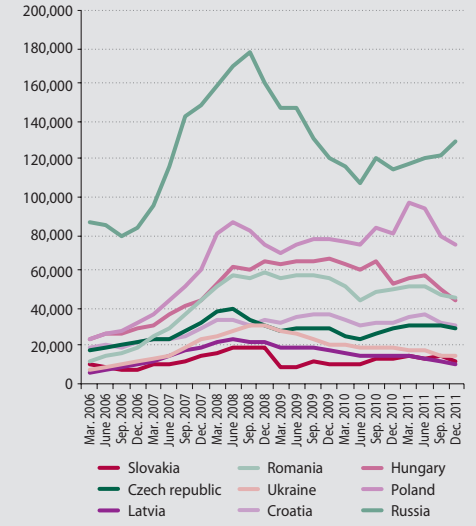
11 *Several European banks have published restructuring plans that include sizeable reductions in assets (according to an IMF survey, the reductions between 2011 and 2013 will total around €1.5 billion.*

Chart 13 Transactions of euro area monetary and financial institutions, excluding the Eurosystem (flows; not seasonally adjusted; EUR billions)



Source: ECB.

Chart 14 Loan claims of non-resident banks on selected countries of central and eastern Europe (all sectors; USD millions)



Source: BIS.

the Slovak financial sector and economy, given the relatively healthy profits in the sector, the very low reliance of resident banks on funding from non-resident parent undertakings, and the situation of relative macroeconomic stability. Nevertheless, this process could indirectly have an adverse effect on domestic economic activity.

As regards condition for domestic financial stability, it matters how the expected asset sales affect the domestic economic and banking sector. In the last quarter of 2011 euro area banks shrank their core assets by €120.5 billion, and, according to the ECB, most of that decline comprised external assets (Chart 13). At the same time, banks tightened credit standards to a significant extent and continued to do so more moderately in the first quarter of 2012. The lending activity of euro area banks also declined in the last quarter of 2011, with loans to the non-bank private sector falling by around 0.5%. Their exposure to non-residents fell markedly, by almost 4%.

The developments on the asset side of euro area banks' balance sheet confirm that banks, when compelled to shrink their balance sheets, will generally tend to shed external assets first (partly due to pressure from domestic regulators and politicians). The extent to which countries are vulnerable to deleveraging by non-resident banks will depend mainly on the share of such banks in the domestic market, the degree to which these banks rely on non-resident funding, the nature of such funding in terms of its maturity, and the potential for substituting the activity of these banks with that of other resident or non-resident banks. On that basis it is clear that the vulnerability of central and eastern Europe is relatively high. We assume, however, that non-resident bank do not take a blanket approach to the region.

Non-resident banks have been reducing their exposures to some of the region's lower-rated countries since back in 2008 (Chart 14). Certain banks (for example, Unicredit) have announced that they will scale back their activity or completely withdraw from some (less profitable) markets in central and eastern Europe.[12] We assume that non-resident banks, when deciding about reducing their exposure to the CEE region, will continue to take into account factors on a country by country basis, such as the extent of macroeconomic imbalances, the reliance of banks on external funding, government economic policies, the business potential of the market, and

12 *Austria's Volksbank sold its operations to Russia's Sberbank, although this move was more related to the receipt of financial assistance from the Austrian government and to EU competition rules.*

so on. Therefore deleveraging by non-resident banks will affect different countries of the region to varying degrees.

Slovak banks owned by non-resident banking groups are well capitalised, report relatively strong profits, and have sufficient domestic funding (see Chapter 4). Their business model is close to that which western European banks are being driven to adopt by the new regulatory regime and the market. The Slovak economy, too, is proving relatively resilient to adversities in the external environment (see Chapters 2 and 3). We therefore do not expect that the Slovak banking sector and economy will be directly affected to any significant extent by deleveraging processes at non-resident parent undertakings, although some limited impacts cannot be ruled out.[13]

The IMF's baseline scenario for the sample of European banks referred to above assumes that a higher shrinkage of assets will cause lending in the euro area to fall by 1.7% over a two-year horizon, with particularly serious repercussions for lower-rated euro area countries.[14] Through its impact on the real euro area economy, deleveraging by western European banks will also have an indirect impact on the performance of the Slovak economy.

13 *Popov a Udell (2010), for example, have empirically recorded how the approach of Slovak small and medium-sized enterprises to loans has been impaired by the sizeable financial losses that the parent companies of domestic banks incurred at the outset of the financial crisis in 2007 and 2008 from mortgage investments in the United States.*

14 *This assumption for lending growth is included in the IMF forecast for the euro area (Table 1).*

CHAPTER 2

FINANCIAL STABILITY DEVELOPMENTS IN THE SLOVAK ECONOMY

2

2 FINANCIAL STABILITY DEVELOPMENTS IN THE SLOVAK ECONOMY

2.1 OVERALL DEVELOPMENT OF THE SLOVAK ECONOMY

Domestic macroeconomic conditions were quite favourable in 2011. Although Slovakia was relatively hardly hit by the economic crisis, the slump in economic activity lasted only for a short period of time and the economy started to grow again as of 2010. Economic grow continued also in 2011, though at a slightly slower pace than in 2010. The outlook for growth was somewhat weaker, however, the economic performance of Slovakia remained satisfactory when compared with that of the euro area (or of other CEE countries). The slowdown in the performance resulted from the structure of growth, to which net exports made the largest positive contribution while domestic demand declined.

Calmer periods followed by periods of mounting uncertainty in the financial markets were reflected in changing expectations as to the future development of the euro area. Consequently, the growth outlook for the Slovak economy in 2012 is less positive compared to its performance in 2011.

Non-financial corporate profitability, restored in the aftermath of the financial crisis, contributed to the recovery in investment demand. In the corporate sector, a search for alternative sources of financing narrowed during 2011, when borrowing from the domestic financial sector was replaced by inter-company lending, market funding or the use of internal funds. Most probably, this was a shorter-term reaction of firms to the limited availability of financing during the recession, as well as to a temporary fall in demand for corporate loans. In 2011 as a whole, in contrast to the developments in the first half of the year, financing provided by the domestic financial sector was restored and banks increased their lending to a wider range of sectors.

In the period under review, economic growth was accompanied by slightly improving conditions in the labour market (employment was increasing and the rate of unemployment temporarily declined). Households restricted consumption and started to accumulate savings due to low growth of their nominal income. Expectations as to the future developments of consumer demand in Slovakia, which markedly worsened towards the end of 2011, became more optimistic in the first months of 2012.

The consolidation measures implemented in the public sector led to a lower budget deficit than expected. The temporarily heightened instability of the domestic political scene was resolved by early elections and a change of the government in March 2012. The success of the ambitious fiscal measures will depend on the strength of consolidation efforts. Compared with consolidation efforts on the expenditure side, measures taken on the income side seem to be more uncertain as to their long-term sustainability.

Despite the crisis of confidence repeatedly occurring in other sovereigns, Slovakia was able to retain the confidence of the markets. However, turbulences observed at the end of 2011 impaired Slovakia's ability to raise funds in euro markets. Therefore, the debt management strategy has been refocused on currency diversification. The reappearing peaks in market volatility related to the developments in Spain at the end of April 2012 did not adversely hit Slovakia's financing costs.

Nevertheless, the revision of outlooks for the euro area members in January and February 2012 affected Slovakia as well, and its sovereign debt rating was lowered by one grade.[15] The reasons behind this downgrading were insufficient political measures to tackle problems in the euro area and domestic risks, mainly those related to delays in the stabilisation of Slovakia's debt.

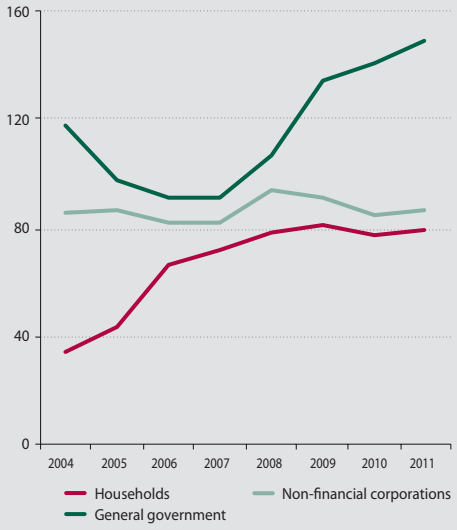
Gross debt of the institutional sectors expressed as a percentage of GDP (Chart 15) shows that the position of Slovakia among the euro area countries is the most favourable.

15 Standard & Poor's in January followed by Moody's in February.

Chart 15 Gross sectoral debt (% of GDP)

Source: Eurostat.
Note: Private sector – households and non-financial corporations, non–consolidated.

Chart 16 Debt ratio (%)



Source: AMECO database and Eurostat.
Note: Households: Liabilities/financial assets.
Non-financial corporations: Debt/financial assets.
General government: Liabilities/budgetary income.

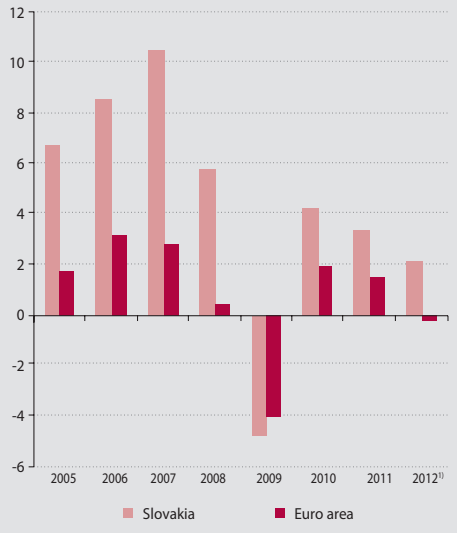
The net debt of Slovakia, expressed as the ratio of net financial wealth[16] to GDP, slightly declined in 2011 (to 54.7% of GDP) as the debtor position of non-financial corporations improved and the creditor position of households remained unchanged. This development was adversely affected by the increased debtor position of the general government.

Developments in debt ratios of sectors (Chart 16), which gauge sectors' ability to deal with economic shocks, suggested a slightly deteriorated position of the general government sector, which is in the euro area still among the lowest. A modest increase in indebtedness was also recorded in the sectors of households and non-financial corporations in 2011.

Slovak economy continued to grow at a slower pace, supported mainly by net exports.

Real GDP for 2011 increased by 3.3% year-on-year. Looking at the structure of growth, net exports made the largest positive contribution, while domestic demand declined. Net exports grew on account of slower imports. Domestic demand was only driven by growth in investments (new production capacities of non-financial corporations), whereas consumer demand stagnated, general government final consumption declined and inventories were reduced. Growth in labour productivity was slower compared to the previous year. However, a positive aspect is that it was accompanied by rising employment.

Chart 17 GDP (annual percentage changes)



Source: SO SR, Eurostat.
1) NBS and EC forecasts.

16 Net borrowing according to the quarterly financial accounts statistics.

Chart 18 Labour productivity and wages (annual percentage changes)

Source: SO SR.

Price inflation increased in line with expectations.

In 2011 inflation accelerated due to external factors, such as rising prices of food and energy commodities and effects of tax changes. Over the first months of 2012 the inflation rate gradually fell (from 4.6% at the end of 2011) to reach 3.7% in April 2012.[17] After a long downward trend, inflation increased also in the manufacturing sector in 2011.

The price competitiveness of Slovak exports, as measured by the real effective exchange rate index (based on the manufacturing price index) increased moderately year-on-year in 2011, although the pace of its growth was slightly lower than in 2010. This was supported by a negative inflation differential vis-à-vis the relevant foreign trading partners, which put a downward pressure on nominal appreciation of the effective exchange rate.

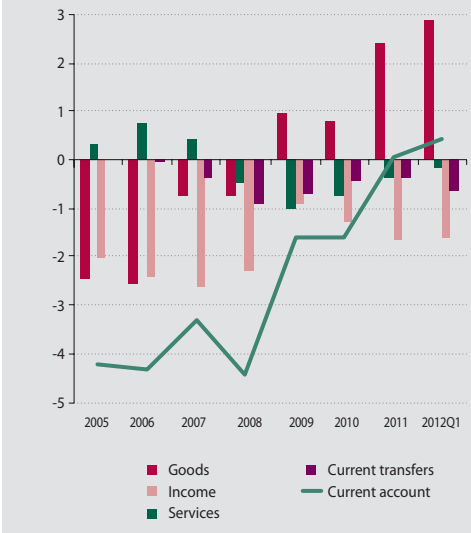
The external balance of the Slovak economy improved due to robust export growth.

The current account of the balance of payments recorded a surplus of 0.1% of GDP at the end of 2011 due mainly to the trade balance surplus with imported and exported goods both recording growth. A decline in deficits of the balance of services and current transfers partly offset the higher amount of funds repatriated by foreign investors reflected in the income balance. The surplus in the trade balance and the declining deficit in the services balance continued from the first quarter of 2012, while developments in other current account components resulted in a slightly improved cumulative 12-month balance of the current account.

Chart 19 Current account deficit coverage (EUR billions)

Source: NBS.
Note: Cumulative 12-month balance.

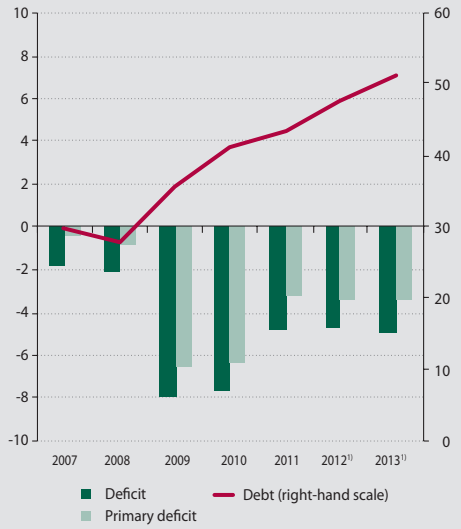
Chart 20 Current account components (EUR billions)



Source: NBS. 2012
Note: 2012Q1 – cumulative 12-month balance.

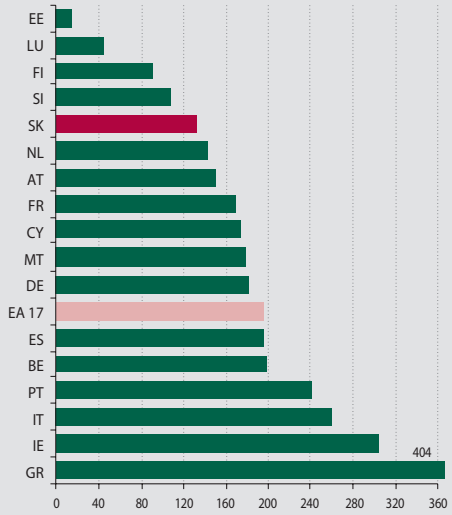
17 Year-on-year HICP inflation.

Chart 21 General government deficit (% of GDP)



Source: Ameco.
Note: Primary deficit – deficit excluding interest payments on government liabilities.
1) EC forecast.

Chart 22 Debt to revenue ratio (%)



Source: EC forecast 2012, NBS calculations.

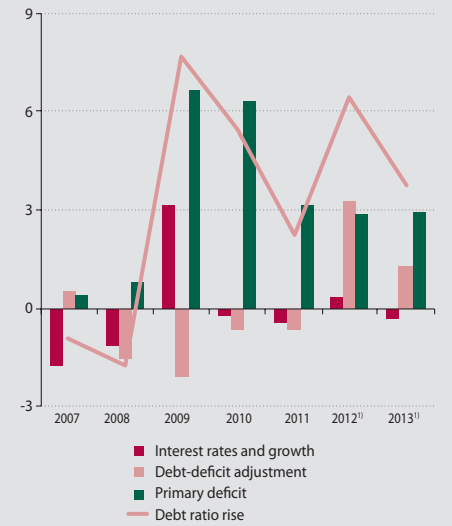
Public finance consolidation delivered some results.

The general government budget deficit stood at 4.8% of GDP in 2011.[18] The better than expected income resulted mainly from improved tax collection as well as from curbs on expenditure. The objective has remained to lower deficits so as to be sustainable below 3% of GDP by 2013,[19] which would result in the abrogation of excessive deficit procedure against Slovakia. Measures on the income side seem to be more uncertain when compared with economizing measures on the expenditure side. A high proportion of mandatory expenditures and their expected increase in the future will restrict the manoeuvring room for active fiscal policy.

Another risk to the fulfilment of consolidation objectives is a lower growth rate, which would result in a lower budgetary income. Slovakia's past GDP growth allowed for keeping its debt ratio at a stable level and/or for its lowering. As the increase in interest rates implied by general government debt was lower than nominal GDP growth, Slovakia could cash in on the negative difference between the interest rates and growth in 2011.[20] The European Commission's forecast expects this factor to have an opposite effect in 2012, i.e. to push the debt ratio up.

In the future, budgetary discipline should be supported by the Fiscal Council based on the constitutional Act on budgetary responsibility (effective from 1 March 2012). The act specifies an array of automatic corrective measures (a debt brake) applicable if the public debt reaches 50% of GDP.

Chart 23 Contributions to the change in debt ratio (% of GDP)



Source: EC Spring Forecast 2012.
1)EC forecast.

18 Excluding one-time extrabudgetary effects, deficit would be even lower, by 0.9% of GDP.
19 The European Commission in its spring forecast expects that Slovakia's deficit will reach 4.9% of GDP in 2013, while nominal GDP growth will reach 5%.
20 In 2011, with nominal GDP growing by of 5%, interest rates implied from country's debt (from the previous period) were 4%. For 2012, the Commission anticipates debt implicit rates at 4.5% and nominal GDP growth of 3.9%.

The outbreak of sovereign debt crisis put upward pressure on costs of long-term public debt financing.

Amid the escalating crisis of the most indebted euro area countries, the majority of euro area members saw their funding costs rise in 2011. By the end of the year, yields on Slovak bonds climbed above the euro area average (Chart 5). Therefore, the debt management strategy has been refocused on currency diversification, due to the more favourable debt financing conditions outside the euro markets. The reappearing peaks in market volatility related to the developments in Spain at the end of April 2012 did not adversely hit Slovakia's financing costs.

2.2 MEDIUM-TERM RISKS RESULTING FROM THE DOMESTIC MACROECONOMIC ENVIRONMENT

The first Alert Mechanism Report confirmed that the macroeconomic position of Slovakia – compared to other EU countries – was relatively sound. The European Commission concluded that the Slovak economy has not been facing excessive external and internal imbalances.[21] The slowdown in growth rates of other EU countries has not significantly influenced the performance of the Slovak economy at macro level. Slovakia could benefit from its intense trade relationships with the growing countries and lesser orientation towards the EU countries hardest hit by the recession.

The main potential risks to financial stability in the domestic environment remain those identified in previous reports. They are associated particularly with:

- persisting considerable uncertainty about medium term growth,
- limited conditions for the growth of domestic demand and the related impact on economic sectors' income,
- developments in public finances.

Risks from the domestic macroeconomic environment remain substantial.

Uncertainty persisting for several years and its latest intensification in the external environment constituted an obstacle to anchoring of expectations. As a result, domestic business confidence was weakened and longer-term investment planning and consumption recovery hindered. Although the newest data releases on domestic growth in the first quarter of 2012 are encouraging, uncertain future developments will probably translate into the domestic economy.

While the structure of domestic economic growth, dependent mostly on net exports, has been a source of some pro-growth stimuli in the current difficult conditions, the decline in domestic demand puts a downward pressure on income generation by domestic businesses.

In the fiscal sector, the first results of the adopted consolidation measures have been positive. For the future, however, willingness and capacity of the government to continue with consolidation efforts will be of importance. Lower future growth may restrict the generation of tax revenues, and a possible loss of the ability to grow out of debt would hinder a return of the debt ratio to safer levels.

21 For the Macroeconomic Imbalances in the Euro Area Economies and the Macroeconomic Imbalances Procedure see Annex 2 to the Report.

CHAPTER 3

NON-FINANCIAL CORPORATE AND HOUSEHOLD SECTORS

3

3 NON-FINANCIAL CORPORATE AND HOUSEHOLD SECTORS

Lending to non-financial corporations and households continued to grow, with long-term funding prevailing (Chart 24). Following a period of stagnation, financing of financial corporations in the domestic banking sector increased (see Part 4.1 for more details). Concerning new loans to households, housing loans, and, to a lesser extent, consumer loans prevailed. Some customers made use of the possibility to replace original loans with shorter initial rate fixation period by new loans under more favourable conditions and put a cup on their costs of debt servicing.

3.1 NON-FINANCIAL CORPORATE SECTOR

In terms of profitability, the financial position of enterprises improved.

The financial position of enterprises reflects their profitability. In 2011 overall corporate profits increased by 7.9% to €4,904 million year-on-year, driven by results achieved in the energy sector, industry, trade and the real estate sector. Concerning investment and borrowing, the approach of firms remained cautious.

Business confidence indicators weakened gradually in 2011.

The upturn in sentiment observed in most sectors (except in construction) in the first half of 2011 was not maintained for a longer period of time. Towards the end of 2011, business confidence in sectors under review returned to the 2010 levels.

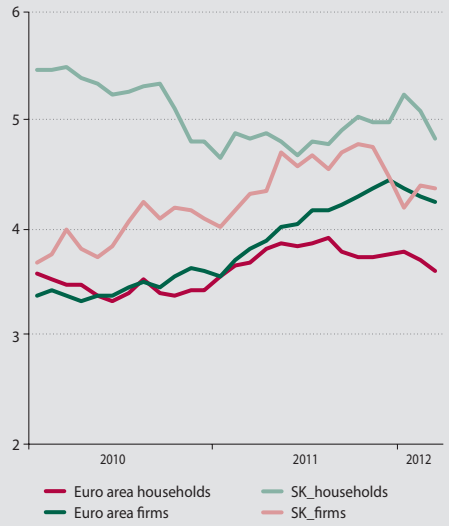
Economic activity of firms slowed.

Despite the fact that investment by non-financial corporations were predominantly used for building up of new production capacities in export-oriented sectors, their contribution to domestic growth was slightly lower than in the previous year. In the second half of 2011, the export and sales growth of the corporate sector slowed in line with elevated uncertainty in the external environment (Chart 28). Industrial production and

Chart 24 Loans (EUR billions)

Source: NBS. Quarterly Financial Accounts.

