NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

FINANCIAL STABILITY REPORT FOR THE FIRST HALF 2009

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PART A

EXECUTIVE SUMMARY

A

Executive summary

During the first half of 2009, the functioning of the financial system in Slovakia was stable; nevertheless, the risks to its stability rose sharply. They stemmed from continuing adverse developments in the external environment, mainly from weak foreign demand. The risks faced by the banking sector were the greatest since the sector's restructuring was completed in 2001, and they were dominated by credit risks of non-financial corporations. Looking forward, short-term risks declined slightly amid signs of a revival in global trade and output in the second quarter of 2009. In the medium to long-term outlook, however, the risks remain significant due to uncertainty about the sustainability and intensity of the global economy's recovery, as well as to the effect of the rapidly rising domestic public debt. The risks are to some extent mitigated by the fact that domestic banks are well endowed with high-quality equity capital, which at least until the end of the year will be able to absorb banks' higher projected credit losses.

The crisis caused potential GDP to decline in many countries. Although global demand received a short-term boost from fiscal stimulus measures, the prospects for its sustainable growth in the longer-term horizon are highly uncertain. Because the domestic economy is very sensitive to developments in external demand, the risks to financial stability remain significant in the medium to long-term outlook.

Global trade plunged following the collapse in global financial markets in autumn 2008 and consequent credit crunch. The rise in general uncertainty led also to a sharp global downturn in private demand. With financial markets and banking systems stricken by the financial crisis, the flow of liquid funds in economies dried up, which in turn contributed to rapid destocking and an increase in the corporate bankruptcy rate. Therefore potential GDP declined in many countries, and it is expected to rise at a far slower pace in comparison with the pre-crisis period.

The second quarter of 2009 began to see results from the unprecedented amount of public funds that advanced and emerging countries had, in a relatively coordinated move, injected into their economies (through fiscal and monetary stimulus packages), specifically an upturn in soft indicators (improvement in purchasing managers' expectations, rise in consumer confidence) and a rebound in forward-looking indicators (e.g. month-on-month growth in industrial output and in retail sales) from their (deep) trough. The Slovak economy reacted positively mainly to stimulus measures introduced by foreign governments, being one of the few economies in the world that avoided slipping into a technical recession.[1] Yet risks to the domestic banking sector remain, specifically that the withdrawal of fiscal stimulus measures and start of monetary tightening (particularly in the so-called systemically important countries – the United States and China) during 2010 will give rise to further global weakening of private demand and prevent the crisis-hit financial systems of advanced countries from ensuring effective intermediation of necessary capital. The recent revival of the Slovak economy is therefore rather fragile, and with the economy being so sensitive to external developments, the outlook for its growth in coming years is highly uncertain. Even in the long-term horizon, if there are no key structural changes in the global economy aimed at sustainably balancing global imbalances and increasing consumption in countries with large savings surpluses, our economy can be expected to have a substantially reduced performance (potential growth) compared with the pre-crisis period. The same risk stems also from the accumulation of a large government debt in many countries. The need to refinance these debts will, in the longer term, lead to the squeezing of productive private investments, as a consequence of which economic growth will slow and demand from abroad will slacken. Regardless of how the external environment develops, the domestic economy and its financial stability would be bolstered by structural policies to increase the share of services in the domestic production; as a result, the sensitivity of the domestic economy to developments in foreign demand would diminish. At the same time, non-price factors and their improvement – e.g. raising the quality of the business environment – are crucial to maintaining strong competitiveness in the wake of the euro adoption.

1 *An economy is technically in recession when it records two successive quarters of declining growth. In the first quarter of 2009, the Slovak economy plunged by 8.6%, partly also because of the gas crisis, but over the next three months GDP rose by 1.1%. These data to a certain extent reflect one-off statistical effects. In several countries, the economic contraction was not, even over several quarters together, as severe as that recorded by Slovak economy in the first quarter. Yet before the crisis, the Slovak economy had been one of the fastest growing in the European Union. This is indicated by the high sensitivity of the Slovak economy to developments in external demand.*

The deterioration in the macroeconomic environment in the first half of 2009 tested the absorption capacity of the financial system. The fiscal stimulation of the economy conflicts with the need for long-term sustainability of public finances.

The expected downturn in the Slovak economy appeared in the first half of 2009, reflecting mainly the slump in foreign demand from recession-afflicted euro area economies. Amid a collapse in consumer confidence and unfavourable outlooks for the implementation of investment plans, the domestic economy saw a drop in both investment and consumption demand. Although the upturn in business tendency indicators at the end of the first half of the year may indicate that the decline in economic activity could cease, this development continues to be surrounded by a high degree of uncertainty.

Like in other countries, the Government in Slovakia sought to mitigate the effects of the crisis on the domestic economy by adopting several measures under a stabilizing fiscal policy. However, the fiscal stimulation of the economy conflicts with need for long-term sustainability of public finances. While reducing the general government deficit, Slovakia ceased making progress towards medium-term objectives. In the context of its region, Slovakia is perceived positively by investors; nevertheless, the environment is exceptionally sensitive in regard to the stability assessment of economies, and any drop in confidence feeds quickly through to the conditions and costs of financing.

In the first half of 2009, the sharp decline in the profitability of the banking sector was caused mainly by the deteriorating economic development, but also by the adoption of the euro. The drop in banks' interest income from the corporate sector was particularly pronounced. Lending to households did not fall as markedly as lending to the corporate sector. Our expectation is that the downturn in the credit cycle will continue.

The overall profit of the banking sector as at the end of June 2009 was down by 48.2% year-on-year, largely due to the slowdown in the lending market. The worse economic situation also resulted in a drop in fee income. The year-on-year decline in banks' profitability was also related to the adoption of the euro and the consequent loss of income from foreign exchange transactions[2]. Banks suffered particularly from the deteriorating quality of assets. The creation of provisions rose in both the corporate and household sectors. The net creation of provisions and net loss from the write-down of claims grew by 150% year-on-year.

Given the high proportion of industrial sectors that are sensitive to economic developments, lending to enterprises declined in several sectors. The worsened economic situation increased the credit default risk, which in turn led to tightening of conditions for corporate lending. The decrease in the overall amount of lending in the first half of 2009 also reflected a drop in demand from enterprises.

In lending to households, the year-on-year pace of growth continued to fluctuate at relatively high levels during the first half of 2009, but had a downward tendency. House purchase loans have been recording a year decline in growth since the start of the second half of 2008, when residential real estate prices began to fall. As for consumer loans, their pace of growth began to slow at the end of 2008 as the financial position of households worsened.

Since the coming period is unlikely to see a marked improvement in the real economy – on the contrary, there are substantial risks stemming from external developments – the downturn in the credit cycle may be expected to continue.

The banking sector has enough stable domestic funds at its disposal. Entry into the euro area was accompanied also by significant changes in banks' activities in the interbank market.

Corporate bank deposits maintained a downward trend, since with sales plunging and short-term lending conditions becoming tighter, firms were increasingly forced to dip into their bank deposits. Overall retail deposits stagnated, following a surge at the end of 2009 related to the entry into the euro area. Retail deposits remain a stable source of financing for banks. The loan-to-deposit ratio,[3] which by the end of 2008 had fallen to 79% under the effect of a sharp rise in household deposits, started to climb back up at the beginning of 2009.

2 *On the contrary, the adoption of the euro influenced positively the non-bank corporate sector.*

3 *Indicates the extent to which loans are financed using stable deposits from customers. The lower the value, the greater the extent to which loans are financed with customer deposits and therefore the lesser the extent to which they are financed through more volatile financial markets.*

Following the euro area entry and adoption of the single currency, banks took advantage of the shortage of liquidity in the market by investing funds abroad. Národná banka Slovenska began applying the ECB's currency policy, the main purpose of which is to supply liquidity to the banking sector. The effect of these developments was a gradual reduction of the NBS's sterilization position in comparison with the previous year.

Banks used 2008 profits to improve their capacity to absorb losses.

Several banks increased their capital from the beginning of 2009. On average, banks retained 60.3% of their 2008 profits as capital. By the end of June, the average capital adequacy ratio (CAR) in the banking sector represented 12.3%, and in no bank was the CAR lower than 10%. Banks are maintaining a high share of Tier 1, highest-quality capital. In general, domestic banks are reporting capital adequacy ratios higher than those of their parent undertakings abroad.

Risk levels in the domestic banking sector are very closely linked with developments in the domestic economy and in the economies of Slovakia's main foreign partners. The rise in credit risk has so far been more marked in the corporate sector. Household credit risk will be heightened by the spillover of negative developments from the corporate sector.

In the first half of 2009, most sectors recorded a significant decline in sales and profits; the liquidity position of the corporate sector worsened, and repayment behaviour deteriorated. Of the enterprises that were granted bank loans, as many as 14% were running a loss or experiencing a slump in sales. A major drawback of banks' credit exposures to the corporate sector is the relatively large share of sectors that report high sensitivity to changes in the business cycle. For this reason, no substantial improvement in the situation is expected in the coming period, and therefore the profitability of banks will continue to be squeezed. From January 2009, banks recorded a deterioration in the quality of their corporate loan portfolios. The amount of non-performing loans climbed by almost €120 million, or 25%. The rise in non-performing loans was most pronounced among short-term loans and in the sectors of trade, manufacturing and construction. Loans past due by up to 90 days increased as a share of total loans in the banking sector, from 2% to 4%.

The negative employment trends in the first quarter of the year appeared mainly in lower-income groups, and the riskier loans in this regard are of consumer type. The economic downturn was also reflected in household income. From the beginning of 2009 until May, the amount of non-performing loans to households increased by around €77.5 million, or almost 17%. The amount of non-performing loans relative to the total amount of loans increased only slightly, and the share of non-performing loans remains comparatively low, especially in house purchase loans. In the household sector, in contrast to the corporate sector, banks did not record a significant rise in loans past due by up to 90 days (their share increased from 6% to 7% over the first half of 2009).

With the adverse situation in the corporate sector expected to gradually spill over to the household sector, the credit risk of households is set to rise still further. In the medium-term horizon, another source of credit risk may turn out to be the high share of loans – whether to enterprises or households – with a short initial rate fixation.

Banks' holdings of liquid assets were satisfactory. The banking sector is relatively sensitive to interest rate rises in the long-term horizon.

The ratio of liquid assets to volatile liabilities declined only slightly. If we omit operations with banks from both the asset and liability sides, the coverage of the remaining volatile liabilities (predominantly customer deposits) with the remaining liquid assets (mainly securities and loans to customers maturing within 1 month) increased during the first half of 2009, from 97% to 112%.
The short-term interest rate risk in the banking sector is relatively low, since only 5% of assets and 3% of liabilities are revalued to fair value through profit and loss. Banks would suffer greater losses under the stress scenario of an unexpected rise in interest rates and decrease in credit premiums than under the opposite scenario. In the long-term view, all banks are adversely sensitive to a parallel upward shift in the interest rate curve.[4] An unexpected shift of 1 p.p. would reduce the value of the banking sector's balance sheet (in-

4 *The long-term interest rate risk stems from a gradual change in net interest income on instruments that are not revalued to fair value.*

cluding derivatives) by 1% (compared with 0.7% as at the end of 2008). Since the estimated decline in economic value represents 13% of own funds, this sensitivity is relatively high.

The resilience of the financial sector increased slightly between the end of 2008 and the end of the first half of 2009, and did so despite the deteriorating economic environment.

Under our moderate macroeconomic scenario, the banking sector would suffer a loss equivalent to 1.8% of total assets (24% of own funds), and under an extreme scenario, 2.8% of total assets (38% of own funds). That these losses are higher than those estimated in the stress scenario as at the end of 2008 is because the time horizon of one year was extended to one and a half years. Even so, under the moderate scenario there would be only two banks reporting a capital adequacy ratio[5] of less than 8% (compared with six banks at the end of 2008), and under the extreme scenario, seven banks (compared with eight). In the case of most banks, their capital adequacy ratio would, after the application of the respective scenario, be higher than it was at the end of 2008. It is therefore clear that the increase in banks' capital during the first half of 2009 served to increase their shock absorbing capacity.

The change in the asset structure of Pillar II of the pension saving system substantially reduced the overall riskiness of these funds. Collective investment funds and insurance companies reported higher sensitivity, especially to a marked decline in share prices.

5 *Calculated as the ratio of own funds and 12.5 times the capital adequacy requirement.*

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PART B

FINANCIAL STABILITY REPORT

B

CHAPTER 1

EXTERNAL CONDITIONS FOR FINANCIAL STABILITY

1

1 EXTERNAL CONDITIONS FOR FINANCIAL STABILITY

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

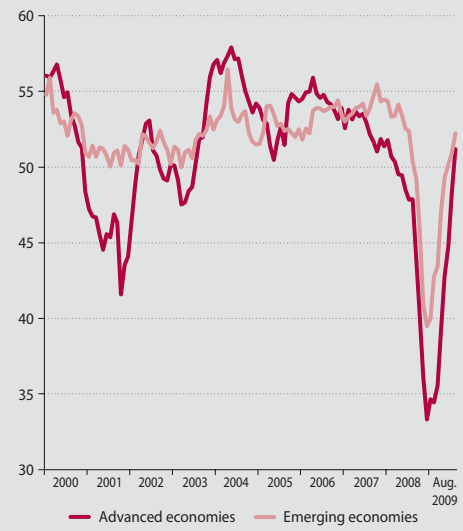
Although the global economy showed a negative performance in the first half of 2009, it probably began to rebound from the bottom at the turn of the first and second quarters.

The International Monetary Fund (IMF) estimates[6] that global economic activity rose by around 3% during the second quarter of 2009, after declining by 6.5% in the first quarter. The world economy's large contraction in the first quarter of the year was caused by the most severe global financial crisis since the 1930s. The recovery of activity in the second quarter was driven mainly by extensive injections of public funds into financial systems and economies across the world, which stimulated activity and improved confidence among economic entities. Soft, high-frequency indicators point to continuing recovery of the global economy, supported also by restocking. Considering, however, the size of the slump in international economic activity and trade, as well as historical experiences of similar events, the highly likely scenario is that there will be a very slow return towards pre-crisis levels of performance.[7]

At the end of the first half of 2009, the risks to global economic growth remained on the downside; nevertheless, they were more balanced than at the beginning of the year.

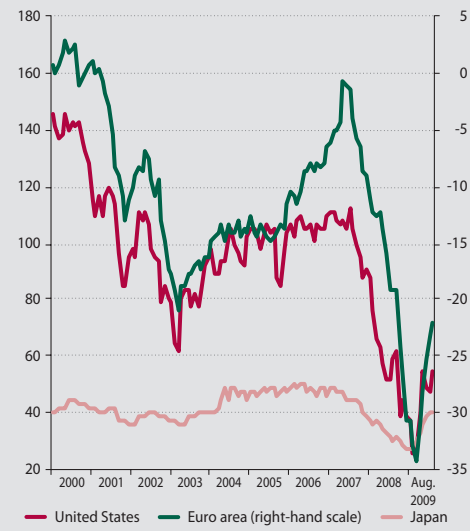
The need for extensive restructuring of firms and financial corporations will hold back economic growth. Manufacturing firms have large excess capacity, which both dampens their demand for investments and at the same time puts downward pressure on employment. As a consequence, conditions for an increase in final consumption also remain limited. Meanwhile, banks will be very cautious when lending to the economy, given the substantial macroeconomic risks, the still high amount of toxic financial assets in bank balance sheets in advanced countries, and the uncertainty about forthcoming new regulatory measures (aimed at substantially raising requirements for the amount and quality of bank capital).

Chart 1 Purchasing Managers' Index (manufacturing)



Source: IMF – World Economic Outlook, October 2009.
Note: The most recent data are for August 2009.

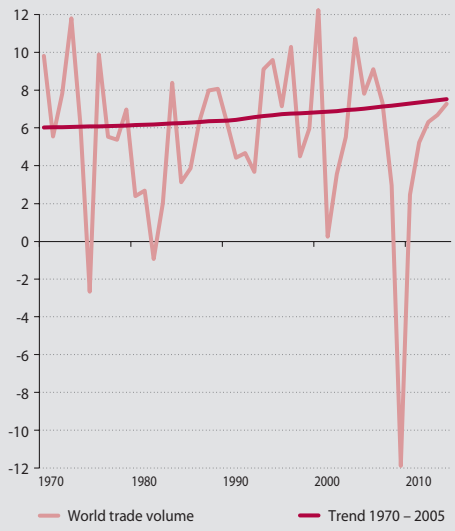
Chart 2 Consumer Confidence Index



Source: IMF – World Economic Outlook, October 2009.
Note: The most recent data are for August 2009. In the case of Japan, values greater than 50 indicate improving confidence.

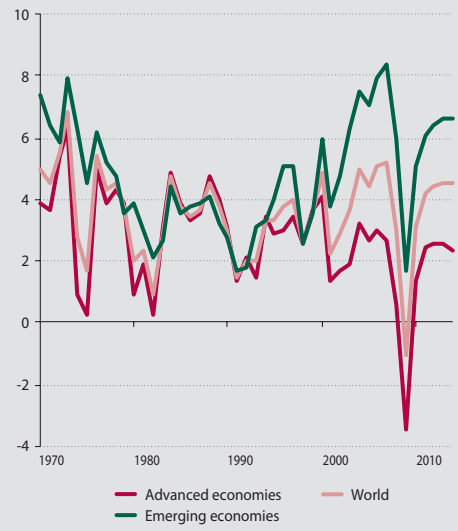
6 *IMF: World Economic Outlook, October 2009.*
7 *The IMF estimates that the global economy will grow by just under 4% over the period 2010 to 2014, compared with 5% in the period leading up to the crisis (2003–2007).*

Chart 3 World trade volume – goods and services (annual percent change)



Source: IMF – World Economic Outlook, October 2009.
Note: Data for the years 2009 to 2014 are estimates. Aggregates are computed on the basis of purchasing-power-parity.

Chart 4 Real GDP growth (annual percent change)

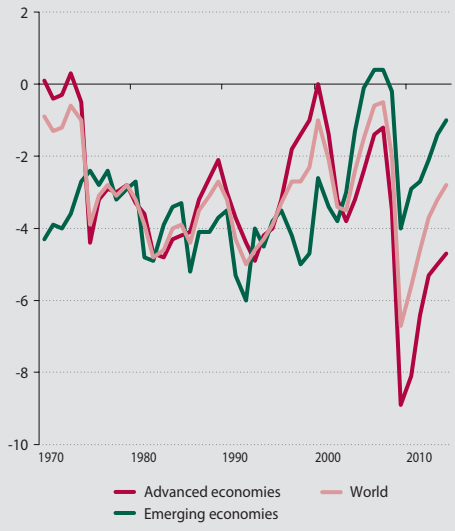


Source: IMF – World Economic Outlook, October 2009.
Note: Data for the years 2009 to 2014 are estimates. Aggregates are computed on the basis of purchasing-power-parity.

Timing the withdrawal of expansive policies correctly will be crucial to keeping developments on a favourable course, but determining the right moment will be tricky.

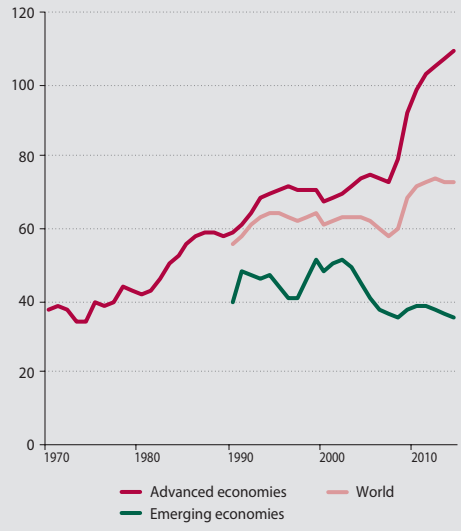
The continuing economic revival also faces the short-term risk that expansionist fiscal and monetary policies will be reversed prematurely. Since these very policies are to a large extent behind the shoots of recovery seen in the second quarter of 2009, they should not be unwound until economic growth is taking place on the solid footing of rising final consumption and investments. However, fears about inflationary risks (improb-

Chart 5 General government fiscal balances (% of GDP)



Source: IMF, World Economic Outlook, October 2009.
Note: Data for the years 2009 to 2014 are estimates.

