

## 2 THE REAL ECONOMY

### 2.1 THE MACROECONOMIC ENVIRONMENT

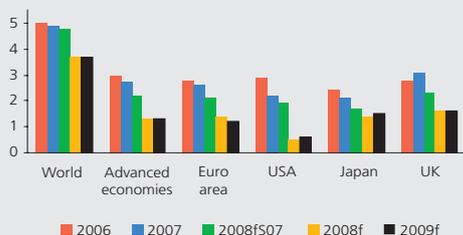
External and domestic macroeconomic developments remained favourable in 2007. However, risks that had built up in the foreign financial system over the previous ten years started to manifest themselves strongly in the second half of the year. The financial turbulence, which was seen first in the USA in August, spilled over into some other advanced economies and turned into credit crisis in the first few months of 2008. These events started a sharp turn in the credit cycle, giving rise to the risk of a credit contraction in countries directly hit by the crisis and a subsequent downturn in economic activity. The turn in the credit cycle is also manifesting itself in considerable volatility in asset prices, interest rates and exchange rates. This situation poses substantial downside risks to economic growth and financial system stability in some advanced economies. At the same time it is generating a high level of uncertainty, fundamentally hampering the forecasting of future macroeconomic developments. The next two years can therefore be regarded as a period of large risks.

The Czech Republic has not been hit directly by the financial crisis so far, and the domestic financial sector is showing a high degree of resilience. A major side effect of the financial turbulence is a sharply appreciating koruna. Although the first-quarter data from the real economy indicated that corporations were able to cope with this exchange rate shock, some negative effect on exporters can be expected to emerge gradually. Despite the expected slowdown in economic growth, the current outlook for the Czech economy for the next two years can be regarded as positive, albeit with sizeable risks originating particularly from abroad. A further deepening of the credit crisis in the advanced economies and a continued strong or even stronger exchange rate of the koruna would have an adverse effect on the domestic economy, in particular through deteriorating net export growth.

The successful development of the world economy, which, according to IMF methodology, grew by 5% as a whole (the same as in 2006), continued into 2007. However, the record-high economic activity will weaken over the next two years, mainly as a result of falling economic growth in the advanced countries<sup>1</sup> (see Chart II.1). Risks that had built up in those countries over the previous ten years started to manifest themselves strongly in 2007 H2. They showed up initially in the US subprime mortgage market crisis (see Box 1) and started to spill over into other economies and various financial market segments.

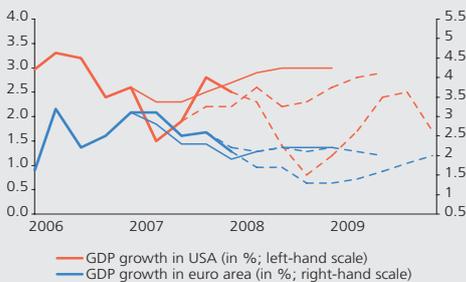
The economic growth outlook was gradually reviewed downwards (see Chart II.2) in response to the deepening problems in financial systems. In addition to the US economy, which is highly likely to fall into recession, economic activity is likely to slow significantly in Japan and the UK (see Chart II.1). A downturn can also be expected in the euro area, although this will not necessarily be as sharp. The uncertainty regarding financial systems going forward meant that the uncertainty regarding expected economic growth increased as well (see Chart II.3).

**CHART II.1**  
Economic growth in advanced economies  
(year-on-year growth in %; outturns and September 2007 and April 2008 forecasts)



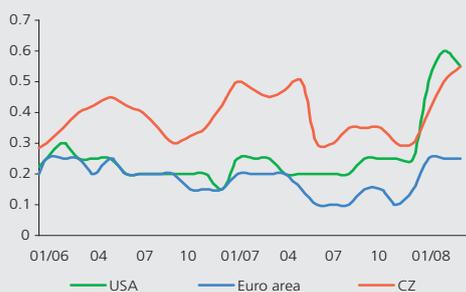
Source: IMF (World Economic Outlook, April 2008)

**CHART II.2**  
Expected and actual economic growth in the USA and the euro area  
(quarterly data; year-on-year growth; outturns versus expectations of Consensus Forecast, CF)



Source: Eurostat, US Bureau of Economic Statistics, Consensus Forecast

**CHART II.3**  
Uncertainty regarding expected GDP growth in selected economies  
(mean standard deviation of GDP growth estimates for given and next year from Consensus Forecast; in percentage points)



Source: Eurostat, US Bureau of Economic Statistics, Consensus Forecast

<sup>1</sup> In its World Economic Outlook (April 2008), the IMF expects weaker growth of the global economy over the next two years, at 3.7%. The IMF's forecast is significantly more pessimistic than the average forecast in Consensus Forecast (a publication presenting the average estimates of a broad representative sample of analysts and forecasters). Chart II.2 also illustrates how sharply the IMF revised its forecasts for 2008 between January 2008 (2008fS07) and April 2008 (2008f).

**Box 1: The credit crisis in the USA and its roots**<sup>2</sup>

The roots of the current credit crisis in the USA stretch back to the 1980s and 1990s. Economic growth was rising in the context of ongoing globalisation, and nominal interest rates were declining considerably thanks to falling inflation. In this environment, corporate earnings and share prices were rising. The positive sentiment gradually fed through to prices of other types of assets, in particular property prices. Underlying these developments were significant changes in the financial sector, which innovated and increased its profitability and its share in the economy. The dynamic growth was supported by the Fed's accommodative monetary policy, which at times of heightened risks responded by easing the monetary conditions (particularly after 11 September 2001). The favourable environment for the development of financial activities was also supported by a rising supply of free savings from the emerging economies on international financial markets. This resulted in an extraordinary increase in free liquidity available to a wide range of investors at a low price. At the same time, a "shadow" (parallel) banking system started to develop vigorously, within which credit creation was supported by a network made up of structured investment vehicles (SIVs, conduits), investment banks, investment funds, hedge funds and monoline insurers. The shadow banking sector partially reduced the importance of traditional banking intermediation (de-intermediation) and fostered a marked increase in leveraging in the financial and non-financial sectors.<sup>3</sup> This started happening in particular at the end of the 1990s, when, in addition to federal agencies, new private players providing subprime mortgages to "problem" debtors with higher probabilities of default started entering the market. Subsequently, loans structured into various risk segments by means of complex financial instruments began to be provided. These segments (tranches) were then sold separately to investors.<sup>4</sup> The development of such instruments enabled the increased risk associated with the new products and the growing leveraging to be diversified, to a certain extent masked and partially transferred to insufficiently informed investors.

The expansion of the shadow banking system was driven by securitisation, which facilitated the development of an "originate-and-distribute" model. By means of securitisation, banks transferred the loans they had provided outside their balance sheets, thanks to which they were able to increase their regulatory capital much more slowly. Securitisation never involved just transferring assets outside bank balance sheets. For it to work, certain conditions needed to be met. Banks transferring assets outside their balance

<sup>2</sup> The specific terms and abbreviations contained in this Box are explained in the glossary.

<sup>3</sup> The major global banks saw particularly large increases in leveraging (in some cases reaching 30 or more), i.e. their total assets grew faster than their regulatory capital. This was because their newly generated assets had very low risk weights. At the same time, they recorded a sharp decline in their deposit-to-loan ratios, as it was very easy to acquire sufficient liquidity from the money markets.

