



# Makro-prudential Analysis of the Banking sector

SEPTEMBER 2010

#### MACRO-PRUDENTIAL ANALYSIS OF THE BANKING SECTOR

#### September 2010

The aim of this macro-prudential analysis of the banking sector is to provide a comprehensive overview of risk and trend developments in the banking sector. The risks in banks are analysed in regard to the external environment or real economy, as well as to trends in the banking sector itself. Given the increasing interconnection between developments in banks and trends in the real economy, the analysis aims to provide early identification of potential imbalances in the banking sector.

Based on data as at the end of September 2010, the analysis pays special attention to the effect that changes in the shape of the yield curve have on the profitability of banks. Since the beginning of year, the yield curve shape has proved to be very important to the overall profitability of banks. We therefore analyse banks' sensitivity to various changes in the yield curve, as well as the impact of these changes on the level of interest income. Also, in a separate scenario, we take into account the increase in competition between banks.

Changes in the exposure of pension saving funds and collective investment funds to market risks in the third quarter of 2010 are looked at in a separate box.

The analysis does not take into account the activities of the Financial Market Supervision Unit in regard to the exercise of supervision over individual banks and branches of foreign banks.

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#### 1. ANALYSIS SUMMARY

#### Despite positive signals, certain risks to the global economy increased

Global economic developments provided several positive signals during the third quarter of 2010. At the same time, however, some risks became more acute and these could affect future developments in the context of the global macroeconomic situation, thereby also influencing the situation in the euro area and subsequently in Slovakia.

Most notably, there has been increasing uncertainty about near-term global developments resulting from global imbalances. The escalation of risk can be observed at several levels. At one level are the potential repercussions of the stimulus measures that central banks have taken in order to kick-start growth in domestic economies. This strategy was exemplified by the quantitative easing of monetary policy that the Federal Reserve System (hereinafter "the Federal Reserve") implemented through the direct purchase of government securities. However, the widening of global imbalances also entails a risk of overheating in emerging economies.

The consequences of these trends can be seen, for example, in the higher volatility of exchange rates, the introduction of protectionist measures in international trade, an acceleration of the inflation rate in the medium-term horizon, and the creation and subsequent bursting of asset price bubbles in emerging economies.

Another significant risk that has been mounting in recent months is sovereign risk, which has lead to an increase in credit risk premia on bonds issued by the countries affected. For the banking sector, the principal risk in this regard is an impairment of bank-held assets (particularly bonds) and an increase in borrowing costs. This risk is heightened in certain euro area countries that currently face having to implement substantial fiscal consolidation measures in response to rising mistrust in financial markets.

A third risk in the global context is that developed countries slip back into recession, or that the next boom period is delayed, which would also have an adverse impact on the gradual recovery of the Slovak economy. According to several economic indicators, the probability of such a development abated slightly during the third quarter of 2010. In the United States during this period, economic growth accelerated in quarter-on-quarter terms and there were several positive signals. Nevertheless, a number of adverse trends persist, especially in respect of unemployment. The pace of growth in the euro area has declined, possibly caused in part by the decrease in export growth. The moderately adverse trend was also reflected in the unemployment figures. At the same time, however, signs of improvement in the economy's future development can be found in forward-looking indicators, alongside the anticipated end to the tightening of lending standards and the recovery in demand for loans.

The pace of the Slovak economy's recovery in the third quarter of 2010 was comparable to that in the first half of the year. Looking ahead, the economy's development will be heavily dependent on the economic performance of Slovakia's principal export partners. A key development in this regard is the slowdown in economic growth recorded by Germany in the third quarter of 2010.

### A weaker performance in the corporate sector was reflected in the continued stagnation of lending to enterprises

The overall situation in the financing of the Slovak corporate sector remained largely unchanged in the third quarter of 2010. Lending to enterprises has still not recovered from a period of stagnation that now stands at 18 months. Only certain sectors have recorded longer-term positive changes in the amount of loans. The continuing year-on-year decline in corporate loans stems partly from banks' policies on the provision of new loans and partly

from the persisting weakness in borrowing demand. The banking sector does not at present expect a substantial recovery in demand.

The stagnating demand more or less reflected developments in the corporate sector. Sales growth in industry decelerated in the third quarter of the year, while the situation in individual sectors remained largely unchanged in comparison with the first half of 2010. The slower growth in industrial new orders and persistently low utilisation of capacities represented a negative trend. Furthermore, the business confidence index in Slovakia declined in the third quarter, in contrast to the upturn seen in Slovakia's major trading partners.

In line with expectations from the second quarter, the risk arising from commercial property investments remains significant, even through the situation in the office space segment has recorded a moderate improvement.

### Despite certain negative signs in the development of consumer confidence, the retail lending market continued to show a growing trend

The trend recovery in lending to households, especially in housing loans, continued in the third quarter of 2010. This increase was largely attributable to demand from households, which remained relatively strong despite the decline in consumer confidence observed in recent months. Key demand-side factors included also the low level of interest rates on new loans and the fall in property prices, the latter being the major reason for the high values recorded by the housing availability index. The easing of bank lending policies began to be more pronounced in the third quarter of 2010. The increasing competition between banks was particularly apparent in their interest rate policies. Individual banks modified their interest-rate policy more or less in connection with the recent development of their market share. Banks also lowered their requirements for collateral coverage of new loans. We assume that this trend will continue in coming months, too.

Indicators of household credit risk remained largely unchanged. Although the unemployment situation did not show clear progress, the trend decline in employment continued to ease. Consumer confidence deteriorated.

The trend of lower rises in non-performing loans underwent a change in August and September 2010. In August, higher increases in non-performing loans were reported only by certain banks, but by September this had become a sectoral trend. Also in the third quarter of 2010, household term deposits continued to fall. The changes in market shares in this segment were, however, substantially less pronounced than they had been in the first half of 2010.

#### Exposures towards debt instruments of certain countries remained largely unchanged

The risk in debt securities in the third quarter of 2010 was associated mainly with government bonds of certain countries. Spreads on bonds issued by the Irish and Greek governments recorded the most marked widening. The exposure of banks to countries whose sovereign risk increased in 2010 did not change substantially during the third quarter of 2010.

### The profitability of banks rose in year-on-year terms, mainly due to a rise in net income from the retail sector

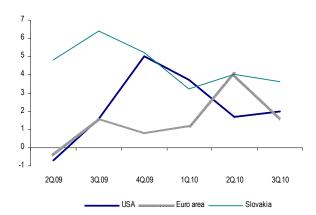
The net profit of the banking sector rose by 48%, although that figure included very wide disparities across the sector. The aggregate profit continues to fall short of the level recorded in 2008. The year-on-year rise in the net profit was driven mainly by growth in net interest income, resulting from an upturn in lending to households, a decline in the creation of provisions and reserves, and a further decrease in operating costs. The capital adequacy ratio of the banking sector in the third quarter of 2010 showed no change from June 2010; the amount of risk-weighted assets stopped declining and the amount of own funds increased slightly.

### 2. MACROECONOMIC DEVELOPMENTS IN REGARD TO BANKING SECTOR STABILITY

#### Despite a slight stabilisation of the global situation, uncertainty about developments in the medium-term horizon persists

The global macroeconomic situation recorded a slight improvement in comparison with the situation at the beginning of summer 2010. Nevertheless, there is no persuasive evidence that the recent signs of an upturn will lay the ground for future sustainable growth. Indeed, the uncertainty surrounding future developments, especially in the medium-term horizon, has become even more heightened. The reasons for this assertion include, inter alia, the fact that the mix of the most commonly used current and forward-looking indicators of macroeconomic development are sending out ambiguous, and in some cases even contradictory, signals in regard to possible future developments in the economy.

Chart 1 Quarterly changes in GDP in selected countries



Source: Eurostat.

Left-hand scale: annualised percentage changes in quarterly GDP in comparison with the previous quarter.