Chart 6 Public debt (% of GDP)



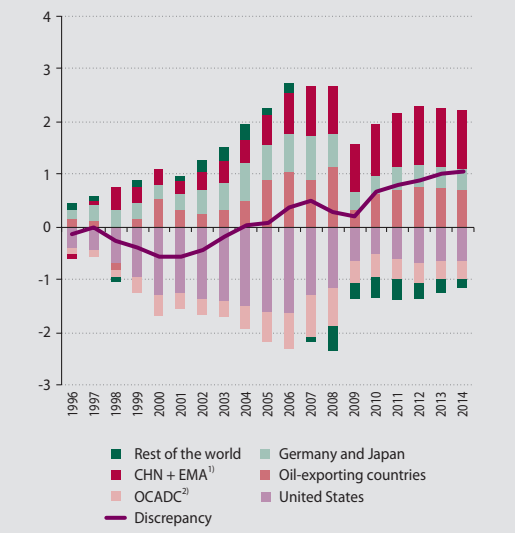
Source: IMF, World Economic Outlook, October 2009.
Note: Data for the years 2009 to 2014 are estimates.

able given the widespread excess capacity in economies), and in particular the limited capacity of many countries (because of their high debt) to sustain the extent of public stimulus measures could sway politicians to begin the early (premature) consolidation of public budgets.

If there is to be sustainable economic growth over the long-term horizon, fundamental structural reforms will need to be carried out in countries with a low ratio of domestic consumption to output.

Over several years leading up to the crisis, the structural characteristics of key world economies resulted in global imbalances rising to unsustainable proportions. Many economists, international institutions, and central banks had long warned of mounting risks to financial stability arising from the simultaneous rise in current account surpluses of export-oriented countries (especially China, Japan and Germany) and the enormous debt of certain countries, in particular the United States and the United Kingdom. Most experts assumed that creditors (large state funds of Asian countries and oil-producing countries) would lose the appetite to finance the mounting debts of counterparties in Anglo-Saxon economies and that this would lead to extensive financial turbulences. In fact, it turned out that debtors, specifically American households burdened with mortgages, became unable to meet the rising costs of servicing their debts. As a result, the real estate bubble burst and the value of financial assets plunged. Banking systems in advanced countries, which had the highest exposures to the riskiest assets (sub-prime mortgages and securities based on them), had to be bailed out with public funds. Whereas, before the crisis, economic entities in advanced countries had consumed and invested more than they had saved, towards the end of 2008 they faced high debts and heavy balance-sheet losses and therefore their demand for the output of export-oriented countries plunged. This led to a relatively large correction of global imbalances, but on substantially lower levels of growth.[8] Global demand will remain subdued due to the need of economic entities (and now also the public sectors) in advanced countries to service debts and rebuild savings.[9] Consequently, if the economic revival is to have a sound footing and to develop sustainably, it will be necessary, as a priority, that countries with structurally weak demand and large foreign exchange reserves carry out reforms aimed at supporting domestic consumption rather than the excessive accumulation of savings. In this regard, a few measures have been taken, but even if there were more of them, their effects would not be perceivable for several years.[10] By contrast, those countries in which the property market bubble burst will, naturally, need to pursue savings growth and pro-export policies.

Chart 7 Global imbalances (% of world GDP)



Source: IMF – World Economic Outlook, October 2009.
Note: Data for the years 2009 to 2014 are estimates.
1) CHN+EMA: China, Hong Kong, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand.
2) OCADC: Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Turkey, United Kingdom.

Financial markets, too, were boosted by the rebound from the bottom and the gradual improvement of the global economy.

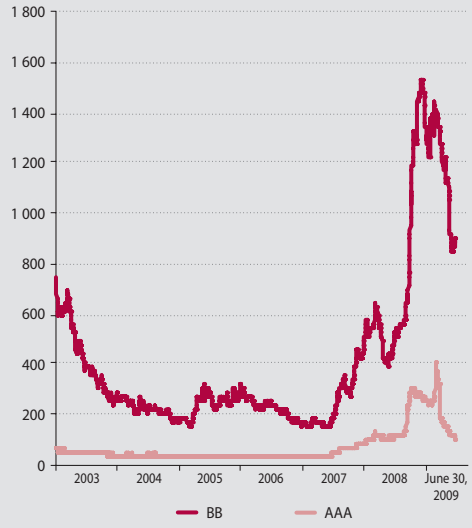
The situation in global financial markets was successfully stabilized at the beginning of 2009 by the supply of liquidity from central banks to financial markets, the provision of government guarantees for the liabilities of financial institutions, the recapitalization of banks with public funds, and other policies. Later on, signs of an improving outlook for the economy also fed through to the moods in financial markets. The decline in risk aversion led to a rise in stock markets, a narrowing of interest rate spreads in credit markets, and a revival in the

8 *By contrast, internal imbalances within countries rose and changed qualitatively at the expense of rising general government budget deficits.*
9 *According to Lombard Street Research, the volumes of exports from China and other Asian economies in September 2009 were still, on average, 21% below the peak levels recorded in November 2008.*
10 *China, for example, goes in precisely the opposite direction with its massive stimulus policies focused on investments in state sectors, which further increase the already excessive production capacities. This will in time have repercussions for the whole world – with the renminbi's exchange rate more or less fixed, it will lead to deepening deflationary pressures and increasingly protectionist responses from the rest of the world.*

Chart 8 Advanced equity markets (index; March 2000 = 100; national currencies)

Source: IMF – World Economic Outlook, October 2009.
Note: The DJ Euro Stoxx is a broad index with a variable number of components. It represents large, mid and small capitalization companies of 12 euro area countries. The DJ Wilshire 5000 is the broadest measure of the U.S. stock market. Topix is a broad index of domestic firms listed on the Tokyo Stock Exchange.

Chart 9 Corporate spreads (basis points)



Source: IMF – World Economic Outlook, October 2009.
Note: Averages of the United States and Europe.

international flow of capital. There is now a move away from investing in low, risk-free yields, towards less secure assets. Confidence among stock market investors also boosted the better than expected financial results reported by banks and the results of stress testing in the United States and other countries. These helped key financial institutions to clarify their solvency risks and led them to increase their capital.

Although systemic risk has receded sharply, credit risks will remain high and restrict the availability of lending to enterprises. The rising need for financing of government debts could lead to the squeezing out of private investments and a rise in long-term rates.

It is questionable whether banks can sustain the favourable financial results they reported in the first half of 2009. Credit risks remain very high and many banks remain weakened also due to the prospect of further losses from toxic assets.[11] While a wave of bank insolvencies is probably not a risk, the availability of loans to enterprises, particularly smaller ones, will continue to be severely restricted. The fact that securitization markets are still barely functioning is also creating worse conditions for increasing lending. Financing will shift from banks to financial markets, but there is a risk in the considerable size of government debts. The need to finance these debts may squeeze out private investments and lead to a rise in long-term rates.[12]

1.2 THE EURO AREA – ECONOMIC SITUATION AND FINANCIAL SECTOR STABILITY

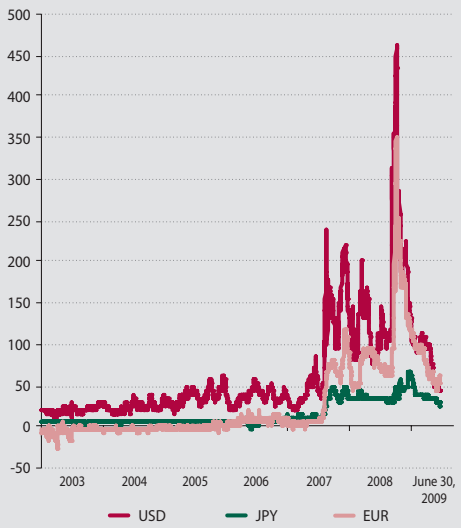
Although shoots of recovery appeared in euro area economies in the second quarter of 2009, the risks to a sustainable recovery were more to the downside.

The contraction of economic activity in the euro area slowed sharply in the second quarter of 2009. Here, too, government interventions assuaged fears of a lasting and deep recession. Favourable developments in the external environment should ensure that the euro area's GDP growth records positive figures in the second half of 2009. The economic recovery will, however, be very fragile and its dynamics will be low, given the persisting structural weakness of global demand. The risks to a sustainable economic recovery are ris-

11 *The IMF, in its Global Financial Stability Report of October 2009, estimates that global bank write-downs over 2007–10 will amount to USD 2.8 trillion, of which only USD 1.3 billion have so far been realised. Banks are also facing high debts, and USD 1.5 billion of bank debt is due to mature by 2012.*

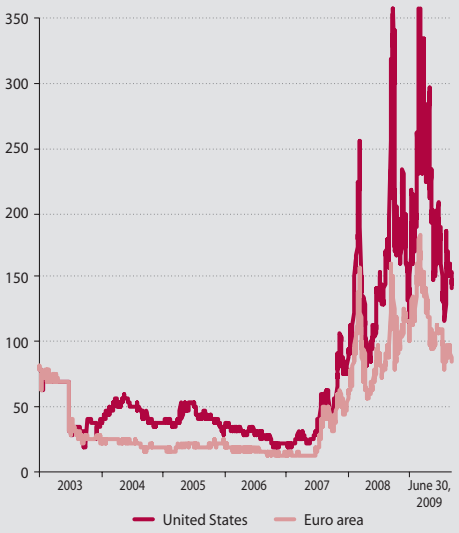
12 *Rates, and thus also financing costs, may rise sharply also due to the ending of money creation through the purchase of bonds (mainly government bonds) by central banks in the United States and United Kingdom (so-called quantitative monetary easing).*

Chart 10 TED Spreads (basis points)



Source: IMF – World Economic Outlook, October 2009.
Note: The TED Spread represents the difference (spread) between the 3-month Libor rate (the rate at which 3-month funds in a given currency are borrowed in the London interbank market) and the 3-month government bond rate. The wider the spread, the greater is the perception of counterparty risk in the interbank market, i.e. the credit risk in the economy is generally higher.

Chart 11 Bank CDS Spreads (10-year; median; in basis points)



Source: IMF – World Economic Outlook, October 2009.

ing unemployment resulting from excess capacity, tough lending conditions, and the premature withdrawal of government stimuli.[13] Nor can the risk of another economic contraction in coming years be completely ruled out.

The euro area banking sector faces risks of negative feedback from developments in the real economy – loan impairments and losses on investments in securities will rise, profitability will fall, equity capital will continue to be under pressure.

The quality of assets held by banks in the euro area is under severe pressure because of the deep economic slump and uncertainty over whether the economic recovery is sustainable. Residential property prices continue to fall, especially in Ireland, Spain and France. The default rate on house purchase loans is rising and will continue to do so as the unemployment rate climbs. The commercial real estate sector has also suffered, since the falling occupancy rate is putting downward pressure on rents and sale prices. The riskiness of credit exposures to property developers is therefore rising, particularly in Ireland and Spain. Weak economic activity will exacerbate losses on corporate loan portfolios. The default rate among euro area firms with a speculative credit rating was around 6% at the end of the first half of 2009, but Moody's (in its April 2009 forecast) expects this rate to rise as

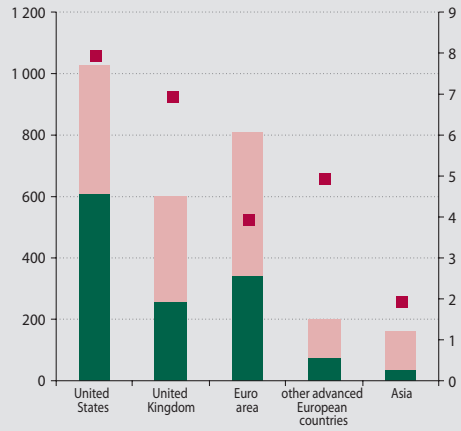
Table 1 Real GDP Growth (in %)

	Change on the previous quarter						Year-on-year change		
	2008		2009						
	Q3	Q4	Q1	Q2	*Q3*	*Q4*	2008	*2009*	*2010*
Euro area	-0.4	-1.8	-2.5	-0.2	*0.5*	*0.2*	0.6	*-4.0*	*0.7*
EU27	-0.4	-1.9	-2.4	-0.3	*0.3*	*0.2*	0.8	*-4.1*	*0.7*

Source: European Commission – European Economic Forecast, November 2009.
Note: The figures are based on seasonally adjusted data. Data in italics are estimates.

13 *Government stimuli had a stronger effect in euro area countries than in, for example, the United States, owing to the fact that household debt in the euro area is lower, on average. This is also why the euro area economy is recovering more quickly than other advanced economies (United States, United Kingdom).*

Chart 12 Realized and expected write-downs or loss provisions for banks (in USD billions)



Source: IMF – Global Financial Stability Report, October 2009.
Note: The implied cumulative loss rate is given as a percentage and represents the total loan loss in ratio to the banking sector's assets. Other advanced European countries include Denmark, Norway, Iceland, Sweden, and Switzerland.Asia includes Australia, Hong Kong, Japan, New Zealand and Singapore.

high as 19% by the year-end. As unemployment increases, so too will the default rate on consumer loans. The IMF estimates that by the end of 2010, euro area banks will have created loss provisions on loans and securities in a total amount of USD 814 billion (or 4% of the banking sector's total assets). The amount of these provisions actually created by the end of the first half of 2009 represented USD 347 billion. This, coupled with the low level of loan activity, low interest rate spread and tightening regulatory framework, will put pressure on banks' profitability and their capital.

The solvency of euro area banks is not expected to be jeopardized, but unless they further increase their capital and remove bad assets, their lending capacity will be severely restricted.

Stress testing of the 22 most significant cross-border European banks (holding 60% of the EU banking sector's assets) showed that under the baseline macroeconomic scenario (corresponding to current forecasts) for 2009 and 2010 the aggregate ratio of Tier 1 capital to risk-weighted assets of these banks will exceed 9% (the minimum level is 4%). Even under the more negative macroeconomic scenario, the aggregate value of this indicator would remain above 8% and not even one bank would have a ratio of less than 6%.[14]

In terms of solvency risk, the capital position of banks appears to have stabilized, but without a further substantial increase in their capital from external sources, banks will have weak lending capacity and will need to continue reducing their balance sheet.[15] The capacity of banks to kick-start lending activities when demand for loan revives would be enhanced also by measures to cleanse their balance sheets of bad assets. In the EU countries concerned, however, such programmes are only just being launched.

1.3 THE VISEGRAD 4 REGION – DEVELOPMENTS AND RISKS

The V4 region was hit hard by the crisis, though to a lesser extent than the wider region of Central and Eastern Europe. The cause lay in a general risk aversion stemming from the region's macroeconomic imbalances and in the significant dependence of certain countries on short-term external financing.

For the wider region of emerging economies in Central and Eastern Europe, the repercussions of the global financial crisis in terms of economic performance and financial stability were worse than for similar economies in Latin America and Asia. Nevertheless, Visegrad-4 countries within the CEE region withstood the global crisis relatively well, largely due to their comparatively sound macroeconomic fundamentals, characterized by financial imbalances that were not too large and stable financing. An exception to this description of the V4 region was Hungary, which due to the exigency of fiscal consolidation did not have enough capacity for anti-crisis stimulus measures. At the same time, the country was so dependent on short-term foreign exchange funds[16] that, at the peak of risk aversion, it was unable even to stimulate the economy through monetary policy and, as a result, it was forced to apply for financial assistance from the IMF and EU.

The short-term outlook for the region was improved by the stabilization of financial markets and signs of recovery in the global economy.

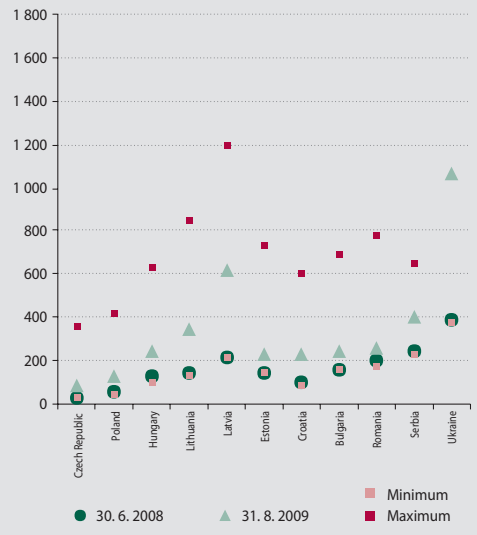
The flow of capital to the region was to some extent restored by the abatement of general risk aversion,

14 *Stress testing at the EU level was carried out in May 2009, at the request of Ecofin, by the Committee of European Banking Supervisors (CEBS) in conjunction with the ECB and the European Commission. More information can be found in the CEBS press release of 1 October 2009.*

15 *The IMF, in its Global Financial Stability Report of October 2009, estimates that if euro area banks are to ensure that their Tier 1 capital to risk-weighted asset ratio is at the prudent level of 8%, they will need to raise USD 150 billion in new capital by the end of 2010.*

16 *In the first quarter of 2009, Hungary's ratio of short-term foreign debt to GDP represented 123%, while its ratio of foreign exchange reserves to short-term sovereign debt was only 80%.*

Chart 13 CDS spreads from 30 June 2008 to 31 August 2009 (basis points)



Source: IMF: Global Financial Stability Report, October 2009.
Note: The maximum CDS spread for Ukraine in the given time period was 5383 basis points.

Chart 14 Real GDP growth (year-on-year change in %)

Source: Eastern Europe Consensus Forecasts, October 2009.
Note: Data for 2009 and 2010 are estimates.

a development supported by government measures and by measures and initiatives pursued by supranational institutions. This was reflected in the recovery of financial markets and exchange rates. Another factor behind the improved short-term economic outlook for V4 countries was the recovery of key euro-area export partners in the second quarter of 2009. In Hungary, however, the continuing consolidation of public finances will have an adverse effect on consumer and investment sentiment, and therefore the Hungarian economy is likely to contract also in 2010.

For particular countries in the region, financial risks remain high in the medium-term horizon.

Although the risk of financial contagion to the region has receded, some countries remain very vulnerable. The reason for this is high uncertainty over whether the economic revival will be sustainable and sufficiently robust following the withdrawal of government stimulus measures (particularly car scrapping schemes) that would keep unemployment from rising. The V4 countries, with the exception of Poland, ultimately have a structurally high dependence on the revival of global demand, which has been undermined by the excessive indebtedness of the advanced economies worst affected by the bursting of the credit bubble. If orders stay low for a longer period, there will be a risk of several smaller firms abandoning the region. General government budget deficits, which reached high levels in 2009, will be very difficult to consolidate under the given economic conditions. The need to consolidate them will in future, as in Hungary now, increasingly contribute to the dampening of domestic demand. Such a development will further increase the risks to the stability of banking sectors in the region.

Financial stability in the region also faces the risk of another wave of risk aversion. If this risk materializes, however, Slovakia as a member of the euro area will be protected from the consequences.

Should a fresh wave of risk aversion be triggered by worse than expected economic developments in the region, or by a collapse of any of the fixed exchange rate regimes, it would lead to a resurgent threat of financial contagion in the wider region of Central and Eastern Europe. Slovakia, however, as a member of the euro area, would to a large extent be shielded from the repercussions of such a scenario materializing.