<sup>4</sup> The lending process changed considerably after assets with BBB or lower ratings started to be transformed into assets with AAA ratings (see section 3.1) through CDOs (collateralised debt obligations; see the glossary). Specifically, subprime mortgages started to be converted into CDOs, within which they were divided into tranches with various risk levels and some acquired an investment rating. Any losses from the set of underlying mortgage loans were to be borne by the holders of the riskier lower-rated tranches. The low risk of the best tranches was conditional on a low default correlation for the underlying subprime mortgages, which, given their similar characteristics and the adverse development of the economic environment, proved to be illusory.

CHART II.1 (Box)

### Prices of AAA bonds backed by subprime mortgages issued in individual half-years

(ABX-HE index; prices in % of nominal value of underlying bonds)



Source: JP Morgan Chase

sheets lent to entities that invested in assets generated by securitisation and also to entities that then bought derivatives derived from assets generated by securitisation. The bulk of the risks were diversified in this system (at least theoretically). However, it was necessary to seek final asset holders willing to bear the outstanding risk. This search was largely successful, since the risks were partially hidden by the ratings of rating agencies, which were not well prepared for valuing some products of the shadow financial system.

The changes in the nature of the mortgage market were reflected in poor monitoring of lending processes and a substantial relaxation of credit standards. This relaxation took the form of new types of mortgages creating an illusion of easy future repayment (lax or non-existent checking of applicants' creditworthiness, loans for 100% or more of property purchase prices, instalments initially lower than interest, low introductory rates, fixed rates for the first few years and then a switch to floating rates). Many inappropriate incentives permeated the originate-and-distribute model. The entities involved along the entire chain were primarily interested in receiving fees for their share in the transaction and then transferring the risk to another holder. Mortgage brokers were interested in maximising the number and volume of contracts, assessors were interested in revaluing property, mortgage loan originators (banks) transforming mortgages into collateralised securities and banks packaging these securities into structured credit derivatives were interested in maximising the volume of loans and derived securities, and rating agencies were interested in maximising the number of ratings. The advanced securitisation of mortgages into CDO-type products enabled lending to the subprime segment to expand and credit standards to be relaxed. By the middle of the decade, the relaxation of credit standards had acquired extreme dimensions. This contributed to the subsequent failure of subprime-mortgage-backed CDOs. Prices of AAA tranches of mortgage-backed CDOs provided later on (particularly in 2007 H1) declined more and faster than tranches with mortgages dating from 2006, as the underlying mortgages provided later on were defaulting much faster because they had probably been provided to very risky debtors (see Chart II.1 Box).

At the end of this chain, of course, stood investors willing to accept credit risk. This would probably not have worked in a normal yield environment. However, a low-interest-rate environment had prevailed for many years, despite the relatively strong economic activity, and so investors with "surplus" funds seeking higher yields on the markets were accepting highly risky assets. Monetary policy also probably contributed to the build-up of risks in the financial sector. The expansion of the shadow banking system was dependent to some extent on cheap short-term financing, since its mode of operation consists largely in investment in long-term assets financed with short-term funds. And it was low short-term interest rates that, especially between 2001 and 2005, supported the smooth operation of the shadow banking system and the expansion of activities in the corporate sector with high leveraging.<sup>5</sup> The relationship between monetary policy, the shadow banking system and the credit crisis will undoubtedly be a focus of macroeconomic and financial research in the years to come.

<sup>5</sup> The relationship between low short-term interest rates and the rise in leveraging in the US banking sector is commented on by, for example, The Economist of 22 March 2008 in an article entitled "The financial system: What went wrong?"

To sum up, owing to the close links between participants in the shadow banking system and banks, the transfer of risks to final investors via securitisation proved to be illusory to some extent. This was fully revealed when the prices of the assets generated in this system started falling. Potential investors dried up, banks were no longer able to provide credit for purchases of securitised assets and the system practically ground to a halt. It has also been confirmed that leveraging is strongly pro-cyclical. When the market went up, debt grew faster than assets. Financial groups were buying securities on credit, and those securities were then being used as collateral for that and other credit. The possibility of borrowing cheaply thus automatically fostered growth in asset prices and vice versa. As soon as the markets turned, the system accelerated again in the opposite direction. In a falling market, financial institutions had to sell their assets in order to repay their obligations. This reduced securities prices, worsened balance sheets and forced further sales. This is how the credit crisis was able to take hold fully.

A major indicator of the size of the risks is the fact that at the end of 2007 long-term interest rates in the USA and the euro area fell below short-term rates and the yield curve thus became inverted at longer maturities (see Chart II.4). The yield curve in the USA has failed to turn significantly positive even after the sharp cuts in monetary policy rates in recent months. This can be regarded as an indicator of a strong lack of confidence in a quick economic recovery. The yield curve in the Czech Republic has also become flatter, but its slope is still normal.

The uncertainty regarding future economic growth in the advanced economies is linked chiefly with uncertainties regarding financial institutions' total losses (see section 4). In its Global Financial Stability Report (April 2008), the IMF estimates that international banks will suffer a loss of up to USD 500 billion, which will lead to a fall in total capital adequacy of 2.5 percentage points in the USA and 1.5 percentage points in Europe. The need to recapitalise banks coupled with the limited functionality of the securitisation process will cause a contraction (or at least a marked slowdown in growth) in loans to the private sector.<sup>6</sup> The IMF predicts that this will cause annual GDP growth in the USA to decline by 0.8–1.4 percentage points. A similar impact can be expected on some European economies, especially those in which property prices had been rising fast in previous years.

The impact of the potential US recession on global economic activity should be smaller than in similar situations in the past, thanks mainly to the fact that many emerging economies, which export only a relatively small proportion of their output to the USA, are in a phase of recovery or dynamic growth. The bulk of their exports go to other emerging economies or advanced European countries. The current forecasts foresee continuing high growth of Chinese economy and satisfactory growth in the new EU Member States and the CIS countries (see Chart II.5).

<sup>6</sup> At present, the global financial system is in a phase of return to a more traditional structure via processes referred to as de-leveraging and re-intermediation. The first term denotes processes leading to a decline in leveraging in the economy as a whole. They involve a reduction in the availability of credit in the traditional and shadow banking systems, especially for financing riskier clients, and investment projects. The second term describes a re-strengthening of the position of asset-side and liability-side transactions across the entire financial system. The process also involves redirecting some activities from the shadow banking system back to regulated banks. In the initial phase, these interconnected processes may lead to some credit contraction.

CHART II.4

## Difference between long-term and short-term rates



CHART II.5

## Economic growth in emerging and developing countries

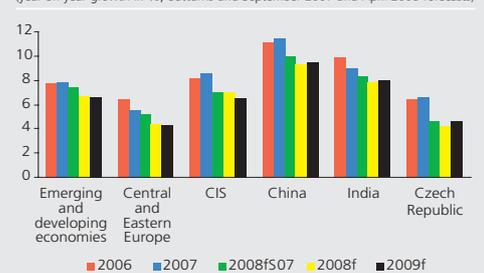
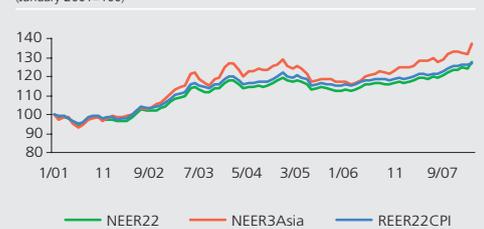