Chart 25 Interest rates on new loans (%)

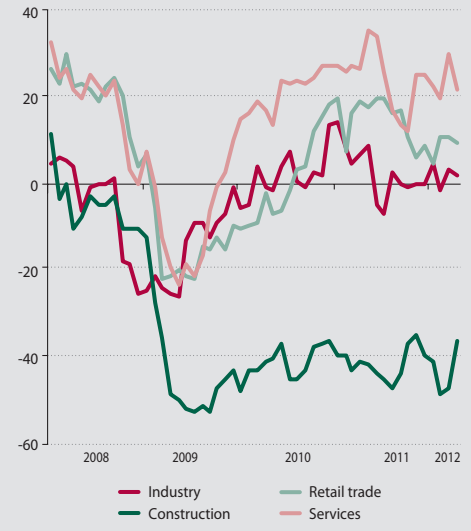


Source: Eurostat.
Note: Households – housing loans.
Non-financial corporations – other loans than account overdrafts.

Chart 26 Production, sales and investments (same period a year earlier = 100)

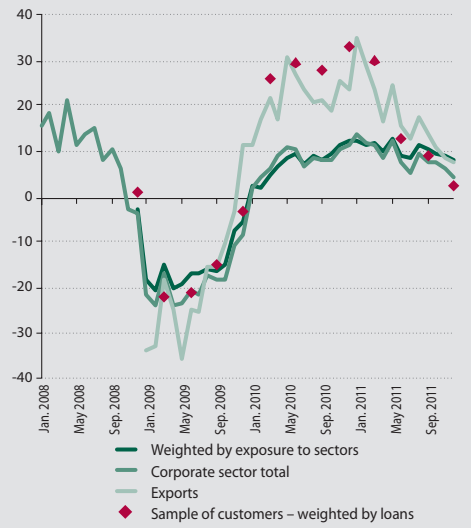
Source: SO SR.

Chart 27 Business tendency indicators (balance)



Source: Eurostat.

Chart 28 The year-on-year sales growth in the corporate sector (%)



Source: SO SR, NBS.
Notes: The sample includes around 4500 firms covering approximately 30% of banks' corporate customers in terms of the stock of loans granted. The sales weighted by exposure to the sectors are based on weighting by the amount of bank loans to the respective sector.

sales growth slowed in comparison with the previous year and a fall in industrial new orders was recorded at the end of the year.

Indebtedness of non-financial corporations further increased towards the end of the year.

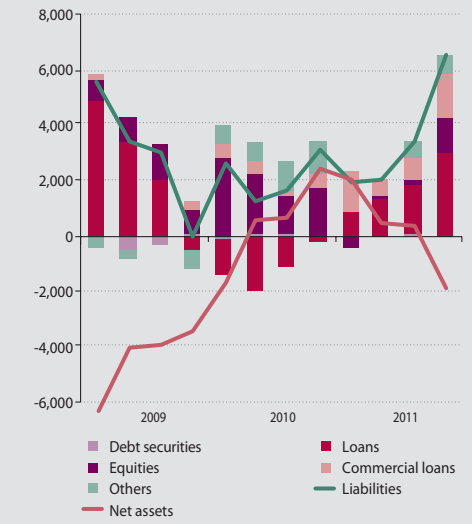
Non-financial corporations increased their indebtedness again mainly due to growth in borrowing at the end of 2011. Looking at the composition of financing within the sector, the share of loans increased further, mainly those received from the domestic financial sector, although a rise in financing from abroad was recorded as well. Equity financing also slightly increased. As for the composition at the sectoral level, financing from domestic banks increased and intercompany lending declined. The volume of trade credits between firms also rose.

Development trends in the composition of corporate financing noted in the previous Report for the whole of 2011 (based on stocks) were maintained. Company financing as well as financing from the domestic financial sector rose further. Increased debt financing translated into a further moderate rise in leverage (debt to equity), while equity financing had a lower rate of growth.

Debt burden of firms which borrowed from the domestic banking sector increased in the first half of 2011.

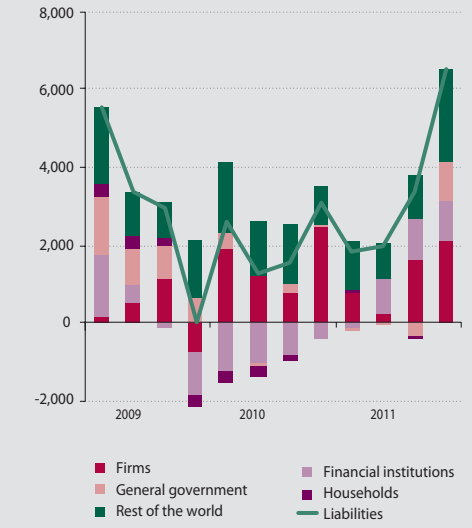
This rise was a consequence of a sharper increase in interest rates than in sales. Moreover,

Chart 29 Financing broken down by instrument (EUR millions)



Source: NBS Quarterly Financial Accounts.
Note: Cumulative transactions over four quarters.

Chart 30 Financing broken down by sector (EUR millions)



Source: NBS Quarterly Financial Accounts.
Note: Cumulative transactions over four quarters.

the growth in rates was accompanied by a rise in the amount of loans. The interest rate growth halted only at the end of the year, as a result of which the debt burden in the business sector slightly decreased. At the end of 2011, debt burden in the corporate sector remained far lower than before the crisis, although it was slightly higher compared to its levels at the end of 2009 and 2010. The slowdown in sales in a selected sample of firms covering approximately 30% of banks' corporate customers in terms of the amount of loans granted represents an increasing risk to the banking sector.[22] A positive trend is that banks focus more on sectors whose sales are less adversely affected by the deteriorated economic conditions.

3.2 HOUSEHOLD SECTOR

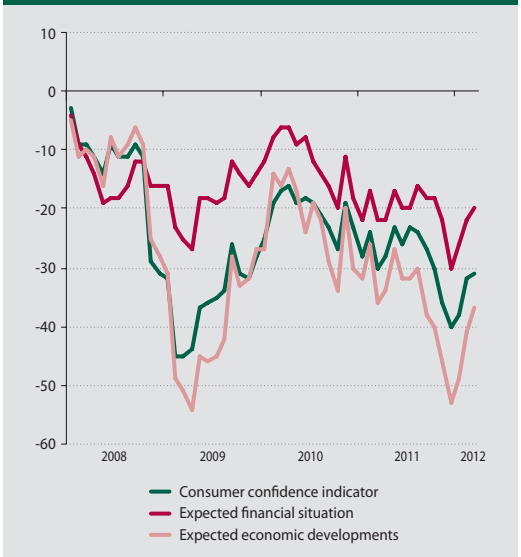
Slovaks continued to perceive their economic conditions as less favourable.

Even though the Slovak economy has recovered in recent years, consumer confidence is relatively low and remains below pre-crisis levels. Future financial situation of households and their prospects for major purchases was not considered to be positive in 2011, and consumer sentiment showed an improvement towards more optimistic levels as late as the beginning of 2012.

A partial improvement in the labour market conditions was observed.

The low confidence in the household sector is also a result of the strains in the labour market. Despite significant differences in individ-

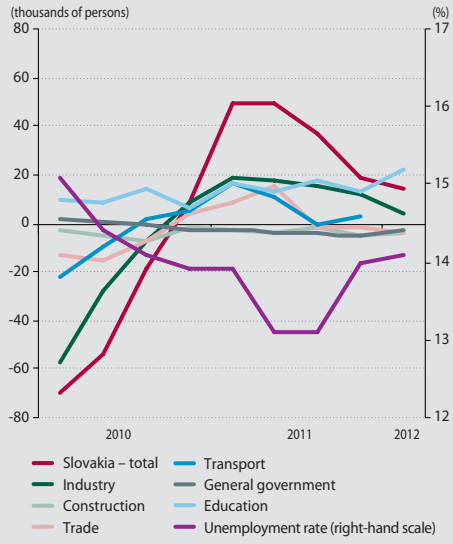
Chart 31 Consumer confidence (balance)



Source: SO SR.

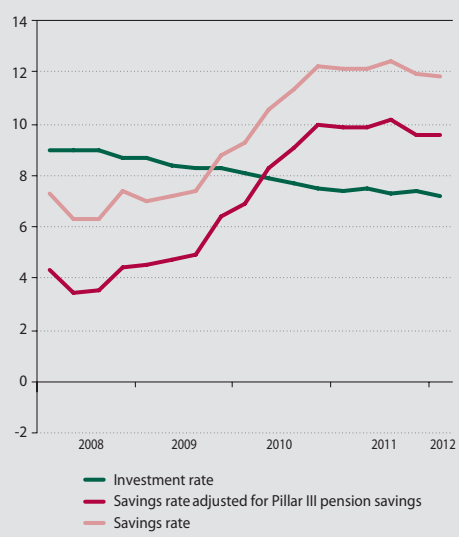
22 The sample of firms reported an extremely large growth of sales in 2010, and, therefore, a certain slowdown was to be expected.

Chart 32 Employment (year-on-year changes in thousands of employed persons)



Source: SO SR.
Note: Employed persons cover employees and entrepreneurs.

Chart 33 Savings and investment rate (% of GDI)



Source: SO SR.
Note: GDI – gross disposable income.

ual sectors, overall employment rose in 2011 (Chart 32). The decline in employment that had been registered since the beginning of the recession was not offset by the rising number of employed as of the end of the first quarter of 2012. The relatively favourable trends started to change in the fourth quarter of 2011, as growth in employment slowed and the unemployment rate began to rise again from the end of the quarter.

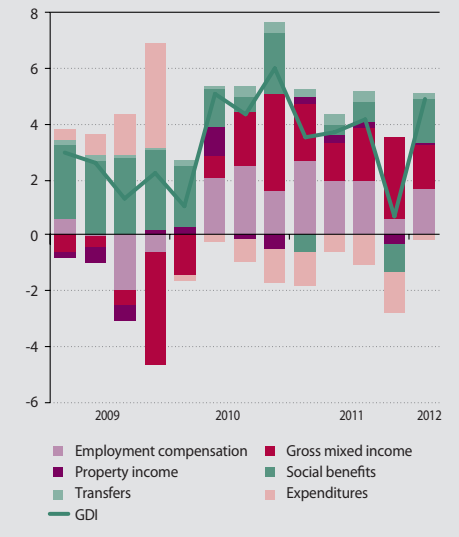
The sector of households consolidated its financial position.

The household savings ratio increased significantly and exceeded its pre-crisis levels. Based on revised data from the Statistical Office of the Slovak Republic, the savings ratio of households (including pension savings) rose to reach 12% of their gross disposable income. This behaviour of households seems to reflect their economic situation. A slow long-term loan drawing contributed to flat investment rate.

Nominal income growth of households slowed. Due to a higher inflation rate, the income of households fell in real terms. As positive can be considered the increase of primary income, which is an important factor for debt servicing.

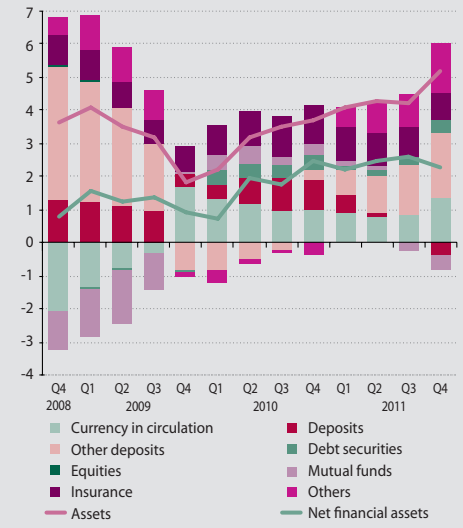
Financial assets accumulation and growth in household liabilities were at around the same level. Thus, the net financial assets of the household sector remained flat in 2011 (Chart 33). The rise in liabilities exceeding the rise in households' income had adverse effects on their debt servicing capacity. The ability of households to

Chart 34 Disposable income (contributions to growth, %)



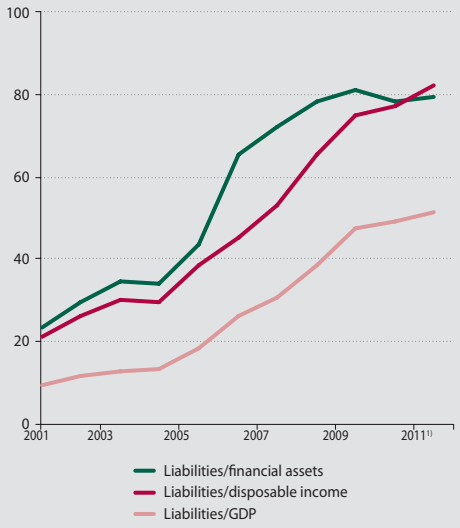
Source: SO SR.
Note: GDI – gross disposable income.

Chart 35 Increases in household assets (EUR billions)



Source: NBS.
Note: Cumulative transactions over four quarters.

Chart 36 The debt servicing ability of households (%)



Source: Eurostat.
1) NBS estimates.

service their debt (liabilities) in relation to their disposable income remained sufficient in aggregate terms. The elevated savings rate has a positive impact on the stabilisation of the ratio of households' debts (liabilities) to assets.

The loan repayment burden of households rose mainly towards the end of the year.

The current interest rate burden of households (defined as the ratio of loan payments to income) is significantly affected by the developments in nominal income, interest rates and inflation. In 2009 and 2010, household debt burden was positively affected by falling interest rates and rising nominal wages. The consumer price inflation was also offset by a fall in interest rates during that period. In 2011, however, developments of these variables did not support a reduction in the interest rate burden. Rising interest rates on housing loans contributed to loan repayment growth in the second half of 2011. The annual rate of growth in nominal wages slowed throughout 2011, while in the fourth quarter nominal wages almost stagnated (0.5%). The two variables did not offset the negative effect of inflation on disposable income in 2011, which pointed to a rise in the household debt burden during the period under review.

By contrast, the continued refinancing of old loans could also help to ease the debt burden by lower interest rates. Interest rates increased during the year, however, they remained at relatively low levels. The difference between interest rates on new loans and those on existing loans shrank and thus the motivation to refinance the existing loans would lower in the future.

A positive aspect from the view of household credit risk was that the 2010 trend continued and a majority of new loans in 2011 had interest rate fixation periods from one to five years. This mitigated adverse effects of possible rises in the interest rates on household debt burden.

3.3 MEDIUM-TERM RISKS IN THE NON-FINANCIAL CORPORATE AND HOUSEHOLD SECTORS

The financial position of households in aggregate terms improved somewhat in 2011, with the sector recording a moderate rise in net financial wealth. In the corporate sector, easier access to financing stopped the process of moderate deleveraging.

The medium-term risks relate mainly to:
- functioning in an environment of declining economic activity with waning stimuli to boost growth;
- low growth in household income which determines persisting budgetary strains of indebted households, as well as weak consumer demand.

Persisting medium-term risks in the non-financial corporate and household sectors

Persisting uncertainties about longer-term prospects and the highly volatile environment have been an obstacle to anchoring of expectations that prevents firms and households from longer-term investment planning and hampers consumption pick up. As it seems, the main gainers from domestic economic growth were non-financial corporations, for they could cash in on lower growth in wages and increase their own reserve buffers. Profits in the non-financial corporate sector continued to pick up, and profitability grew not only in export-oriented firms also in monopoly sectors. Another risk is that slower growth in economy's production potential may increase the ratio of debt burden to expected sales. This could lead firms to further deleveraging and could result in lower investments.

Although household indebtedness rose further, the balance sheet of the household sector was not considered to be a significant source of risks to financial stability. The labour market conditions and unfavourable trends in household income may weigh down on the sector's balance sheet. A significant increase in savings points to households' cautiousness and persisting low growth in household income may have further dampened consumer demand. Households' debt servicing capacity depends on maintaining economic activity and on at least current levels of employment and job creation. Financial conditions with lower interest rates for longer fixation periods helped to stabilise household credit risk. Some customers made use of the possibility to replace original loans with shorter initial rate fixation period by new loans under more favourable conditions and put a cup on their costs of debt servicing.

CHAPTER 4

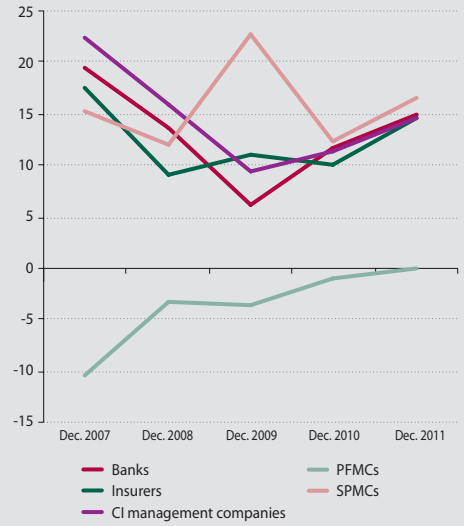
FINANCIAL SECTOR DEVELOPMENTS AND RISKS

4

4 FINANCIAL SECTOR DEVELOPMENTS AND RISKS

The value of assets and managed assets in the financial sector of Slovakia was strongly influenced by developments in the external environment (Chart 37). Following a certain upturn in the activities of domestic financial institutions in the first half of 2011, the second half of the year saw a fall in asset values in most of the financial market segments. The weaker activity in the second half of 2011 led to a slowdown in profit generation in banks, insurance corporations, and supplementary pension asset management companies, which thus achieved lower profits in this period than in the first half of the year. In 2011, profitability rose in all segments of the financial market in year-on-year terms, but still remained below its pre-crisis levels (Chart 38).

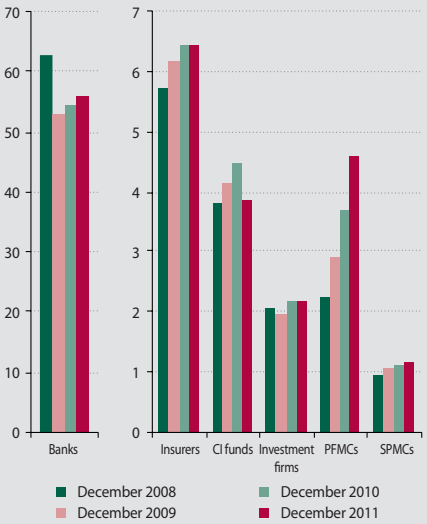
Chart 38 Return on equity (ROE) in the financial sector (%)



Source: NBS.

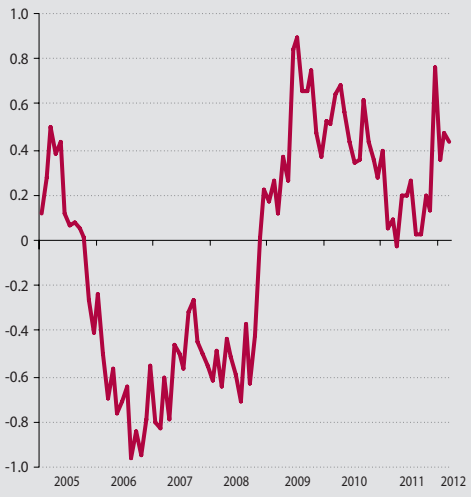
Developments in the external environment also represented a key factor for the indicator of stress in the economy and financial system of Slovakia (Chart 39).[23] After a relatively calm period in 2011, the financial stress indicator rose towards the end of the year. This rise was caused by growing concerns about public debt sustainability in certain euro area countries and the intensifying tension in government bond markets, which was temporarily eased by 3-year LTRO operations at the beginning of 2012 (for more details see Chapter 1).

Chart 37 Amount of assets and managed assets in the financial sector (EUR billions)



Source: NBS.

Chart 39 Indicator of stress in the economy and financial system of Slovakia



Source: Own calculations.
Note: The most recent data available are from March 2012.

23 The indicator of stress in the economy and financial system expresses the accumulation of imbalances in the financial system, or the economy as a whole. The stress indicator was introduced in an annex to the Financial Stability Report for the First Half of 2011.

4.1 THE BANKING SECTOR

In 2011, the banking sector's profitability, expressed in terms of ROE, increased on a year-on-year basis, but remained below its pre-crisis levels. The sector continued to focus on households, in an environment of growing competition among banks in both lending and deposit collection. Bank lending to enterprises also showed signs of revival in 2011. After a period of dynamic growth in the volume of securities portfolio during 2010, investment in securities was more or less stagnant in 2011. Banks held mainly Slovak government bonds. The sector's core capital adequacy ratio increased and was on a sound level. Stress testing again confirmed the banking sector's resilience to financial shocks. The dominant risk in the sector as a whole was still corporate credit risk, but numerous banks showed increased sensitivity to potential losses from household loans.

4.1.1 Financial position of the banking sector

The banking sector increased its profitability in 2011. This was achieved mainly through a reduction in provisioning costs and an increase in interest income from transactions with enterprises.

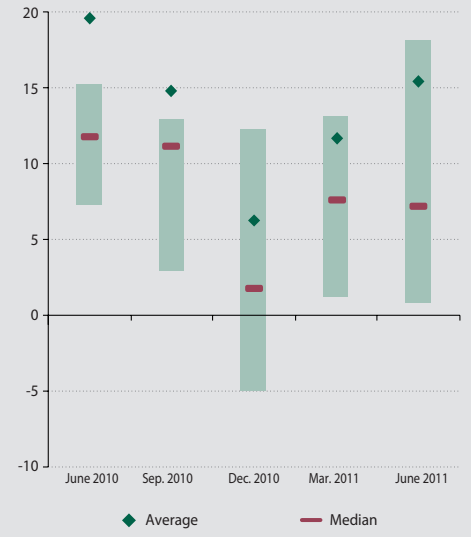
In 2011, the banking sector achieved a net profit of €674 million, representing a year-on-year increase of 34%.[24] Measured in terms of ROE, profitability was rather heterogeneous at the level of individual banks. Its median value was well below the pre-crisis levels and its spread over the sector was still greater than before the crisis (Chart 40). These facts are not due exclusively to the crisis; they are probably also associated with the euro changeover in 2009.[25] This implies that the probability of achieving profits as high as before 2007 is very low in the case of certain banks.

Chart 41 indicates that the rise in profitability at the end of 2011 was caused largely by a fall in provisioning costs, coupled with an increase in interest income from transactions with enterprises. The fall in provisioning costs reflected the falling number of new non-performing loans, mainly in the first half of 2011 (Chart 42).[26]

Growth in net interest income from transactions with enterprises (by 16% year-on-year) was stimulated by a revival in lending to enterprises, while the volume of corporate deposits decreased. The positive trend in lending to enterprises continued throughout the first quarter of 2012.