SLOVAK ECONOMY DEVELOPMENTS AS THEY AFFECT FINANCIAL STABILITY

2

2 SLOVAK ECONOMY DEVELOPMENTS AS THEY AFFECT FINANCIAL STABILITY

2.1 OVERALL DEVELOPMENT OF THE SLOVAK ECONOMY

The deterioration in the domestic macroeconomic environment seen in the final months of 2008 continued in the first half of 2009, and so tested the absorption capacity of the domestic financial system.

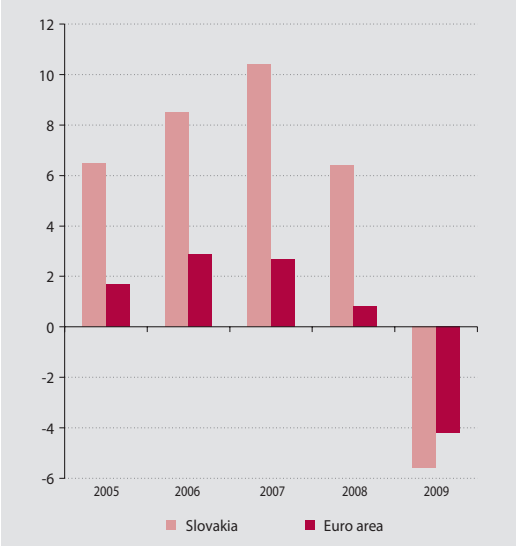
The Slovak economy contracted sharply in the first half of 2009 (by 5.5% at constant prices), although the first-quarter slump in economic activity was partially offset in the second quarter, when the economy recorded quarter-on-quarter growth. The downturn, however, will show up in GDP for 2009, which according to the NBS's forecast[17] will decline year-on-year by 5.6%. The drop in growth was caused by a considerable weakening of the foreign demand on which Slovakia to a large extent depends, but also by a decrease in domestic demand. As consumer confidence dropped and corporate profits plunged, both consumption and investment demand fell. Only general government final consumption reported an increase in real terms.

The downturn in GDP reflected declines in labour productivity and employment, as the economy found itself performing far below its potential. Since European economies are expected to see only a relatively weak revival in the foreseeable future, so too is the Slovak economy not expected to return to its potential level for several years.

Given the slowdown in domestic demand and lower wage growth, inflationary pressures abated. This fed through to a slowdown in the annual HICP inflation rate, which reached an all-time low of 0.7% in June 2009. Price developments therefore, with a certain time lag, followed the trend of slower inflation seen in other euro area countries. Producer prices, too, continued their downward trend.

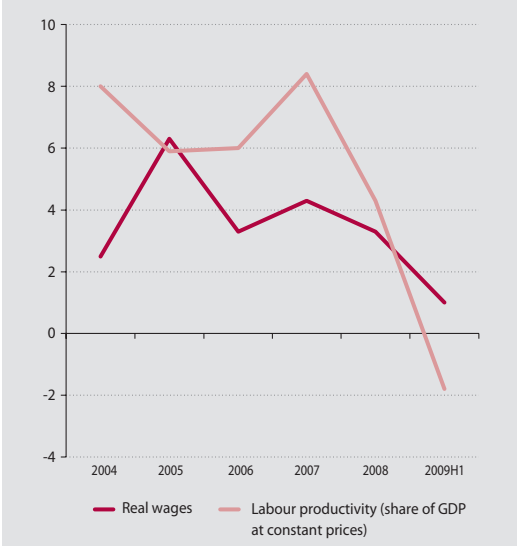
A positive development in the first half of 2009 was the reduction in the current account deficit, to 3.1% of GDP. This result was accounted for largely by a marked decline in the income balance deficit (lower dividend and interest payments to foreign investors) and by the trade balance surplus.

Chart 15 GDP (year-on-year change in %)



Source: Statistical Office of the Slovak Republic, European Commission. Data for 2009 are projections by the European Commision.

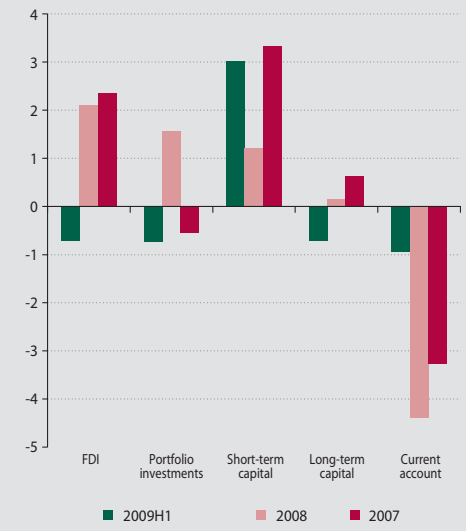
Chart 16 Labour productivity and wages (year-on-year change in %)



Source: Statistical Office of the Slovak Republic.

17 *NBS Medium-Term Forecast MTF-2009Q3.*

Chart 17 Current account deficit coverage (EUR billions)



Source: NBS.

Chart 18 External indebtedness and foreign exchange reserves (USD millions)

Source: NBS.

The surplus in the capital and financial accounts for the first six months of 2009 was lower than for the same period of the previous year. The financing structure of the current account changed at the expense of long-term funds, with outflows of FDI (a rise in claims on parent undertakings and a fall in liabilities towards them) and portfolio investments.

Box 1

THE EFFECT OF THE CRISIS ON THE BALANCE OF PAYMENTS IN V4 COUNTRIES

Slovakia, like other new members of the EU, has based its growth strategy on trade with old members of the EU and on capital inflows, especially in the form of foreign direct investment (FDI). Amid the ongoing financial and economic crisis, international trade plunged and the international movement of capital was marked by rising risk aversion. Such developments were seen in the V4 region, too, and there were several common features.

In the first half of 2009, all the V4 countries recorded an overall improvement in the current account balance, largely attributable to upturns in the trade and income balances. In the trade balance, a sharp fall in exports was accompanied by an even steeper decline in imports (largely due to the drop in energy input prices). The income balance recorded a decline in the investment income deficit, reflecting the downturn in corporate profitability and consequently lower outflow of capital in the form of dividend payments.

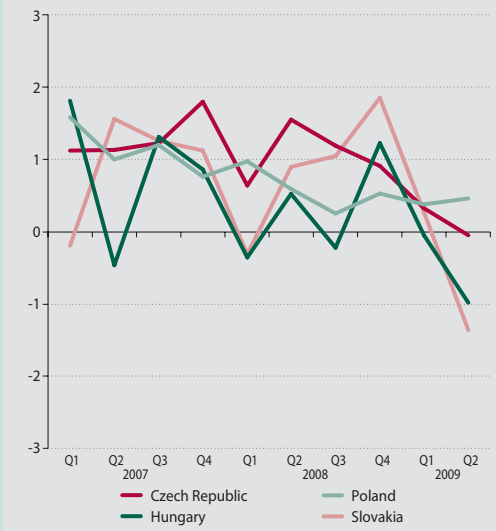
Because of the reduced movement of capital, the balance of financial flows declined. The net balance of FDI fell, too. Although the V4 countries recorded an inflow of equity capital, the amounts in question were lower than in previous years, and in all countries except for Poland the amount of reinvested earnings fell.[18] Financial relations between FDI enterprises and their parent undertakings were marked by the crisis through a decline (except in Hungary) in the inflow or outflow of credit funds under other capital.

18 *In the case of Slovakia and Hungary, this was partially caused by methodological changes in the reporting of reinvested earnings.*

Chart A Current account (% of GDP)

Source: Eurostat.

Chart B FDI – balance (% of GDP)



Source: Eurostat.

External debt rose to €44,877 million (68.7% GDP), and short-term debt as a share of total gross external debt climbed to 57.7%. Slovakia's net international debtor position increased. As a result of Slovakia joining the euro area, the way in which NBS reports its foreign exchange reserves changed. NBS's foreign exchange reserves are now defined as claims on non-euro area residents denominated in foreign currency (other than the euro). Since the proportion of assets denominated in euros had been high under the previous methodology, there was thus a sharp fall in the amount of foreign exchange reserves.

The state budget deficit for the first half of the year amounted to €1,108.4 million. Like in other countries, the Government in Slovakia sought to mitigate the effects of the crisis on the domestic economy by adopting several measures under a stabilizing fiscal policy. The result of falling GDP, however, is that general government income will be lower than expected and that, with expenditures rising, the public finance deficit will increase. Tension is therefore mounting between the commitment to again consolidate public finances, from 2010, and efforts to increase the counter-cyclical effect of fiscal policy outside the framework of the budget.

In the first half of 2009, the government obtained financing by issuing bonds and Treasury bills in the respective amounts of €2,247.6 million and €897.9 million. In May 2009, Slovakia made its first Eurobond issue since joining the euro area – a 5-year bond worth €2 billion, under favourable conditions (a coupon interest rate of 4.375%).

Box 2

DEBTOR POSITION OF THE SLOVAK ECONOMY'S SECTORS IN THE FIRST HALF OF 2009 ACCORDING TO QUARTERLY FINANCIAL ACCOUNTS

The quarterly financial accounts provide information on financial flows between sectors in the domestic economy as well as between sectors and the rest of the world. With these accounts, the creditor and debtor relations between sectors of the national economy can be monitored more closely than they can with the annual financial accounts under the system of national accounts.

The overall indebtedness of the Slovak economy at the end of the first half of 2009 represented €31.4 billion. The non-financial corporate sector – long the most indebted sector – reported a net debt of €45.9 billion. The debts of the general government sector and financial institutions sector came to, respectively, €7.1 billion and €2.5 billion. The only sector with a creditor position – in the amount of €24.1 billion – was households and non-profit institutions serving households (NISH).

The rest of the world sector has long had a net creditor position, and a further increase in this position was reported at the end of 2008. During the first half of 2009, the net debtor position of the domestic economy to the rest of the world declined slightly (by €1.22 billion) compared with the end of 2008, the cause of this positive result being that financial assets rose more sharply than financial liabilities. Declines in net debt were recorded by the general government sector (down by €1.32 billion) and by the non-financial corporate sector (by €0.38 billion). The indebtedness of **financial corporations** rose by €0.507 billion (largely reflecting the rise in other accounts payable to the Eurosystem, as part of settlement in the TARGET 2 payment system).

The general government sector, vis-à-vis the rest of the world, increased its financial assets and reduced its liabilities, especially in the form of loans and long-term securities. As for asset transactions with the domestic economy, there were marked rises in other claims and in holdings of shares issued by domestic enterprises. On the liabilities side, the increases were mainly in other liabilities to households and non-financial corporations (taxes, interest, social benefits) and in business loans to enterprises. The amount of issued securities held by financial institutions also rose.

In dealings with the rest of the world, **non-financial corporations** increased their asset transactions, particularly other claims, holdings of shares in foreign enterprises, and loans extended. As for liability transactions, they comprised mainly loans received and equity securities issued. By contrast, other liabilities of domestic enterprises towards the rest of the world declined.

In the case of non-financial corporations, the reduction of the sector's debtor position vis-à-vis the rest of the world was accompanied

Table A Financial transactions of the domestic economy with the rest of the world in the first half of 2009 (EUR millions)

	TOTAL	Non-financial institutions	Financial institutions	General government	Households and NISH
Financial assets	8,028	1,374	6,134	520	-1
Currency and deposits	2,294	-167	1,961	500	0
Securities other than shares	766	-197	962	0	0
Loans	47	268	-207	-13	0
Shares and other equity	738	859	-121	0	0
Other accounts payable	4,175	611	3,531	33	-1
Financial liabilities	6,806	998	6,641	-833	-1
Currency and deposits	-8,649	0	-8,649	0	0
Securities other than shares	-329	15	4	-347	0
Loans	865	1,033	318	-486	0
Shares and other equity	25	140	-115	0	0
Other accounts receivable	14,865	-189	15,055	0	-1
Net financial assets	1,221	376	-507	1,353	0

Source: NBS, NBS calculations.

by a rise in its debt to other sectors of the domestic economy, especially financial institutions and general government. In the first half of 2009, the intensity of business relations with financial institutions waned in terms of both asset transactions (particularly deposits and other claims) and liability transactions (loans received, non-equity securities). By contrast, financial flows between enterprises and the general government sector increased, especially through other claims and liabilities, on the basis of an increase in loans from the general government sector and in equity securities. Transactions between enterprises also rose.

As regards the sector of **households and non-profit institutions serving households**, its creditor position increased by €3.68 billion. The household sector is not substantially exposed to the rest of the world, and it increased its creditor position vis-à-vis the sectors of financial institutions and general government. The creditor position was weakened slightly by the rise in other liabilities being higher than the increase in claims on non-financial corporations.

2.2 DOMESTIC FINANCIAL MARKET DEVELOPMENTS IN TERMS OF RISKS TO FINANCIAL STABILITY

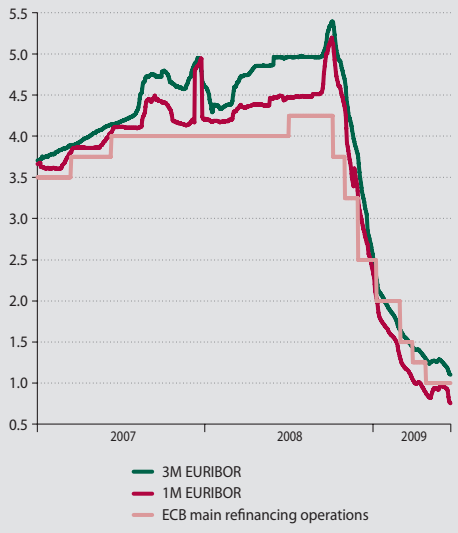
Slovak financial entities entered the euro area single market at a time when market and liquidity risks had begun to recede. Conditions in international financial markets improved markedly during the first half of 2009 in comparison with the situation in 2008. Risk aversion declined. The improvement in sentiment in the second quarter of 2009 was accelerated by the generally favourable macroeconomic results of Asian emerging economies and the reduction of losses, or turnaround in profitability, of large international banks. Although the liquidity situation was better than in 2008, it remained tense.

The ECB continued to implement non-standard monetary policy measures in the first half of 2009 with the aim of stabilizing the financial system and supplying liquidity. It also continued to reduce interest rates, making four cuts that brought the main refinancing rate down to 1%, and the rates for overnight refinancing and overnight sterilization operations to 1.75% and 0.25%, respectively.

Chart 19 The ECB Monetary Conditions Index (january 1999 = 0)

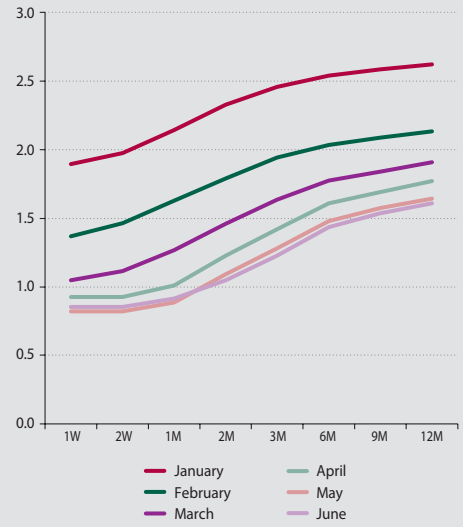
Source: Eurostat.

Chart 20 Short-term money market rates and interest rates of the ECB (%)



Source: ECB, Reuters.

Chart 21 Money market yield curves in 2009 (%)



Source: Reuters.

Chart 22 10-year government bond yields (%)

Source: Eurostat.

The quantitative and qualitative easing of monetary policy fed through to a sharp decline in market interest rates and an increase in liquidity. Money market rates fell from the beginning of the year in line with cuts in the ECB refinancing rate.

Trading on the Bratislava Stock Exchange remained subdued. By the end of June, the market capitalization of bonds had risen slightly, to €17.6 billion, while the market capitalization of equity securities had fallen, to €3.7 billion. The SAX Index ended June on 332.7 points, down by 26.3 points from its level at the start of the year.

Risks from the domestic macroeconomic environment remain significant.

Risks to domestic financial stability persist. Since Slovakia is a highly open economy and trades mainly with EU economies, economic revival in the EU supports growth in Slovakia's exports and therefore affects the country's entire economy. So although the IMF and EC forecast an economic revival in the euro area in 2010, uncertainty about whether this revival will be set back remains a significant risk.

Risks related to the deterioration in public finances have the potential to increase. The costs of stimulus measures together with cyclical developments in the budget may be significantly increasing the risk of a large deficit. In the fiscal sector, increasing efforts must be made to maintain the consolidation commitment. Although Slovakia is rated positively in the context of its region, a further deterioration in the economy could put the country's rating under pressure and therefore increase the costs of financing the economy.

As regards indebtedness to the rest of the world, the adoption of the euro largely eliminated exchange rate risk, since the majority of the liabilities owed by domestic entities to the rest of the world (or their liabilities denominated in foreign currency) were denominated in euros.

2.3 NON-FINANCIAL CORPORATE AND HOUSEHOLD SECTORS

Total outstanding loans to enterprises and households rose far more slowly in the first half of 2009 than in previous years. The amount of new loans to enterprises even declined in the first months of the year, with the most pronounced drop recorded by long-term loans. The most notable rises in new lending to households were in house purchase loans and consumer loans.

Table 2 MFI loans to non-financial corporations and households

	2006	2007	2008	Q1 – Q2 2009
Non-financial corporations (EUR million)	10,900	13,470	15,478	15,314
Households+non-profit institutions (EUR million)	7,901	10,101	12,630	13,296
Loans to non-financial corporations, % of GDP	19,7	21,6	22,9	23,5
Loans to households, % of GDP	14,4	16,4	18,7	20,4
Loans to non-financial corporations, growth in %	20,3	25,6	14,9	-1,0
Loans to households, growth in %	31,4	28,6	25,0	5,4
Loans to non-financial corporations, change in € millions	1,824	2,764	2,080	-151
Loans to households, change in € millions	1,857	2,251	2,988	691

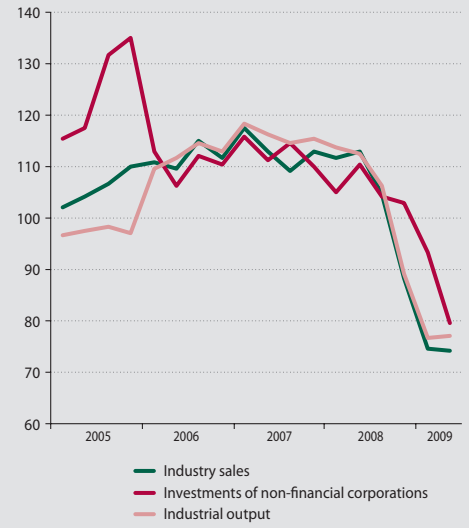
Source: NBS, Statistical Office of the Slovak Republic

The financial situation of enterprises deteriorated

Since the economic crisis had been preceded by a long period of growth, the corporate sector had a relatively sound balance sheet when the crisis began. In the first half of 2009, however, the financial position of the corporate sector deteriorated sharply, as total profits slumped by 41.7% year-on-year, to €3 300.1 million. The only sector to record a rise in profit was information and communication activities. In adverse conditions for income generation, enterprises took a cautious approach to investment and further borrowing.

Business confidence indictors fell sharply, and although they picked up towards the end of the first half of 2009, they did not return to pre-crisis levels by the end of the period under review. While confidence in industry rose, a negative sentiment continued to prevail in services and retail. Short-term business tendency indicators showed that the decline in industrial output eased towards the end of the first half of the year. Most other short-term indicators (foreign demand, inventories) developed in a similar way, perhaps pointing to an end to the decline in economic activity.