CHART II.6

## Effective exchange rates of the euro

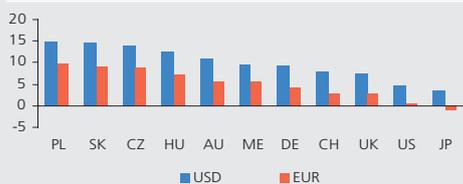


**CHART II.7**  
**Monetary policy rates from the onset of the financial turbulence to the end of March 2008**  
 (%)



Source: Datastream

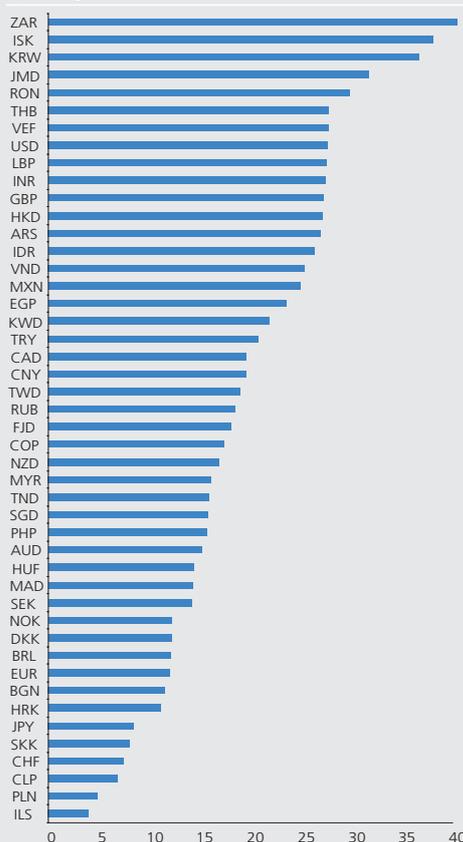
**CHART II.8**  
**Nominal returns on currencies for foreign investors**  
 (%; 2000–2008 average)



Source: Eurostat, CNB calculation

Note: Approximation of foreign investor's return on government bonds in the relevant currency. The average return is obtained as the sum of the average interest rate on government bonds and the average annual appreciation of the domestic currency's nominal exchange rate against the euro or dollar. 2008=end of March.

**CHART II.9**  
**Appreciation of the koruna against traded currencies**  
 (%; from August 2007 to March 2008)



Source: Datastream

Note: from the start of turbulence until mid-March 2008.

The risks in the world economy are also being exacerbated by persisting global imbalances, i.e. different current account developments in the key economies (see Chart II.11). Thanks to the weak dollar, the US deficit is gradually decreasing. Asian countries are also trying to maintain their currencies at relatively weak levels by means of intervention purchases of dollars (over USD 600 billion in 2007) and thereby support their high trade surpluses. Under this pressure, the euro area, which has long been balanced but whose currency has been steadily appreciating in recent years (see Chart II.6), is getting into a slight deficit.

The turn in the credit cycle strongly affected central bank monetary policies (see Chart II.7). After a phase of monetary policy tightening by the Fed, which ended in June 2006 after it raised its monetary policy rate to 5.25%, US interest rates stayed flat until September 2007. In 2007 H2, with the outlook for the US economy worsening, expectations of cuts in monetary policy interest rates in the USA started to dominate. These expectations were subsequently realised by a series of cuts (two of them by as much as 0.75 percentage point). At the end of April 2008, the monetary policy interest rate was 2.0%. Given the persisting inflationary pressures, the future monetary policy steps of the Fed and some other central banks are uncertain.<sup>7</sup>

In the euro area, the ECB raised monetary policy interest rates in two steps by 0.25 percentage point in 2007. Since June 2007, rates have stayed at 4%. Expectations of a halt in growth – or a decrease – in monetary policy interest rates in the euro area started emerging in early 2008, amid a sharper slowdown in economic activity (see section 3.1). However, these expectations were suppressed by persisting relatively high euro-area inflation, which reached 3.5% in March 2008. In the Czech Republic, the monetary policy rate was increased four times during 2007 and once again in February 2008 – each time by 0.25 percentage point – in response to the outlook for inflationary pressures. The CNB's May 2008 macroeconomic forecast assumes that the interest rate environment in the Czech Republic will be relatively stable over the next two years.

The downward revision of the global interest rate outlook led to renewed interest in investing in stable emerging economies' assets. A "search for yield" by investors, seen particularly in the first half of the decade (see the 2006 Financial Stability Report), thus started to re-emerge. In this situation, the risk of renewed appreciation pressures on the koruna materialised. Like the other Central European currencies, the koruna has offered foreign investors relatively high returns in many previous years (see Chart II.8). The perception of the Czech koruna as a "safe haven" is being reinforced by its long-running steady nominal appreciation trend. The koruna started appreciating at the end of summer, probably due to the liquidation of carry trade positions (see section 3.1). In 2008 Q1, the appreciation became exceptionally strong, probably because of the safe-haven effect. Between the onset of the financial turbulence in August 2007 and the start of April 2008, the koruna appreciated by 12% against the euro and by 25% against the dollar. It appreciated against all traded currencies in this period (see Chart II.9<sup>8</sup>).

7 The Fed's dramatic monetary policy measures can be explained by the anti-inflationary potential of any credit contraction and accompanying downswing in economic activity. However, the return of short-term interest rates to a very low level, the supply of liquidity to markets and the weak dollar have fostered growth in prices of commodities, agricultural products and food, which have started to function to some extent as assets. Given the positive impact on inflation and inflation expectations, monetary policy is thus faced with a major dilemma.

8 The meanings of the individual currency codes in Chart II.9 can be found e.g. at [www.currencysystem.com/codes/](http://www.currencysystem.com/codes/) or [fx.sauder.ubc.ca/currency\\_table.html](http://fx.sauder.ubc.ca/currency_table.html).

### Alternative scenario A: "Safe haven"

Scenario A, whose impacts on the financial sector are tested in section 4.2, assumes a hypothetical significant deepening of the effects of the global financial market turbulence on the real economies of the Czech Republic's euro-area trading partners. The ECB would react to the slowing economic performance of the euro area by lowering interest rates. However, the appreciation of the Czech koruna, driven by the safe-haven motive, would continue. This would result in a decline in annual domestic GDP growth to 2.5% and a slight rise in unemployment. The CNB would react by lowering monetary policy interest rates. The decline in domestic economic growth and the stronger koruna exchange rate would cause a rise in defaults in the non-financial corporation and household sectors, which would be moderated only partially by lower interest rates. Overall credit growth would slow radically and share prices would also fall, while property prices would stagnate.

This fast appreciation, which cannot be viewed as being fully fundamental-based, also took financial market participants by surprise. Domestic and foreign analysts and forecasters are therefore forecasting a correction towards weaker values (see Chart II.10). However, there is considerable uncertainty regarding the speed and size of the correction. Given the possible adverse effects of excessively rapid appreciation of the koruna, the CNB signed an agreement with the Czech Government in April 2008 on measures to prevent public sector operations from having undesirable impacts on the foreign exchange market and subsequently on macroeconomic stability.<sup>9</sup> The trade surpluses and industrial output in January and February 2008 indicated that the Czech economy and export performance were resilient to a moderate appreciation of the Czech koruna (see Box 2 in section 2.2), although the adverse impacts of a rapid appreciation usually appear with a lag.