The GDP data are seasonally adjusted.

A significant element that in recent months has become a focus of discussions on the direction of the global economy is the return to increasing imbalances in, on one hand, flows of goods and services and, on the other hand, capital. The particular positions that major economic powers take in regard to tackling these issues will probably be crucial not only for long-term sustainable economic growth, but also for the recovery process in the shorter-term horizon.

#### The United States showed signs of positive trends in the third quarter of 2010

The partial improvement in the current macroeconomic situation, mentioned in the introduction, is to a large extent implicitly based on events taking place in the United States. A dominant aspect of the assessment of the US economy given in the previous analysis for the first half of 2010 was the near stagnation of the recovery recorded at the end of the period. At this time there were a number of indications that the economy could be headed for a return to recession in the near term. Unfavourable reports about various aspects of the US economy were numerous at the mid-point of the year. From the beginning of August, however, signs of positive developments in the economy also began to reappear. At present, it can at least be said that the risk of a double-dip recession has again receded to a more hypothetical level. Annualised US GDP growth for the months July to September 2010 stood at 2%, which

represents a slight acceleration compared to the growth of 1.7% reported for second quarter of the year.

Another relatively substantial change was observed in the structure of the contributions to GDP growth made by the main GDP components. With household final consumption increasing to 2.6%, this component made the largest contribution to overall GDP growth. It is noteworthy that this increase in consumption demand took place against the background of a considerable slowdown in growth of both nominal and real disposable income (0.5%). Services, not goods, accounted for the more substantial share of consumption, after a long period during which it was the other way around. Whether, however, the pace of household consumption can be sustained is questionable, considering also the downturn in consumer confidence recorded in September and October. The second pillar of third-quarter GDP growth was investments in inventories. This invites comparison with the period at the turn of 2009 and 2010, when the rebuilding of inventories had a dominant effect on the economy's output, although it was probably a case of firms engaging in targeted restocking owing to their more positive expectations for future sales. Regarding the grounds for the recent increase in inventories, this may be a situation where it arose due to the slowdown output sales. Such a hypothesis is quite consistent with the sharp decline in fixed investment growth (from 19% in the second quarter of 2010 to 0.8% in the third quarter of 2010), dragged down mainly by the 30 % slump in residential property construction. The negative effect of net exports on economic output lessened in comparison with the second quarter of 2010.

Signs of improvement in the condition of, and outlooks for, the US economy are to be found in PMI indicators, which point to a rising pace of growth in both manufacturing and services. The significant rise in industrial new orders also indicates that industrial activity may be increasing.

#### The US economy continues to face several problems

The US economy is being held back from a stronger recovery by the major burden of a high unemployment rate (9.5%). Despite the country having been formally out of recession for more than a year, the jobless figure has barely fallen. Some sign of optimism in this regard may be seen in the latest data on new job creation in October 2010, when for the first time since the previous April there was a substantial net gain in the number of private sector jobs. Furthermore, the average number of hours worked per week and the average hourly wage both rose, these being developments that typically precede an increase in the recruitment of new employees.

A weakness of the US economy continues to be the residential property market. Sales activity, which slumped following the unwinding of stimulus programmes, remains at historically low levels despite having improved slightly in the past two months. The large supply of properties in bankruptcy is subjecting the prices of these properties to deflationary pressures.

### The Federal Reserve responded to recent developments with a second round of quantitative easing

Despite these signs of improvement, the US Federal Reserve is dissatisfied with the economy's development, which it considers to be inconsistent with its objective. As far as the Federal Reserve is concerned, an even greater problem than high unemployment is low inflation, which could potentially tip the economy into a dangerous deflationary spiral. By way of response to this situation, the Federal Reserve decided to carry out a second round of quantitative easing. This was because the standard tool of interest rate reduction can no longer be applied in the current situation, in which interest rates have for a long time been practically at zero. As part of the quantitative easing programme, the US central bank plans to purchase

before the end of the first half of 2011 approximately USD 600 billion worth of government bonds with an average maturity of around 5-6 years, with the expansion of this programme being conditional on future macroeconomic developments. In this way, the Federal Reserve aims to put downward pressure on longer-term interest rates and to raise inflationary expectations. The decline in interest rates is expected to bring down household interest expenses and thus to increase the amount of money that households are able to spend on consumption. Expectations for higher inflation and lower income from savings are projected to have a positive effect on the propensity to consume, as is the rise in financial asset prices that is expected to occur in connection with the Federal Reserve's activities. The result of such monetary policy action does not necessarily imply an economic recovery and it raises a number of questions – in particular, whether the inflation rate will exceed the level desired by the Federal Reserve and whether the dollar will weaken amid an increase in speculative global capital flows.

Chart 2 Comparison of the EUR/USD exchange rate and the gold price



Source: Reuters, NBS calculations.

The gold price in US dollars is shown on the right axis (index: July 2007=100).

The anticipation of an inflow of cheap money in the United States was reflected in a simultaneous rise in prices of all classes of tradable assets. Markets in bonds, equities, gold, and other commodities increased across the globe, running counter to the usual inversely-proportional relationship between bonds and equities. By contrast, the dollar's exchange rate slumped against most currencies. The partial increase in inflationary expectations was mirrored in the gold price's historically high levels and in the break-even rate<sup>1</sup> implied from inflation-indexed bonds in the United States.

#### The risk of overheating in emerging economies remains an issue

Economic growth in China remained strong in the third quarter of 2010, despite indications at the end of the first six months that it may slow sharply. China's annualised GDP for the third quarter was 9.6% higher than for the previous quarter. In addition, some of the latest October indicators suggest that the country's economic activity could increase further still. One such example is the marked rise in industrial new orders. The property market continues to be an engine of China's growth, notwithstanding the previous series of prudential

<sup>&</sup>lt;sup>1</sup> The break-even rate is the difference between the yields on a standard bond and on an inflation-indexed bond with the same maturity. It therefore reflects the expectations of market participants regarding the level of inflation for a given time horizon.

measures that were intended to cool down the market to a sustainable level. This was also the reason behind the Chinese central bank's decision at the end of October to increase the base rate for the first time in three years, by a quarter of a percentage point. Reserve requirements for the largest domestic banks were also increased. Apparently in contradiction with the need to correct global imbalances, the central bank reported an unusually high increase in its foreign reserves in the third quarter. According to the latest figures, the country's trade surplus is rising again.

The risk of an excessive inflow of short-term capital not only into China, but also into other significant emerging countries has been further exacerbated by the launch of quantitative easing in the United States. In these emerging economies, such flows have the potential to create price bubbles in financial assets and to strengthen the exchange rate of the domestic currencies to the detriment of net exports. Neither of these effects is desirable from the view of the countries concerned, some of which have even implemented measures intended to curb the inflow of external portfolio investment. Many other countries are contemplating possible defensive steps, including, inter alia, direct interventions in the foreign exchange market and capital controls.

#### Euro area economic growth slowed

After an unexpectedly strong performance in the second quarter of 2010, euro area economic growth slowed to an annualised 1.6% in the third quarter. This development was seen not only in the euro area as a whole, but also in a majority of its member countries. Although some correction in the growth rate had been expected, given the economy's exceptional acceleration in the second quarter, the decline was more pronounced than had generally been projected. The breakdown of the change in GDP in the third quarter of the year was not yet known when this report was written. Nevertheless, monthly data on exports imply that one of the sources of the slowdown was probably a deceleration in exports of goods and services, which may be partly due to the euro's return to a stronger position against a basket of currencies. The declining month-on-month increase in retail sales may in turn indicate that consumption is also failing to maintain its previous pace of growth. Industrial production, which drove the recovery in September, declined by almost one percent in month-on-month terms according to seasonally-adjusted data. The construction sector, too, reported a negative trend.

The labour market situation continues to be mainly unfavourable. Not only has the unemployment rate failed to come down, it even rose in September by 0.1 percentage point, to stand at its highest level (10.1%) at any point during the crisis. In certain countries, the unemployment situation is even worse.