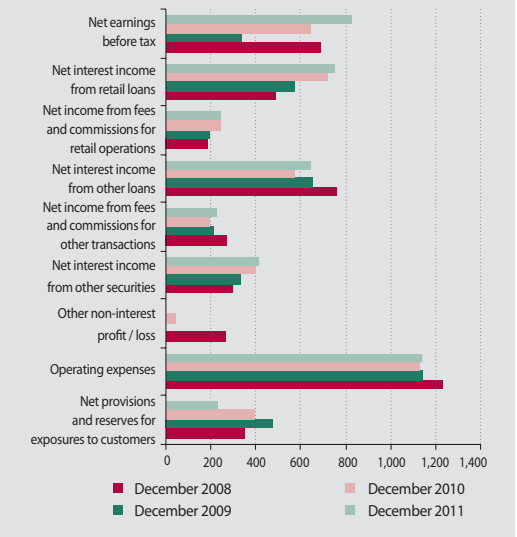
The year-on-year rate of growth in lending to enterprises slowed in second half of 2011 (by 6.5%), compared with the first half of 2011 (7.6%), but the growth in the second half-year was not limited to specific sectors (e.g. water and gas supply or commercial real estate). Bank lending in that

Chart 40 ROE distribution across the banking sector (%)



Source: NBS.

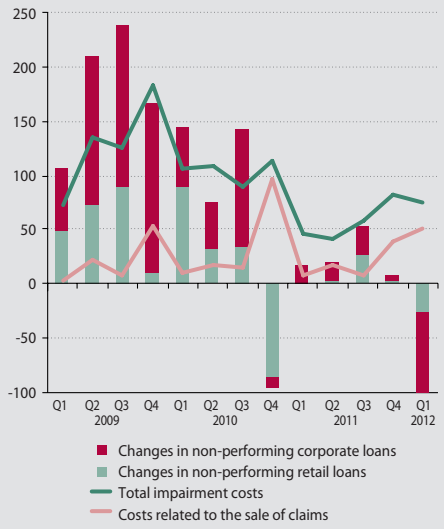
Chart 41 Selected components of the banking sector's profitability (EUR millions)



Source: NBS.

24 The sector's profitability was affected by the sale of a subsidiary by one of the banks.
25 The possible effects of the euro changeover on the Slovak financial market are discussed in the NBS publication An analysis of how the euro introduction will impact the Slovak financial market.
26 Provisions for bonds held to maturity in the securities portfolio recorded a significant increase (to €180 million).

Chart 42 Loan impairment costs and changes in the amount of non-performing loans (EUR millions)



Source: NBS.

The banking sector's profitability was adversely affected by the depreciation of part of the securities portfolio. Investment by banks in securities stagnated over the course of 2011. Banks held mainly Slovak government bonds.

The financial results of certain banks were relatively significantly reduced by losses from revalued debt securities held for trading. The deepening debt crisis in the euro area in the second half of 2011 was accompanied by credit premium increases in the majority of euro area countries. In some of the cases, significant changes were recorded. The revaluation of these instruments (with net income from interest rate hedging taken into account) was reflected in net income from interest rate instruments in the form of a decrease of €104 million (ca 15% of the profit) as at the end of 2011.

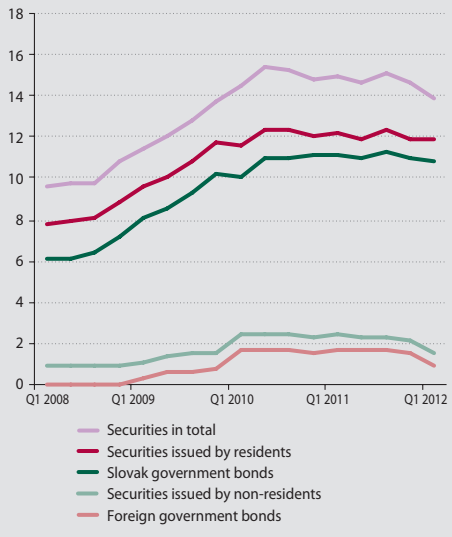
period also increased in relation to industry and retail trade. At the same time, loans in wholesale trade and construction continued to decline. At the year-end, corporate financing was more evenly distributed among banks. Although the rate of growth slowed to 3.5%, these favourable trends continued in the first quarter of 2012, too (Chart 43).

After a more pronounced growth of investment in securities in 2010, by which banks partially compensated for their restricted lending activity in relation to enterprises, the total volume of the securities portfolio was more or less stagnant in 2011 (Chart 44). During the first three months of 2012, the share of foreign government bonds in the portfolios of Slovak banks decreased (as a result of debt restructuring in Greece and the sale of Portuguese, Polish, and Czech government bonds). Investment in other types of bonds re-

Chart 43 Year-on-year changes in the amount of corporate loans by sector (EUR billions)

Source: NBS.

Chart 44 Trends in the banking sector's securities portfolio (EUR billions)



Source: NBS.

mained virtually unchanged. This development further strengthened the significance of Slovak government bonds and Treasury bills in the bond portfolios of banks. At the end of March, such bonds accounted for more than 85% of the total volume of bonds.

The first quarter of 2012 saw a fall in profitability in year-on-year terms. Compared with the final quarter of 2011, however, profitability increased, but its structure remained virtually unchanged.

Net profit for the first quarter of 2012 amounted to €142 million, representing a year-on-year fall of 19%. Without the bank levy, the fall in profit would be much smaller, i.e. approximately 5%. Compared with the second half of 2011, when credit risk expenses increased, non-interest income decreased, as well as net interest income from the retail sector, the first quarter of 2012 witnessed an increase in net profits (Chart 45).

In the first quarter of 2012, there was a year-on-year fall in interest income from the retail sector. This was connected with a gradual decrease in the net interest margin in this sector, starting from the beginning of 2010. This decrease was caused by an increase in the cost of deposits, coupled with a fall in returns on loans owing to increased competition in the sector. In the final quarter of 2011 and the first quarter of 2012, lending to households grew at a slower pace than deposits from households. This also contributed to the negative pressure on the total amount of net interest income from this sector.

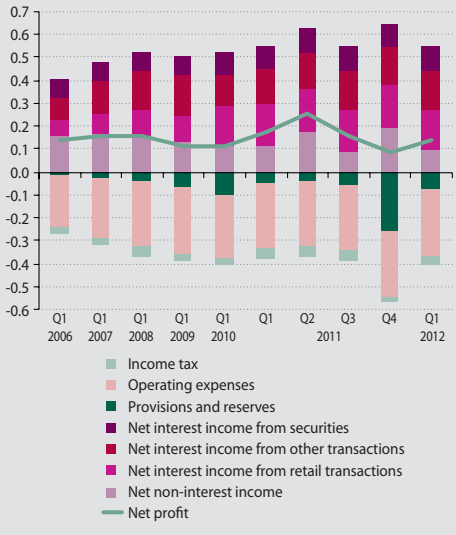
In the corporate sector, returns on loans and expenses on deposits remained unchanged over the first quarter of 2012, as well as total interest income from this sector. In year-on-year terms, however, the situation remained positive, similarly as at the end of 2011.

Credit risk expenses on transactions with customers fell in the first quarter of 2012, from their increased level at the end of 2011, caused by the worsening macroeconomic situation during the second half of 2011 (Chart 42). Total credit risk costs for the first quarter reached approximately 0.2% of the volume of claims on customers. This figure was below 0.3% in each of the large banks.

The average capital and core capital adequacy ratios of the banking sector increased in the first quarter of 2012, owing mainly to the positive revaluation of bonds for sale and the preliminary decision to retain part of the profit.

The average capital adequacy ratio (average for the banking sector weighted by the amount of risk-weighted assets) rose during the first quarter of 2012, from 13.3% to 15.0%. The average core capital adequacy ratio stood at 13.6%, which is a relatively decent level in the European context (for comparison, Chart 46 contains data on Tier 1 capital as defined by ECB). All banks met the recommendation of Národná banka Slovenska, according which banks should maintain a core capital adequacy ratio of at least 9%.[27] The rise in this ratio was caused mainly by an increase in the amount of own funds (by 9.3%). This can be explained by the fact that some of the banks recorded, as own funds, part of their profits from the previous year, which they intend to retain. The sector's own funds were also influenced positively by a net increase in the valuation differences (3% of the own funds), owing to a recovery in bond prices.[28] To a lesser extent, the rise in overall capital adequacy was also affected by a fall in the required amount of own funds (by 2.2%).

Chart 45 Structural changes in the banking sector's profitability (EUR billions)

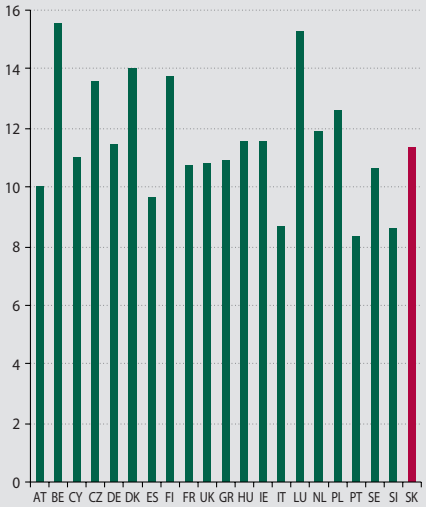


Source: NBS.

27 Recommendation of the Financial Market Supervision Unit of NBS of 16 January 2012 on supporting the stability of the Slovak banking sector.

28 In November 2011, the capital adequacy of certain banks was negatively affected by a fall in the value of government bonds in their portfolios for sale in the majority of euro area countries.

Chart 46 Capital position of banks by country – Tier 1 capital as a share of risk-weighted assets as at end-2010 (%)



Source: ECB.

4.1.2 Risks in the banking sector

- increased credit risk in the household sector as a result of growth in the sector's loan repayment burden and the worsening labour market situation;
- increased credit risk in the non-financial corporations sector as a result of growth in the sector's loan repayment burden and the worsening conditions for revenue growth;
- increased risk that the market revaluation of debt securities will have a negative impact on the profitability and capital adequacy of banks;
- deteriorating trend in the banking sector's long-term liquidity.

The year 2011, especially its first half, saw positive developments in the area of loan repayment by households. In the second half of the year, however, household credit risk increased. This was reflected in the worsening payment discipline already in the first quarter of 2012.

The increase in the outstanding amount of non-performing household loans in 2011 was almost 50% smaller than in 2010. The growth in non-performing loans followed a decelerating trend over the first half of 2011, in line with trend from the end of 2010. In the second half of 2011, the rate of growth showed an accelerating tendency, mainly in non-performing consumer loans. Thus, the proportion of non-performing loans to total household loans ceased to decrease in the second half of 2011. In the first quarter of 2012, the proportion of non-performing loans remained stable, below 5% (Chart 47).

The growing loan repayment burden of households during the second half of 2011 and the reversal in the relatively favourable trend in the labour market, coupled with worsening expectations regarding its further course in the final quarter of 2011, indicated a rising trend in household credit risk. This trend was confirmed by problems with payment discipline in the household sector in the first quarter of 2012, when the share of loans with repayment arrears (of up to 30 days) increased. A modest increase was also recorded in the share of loans with penalty interest for delay, for which banks had to create more provisions.

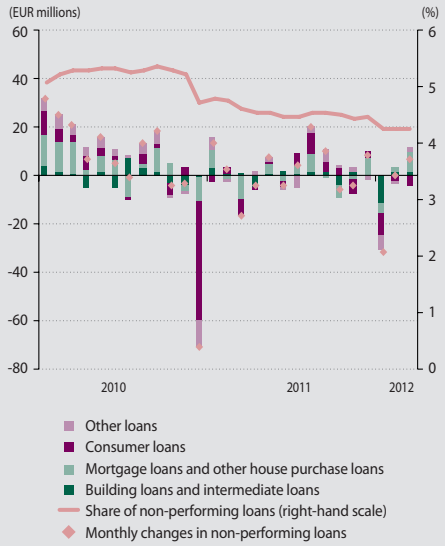
A favourable factor in regard to household credit risk in 2011 was the continuing trend of loan refinancing at lower interest rates. In 2011, the majority of new loans were provided with an interest rate fixed for a period of over one and up to five years. Thus, the negative impact of a possible further rise in interest rates on the loan repayment burden of households moderated. The difference between interest rates on new and existing loans disappeared in the first half of 2012. This was caused by a rise in interest rates on house purchase loans in comparison with the end of 2011, which was greatly influenced by an increase in household credit risk.[29]

The share of non-performing corporate loans ceased to decrease in the middle of 2011. In the first quarter of 2012, the falling trend in loan default rates also came to an end.

The share of non-performing loans ceased to decrease in the middle of 2011 and then increased slowly until the end of the year.[30] Disregarding the relatively big changes in the amount of non-performing loans (mainly in wholesale trade and services) and the subsequent portfolio cleaning, the final quality of

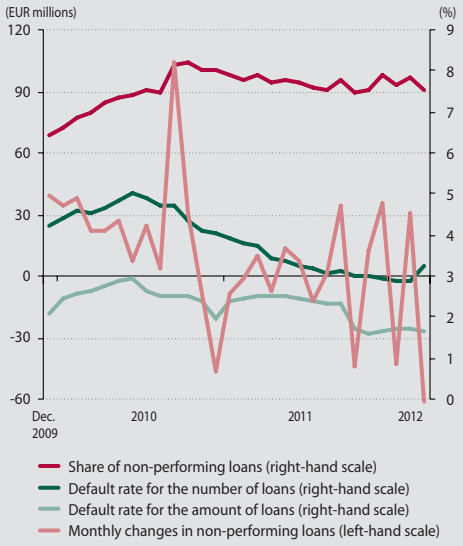
29 The factors affecting the credit risk posed by households are analysed in detail in Chapter 3.2.
30 The value of this indicator remained well above the pre-crisis levels.

Chart 47 Non-performing household loans



Source: NBS.
Note: The share of non-performing household loans is the proportion of non-performing loans to total loans provided to households.

Chart 48 Non-performing corporate loans and default rates



Source: NBS.
Note: The default rate is calculated as the ratio of the number/amount of loans shifted from the category of performing loans to that of non-performing loans at the beginning of the period.

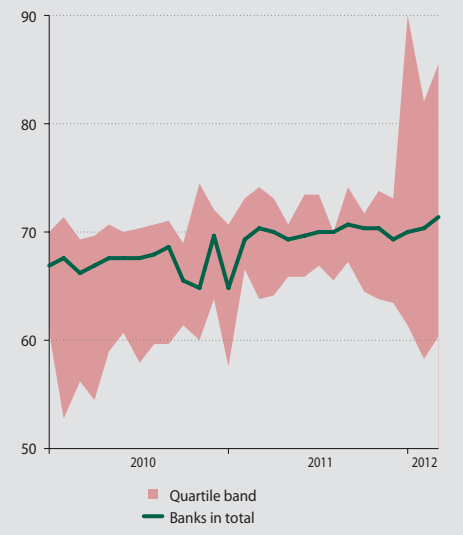
the corporate loan portfolio was stable in the first quarter of 2012 (Chart 48). An unfavourable event was the discontinuation of the falling trend in loan default rates in the first quarter of 2012. Regarding the amount of losses from non-performing loans, a positive fact is that the coverage of non-performing loans with provisions has not fallen in the recent period, though it is still below the pre-crisis levels.

The negative trends in conditions for corporate credit risk from the end of 2011 did not continue in the first quarter of 2012. By contrast, the fall in interest rates contributed significantly to the reduction in the loan repayment burden of enterprises and the growth in corporate revenues accelerated slightly.[31]

Upward pressure on credit risks in the first quarter of 2012 was also exerted by the strong competition in the banking sector.

Owing to the falling demand for house purchase loans in the retail sector, some of the banks attempted to increase their market share by easing their lending standards in the first quarter of 2012, too. Certain banks reduced their loan collateral requirements to a significant extent. This was reflected in a rise in the loan-to-value ratio (Chart 49). Increasing the LTV ratio in the conditions of falling property prices means that the volume of new loans can be increased only at the expense of a rise in credit risk. Although this is a matter of individual banks, such behaviour may have a negative impact on the lending standards of other banks, too.

Chart 49 Loan-to-value ratio (%)



Source: NBS.

31 The factors affecting the credit risk posed by enterprises are analysed in detail in Chapter 3.1.

The most significant market risk is the risk of a credit premia rise for government bonds in the portfolios of banks. Exposure to the most risky countries decreased, but remained concentrated.

Since the revaluation of government bonds to fair value affects the banking sector's financial results and capital adequacy (as described above), changes in credit premia for government bonds represent a major market risk. This is due to the fact that this component of the risk of change in bond prices cannot be hedged against effectively using interest rate swaps.

The portfolio of debt securities revalued to fair value against profit / loss accounted for 2% of the banking sector's total assets as at the end of 2011. In some of the banks, this proportion was much higher, and the impact of portfolio revaluation on the financial results also corresponded to its size. This portfolio was dominated by Slovak debt securities with a share of ca 75%.

The portfolio of financial instruments for sale, whose possible negative revaluation may reduce the own capital of banks, accounted for 8% of the sector's total assets as at the end of 2011. At the level of the banking sector, this portfolio was dominated by Slovak bonds (85%). In some of the banks, the portfolio for sale also contained securities the price of which fell significantly in 2011. The average duration of this portfolio remained virtually unchanged over the second half of 2011, at the level of 2.6 years. In the case of a parallel increase in credit spreads by 100 basis points, the value of this portfolio would fall by 2.6%. This would cause a fall of approximately 0.3 percentage point in the capital adequacy ratio.

The overall direct exposure of the banking sector to more risky EU countries in the securities portfolio (including securities in the portfolio of financial instruments held to maturity) is relatively low (less than 2% of the assets). It fell slightly over the course of 2011 (Table 3). The higher concentration of such securities in individual institutions represents a risk for these institutions (their shareholders and creditors), but not for the system as a whole.

The rise in the ratio of loans to deposits accelerated over the course of 2011. The ratio of liquid assets was stable. Some of the banks ensure short-term liquidity through transactions within their own financial group.

The *loan-to-deposit ratio* remained favourable in 2011, below 100% (Chart 50). However, it rose during the year at a slightly accelerating pace. This was caused mainly by a slowdown or decline in corporate deposits towards the end of the year, accompanied by an increase in loans to non-residents and a decrease in their deposits. Unlike in 2009 and 2010, housing loans no longer contributed to an increase in the loan-to-deposit ratio in the household sector. The continuation of this trend in the long term may lead to a shortage of domestic resources for loan financing and may increase the dependence of banks on financial markets and/or parent banks.

The liquid assets ratio remained virtually unchanged over the course of 2011 (Chart 51).[32] In

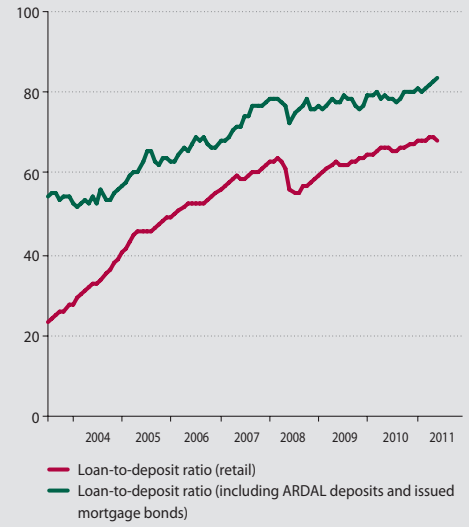
Table 3 Investment in debt securities of selected countries as a share of total assets (%)

		Greece	Hungary	Ireland	Italy	Spain	Portugal
Banks	XII.10	1.1	0.6	0.2	0.2	0.1	0.1
	XII.11	0.4	0.6	0.3	0.1	0.1	
SPMC funds	XII.10	0.1	0.9	0.6	0.8	0.8	
	XII.11		0.5	0.2	0.9	1.3	
PFMC funds	XII.10		0.3	2.1	1.9		0.4
	XII.11		0.3	0.1	0.6	0.9	
Mutual funds	XII.10	0.2	1.4	0.3	0.5	0.1	0.1
	XII.11	0.1	1.4	0.1	0.4	0.1	
Insurers	XII.10	0.1	0.1	0.2	2.6	0.2	
	XII.11		0.2	0.2	2.4		
Unit-linked	XII.10			0.3			
	XII.11		0.1	0.3	1.2		

Source: NBS.
Note: Debt securities issued in the given country or by institutions based in that country, as a share of total assets or NAV. An empty cell means that the missing value is zero or negligible.

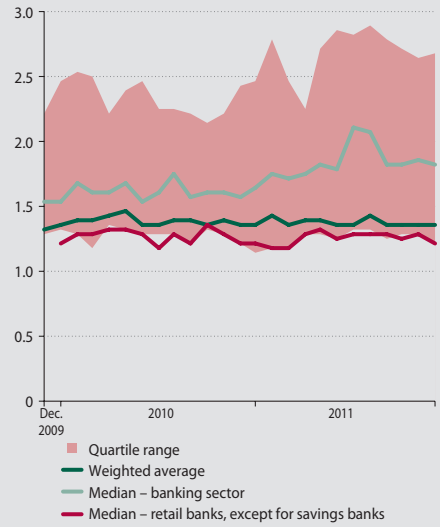
32 The liquid assets ratio is defined as the ratio of liquid assets to volatile liabilities over a horizon of one month. This ratio value should not fall below 100% (or 1).

Chart 50 Long-term liquidity ratios of the banking sector (%)



Source: NBS.

Chart 51 Liquid assets ratio of the banking sector



Source: NBS.

general, retail banks still recorded lower ratios. As a result of the crisis, interbank transactions are concentrated largely within the own financial groups of banks.

4.2 THE INSURANCE SECTOR

The profitability of insurance companies followed a favourable trend in 2011. The sector's profits were generated mostly in life and non-life insurance.

In 2011, the insurance sector achieved a total profit of €193 million, which was the second highest figure ever recorded (the profit in 2007 was only €5 million higher). This represented a year-on-year increase of 44% as at the end of 2011, compared with 71% in the middle of the year. The main source of increased profitability was the technical result achieved in life and non-life insurance. The technical result amounted to €127 million (compared with a loss of €75 million in 2010), representing a historical high. Thus, the increased technical result more than compensated for the fall in the sector's financial result by €106 million.

The improved technical result was due mainly to a lower loss ratio in property insurance, higher earned premiums in life insurance, and lower deficit provisions (reduced on the basis of a reserve adequacy test).[33] A significant contribution to the technical result was also made by a reduction in provisions for unit-linked products (by €95 million), but this was almost fully offset by a fall in the financial result from assets used for the coverage of unit-linked products. The fall in the financial result took place almost exclusively in unit-linked insurance.