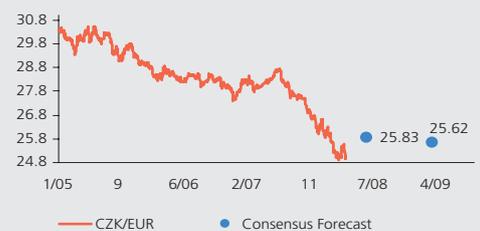
Except for Hungary, the macroeconomic developments in the Central European region in 2007 can be regarded as successful (see Table II.1). The macroeconomic situation in Slovakia and Poland was favourable. Both countries should maintain relatively high economic growth rates amid low inflation and stable external positions. The Central European economies are maintaining financeable current account deficits, although a slight worsening is expected for Poland in 2007 and 2008 (see Chart II.11). Developments in Germany, which has been showing a high degree of resilience so far, are particularly important for the Czech economy. Leading indicators and surveys of German consumer and business sentiment are sending out by turns optimistic and pessimistic signals. Nevertheless, some weakening of the current economic boom in Germany must be expected, partly due to rapid appreciation of the euro against the dollar and Asian currencies. The March Consensus Forecast predicts that the German economy will grow by 1.7% and 1.8% respectively in the next two years, after recording 2.5% growth in 2007.

The domestic macroeconomic environment developed very favourably in 2007. Economic growth, which reached 6.6% in 2007, was positively affected by domestic demand (increased investment activity and household consumption). The

<sup>9</sup> Currency conversions of financial flows between the Czech Republic and EU authorities will continue to be effected as far as possible off the foreign exchange market. The Government will ensure that no bodies within its field of competence conduct conversions of funds inflows from the EU directly on the market or conduct any hedging or speculative operations affecting the foreign exchange market. Furthermore, no conversions of privatisation revenues will be conducted on the foreign exchange market. If the Czech Ministry of Finance issues bonds denominated in foreign currency in the coming years, these will be hedged against exchange rate risk.

CHART II.10

**Actual and forecasted path of the koruna exchange rate**  
(year-on-year growth in %, outturns and September 2007 and April 2008 forecasts)



Source: CNB, Foreign Exchange Consensus Forecast 03/2008

TABLE II.1

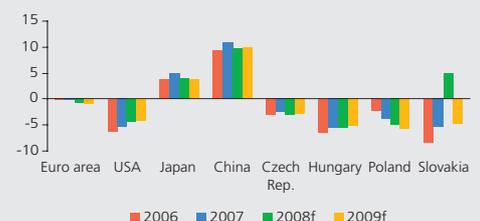
**Macroeconomic indicators for Central European countries**  
(estimates for 2008 and 2009)

		2006	2007	2008	2009
Hungary	GDP growth (%)	3.9	1.3	1.8/2.2	2.5/3.2
	Inflation (%)	3.9	7.9	5.9/5.9	3.5/3.6
	Fiscal deficit/GDP (%)	-9.3	-6.4	-4.3/4.0	-3.5/-3.2
Poland	GDP growth (%)	6.2	6.5	4.9/5.3	4.5/5.0
	Inflation (%)	1.0	2.5	4.1/4.0	3.8/3.1
	Fiscal deficit/GDP (%)	-3.8	-2.8	-3.2/-3.0	-2.9/-2.8
Slovakia	GDP growth (%)	8.5	10.4	6.6/7.4	5.6/6.3
	Inflation (%)	4.5	2.8	3.6/3.4	3.8/3.1
	Fiscal deficit/GDP (%)	-3.7	-2.6	-2.3/-2.3	-1.8/-1.8

Source: GDP and inflation forecasts: IMF-World Economic Outlook April 2008/Eastern Europe Consensus Forecast 03/2008; fiscal deficit forecasts: OECD Economic Outlook November 2007/current convergence programme

CHART II.11

**Current account balances**  
(% of GDP; outturns and forecasts)



Source: IMF (World Economic Outlook, April 2008)

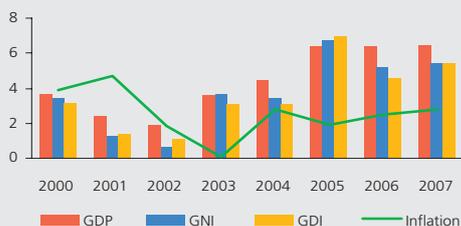
contribution of net external demand was lower in 2006 than in 2007. According to the March 2008 estimate, GDP growth in 2007 was practically the same as in 2006, not only in terms of overall growth, but also as regards growth of its individual components.

The macroeconomic situation and financial sector were affected by the approved public finance reform as early as in 2007 and this effect will grow in the coming years. Under this reform, a number of fiscal measures have been adopted which are having conflicting impacts on the disposable income of households and corporations.<sup>10</sup> The changes in the fiscal impulse and the impacts of the expected changes on the behaviour of economic agents will cause some volatility in aggregate demand. A rise in the VAT rate on construction work from 5% to 9% strongly affected the property market and related lending. Efforts to buy real estate still at the lower VAT rate gave rise to increased demand for loans for house purchase and also affected the construction industry's performance. The opposite effect can be expected in the coming years, probably compounded by a review of real estate market risks by banks in response to the problems of this market in advanced economies.

However, at the end of 2007, despite the continued robust economic growth, clear signals of a future slowdown were observable. One of the reasons was rising inflation, which picked up markedly in late 2007 and reached 7.1% year on year in March 2008.<sup>11</sup> This is leading to slower growth in real disposable income, which is negatively affecting household consumption growth. The external developments and the sharp appreciation of the koruna can also be expected to dampen investment activity and net exports in the coming quarters. The CNB's May 2008 macroeconomic forecast expects real GDP growth to slow to 4.7% in 2008 and 4.0% in 2009. The slowing economic growth and declining growth of real disposable income may have some impacts on the ability of households and corporations to repay loans taken out in previous years. On the other hand, it may help to eliminate the excessively optimistic expectations which emerged at the peak of the cycle and supported a rapid rise in the indebtedness of households. It was confirmed in 2007 that the media-monitored data on GDP growth do not correspond exactly to the income situation of households and corporations, owing to a growing outflow of funds abroad. As in previous years (except 2005), gross national income growth and gross disposable income growth were outpaced by GDP growth (see Chart II.12).

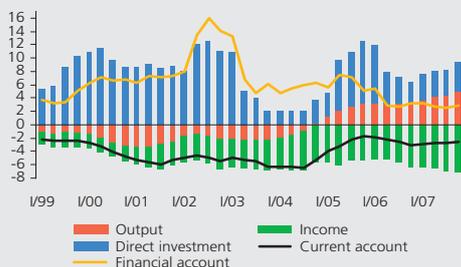
The traditional macroeconomic sustainability indicators recorded strongly positive developments in 2007. The public budget deficit under ESA95 methodology fell to 1.6% of GDP. As GDP growth at current prices increased by 10.1% year on year in 2007, the ratio of public debt to GDP fell to 28.7%. From an international point of view, this level is regarded as very safe. The external balance also improved (see Chart II.13). The current account deficit declined to 2.5% of GDP. The robustness of the external position is evidenced in particular by the output balance. This turned into a surplus at the start of 2005 and since then the surplus has been increasing steadily. Accordingly, its ability to cover the income deficit (which reached almost 70% last year) is growing. If the CZK 120 billion in reinvested earnings were deducted from the current account balance, the current account would show a surplus of CZK 31 billion. The ratio of reinvested earnings to FDI further increased to 70%. However, this trend is to a large extent natural and cannot be regarded as a risk from the external balance perspective.