#### Selected indicators for the euro area point to an improvement in the months ahead

A somewhat more positive picture of the euro area economy is provided by certain important forward-looking indicators. After declining in September, the PMI index of industrial activity rose in October, even though the analogous indicator for services followed a downward trajectory in both months. Meanwhile, the latest available data for new industrial orders for August offer further hope that this segment of the economy will soon be once again making a substantial contribution to the overall recovery.

Certainly another important determinant of future development is the extent to which the economy's various participants have confidence in its progress. This indicator has shown a relatively strong rise, even against the backdrop of less than encouraging reports about the soundness of the euro area. The European Commission's economic sentiment indicator rose in October for the sixth month running, to reach a value of 104.1. A value of 100 is defined as the long-term average for the previous 20 years. The improvement in this regard was recorded

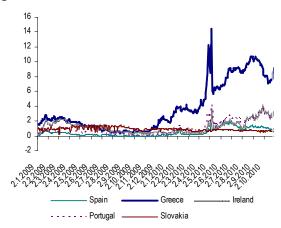
in most of the euro area member countries. The same survey reveals that the utilisation of capacities has increased, although still falls short of the average level recorded in the past.

Another factor that is expected to help stimulate the economy is the stabilisation of bank lending in the third quarter of 2010. According to a survey of banks, the tightening of lending standards for enterprises eased in comparison with the previous quarter. The criteria and conditions for lending to households were not tightened at all. The recent trends in lending standards should be judged in the context of the cumulative tightening of standards that has taken place over recent years. There were also positive trends in demand for loans, as corporate demand for borrowing rose for the first time in more than two years, and household demand continued the upward trajectory recorded in the previous quarter. These trends were confirmed by the real amount of lending to the private sector. In year-on-year terms, the stock of loans began to rise in the months from July to September, after having fallen moderately or stagnated since the end of 2009.

#### Substantial differences persist among euro area countries

In order to see what is happening within the euro area, it is not enough to look at statistics for the bloc as a whole. That is true now even more so than in the past. Differences between the position of peripheral countries and of the vast majority of the other euro area countries widened in the second quarter and remained substantial in the next quarter, too. Although there was no repeat of the second-quarter scenario in which Germany's progress completely overshadowed that of other countries, the economic map of the euro area remains non-homogeneous to a considerable extent. On one hand, countries such as Germany, France, and certain others are being relatively successful in advancing their economies. On the other hand, there are four countries (Greece, Ireland, Portugal and Spain) that are either hovering on the brink of recession or find themselves already in recession. It is difficult for these countries to mount an economic recovery, either now or in the years ahead, since they have to implement extensive fiscal consolidation measures. Such a step is essential if the countries are to maintain access to capital markets under conditions that will not bankrupt them.

Chart 3 Five-year government bond spreads of selected countries



Source: Reuters, NBS calculations.

The spreads are calculated as the difference between yields on five-year government bonds and the five-year euro-area swap rate.

The situation in certain countries escalated again in October. In some of these countries, bonds' yields to maturity and their spreads over benchmark Germany government bonds

increased to their highest level since the countries joined the euro area. This was triggered by reports regarding the risk of not meeting defined reductions in budget deficits, by political difficulties in regard to the adoption of additional measures, by new political proposals for solving the problems in selected countries, as well as by the rising bill for the state-financed bailout of troubled banks. The situation reached such a point that, for the first time in a long time, the ECB intervened in the market by buying government bonds, albeit still in relatively small amounts. The purpose of these purchases, however, was not to provide a monetary stimulus, but simply to stabilise the extreme fluctuations in the respective bond markets. On the contrary, the ECB, unlike the US or Japanese central banks, undertook a gradual unwinding of non-standard monetary policy measures. One of the reasons for this could be the result of liquidity-providing operations conducted at the end of September, when banks replenished only part of their maturing funds from previous tenders of between 3 months and 12 months, thus causing a reduction in the liquidity surplus in the euro area. This was seen as a sign that the situation in the interbank market was normalising. Three-month interbank market rates increased and exceeded the base rate of 1%. Nevertheless, liquidity problems remain and they are concentrated mainly in the banking sectors of the peripheral countries discussed above. Banks in these countries were until recently borrowing an increasing amount of funds from the ECB and several of them remain critically dependent on access to central bank liquidity.

#### The domestic economy's recovery is related to developments abroad

The pace of the Slovak economy's recovery in the third quarter of 2010 was comparable to that in the first half of the year. According to flash estimates, annualised GDP growth for the period from July to September represented 3.6%, which is 0.4 percentage point lower than the figure for the second quarter. Despite the slight slowdown, this rate of growth was the third highest not only in the euro area, but also in the European Union as a whole. In terms of year-on-year GDP growth, Slovakia would be ranked even higher, in second place. In this context, however, it should be noted that the Slovak economy was among the economies that were hardest hit at the peak of the crisis.

The progress of the Slovak economy this year has to a large extent been attributable to the unexpectedly positive developments in Germany, a country on which Slovak exports are heavily dependent. The extent to which the Slovak economy prospers in the near term will probably continue to depend mainly on the strength of economic performance in the country's main export partners in the euro area. The decline in year-on-year growth of exports since July should be seen as a potential warning signal; it may be closely linked with sales in industry, which are also reporting a slowdown in year-on-year terms. The slower inflow of industrial new orders indicates that these two trends could become more pronounced.

Slovakia is not alone in that its economic growth has yet to translate into a notable downward effect on the unemployment rate. After peaking in February 2010, the unemployment rate fell by 0.6 percentage point between then and the end of September, when it stood at 12.4%. During the third quarter, however, the number of people out of work did not record any reduction. With production and employment undershooting the economy's potential, the month-on-month rate of consumer inflation remained practically at zero in the third quarter. In several sectors of the economy, the average monthly wage of employees was lower in September than in July.

As regards negative signs for the future growth of the Slovak economy, they include a decline in the composite economic sentiment indicator during September and October. This indicator had previously shown an uninterrupted upward trend since mid-2009, but even its peak level in the cycle – a value of less than 94 reported in August – was considerably lower than its long-term average. The overall downturn in this indicator was caused by a worsening

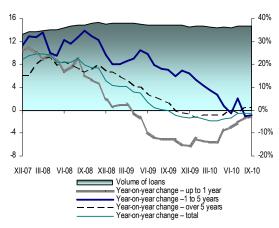
in consumer confidence, one of five sub-indicators that form the aggregate figure. A potential reason for the weakening optimism among consumers, apart from the fact that unemployment is not declining, is the new fiscal consolidation plan, the implementation of which is due to begin in 2011. According to the latest forecast of the NBS Monetary Policy Department, the consolidation measures and their effects are expected to slow GDP growth by around one-third in comparison with the baseline scenario of no reduction in government expenditure or increase in direct taxes.

#### 3. TRENDS AND RISKS IN THE SLOVAK BANKING SECTOR

#### Lending activity in the corporate sector further stagnated

The third quarter of 2010 did not see any recovery in lending to enterprises and the overall period of stagnation was thus extended to 18 months. Although the year-on-year decline in lending decelerated, and long-term loans even reported a slightly positive change (Chart 4), real growth in loans occurred in selected sectors only. Longer-term positive changes in the volume of loans were reported in the area of energy and gas supply and in information services (Chart 5). Disregarding loans to these sectors, the year-on-year change in the volume of corporate loans fluctuated between -3% and -6% over the last 12 months, and the decelerating trend in their decline was fading in recent months.

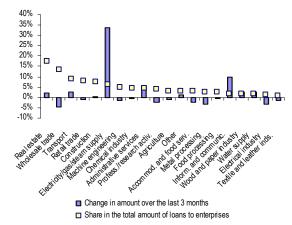
#### **Chart 4 Loans to enterprises**



Source: NBS.