Technical provisions decreased in the sector. Technical provisions were covered by assets to a sufficient extent.

The total amount of technical provisions created in the insurance sector fell for the first time ever, down to €4.64 billion as at the end of 2011. The fall was caused by a decrease in provisions for the payment of non-life insurance claims (by 9%, i.e. €67 million) and a marked decrease in provisions for liabilities to the Slovak Insurers' Association (by almost 25%, i.e. €21 million). Assets used for the coverage of technical provisions, except those for liabilities arising from investment on behalf of the insured, stood at €4.3 billion as at the end of 2011, and represented a coverage of up to 114.7%.

As for market risks, insurance company assets are exposed mainly to interest rate risk and the risk of credit premia changes. Unit-linked assets are exposed to equity risk to a greater extent.

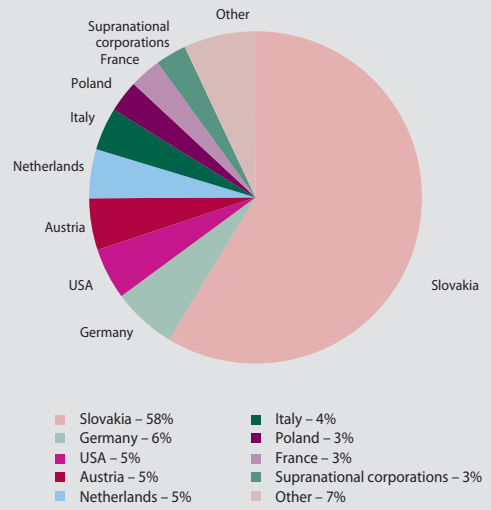
Bonds held by insurers in their investment portfolios are exposed to general interest rate

33 The loss ratio in property insurance fell from 75% in 2010 to 31.4% in 2011, owing to a fall in the number of losses reported. Deficit provisions, created on the basis of a reserve adequacy test, fell by €25 million (55%) in year-on-year terms.

risk and to counterparty risk. This applies to bonds that are revalued to fair value. These two risks have various consequences. In the case of a rise in a risk-free interest rate, the negative impact on asset valuation is counterbalanced to some extent by a fall in the value of provisions, since this value is calculated on the basis of a risk-free interest rate used as a discount rate. By contrast, the negative impact is not counterbalanced in the case of a fall in the value of bonds caused by a rise in counterparty risk, which is expressed as an increase in the credit premia of their issuers.

Since up to 97% of the debt securities valued at fair value are recorded in the portfolio of financial instruments for sale, the share capital of insurers may depreciate to a significant extent in such cases. In the case of insurers, this risk is higher than in the case of other sectors owing to the long duration and residual maturity of debt securities (Table 4). The strongest negative impact on the revaluation of debt securities valued at fair value would be made by an increase in credit premia for Slovak bonds (Chart 52).

Chart 52 Portfolio of debt securities revalued to fair value in insurance companies, broken down by country of issuer



Source: NBS.
Notes: The proportions are given in relation to the total volume of the portfolio of debt securities revalued to fair value as at 31 December 2011. The part ‚other' includes debt securities issued in countries with a share of less than 1.5% in the total portfolio of debt securities revalued to fair value.

Table 4 shows that insurance company assets invested on behalf of the insured (unit-linked assets) are exposed to relatively high market risks. Such investments are exposed mainly to equity risk and interest rate risk. However, it should be noted that the average duration of the bond portfolio decreased step by step to 4.5, from 5.9 in 2009. This was caused mainly by a gradual decrease in the portfolio's average residual maturity.

Table 4 Share of equity, foreign-exchange and interest-rate positions in different sectors of the financial market (%)

		Banks	Insurers	PFMC funds	SPMC funds	Mutual funds	Unit-linked assets
Equities and mutual fund shares/units	XII.10	0.2	2.7	0.1	20.3	19.1	81.2
	XII.11	0.3	3.0	0.0	16.7	15.3	78.6
Foreign-exchange positions	XII.10	0.5	1.5	0.1	12.2	11.2	13.9
	XII.11		1.7	0.2	15.3	13.9	13.0
Debt securities	XII.10	26.5	68.2	68.5	66.0	46.3	17.4
	XII.11	24.4	71.4	71.2	59.2	45.6	20.1
Duration of debt securities	XII.10	3.0	6.1	0.4	3.2	1.2	5.5
	XII.11	3.1	5.9	0.5	2.8	1.2	4.5
Duration of entire portfolio	XII.10	1.0	5.7	0.4	2.1	0.6	1.0
	XII.11	0.9	5.3	0.4	1.5	0.6	0.8
Residual maturity of debt securities	XII.10	4.1	8.2	0.8	4.2	2.1	5.7
	XII.11	4.0	7.9	1.0	4.0	2.0	5.0

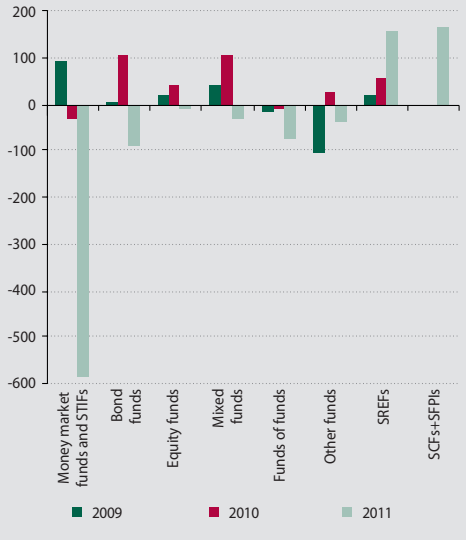
Source: NBS.
Note: The values are given as a percentage share of total assets (or NAV) and they represent the asset-weighted average for the given group of institutions. Duration and residual maturities are stated in years. Foreign-exchange positions were calculated as the sum of positions in absolute values for the individual institutions. Equity positions do not include participating interests in subsidiaries and affiliates.

4.3 THE COLLECTIVE INVESTMENT SECTOR

The net value of assets under management in collective investment funds was negatively affected in 2011 by the redemption of fund units, as well as by the performance of mutual funds. Among domestic funds, only equity and real estate funds recorded a marked change in the structure of investments in 2011.

In reaction to the collapse of Lehman Brothers and the subsequent concerns about the strength and sustainability of the global financial system, the net asset value of collective investment funds fell by €1.58 billion year-on-year (as at end-2008) as a result of massive redemptions. A similar situation, though in a smaller scale, occurred in 2011. Confronted with news about a deepening debt crisis in the euro area and the resulting tensions in equity markets, investors started to redeem their collective investment fund units in August 2011. These redemptions accounted for 90% of the fall in the net asset value by €655 million (Charts 53 and 54). The funds obtained from the redemption of units (almost exclusively by households) were largely converted into fixed-term bank deposits.

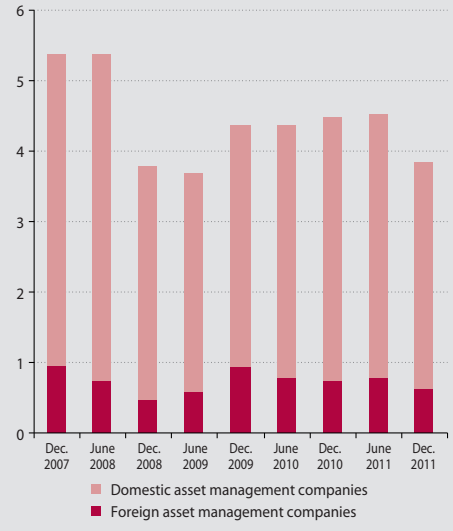
Chart 54 Net sales of domestic mutual funds by category (EUR millions)



Source: NBS.
Note: STIFs = short-term investment funds, SREFs = specialised real estate funds, SCFs = specialised securities funds, SFPIs = specialised funds of professional investors.

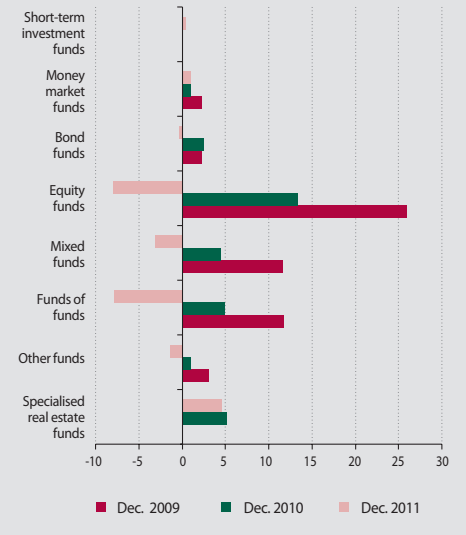
Net asset value was also affected negatively in 2011 by the performance of mutual funds (Chart 55). This was due to the highly volatile and falling asset prices in the financial markets. Most affected were funds exposed to the equity market, i.e.

Chart 53 Changes in the net asset value of mutual funds marketed in Slovakia (EUR billions)



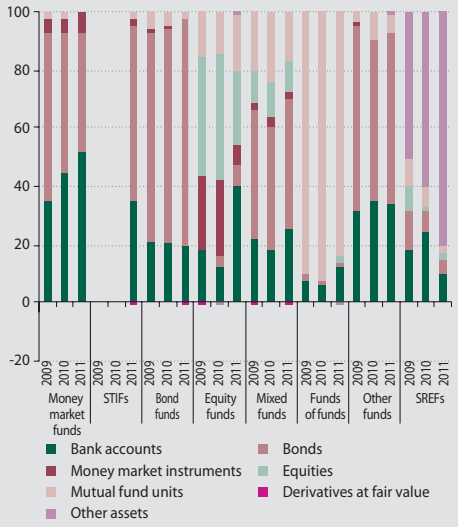
Source: NBS, SASS.

Chart 55 Average annual performance of mutual funds by category (domestic funds, % p.a.)



Source: NBS.
Note: Average weighted by the net asset value of individual funds.

Chart 56 Structure of assets under management in domestic mutual funds by category (at the year-end; %)



Source: NBS.
Note: STIFs = short-term investment funds, SREFs = specialised real estate funds.

equity funds (-8%) and the funds of funds (-7.9%). Much less affected were mixed funds (-3.2%).

In terms of risk, the structure of assets under management in funds is of great importance (Chart 56). In 2011, there were only two significant structural changes in the portfolios of domestic mutual funds: the share of bank deposits in the portfolios of equity funds tripled to the detriment of investments in fund units, while real estate funds further increased their exposure to fund-specific classes of assets such as investments in equity participations in real estate companies.

The collective investment sector is exposed mostly to equity risk (equity funds and the funds of funds) and, to a lesser extent, to the risk of a credit premia increase (bond funds). The periods of increased turbulence in the financial markets are connected with the risk of increased redemptions of fund units.

As mentioned above, the downturn in equity markets in the third quarter of 2011 was negatively reflected in the performance of funds with a higher share of equities in their portfolios. In addition to equity risk, the collective investment sector is exposed in large measure to the risk of a credit premia increase. This risk – mainly in the form of a fall in bond prices in Slovakia and other Central European countries (Poland, Slovenia, Czech Republic) – is faced mostly by bond funds.[34] For the sector as a whole, interest rate risk is less significant than equity risk, owing mainly to the relatively short duration of bond portfolios (Table 4).

Developments in the second half of 2011 again confirmed that collective investment funds were exposed to increased redemptions, which were motivated by high financial market volatility. This risk for the NAV of funds was also being pushed up by competition among banks in the domestic market for retail deposits, where banks offered more attractive deposit rates in order to increase the share of primary resources.

4.4 THE PENSION SAVINGS SECTOR

PILLAR II

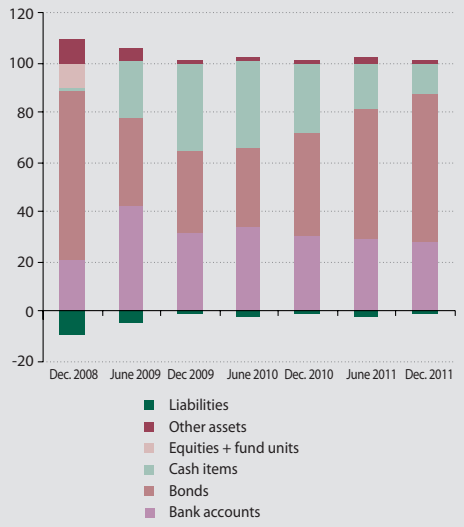
The financial market turbulence left the pension system unaffected. The volume of assets under management continued to grow along a linear path.

In the second half of 2011, pension funds of Pillar II of the pension system (pension savings sector) were not affected by the intense financial market turbulence in connection with the deepening debt crisis in the euro area. This can be explained by the compulsory participation of savers, which guarantees stable resources for the funds of pension fund management companies (PFMCs) and receipts for PFMCs from payments for asset management in funds. Another factor is the very conservative style of investment used in all pension funds (Charts 57 and 58).[35] Net asset value for 2011 increased by €874 million, representing a historical high in the pension sector.[36] Regular contributions from savers accounted for 97% of this increase. The number of savers increased by 8,000, which was somewhat more than in 2010.

The linearly rising trend in the current value of pension units remained unchanged. The increased volatility in the European bond markets caused only a small downward deviation at the end of 2011. The sector's annual performance improved slightly during the year.

34 *The fall in the prices of bonds from these countries accounted for 90% of the total negative revaluation of bonds in the portfolios of these funds.*
35 *The stability of the pension sector in 2011 was also supported by legislative stability. The law on pension savings was amended, but the effect of provisions pertaining to the system's settings has been postponed until 1 April 2012.*
36 *Assets under management in PFMC funds amounted to €4.6 billion as at the end of 2011 (Chart 37).*

Chart 57 Structure of assets under management in funds by type of investment (%)



Source: NBS.

Chart 58 Structure of debt securities portfolios by type of issuer (%)

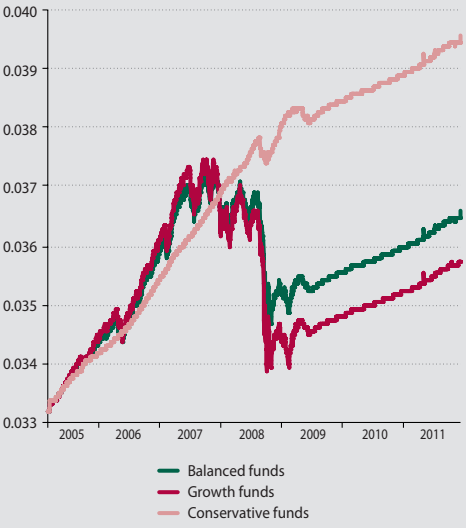
Source: NBS.

The current values of pension units followed a linearly rising trend during 2011, as in the previous one and a half years (Chart 59). The increased volatility in the European debt markets caused only a small downward deviation from this trend at the end of the year. This resulted from the negative revaluation of debt securities in the portfolios of funds – including Slovak government bonds, representing a significant component in the portfolios of all funds (Chart 60).

As a result of increased investment by funds in bank and corporate bonds and rising interest rates on bank deposits, the performance of funds increased somewhat in year-on-year terms (Table 5).

The highest risk for PFMC funds (though relatively low in comparison with other sectors) is the risk of bond portfolio depreciation as a result

Chart 59 Current values of pension units in the individual types of funds



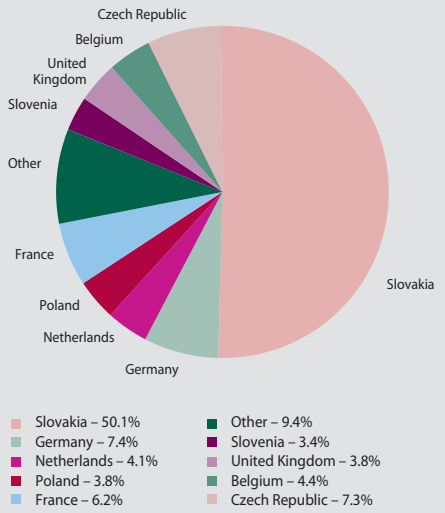
Source: NBS.

Table 5 Comparison of annual yields of pension funds as at 31 December 2010 and 31 December 2011 (%)

	Min.		Weighted average		Max.	
	2010	2011	2010	2011	2010	2011
Conservative funds	0.8	1.2	1.2	1.5	1.9	2.1
Balanced funds	0.8	1.1	1.2	1.5	1.9	2.1
Growth funds	0.8	1.1	1.2	1.4	1.9	2.1

Source: NBS.
Note: The average annual yield of pension funds is calculated as the weighted average of year-on-year percentage changes in the daily values of pension units in the relevant pension funds.

Chart 60 Portfolio of debt securities held in PFMC funds by country of issuer



Source: NBS.
Notes: The proportions are given in relation to the total volume of the debt securities portfolio as at 31 December 2011. The item 'other' includes debt securities issued in countries with a share of less than 1.5% in the overall debt securities portfolio.

of a rise in counterparty risk. However, low-risk funds usually pay lower yields to pension savers.

As we have mentioned above in connection with the performance of funds, the highest risk inherent in the portfolios of PFMC funds is the risk of a credit premium increase. However, this risk is low in comparison with other segments of the financial market. This can be attributed to the permanently short duration and relatively low residual maturity of the bond portfolios of these funds (Table 4). Table 3 also indicates that the exposure of funds to more risky countries was low at the end of 2011. Since the debt crisis in euro area countries showed a tendency to grow into a systemic event in 2011 (almost all bonds were affected), a further escalation of the crisis could produce serious losses for the funds.

The conservative investment strategy pursued by the funds, which is identical for all three types of funds in terms of their risk-yield profiles, is suitable to ensure only a minimum nominal appreciation for the pension savings of citizens (Table 5).[37] Hence, there is a risk that pension savers will not have enough savings for pension payments when they reach the statutory retirement age.

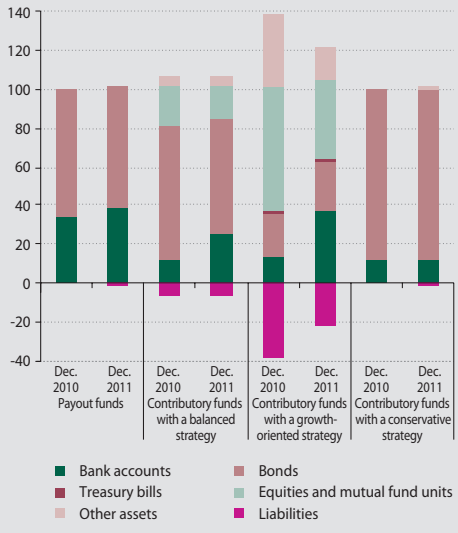
PILLAR III

The financial market turbulence in the second half of 2011 was also reflected in the supplementary pension system (Pillar III) in the form of slower growth in the volume of assets under management and deteriorated fund performance.

The supplementary pension savings sector expanded by €30 million during 2011. As at the end of the year, supplementary pension management companies (SPMCs) managed assets in the amount of almost €1.2 billion. The rate of increase in net asset value was three times slower than in the previous years, mainly as a result depreciation in equities, mutual fund units, and other financial instruments in the second half of 2011 in funds which were exposed to such securities (Chart 61).

As at the last day of 2011, the performance of contributory funds was lower, at the level of -2.8%. The negative trend in pension units in the second half-year period followed the falling prices of a wide range of assets in the financial markets. This was reflected mainly in growth funds and balanced funds, of which seven (out of eight funds) reported a negative result for the calendar year 2011. The worst performer reported almost -12%. Two conservative funds, as well

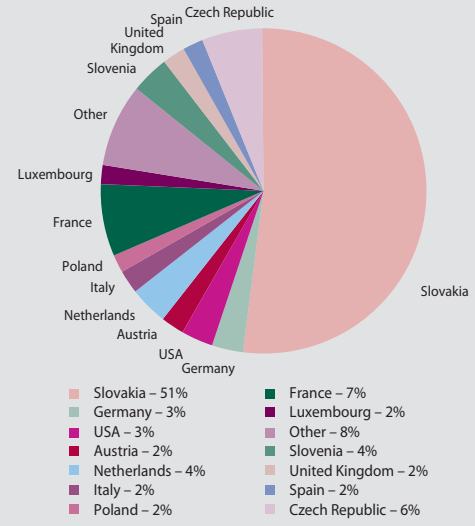
Chart 61 Structure of assets under management by type of investment in the individual types of PFMC funds by specialisation (%)



Source: NBS.

37 With effect from 1 April 2012, some of the funds have been reclassified to bond funds, mixed funds or equity funds on the basis of the law on pension savings as amended in 2011. The amendment prescribes the minimum and maximum representation of various financial instruments for the individual types of funds in line with their differentiated risk-weighted profiles. A new passively managed index fund has also been set up; its yields are tied to a market index. Mixed funds and equity funds have lost the guarantee that PFMCs will compensate the funds for their losses from their own resources.

Chart 62 Portfolio of debt securities held in SPMC funds by country of issuer



Source: NBS.
Notes: The proportions are given in relation to the total volume of the debt securities portfolio as at 31 December 2011. The item 'other' includes debt securities issued in countries with a share of less than 1.5% in the overall debt securities portfolio.

as all four payout funds, managed to maintain positive performance throughout the period under review. However, the year-end average for payout funds fell to 0.5%, which was only slightly more than one-third of the nominal appreciation for the calendar year 2010.

The funds of SPMCs were, to a significant extent, exposed to equity risk and the risk of a credit premia increase.

The structure of assets under management in funds and the impact on the performance of funds of declining equity markets in the summer of 2011 and negative developments in bond markets in November 2011 indicate that the most significant risks in the supplementary pension savings sector were equity risk and the risk of a credit premia increase. Growth funds and equity funds were in large measure exposed to equity risk. These funds recorded a fall in the current value of pension units (-7% and -11% respectively) during the decline in equity prices at the turn of July and August. The value of the sector's bond portfolio fell relatively sharply in November, by 2%. This fall took place predominantly in Slovak bonds (Chart 62). In comparison with the pension sector (PFMC funds) and the collective investment sector, the risk of a credit premium increase in the supplementary pension savings sector was higher, owing to the substantially longer duration of the bond portfolio (Table 4). Exposure to countries that recorded a significant increase in credit premia in 2011 was relatively low (Table 3), but it was concentrated in two funds of the same SPMC.[38]

4.5 MACRO STRESS TESTING OF THE FINANCIAL SECTOR[39]

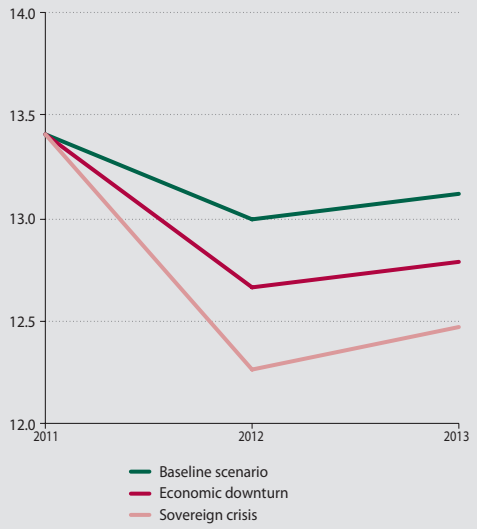
The banking sector as a whole showed strong resilience to negative developments in the real economy and in the financial markets. Only some of the banks failed to satisfy the capital adequacy requirement at the end of the stress test period, depending on the scenario applied. The sector's resilience was supported by its strong initial capital position and its ability to generate net interest income even under unfavourable circumstances. Credit risk posed by enterprises remained the most significant risk for the sector as a whole.