**CHART II.12**  
Inflation and real annual growth in economic activity indicators  
(%)



Source: CZSO, CNB

**CHART II.13**  
The balance of payments  
(% of GDP)



Source: CZSO, CNB

Note: Annual sliding totals of balance of payments components and nominal GDP

<sup>10</sup> A more detailed assessment of the effect of the fiscal reform on the macroeconomy was given in the CNB's October 2007 Inflation Report.

<sup>11</sup> The high inflation in 2008 Q1 reflects an extraordinary build-up of one-off factors, namely globally rising commodity, energy and food prices and domestic increases in regulated prices, excise duties and VAT. In the course of 2008, these factors will start to unwind and inflation should return quickly to lower levels.

2.2 NON-FINANCIAL CORPORATIONS

Non-financial corporations posted good economic results in 2007, with many of their key financial indicators exceeding the three-year highs recorded in 2006. Although the sector's debt continued rising, the growth rate of loans granted to non-financial corporations decreased over the course of the year. This may indicate a future downswing in corporate sector performance associated with the expected weakening of economic activity due to global and domestic factors. Although the credit risk of the corporate sector remains stable, it is expected to increase in 2008 in relation to the expected slowdown in economic growth. These conclusions are indicated both by the macroeconomic credit risk model and by a new creditworthiness indicator. Another risk to the non-financial corporations sector is the sharp appreciation of the koruna. Although the first-quarter real economy data suggested that corporations were able to cope with this exchange rate shock, some negative effect on exporters can be expected to emerge gradually. The share of property developers in total loans to the corporate sector has increased rapidly in recent years against a background of rising prices of both residential and commercial property, and currently stands at more than 25%. Given this sector's tendency to react to property price growth with a lag, a potential cooling of the real estate market poses a sizeable risk with potential effects on the banking sector.

Profitability increased in 2007. The inventory and asset turnover ratios declined, while value added per employee and the current, acid-test and cash ratios all increased. The debt ratio grew slightly, as did debt servicing costs owing to the rising interest rates. The personnel cost-output ratio and the ratio of personnel costs to value added rose slightly as well (see Chart II.14). Despite the increase in the corporate debt-to-GDP ratio, this indicator for the Czech Republic is still half that of the EU12 countries and since 2001 has been roughly at the same level as in the USA, where, however, corporations are traditionally financed more through the capital market (see Chart II.15).

Despite non-financial corporations' relatively positive results, some signs of slowing corporate sector performance are visible. These are associated with the expected economic slowdown due to global and domestic factors. At the end of 2006 bank loans to non-financial corporations had shown record annual growth rates of almost 21%, whereas at the end of 2007 the rate returned to a more restrained figure of just over 17% (see section 4.2). If the CNB's macroeconomic forecast materialises, corporate lending growth should, according to the CNB's internal models, decrease further in 2008, to 13%. Compared to 2006, when the growth in loans had been driven by small and medium-sized enterprises, the growth in 2007 was very heterogeneous. The fastest growth in bank loans was recorded for enterprises with 100–249 employees. Enterprises with 250 employees or more, which can rely more on cheaper sources of financing, such as the capital market or loans from their parent corporations, as usual showed the lowest growth (see Chart II.16).

Despite some signs of slower growth in lending, the credit risk of the corporate sector as measured by the 12-month default rate has yet to rise and remains below the 3% level (see Chart II.17).<sup>12</sup> In line with the expected economic slowdown, we assume, however, on the basis of the macroeconomic credit model, that the 12-month corporate default rate will increase by 1–2 percentage points in 2008.<sup>13</sup>

CHART II.14 Key financial indicators for non-financial corporations (2006 = 100; index > 100 = improvement, index < 100 = deterioration)

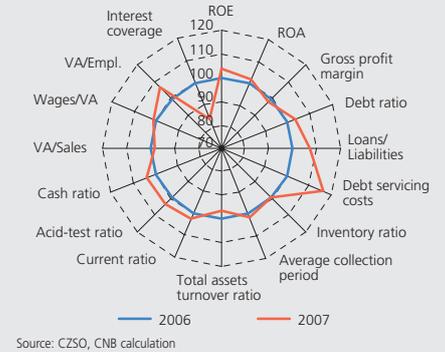


CHART II.15 Debt ratios of non-financial corporations (% of GDP)

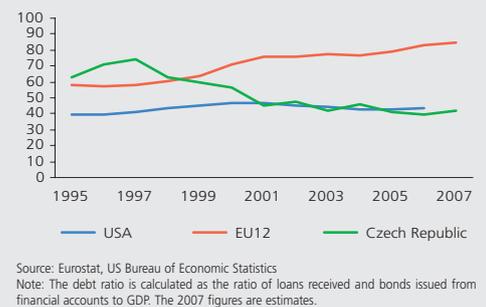


CHART II.16 Credit growth (monthly data; year-on-year growth in credit to corporations by number of employees in %)

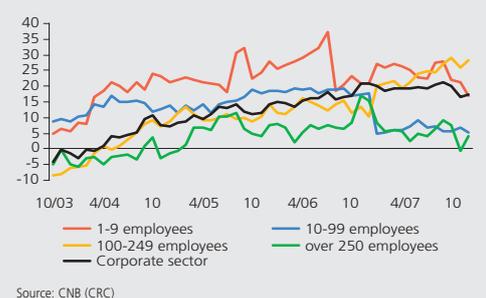
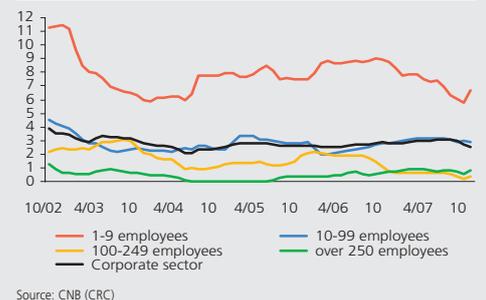
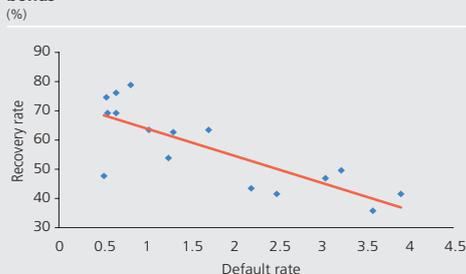


CHART II.17 12-month corporate default rate by number of employees (%)



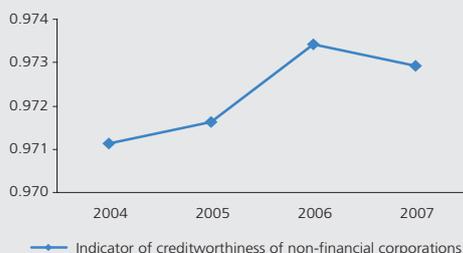
<sup>12</sup> The 12-month default rate is calculated using data from the Central Register of Credits managed by the CNB, which contains information on the bank loans of legal entities.  
<sup>13</sup> According to the estimated model, the aggregate 12-month default rate increases with appreciation of the domestic currency and growth in the debt ratio of the corporate sector and falls with growth in real gross domestic product and higher inflation. A detailed description of the model estimated using the data for 1998–2006 can be found in Jakubik, P., Schmieder, C. (2008): Macroeconomic Credit risk Modelling and Stress Testing. CNB Working Paper, forthcoming.