Chart 23 Output, sales and investment (index; same period of the previous year = 100)

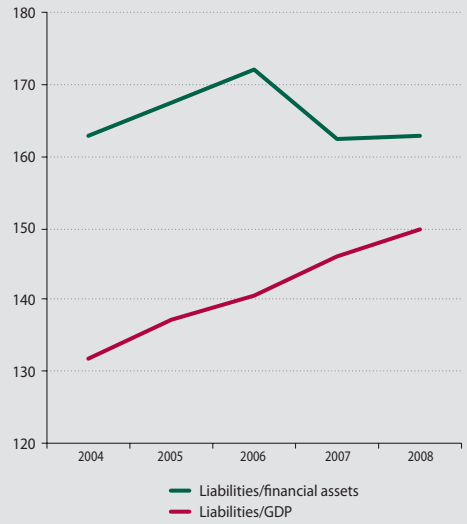


Source: Statistical Office of the Slovak Republic.

Chart 24 Business tendency indicators (balance of responses)

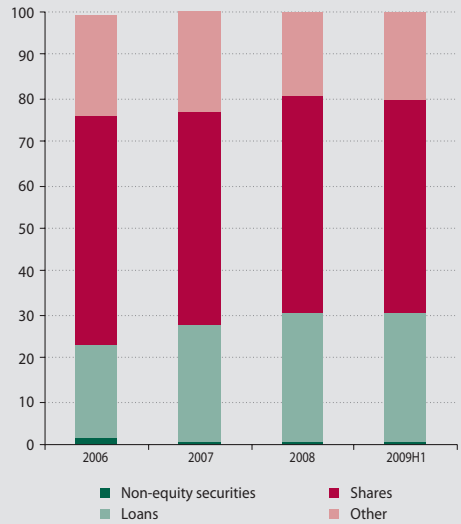
Source: Eurostat.

Chart 25 Debt ratios of non-financial corporations (%)



Source: Eurostat, Statistical Office of the Slovak Republic.

Chart 26 Structure of liabilities in the non-financial corporate sector (%)



Source: NBS, NBS calculations.

The majority of non-financial corporations (64.4%) were financed by creditors from the domestic economy, with the predominant form of corporate financing being share issues. Lending to non-financial corporations stopped rising in the first half of 2009 as lending conditions tightened, especially for small and medium-sized enterprises. The access of businesses to available funds is expected to be helped by the Slovak Government's measures aimed at increasing the basic capital of state-owned banks.[19]

The financial situation of households in the first half of 2009 was marked by negative developments in the labour market, especially rising unemployment. Household income growth slowed.

The worsening development in the real economy fed through to the labour market with a time lag. The decline in employment in the domestic economy (especially in industry) was exacerbated by fewer persons working abroad, while at the same time job vacancies in Slovakia fell. Gross disposable income rose at a slower pace, with primary income recording a pronounced drop in growth. The rising household savings rate (8.9% of gross disposable income) suggests that households harbour a high degree of uncertainty and lower confidence in regard to the future economic development. In an environment of low-inflation, the slowdown in nominal wage growth was reflected in low growth in real wages.

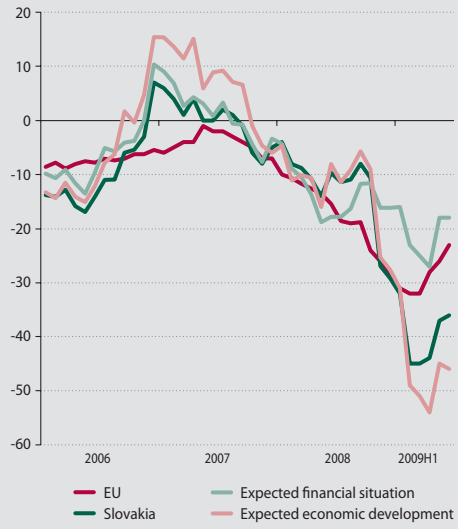
Households perceived the economic events in Slovakia with increasing pessimism. The consumer confidence indicator, which had been in sharp decline since October 2008, fell still further in the first quarter of 2009. In the second quarter of the year, however, consumer confidence began to recover slightly.

Household financial assets reflected a tendency to invest in more secure products. The adverse developments in financial markets reduced the appreciation of household financial assets, largely invested in mutual funds and insurance products. Pension fund income, too, was affected by the situation.

The willingness of households to borrow was in recent years driven by rising income, positive outlooks for economic development, the need for housing, and climbing property prices, as well as the unavailability of alternatives to own-home purchases (rented housing). At present, the slower growth in the economy and real income and the rise in unemployment are adversely affecting the ability of households to service their debts. At the aggregate level, the household debt service burden was at an acceptable level, but while this debt-to-disposable income ratio was at 15%

19 *The Slovak Guarantee and Development Bank (SZRB) and Eximbanka. The effects of these measures, however, will not appear for some time.*

Chart 27 Consumer confidence indicator (balance of responses)

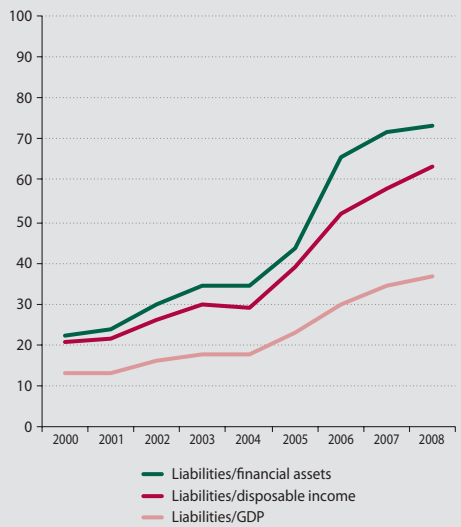


Source: Eurostat, seasonally adjusted data.

Chart 28 Labour market developments – unemployment and job vacancy rates (%)

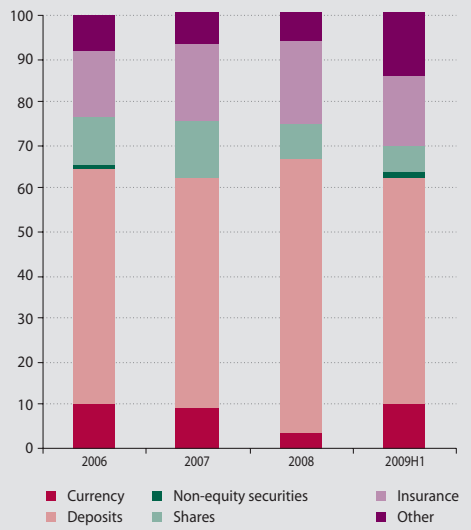
Source: Statistical Office of the Slovak Republic, Eurostat.

Chart 29 Household debt ratios (%)



Source: Eurostat, Statistical Office of the Slovak Republic.

Chart 30 Structure of household financial assets (%)



Source: NBS.
Note: Data are for households and non-profit institutions serving households.

among higher-income groups, it represented 40% among lower-income groups.[20] As for the debt to wealth ratio, an indicator of the ability of households to repay their debt at once, its long-term downward trend continued. Although the financial assets of households remain far higher than their debts, the ratio between them is deteriorating in the long term.

Medium-term risks in the non-financial corporate and household sectors have a persisting tendency.

20 NBS: Analysis of the Slovak Financial Sector for the First Half of 2009.

The more limited scope for generating balance sheet profits and reserves by non-financial corporate sector has been negatively affecting the ability of businesses to repay their debt in due time. Should the deterioration of payment discipline be more broadly based it will put a threat on non-financial corporations, whose financial position is relatively favourable at the time being, and will bring about an additional increase in credit risks for the financial sector.

Although household debt rose, the household sector balance sheet did not pose risks to financial stability. The sector's balance sheet could, however, be weakened by the labour market situation and unfavourable developments in household income.

CHAPTER 3

FINANCIAL SECTOR DEVELOPMENTS AND RISKS

3

3 FINANCIAL SECTOR DEVELOPMENTS AND RISKS

The global financial crisis that culminated in autumn 2008 did not jeopardize Slovakia's financial stability. Its negative repercussions were felt mainly by investors in equity mutual funds and in growth and balanced pension funds, who saw the value of their investments, fall sharply. In a climate of uncertainty and risk aversion, redemptions of mutual fund shares soared and the collective investment sector recorded a marked decline in assets under management. The gradual stabilization of global financial markets from the second quarter of 2009 helped to steady the performance of mutual funds and pension funds, and so the rate of fund redemptions in the collective investment sector slowed substantially.

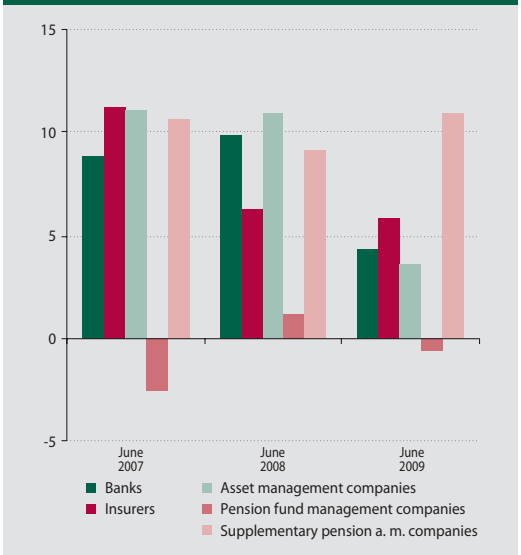
As the financial crisis gradually morphed into a global economic crisis, it began to have a substantial effect on the banking sector in the first half of 2009, reflected mainly in a slump in corporate lending. With the economic situation becoming progressively worse, banks faced a mounting credit risk – the ability of certain corporate sectors and retail groups to repay debts to banks declined. As for the total assets of the banking sector, they fell in the first half of 2009 largely as a consequence of the euro changeover. The combination of the crisis and the euro introduction eroded profitability in the financial sector.

3.1 BANKING SECTOR PERFORMANCE

The deteriorating economic situation, but also the adoption of the euro led to a sharp fall in the banking sector's profitability.

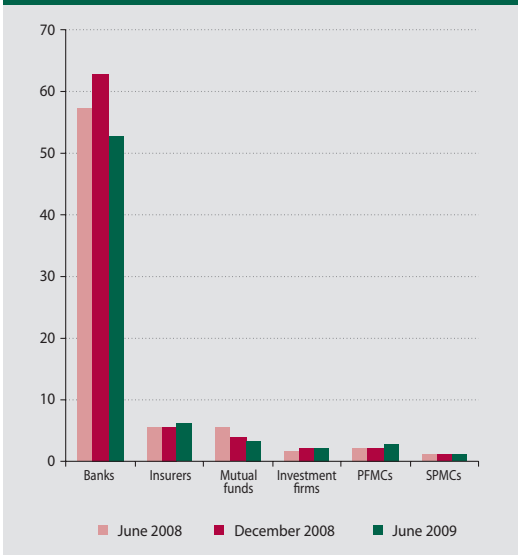
As at the end of June 2009, total profits in the banking sector were down by 48.2% year-on-year and only three banks reported a rise in net profit. Several made a loss, and the number of loss-making banks could rise still further by the end of the year. Whereas in previous periods interest income was regularly recording double-digit growth; in the first half of 2009 it rose only minimally, largely due to the slowdown in the lending market. Interest income from the corporate sector recorded the largest drop. In the case of households, the year-on-year pace of growth in interest income fell less significantly, owing to the increase in overall interest rate spreads.[21] The lower economic activity showed

Chart 31 Average ROE by segment (%)



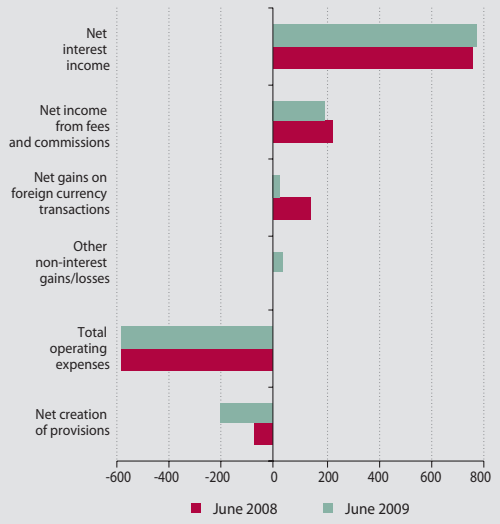
Source: NBS.

Chart 32 Amounts of assets or assets under management by financial market segment (EUR billions)



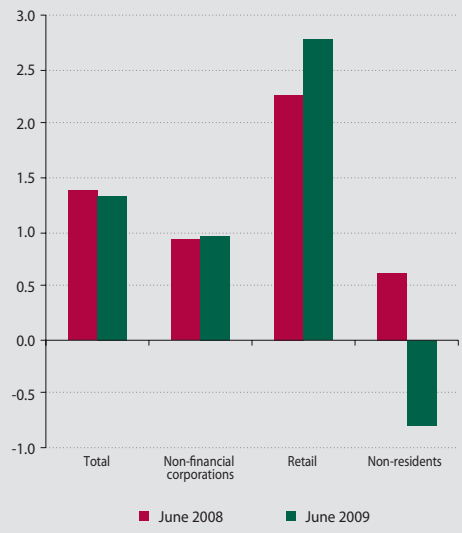
Source: NBS.

Chart 33 Main components of profitability (EUR millions)



Source: NBS.

Chart 34 Net interest rate spread (%)



Source: NBS.
Note: The chart shows the average values for the sector weighted by assets.

up also in a decline in fee income. Banks' profits, compared year-on-year, were also affected by the adoption of the single European currency, which led to a loss of income from foreign exchange transactions. Banks were particularly adversely affected by the deteriorating quality of assets, and the creation of provisions for both the corporate and household sectors increased. The net creation of provisions and net loss on the write-down of claims rose by 150% year-on-year.

Total lending to enterprises declined. Banks eased the tightening of credit standards for corporate bank loans. Demand for corporate loans fell.

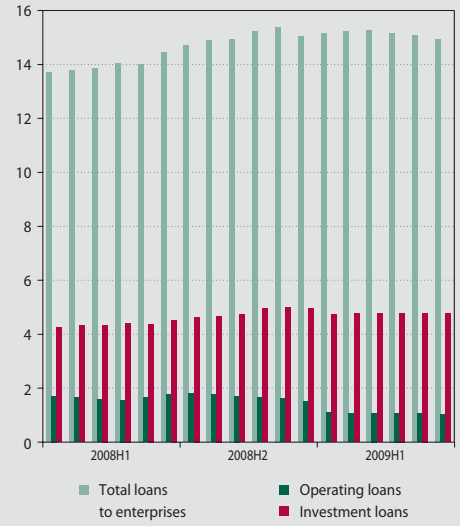
A combination of a stricter approach by banks and a drop in demand from enterprises resulted in the total amount of lending to enterprises falling by 1% in the first half of 2009. Given the high share of sectors sensitive to the economic downturn, a decline in lending was recorded in several sectors. The largest drop was in the financial services sector, reflecting a sharp fall in demand for services of leasing and factoring companies. A marked decline in lending was also seen in the export-oriented engineering industry. By contrast, lending continued to rise in the real estate sector, with several banks financing projects that had already been started. Increased lending was also recorded in the construction and public services sectors. The analysis of data from the register of corporate loans also confirmed that banks had tightened corporate lending from the turn of 2009, especially for customers whom they knew relatively less well or with whom they had only a short-term relationship.[22]

The worsened economic situation increased the credit default risk, which in turn led to tightening of credit conditions. The lending process also reflected banks' efforts to ensure an adequate capital position, which may be done by slowing the growth in lending, or reducing it. In a positive development, credit standards were tightened more moderately in the first half of 2009 than in previous half year, which may indicate a shift in the cycle. Nevertheless, the current setting of credit standards is relatively strict. The amount of lending was to a notable extent affected by the corporate sector's demand for new loans. Most banks had already recorded four successive quarters of declining corporate demand for loans, largely due to the downturn in economic activity in both the external environment and Slovakia, the considerable narrowing of investment opportunities, and the overall rise in uncertainty.

21 *This was largely due to the policies of banks. On the assets side, banks covered the moderate rise in lending with an increase in interest margins. On the liabilities side, the surge in the amount of deposits before the end of 2008 was offset by a sharp decline in deposit rates. Hence the return on assets fell only very slightly, while liability costs fell by almost 40%.*

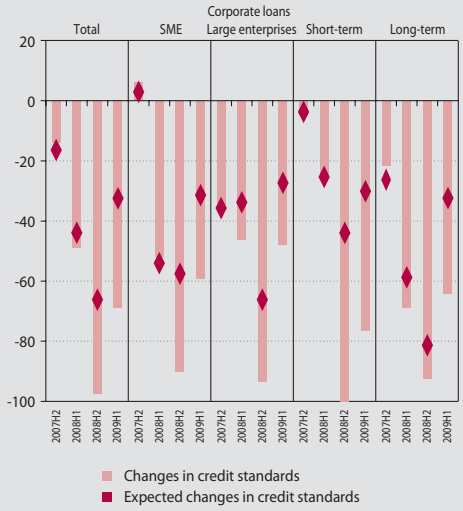
22 *In regard to operating loans, banks tightened lending mainly to customers who had only operating loans, i.e. short-term loans. For customers who also had investments loans, credit was tightened to a far lesser degree.*

Chart 35 Lending to non-financial corporations (EUR billions)



Source: NBS.

Chart 36 Credit standards for loans to non-financial corporations (%)



Source: NBS.
Note: Data are given as a net percentage share, where a positive value indicates an easing of standards. Changes in standards express the subjective view of banks.

The downward trend in household lending growth continued. The tightening of credit standards was eased. Demand for consumer loans declined more moderately.

In lending to households, the year-on-year pace of growth continued to fluctuate at relatively high levels during the first half of 2009, but had a downward tendency. House purchase loans have been recording a year decline in growth since the start of the second half of 2008, when residential real estate prices began to fall. As for consumer loans, their pace of growth began to slow at the end of 2008 amid a slump in economic sentiment among households. Consumer lending did, however, receive a boost from the government's introduction of subsidies for the purchase of new cars (the so-called "scrapping scheme").

Although the tightening of credit standards continued in the first half of 2009, it was more moderate than before. Demand for retail loans, mainly consumer loans, declined more slowly in the first half of the year, supported by a slight recovery of consumer confidence in certain market segments. The decline in demand for house purchase loans continued to be driven mainly by adverse developments in the residential property market.

Banks increased investments in securities, especially government bonds.

To compensate for the slump in lending activity, banks increased their investments in securities. Investments in domestic government bonds rose particularly sharply. At the same time, several banks increased investments in bonds issued by governments of other Central European countries, notably Hungary, the Czech Republic, Poland and Slovenia.

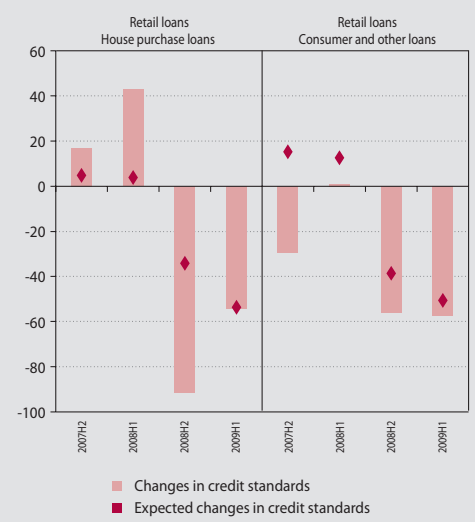
The liabilities side of banks' balance sheets was also affected by the financial and economic crisis. Corporate bank deposits maintained a falling trend.