The left-hand scale shows loans in EUR billions; the right hand scale displays year-on-year percentage changes.

### Chart 5 Changes in the amounts of corporate loans



Source: NBS.

The columns show the percentage change in the amount of bank loans provided to the given sector between 30 June 2010 and 30 September 2010.

The squares represent the share of individual sectors in the total amount of corporate loans.

#### Credit standards on corporate loans remained tight

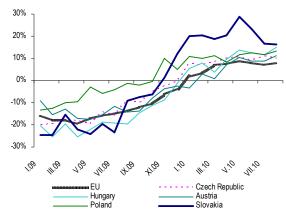
The stagnation in lending activity was due to reasons on both the supply and demand sides. On one hand, the level of lending standards remained relatively tight. Only a small number of banks intimated that they would ease conditions for large enterprises. The increasing competition was mostly outweighed by uncertainty about the economic recovery. Similarly, banks in the euro area further tightened their standards, which confirmed their persisting lack of confidence in the corporate sector's recovery over the short-term horizon.

On the other hand, demand for corporate loans did not improve, and some banks even reported a continuing decline in demand from small and medium-sized enterprises. The outlook for the next quarter is uncertain, with banks not expecting any change in the weak demand. In the euro area, by contrast, demand for loans increased.

The relatively low demand for loans among Slovak enterprises cannot be explained by loans from abroad. In the first half of 2010, external financing of the Slovak corporate sector increased, but in the second quarter it declined, as did the sector's overall financial liabilities. As a proportion of corporate financial liabilities, loans from abroad continued to be just as important as loans form domestic banks.

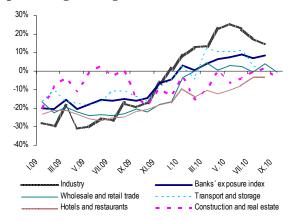
#### Growth in corporate revenues was maintained in spite of continued uncertainty

Chart 6 Industrial output in selected countries (year-on-year percentage change)



Source: Eurostat.

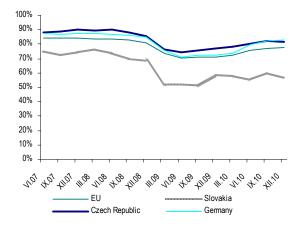
Chart 7 Sales by sector (year-on-year percentage change)



Source: Statistical Office of the Slovak Republic. Banks' exposure index is a weighted average of bank loans provided to a given sector.

A majority of sectors reported sales for August 2010 at similar or slightly higher levels compared with the same period of 2009, but lower than in 2008. In most sectors, the year-on-year sales growth did not show any marked changes in the third quarter (Chart 7). The rise in the aggregate index of sales changes, weighted by banks' exposure to individual sectors, was similar to that recorded at the end of the first half of 2010. The trend of decelerating year-on-year growth in industrial production continued, and this was also apparent in the international comparison. The year-on-year growth rate of Slovak industry thus reached the levels of neighbouring countries (Chart 6). The slowdown in industrial production growth was related to a lower rise in new orders. Their growth has been falling since May 2010, and, overall, it differs from the development of this indicator in Slovakia's main trading partners (Chart 9). The low rate of production capacity utilisation remains a long-term issue, which for the moment implies that no new investment is needed (Chart 8).

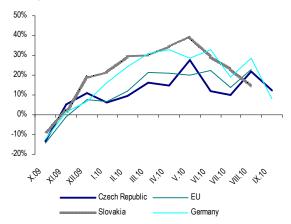
Chart 8 Expected production capacity utilisation in Slovakia and the EU



Source: Eurostat.

Expectations for the next quarter.

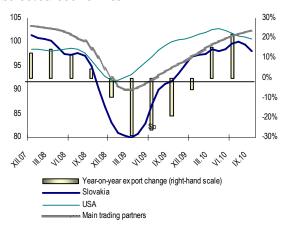
Chart 9 Industrial new orders in Slovakia and the EU (percentage change)



Source: Eurostat.

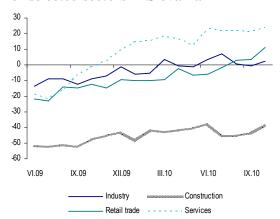
Confidence indicators reflect a certain degree of uncertainty persisting in the corporate sector. The business confidence index in Slovakia has changed adversely when compared with the positive developments in the country's main trading partners. The Slovak index began to fall again in the third quarter of 2010 (Chart 10). By contrast, economic sentiment indicators for selected sectors monitored by the Slovak Statistical Office improved slightly at the end of the third quarter, although economic sentiment in construction remained negative (Chart 11).

Chart 10 Business confidence index in selected economies



Source: OECD. The "main trading partners" index is a weighted index of 10 countries with the highest share in Slovak exports.

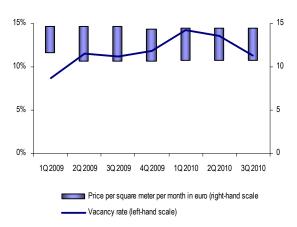
Chart 11 Economic sentiment indicators for selected sectors in Slovakia



Source: Statistical Office of the Slovak Republic.

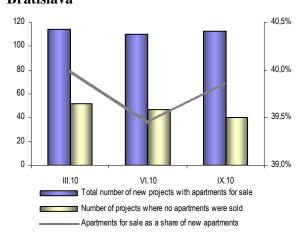
The commercial property segment is showing a slight improvement, though it remains an area of concern. The office space segment picked up as expected, and as no new projects were launched in the third quarter, the vacancy rate declined. The absence of upward pressure on prices reflected the unchanged supply of, and stable demand for, premises (Chart 12).

Chart 12 Office spaces in Bratislava



Source: CBRE.

Chart 13 Residential segment in Bratislava



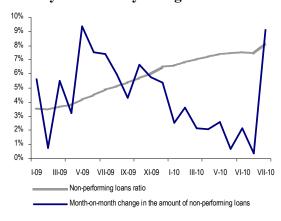
Source: Lexxus, own calculations.

The residential segment has for a long time been burdened by development projects that are struggling to sell even a single apartment. Although the number of these projects decreased slightly, their share remains relatively high, while demand for their properties was concentrated in the low and lower-intermediate segments. Moreover, the share of apartments for sale increased slightly again in the third quarter (Chart 13). The rising share of luxury projects may curb the positive tendency in apartment sales.

### The increase in non-performing loans decelerated in most sectors; the volume of non-performing loans increased sharply in the sectors of commercial property and hotels

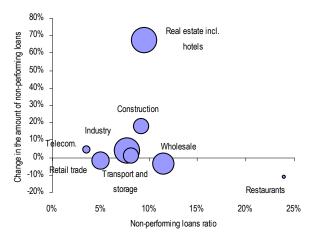
The trend of a decelerating increase in non-performing loans continued in the third quarter of 2010 in the majority of sectors. In certain sectors, the volume of non-performing loans even declined slightly (Chart 15). By contrast, the overall amount of non-performing corporate loans increased considerably and the volume of non-performing loans in the sector of commercial property and hotels climbed by more than EUR 100 million in September 2010 (Chart 14).

Chart 14 Non-performing corporate loans by ratio and by change in amount



Source: NBS.

Chart 15 Non-performing loans by business sector



Source: NBS.

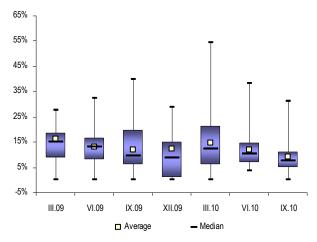
The size of the bubbles represents the overall amount of loans in the given sector.

Changes in amount (vertical scale) are for the last 6 months.

The financial situation of enterprises that have loans from domestic banks improved. The loans at risk (LAR) ratio<sup>2</sup> – showing the share of banks' loan portfolios that comprise corporate loans to firms whose financial position has sharply deteriorated – recorded one of its lowest levels since the beginning of the crisis. The ratio worsened in only four banks.