The banking sector as a whole showed strong resilience to negative developments in the real economy and in the financial markets as at the end of 2011. The sector as a whole managed to maintain its capital adequacy ratio above 9% throughout the stress test period (Chart 63), but some of the banks under certain scenarios fell below this level at the end of the period. At the end of 2013, the banking sector would require additional capital in the amount of €36 million (0.7% of the sector's own funds) under the baseline scenario (Table 6), which is based on the official forecasts of Národná banka Slovenska. Under Scenario 1, the additional capital requirement would be €105 million (2.2% of the sector's own funds). The more pessimistic Scenario 2 would generate an additional capital requirement for €159 million (3.5% of the sector's own funds).

The relatively favourable stress testing results of the banking sector can be attributed to two facts: the favourable capital adequacy ratio at the end of 2011 and the sector's ability to generate net interest income even under increased stress (Chart 64).

38 These two funds accounted for 11% and 16% respectively of the total net asset value as at 31 December 2011; they held predominantly Spanish and Italian bonds.
39 The stress testing results are not to be interpreted as a prediction for further developments in the Slovak financial sector. Stress testing is designed to enable a comparison of the tested companies and sectors in terms of their resilience to risk. A detailed description of the stress testing scenarios, assumptions and parameters is available in the Analysis of the Slovak Financial Sector for 2011.

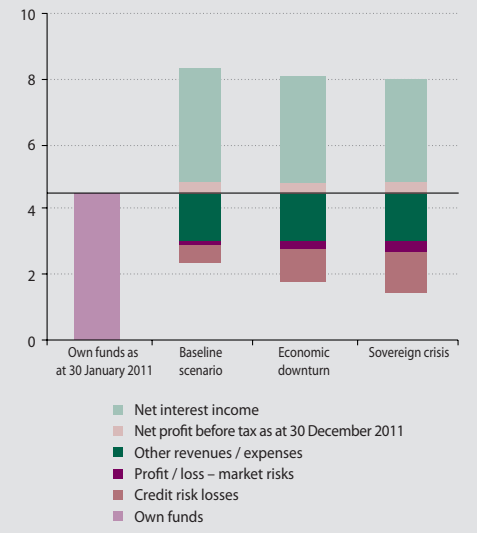
Chart 63 Capital adequacy ratio of the banking sector depending on the scenario applied (%)



Source: NBS.

Under the individual scenarios, the highest cumulative losses would arise from corporate credit risk. The significance of household credit risk for the banking sector as a whole is somewhat lower, but, in several banks, household loan losses would exceed the losses on the corporate loan portfolio. The relatively smaller amount of losses from the revaluation of securities can be explained by the fact that subject to revaluation to fair value are only debt securities which are recorded outside the portfolio of securities held to maturity, which is the sector's dominant portfolio.

Chart 64 Developments in the key factors affecting the amount of own funds (EUR billions)



Source: NBS.
Notes: The data express estimates as at 31 December 2013. The second to fourth columns contain the contributions of individual profitability components to changes (increase / decrease) in own funds. Other revenues / expenses are mainly general operating expenses, which tend to reduce the level of profits.

The stress scenarios had little impact on PFMC funds. For SPMC funds, equity risk proved to be the most significant. Stress testing in the collective investment sector identified a large number of less risky funds. Numerous insurers are likely to sustain losses in the case of increased insurance risks, combined with a deepening debt crisis.

The stress testing results indicate that PFMC funds are not particularly exposed to the risks that were tested under the stress scenarios. This is due to the conservative investment strategy pursued by these funds.

The funds of SPMCs were adversely affected by the stress scenarios to a relatively significant extent. The application of stress scenarios confirmed the significance of equity risk, i.e. the highest losses would be suffered by funds with a large share of equity investments.

Equity risk was also confirmed to be most significant risk in the collective investment sector. Overall, the impacts of scenarios on individual funds were rather heterogeneous: numerous funds of different types (mainly money market funds and bond funds) would even achieve a profit under the stress scenarios.

Interest yields on debt securities partially offset the asset revaluation losses, which were simulated under the stress scenarios for the insurance sector. Losses would be caused mainly by the expected systemic impact of the debt crisis on the level of credit premia for bonds, including bonds issued in less risky countries (e.g. Slovakia). Combined with high losses on the technical account, this impact represents a potential risk for the insurance sector. Under the Baseline Scenario, nine insurers would suffer a loss. Under Scenarios 1 and 2, a loss would

Table 6 Stress testing parameters and assumptions

			Baseline scenario		Scenario 1 "Economic downturn"		Scenario 2 "Sovereign crisis"	
			2012	2013	2012	2013	2012	2013
Underlying assumptions	External demand (annual change)		4.9%	7.0%	-16.2%	1.2%	-22.0%	-3.4%
	USD/EUR[1)] exchange rate (annual change)		0%	0%	-20%	0%	-30%	0%
	Exchange rates of CHF, JPY, GBP, DKK, CAD, HRK, LVL against the EUR[1)] (annual change)		0%	0%	-20%	0%	-30%	0%
	Exchange rates of other currencies against the EUR[1] (annual change)		0%	0%	20%	0%	30%	0%
	Equity prices[2)] (annual change)		0%	5%	-30%	0%	-50%	0%
	Key ECB interest rate (annual change)		25 b.p.	25 b.p.	0 b.p.	0 b.p.	0 b.p.	0 b.p.
	3-month EURIBOR (annual change)		-25 b.p.	27 b.p.	-7 b.p.	1 b.p.	22 b.p.	-1 b.p.
	1-year EUR discount rate (annual change)		-6 b.p.	28 b.p.	46 b.p.	2 b.p.	95 b.p.	4 b.p.
	2-year EUR discount rate (annual change)		44 b.p.	27 b.p.	63 b.p.	7 b.p.	86 b.p.	11 b.p.
	5-year EUR discount rate (annual change)		83 b.p.	35 b.p.	78 b.p.	14 b.p.	75 b.p.	17 b.p.
	iTraxx Senior Financials[3)] (annual change)		0 b.p.	0 b.p.	rise of 150%	0 b.p.	rise of 200%	0 b.p.
	Rise in 5-year credit spreads for GR		Partial default					
	Rise in 5-year credit spreads for PT[4)]		0 b.p.	0 b.p.	300 b.p.	0 b.p.	500 b.p.	0 b.p.
	Rise in 5-year credit spreads for HU, ES, IT, IE[4)]		0 b.p.	0 b.p.	150 b.p.	0 b.p.	300 b.p.	0 b.p.
	Rise in 5-year credit spreads for BE, SK, SI[4)]		0 b.p.	0 b.p.	110 b.p.	0 b.p.	210 b.p.	0 b.p.
	Rise in 5-year credit spreads for PL, CZ[4)]		0 b.p.	0 b.p.	50 b.p.	0 b.p.	150 b.p.	0 b.p.
	Rise in 5-year credit spreads for FR, AT[4)]		0 b.p.	0 b.p.	0 b.p.	0 b.p.	100 b.p.	0 b.p.
	Rise in 5-year credit spreads for DE, FI, NL, GB, CH, US, JP[4)]		0 b.p.	0 b.p.	0 b.p.	0 b.p.	50 b.p.	0 b.p.
	Rise in inclination of credit spread curves[4,5)]		0 b.p.	0 b.p.	rise to max. from 2011	0 b.p.	rise to max. from 2011	0 b.p.
Macroeconomic variables estimated using a model	GDP growth (annual change)		2.3%	3.5%	-3.5%	-2.8%	-5.4%	-4.7%
	Inflation (HICP)		2.7%	1.5%	4.7%	4.0%	4.6%	3.4%
	Unemployment		12.7%	12.0%	13.8%	15.3%	14.1%	16.4%
Insurance risks	Non-life insurance		Average loss ratio	Average loss ratio	Maximum loss ratio + 5 p.p.	Average loss ratio	Maximum loss ratio + 5 p.p.	Average loss ratio
	Life insurance – supplementary insurance		Same as in 2011	Same as in 2011	Max. loss ratio + 10 p.p. or market average	Same as in 2011	Max. loss ratio + 10 p.p. or market average	Same as in 2011
	Life insurance – risk of death		Same as in 2011	Same as in 2011	Death rate + 10 %	Death rate + 20 %	Death rate + 10 %	Death rate + 20%
Variables for credit risk estimated using macroeconomic variables	Annual probability of default	Insensitive sectors	1.6%	1.4%	2.2%	2.6%	2.4%	2.8%
		Moderately sensitive	2.4%	2.4%	3.0%	4.3%	3.1%	5.0%
		Sensitive sectors	5.8%	5.5%	6.7%	10.7%	6.7%	11.7%
	Ratio of non-performing household loans		5.9%	5.6%	7.2%	8.6%	8.7%	10.3%

Source: NBS.
Notes:
1) The stress scenarios assume that the decline is evenly distributed over the entire year 2012.
2) Scenario 2 assumes a fall of 30% in the first quarter and a further 20% fall in the following three quarters.
3) Scenario 2 assumes an increase in the first quarter.
4) The rise in credit spreads is expected to take place in the first quarter. The rise in credit spreads expresses an additional rise in comparison with the discount rate.
5) The rise in inclination of the credit spread curve is defined as an increase in the difference between 1-year and 5-year credit spreads.

be recorded by sixteen insurers (the loss under Scenario 2 would be higher). However, the revaluation of insurance company liabilities was not taken into account in the calculations, owing to the lack of data. A potential decrease in liabilities as a result of a rise in risk-free rates would moderate the impact of the individual stress scenarios.

ANNEXES

THE VIEWS AND RESULTS EXPRESSED IN THE ANNEXES ARE THOSE OF THE AUTHORS AND DO NOT NECESSARILY REFLECT THOSE OF NÁRODNÁ BANKA SLOVENSKA

1 INDEBTEDNESS OF ADVANCED COUNTRIES AND ITS IMPACT ON ECONOMIC GROWTH

TOMÁŠ TŐZSÉR[40]

INTRODUCTION

The overall indebtedness of non-financial sectors (households, non-financial corporations, and the government sector) in advanced industrial countries increased to a significant extent. According to the calculations of the Bank for International Settlements (based on a sample of 18 advanced countries), the average aggregate debt of these sectors as a percentage of GDP rose gradually, from 165% in 1980 to 320% in 2010.[41] The purpose of this article is to assess the consequences of excessive indebtedness in advanced countries for their economic growth, the effectiveness of anti-cyclical economic policies, and indirectly for the financial stability of Slovakia.

1.1 POSSIBLE CAUSES OF DIFFERENCES IN DEBT LEVELS BETWEEN ADVANCED AND DEVELOPING COUNTRIES

Private and public debt levels in advanced countries are high and are still rising. In real terms, the debt of non-financial corporations tripled over the 30-year period from 1980 to 2010, government debt increased 4.5 times, and household debt grew 6 times.[42] This trend in advanced countries was caused by several factors. Access to credits and loans was enabled by extensive liberalisation in the financial intermediation sector and by the subsequent financial innovations. Household indebtedness started to rise as a result of various government policies introduced in support of private housing construction. In the corporate sector, the rising indebtedness was also stimulated by the deductibility of interest expenses for tax purposes. The stable macroeconomic conditions from the middle of the 80ties to the beginning of the current crisis generated increased demand for loans in the private sector. At the same time, banks were willing to lend more and more, which improved their prospects for revenue growth. This led to a reduction in risk premia in the prices of loans.

The convenient financing of growing debts in advanced countries was also stimulated by a falling trend in long-term interest rates, which started in the middle of the 90ties. This fall was attributed to structural changes in the global economy, mainly to the excess of savings over investments in numerous developing countries,[43] and to the low inflation expectations owing to increased confidence in central banks and the involvement of Asian countries in global trade. The overall indebtedness of certain advanced countries was also supported by their weak budgetary discipline: the governments of these countries did not utilise the periods of favourable economic development to consolidate their public finances. Thus, public finances soon became unsustainable in the conditions of the ongoing crisis and economic recession.

Indebtedness in developing countries (measured as the debt of non-financial corporations as a share of GDP) followed a different course. Since 1995, when consistent data on such countries became available, the indebtedness of developing countries has remained virtually unchanged and relatively low, around the level of 100% of GDP (according to a sample of 21 countries).[44] The relatively low and stable level of indebtedness in developing economies can be ascribed to the lower tolerance of debt in these countries. This is historically connected with the larger share of debts denominated in foreign currencies and with their shorter maturity period. These debt characteristics make developing countries vulnerable to external shocks (for example, to a sudden rise in risk aversion among investors) and substantially reduce the effectiveness of their own (fiscal and monetary) stabilisation policies.

Over the past ten years, however, developing countries have made considerable progress and become more resilient to external shocks. This was also apparent during the last crisis. The structure of indebtedness has improved (the share of debt in local currency increased, as well as the average maturity), owing to an improvement in

40 Any views or opinions presented in this article are solely those of the author and do not necessarily represent the official position of Národná banka Slovenska.
41 BIS (2011).
42 A sample of 16 OECD countries, including the United States (simple averages), according to the BIS (2011).
43 Arguments against this cause of decline in global interest rates, which is often mentioned in literature, are presented by Borio and Disyatat (2011, pp. 20). These authors emphasise the role of the monetary-political and financial conditions.
44 BIS (2011).

the macroeconomic policies of these countries (higher discipline, lower government debt, and lower inflation). Numerous countries implemented structural reforms; the reformed institutions created conditions for the inflow of stable funds from abroad and thus increased the economy's productive potential. Financial stability in developing countries (mainly in Asia and South America) was also supported by a massive increase in foreign exchange reserves and domestic savings, which reduced their dependence on financing from abroad.[45]

1.2 DEBT ACCUMULATION: CONTRIBUTIONS AND RISKS

Debt enables an effective allocation of consumption in time. Thanks to debt, economic entities with a restricted budget can invest in profitable instruments. Thus, debt may have a welfare-improving effect and may increase the country's economic potential. Experience from financial crises (including the current one), however, suggests that debt above a certain level may impair welfare and may dampen the rate of economic growth.[46] Every debtor is exposed to the risk of unexpected changes in incomes and interest rates.

It is problematic to determine the sustainable level of indebtedness, because the procedure is influenced by the input assumptions of the models applied.[47] This is demonstrated by recurrent financial crises, which principally arise from the underestimation of the financial risks by both the debtors and the creditors. According to Minsky's theory (1986), speculative investment bubbles and the resulting financial crises are inherent in each capitalist economy. Any period of prosperity that is related to a speculative increase in indebtedness (as an income- and wealth-generating tool) inevitably leads to financial instability, because, after a certain time (the Minsky moment), debtors become unable to repay their debt (neither interest nor principal) from their income. Although it is difficult to calculate the sustainable level of indebtedness, it is evident that the debtor's vulnerability to negative shocks will increase with the rising level of indebtedness. If the debt-to-income ratio is high, even a relatively moderate shock in the area of incomes and/or interest rates may substantially weaken the debtor's ability (and willingness) to repay the debt.

Increased indebtedness weakens a country's potential to react to the current economic cycle or balance-sheet recession through stabilisation (anti-cyclical) policies. Rapid growth in private sector debt in relation to income is usually accompanied by a price bubble in (financial or real estate) asset markets. The bursting of this price bubble (as a result of the weakened ability of debtors to repay their liabilities) leads to a fall in asset prices, but the value of liabilities remains unchanged. The private sector subsequently attempts to correct the balance-sheet imbalance by increasing savings and reducing the level of debt. This process leads to a fall in aggregate demand and to economic recession (balance-sheet recession).[48] Under the given circumstances, the effectiveness of monetary expansion on the part of central banks is greatly restricted, because entities with negative capital are unwilling to borrow even at extremely low rates of interest. At the same time, banks with balance-sheet problems are unwilling to lend to entities with a weakened balance sheet (such banks restrict their lending activity). The only road to economic revival is balance-sheet repair in the private sector.

In the conditions of leverage reduction in the private sector, the current aggressive fiscal consolidation (forced by the market or voluntary) increases the deflationary pressure in the economy. The repair of private balance sheets is decelerating and may become a long-term matter as in Japan ('the lost decade', i.e. 1996-2006), following the bursting of a real estate bubble in 1990.[49] A country that exceeds the critical level of indebtedness becomes unable to generate a sufficient income to cover the growing debt service costs – the economy enters a debt spiral.[50] The consolidation of public finances becomes economically and/or politically intolerable and usually leads to the declaration of state bankruptcy.

1.3 THE CURRENT CRISIS IN THE LIGHT OF PREVIOUS FINANCIAL MELTDOWNS

The previous chapter contains a description of the risks to economic growth and financial stability, arising from high private and public sector indebtedness, i.e. from the situation that is currently typical of the advanced economies.

This is underlined by the long history of financial crises, which is well documented in the work of

45 *The group of developing countries is not homogeneous: some of the countries are still struggling with structural problems and high indebtedness.*
46 *Cecchetti, Mohanty and Zampolli (2011) examined a sample of 18 OECD countries in the years 1980 to 2010 and arrived at the conclusion that the debt ceiling should be 85% of GDP for government debt, 90% of GDP for corporate debt, and 85% of GDP for household debt.*
47 *The level of sustainable debt can also be determined on the basis of previous experience (empirically), e.g. Reinhart and Rogoff (2010) for the public sector, and Juselius and Kim (2011) for the private sector. Empirical research is useful as a basis for policy recommendations.*
48 *Koo (2011).*
49 *Ibid.*
50 *The determination of the critical level of government debt for EU countries is discussed in an NBS research study report (Hajnovič, Zeman, Žilinský, 2011).*

Reinhart and Rogoff (2009). This work identifies the historically identical trends leading to serious systemic financial crises in advanced countries after World War II: rising asset prices (equity and property prices), growing indebtedness (in the private and government sectors), high and persistent current account deficits accompanied by intense capital inflows, and decelerating economic growth. The consequences of the historically significant financial crises share three characteristics: deep and long-term decline in asset markets, sharp decline in production and employment, and state debt explosion. The authors also found that the start and consequences of banking crises in advanced and developing countries were identical in surprisingly large measure – mainly the developments in property prices, equity prices, unemployment, public income and debts were similar. In the post-war period, there were no marked differences in the frequency and duration of banking crises in these two groups.

Lessons from history about financial crises are useful for the creation of a framework for considerations about the current phase of financial instability and its further course. For example, indebtedness was successfully reduced in Sweden and Finland after the banking crisis at the beginning of the 90ties. The process took place in two phases. In the first phase, financial institutions, households, and enterprises substantially reduced their indebtedness within a few years. This was accompanied by stagnation in the economy and rising government debt. In the second phase, the economy started to grow and government debt fell gradually (for many years). As past experience indicates, it takes a long time to reduce the level of excessive debt. The process in our case began in 2008. In the case of Sweden and Finland, a great help was the depreciation of their currencies (it supported their exports), the low initial level of indebtedness, and the economic boom in other countries or regions of the world.

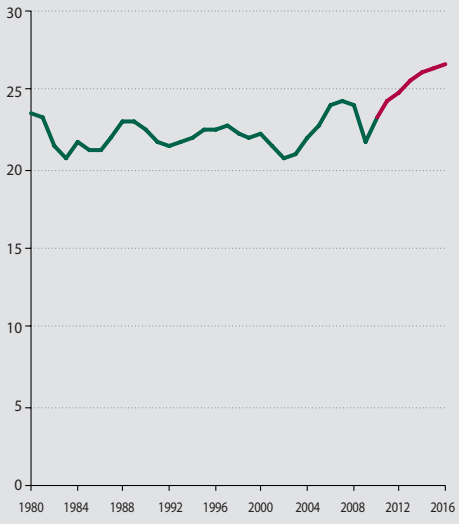
Compared with the crisis in Sweden and Finland and with the post-war financial crises in general, which had national (or regional) dimensions, the current crisis is global in nature. Now, it is far more difficult for the countries involved to 'grow out' of their excessive debts through increased exports. Rapid global economic recovery on a sustainable basis is also dampened by the fact that financial and economic integration is not accompanied by effective global coordination of policies and reforms at the national level. The national policies, which are designed mostly to stimulate economic growth, are often in conflict with the need for imbalance correction in qualitative terms (in countries with a surplus or shortage of savings) in the world economy ('rebalancing').

1.4 OUTLOOK FOR ECONOMIC GROWTH IN ADVANCED COUNTRIES IN REGARD TO THEIR DEBT BURDEN – GLOBAL AND NATIONAL FACTORS

According to the IMF, global savings reached a historical high in 2007 (24% of global GDP), when the financial crisis started. In 2009, they fell sharply below 22% of GDP, because countries with an external deficit had lost their ability to accumulate debt, which led to a decline in global demand. Countries with a surplus of savings failed to compensate for this decline with an increase in consumption and/or investments, which led the global economy to recession in 2009. Economic recovery was stimulated by investment from public resources and thus global savings again reached a record level in 2011.

Since savings must equal investments according to the definition, coordinated fiscal consolidation in advanced countries (growth in savings), which is

Chart 65 Gross national savings (% of global GDP)



Source: IMF, World Economic Outlook Database, September 2011.
Note: Data for the years 2011 to 2016 are based on forecasts.

a unique achievement in history, must be accompanied by growth in global investments. These, however, are at a record level (in relation to GDP). Capital supply reached a high and economically unjustified level in China and Japan.[51] In Germany, there is no mechanism in place for the support of domestic demand. Hence, Dumas (2012) and several other economists (unlike the IMF, see Chart 65) see no reason why investment in economically advanced countries with a surplus of savings should continue growing. The tightening of fiscal policies at a global level may lead to a slowdown in economic growth, which will postpone the revival of investment in advanced countries.