From the beginning of 2008, the year-on-year changes in the amount of term deposits and savings deposits showed a clearly declining trend. This continued in the first half of 2009 (the year-on-year drop as at the end of June represented 23.6%), as plunging sales and tougher conditions for short-term borrowing from banks forced firms to tap their bank deposits.

Chart 37 Retail loans

Source: NBS.

Chart 38 Development of standards for retail loans (%)



Source: NBS.
Note: Data are given as a net percentage share, where a positive value indicates an easing of standards. Changes in standards express the subjective view of banks.

Retail deposits represent a stable source of funds for banks.

It was important for the sector's stability that the surge in customer deposits towards the end of 2008 was not followed by a major drop in these deposits during the first six months of 2009. The loan-to-deposit ratio,[23] which by the end of 2008 had fallen to 79% under the effect of the sharp rise in deposits, started to climb back up at the beginning of 2009. Given that, on the assets side, total claims on customers stagnated, this increase was caused by a decline on the liabilities side, principally a fall in the amount of deposits from enterprises and from general government.

Market in deposits of non-bank corporations revived.

After falling in the last quarter of 2008, deposits of non-bank financial corporations (financial intermediaries, money market mutual funds, pension funds, and insurance companies) reported a rising tendency during the first six months of 2009. This was due in part to a return to growth in deposits of money market mutual funds between March and June, which indicated an end to the period of high redemptions from these funds. A greater part of the increase was, however, attributable to the rise in deposits of pension funds, as pension fund management companies – responding to an amendment to the Retirement Pension Saving Act – switched their customers' money from shares and longer-maturity bonds to bank accounts.

The outflow of funds from foreign banks revealed the real liquidity situation in the domestic banking sector.

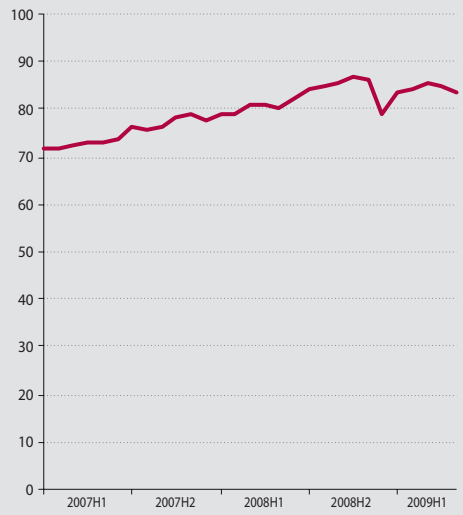
The entry of Slovakia into the euro area (as of 1 January 2009) substantially reduced the sterilization position of NBS, which had up to then been strong. Since the money that banks had been depositing with NBS comprised mainly surplus funds received from foreign financial corporations, the demise of sterilization operations with NBS in 2009 (a drop in banks' assets) was reflected on the liabilities side in a decline in deposits and loans received from foreign banks. As a consequence, the position of stable retail funds strengthened at the expense of funds from the interbank market. During the first half of 2009, banks deposited

23 *Indicates the extent to which loans are financed using stable deposits from customers. The lower the value, the greater the extent to which loans are financed with customer deposits and therefore the lesser the extent to which they are financed through more volatile financial markets.*

Chart 39 Loan-to-deposit ratio: distribution

Source: NBS.
Note: Ratio intervals are shown on the horizontal axis; the number of banks with the given figure is shown on the vertical axis.

Chart 40 Loan-to-deposit ratio: development (%)



Source: NBS.
Note: The date of the ratio's average value is shown on the horizontal axis, and the average value on the vertical axis.

Chart 41 Selected items of interbank assets and liabilities (EUR billions)

Source: NBS.

their remaining surplus liquidity with foreign banks (mainly parent undertakings). At the same time, certain banks began to make greater use of funding from NBS, thereby putting the banking sector into a net debtor position vis-à-vis the central bank.

3.2 BANKING SECTOR RISKS AND THEIR CAPITAL COVERAGE

Banks strengthened their capital position substantially.

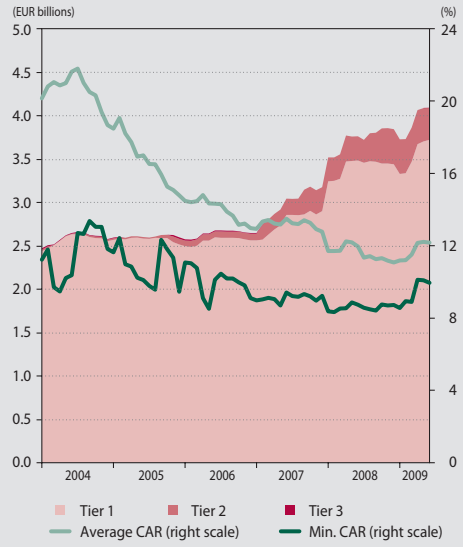
Several banks increased their capital level from the beginning of the year,[24] largely in order to create a sufficient cushion for the coverage of unexpected losses. Hence by the end of June, the banking sector's average capital adequacy ratio (CAR) had risen to 12.3%, and in no bank was the CAR lower than 10%. Several banks increased their capital with retained earnings from previous years, and banks on average retained 60.3% of their 2008 profits as capital. Domestic banks are reporting a higher capital adequacy ratio than their parent undertakings abroad, and they have a higher share of Tier 1, highest-quality capital. Stress testing of parent banks by the respective central banks indicates that they are adequately capitalized.

CREDIT RISK

The adverse economic situation was felt in the household sector, particularly among lower-income groups.

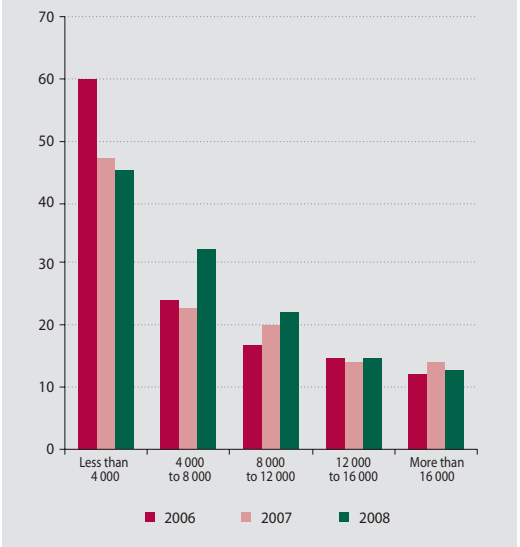
24 *Over the first half of 2009, own funds increased by €254.7 million (6.6%) compared with the end of December 2008 and by €325.9 million (8.7%) year-on-year.*

Chart 42 Components of own funds in the banking sector



Source: NBS.
Note: Tier 1, Tier 2 and Tier 3 capital values are shown on the left-hand scale in EUR billions.

Chart 43 Ratio of loan repayments to disposable income broken down by household disposable income groups (%)



Source: Statistical Office of the Slovak Republic, EU SILC 2006, EU SILC 2007, EU SILC 2008, NBS.
Note: Annual disposable income in euros, less necessary expenses and weighted by household size, is shown on the horizontal axis.

The adverse economic situation has from the outset been reflected in the unemployment rate, which in Slovakia has risen at a higher rate than the EU average. The negative employment trends in the first quarter of the year appeared mainly in lower-income groups, and the riskier loans in this regard are consumer-type loans. The economic downturn was also been reflected in household income, with nominal wage growth declining more sharply from the fourth quarter of 2008.

The proportion of house purchase loans arranged for lower-income households increased. The repayment burden on household income rose only slightly.

At the end of 2008, almost 30% of the total outstanding amount of house purchase loans was owed by lower-income households (income groups with an annual disposable income, less necessary expenses, of less than €4,000 or from €4,000 to €8,000).[25] This shift represents a risk primarily in terms of the increased loan repayment burden on lowest-income groups. For the two lowest-income groups, the ratio of loan repayments to disposable income averaged 40%, whereas for higher-income categories the average ratio was 15%.

The quality of the household loan portfolio worsened, particularly in terms of the amount of non-performing loans.

From the beginning of 2009 until May, the amount of non-performing loans to households increased by around €77.5 million, or almost 17%. The amount of non-performing loans relative to the total amount of loans increased only slightly, and the share of non-performing loans remains comparatively low, especially in house purchase loans. In the household sector, in contrast to the corporate sector, banks did not record a significant rise in loans past due by up to 90 days (their share increased from 6% to 7% over the first half of 2009).

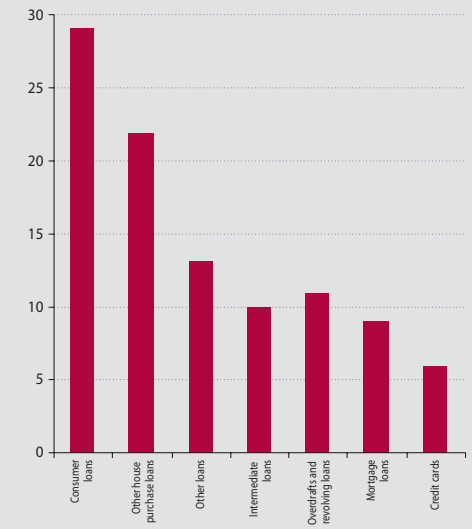
With the adverse situation in the corporate sector expected to gradually spill over to the household sector, the credit risk of households is set to rise still further.

Households at particular risk are those with a higher loan repayment ratio that have only a small "cushion" against any drop in income. The risks for this group relate mainly to house purchase loans arranged in 2007 and 2008.

The rise in credit risk has so far been more marked in the corporate sector.

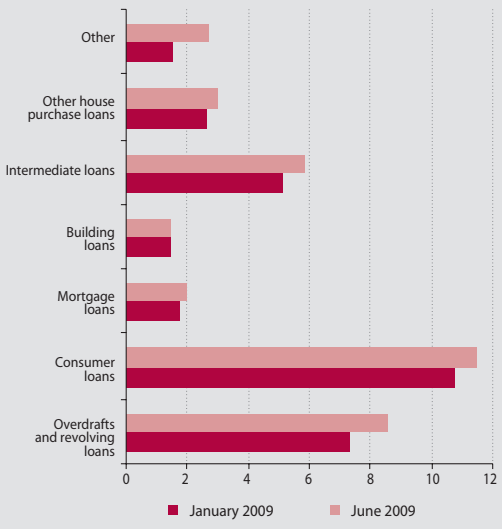
25 *According to data from the Statistical Office of the Slovak Republic and EU SILC 2006-2008.*

Chart 44 Share of absolute rise in non-performing loans to households (%)



Source: NBS.
Note: Types of loan by percentage share of the total rise in non-performing loans between January 2009 and June 2009 are shown on the left-hand scale.

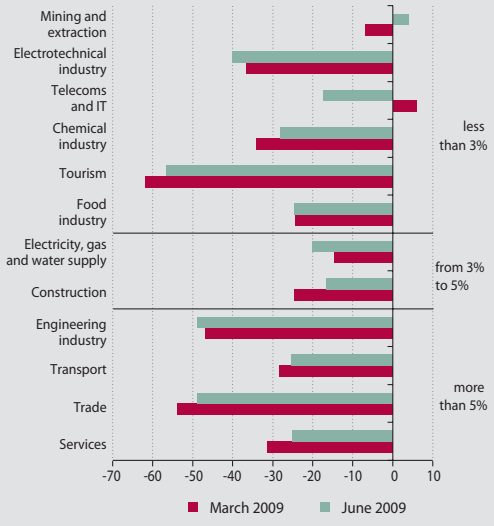
Chart 45 Non-performing loans relative to the total amount of loans by loan type (%)



Source: NBS.

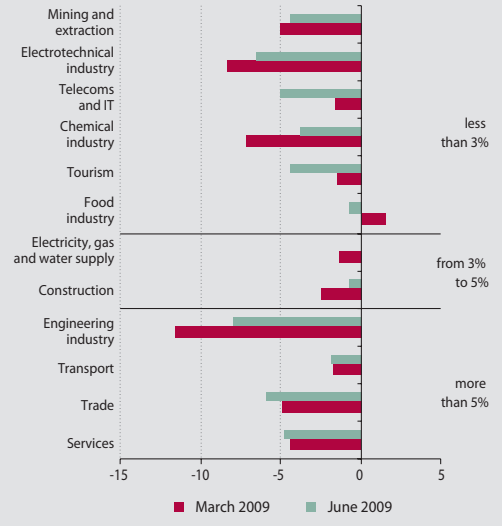
In the first half of 2009, most sectors recorded a significant decline in sales and profits; the liquidity position of the corporate sector worsened, and repayment behaviour deteriorated. Of the enterprises that had bank loans, as many as 14% were running a loss or experiencing a slump in sales. Adverse trends appeared also in the commercial real estate sector (which accounts for a significant proportion of banks' credit portfolios), and they can be expected to continue.[26]

Chart 46 Sales-to-assets ratios compared year-on-year (p.p.)



Source: Statistical Office of the Slovak Republic, NBS.
Note: Sectors are broken down by share of total loans provided by banks to legal entities (vertical axis). The data express the year-on-year comparison of median values for each sector.

Chart 47 Return on assets ratios compared year-on-year (p.p.)



Source: Statistical Office of the Slovak Republic, NBS.
Note: Sectors are broken down by share of total loans provided by banks to legal entities (vertical axis). The data express the year-on-year comparison of median values for each sector.

26 *As demand stagnated and the supply of office premises soared, the vacancy rate increased.*

A major drawback of banks' credit exposures to the corporate sector is the relatively large share of sectors that report high sensitivity to changes in the business cycle. For this reason, no substantial improvement in the situation is expected in the coming period, and therefore the profitability of banks will continue to be squeezed.

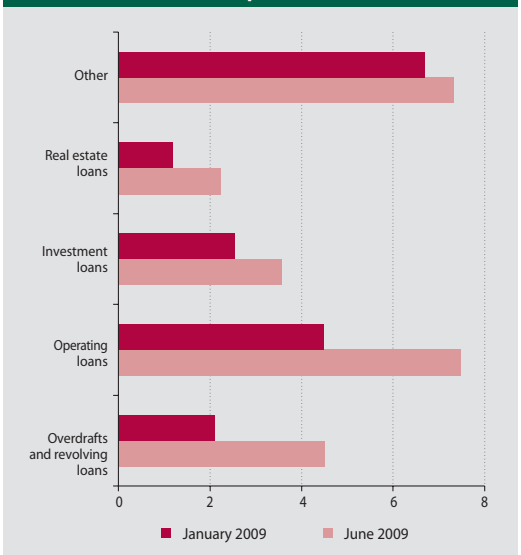
The impaired financial position of enterprises began to show up in the amount of non-performing loans and in loan repayment arrears.

From January 2009, banks recorded a deterioration in the quality of their corporate loan portfolios. The amount of non-performing loans climbed by almost €120 million, or 25%. The rise in non-performing loans was most pronounced among short-term loans and in the sectors of trade, manufacturing and construction. Loans past due by up to 90 days increased as a share of total loans in the banking sector, from 2% to 4%.

In the medium-term horizon, another source of credit risk is the high share of loans – whether to enterprises or households – with a short initial rate fixation.

Households, like enterprises, are proving sensitive to interest rate movements, owing to the proportion of loans with a short initial rate fixation (though it is lower among households – in May 2009, around 55% of house purchase loans were of this type). This represents a source of risk in the event of a sharp rise in inflation and interest rates – a situation that could come about within a few years. The risk in this scenario lies mainly in the relatively rapid impact on the banking sector.

Chart 48 Ratios of non-performing loans in the non-financial corporate sector (%)



Source: NBS.

Liquidity risk

Banks' holdings of liquid assets were satisfactory. The ratio of liquid assets to volatile liabilities declined only slightly.

Since November 2008, banks have been required to maintain liquid assets in an amount at least equal to their volatile liabilities. The method of calculating the liquid assets and volatile liabilities is laid down in a decree.[27] Banks must cover a certain percentage of the liabilities to their customers with assets that are convertible into liquid funds within a period of 1 month. Except for three branches of foreign banks, all banks fulfilled this requirement during the first half of 2009. For the sector as a whole, the ratio of liquid assets to volatile liabilities declined slightly over the first half of the year, from 1.45 to 1.32. If we omit operations with banks from both the asset and liability sides, the coverage of the remaining volatile liabilities (predominantly customer deposits) with the remaining liquid assets (mainly securities and loans to customers maturing within 1 month) increased during the first half of 2009, from 97% to 112%.28

Interest rate risk

The significant banking book interest rate risk of banks rose again in the first half of 2009.

The short-term interest rate risk in the banking sector is relatively low, since only 5% of assets and 3% of liabilities are revalued to fair value through profit and loss. In the event of a parallel shift in the interest rate curve of 1 p.p., no bank would record a loss of more than 0.1% of assets from the revaluation of financial instruments.

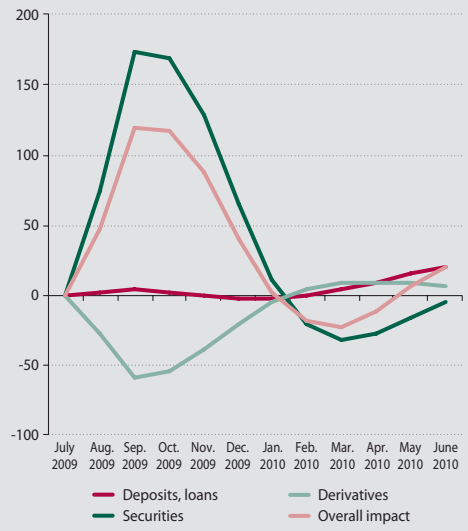
In the long-term view, all banks are adversely sensitive to a parallel upward shift in the interest rate curve.[29] An unexpected shift of 1 p.p. would reduce the value of the banking sector's balance sheet (including derivatives) by 1% (compared with 0.7% as at the end of 2008). Since the esti-

27 *Decree No. 18/2008 of Národná banka Slovenska of 28 October 2008 on the Liquidity of Banks and Branches of Foreign Banks and on the Process of Liquidity Risk Management of Banks and Branches of Foreign Banks, and on the Amendment of Decree No. 11/2007 of Národná banka Slovenska on the Submission of Statements, Reports and Other Disclosures by Banks, Branches of Foreign Banks, Securities Dealers, and Branches of Foreign Securities Dealers for Supervision and Statistical Purposes.*

28 *With the adoption of the euro at the beginning of 2009 came changes to the structure and amount of liquid assets and volatile liabilities. The amount of liquid assets declined by €11.9 billion and the amount of volatile liabilities fell by €6.8 billion. The cause of the drop on the liabilities side was an outflow of funds from foreign banks, and on the assets side, a sharp reduction in the amount of funds deposited with NBS.*

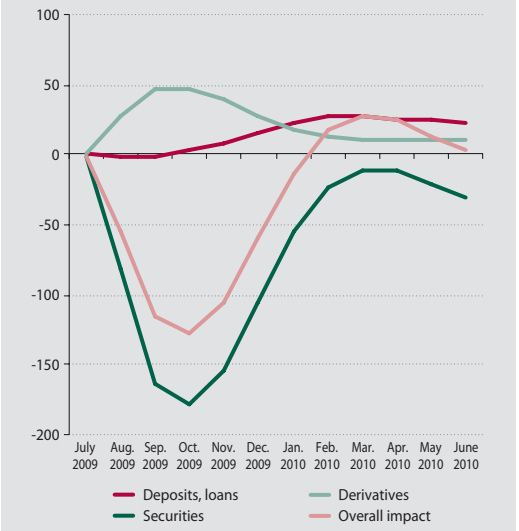
29 *The long-term interest rate risk stems from a gradual change in net interest income on instruments that are not revalued to fair value.*

Chart 49 Impact on the banking sector of a cut of 0.75 p.p. in the ECB rate and a doubling in value of the iTraxx index (EUR thousands)



Source: NBS.