<sup>&</sup>lt;sup>2</sup> Loans at risk (LAR) – loans to enterprises that in the given quarters recorded both a loss and a decline in sales of more than 30% compared to the same quarters in 2008. Loans at risk are expressed as the share of loans at risk in total loans to enterprises for which data on sales and profits are available.

#### Chart 16 Loans at risk

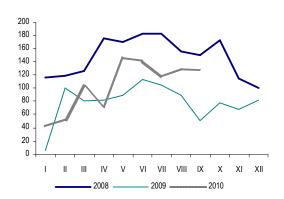


Source: NBS, SO SR, own calculations.

#### Recovery of housing loans continued

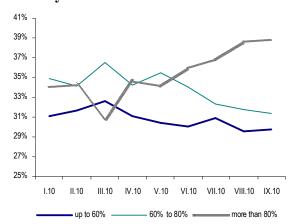
The recovery trend in household loans continued in the third quarter of 2010, particularly in housing loans. The overall growth of loans in the third quarter of 2010 was spurred mainly by household demand, which was relatively strong despite a fall in consumer confidence over previous months. The reduced consumer confidence was a sign of households' lower confidence in the economic recovery and negative expectations for their financial situation. On the other hand, low interest rates on new loans and falling prices of real estate contributed to growing demand.

Chart 17 Housing loans to households (year-on-year increase)



Source: NBS. Data are in EUR millions.

Chart 18 New housing loans broken down by their LTV ratio



Source: NBS.

#### Banks eased lending conditions for households

As for the main factors affecting the lending market, the financial sector analysis for the first half of the year had focused more or less exclusively on demand-side factors, but the third quarter saw a more substantial easing of bank lending policies – particularly in loan collateral requirements and interest rate levels.

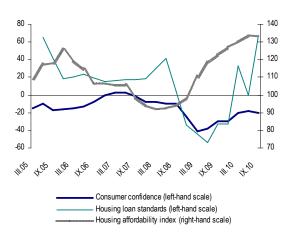
The share of new loans with a loan-to-value (LTV) ratio of more than 80% increased from June. This development occurred in almost all banks, though there were wide differences

across the sector. This partially reflected, on one hand, the situation in the property market, where residential property had already stopped declining, and, on the other hand, the later willingness of banks to finance a greater proportion of the value of property purchases.

Interest rates on new loans showed a specific development. While they increased in June and July, along with money market rates, they declined in September despite the continued rise in market rates. On one hand, this was caused by increased competition among banks. Certain banks cut their interest rates sharply in that month, followed, to some extent, by other banks. The extent to which banks cut their rates was related to the size of their market share in new loans over the recent period. On the other hand, interest rates on new loans were also influenced by the market in government bonds and continuing high liquidity premia.

#### Growth in household loans is expected to continue in the months to come

### Chart 19 Selected indicators affecting the housing loans market

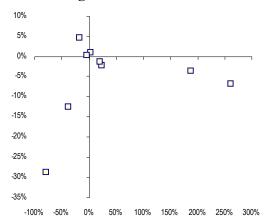


Source: NBS, SO SR, own calculations.

Data on the left-hand and right-hand scales are in percent. Data on lending standards of selected banks are shown as a net percentage share: a positive value means the easing of standards. Changes express the subjective views of banks.

The broken line represents the housing affordability index. A index value of below 100 means that the financing of an average property becomes unaffordable for an average household.

#### Chart 20 Relationship between market share and the change in interest rate on new housing loans



Source: NBS.

The horizontal scale represents changes in banks' market shares in new housing loans since the beginning of 2010. The vertical scale represents changes in interest rates on new housing loans since the end of June 2010.

According to most indicators, the loan market should develop favourably over the months to come. The housing affordability index<sup>3</sup> (which shows the ability of households to finance property purchases with loans – at the given property prices, income, interest rates and

<sup>&</sup>lt;sup>3</sup> The philosophy of the index is based on the methodology used by the National Association of Realtors. An index value of 100 represents a (two-member) household in Slovakia with an income equal to the national average (seasonally adjusted, net of contributions, taxes and basic household expenditure on housing, food and telecommunications), which has sufficient disposable income to repay a variable-rate loan amounting to 75% of the purchase price of a property (80 m² in size) and with prolonging of the average maturity of the loan. An index value of below 100 means that the financing of an average property becomes unaffordable for an average household

The detailed methodology of this calculation is published in the article by: Rychtárik, Š. – Krčmár, M. [2010: "Vývoj na trhu úverov na bývanie a jeho interpretácia"; Nehnuteľnosti a bývanie 2010 / Issue No 2. Bratislava, 2010. ISSN 1336-944X

maturity) reported its highest values compared to previous periods. This indicator, however, was substantially affected by developments in property prices.

Lending growth could be stimulated through banks easing their lending conditions. An important factor will also be increasing competition, especially given the changes in market shares reported since the beginning of 2009 as a result of the financial crisis. Since market shares in new loans did not change substantially in the third quarter (despite the looser bank lending standards), we expect that certain banks will try to regain their previous market share.

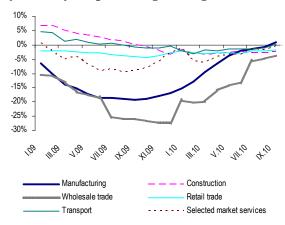
At the same time, however, the reported increase in demand may be limited by economic stabilisation in Slovakia and abroad. The economic sentiment of consumers deteriorated again over recent months, and this affected households' willingness to take on debt.

#### Certain indicators of household credit risk deteriorated

Some changes occurred in the household credit risk during the third quarter. The analysis for the first half of 2010 described the stabilisation and moderation of this risk, but in the third quarter of 2010 some indicators began to stagnate. This was related to developments in the business environment, where a number of sectors reported rather negative trends over recent months. In the household sector, this was mainly reflected in confidence, which continued a declining trend dating back to the beginning of the second half of 2010. Above all, households lowered their expectations for their financial situation and for the development of the Slovak economy.

The downward trend in employment in the main business sectors slowed year-on-year in the third quarter. In September, year-on-year employment in the manufacturing sector even increased, while in the construction and retail trade sectors it continued to stagnate. Employers' expectations as to future developments in employment remained more or less unchanged, not indicating any substantial rise in the coming months.

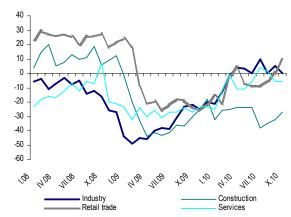
Chart 21 Employment in selected sectors (year-on-year percentage change)



Source: SO SR.

Data are in percent and represent year-on-year changes in individual months.

Chart 22 Expected employment in selected sectors

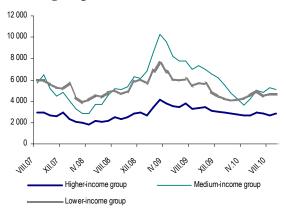


Source: SO SR, business surveys.

The unemployment situation did not show clear progress. The rate of unemployment as measured by a sample survey declined in the second quarter, while registered unemployment, after recording a fall at the end of the second quarter, started rising again in September. This, however, was mainly because of the influx of new graduates into the labour market. There was an interesting change in the structure of new unemployment: while throughout 2009 the highest increase was reported in lower- and medium-income groups, during 2010 the

difference between these two groups and the highest-income group narrowed. At the same time, the rise in unemployment in higher-income groups, unlike in lower- and medium-income groups, has not fallen since the beginning of the crises. A small decrease in new unemployment among the highest-income groups may indicate an increased risk to banks, as the structure of bank customers with loans is dominated by higher-income debtors.

Chart 23 Increase in unemployment by income group

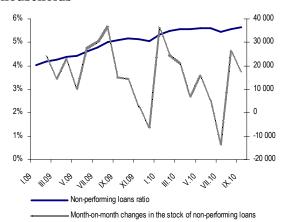


Source: Ministry of Labour, Social Affairs and Family; Trexima; own calculations.