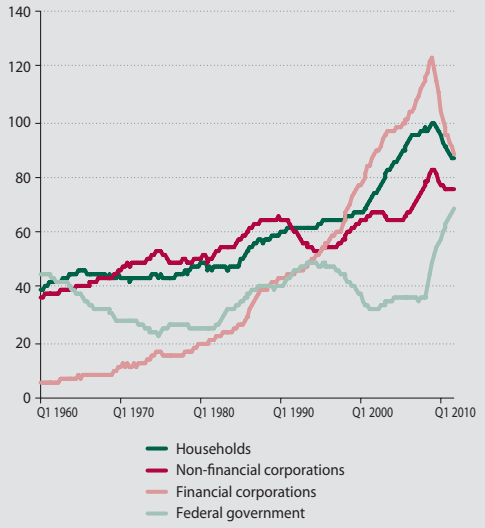
Let us examine the problem of outlook for economic growth from the view of excessive debt reduction, too. The balance-sheet repair process has been greatly restricting the rate of growth in advanced economies since 2008. Debt reduction started in the banking sector, then continued in the household and corporate sectors. The public sector is also making intense efforts in this respect. However, Table 7 indicates that, except in a few countries, the deleveraging process is not effective enough.

United States of America

The United States is one of the few countries which have managed to reduce their total debt relative to GDP since 2008 (Table 7). The private sector is particularly successful in this area: the financial sector's gross debt as a share of GDP returned to the level of 2001 in the fourth quarter of 2011 (it fell from its maximum level by 35 percentage points), household debt returned to the level of 2004 (a fall of 13 percentage points), and the debt of non-financial corporations also fell somewhat. Public debt in the United States continued to grow in the fourth quarter of 2011, to almost 70% of the GDP (Chart 66).

It is not easy to determine the sustainable level of debt, nor is it possible to predict reliably whether or not indebtedness should be reduced still further. On the basis of the history of household in-

Chart 66 Gross debt of the United States broken down by sector (% of GDP)



Source: Federal Reserve System – flow of funds accounts, US BEA.
Note: The latest data are for the fourth quarter of 2011.

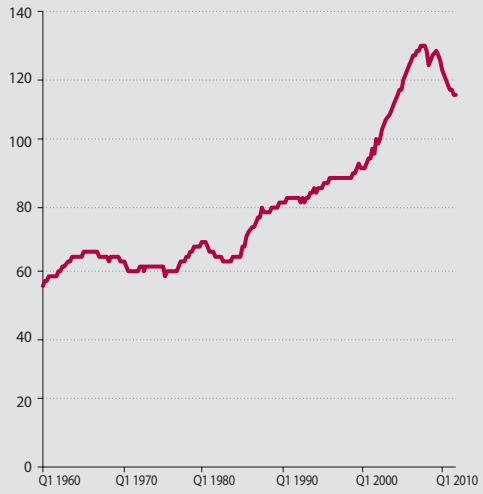
Table 7 Change in total debt as a share of GDP (percentage points)

	2000 – 2008	2008 – Q2, 2011
Japan	37	39
United Kingdom	177	20
Spain	145	26
France	89	35
Italy	68	12
South Korea	91	-16
USA	75	-16
Germany	7	1
Australia	77	-14
Canada	39	17

Source: McKinsey Global Institute.
Note: Total debt includes the loans and bonds of households, enterprises, financial institutions, and governments.

51 Reading (2012).

Chart 67 Household debt in the United States (% of disposable income)



Source: Federal Reserve System, US BEA, NBS calculations.
Note: The latest data are for the fourth quarter of 2011.

debtedness in the United States, it is possible to assume that debt reduction should continue for some time (Chart 67). Assuming that household debt before the 2003 real estate bubble expansion was at a sustainable level, i.e. around 110% of the disposable income, we can say that households could stop reducing their indebtedness at the end of 2012, provided the current pace of debt reduction is maintained (1% of income per quarter, from the maximum level of 130% in the third quarter of 2007 to 113% in the fourth quarter of 2011). If we take the currently low debt service costs into account, a higher household debt ratio can also be regarded as sustainable. This is illustrated in Chart 68 – debt service costs returned to their previous levels as a result of the low rates. This implies that debt reduction can be discontinued in the near future.

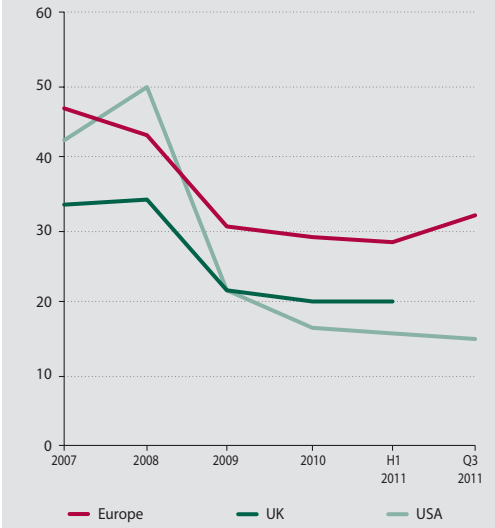
Non-financial corporations had a relatively sound financial position already before the crisis. Despite this, they launched aggressive restructuring, which boosted their profitability. In terms of financial flows, such corporations achieved large surpluses. The greatest progress in balance-sheet recovery was achieved by US banks (Chart 69). The accelerating credit growth (Chart 70) indicates that US banks are more ready to lend. This implies that the US economy is well on the road to recovery through a gradual revival in domestic demand (consumption and investment).

The revival in economic activity may be jeopardised by too aggressive fiscal consolidation, which is expected to accelerate after the presidential elections in the autumn of 2012. The situation could be stabilised through the adoption of a reliable medium-term plan for fiscal consolidation. The preparation of such a plan, however, is ham-

Chart 68 Household debt service costs in the United States (% of disposable income)

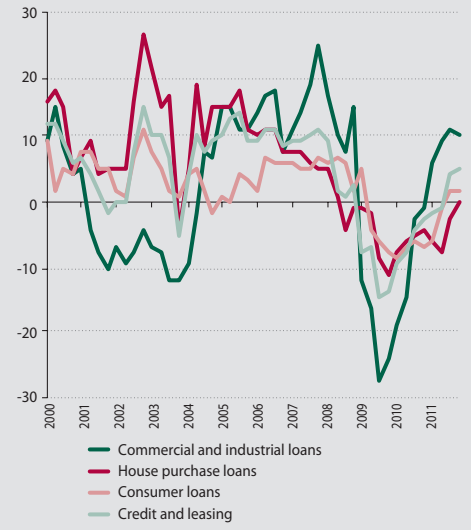
Source: Federal Reserve System, US BEA, NBS calculations.
Note: The latest data are for the fourth quarter of 2011.

Chart 69 Comparison of banks' leverage (ratio of total assets to shareholders' equity)



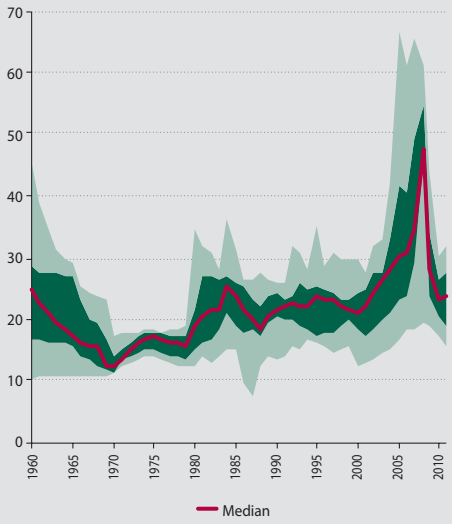
Source: Bank of England: Financial Stability Report, December 2011.

Chart 70 Volume of commercial bank loans in the United States (year-on-year changes in %)



Source: Federal Reserve System.

Chart 71 UK banking sector's leverage (ratio of total assets to shareholders' equity)



Source: Bank of England: Financial Stability Report, December 2011.
Note: The chart illustrates the path of the median value of leverage for a sample of financial groups providing banking services in the UK in 2011, as well as the interquartile range and the maximum-minimum range.

pered by the inability of the two political parties to agree on its contents. The pace of economic revival will be dampened by the persistently weak real estate market. The market is burdened with a large number of real estate investments the value of which is lower than the value of loans provided for their financing. Economic recovery in the United States is also exposed to external risks: the demand side of the economy may be adversely affected, through a fall in financial asset values, by the potential materialisation of systemic risks in the euro area, and, through a fall in real incomes, by a steep rise in commodity prices.

United Kingdom

The deleveraging process in Europe is much slower than in the United States. The total debt of the United Kingdom reached 507% of GDP in the middle of 2011, representing a rise of 20 percentage points compared with the end of 2008 (Table 8).

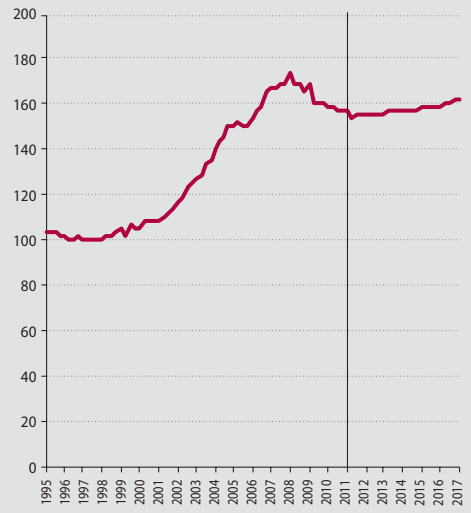
After 2008, banks attempted to repair their balance sheets by raising their own capital and reducing assets (Chart 71), while indebtedness in the rest of the financial sector increased (Table 8). The sector as a whole was greatly exposed to the risk of loan losses in relation to vulnerable euro area countries (mainly Ireland and Spain). Households reduced their indebtedness as a share of disposable income by approximately 15 percentage points (Chart 72). However, household debt is still high, which means that households are highly vulnerable to any rise in interest rates. The Office for Budget Responsibility expects no fur-

Table 8 United Kingdom: change in debt as share of GDP (percentage points)

	Q4, 2000 – Q4, 2008	Q4, 2008 – Q2, 2011
Government	11	28
Financial institutions	87	11
Non-financial corporations	45	-14
Households	34	-5
Total debt	177	20

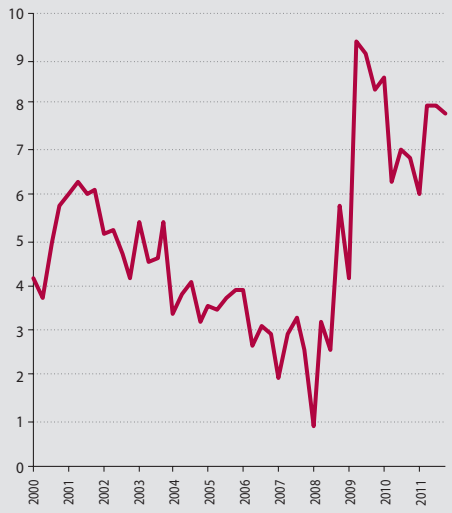
Source: McKinsey Global Institute.
Notes: Total debt includes all loans and fixed-income securities, except for asset-backed securities (ABS).

Chart 72 UK household debt as a share of disposable income (quarterly data, %)



Source: Office for Budget Responsibility: Economic and Fiscal Outlook, November 2011.
Note: Data for the years 2011 to 2017 are forecasts from the Office for Budget Responsibility.

Chart 73 UK households' saving ratios (%)



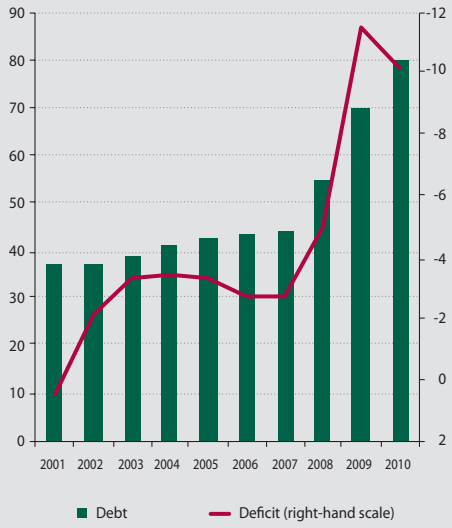
Source: Office for National Statistics.

ther fall in the level of household debt, as a result of weaker growth in disposable incomes.[52]

Up to now, the fall in households' debt ratio has not been supported by a reduction in the amount of debt – this has grown somewhat since 2008 (according to the OECD's financial account statistics). Nor has the banking sector recorded a significant increase in non-performing loans – mortgage loan write-offs are at a low level.[53] For comparison, US household debt dropped by $584 billion between Q4, 2008 and Q2, 2011, largely as a result of debt defaults (88%).[54] This partly reflects the higher complaisance of UK banks towards debtors in arrears (this may be a means of hiding solvency problems), but it may also be an indication of the positive effect of debt distribution within the UK household sector on the level of sustainable debt. The difference in debt default rate between the US and UK household sectors may also be the result of legislative differences within the United States. This enables debtors to stop repaying their mortgages, while the creditor bank cannot collect its receivables from other assets than the collateral agreed or the debtor's incomes.

Since 2008, households with increased savings (Chart 73) have moved from a net debtor position to a net creditor position vis-à-vis the rest of the economy. The resulting deceleration of GDP growth (negative in 2009) and the application of automatic stabilisers caused a marked increase in government deficit and a rise in public debt

Chart 74 Changes in UK government debt and budget deficit (% of GDP)



Source: Eurostat.
Note: The chart shows the general government's consolidated gross debt and budget deficit (inverse right-hand scale) as reported to the EDP.

52 Office for Budget Responsibility (2011).
53 Bank of England (2011), page 30, Chart 2.27.
54 McKinsey Global Institute (2012), page 19.

(Chart 74). The government responded to the rapidly worsening fiscal conditions with consolidation efforts (starting from 2010).

This indicates that the outlook for sustained economic recovery in the UK in the next few years is not too optimistic, owing to the large debt burden. Households are burdened with a large amount of debt and with the related risks. There is a high degree of uncertainty around their future incomes. The banking sector has managed to repair its balance sheet to some extent by reducing its financial leverage, but is still exposed to increased risks from the euro area, the domestic commercial real estate market, and difficult conditions of market-based financing. Fiscal consolidation is expected to have a dampening effect on the economy still further. Although the exchange rate of the pound sterling has weakened in real terms since the start of the crisis, export growth is not stimulated by developments in the external environment (i.e. the euro area and the US, representing the most important exports markets).

The euro area

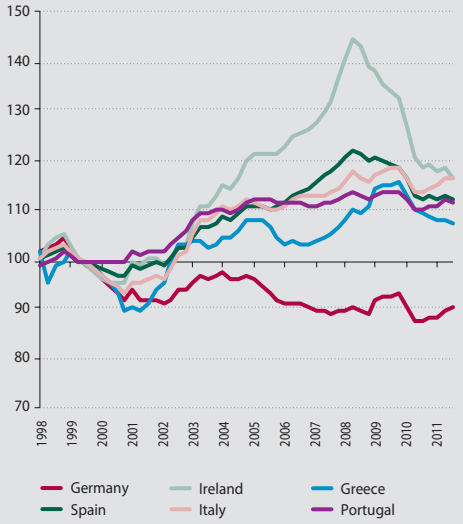
In the euro area, there are large structural imbalances between the individual Member States.[55] These imbalances are combined with pronounced economic and financial heterogeneity within the euro area. On the one hand, there are unsustainable private and public sector debts in the peripheral countries. The fact that these debts – financed in large part by euro area countries with surplus resources (Chart 75) – have become unsustainable is connected with the unfavourable outlook for the determinants of economic growth in peripheral countries at a pace which would ensure the return of investments into the debts of these countries.

Capital inflows in numerous cases were not channelled into productive investments, which would facilitate debt repayment in the future. Outlook for economic growth in problematic euro area countries is also worsened by a long-term fall in their relative cost-based competitiveness (Chart 76). The combination of slow productivity growth and inflexible labour markets in the conditions of monetary union has led to faster growth in unit labour costs in comparison with the rest of the euro area. This is also demonstrated by the decreasing share of these countries in the global export markets.

Chart 75 Net international investment position of selected euro area countries (% of GDP)

Source: IMF.

Chart 76 Real effective exchange rates of selected euro area countries (index, 1999 = 100)

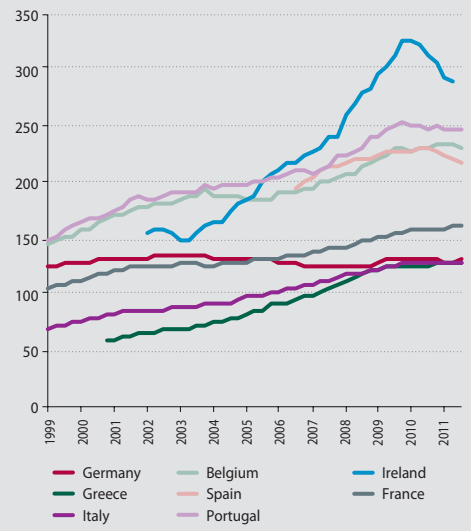


Source: Eurostat.
Notes: The unit labour costs of 36 trading partners are used as deflators. A rise in the index is an indication of weakening competitiveness.

The lax lending conditions and worsening competitiveness are accompanied by growing current accounts deficits in the peripheral countries. On the other hand, the highly competitive and flexible (in terms of labour market conditions)

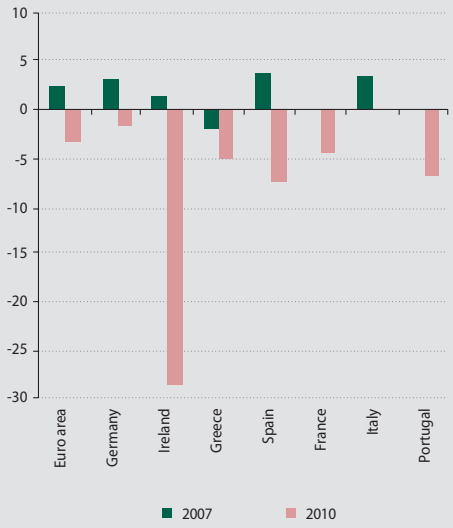
55 Interesting arguments about financial stability in the euro area (monetary union) are presented by Giavazzi and Spaventa (2011).

Chart 77 Private sector debt in selected euro area countries (% of GDP)



Source: Eurostat.
Notes: Private sector debt includes loans and securities, except for equities. The private sector comprises households, non-financial corporations, and non-profit institutions serving households.

Chart 79 Primary balance (% of GDP)



Source: Eurostat.
Notes: The chart shows the primary balance of general government in selected euro area countries.

euro area countries have surpluses in their current accounts.

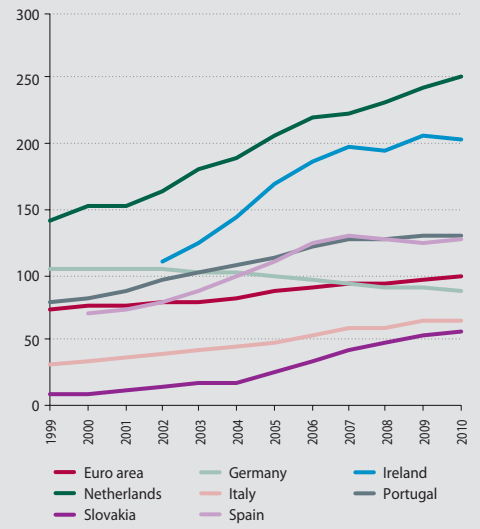
The concerns of investors regarding the sustainability of government debts in the peripheral euro area countries are in large part connected with the private sector, which is very vulnerable in financial terms (Chart 77). The governments of problematic countries, except for Greece, had recorded relative sound developments in public finances before the crisis (Charts 78 and 79). They now have no free capacity to take over private debts (e.g. the debts of insolvent banks). The pressure on fiscal consolidation on the part of investors tends to worsen the conditions for economic growth and private balance sheet repair still further. These conditions for the euro area as a whole are further impaired by the ongoing fiscal consolidation in 'core' euro area countries.

Chart 78 Government debt (% of GDP)

Source: Eurostat.
Note: The chart shows the consolidated gross debt of general government in selected euro area countries.

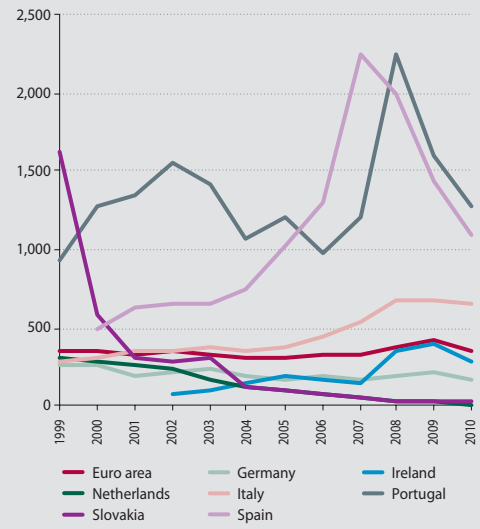
This is demonstrated by the weak progress achieved in the area of debt reduction in the private sector. Household debt in the euro area relative to disposable income stood at 99.8% in the third quarter of 2011. This level of indebtedness had been maintained since the end of 2010 (Chart 80). The debt of non-financial corporations started to fall in the middle of 2009. According to the ECB, the ratio of debt to total assets reached a record level in the first quarter of 2009 (29.5%). The gradual fall in indebtedness came to a halt in the third quarter of 2011, when the debt-to-assets ratio of non-financial corporations rose to 27.3% (from 26.7% in the second quarter of 2011). Charts 80 and 81 illustrate that

Chart 80 Household indebtedness in the euro area (% of disposable income)



Source: Eurostat.
Note: The chart shows gross household debt as a share of disposable income.

Chart 81 Indebtedness of non-financial corporations in the euro area (% of net income after taxes)



Source: Eurostat.
Note: The chart shows the main financial liabilities of corporations as a share of net corporate income, excluding income tax and property tax.

the average values of household and corporate debts show considerable heterogeneity within the euro area.

According to the ECB, the euro area banking sector reduced its financial leverage from roughly 30 in 2008 (ratio of total assets to shareholders' equity) to 20 in 2010. In the case of large and complex banking groups, the leverage ratio stood at almost 40 in 2008, then fell gradually to 25 in the second quarter of 2011. In the third quarter of 2011, the falling trend in the banking sector's leverage ratio came to a halt. Since the financial leverage of euro area banks is still relatively high (Chart 69), it needs to be reduced still further. The IMF (2012) estimates that the assets of euro area banks will fall over the next two years by roughly €2 billion (7% of the sector's total assets).