Chart 50 Impact on the banking sector of a rise of 1 p.p. in the ECB rate and a halving in value of the iTraxx index (EUR thousands)



Source: NBS.

mated decline in economic value represents 13% of own funds, this sensitivity is relatively high.

Banks would suffer greater losses under the stress scenario of an unexpected rise in interest rates and decrease in credit premiums than under the opposite scenario.

In the short-term horizon, banks undertake a higher level of risk under the scenario that assumes a decline in credit premiums and a rise in interest rates. In this case, banks would record a loss on the securities portfolio, and that loss would be particularly evident within the course of the first six months. By the end of the period under review, the loss on the securities portfolio would not be fully offset by gains from the portfolio of interest rate derivatives. Our estimate for the horizon of one year is that the overall impact of this scenario should be slightly positive, particularly given the lower loss on the securities portfolio in the other six months and the gains reported on the deposit and credit portfolio. The reverse effect would be seen under the scenario of a cut in interest rates and an increase in credit spreads.[30] Among individual banks, the results are comparable to those for the sector as a whole. Most banks either did not report any hedging of the securities portfolio with interest rate derivatives or they reported such hedging in less than the full extent – i.e. the gains/losses on the securities portfolio would not be offset by the losses/gains on the portfolio of interest rate derivatives.

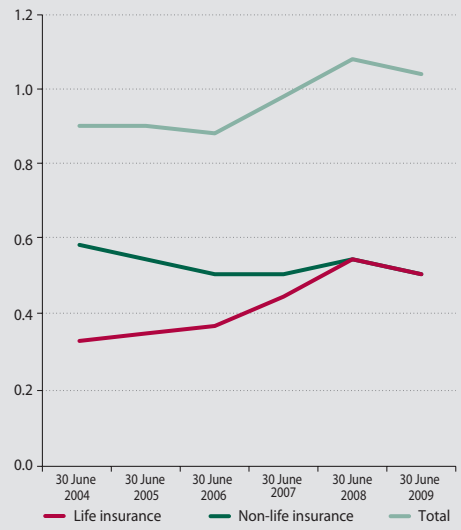
3.3 THE INSURANCE SECTOR

Total premiums declined in the first half of 2009, and fell more sharply in life insurance.

The first half of 2009 saw a turnaround in total premiums, which declined over the six months after recording one of the strongest growth rates during the previous year. Life insurance in particular was adversely affected by the economic situation. The main causes of this decline, besides contract surrenders, were an increase in the number of maturing policies and a drop in demand for this type of insurance. Almost all lines of life and non-life insurance recorded a decline in new production. Total premiums for the first half of 2009 amounted to €1.03 billion, representing a fall of 5.2% in comparison with the same period of the previous year and the largest decline in premiums for more than ten years. In life insurance, premiums fell by 7.1%, and in non-life insurance they decreased by 3.2%. The strongest growth among the different lines of insurance (albeit far lower than in the previous year) was again recorded by unit-linked insurance, where the investment risk is borne by the insured. Portfolios in most non-life insurance lines

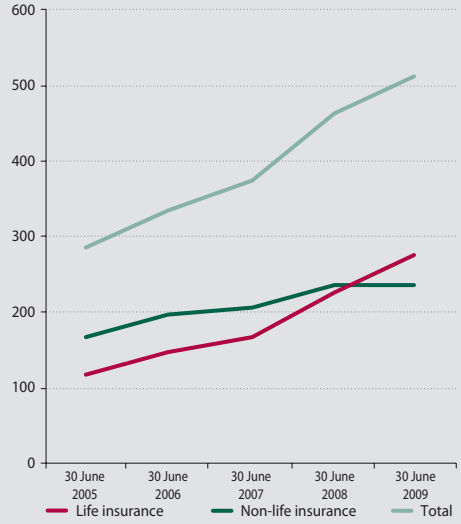
30 *A detailed description of the scenarios is given in the Analysis of the Slovak Financial Sector for the First Half of 2009 (Box 3), published by NBS in September 2009.*

Chart 51 Premiums (EUR billions)



Source: NBS.

Chart 52 Claim costs (EUR millions)



Source: NBS.

stabilized, as is apparent from the rise in both the number of prolonged contracts and the amount of annualized premiums for these contracts.

Claim costs increased sharply in life insurance and remained flat in non-life insurance.

Claim costs rose by 10.4% year-on-year, to €511 million. In life insurance, they increased by more than 21%, but in non-life insurance they remained practically unchanged year-on-year (rising by 0.1%). The loss ratio for non-life insurance as a whole fell slightly year-on-year, to 53.1%.[31] The combined ratio for non-life insurance as a whole also declined slightly, to 81.6%.[32]

The share of premiums ceded to reinsurers rose slightly. Technical provisions of insurance companies are invested conservatively, mainly in government bonds.

Insurance premiums ceded to reinsurers in the first half of 2009 amounted to €137 million, or 13.3% of total premiums (a slight rise in the share).

As for the investment structure of technical provisions, the proportion of government bonds rose at the expense of bank bonds and term deposits.

Financial situation of the insurance sector deteriorated further.

The total profits of insurance companies fell by 13.5% year-on-year, to €70 million, and the sector's return on equity dropped to 5.81%. The financial result of insurers increased by more than 265% year-on-year, largely due to the profit from financial operations in unit-linked products, which in the previous period had recorded a loss. The profit from unit-linked products, however, does not affect the net profits of insurance companies, since it appears in the rise in the technical provision for unit-linked products – which in turn reduces the amount of the technical result for life insurance. Excluding unit-linked products, the financial result of the insurance sector rose by only 14.2%. The decline in the profitability of insurers was therefore caused by the technical loss of more than €20 million. Technical income fell, mainly because of the decrease in premiums written. Technical expenses, on the other hand, rose sharply in the first half of 2009 owing to the rise in claim costs coupled with the increase in reserves for unit-linked products. Seven insurers reported a loss, the same number that did so in the first half of 2008.

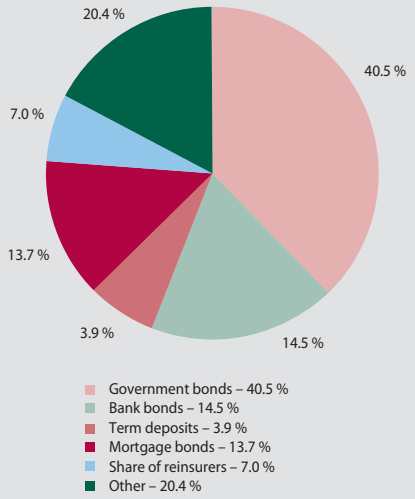
3.4 INVESTMENT FIRMS

The amount of customer assets managed by licensed investment firms rose slightly year-on-year. Derivatives trading declined sharply.

31 *The loss ratio is calculated only for non-life insurance, as the percentage ratio of:*
- *the sum of claim costs and the change in the gross technical provision for claims, to*
- *earned premiums, i.e. the gross premium after deducting the change in the gross technical provision for unearned premiums.*

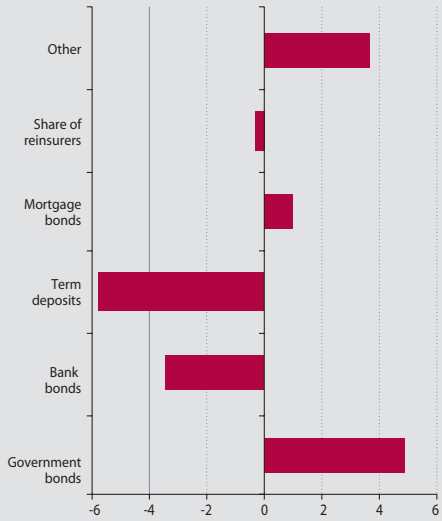
32 *The combined ratio represents the expense ratio and loss ratio relative to earned premiums in non-life insurance. A value above 100% indicates that the insurance company is making an operating loss on premiums written. The expense ratio is the ratio of operating expenses to earned premiums.*

Chart 53 Investment of technical provisions



Zdroj: NBS.
Note: Government bonds refer to bond issued by the SR and other EU Member States, NBS and other central banks, bonds guaranteed by the Slovak Government, and bonds issued by the EIB, EBRD and IBRD.

Chart 54 Changes in the investment of technical provisions between 30 June 2008 and 30 June 2009 (%)



Source: NBS.

Derivatives trading in the first half of 2009 reflected the effects of the financial crisis, as it plunged by 71% year-on-year. There was, by contrast, an increase in trading in other financial instruments, particularly money market instruments and bonds. The amount of customer assets managed by licensed investment firms also rose slightly year-on-year, by 7%, to stand at €2 billion. The capital adequacy ratios of these entities comfortably met the statutory minimum requirement.

3.5 COLLECTIVE INVESTMENT

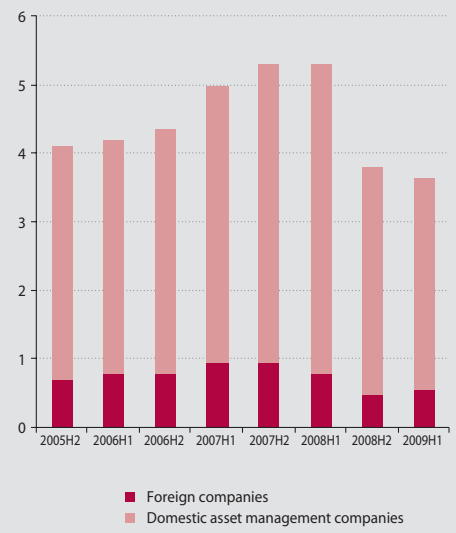
In the collective investment sector, the net asset value of mutual funds stabilized during the first half of the year. Nevertheless, the sector remains sensitive to financial market developments.

The exceptional turmoil in global financial markets at the end of 2008 affected attitudes to risk among mutual fund investors. A wave of mutual fund redemptions left net fund sales deeply negative and, in conjunction with a drop-off in fund yields, caused a sharp fall in the net asset value (NAV) of mutual funds. By the end of the period under review, however, the situation in the collective investment sector had stabilized, owing to the calming of financial markets, the lowering of bank deposit rates, and the revival of stock markets. Firstly the wave of redemptions came to an end, and then, in the second quarter, positive net sales were reported. Thus the decline in NAV over the first half of 2009 was only slight, reflecting mainly the drop in the NAV of domestic funds during the first half of the year.

In all fund categories, the average weighted performance as at 30 June 2009 showed an improvement compared with the end of the previous year, though remained low from the long-term perspective.

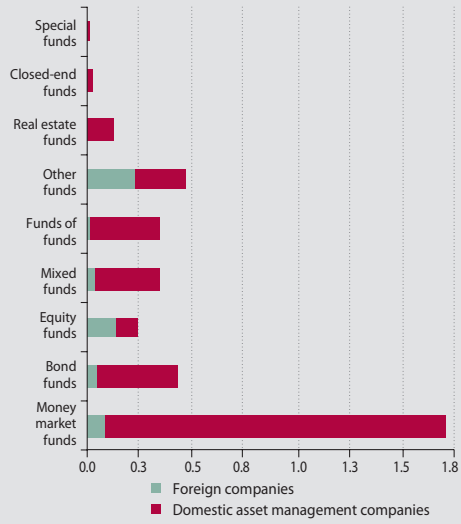
The only funds to increase their nominal value were money market funds (by 1.5%) and the group of funds comprising other funds and special funds (2%). Bond funds again reported a year-on-year loss (-0.85%), although this was better by half than their result at the end of December 2008. Funds containing equity securities faced the most adverse situation. Although glo-

Chart 55 Net asset value of mutual funds sold in Slovakia (EUR billions)



Source: NBS.
Note: From 2006 the figures include also closed-end and special funds.

Chart 56 Asset value of funds by category, as at June 2009 (EUR billions)



Source: NBS.

bal stock markets made a relatively robust revival in the first six months of 2009, the improvement was far from sufficient to make up for their slump in the previous period. Annual returns on equity funds, mixed funds, and funds of funds therefore remained entrenched at negative levels, with year-on-year results of, respectively, -30%, -8%, and -14%.

3.6 PILLAR II OF THE PENSION SAVING SYSTEM

Although the number of savers fell after the system was opened up, the value of pension fund assets rose.

The opening up of the retirement pension saving system continued its second stage throughout the first half of 2009. Existing savers were allowed to opt out of Pillar II, while people enrolled exclusively in Pillar I of the pension saving system had the opportunity to join Pillar II. The number of savers in Pillar II funds fell by 1.6% between the end of 2008 and the end June 2009.

Nevertheless, the net asset value of funds rose during the first six months of 2009, by €378 million (17%), owing to the regular contributions of savers.

Influenced by adverse developments in global financial markets, and mainly as the consequence of the adoption of an amendment to the Retirement Pension Saving Act, the investment strategy of the funds was substantially altered, but at the expense of long-term yields for savers.

Over the first half of 2009, pension funds sold off 40% of the bonds and almost all of the shares which they had held at the beginning of the year. By the end of the period under review, most of the money released by these sales had been reinvested in current and fixed-term accounts with banks. Management companies substituted bond investments also for Treasury bills issued by other EU governments, which hitherto had constituted a negligible share of fund portfolios.

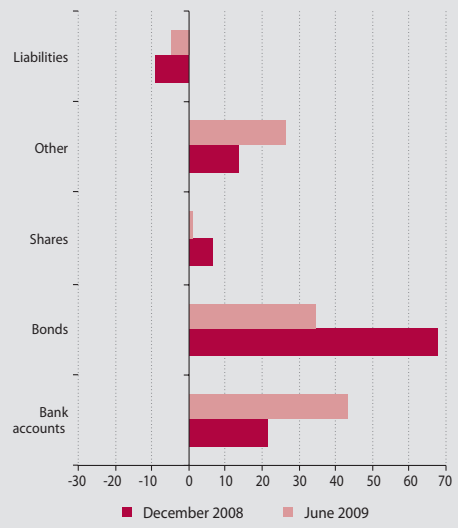
There thus arose a paradoxical situation in which the usual differences between the different types of fund did not just disappear, but even reversed to some extent – growth funds had the most conservative structure by the end of June 2009, while the funds described as conservative had relatively the least conservative structure. This pattern was seen not just at the aggregate level, but also to a large extent in individual pension fund management companies.

Despite the fact that shifts in portfolio allocations of PFMC to less risky investments have been motivated also by adverse market developments, the described changes in the investment strategy of funds were primarily made in response to a legislative amendment[33]. Under the new statutory provisions management companies are obligated to top up the assets of a fund from their own capital if the fund in question has a negative yield during the designated period. The key issue here is the time horizon over which the performance of funds is assessed, and which is defined as six months.[34] Hence, for assessing long-term investments, this period is extremely short. In order to minimize the risk of having to top up assets, pension fund management companies needed to reduce the volatility of their portfolios by adjusting the structure of them. In the long-term, these risk-mitigating changes to pension fund investment strategy will have an adverse effect on savers by substantially reducing the expected yield on their pension savings. The new law has also significantly changed the structure and amount of fees, which encourages asset managers to select investment strategies that are very secure and, at the same time, not cost intensive.[35]

The new legislative regulation increased the potential for systemic risk.

Pension fund management companies took advantage of the statutory provision allowing them to invest money with their depository without restriction. The amount of deposits that a pension fund places with other banks and branches of foreign banks is, by contrast, limited to 10% of the net value of the assets under its management. A question raised in this regard is the increased concentration risk, since the large amount of assets accumulated in Pillar II is exposed to a small number of counterparties consisting of fewer than twenty banks. Moreover, as much as 45% of that amount is exposed to only two banks. Although the risk of default and breach of obligations is deemed to be minimal in the case of each bank, the occurrence of any such event could cause a huge loss to the funds affected.

Chart 57 Types of investment by share of total assets under management (%)



Source: NBS.

The year-on-year performance of growth funds and balanced funds reflected the sharp decline in the current value of pension units.

The short-term year-on-year performance of growth funds[36] was relatively volatile during the first half of 2009, especially in the initial months. The weighted average yield of growth and balanced funds reflected the sharp decline in the current value of pension units in the second half of 2008. For the first six months of 2009, these funds recorded average positive yields of 0.1% and 0.14%, respectively.

Table 3 Annual yield of pension funds as at 30 June 2009

Fund types	Weighted average
Conservative funds	1.9%
Balanced funds	-3.4%
Growth funds	-4.8%

Source: NBS.

33 *Act No. 137/2009 Coll. of 11 March 2009 on the amendment of Act No. 43/2004 Coll. on Retirement Pension Saving.*

34 *This legally stipulated assessment period is exceptionally short in the context of the underlying philosophy of pension saving.*

35 *The restructuring of portfolios from the beginning of April coincided with the approval date of the Retirement Pension Saving Amendment Act. In the first three months of the year, asset structures had remained largely unchanged.*

36 *The average annual yield of pension funds is calculated as a weighted average of the year-on-year percentage changes in the daily values of pension fund units of the respective pension funds. The year-on-year percentage changes in the daily values of pension units are calculated as at 30 June 2009 (PMZDHDJ30.6.2009) according to the following formula:*

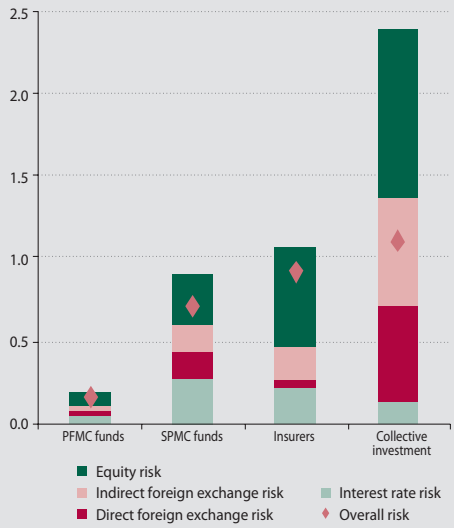
$$PMZDHDJ_{30.6.2009} = \left(\frac{DJ_{30.6.2009}}{DJ_{30.6.2008}} - 1\right) * 100\%$$

where DJ is the value of a pension unit on the given day. The weight applied is the ratio of the respective fund's net asset value (NAV) to the sum of NAVs of funds of the same type. The yield is given in nominal terms, which means that inflation is not deducted. When yields are calculated for various forms of investment, the nominal yield is used as a rule, calculated according to the standard methodology.

Chart 58 Current value of pension units by type of fund

Source: NBS.

Chart 59 VaR in individual sectors (%)



Source: NBS.
Note: Data are shown as a percentage of the asset value or NAV. For insurance companies, assets covering unit-linked insurance policies are not included. The VaR values were calculated as the potential loss that would not be exceeded in 99% of cases over a period of 10 working days.

3.7 MARKET RISKS IN THE NON-BANK FINANCIAL SECTOR

Risks in PFMC funds fell sharply because of a change in asset structure.

As a result of investment strategy changes brought about by the legislative amendment (see above), Pillar II pension funds saw a decline in their exposure to all of the basic risk types during the first half of 2009. The most substantial reduction was in equity risk. The proportion of equity shares and mutual fund shares in the assets of PFMC funds plunged during the first half of 2009, from 9.8% to 0.9%. The average duration of assets contracted to 0.4 of a year, and in no fund did it exceed 1 year, which means that in the event of a parallel upward shift in the interest rate curve of 1 p.p., no fund would record a drop in the economic value of its assets of more than 1% of the net asset value. The average share of net foreign exchange positions declined to 0.5% of NAV (the average weighted by the NAV of individual funds). In all funds, this proportion was less than 1.2% of NAV. Credit risk arising from investments in bond securities fell, too, largely because of the change in the structure of bond portfolios.[37] As a result of this change, the average probability of default for bond portfolios fell from 0.13% to 0.09%.