Data represent the number of unemployed and are seasonally adjusted.

The breakdown of employees by income group is based on the KZAM employment classification's breakdown by income level.

### Chart 24 Non-performing loans to households



Source: NBS.

Right-hand scale data are in EUR thousands.

#### Non-performing loans to households increased again

Non-performing loans showed varying trends in individual months of the third quarter of 2010. In July 2010, the non-performing loans ratio continued its declining trend of the previous six months and even the stock of NPLs decreased. By contrast, a substantially higher increase was recorded in August and September. In August, non-performing loans went up in a small number of banks only, while in September the increase was evident in most banks. The loans that became non-performing in September were mostly mortgage loans and other housing loans. It will be important to see whether this trend remains sectoral over the months ahead.

### Retail term deposits continued to fall; changes to market shares in the third quarter were less extensive

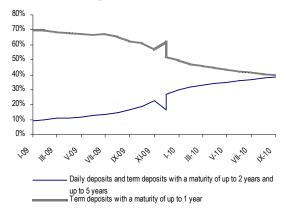
Trends in retail deposits identified in the first six months of 2010 continued also in the third quarter. Demand deposits kept growing, while term deposits fell again, although by a lower margin than in June 2010.

Among fixed-term deposits of households, daily deposits and term deposits with a maturity of up to 2 years and up to 5 years continued to grow, whereas term deposits with a maturity of up to 1 year declined.

A selection of banks increased their market share also in the third quarter of 2010, particularly through increases in their stock of term deposits – mainly daily deposits and term deposits with a maturity of up to 2 years and up to 5 years. These banks increased their market share by offering products with attractive interest rates and, in some cases, other advantages. The higher deposit rates of the selected banks triggered a response mainly from some smaller

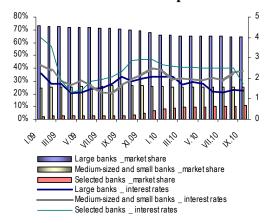
and medium-sized banks. Nevertheless, changes in market shares for term deposits were far less extensive in the third quarter of 2010 than in previous periods.

Chart 25 Selected term deposits relative to total term deposits



Source: NBS.

Chart 26 Market shares and interest rates on new retail term deposits



Source: NBS.

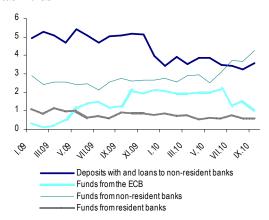
The left-hand vertical scale shows market shares of banks' groups in new retail term deposits.

The right-hand vertical scale shows interest rates of banks' groups on new retail term deposits.

### The interbank market was influenced mainly by maturing 12-month refinancing operations of the ECB

The interbank market witnessed some changes during the third quarter. After the maturity of 12-month LTROs, the total volume of funds from the ECB decreased from EUR 2.2 billion at the end of June to EUR 1.0 billion at the end of September. On the other hand, funds from non-resident banks went up, followed in September by an increase in deposits with and loans to foreign banks.

Chart 27 Selected interbank assets and liabilities



Data are in EUR billions.

Source: NBS.

In general, a decline in these refinancing operations (the first of the larger-volume 12-month LTROs matured at the beginning of July 2010, the second at the end of September 2010) provoked movements in other volatile components of total assets (an increase in

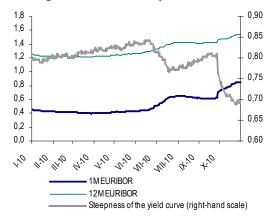
interbank liabilities, a decline in interbank assets, a change in the volume of asset-side operations with the ECB, and a fall in investment in securities) and an increase in the volume of standard refinancing operations and 3-month LTROs with the ECB.

#### European interbank interest rates were rising from the beginning of July 2010

The maturing of a relatively significant volume of twelve-month refinancing operations conducted by the ECB was naturally reflected in the euro area interbank market. From the beginning of July, EURIBOR interest rates for all maturities were increasing, and with short-term rates rising more sharply than long-term rates, the steepness of the yield curve declined.

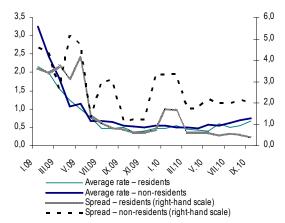
This development was reflected in interest rates in the domestic interbank market, which together with EURIBOR rates increased in the third quarter of 2010. Although interbank rates came under downward pressure in 2010 from the ECB's non-standard measures – with their movement being to some extent reflected in retail interest rates – these rates may be expected to rise, especially in the case of loans with floating payments based on the EURIBOR and loans with short interest rate fixation periods.

### Chart 28 EURIBOR interbank rates and the steepness of the euro yield curve



Source: www.euribor.org.
Data on the left-hand scale are in percent.
Data on the right-hand scale are in percentage points.
The steepness of the yield curve is defined as the spread between the twelve-month and one-month EURIBOR rates.

### Chart 29 Interest rates in the domestic interbank market



Source: NBS, www.euribor.org, own calculations. Interest rates are calculated on the basis of short-term loans received and euro deposits with a maturity of up to 1 year as at the end of the individual months. The rates were calculated as an average weighted by the amounts of individual transactions.

Spreads were calculated as the difference between the average interest rates of the banks with the lowest and the highest average rate in the given category.

Data on the left-hand scale are in percent.

Data on the right-hand scale are in percentage points.

#### Stagnation of the debt securities portfolio

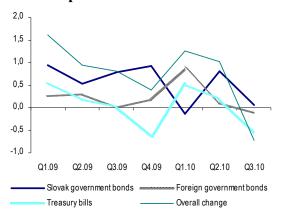
The quarterly change in the amount of the debt securities portfolio failed to reach positive figures for the first time since Slovakia joined the euro area. While the portfolio of domestic and foreign government bonds remained largely unchanged in the third quarter, the amount of Treasury bills declined by almost 40%. A substantial proportion of this drop was accounted for by one bank, and on the liabilities side it was related to a fall in deposits taken from the general government sector. In selected banks, the decline probably also stemmed from the maturing of ECB 12-month refinancing operations in July and September.

As regards the breakdown of investments in sovereign bonds, no significant changes occurred among the bonds with the highest shares. It remained the case that bonds issued by countries perceived to pose a greater risk (Greece, Ireland, Italy) are concentrated in certain banks.

#### No change in exposure to sovereign risk

The exposure of banks to countries that represented an increased risk in 2010 (especially Greece, Ireland, Hungary, Portugal, Spain, Italy) did not change significantly in the third quarter of 2010, except for an increase in interbank exposure to Ireland.

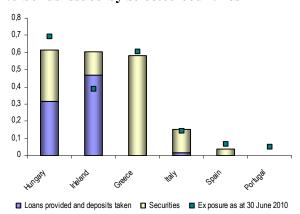
Chart 30 Quarterly changes in the debt securities portfolio



Source: NBS.

Data, in EUR millions, show the changes compared to the previous quarter.

### Chart 31 Exposure of the banking sector to bonds issued by selected countries



Source: NBS.

Data are in EUR billions.

Amounts of loans, deposits and securities are as at 30

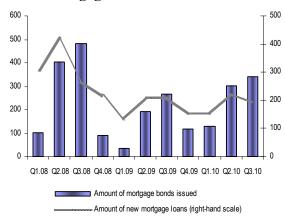
September 2010.

### The situation in issued bonds remained substantially unchanged during the third quarter of 2010

The issuance of mortgage bonds in the third quarter continued to be influenced mainly by the growth in mortgage lending and the need to replace maturing bonds. Given that the aggregate amount of mortgage loans recorded another negligible year-on-year increase at the end of September (up by 0.7%), the key factor in decisions on the issuance of mortgage bonds will probably continue to be the maturity of the existing portfolio.