**CHART II.18**  
Recovery rate versus default rate for unsecured world bonds



Source: Moody's, CNB calculation

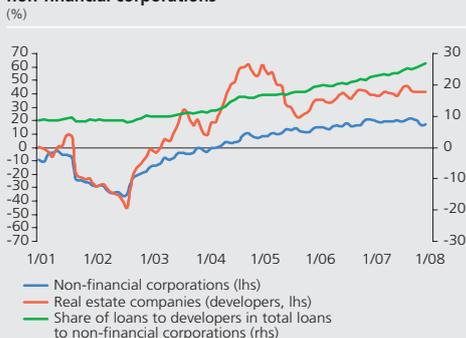
**CHART II.19**  
Indicator of creditworthiness of non-financial corporations



Source: CZSO, CNB calculation

Note: The indicator expresses the outlook one year ahead in the given year

**CHART II.20**  
Credit growth: Real estate companies versus non-financial corporations



Source: CNB

**CHART II.21**  
Default rate of developers versus default rate of non-financial corporations as a whole and growth in flat prices



Source: CNB, CZSO

The data confirm that smaller corporations are more risky. At the start of 2007, the 12-month default rate was about 8% for small corporations and 3% for medium-sized corporations, while that for large corporations was less than 1%, which is well below the total aggregate average. In addition to the corporate default rate, the financial sector is affected by the rate of recovery of claims in default, which is correlated with the probability of default and usually decreases as it rises. A low rate of recovery of claims has a negative impact on the financial sector. Based on Moody's data on the default and recovery rates for secured and unsecured world bonds in 1990–2006, an inverse relationship has been estimated between the default rate and the rate of recovery of claims in default and unsecured bonds (see Chart II.18). Assuming that this relationship is valid for the Czech economy, the recovery rate for large enterprises should, based on knowledge of their default rate, be around 66% for secured claims and 52% for unsecured claims.

The hypothesis of an increase in corporate sector risk in 2007 is confirmed by the creditworthiness indicator, which serves as an indicator of the financial stability of the corporate sector.<sup>14</sup> This indicator calculates the outlook for the sector's risk at the one-year forecast horizon based on financial indicators of solvency, profitability, liquidity and activity. The creditworthiness indicator for 2007 is somewhat lower than that for 2006, but is still higher than that for 2005 (see Chart II.19). According to these results, corporate sector risk should show a modest increase in 2008. This expectation is driven chiefly by a higher debt ratio, lower interest coverage and a lower gross profit margin.

Rising prices of residential and commercial property, continued corporate investment demand, the improving income situation of households and the relatively low interest rates all helped to increase the significance of the "real estate activities" sector (CZ-NACE 70). Strong growth in bank loans provided to this segment of non-financial corporations in the last four years has fostered an increase in the share of property developers in total loans to the corporate sector, from 9% at the end of 2001 to more than 25% at the end of 2007 (see Chart II.20). These are mostly property development firms specialising in the construction or renovation of commercial or residential property for renting or selling on.<sup>15</sup>

The high growth of the sector, along with the signs of a possible overheating of the property market (see section 3.2), are raising concerns about whether a cooling of the property market could generate serious problems in the sector. The high exposure of banks to developers could in turn lead to banking sector losses and the problems could spill over via developers from the property market to other segments of the economy (construction, etc). The default rate of developers is generally more volatile than the aggregate default rate and may react with a lag to movements in property prices (see Chart II.21). The strong increase in property prices prior to the Czech Republic's entry to the EU may have generated optimistic expectations in the property development sector, leading to higher investment activity. The subsequent sharp slowdown in property price growth may have contributed to the later rise in the default rate in 2005–2006. The current rise in property prices (see section 3.2) increases the risk of a trend similar to the one observed around the time of EU accession. The current relatively low default rate in this sector could thus increase again.

<sup>14</sup> More details on this indicator can be found in the article *Scoring as an Indicator of Financial Stability* in the thematic part of this Report.

<sup>15</sup> However, they also include other real estate companies, such as estate agencies, property management companies and owners' associations and housing cooperatives. The last two were not included in the default rate calculation.

### Alternative scenario B: "Property market crisis"

Scenario B simulates a domestic property market crisis caused by market saturation. Property prices are assumed to fall by 30%, which would cause problems in the property development sector. The large investments by developers have been driven by over-optimism regarding future demand and rising property prices. If these expectations failed to materialise, loan defaults would increase. Owing to the direct effects on other sectors (construction, etc.), as well as indirect effects, i.e. a rising unwillingness of banks to finance the real sector, domestic economic activity would decrease. Real GDP growth would thus decline radically during 2008, unemployment would rise and inflation would fall slightly.

The CNB would react by lowering rates. The transmission to the economy would, however, be moderated by a rising risk premium on the money market due to uncertainty about the amount and distribution of the losses on loans in default. The exchange rate of the koruna would depreciate slightly, further deepening the problems of developers indebted in foreign currency. This scenario would result in a sharp increase in the default rate, driven primarily by the corporate sector. Growth in lending would also slow and stock prices of developers and other companies would decline.

Foreign currency loans account for around 30% of total loans to developers, which is a higher figure than for non-financial corporations as a whole. If the over-optimistic expectations regarding property price growth fail to materialise and the domestic currency depreciates, this segment of business would be hit hard (see alternative scenario B "property market crisis").

### Box 2: Analysis of export-oriented corporations

The sharp appreciation of the koruna in 2007 H2 and early 2008 raises the question of how sensitive the Czech economy is to exchange rate fluctuations. Our analysis used financial indicators for the 611 largest Czech exporters from the Magnus database (Čekia) and data from the CNB's Central Register of Credits. The results show that exporters are more sensitive to the exchange rate than is the economy as a whole. The sensitivity of exporters varies, however, according to import use, firm size, debt ratio and the currency structure of bank loans received.

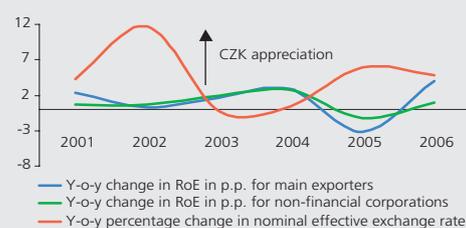
During the 2001–2002 and 2005–2006 appreciation waves, the profitability of the largest exporters generally decreased faster than that of large non-financial corporations as a whole (see Chart II.2 Box). The impact of the exchange rate on exporters' profitability is generally symmetrical, i.e. this segment is profitable at times of depreciation. Thus, greater profit volatility is a bigger problem than exchange rate appreciation itself. In the case of the Czech economy, however, we are observing a long-term appreciation trend exerting constant pressure on exporters' profitability. The appreciation of the koruna affects the economy not only directly via falling sales and profits of exporters, but also indirectly through the impact on sales of local sub-contractors and service-oriented businesses.

The appreciation of the currency may partly offset the impacts on the sales of those exporters who simultaneously import foreign goods for investment and

CHART II.2 (Box)

#### Profitability of exporters versus profitability of non-financial corporations as a whole

(% and percentage points; RoE = return on equity)



Source: CZSO, Magnus, CNB calculation  
Note: Annual data, smoothed curves.

CHART II.3 (Box)

### Profitability of import-hedged exporters versus profitability of other exporters

(% and percentage points; RoE = return on equity)

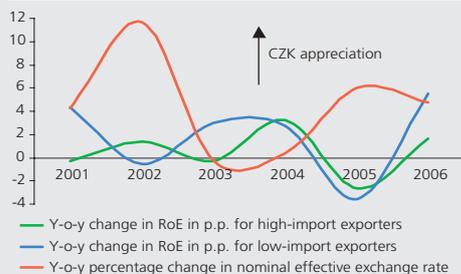
Source: CZSO, Magnus, CNB calculation  
Note: Annual data, smoothed curves.