Equity investments pose the greatest risk in the short-term horizon.

For the VaR calculation, equity risk was divided into the general risk of share price movements and the so-called indirect foreign exchange risk.[38] In the latter case, the risk is the effect that foreign exchange rate movements will have on prices of purchased mutual fund shares. The degree of exposure to this risk is comparable with the direct foreign exchange risk. By analogy, it is also possible to define an indirect interest rate risk, though the exposure to it is negligible.

As for the sectoral breakdown, the risk to which assets of insurance companies are exposed is seen as relatively high: the potential loss over a period of 10 working days should in 99% of cases not be more than 0.9% of the assets, which represents around two thirds of the profits generated in the insurance sector during the first half of 2009. In the mutual funds sector, by contrast, the VaR of 1.1% of NAV is relatively low, largely due to the high share of money market mutual funds and bond funds carrying a relatively low

37 *For all three types of fund, the change in the structure of bond portfolios of Pillar II pension funds was the same, with government bonds acquired at the expense of bonds issued by banks and other financial corporations. The proportion of corporate bonds also fell moderately.*

38 *A detailed description of the VaR calculation method for market risks is given in the Analysis of the Slovak Financial Sector for the First Half of 2009 (Box 2), published by NBS in September 2009.*

risk, as well as to the strong diversification effect between different risks.

3.8 MACRO STRESS TESTING

The resilience of the financial sector increased slightly between the end of 2008 and the end of the first half of 2009, and did so despite the deteriorating economic environment.

The capacity of banks to cope with adverse developments, simulated by two stress scenarios, was enhanced by the significant increase in their own funds.

Under our moderate macroeconomic scenario, the banking sector would suffer a loss equivalent to 1.8% of total assets (24% of own funds), and under an extreme scenario, 2.8% of total assets (38% of own funds).[39] These losses are higher than those estimated in the stress scenario as at the end of 2008 because the time horizon of one year was extended to one and a half years. Even so, under the moderate scenario there would be only two banks reporting a capital adequacy ratio[40] of less than 8% (compared with six banks at the end of 2008), and under the extreme scenario, seven banks (compared with eight). In the case of most banks, their capital adequacy ratio would, after the application of the respective scenario, be higher than it was at the end of 2008. It is therefore clear that the increase in banks' capital during the first half of 2009 served to increase their shock absorbing capacity.

The largest proportion of the losses suffered by banks under the macro stress scenarios would arise from the credit risk of enterprises. An exception to this is home savings banks, whose losses stem predominantly from the credit risk of households.

The change in the asset structure of Pillar II of the pension saving system substantially reduced the overall riskiness of these funds. Collective investment funds and insurance companies reported higher sensitivity, especially to a marked decline in share prices.

Since the asset structure of PFMC funds has been changed in favour of low-risk assets, these funds would not be greatly affected under the macro stress scenarios.

In the insurance sector, the impact of the stress scenarios is similar in intensity to their effect on banks. In this case, however, the losses predominantly arise from the declining value of equity shares and mutual fund shares and, in certain cases, from foreign exchange risk. The available solvency margin would fall to below 100% only under the extreme scenario and only for one insurer.

As for mutual funds, the total amount of assets under management would fall by 7.2% under

Table 4 Stress scenario settings and default rates for the stress scenarios

		Moderate scenario		Extreme scenario	
		Q4 2009	Q4 2010	Q4 2009	Q4 2010
GDP change		-7.6%	0.1%	-9.3%	0.0%
Inflation (CPI)		-1.5%	0.2%	-2.2%	-0.5%
Unemployment rate		12.3%	12.8%	12.5%	13.4%
ECB interest rate		1%	1%	1%	1%
Decline in stock markets		40%	0%	70%	0%
Appreciation of the euro against other currencies		10%/20%	0%	20%/40%	0%
Household loan default rate		5.2%	7.9%	6.3%	9.5%
Corporate loan default rate	Non-sensitive sectors	2%		5%	
	Less sensitive sectors	10%		15%	
	Sensitive sectors	20%		35%	

Source: NBS.

39 *A detailed description of the scenarios is given in the Analysis of the Slovak Financial Sector for the First Half of 2009 (Box 4), published by NBS in September 2009. Details of the models used for stress testing can be found in the Analysis of the Slovak Financial Sector for 2008 and in the Annexes to the Analysis of the Slovak Financial Sector for 2008.*

40 *Calculated as the ratio of own funds and 12.5 times the capital adequacy requirement.*

the moderate scenario and by as much as 12.8% under the extreme scenario. Approximately 84% of this decline would arise from the simulated fall in share prices, while the rest would be caused by the assumed appreciation of the euro against other currencies. Only a small proportion of funds would record substantial losses. Even according to the extreme scenario, funds managing around 70% of the assets invested in mutual funds would make a loss of less than 5% of the assets.

Table 5 Impact of macroeconomic scenarios on the banking sector (%)

		Minimum	1st quartile	Median	3rd quartile
Capital adequacy ratio before test (excluding profits from the first half of 2009)		10.0	10.8	13.2	16.7
Capital adequacy ratio before test (including profits from the first half of 2009)		10.1	11.2	13.2	17.2
Moderate scenario	Credit risk of enterprises	7.8	9.0	10.9	15.8
	Credit risk of households	9.4	10.1	12.7	15.8
	Market risks	9.2	10.7	13.2	16.7
	Overall impact	7.3	8.1	11.2	14.6
Extreme scenario	Credit risk of enterprises	6.0	7.7	8.7	15.3
	Credit risk of households	9.3	10.0	12.6	15.8
	Market risks	8.6	10.6	13.2	16.7
	Overall impact	5.3	6.6	9.9	13.9

Source: NBS.
Note: The table shows quartiles of capital adequacy ratios.

Table 6 Impact of macroeconomic scenarios (% of assets, % of NAV)

	Moderate scenario				Extreme scenario			
	Asset-weighted average	Lower quartile	Median	Upper quartile	Asset-weighted average	Lower quartile	Median	Upper quartile
Banks	1.8	1.3	1.7	2.1	2.8	2.0	2.3	3.3
Insurance companies	1.5	0.0	1.1	1.8	2.7	0.0	1.9	3.2
Pension funds	0.4	0.0	0.0	0.5	0.7	0.0	0.1	1.0
of which: conservative	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
balanced	0.4	0.0	0.1	0.8	0.8	0.0	0.2	1.3
growth	0.4	0.0	0.1	0.7	0.8	0.1	0.2	1.3
Supplement-ary pension funds	1.3	0.0	0.0	3.0	2.3	0.0	0.0	5.3
Mutual funds	7.2	6.0	11.8	20.6	12.8	10.6	22.1	37.9
of which: equity	25.4	23.7	28.1	38.9	45.7	42.2	51.6	69.3
money market	0.8	0.0	0.0	1.1	1.5	0.0	0.0	2.1
bond	3.5	0.1	0.5	8.6	6.9	0.2	1.0	15.7
mixed	13.2	7.7	10.1	20.4	23.6	13.6	18.5	35.7
funds of funds	34.1	20.6	31.4	35.4	60.0	36.6	55.1	62.0

Source: NBS.
Note: The table shows quartiles of the loss-to-asset ratio arising from the application of the respective scenario.

PART C

ANNEXES

C

ANNEX 1

CONCEPT FOR A NEW FINANCIAL REGULATORY AND SUPERVISORY FRAMEWORK

1

1 CONCEPT FOR A NEW FINANCIAL REGULATORY AND SUPERVISORY FRAMEWORK

Just over a year on from the bankruptcy of the investment bank Lehman Brothers and the subsequent near-collapse of financial systems in the world's most advanced countries, the situation in financial markets appears to have stabilized. This is evidenced not only by various market indicators of risk, but also by the gradual withdrawal of certain government rescue measures (e.g. guarantees for banks) and the declining amounts of certain special credit facilities provided by central banks. At the same time, the outlines of a new regulatory framework for the financial sector are gradually being sketched on the basis of international consensus. This article takes a closer look at some of the measures and agreements concerning bank regulation that have so far been published.

The G-7 group of the seven most industrialized countries has reacted relatively promptly to the problems that since the summer of 2007 have been spreading through the financial systems of advanced countries. Back in October 2007, the G-7 asked the Financial Stability Forum (FSF)[41] to undertake an analysis of the causes and weaknesses that have resulted in the financial market turbulences. Subsequently, in April 2008, the FSF presented its key framework of recommendations for increasing the resilience of financial markets and institutions.[42] These recommendations became the basis on which specific rules and measures were formulated. Later on, the initiative for financial regulation reform was assumed by the G-20, a broader forum of the twenty systemically most important advanced and emerging-market countries of the world.[43] The consensus reached at G-20 meetings is conveyed to the FSF, which coordinates the work of international organizations on the formulation of regulatory standards in various areas of the financial sector.

1.1 CONCEPTUAL MOTIVATION – CAUSES OF THE CRISIS

Before attempting to evaluate the measures put forward, we believe it would be worthwhile to outline the motivation behind them. Many reports, articles and books on the causes of the financial crisis have already been published, and there is a prevailing consensus in the literature as to the causes and exacerbating factors of the crisis. The basic question is how could a relatively limited and localized event – the mortgage crisis in the United States – have effects of such magnitude on the world economy. According to Blanchard,[44] the financial crisis was shaped by essential initial conditions and its scope and impact on the real economy were multiplied by amplification mechanisms. The crisis was shaped by four initial conditions:

1. the underestimation of risk contained in newly issued assets;
2. the opacity of the derived securities on the balance sheets of financial institutions;
3. the connectedness between financial institutions (both within and across countries); and
4. the high leverage of the financial system as a whole.

Underestimation of risk

Market participants perceived the credit and market risks of newly issued assets (sub-prime mortgages and complex securities derived from them) to be lower than they actually were. The general reason for this was the optimism among borrowers, lenders and investors regarding their future incomes and returns. This optimism about the future stemmed from the benign economic conditions that prevailed in recent years. We know from past experience that such conditions often lead to credit booms and an increase in the amount of riskier loans. The underestimation of risk during this time was also neatly reflected in speculation in credit default swap (CDS) markets.[45] Their nominal value was many times greater than the value of the underlying assets. At the same time, CDS issuers were willing to accept low premia, as they assumed the probability of the reference entity (underlying asset) defaulting was low.

The opacity of financial institutions' balance sheets and the underestimation of systemic risk

Securitization, the process by which different types of loans are converted into securities that can then

41 *Financial Stability Forum (FSF) was established by the G-7 finance ministers and central bank governors in 1999 to promote stability of the international financial system through cooperation between national and international supervisory institutions and international financial institutions. Following an agreement reached at the G-20 meeting, the FSF was re-launched in April 2009 as the Financial Stability Board (FSB) with a substantially expanded membership base.*

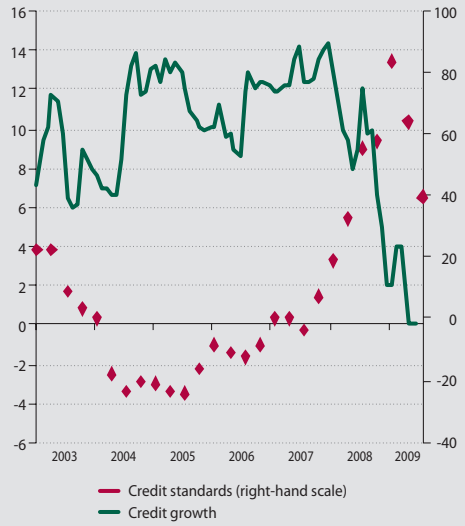
42 *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience, April 2008.*

43 *The Group of Twenty (G-20) brings together finance ministers and central bank governors of 19 countries and the European Union, which is represented by the rotating Council presidency and the European Central Bank. The group was created in 1999 with a mandate to promote discussion between industrial and emerging-market countries on issues related to global economic stability.*

44 *Blanchard, O.: The Crisis: Basic Mechanisms, and Appropriate Policies. IMF Working Paper, April 2009.*

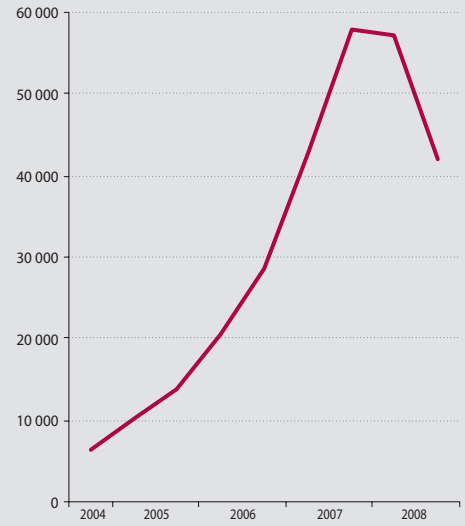
45 *A credit default swap (CDS) is a credit derivative contract between two counterparties. The buyer makes periodic payments to the seller, and in return receives a payoff (insurance protection) if an underlying debt instrument defaults or a third party (reference entity) does not meet its obligation.*

Chart 60 Credit growth to the private non-financial sector and credit standards in the United States



Source: IMF – Global Financial Stability Report, October 2009. Note: Credit growth – year-on-year percent change; most recent values are for June 2009.Credit standards – net percentage change (difference between the percentage of banks that tightened standards and the percentage of banks that eased standards). A positive number indicates tightening of standards.

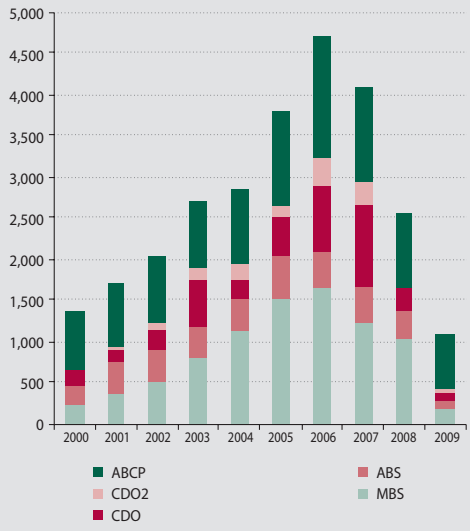
Chart 61 Notional amount outstanding of credit default swaps (USD billions)



Source: BIS, OTC Derivatives Statistics.

be marketed among investors, has a relatively long history in investment banking. Over the past decade, however, the amounts of securitized assets – especially mortgage loans in the United States – rose very sharply. There was also an increase in the amount of complex structured financial products for which the rate of return and riskiness were derived from securitized assets/loans (resecuritization). This trend led to considerable growth in the financial sectors of advanced countries (in terms of the amount of assets under management relative to GDP) and in the profitability of investment banks, particularly in the United States. At the centre of these activities were banks and a labyrinth of their off-balance sheet entities. The extensive securitization and resecuritization was induced not only by the excessive optimism mentioned above, but also by the state of bank regulation (legislation) then in force. At the same time, the activities in question seemed benign in terms of financial stability. Credit risks were not confined just to the banking sector, but were dispersed across a broad range of investors,[46] systemic risk appeared to be low. At the beginning of 2006, however, concerns about the quality of underlying mortgage loans

Chart 62 Global private-label securitization issuance by type (USD billions)



Source: IMF: Global Financial Stability Report, October 2009. Note: ABCP = asset-backed commercial paper, ABS = asset-backed security, CDO = collateralized debt obligation, CDO2 = CDOs backed by CDO, ABS or MBS, MBS = mortgage-backed security. Data for 2009 cover only U.S. and European issuance until the end of June. For European ABCP, data until the end of May. ABCP data represent period-end outstandings.

46 *Securitization benefits banks in that it saves them capital (the risk is shifted to investors) and improves access to funding, thereby increasing the efficiency of their lending activities. Securitization allows end investors to build better diversified market portfolios that thereby reduce their idiosyncratic risks. For further details, see IMF: Global Financial Stability Report, October 2009.*

rapidly turned into uncertainty over the value of the securities based on them. This uncertainty affected a great many entities and led to malfunctioning of funding markets. Thus systemic risk, too, had been highly underestimated.

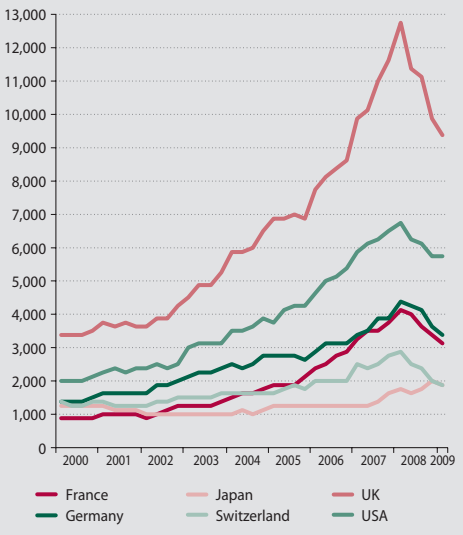
Connectedness between financial institutions

In general, the rise in systemic risk was strongly driven by globalization. Through intensive cross-border links between financial institutions, newly issued assets could be spread on a massive scale from the United States to Western Europe and the United Kingdom. This was a factor in how a localized event – the U.S. mortgage crisis – eventually snowballed into a global economic crisis.

High leverage

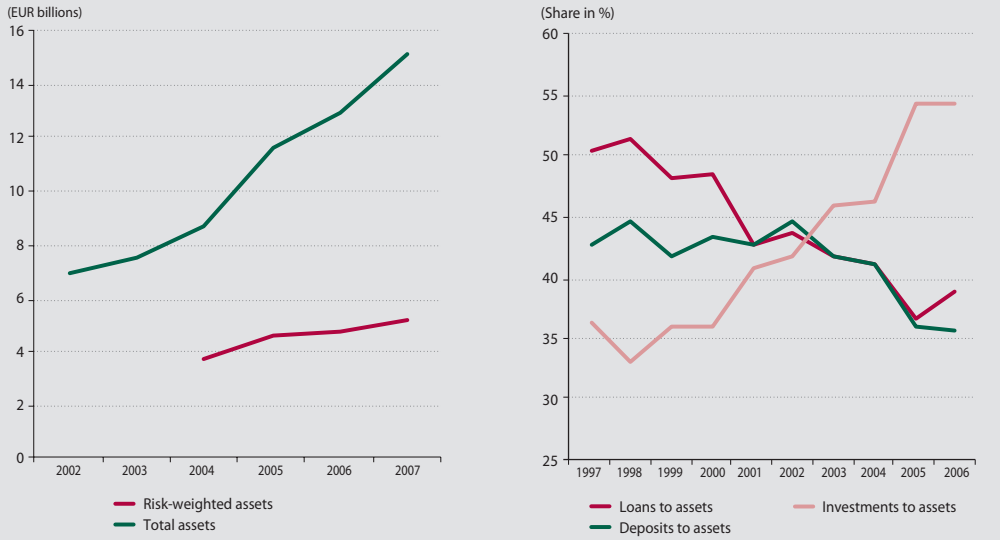
Amid generally optimistic expectations, the balance sheets of banks and the amount of assets managed by other financial institutions climbed. With asset prices rising and the perception of risk being low, the equity ratios of financial institutions increased. The greater a financial institution's leverage, however, the higher the probability that it will become insolvent in the event of a devaluation of its assets. It was not just large banks that were highly leveraged in the pre-crisis period; so too were hedge funds and private equity funds, as well as manufacturing firms and households in the United States and certain countries of Western Europe.

Chart 63 External claims (loans and deposits) of banks in selected countries (USD billions)



Source: BIS, Banking Statistics.
Note: Quarterly data. Claims in all currencies and on all sectors.