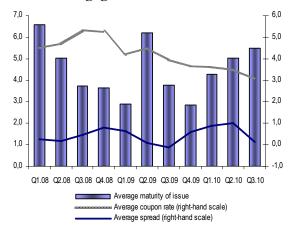
The amount of mortgage bonds maturing in future quarters indicates that banks will still find it necessary to issue bonds, even when mortgage lending is stagnating, although probably to a lesser extent than in the first three quarters of 2010.

Chart 32 New mortgage loans and issued mortgage bonds



Source: NBS. Data are in EUR millions.

### Chart 33 Average maturity and coupon rate of mortgage bonds



Source: NBS.

Data on the left-hand scale are in years; data on the right-hand scale are in percent and percentage points, accordingly.

Spreads, coupon rates and maturities are weighted by the nominal amount of the mortgage bonds issued.

Spreads were calculated as the difference between the coupon rate for the given mortgage bond and the yield on a government bond with the same maturity at the time of issuance. In the absence of a government bond with the same maturity, the yield was calculated using a linear interpolation.

The average coupon rate and spread were calculated solely from mortgage bonds with a fixed coupon rate.

#### Conditions in the primary market remain relatively open

Confirmation that conditions in the primary market remained relatively open in the period July–August 2010 is provided by several indicators. The average maturity of issued bonds (weighted by nominal amount) has been increasing since the end of 2009, while the average coupon rate for fixed-coupon bonds has fallen for five consecutive quarters. A moderate rise in government bond yields in the third quarter caused a narrowing of the average spread. It should therefore be noted that during the period under review, more than 80% of the issued amount of mortgage bonds were variable coupon securities pegged to the three-month or sixmonth EURIBOR. The margins ranged from 0.95 to 2.83 percentage points – still higher than in the pre-crisis period when they rarely reached 0.5 percentage point. The rates then, however, were mostly based on the BRIBOR. The current EURIBOR rates remain at all-time low levels as a result of downward pressure from the ECB's non-standard measures.

### Box 1 Changes in the exposure of pension funds and collective investment funds to market risks in the third quarter of 2010

The third quarter of 2010 saw a decline in the amount that all three sectors invested in debt securities issued by central governments or institutions in those EU countries that in the previous month had recorded a deterioration in their financial position due to high indebtedness. The only increase was recorded by investments in Irish Treasury bills with a residual maturity of six months.

Table 1 Investments in securities issued by selected countries as a share of total assets

	SPMC funds		PFMC funds		Collective investment funds	
	VI.10	IX.10	VI.10	IX.10	VI.10	IX.10
Spain	0.7	0.8	0.2	0	0	0
Greece	0.1	0.1	0	0	0.3	0.2
Hungary	0.8	0.8	0.9	0.8	1.6	1.5
Ireland	1.3	0.6	1.4	2.2	0.8	0.6
Italy	0.5	0.5	1.6	1.5	0.6	0.4
Portugal	0	0	4.5	2.1	0	0
Total	3.5	2.9	8.7	6.6	3.3	2.9

Source: NBS.

Values are given in percentages and express the share of total assets or NAV composed of debt securities issued by the respective country or by institutions established in that country.

Table 2 Change in the share of equity, foreign-exchange and interest-rate positions

		PFMC funds	SPMC funds	CI funds
Equities and investment fund shares/units	VI.10	0.0	12.0	16.7
	IX.10	0.0	16.4	17.0
Share of debt securities	VI.10	66.9	66.6	50.4
	IX.10	67.6	65.3	47.0
Foreign- exchange positions	VI.10	0.1	9.2	9.4
	IX.10	0.1	10.3	10.8
Duration of debt securities	VI.10	0.6	2.6	1.3
	IX.10	0.6	3.2	1.3
Residual maturity of	VI.10	0.8	2.9	1.5
debt securities	IX.10	0.3	3.6	1.6

Source: NBS, Reuters, own calculations.

Values are given in percentages of total assets or NAV and express the asset-weighted average for the given group of institutions. The figures for duration and residual maturity are in years.

Funds in Pillar III of the pension saving system again increased their investments in investment fund shares/units during the third quarter of 2010 – on aggregate, the proportion of investments in equities and investment fund shares/units climbed from 12.0% to 16.4% of the net asset value. The bond component of their investment portfolio fell slightly. Both the average duration and average residual maturity of the debt securities held by these funds increased during the quarter.

#### 4. FINANCIAL POSITION OF THE BANKING SECTOR

#### The banking sector's net profit increased by half year-on-year

The banking sector showed a net profit of EUR 384 million as at the end of September 2010, representing a year-on-year increase of 48%. Of the total growth in the sector's profit, 86% was accounted for by three banks. Losses were reported by three banks in the medium-sized and smaller category and by five branches of foreign banks. Although the increase is relatively significant, the aggregate profit is still lower by 30% than that reported as at 30 September 2008.

The comprehensive financial result (i.e. the net profit less tax-adjusted losses from the revaluation of financial instruments in the available-for-sale portfolio which were recorded by the banks mainly over the second quarter of 2010) reached EUR 357 million, representing a year-on-year increase of 21%.

Similarly to the end of the first half of 2010, the year-on-year net profit was achieved mainly through an increase (of 24%) in the net interest income on retail operations, a decrease (of 13%) in net provisions and reserves, and a further reduction (of 5%) in operating expenses.

Chart 34 Banking sector's net profit and its structure

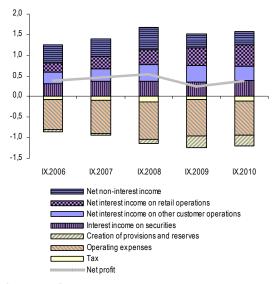
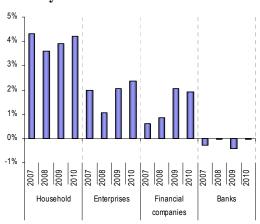


Chart 35 Net interest rate spreads of banks by sector



Source: NBS.

Values are always given as at the end of the third quarter; they are not annualised.

Source: NBS. Data are in EUR billion.

#### Rise in interest income supported mainly by growth in retail loans

The trend of increased profitability in the banking sector showed up also in the quarter-on-quarter comparison. The net profit reported for the third quarter of 2010 was higher by 16% than the profit for the second quarter of 2010. This rise was also mainly a result of the 3% increase in net interest income on retail transactions and the 18% decrease in net provisions.

The rise in net profit resulting from increased net interest income on retail loans was largely attributable to a rise in the stock of retail loans. The average amount of the retail loan stock for the third quarter of 2010 increased by 3.5% compared with the second quarter of 2010. This means that the determinants of the growth in net interest income on retail operations differed from the developments during the first half of 2010. Net interest income on retail operations increased during the first half of 2010 mainly due to a decline in the cost

of retail deposits, reflecting a slight year-on-year upturn in the net interest spread in the retail sector (Chart 35).

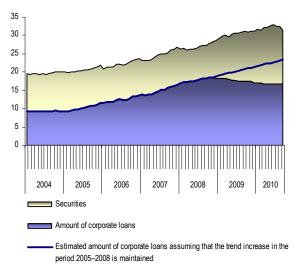
While net interest income on retail customers' operations was rising, net interest income on other customers' operations was falling, even though the net interest spread in these sectors did not drop. This was mainly due to the decline in the stock of loans to enterprises and non-financial corporations, which in bank balance sheets were replaced by investments in securities, especially debt securities.

The trend of replacing loans to enterprises with securities had a partially negative impact on the amount of banks' net interest income. The interest-rate return on debt securities in the banking sector during the first three quarters of 2010 represented 2.6%, while the average return on loans to enterprises was 2.9% (non-annualised values). This means that if the trend rise in lending from the period 2005-2008 had been maintained (Chart 36), net interest income would have been higher by approximately EUR 75 million or 6% of the current value.