CHART II.4 (Box)

### Profitability of large exporters versus profitability of medium-sized and small exporters

(% and percentage points; RoE = return on equity)

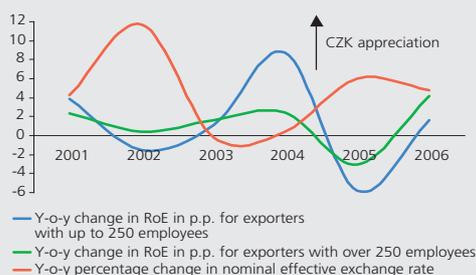
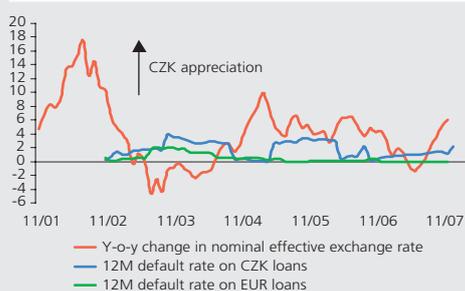
Source: CZSO, Magnus, CNB calculation  
Note: Annual data, smoothed curves.

CHART II.5 (Box)

### 12M default rate of exporters by loan currency

(%; monthly data)

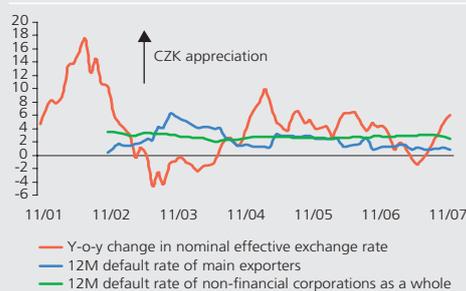


Source: CNB, CRC, CNB calculation

CHART II.6 (Box)

### 12M default rate of exporters versus non-financial corporations and exchange rate developments

(%; monthly data)



Source: CNB, CRC, CNB calculation

intermediate consumption. Many large exporting firms specialise in processing imported intermediate products and re-exporting them. The results of the analysis suggest that the profitability of such enterprises is generally less sensitive to exchange rate fluctuations (see Chart II.3 Box), although these results depend partly on how the individual firms are classified.<sup>16</sup>

Another factor that can affect the sensitivity of profitability to the exchange rate is company size. For large enterprises it can be easier and cheaper to hedge using currency derivatives. Foreign-controlled corporations can also hedge via their parent companies. The results of the analysis confirm that the sensitivity of large export-oriented corporations (with 250 employees or more) to the exchange rate is lower than that of smaller enterprises (see Chart II.4 Box).

The analysis of the currency composition of loans reveals that the exporters drawing mostly on foreign currency (euro) loans are less risky (see Chart II.5 Box). The hedging offered by foreign currency loans may thus be one of the instruments available for reducing the sensitivity of exporting firms to the adverse effects of exchange rate movements. Exporters can also transfer part of the currency risk to their sub-contractors by means of agreements to pay for deliveries in foreign currency. The results of a CNB survey of businesses suggest that the share of foreign currency payments and receipts in total domestic payments and receipts has been increasing gradually since 2003. In 2007, the figures were around 20% for payments and 13% for receipts.

The monthly data on repayments of loans granted to the largest exporters by banks in the Czech Republic show that the 12-month default rate is more volatile for exporters than for the economy as a whole (see Chart II.6 Box).<sup>17</sup> Recently, this indicator has been lower for exporters than for the economy as a whole, but this has not always been the case. As the analysis was conducted for relatively large corporations, values of the 12M default rate equal to or above the whole economy level indicate higher risk. However, dependence of the 12M default rate on exchange rate changes is indicated only in certain periods (particularly after the strong appreciation wave in 2001–2002 and partly also in 2005). This would indirectly confirm the hypothesis that although the sales and profitability of exporters are sensitive to exchange rate changes, their ability to repay loans is less dependent on such changes.

The debt ratio affects the sensitivity of exporters to exchange rate movements. In 2006, the average debt of the largest exporters measured as the ratio of external funds to total liabilities was higher than that of larger non-financial corporations (54% versus 45%). The results show that exporters with a higher debt ratio (over 54%) were far more sensitive to the exchange rate (see Chart II.7 Box). This would mean that exporters' borrowings are mostly

16 No data on specific exports and imports were available for the construction of the sample of import-hedged exporters. Information on the difference in ranking of the largest exporters in the list of exporters and importers was used as a proxy. The set of import-hedged exporters thus included enterprises whose ranking in the list of largest importers was higher or roughly the same as that in the exporters list. For example, a firm ranked thirtieth in the exporters list and better than thirtieth in the importers list would be included in this set.

17 The higher volatility of this indicator for exporters may also be due to the relatively small sample of corporations.

in Czech koruna and not in the export currency (euro in particular). Borrowing in euro would reduce the financial costs expressed in koruna given an appreciation of the domestic currency and thus also reduce the sensitivity of profits to the exchange rate. The evolution of the interest rates of the two currencies in 2001–2006 suggests that the profitability of exporting firms was not driven primarily by interest expenses. An analysis of the data from the banking credit register reveals that the share of euro loans in loans granted to the largest exporters in the last five years is around 25% and is higher than in the economy as a whole (about 17%). In the case of exporters, this share is not rising much over time. The hedging function of this instrument in an environment of a strongly fluctuating exchange rate is probably offset by disadvantages in the form of higher interest rates or other conditions.

### 2.3 HOUSEHOLDS

*Household debt continued growing, but remained lower than in the advanced Western European EU countries. The overindebtedness of some groups of the population – solving their repayment problems by taking on more debt, often at high interest rates – poses the main risk. Owing to their low creditworthiness, these groups are falling into a debt trap. The non-bank sector is significant in this respect, as its loans account for about 60% of the liabilities of this group of the population and for almost 50% of the entire consumer credit market.*

Households<sup>18</sup> create savings and provide funds to non-financial corporations through banks and other financial intermediaries. Their indebtedness has increased significantly in recent years and any problems with loan repayment would hit the whole financial sector. The growing household debt has been accompanied by a decrease in the gross saving rate of households, which fell to a ten-year low in 2007 (5.1%). This trend was due to an expected increase in household incomes connected with the real convergence process, easier access to loans, the low interest rates in recent years, rising real estate prices and population ageing.

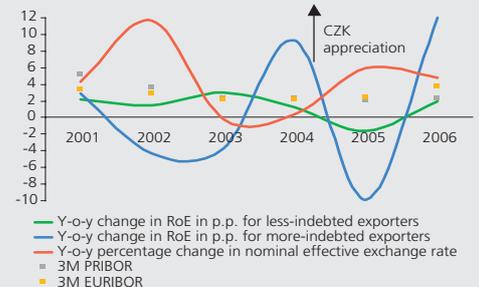
Household debt is increasing by roughly one-third every year. In 2007, the debt of Czech households exceeded CZK 800 billion.<sup>19</sup> Bank loans to households amounted to CZK 680 billion at the end of last year, of which loans for house purchase accounted for CZK 510 billion and consumer credit for CZK 170 billion (see section 4.2). In addition, households owe almost CZK 150 billion to non-bank institutions (see Chart II.22). The share of bank loans to households in the total resident loan portfolio increased further during 2007 (to 40% in 2007 from 37% in 2006) and was almost the same as the share of loans to non-financial corporations. This trend was driven by households' continuing interest in buying their own homes and by the one-off effect of advance financing of construction work owing to a change in the lower VAT rate from 5% to 9% with effect from 1 January 2008.