The ECB's new operations (two 3-year loans unlimited in volume and eased collateral quality requirements for loans from the Eurosystem) are not likely to restrict the overall expected fall in the sector's financial leverage; however, they may slow it down. The further fall in the leverage ratios of euro area banks (and in their total assets) may be affected by the following factors: new regulatory requirements for liquidity and capital adequacy (Basel III and EBA requirements),[56] tension in financial markets (more problematic access of banks to debt and equity securities), and less favourable outlook for profitability. The results of Bank Lending Surveys for January 2012 confirmed that banks had been reducing the amount of risk-weighted assets in the previous six months with the aim of satisfying the new regulatory requirements. In this survey, banks also expressed their intention to continue reducing their risk-weighted assets in the six months ahead.

The further intense debt reduction in the private sector (enterprises, households, banks) in the peripheral euro area countries, as well as in some of the core countries, coupled with coordinated fiscal consolidation in the euro area as a whole, will, in all probability, have a negative impact on the rate of economic growth in the euro area over the medium-term horizon.

Summary and conclusion

Debt accumulation up to a certain level has a positive influence on economic growth and welfare. Above this level, however, indebtedness has the opposite effect. An empirical ap-

56 The European Banking Authority's requirement (from October 2011) to increase the Tier 1 capital adequacy ratio to 9% by June 2012, with the market value of the banking sector's entire government securities portfolio taken into account. More detailed information is available at: http://www.eba.europa.eu/capitalexercise/2011/2011-EU-Capital-Exercise.aspx

proach to the determination of this level can provide only approximate results[57], which, however, are applicable as policy recommendations. An objective fact, however, is that high indebtedness (in relation to income) increases the vulnerability of debtors to negative shocks to their incomes.

A characteristic feature of advanced economies today is high indebtedness in the private and public sectors. Increased debt, combined with persistent balance-sheet recession in numerous advanced economies since the outbreak of the financial crisis in 2007 (depreciated financial and real estate investments), may reduce the effectiveness of anti-cyclical policies (fiscal and monetary). To restore the rate of economic growth in these countries, the balance sheets of private and public entities need to be repaired. In the case of non-financial corporations, banks and households, the main tool for balance sheet repair is deleveraging, i.e. debt reduction combined with an increase in own funds and/or savings. The individual countries are currently consolidating their public budgets. In the western world, however, these processes take a long time; in many cases, they are in their initial phase only.

Apart from the debt ratio, an important difference today in comparison with the past is the closer financial and economic links and interdependence between countries. While financial crises in the past were local or regional in nature, the current one is a global crisis. This means that, unlike in the past, the individual countries today cannot simply 'grow out' of their debts through exports. Another major difference is that, while most countries in the 90ties had a floating exchange rate, countries today producing roughly 2/3 of global GDP are part of one of the two large monetary blocks, i.e. the euro area or the new dollar area (Reading, 2012).[58] The consequences of these differences are: global imbalances and weakened natural repair mechanisms (which could stimulate economic growth and reduce the level of indebtedness).

Under the given circumstances, the medium-term outlook for global economic growth is not very encouraging. By contrast, the high private and public sector debts in advanced countries and the negligible or no progress achieved in the area of overall leverage reduction indicate that the outlook for economic recovery is in negative territory. Over the medium-term horizon, the rate of growth in advanced economies is expected to remain low but positive. In certain cases where the supply side of the economy has serious structural deficiencies, negative values can be expected, too.

Over the long-term horizon, the most probably source of global recovery – provided that investor confidence strengthens again – will be the corporate sector in advanced countries that have large financial surpluses (United States, UK, Germany, and Northern Europe), mainly if these resources will be channelled into productive investments. A positive scenario for the renewal of sustainable economic growth on a global scale requires structural reforms to be implemented in both deficit and surplus countries, and more effective economic policy coordination at a global level. This, however, is a complex problem (Rajan, 2011 or Borio and Disyatat, 2011).

Household and corporate indebtedness in Slovakia is well below the euro area average (Charts 80 and 81), but household debt is growing at a very fast pace. Banks will have to be more and more cautious in lending to these segments in order to avoid the accumulation of macroeconomic imbalances and related risks in the future.[59] The banking sector should develop its activities with a view to maintaining its favourable position in terms of financial leverage and liquidity. Weak global economic growth represents a threat for the public sector budget in particular. Hence, the government should make every effort to fulfil the plan of fiscal consolidation. This effort should be accompanied by reforms and measures for the support of economic growth and for the maintenance of a sustainable fiscal position in the long term.

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57 The determination of the sustainable level of debt using methods based on financial risk measurement is always influenced by the input assumptions and imperfections of the models applied.

58 The term NDA (new dollar area) comes from Brian Reading. The economists of Deutsche Bank have introduced the term Bretton Woods 2. This refers to countries whose currency is fixed or administratively controlled ('dirty float') against the US dollar: China, Hong Kong, Taiwan, Malaysia, Singapore, South Korea, Japan, and Russia. The new dollar area, including the US, accounts for roughly 50% of global GDP.

59 The conditions for financial stability in Slovakia in terms of macroeconomic imbalances are discussed in more detail in Annex 2.

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2 MACROECONOMIC IMBALANCES IN EURO AREA COUNTRIES AND THE POSITION OF SLOVAKIA

ANNA STRACHOTOVÁ[60]

The financial and economic crisis has severely hit the economies of EU countries and increased the risks that macroeconomic imbalances pose to financial stability. The functioning of the euro area has also been hard hit by the crisis. At the aggregate level, the position of the euro area vis-à-vis abroad may seem to be stable, but there are marked differences in positions of individual Member States. The monetary union has created a framework for convergence only in certain areas. The historical differences have remained unchanged within the euro area; in certain areas they have even deepened to a significant extent.[61]

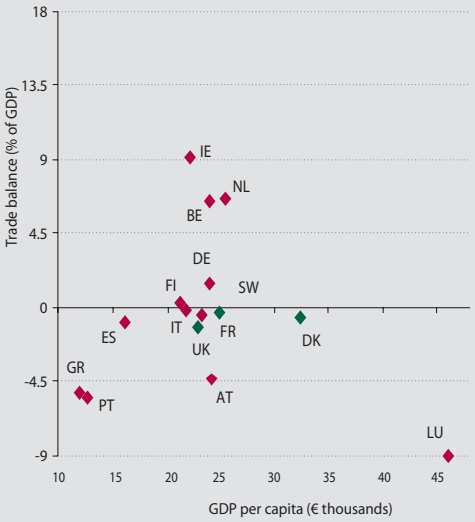
The growing macroeconomic imbalances, which cause serious problems in numerous EU countries and induce negative market reactions, motivated the European authorities to strengthen the supervision of public finances and to develop a new procedure for monitoring the external and internal imbalances of countries and preventing further deterioration in this area. This article presents a brief survey of the imbalances in euro area countries, the procedure adopted for tackling macroeconomic imbalances, and the potential problems with its application. The article also assesses the strengths and weaknesses of the Slovak economy; in general, the paper assesses its outlook for 2012 as positive.

2.1 IMBALANCES IN EURO AREA COUNTRIES

The current imbalances are attributable to long-term structural differences between the individual economies, which deepened still further after the establishment of the monetary union. In external imbalances, which are formed by deficits and surpluses in the current account balances of 15 'old' EU Member States, there has been a historical trend of the net exports copying the differences in income between these countries (in terms of GDP per capita). Net financial flows from major advanced countries (Germany, France, Belgium, Netherlands, Finland, Austria) were channelled to countries with below-average GDP per capita (Greece, Portugal, Spain). This trend had started well before the euro area came into existence; after its birth the trend intensified still further (Ahearne, von Hagen, Schmitz 2007). Among EU countries that have not joined the euro area, such intense financial flows have not developed.

Financial markets have been integrated within the euro area. This has led to more intense capital flows, which are not necessarily connected with the movement of goods and services. Numerous studies suggest that the bilateral holdings of debt and equity securities within the euro area have increased much more than in the case of EU countries outside the euro area (Lane, 2006), (Lane, Milesi-Ferreti, 2007). Euro area investors have reduced their holdings of domestic securities (home bias) and increased the holdings of securities from other euro area countries. Thus,

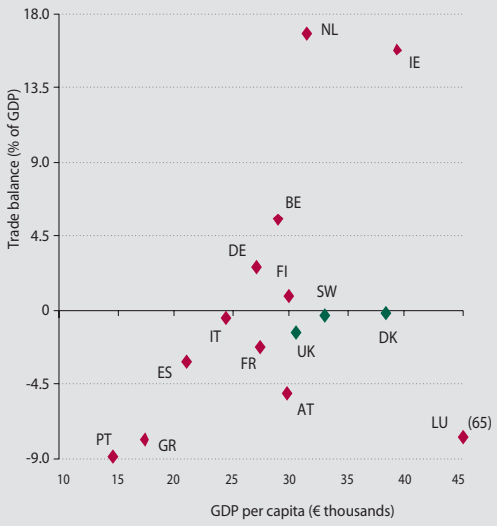
Chart 82 Net exports and per capita GDP of the EU-15 countries (1980-1998)



Source: Eurostat, IMF Direction of Trade, NBS calculations.
Note: GDP (1995), trade balance (1980-1998).

60 Any views or opinions presented in this article are solely those of the author and do not necessarily represent the official position of Národná banka Slovenska.
61 The convergence achieved in the past ten years of the euro euro and the persisting disproportions are analysed by in an EC report (2008).

Chart 83 Net exports and per capita GDP of the EU-15 countries (1999-2009)



Source: Eurostat, IMF Direction of Trade, NBS calculations.
Note: GDP (2005), trade balance (1999-2009).

the flow of funds from rich to poorer countries has intensified. With the euro area coming into being, the debtor / creditor positions of the member countries have deepened.

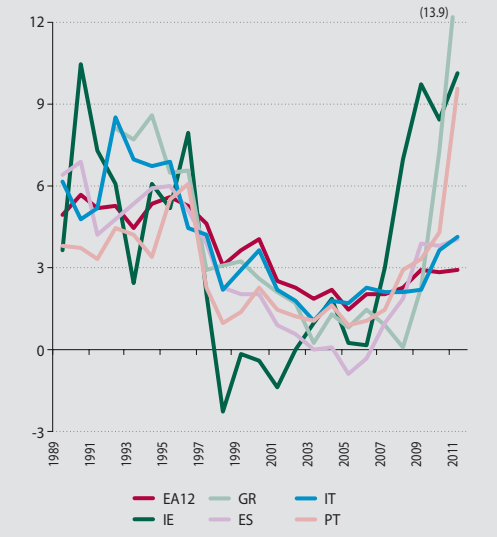
Countries with a lower rating (investment grade) such as Ireland, Portugal, Spain, and Greece recorded a marked fall in interest rates after joining the euro area. A fall in risk premia, accompanied by downward movements in real interest rates as a result of persistently high inflation, caused a sharp fall in the costs of financing for these countries.

Easy access to cheap sources of financing has led to an increase in public sector debt. The fall in the costs of financing and demand for euro-denominated government securities, together with tax revenues of a cyclical nature[62], provided motivation to ease fiscal discipline. This is also indicated by the fact that disposable resources were used for public debt refinancing, while the pressure for debt principal reduction weakened.

Little attention was paid to the fact that, in the private, sector, these funds were allocated to less productive parts of the economy (i.e. non-tradable sectors), mainly to the real estate and construction sectors, where they exerted upward pressure on price levels. The steep rise in real property prices (along with a rise in the prices of other assets) resulted in price bubbles.

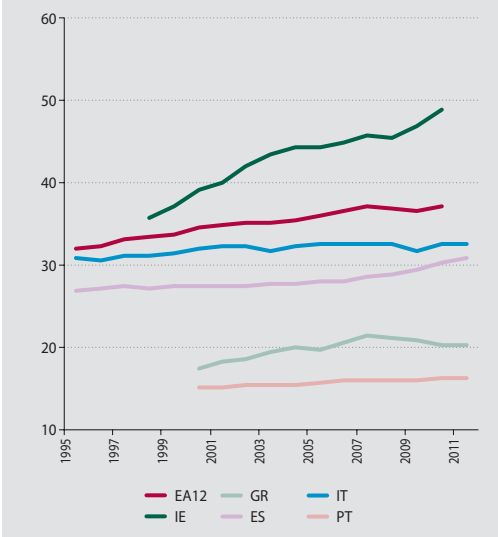
Current account imbalances were accompanied by long-term differences in competitiveness between euro area countries. The higher inflation in less productive economies eroded the competitiveness of exporters. Labour productivity also showed persistent differences.

Chart 84 Long-term real interest rates (%)



Source: Ameco.
Note: Price index – GDP deflator.

Chart 85 Real labour productivity (EUR/hour)



Source: Eurostat.

62 *Tax revenues related to the growing domestic demand and rising asset prices tend to decline during recession and slow economic growth, thus hampering the consolidation process.*

The main forms of imbalances, as described above, appeared in the individual countries in various forms. Ireland maintained its export performance, the country's main problem was an asset price bubble and the banking sector's indebtedness. Imbalances in Spain led to the loss of competitiveness and a rise in asset prices. Greece experienced unsustainable developments in public finances and rapidly growing private consumption. Portugal had problems with public finances, accompanied by weakening competitiveness.

Rapid growth in lending to the private sector and rise in property prices driven by excessively optimistic expectations were also experienced in some of the 'surplus' countries (Belgium, Netherlands, Luxembourg, and later Finland).

Financial market integration in the euro area took place at the time when the international financial system was being modified through financial innovations, mainly in the market for asset securitisation. Euro area countries with a well-developed financial sector (and a trade surplus within the euro area) acted as financial intermediaries in relation to other euro area countries (Waysard, Ross, and de Guzman 2010). Apart from their own resources, these countries obtained funds from abroad (i.e. outside the euro area) and channelled these funds to countries with a deficit.

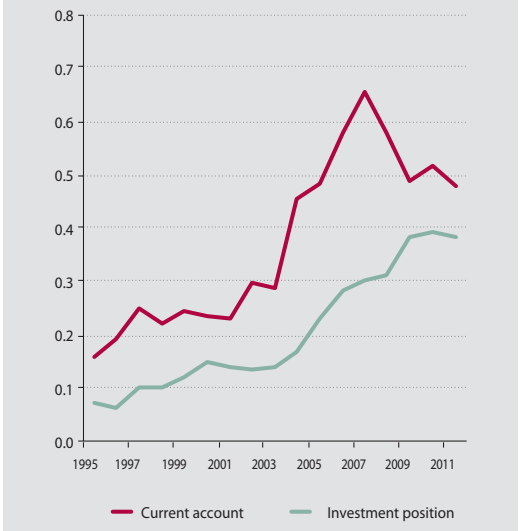
The downturn in international financial markets in 2007 and the collapse of international liquidity markets in 2008 spilt over to Europe via the existing links between financial institutions, brought the credit boom to an end, and triggered an economic recession.

The economic crisis in Europe and decline in global trade brought about changes in the current accounts of euro area countries. The 'deficit countries' recorded a sharp fall in domestic demand, which significantly contributed to the decline in net exports in 'surplus countries'. This was accompanied by a marked increase in unemployment in most countries.

According to these developments, a reduction in external imbalances was to be observed. However, the existing imbalances have instead been shifted to appear in the structure of balance of payments capital account financing. The external imbalances are illustrated in Chart 86. Growing imbalances are reflected in the widening of spreads in current account balances within the euro area. Imbalances culminated in 2007, and then diminished. The spreads of the net investment positions[63] increased, too. They started to grow after 1997, with a significant acceleration from 2003 onwards. While the current account balance differences had diminished by 2011, the cumulated debtor and creditor positions still show differences.

From the view of financing, the problem of imbalances still exists. This is associated with the fact that, since the start of the financial and economic crisis, the flow of private capital has reversed: from the peripheral countries back to the core euro area countries (Germany, Belgium, Netherlands). Owing to the shortage of private funds, private funding has been replaced by liquidity financing by the ECB, which increases the debtor positions of national central banks, mainly in countries with substantial need for financing (Ireland, Greece, Portugal, and, since end-2011, Italy and Spain). Owing to this way of financing, the euro area managed to avoid extreme fluctuations, and financial flows from the central bank stabilised (practically supplied) the financial markets, thus maintaining the previous levels of economic activity (Bornhors, Mody 2012, Merler, Pisany-Ferry, 2012).

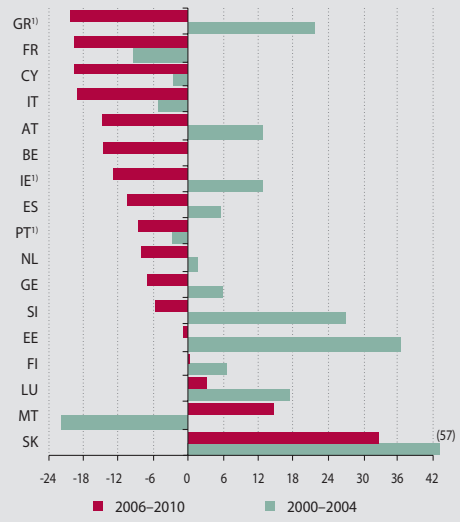
Chart 86 Spread between the current account balance and the net international investment position of euro area countries



Source: Eurostat, NBS calculations.
Note: The current account balance and net international investment position of 17 euro area countries in relation to aggregate GDP.

63 Net international investment position expresses the creditor or debtor position of an economy vis-à-vis the rest of the world.

Chart 87 Competitiveness (5-year % change in export market shares)



Source: Eurostat.
1) Denotes countries that are not evaluated within the scope of a macroeconomic imbalances procedure.

Outlook for normalisation is very uncertain for the time being; the conditions in the banking sector will probably need more time to normalise, before trading in the interbank market[64] is fully restored. The situation became even more complicated at the end of 2011, when debt problems in certain sovereign countries (as implicit guarantors of stability in the corporate sector) culminated.

The interpretation of imbalances in euro area countries has changed over the past years. In the first years of the euro area, imbalances (specifically current account balance differences) were considered to be a sign of convergence and a natural result of the existence of the economic and monetary union, where market integration eliminated barriers for the free movement of goods, services and capital, i.e. removed currency conversion costs, risk premia, and exchange rate risks (Blanchard, Giavazzi, 2002).

A growing current account deficit may be justified if the conditions for convergence are satisfied, i.e. if investment leads to growth in the economy's production potential, which, after a certain time, starts to 'dissolve' the accumulated deficits through export growth. Such a 'good deficit' scenario, however, has not developed. A further increase in imbalances between euro area countries showed that this type of imbalances was not as harmless as previously expected. In fact, a situation emerged in which investors were unable to adequately assess the potential risks. While before monetary union at least some of the countries[65] had converged to some extent, growth before the crisis based on unsustainable conditions and than sharply reversed has questioned the achieved degree of convergence.

The current opinion is that the causes of imbalances (as seen in the last decade) – in the euro area, as well as at a global level[66] – lie in financial globalisation and in the functioning of the international financial system, where 'innovations', accompanied by a trend of reducing the regulation of activities in the financial sector, led to unlimited and uncontrolled growth in the area of financing (Borio, Disyatat, 2011) and to growth in the unregulated part of the financial sector, which is free to enjoy the benefits of its activities to the detriment of others (*free riding*).

2.2 MEASURES TO CORRECT EXCESSIVE IMBALANCES AT EU LEVEL

The growing imbalances[67], representing a serious problem in numerous EU countries, and the absence of effective fiscal supervision motivated the European Commission to prepare a package of corrective measures. The Stability and Growth Pact has been supplemented with a set of new rules for economic and fiscal supervision (i.e. Six-Pack, approved by the European Parliament in October 2011). The measures are designed to strengthen fiscal discipline, to identify and correct risky economic developments, to stabilise the European economy, and to avoid another crisis in the EU. The given situation also provided a stimulus for initiatives to reform the financial regulation mechanism in the EU, which led to the creation a new European framework for financial supervision.[68]

For the new set of rules on enhanced EU economic governance – macroeconomic surveillance by European authorities of the sources of imbalances in Member States – *imbalance* is defined as any trend leading to macroeconomic developments which unfavourably affect or which may unfavourably affect the proper functioning of the economy of a Member State, the Economic and Monetary Union, or the Union as a whole; *excessive imbalances* are defined as serious imbalances, includ-

64 Apart from ECB funds, Greece, Ireland, and Portugal are funded from financial loans from the EU and IMF, because these countries cannot obtain market financing at reasonable costs.
65 In Spain and Greece. Portugal stopped converging in 2002. Ireland had reached the level of the EU-15 before the euro area came into existence.
66 The growing imbalances at a global level were first ascribed to the growing volume of savings in developing countries. Borio and Dysiatat strongly disagree with this opinion.
67 Reducing imbalances at a global level is also part of the G20 agenda. The large European economies – France and the United Kingdom (countries with an external deficit) and Germany (a country with a significant surplus) – have undertaken to correct their positions (imbalances) under IMF supervision.
68 This was discussed in detail in the annex to the Financial Stability Report for H1/2010: New European Framework for the Protection of Financial Stability.

ing imbalances which may jeopardise the proper functioning of the Economic and Monetary Union or which represent such a risk.[69]

The surveillance of macroeconomic imbalances basically started with the first annual *Alert Mechanism Report,* which was published in February 2012. The role of the alert mechanism is to work as an initial screening device enabling the Commission to identify Member States where it considers that developments warrant further in-depth analysis to determine whether imbalances exist or risks are emerging. The alert mechanism is based on the economic reading of a scoreboard of ten indicators[70], covering the main sources of macroeconomic imbalances (Box 1). The scoreboard is intended to serve as an early warning system, on the basis of which it is possible to assess, after a detailed analysis, whether the potential imbalances are problematic or they pose no risk to the stability of the country/euro area). The European Commission emphasises that other relevant information is also taken into account in the evaluation. In addition to historical data, the most recent developments (up to 2010 in the first evaluation) and forecasts are taken into account, too.

Box 1

SCOREBOARD OF INDICATORS

External imbalances and competitiveness

- three-year average of the current account balance as a percentage of GDP, with a threshold of -4/+5%;
- net international investment position as a percentage of GDP, with a threshold of -35%;
- three-year percentage change in the real effective exchange rate based on HICP deflators, relative to 35 industrial countries, with a threshold of -/+5%;
- five-year percentage change in export market shares, with a threshold of -6%;
- three-year percentage change in nominal unit labour costs, with a threshold of +9%;

Internal imbalances

- year-on-year percentage change in residential property prices, with a threshold of 6%;
- private sector credit growth as a percentage of GDP, with a threshold of 15%;
- private sector debt as a percentage of GDP, with a threshold of 160%;
- public sector debt as a percentage of GDP, with a threshold of 60%;
- three-year average of the unemployment rate, with a threshold of 10%.