It is, however, quite difficult to estimate the impact on the overall net profit, since if the amount of loans to enterprises had continued to rise, the amount of income from fees would also have risen (estimable to approximately the same value). On the other hand, there would have been increases in additional provisioning costs and operating expenses, as well as in credit risk capital requirements.

The current trend of substituting corporate loans with securities is to some extent escalating interest rate risk, since the interest-rate fixation period for securities investments (3.1 years on average) is longer than that for customer loans (1.3 years on average). This means that banks may be exposed to a declining rate of return on assets, or to the risk that their assets will be negatively revalued in the event of a rise in interest rates. The difference between the duration of assets and liabilities, after taking into account interest rate derivates, increased on average from 0.86 of a year to 1.08 years.

Chart 36 Amount of corporate loans and securities investments



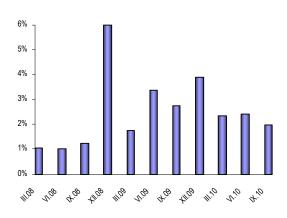
Source: NBS.

Data are in EUR billions.

Corporate loans include loans to enterprises, non-bank financial corporations and non-residents.

The loan amount estimates for 2009 and 2010 (assuming a continuation of the previous trend) were obtained through an extrapolation of the linear trend estimated on the basis of figures for the years 2005 to 2008.

Chart 37 Net provisions and reserves as a share of own funds



Source: NBS.

The amount of the net provisions includes also expenses or income related to the write-off and transfers of claims.

#### Net provisions decreased in the third quarter of 2010

As mentioned above, net provisions and reserves decreased over the third quarter of 2010, though they remained relatively high in comparison with the pre-crisis period. It was the case that the banks recording the highest provisions as a share of own funds were mostly those that reported the highest year-on-year rise in profitability.

#### Capital adequacy of the banking sector remains unchanged

The capital adequacy ratio of the banking sector remained largely unchanged at 13.2% in the third quarter of 2010 compared to the previous June. The sector's lowest value represented 10.0%. The share of Tier 1 capital in the banking sector's risk-weighted assets stayed unchanged at 12%.

The overall amount of own funds rose slightly. Risk-weighted assets returned to growth mainly in the banking book. Unlike in the previous period, this development was influenced by the risk-weighted assets of the banking book for corporate loans. The growth seems to be connected with the fact that certain segments of the corporate sector recorded a rise in lending services.

#### Box 2 Sensitivity of interest income to a change in the yield curve shape

In the Analysis of the Slovak Financial Sector for the First Half of 2010, a marked increase in the steepness of the yield curve was identified as one of the facts that enabled banks to raise net interest income. Since the gradual maturity of ECB long-term refinancing operations caused an increase mainly in short-term rates, the yield curve became less steep in the last quarter. An interesting question, therefore, is: how sensitive is the banking sector to a change of the yield curve steepness?

An answer to this question is sought in the following section through a simple sensitivity test using an estimate of interest income on loans and interest expenses on corporate and retail deposits depending on the chosen scenario of interbank interest rate development. At the same time, the total amount of interest income recorded under the baseline (i.e. expected) scenario is compared with the interest income in the same past period.

In the case of the *baseline scenario*, the expected development of interbank interest rates for the period from October 2010 to the end of 2011 was derived from the zero coupon swap curve. The calculations showed that the market expects a gradual increase in interest rates and a less steep yield curve.

Scenario 1 assumes that interbank interest rates do not change and therefore that neither does the steepness of the yield curve.

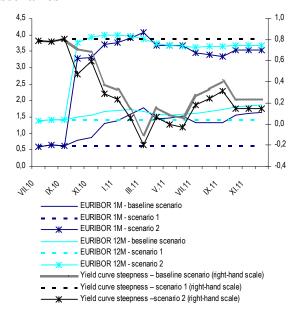
*Scenario* 2 differs from the baseline scenario in assuming an additional increase in interest rates and a higher rise in short-term rates than in long-term rates, resulting in a further decrease in yield curve steepness.

Consequently, customer interest rates were estimated<sup>4</sup> for the chosen scenario. The amount of customer loans and deposits<sup>5</sup> was estimated using the baseline scenario applied in the NBS stress testing as at 30 June 2010, only the assumptions about the interbank interest rate development was changed. The differences in the estimated amounts of customer loans thus reflected only the differing developments of interbank interest rates.

<sup>&</sup>lt;sup>4</sup> A more detailed methodology for estimating developments in customer rates is provided in the Annexes to the Analysis of the Slovak Financial Sector for the First Half of 2010.

<sup>&</sup>lt;sup>55</sup> A description of stress testing and individual scenarios is provided in the Analysis of the Slovak Financial Sector for the First Half of 2010.

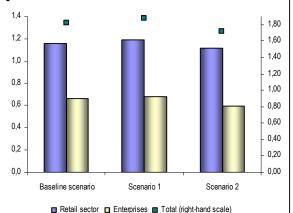
Chart 38 Interbank rates and yield curve steepness – baseline and stress scenarios



Source: NBS, own calculations.

The yield curve steepness is in this case defined as the spread between the twelve-month and one-month EURIBOR rates.

Chart 39 Estimate of net interest income on the customer loans and deposits portfolio



Source: NBS, own calculations.

Data are in EUR billions.

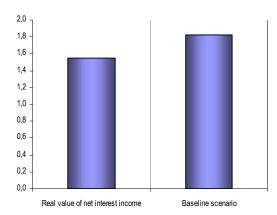
The chart shows estimated amounts for the period from October 2010 to December 2011.

The estimates show that the decrease in steepness has an adverse impact on the net interest income of banks. While the yield curve steepness for the period October 2010 to December 2011 is on average 0.5 percentage point lower under the baseline scenario than under scenario 1, the net interest income for the same period is lower by 2.8%. Interest income is lower also for the retail sector (by 2.7%) and for enterprises (by 3.1%), the decline being more pronounced in the case of enterprises.

As in the previous case, the less steep yield curve in combination with the rise in interbank interest rates results in a decline in net interest income. Net interest income under scenario 2 decreased by 5.9% compared to the baseline scenario, and the corporate deposit and loan portfolio recorded a more marked drop (9.8%) than did the retail deposit and loan portfolio (3.7%). In both cases, the decline in net interest income was due to the rise in interest expenses for deposits being more pronounced than the rise in interest income for loans.

In the second part, we compared overall interest income developments under the baseline scenario with the amount of interest income recorded by the banking sector over a comparable period in the past. It seems, however, that despite the negative impact of the expected decline in yield curve steepness, banks would be able to achieve a higher net interest income on the customer loans and deposits portfolio under the baseline scenario in comparison with the net interest income they recorded during the five quarters ending on 30 September 2010. This increase would be partly caused by the improving economic environment expected under the baseline scenario, which would support a larger rise in the customer loans portfolio in comparison with the last five quarters.

## Chart 40 Estimate of net interest income under the baseline scenario compared with real net interest income



Source: NBS, own calculations.

Data are in EUR billions.

The real value of the net interest income was calculated for the period from the  $2^{nd}$  quarter of 2009 to the  $3^{rd}$  quarter of 2010.

The real value of the net interest income includes only the interest income and expenses on the customer loans and deposits portfolio.

The real value of the net interest income does not include interest income and expenses relating to interbank operations.

To sum up, the sensitivity test proved the hypothesis that a decline in yield curve steepness has a negative impact on the net interest income on the customer loans and deposits portfolio. Similarly, it seems that a change in interbank rates itself has a more pronounced impact on net interest income than does a change in yield curve steepness. On the other hand, banks would probably be able to increase their net interest income even under conditions of rising interest rates and declining yield curve steepness, provided that the economic conditions further improve and encourage increased lending activity, whether on the demand-side or supply-side. It should be noted, however, that in the near term, net interest income will be negatively influenced by increasing competition, which will obviously put downward pressure on lending rates and upward pressure on deposit rates, although the effects and scale of this competitive pressure is rather difficult to quantify.