Chart 64 Leverage growth in the balance sheets of 10 large publicly traded banks



Source: IMF: Global Financial Stability Report, April 2008.
Note: The most recent data for risk-weighted assets (RWAs) and total assets (TAs) in 2007 are for the 2nd quarter. RWAs are the largest contributor to regulatory capital growth. The widening gap between RWAs and TAs therefore indicates a sharp rise in leverage. Banks reduced their ratio of loans to total assets and increased the ratio of investment (securities, trading in financial markets). Compared with loans, these carried substantially lower risk weights since they usually had a high-quality rating and stable prices and they were used for hedging. The importance of deposits as a stable source of financing declined, and banks became increasingly dependent on market liquidity.

Amplification mechanisms

The highly negative effects of the crisis were the result of amplification mechanisms. The basic mechanism was the procyclical leverage adjustment made by financial institutions. The rapidly deteriorating quality of U.S. mortgage loans at the beginning of 2006 forced credit rating agencies to sharply downgrade their ratings of a large number of mortgage-backed complex structured instruments. As banks revalued their portfolios according to the negative developments in the market prices of these instruments, the resulting losses had a deep impact on their capital. The insolvency risk of banks rose, due also to the seizing up of the markets in these instruments and the consequent uncertainty about their value.[47] The situation was further compounded by the fact that many financial institutions were stricken at the same time and that the system as a whole reported high leverage. In these circumstances of mistrust, funding in the market was difficult to obtain. Furthermore, increasing capital so as to cover revaluation losses on market risks was all but ruled out. In order to obtain funding (for the refinancing of assets) and to meet capital adequacy requirements, banks began to sell off assets. In such market conditions, however, they were selling assets at a loss, i.e. at "fire sale prices". Ultimately, this further impaired the balance sheets (capital) of financial institutions and brought about a so-called "loss spiral".[48] Given the procyclical nature of the deleveraging and the initial conditions present in the system, this amplification mechanism was particularly strong. Central banks responded with a key rescue measure in the form of the coordinated supply of liquidity to interbank markets. In this way, they helped banks eliminate their need to fire-sell assets in order to obtain liquidity. Banks were recapitalized with the extensive use of public funds. Although financial systems were stabilized through large-scale government intervention, the effects of the financial crisis on the global economy have been huge.[49]

1.2 RECOMMENDATIONS FOR INCREASING THE RESILIENCE OF FINANCIAL SYSTEMS AND THE FIRST CONCRETE ACTIONS

The financial crisis has shown us that tightening and increasing bank capital requirements is the key to improving the system's resilience to shocks (and to protecting taxpayers from losses). The FSF's recommendations for increasing the resilience of markets and financial institutions, set out in April 2008, are a response to most of the aforementioned causes of the current financial crisis – particularly the initial causes. They focus more on the stability of individual institutions and are aimed at the following areas:

1. strengthening prudential oversight of capital, liquidity and risk management;
2. enhancing transparency and valuation;
3. changes in the role and uses of credit ratings;
4. strengthening the responsiveness of regulatory and supervisory authorities to risks;
5. developing crisis management systems.

The recommendations for strengthening prudential oversight of capital are based on refining the Basel II regulations, which the EU has applied since the beginning of 2008 in the form of Directives 2006/48/EC and 2006/49/EC (commonly known as the Capital Requirements Directives – CRDs). The purpose of refining Basel II is to motivate individual institutions to curb their tendency to underestimate risk during the favourable stage of the business cycle. This should be achieved mainly through the following steps: raising the minimum capital requirement for holdings of complex structured credit products (collateralised debt obligations, or CDOs), thereby reflecting their high sensitivity to macroeconomic conditions; introducing additional capital charges for credit risks in trading books, including complex and illiquid instruments; and strengthening the capital treatment of liquidity commitments to off-balance sheet conduits used for securitization (a distinction is no longer to be drawn between short-term and long-term commitments). The Basel Committee for Banking Supervision (BCBS), the author of Basel II, will process these recommendations into specific principles and standards. The new standards are to be implemented only after the credit cycle begins again, so as to prevent them having potentially negative effects in the current complicated situation.[50]

Certain other weaknesses in the regulatory framework were more evident only after the dramatic events of autumn 2008, when the bankruptcy of Lehman Brothers led to the materialization of systemic risks and situation had to be dealt by gov-

47 *Certain types of structured instruments were never traded on liquid markets, but only on an OTC basis, and their prices were derived through various private models.*

48 *For further reading, see Brunnermeier, M., Crockett, A., Goodhart, Ch., Persuad, A. D., a Shin, H.: The Fundamental Principles of Financial Regulation. ICMB Geneva Reports on the World Economy 11, 2009.*

49 *Since, in most cases, toxic assets have remained on banks' balance sheets (TARP Oversight Panel Report of August 2009), and the economic downturn will see a further deterioration in the quality of banks' credit portfolios, it will be difficult for loss-burdened banks to help kick-start the economy. Moody's, for example, estimates that losses on the bad loans of UK banks will amount to between GBP 130 billion and GBP 250 billion over coming years, depending on how the economy develops.*

50 *In line with these recommendations, the BCBS produced and, in July 2009, published improved guidelines for computing the incremental risk charge in the trading book in respect of unsecuritized credit products. The new guidelines also include a requirement to measure risk by means of so-called stressed value at risk. They are due to be implemented by the end of 2010.*

ernments through the injection of public funds. In response to these events, the FSF came up with further recommendations in April 2009,[51] which focus more on the amplification mechanisms of the crisis (procyclicality) and reflect the need for a systemic approach to financial stability. They centre on the areas of banks' capital, on provisioning, and on leverage and asset valuation. The purpose of the recommendations is to strengthen the so-called macroprudential orientation of regulatory and supervisory frameworks.[52] Lessening the procyclicality of capital requirements is to be achieved by raising the quality, consistency and transparency of the Tier 1 capital base. Tier 1 capital must consist predominantly of common shares and retained earnings. All capital components must be fully disclosed. By the end of 2009, the BCBS should present a draft framework for the production of countercyclical capital buffers. The framework should enable supervisors to order the so-called conservation of capital through placing constraints on the payment of dividends, on share buy-backs and on the remuneration of management. The BCBS is to produce appropriate indicators (based on earnings and credit variables) according to which banks will build up or run down their capital buffers. Limits will be placed on interbank lending. This leverage ratio measure should limit the build up of leverage during booms by putting a floor under the risk-sensitive capital requirement. The BCBS will also promote forward-looking loan loss provisioning[53] and assess the need for an additional capital requirement for systemically important banks. In order to correct the size of the maturity mismatch between assets and liabilities, a minimum global standard for funding liquidity is to be implemented. This will include a requirement for the liquidity coverage ratio, calculated on the basis of a stress scenario and the long-term structural liquidity ratio. The FSF also recommends that information be collected on leverage and maturity mismatches on a coordinated international basis, including from off-balance sheet vehicles and money market funds. The financial supervisor should also require that compensation in banks be aligned with the long-term sustainable conduct of business on the basis of the FSF standard.[54] The BCBS will publish a draft version of its measures by the end of 2009. The impact assessment is due to be carried out at the beginning of 2010, and the calibration of the new rules should be completed by the end of 2010.

Several of these recommendations have already been incorporated into a draft amendment to the Capital Requirements Directives (CRD) that the European Commission published on the 13 July 2009. The draft CRD amendment is designed to increase capital requirements for resecuritizations (holdings of complex financial productions), improve the way in which trading book risks are assessed, and impose stronger disclosure requirements for securitization exposures. The amendment also requires banks to have sound remuneration practices, and empowers national supervisors to check that these practices do not encourage excessive risk-taking. Supervisors will have the power to impose sanctions, including increased capital requirements, if they find that the requirements are not being met. Under the new rules, banks will be restricted in their investments in complex financial instruments if they cannot demonstrate that they have fully understood the risks involved. The EC will gradually propose further amendments to the CRD, including the introduction of through-the-cycle expected loss provisioning, the removal of national options and discretions, and the implementation of specific capital requirements for mortgages denominated in a foreign currency.

The proposed measures will generally have a greater impact on banks in Europe, where the share of hybrid capital that regulators permit banks to hold has traditionally been larger than in the United States (the share in some EU countries is as high as 30% of Tier 1 capital).[55] The proposed measures are large in number, and since implementing them may take several years, it will be some time before their effectiveness can be evaluated. How effective they are will depend largely on whether their implementation is global and uniform (harmonized). Critics object that the biggest mistake has been the failure to learn from the crisis and begin scaling back the banking industry. The very size of the industry proved to be a strongly destabilizing element (in some advanced countries, the banking sector's assets were several times greater than the annual output of the whole economy). Buiter[56] proposes, for example, to make capital requirements of individual banks a function not only of their own size, but of the total banking balance sheet relative to the government's capacity to raise taxes and cut spending. Kay[57] proposes the "break-up" of large and complex banks into low-risk "nar-

51 *Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System, April 2009.*

52 *Macroprudential supervision and regulation focus not on individual institutions, but on the stability of the financial system as a whole. It pays attention to inter-linkages between the real economy and financial system, follows the interrelationships between financial institutions and markets, monitors the soundness of systemically important institutions, and keeps a focus on aggregate leverage, and market liquidity conditions.*

53 *Banks may be strongly discouraged from improving the creation of provisions not only by accounting rules, but also by certain elements of Basel II. There is, for example, a low limit on the amounts of reserves that may be added to Tier 2 capital (1.25 percentage points and 60 basis points under, respectively, the standardized and IRB approaches to the capital requirement calculation).*

54 *Principles for Sound Compensation Practices, April 2009.*

55 *Hybrid capital is a mixture of debt and equity, and it typically exists in the form of preference shares. The share of hybrid capital in the own capital of the banking sector is negligible in Slovakia.*

56 *Buiter, W.: Forget Tobin tax: there is better way to curb finance. www.ft.com, 1 September 2009.*

57 *Kay, J.: Narrow Banking: The reform of banking regulation. Centre for the Study of Financial Innovation, 2009.*

row banks" and financial institutions for all other financial services. Narrow banks would focus solely on retail deposit-taking, payment services, and possibly also lending to small enterprises and households. They would invest their funds mainly in risk-free government bonds and all of their deposits would be insured. Other, risky financial transactions (including lending to large firms) would be carried out by separate institutions, which would be funded exclusively from the markets, would be deregulated, and would not be covered by any government guarantees.

Following the unprecedented government bail-out measures,[58] it is clear that the conduct of business by systemically important financial institutions is coupled with a large moral hazard.[59] In light of the overall consequences of the current financial crisis moral hazard is a very undesirable feature of modern financial systems, and that is why several countries are introducing new special resolution regimes for insolvencies of large financial holding companies. The main contribution should be to enable regulators to intervene in an institution before its insolvency gives rise to problems throughout the system. The regulator will be able to nationalize or sell off such an institution. In the United States and United Kingdom, large, multinational and systemically important institutions are being required to draw up contingency plans for such cases (so-called "living wills") so that their assets can be liquidated in an efficient and orderly way.

1.3 NEW DIRECTIONS IN FINANCIAL REGULATION AND SUPERVISION

It is clear from the aforementioned draft measures that financial regulation is neither going back decades, nor introducing tough new limits. Rather it is adhering to generally accepted principles based on incentivizing regulated entities to behave in a desirable way. Certainly, however, trust has fallen in the ability of markets to regulate themselves, and hopes are now being placed in sound financial supervision, especially macroprudential supervision. The FSF recommendations of April 2008 are also focused on streamlining the way in which risk analyses are turned into risk-mitigation activities, on the exchange of information and cooperation between supervisors in establishing sound practices, and on improving the work of international institutions in regard to the formulation and implementation of policies.

Since it is only a question of time until the next wave of general optimism again leads to the underestimation of risks, and it is just as likely that regulatory rules will still lag behind market innovations, the major challenge for financial supervisors will be to monitor and to react promptly to increasing systemic risks.[60] Macroprudential supervisors must have access to adequate information, and it needs to be decided what such information is. At the same time, it is necessary to accurately define what constitutes financial stability and to select appropriate indicators of systemic risk. Another matter of debate is eligible instruments (besides countercyclical regulatory rules). The only broad consensus reached so far has been on the institution that should be responsible for macro-supervision and macro-regulation. Naturally, given their key role in the system, central banks are that institution. Perhaps the strongest argument now being made against the involvement of central banks in macro-supervision and macro-regulation is that it concentrates too many powers in them.[61] This stance is strengthened by the fact that while central banks' role in this area has hitherto involved producing macro-prudential analyses (published in the form of financial stability reports), it is now being argued that they should use monetary policy tools to meet financial stability targets.[62] Central banks are also expected to have a regulatory function vis-à-vis systemically important market entities.[63] It therefore seems that central banking will change fundamentally and will be even more complicated than it has been to date. For example, the use of interest rates to support financial stability could result also in a longer-term mismatch between the inflation rate and the central bank's inflation target. The higher capital requirements for large banks could reduce the efficiency of the transmission mechanism of monetary policy decisions, and thereby undermine their credibility. A central bank's credibility may be weakened also by any failure in the area of financial stability. Banking systems are large and complex, and the fact that they are implicitly guaranteed by public funds encourages risky behaviour among banks. Central banks faced with a vague definition of financial stability and lacking clear decision-making rules could

58 *According to the IMF – Financial Stability Report, April 2009, financial system support measures introduced by governments and central banks of the United States, euro area, and United Kingdom amounted to USD 8,955 billion in total.*

59 *Ferguson, N.: Why a Lehman deal would not have saved us. www.ft.com, 14 September 2009.*

60 *Given the global nature of financial markets – the intensive (international) links between financial institutions themselves and between financial institution and markets – the risks in respect of systemic events have risen.*

61 *For a discussion of the benefits and drawbacks of the role of the central bank as financial regulator see, for example: Nier, E. W.: Financial Stability Frameworks and the Role of Central Banks: Lessons from the Crisis. IMF Working Paper, April 2009.*

62 *For further reading, see, for example: White, W.: Should Monetary policy "Lean or Clean"? Federal Reserve Bank of Dallas Working Paper, August 2009; or Smithers, A.: Wall Street Revalued – Imperfect Markets and Inept Central Bankers. John Wiley & Son, Hoboken, N.J., 2009.*

63 *In the United States, the Fed is expected to assume the role of consolidating supervisor for bank holding companies. Since February 2009, the Bank of England has had a leading role in the special resolution regime for insolvencies of banks and building societies, an alternative to the standard bankruptcy proceedings.*

find themselves stuck between a rock and a hard place – during bad times they may be accused of failure, while during booms, when seeking to intervene against mounting risks, they will be confronted by uproar from politicians. On the other hand, central banks are motivated to prevent systemic crises given the high financial costs that such crises cause them to incur. The inclusion of sound macro-regulation in their regimes may help them in this.

The ECB is planning to revamp the analytical system on which it bases its decisions on interest rates.[64] More detailed measures are expected to be published at the beginning of 2010, the aim being to put more stress on money supply data and lending growth data and to take account of the risks posed by asset price bubbles. Thus, in theory, the ECB would be able to act earlier to prevent turmoil in financial markets.

The ECB is also counted on as a key institution in the new financial supervisory framework at the EU level.[65] The European System of Financial Supervision will consist of the European Systemic Risk Board (ESRB), focusing on macroprudential supervision, and the European System of Financial Supervisors (ESFS), for harmonized microprudential supervision at the European level. The ESFS will consist of three sectoral European Supervisory Authorities,[66] each comprising representatives of national supervisors. The ECB will provide the ESRB with administrative, analytical and logistical support. The chairperson of the ESRB will be elected from among the Council's members, who will include the ECB President. The ESRB will be tasked with assessing risks to financial stability which relate to macroeconomic development and the development of the financial system as a whole. The ESRB will issue warnings about the emergence of any significant risks, will make recommendations for appropriate measures to eliminate these risks, and will monitor the subsequent implementation of the recommendations. The recommendations will not be binding on countries, but given the authority of the ESRB (its members will include the governors of national central banks, while representatives of national supervisory authorities will have observer status), they are expected to be accepted. In the case that the ESRB's recommendations are not accepted, the other side will have to submit a justification for its decision (according to the principle "accept or explain"). From the view of Slovakia and other countries (where the financial sector is largely owned by foreign companies), there are several fundamental problems attached to the new system of European financial supervision. While its main purpose is financial stability in the European Union, it is somewhat uncertain what this term encompasses. It is our conviction that this purpose should be conditioned on the stability of all national financial systems and that no inappropriate transfer of regulatory and supervisory powers to the central level should be carried out. The provision of financial services, at least insofar as it concerns households and small and medium-sized enterprises, is in fact largely based on local entities in individual Member States, and it is these countries themselves that bear the fiscal costs for bailing out crisis-hit financial institutions.

CONCLUSION

The financial crisis and its repercussions for the global economy triggered an international debate on the need to overhaul financial regulation. The result of these discussions is a broad consensus on the need to increase bank capital and improve its quality, change accounting rules, and improve information disclosure, rating methodology, remuneration, and securitization. Having macroprudential supervisory and regulatory authorities that are independent, soundly financed and well staffed has been identified as an effective means of preventing systemic crisis. This also brings new challenges for central banking. Considering the large extent of changes, it is important that they are well aligned and do not produce unwanted impulses. In this regard, the draft measures should take a clear and comprehensible form as soon as possible. Relevant national authorities must also be very strict in addressing moral hazard among systemically important financial institutions – an issue that has arisen from the unprecedented government measures to rescue financial systems.

64 *Atkins, R.: ECB plans policy revamp to tackle bubbles. www.ft.com, 7 September 2009.*

65 *Communication from the Commission: European financial supervision. COM(2009) 252 final, 27 May 2009. In June 2009, the European Council approved the EC's proposal, and in September 2009 the EC published the legislative draft. Following its approval by the European Parliament and the European Council, the new framework should begin operation during 2010.*

66 *The European Banking Authority, European Securities and Markets Authority, European Insurance and Occupational Pensions Authority.*

Abbreviations

ARDAL	Debt and Liquidity Management Agency
BCPB	Bratislava Stock Exchange
BRIBOR	Bratislava Interbank Offered Rates – interest rates fixing on the interbank deposits market
BS	Banka Slovenije – Bank of Slovenia
CBOE	Chicago Board Options Exchange
CDS	Credit Default Swap – credit derivate contract between two counterparts
CPI	Consumer Price Index
ČNB	Česká národní banka – Czech national bank
D	day
SPMC	Supplementary Pension Asset Management Company
PFMC	Pension Asset Management Company
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECB	European Central Bank
EFT POS	Electronic Funds Transfer at Point of Sale – payment terminal
EIB	European Investment Bank
ERM	Exchange Rate Mechanism
EU	European Union
EURIBOR	Euro Interbank Offered Rate – interest rates fixing on the euro area market
FDI	Foreign direct investments
GDP	Gross Domestic Product
IAS/IFRS	International Accounting Standards/International Financial and Reporting Standards
IBRD	International Bank for Reconstruction and Development
IIP	International Investment Position
IMF	International Monetary Fund
LTV	Loan-to-Value ratio – Proportion of the credit volume to the collateral value
M	month
MF of the SR	the Ministry of Finance of the Slovak Republic
NARKS	National Association of Real Estate Agencies
NAV	Net Asset Value
NBS	Národná banka Slovenska
p.p.	percentage points
PPS	Purchasing Power Standard
RMBS	Residential Mortgage-Backed Security – Security which yield and value are derived from the mortgage loans
ROA	Return on assets
ROE	Return on equity
RTGS	Real Time Gross Settlement
SAX	Slovak stock exchange index
TARGET	Trans-Europan Automated Real Time Gross Settlement Express Transfer
VaR	Value at Risk
ZFS	Initial fixation of interest rate

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