Source: Alert Mechanism Report, EC 2012.

In the first annual Alert Mechanism Report, the Commission proposed 12 EU Member States, the macroeconomic situation of which warrants deeper analysis in terms of exposure to imbalance-related risks. These countries are **Belgium, Cyprus, Finland, France, Spain, Italy, Slovenia**[71], and five non-euro area countries: Bulgaria, Denmark, Hungary, Sweden, and the United Kingdom. A more in depth analysis of these countries is expected to identify the causes of the current situation. On the basis of such in-depth examination, the Commission will assess whether or not imbalances already exist and whether or not they are harmful. If necessary, the Commission will issue economic policy recommendations for corrective measures. If the macroeconomic imbalances are assessed as serious, the Commission may enforce an Excessive Imbalance Procedure[72].

Slovakia belongs to the group of countries, which were evaluated as positive in general. Hence, no in-depth analysis is required this year. Slovakia and other EU countries will receive a package of fiscal and macroeconomic policy recommendations under the European Semester.

2.3 DEVELOPMENTS IN SLOVAKIA

In the first evaluation of countries by the EC Slovakia was not included in the group of countries that needed to be verified for the existence of imbalances. Of the new euro area Member States, potential problems were indicated in the case of Cyprus and Slovenia. In the following part, the article summarises the areas in which the position of Slovakia is relatively strong and

69 Legislative decision of the European Parliament of 28 September 2011 concerning the draft directive of the European Parliament and of the Council on the prevention and elimination of macroeconomic imbalances. MEMO/11/898.

70 The composition of indicators is subject to changes, and not final. According to the European Commission, the table will be supplemented with indicators for the banking and financial systems of countries.

71 Greece, Ireland, Portugal (and Romania) are already under strict economic supervision within the scope of the financial aid programme of the European Commission and the IMF. Hence, these countries were not evaluated.

72 The results of in-depth country analysis were published on 30 May 2012. The Commission's analyses have revealed that 12 EU Member States are faced with macroeconomic imbalances, which need to be monitored and corrected. The Commission have also noted that the imbalances are being mitigated. This is indicated by decreasing current account deficits, converging unit labour costs, declining lending, and corrections in housing prices. In numerous cases, the accumulated imbalances are still high, mainly private and public sector debts. The Commission, however, did not propose an excessive imbalance procedure for any of these countries.

the problematic areas in which potential imbalances may develop.

External imbalance

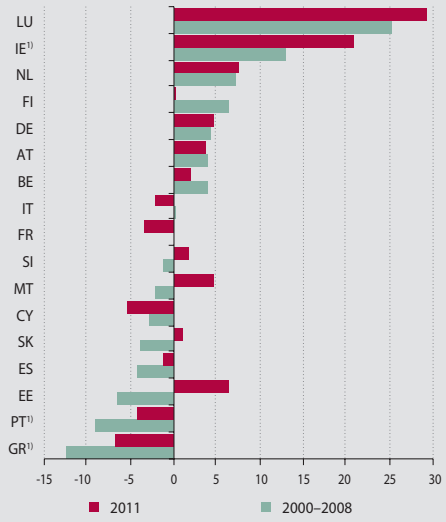
The external position of Slovakia has shown a tendency to improve in the recent period. The strong feature of Slovakia is its growing export performance. Manufacturing in Slovakia accounts for a relative large share of GDP (ca 35%), especially the production of transport vehicles, which are in great demand in developing countries. This was a major factor in the recovery of GDP growth after the crisis in 2009. In the long term, Slovakia belongs to countries which maintain a trade balance surplus in relation to other euro area countries (Chart 88). The overall deficit in trade in goods and services (Chart 89) was caused by a deficit vis-à-vis the rest of the world.

The growth in net exports caused a fall in the current account deficit. Since the start of recession (2009), the current account deficit has decreased. This was due to an improvement in the balance of goods and services. The current economic growth, which is slower than before the crisis, has led to lower return on investment, which is reflected in a smaller income balance deficit (caused by lower dividend payments to foreign investors).

Chart 88 A decomposition of trade balance of selected euro area countries (EUR billions)

Source: IMF DOTS, Eurostat.
Note: Average for the period 2008-2011.

Chart 89 Trade balance (% of GDP)



Source: Ameco, NBS calculations.
1) Countries that are not evaluated within the scope of a macroeconomic imbalance procedure.

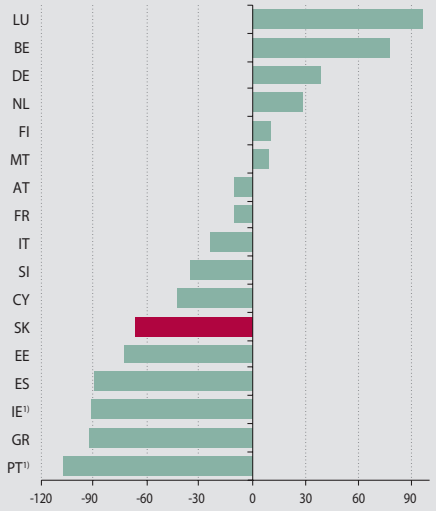
For the improved trade balance (a flow variable) to be reflected in the country's net investment position (a stock variable), the current trend needs to be maintained in the long term. At present, Slovakia's negative net investment position is relatively high (Chart 90): it exceeds the threshold recommended in the scoreboard (-35% of GDP). In the European Commission's evaluation, however, the relatively favourable structure of this indicator was probably also taken into account (i.e. the relatively large share of the asset component). Excluding foreign direct investment, the negative net investment position of Slovakia stands at 9% of GDP.

Competitiveness of Slovakia

Slovakia belongs to the most open economies in the euro area, with a ratio of exports and imports to GDP at the level of 190%. Exports are dominated by goods, the share of services is extremely small (10%). The market share in global trade shows a growing tendency, though the pace of growth has been slackening in the last few years (Chart 87). Non-price factors also play a certain role; Slovakia has an advantage in capital-intensive goods production. A positive trend is the orientation to goods with a higher value added.

The indicators of competitiveness as defined in the EC scoreboard show some signs of a weaken-

Chart 90 Net international investment position (% of GDP)



Source: Eurostat (2010).
1) Countries that are not evaluated within the scope of a macroeconomic imbalance procedure.

Chart 91 Real exchange rate and current account balance

Source: Eurostat.
Note: Real exchange rate based on HICP, 3-year change, current account – three-year average.

ing trend in competitiveness. The real effective exchange rate based on HICP deflators rose relatively steeply in the period under review (Chart 91). This rise, however, was influenced by the fact that a three-year change includes the nominal revaluation of the SKK under ERM II before Slovakia's entry into the euro area. The increase in unit labour costs was concentrated in the non-tradable sector; unit labour costs in export-oriented sectors increased more moderately. The country experienced rapid growth in labour productivity.

Competitiveness can also be assessed on the basis of models that estimate the equilibrium exchange rate. Apart from shorter periods, in which the equilibrium rate was overvalued, the exchange rate fluctuated within the equilibrium range, so it is not expected to induce imbalances in the economy. After the nominal exchange rate of Slovak koruna against the euro had been fixed, the real exchange rate was temporarily overvalued in 2009, owing to a deterioration in the economic fundamentals as a result of the consequences of the financial crisis in the real economy. The real exchange rate, however, returned to its equilibrium level already in the following year as a result of the country's negative inflation differential vis-à-vis its trading partners (Gylánik, 2012). Zeman (2004) also pointed out that the real effective exchange rate of the Slovak currency (based on manufacturing prices) was undervalued at the end of 2011 in relation to its equilibrium level, mainly because productivity in Slovakia grew more rapidly than abroad.

Babecký, Bulíř and Šmídková (2011) also pointed out a deviation from the equilibrium state in the case of Slovakia at the end of 2009. A simulation model for the period 2010-2014, however, indicates that the real exchange rate may follow a sustainable rising trend, i.e. net exports are high enough for external debt service financing.

De Broeck, Guscina and Mehrez (2011) monitored the competitiveness of Slovakia on the basis of unit labour costs at a disaggregated level. The authors arrived at the conclusion that, in the majority of manufacturing sectors, the country was competitive in the years 2000-2007, unit labour costs were lower than required by the relevant sectoral standards, and competitiveness increased in most of the sectors.

The appreciating trend in the equilibrium exchange rate is connected with the convergence of the domestic economy in nominal terms, which is based on the country's macroeconomic fundamentals. Real exchange rate appreciation is expected to continue without threatening the economic equilibrium.

The domestic environment

The financial crisis has not induced serious imbalances in Slovakia, because the domestic financial sector is exposed to risky assets to a lesser extent and the local financial market is relatively small. Credit financing from foreign sources is not as widespread as in the rest of the region. A wave of optimism that followed the country's entry into the EU resulted in a credit boom (as from 2004). This started from a very low level so the private sector debt is still low in comparison with other euro area countries. Indebtedness, however, should be assessed in relation to the debtors' disposable incomes.

Compared with the rest of the euro area, property price dynamics and construction activity were also weaker in this sector. Even though real estate activities caused an increase in non-performing loans, the banking sector managed to handle the situation.

In the domestic environment, there are signs of potential macroeconomic imbalances. The unemployment rate is persistently high. Since the share of long-term unemployment is high, this problem is of a structural nature in Slovakia. The increased unemployment since the start of the crisis can be ascribed partly to the labour market legislation, which is more liberal than in other euro area countries. Another potential risk is the trend in public sector indebtedness. The public sector debt is still very unstable. In the past, debt reduction used to be achieved through economic growth, with the help of debt and deficit consolidation (using privatisation proceeds and Treasury resources). The management of public finances has no experience with the generation of primary surpluses.

2.4 OPEN QUESTIONS RELATING TO THE MACROECONOMIC IMBALANCE PROCEDURE AND ITS EFFECTIVENESS

This initiative of the European Commission was not accepted unanimously by the professional public. The Procedure is supported by studies that identified a relationship between the growing external imbalances and the inappropriate structural policies (Furceti, Guichard, Rusticelli, 2011). Here, the Macroeconomic Imbalance Procedure may be helpful, mainly in areas where the corrective measures are within the competence of national authorities (adjustments to the labour and product markets). The structural policies that may influence the occurrence of external imbalances include current and capital account liberalisation and financial integration, i.e. areas where national authorities currently have no appropriate tools to offset the effects of liberalisation.

Imbalances, however, are not necessarily caused by domestic factors. There are opposing voices arguing that monitoring should focus primarily on the prevention of uncontrollable credit growth in the economy (Giavazzi, Spaventa, 2011). It is not important in which sector the credit growth is concentrated. The financial crisis has shown how problems arising from excessive indebtedness can spill over from the private sector to the public sector (acting as an implicit guarantor for large private debtors). Imbalances are caused mostly by the financial sector and by highly volatile capital flows within this sector (portfolio investments, interbank operations), rather than by the movement of goods and services, which is far more stable. The corrective measures should therefore focus on the financial market and its institutions.

In regard to the fact that credit resources that may cause imbalances come mostly from abroad, there is a need for international initiatives in this area, including the coordination of regulatory and surveillance activities. The first step was the creation of a common regulatory authority at the EU level. In order to restrict the possibility of using *regulatory arbitrage* in the regulated part of the financial sector, it will be necessary to coordinate the conduct of financial surveillance at higher levels, too. A framework for coordinated surveillance should be provided by the G-20 group. An open question is the future of the unregulated part of the financial sector, which is free to act irresponsibly to the detriment of others (free riding).

Another open question relating to the Excessive Imbalance Procedure is the need for closer integration within the EU and the related risk that the sovereignty of individual Member States may be restricted to some extent in connection with this procedure. Its application in real life will

show whether the Commission has the power to force the Member States to adopt specific structural reforms, e.g. labour market liberalisation, product/services market liberalisation, or specific tax reforms (e.g. real estate tax reform). Certain areas cannot even be influenced directly through economic policy instruments. Another question is how much time is needed for the measures adopted to produce results; the time needed may be long or unpredictable. Furthermore, it will be difficult to verify the implementation of specific measures recommended within the scope of an Excessive Imbalance Procedure.

The second round of open questions relate to the range of indicators, on the basis of which the countries will be evaluated. Although the EC emphasises that the scoreboard indicators will not be interpreted mechanically and that the threshold values are indicative only, there is a risk that the evaluation may be distorted. If, for example, the net investment position of a country is stable, there may be inconsistencies in the structure of assets and liabilities in terms of maturity, currency structure, or counterparty. If a country is hit by a financial shock, such inconsistencies may pose a risk to its financial stability. Similarly, various indicators of the real effective exchange rate in relation to various trading partner groups, may provide conflicting information about the country's competitiveness (Bayoumi, Harmsen, Turunen, 2011).

A certain problem is also related to the method of balance of payments data reporting (competitiveness is evaluated on the basis of such data). The data are compiled on the principle of residency (data from a specific country contain the operations of entities which are registered in that country as residents). As a result of globalisation, there is a growing number of supranational corporations. More and more companies transfer part of their production process abroad. This often results in a very complex system of interconnected production units operating in various countries. Statistical distortions, which may arise from the assignment of the total value of goods to the last country in the production chain may conceal the actual size of a bilateral trade imbalance. Mainly in the case of countries and sectors that use such a business model (Eurostat 2009), the export market share and competitiveness reported according to the residency principle may be substantially distorted. Similarly, the actual volume of trade[73] may be distorted by the convention that the first country in the case of unloading (export) or the last one in the case of loading (import) is reported as 'trading partner'. Such distortions may lead to an incorrect assessment of the situation. If a country receives recommendations for imbalance correction on the basis of a distorted evaluation, the measures proposed may be inappropriate and ineffective.

It would be better to record such activities according to the national principle (at the level of the parent company), and to register them at a supranational level. Statistics is lagging behind in this respect. Another possibility, initiated by the WTO and OECD, would be to record trade on the basis of the value added, which would better express the contribution of trade to domestic value added creation, revenues and employment (WTO, 2011).

In the previous chapters, we endeavoured to show how significant role the financial sector is playing in the development of imbalances. In the first evaluation, financial sector indicators were relatively poorly represented in the scoreboard of indicators and indicative thresholds. (The scoreboard is planned to be extended to include such indicators next year). Little attention was paid to the impact of capital account developments, which are much more volatile than the flows recorded in the current account and are likely to have a destabilising effect on the economy. Since EU countries are closely interconnected via financial flows (as well as their major financial institutions), their bilateral financial positions should be monitored. In the case of certain countries, the supply of such information is not covered statistically to a sufficient extent (Waysard, Ross, de Guzman, 2010).

Conclusion

In terms of macroeconomic imbalances, Slovakia does not belong to the risky economies for the time being. Slovakia uses its trade balance surplus to offset its financial liabilities that were accumulated in the past. It is possible to assume that the basic idea of convergence is being fulfilled. Slovakia has an advantage in the area of export growth, which is currently stabilising the external position of the country. In terms of

73 This is why import and export volumes are so high in the Netherlands, where the most important European commercial port is located, i.e. the Rotterdam effect.

competitiveness, Slovakia's main advantage is its growing export market share, which recorded the steepest increase within the euro area. The effective exchange rate indicator recorded a sharp rise, which can be viewed as problematic, but this rise was supported by the country's macroeconomic fundamentals. A persisting problem is the high unemployment rate. Despite this problem, the country is prepared for dynamic growth. The labour market conditions are far more flexible than in other euro area countries – both in terms of employment termination and wage flexibility. A potential risk is the rising public sector debt, which has not yet been stabilised.

The European Commission's effort to ensure that fiscal discipline in the Member States is further strengthened can be understood and supported. Structural policy adjustments could help to eliminate the macroeconomic imbalances. The situation in the EU, as well as in the euro area, is to be assessed in connection with global imbalances. Owing to the close financial links – between countries and between their financial institutions – the corrective measures can be effective only if they are coordinated at the supranational level.

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ABBREVIATIONS

Abbreviations

AFS	available-for-sale securities portfolio
CDS	Credit Default Swap
CPI	Consumer Price Index
D/E	Debt to Equity Ratio
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EU	European Union
FED	Federal Reserve System
GDP	Gross Domestic Product
HTM	hold-to-maturity securities portfolio
IMF	International Monetary Fund
MB	mortgage bonds
LTRO	long-term refinancing operations
MFI	monetary financial institutions
NAV	Net Asset Value
OECD	Organisation for Economic Cooperation and Development
PFMC	Pension Asset Management Company
PMI	Purchasing Managers Index
ROA	Return on Assets
ROE	Return on Equity
SO SR	Statistical Office of the SR
SPMC	Supplementary Pension Asset Management Company
UR+	Universal Register Plus

LIST OF CHARTS AND TABLES

List of charts

Chart 1 World GDP growth forecasts for 2012 and 2013 8
Chart 2 German export developments 9
Chart 3 Equity indices 9
Chart 4 Implied volatility in equity markets measured by the VIX index 10
Chart 5 Yields on long-term government bonds of selected euro area countries 10
Chart 6 Yields on long-term government bonds of selected euro area countries 10
Chart 7 Spreads in the euro area interbank market 11
Chart 8 Eurosystem monetary policy operations 11
Chart 9 Changes in sovereign CDS premia 12
Chart 10 Changes in bank CDS premia 12
Chart 11 Bank leverage 13
Chart 12 Bank loan-to-deposit ratios 13
Chart 13 Transactions of euro area monetary and financial institutions, excluding the Eurosystem 14
Chart 14 Loan claims of non-resident banks on selected countries of central and eastern Europe 14
Chart 15 Gross sectoral debt 18
Chart 16 Debt ratio 18
Chart 17 GDP 18
Chart 18 Labour productivity and wages 19
Chart 19 Current account deficit coverage 19
Chart 20 Current account components 19
Chart 21 General government deficit 20
Chart 22 Debt to revenue ratio 20
Chart 23 Contributions to the change in debt ratio 20
Chart 24 Loans 23
Chart 25 Interest rates on new loans 23
Chart 26 Production, sales and investments 24
Chart 27 Business tendency indicators 24
Chart 28 The year-on-year sales growth in the corporate sector 24
Chart 29 Financing broken down by instrument 25
Chart 30 Financing broken down by sector 25
Chart 31 Consumer confidence 25
Chart 32 Employment 26
Chart 33 Savings and investment rate 26
Chart 34 Disposable income 26
Chart 35 Increases in household assets 27
Chart 36 The debt servicing ability of households 27
Chart 37 Amount of assets and managed assets in the financial sector 30
Chart 38 Return on equity (ROE) in the financial sector 30
Chart 39 Indicator of stress in the economy and financial system of Slovakia 30
Chart 40 ROE distribution across the banking sector 31
Chart 41 Selected components of the banking sector's profitability 31
Chart 42 Loan impairment costs and changes in the amount of non-performing loans 32
Chart 43 Year-on-year changes in the amount of corporate loans by sector 32
Chart 44 Trends in the banking sector's securities portfolio 32
Chart 45 Structural changes in the banking sector's profitability 33
Chart 46 Capital position of banks by country – Tier 1 capital as a share of risk-weighted assets as at end-2010 34
Chart 47 Non-performing household loans 35
Chart 48 Non-performing corporate loans and default rates 35
Chart 49 Loan-to-value ratio 35
Chart 50 Long-term liquidity ratios of the banking sector 37
Chart 51 Liquid assets ratio of the banking sector 37
Chart 52 Portfolio of debt securities revalued to fair value in insurance companies, broken down by country of issuer 38
Chart 53 Changes in the net asset value of mutual funds marketed in Slovakia 39
Chart 54 Net sales of domestic mutual funds by category 39
Chart 55 Average annual performance of mutual funds by category 39
Chart 56 Structure of assets under management in domestic mutual funds by category 40
Chart 57 Structure of assets under management in funds by type of investment 41
Chart 58 Structure of debt securities portfolios by type of issuer 41

Chart 59 Current values of pension units in the individual types of funds 41
Chart 60 Portfolio of debt securities held in PFMC funds by country of issuer 42
Chart 61 Structure of assets under management by type of investment in the individual types of PFMC funds by specialisation 42
Chart 62 Portfolio of debt securities held in SPMC funds by country of issuer 43
Chart 63 Capital adequacy ratio of the banking sector depending on the scenario applied 44
Chart 64 Developments in the key factors affecting the amount of own funds 44
Chart 65 Gross national savings 50
Chart 66 Gross debt of the United States broken down by sector 51
Chart 67 Household debt in the United States 52
Chart 68 Household debt service costs in the United States 52
Chart 69 Comparison of banks' leverage 52
Chart 70 Volume of commercial bank loans in the United States 53
Chart 71 UK banking sector's leverage 53
Chart 72 UK household debt as a share of disposable income 54
Chart 73 UK households' saving ratios 54
Chart 74 Changes in UK government debt and budget deficit 54
Chart 75 Net international investment position of selected euro area countries 55
Chart 76 Real effective exchange rates of selected euro area countries 55
Chart 77 Private sector debt in selected euro area countries 56
Chart 78 Government debt 56
Chart 79 Primary balance 56
Chart 80 Household indebtedness in the euro area 57
Chart 81 Indebtedness of non-financial corporations in the euro area 57
Chart 82 Net exports and per capita GDP of the EU-15 countries (1980-1998) 60
Chart 83 Net exports and per capita GDP of the EU-15 countries (1999-2009) 61
Chart 84 Long-term real interest rates 61
Chart 85 Real labour productivity 61
Chart 86 Spread between the current account balance and the net international investment position of euro area countries 62
Chart 87 Competitiveness 63
Chart 88 A decomposition of trade balance of selected euro area countries 65
Chart 89 Trade balance 65
Chart 90 Net international investment position 66
Chart 91 Real exchange rate and current account balance 66

List of tables

Table 1 World output and world trade volume 8
Table 2 GDP growth 8
Table 3 Investment in debt securities of selected countries as a share of total assets 36
Table 4 Share of equity, foreign-exchange and interest-rate positions in different sectors of the financial market 38
Table 5 Comparison of annual yields of pension funds as at 31 December 2010 and 31 December 2011 41
Table 6 Stress testing parameters and assumptions 45
Table 7 Change in total debt as a share of GDP 51
Table 8 United Kingdom: change in debt as share of GDP 53

List of box

Box 1 Scoreboard of indicators 64