The ratio of debt to gross disposable income of households was 47% at the end of 2007 (compared to 40% at the end of 2006). The debt-to-financial assets ratio also

CHART II.7 (Box)

#### Profitability of indebted exporters versus profitability of non-indebted exporters

(% and percentage points; RoE = return on equity)



Source: CZSO, Magnus, CNB, CNB calculation  
Note: Annual data, smoothed curves.

CHART II.22

#### Bank and non-bank credit to households

(CZK billions)

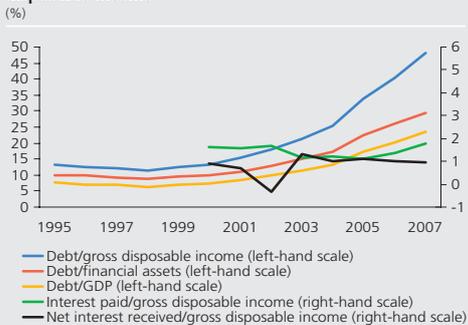


Source: CNB, CLFA

<sup>18</sup> Throughout section 2.3, "household sector" refers to private individuals; in the CZSO classification, the term households is used for both individuals and sole traders.

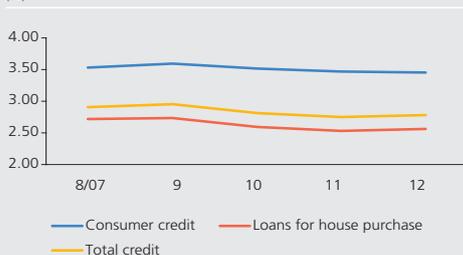
<sup>19</sup> Although household debt has been steadily increasing by about one-third every year since 2002, it has grown significantly in absolute terms. Total household debt rose by CZK 214 billion in 2007, which is around five times the growth in 2002 and more than the total volume of household debt that year (CZK 185 billion). The absolute debt volume in 2007 was 4.5 times higher than in 2002.

**CHART II.23**  
Ratio of debt to gross disposable income, financial assets and GDP; ratio of interest paid to households' gross disposable income



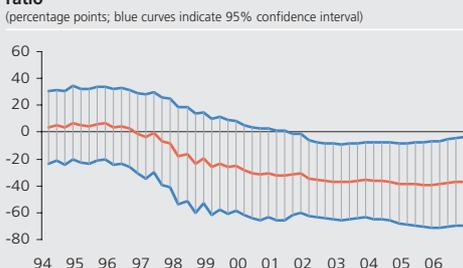
Source: CNB  
Note: 2007 refers to Q3.

**CHART II.24**  
12-month default rate of households by credit type



Source: Czech Credit Bureau, CNB

**CHART II.25**  
Deviation from equilibrium private sector credit-to-GDP ratio



Source: Backé, P., Égert, B., Walko, Z. (2007): Credit Growth in Central and Eastern Europe Revisited. OeNB Focus 2/07, pp. 69–77.  
Note: Negative values indicate that the current debt ratio is lower than the estimated equilibrium debt level measured as a percentage of GDP.

indicates that the debt burden of households is rising (30% at the end of 2007 versus 26% at the end of 2006). Total household debt as a percentage of GDP continued rising and is now roughly 23%. As in 2006, total interest received from households was higher than interest paid in 2007, but the trend of slightly falling net aggregate interest income continued (see Chart II.23). Despite the rapid growth in Czech households' debt, the total debt level is still low compared to Western European countries, as confirmed by all three indicators mentioned above. For example, the ratio of debt to household disposable income exceeds 170% in the UK, 120% in the USA, 130% in Ireland and 200% in Denmark and the Netherlands. The debt-to-financial assets ratio also confirms the lower debt of Czech households, although the differences here are not so large – Denmark 55%, Spain 47%, Portugal 47%, the Netherlands 39%, Germany 35% and Austria 35%. For some countries this indicator is in fact lower – e.g. Belgium 19%.<sup>20</sup> The generally lower debt of Czech households is also confirmed by the debt-to-GDP ratio, which is about one-third of the euro area average. Hence, Czech households as a whole cannot be regarded as overleveraged yet. If, however, borrowings continue rising at the same pace, the ratio of debt to gross disposable income will reach about 57% at the end of 2008, which is the level reached in the euro area about ten years ago. If the debt continues growing at the same rate thereafter, this indicator will, other trends being unchanged, reach the present euro area average (about 100%) probably at the end of 2011.<sup>21</sup>

Despite the gradually rising household debt, we are not currently observing any growth in the credit risk of households, which is around 3% (see Chart II.24).<sup>22</sup> According to the CNB's internal model, we expect this indicator to stay close to the present level in 2008.<sup>23</sup> Should any of the less favourable scenarios materialise, the degree of risk could increase by about 0.5 percentage point. This applies in particular to low-income groups. These groups may have problems with repaying their obligations as a result of an increase in necessary consumption expenditure in 2008 bolstered by one-off effects of the public finance reform.

The existing studies analysing the equilibrium level of debt of the private sector (as measured, for example, by the ratio of loans to the private sector to GDP) confirm that the rise in debt in the Czech Republic is in line with the country's overall economic growth (see Chart II.25). According to an Austrian central bank study using IMF data, this ratio could be 70% but is about 40% at present. This means that there is no "excessive" growth in lending that might mask certain risks

20 All the above household sector debt indicators are calculated on the basis of aggregated balance sheets. Households may have a large quantity of financial assets on aggregate, but the same need not apply to indebted individuals. The lower values of the debt-to-financial assets ratio in some countries may reflect greater imbalances in wealth distribution. This effect is likely to be more pronounced for an indicator based on financial assets than for an indicator based on disposable income. In countries with several wealthy individuals holding a large proportion of the stocks of large firms, the debt-to-financial assets ratio may be highly biased.

21 These figures are based on relatively pessimistic scenarios regarding income and lending growth (gross disposable income growth of 7% a year and growth in loans of 30% a year). The real situation, however, may be more favourable.

22 The 12-month default rate of households can be calculated using data from the banking register of client information. The time series has been collected under an agreement between the CNB and the Czech Banking Credit Bureau only since August 2007. Historical data are not available in the register, so we cannot yet observe the 12-month history and the figures are estimates.

23 The macroeconomic model of household credit risk estimated for the Czech economy can be found in Jakubík, P. (2007): Credit Risk and Stress Testing of the Banking Sector in the Czech Republic. Financial Stability Report 2006, pp. 61–62. This model estimates credit risk on the basis of real interest rates and unemployment in the economy, which has a direct impact on households' disposable income.

to the future stability of the financial system. This conclusion does not apply generally to all Central and Eastern European countries.<sup>24</sup>

Household borrowing may have different effects on different groups of the population. Low-income households and households with one economically active member are exposed to the highest risk of potential repayment problems in the future. For example, according to CZSO data available for 2006, in 4% of households with mortgages the main economically active person is unemployed (see Chart II.26). The most frequent mortgage recipient in the Czech Republic is a household with two economically active persons and one child. The main breadwinner is a 39-year-old employee with secondary education. His partner is a 33-year-old employee or housewife with secondary or basic education. About 13% of households have mortgage loans (8% of them live in rented apartments, the vast majority of which pay regulated rents). Half of all households have net monthly money income of less than CZK 20,000<sup>25</sup> while the figure for households with mortgages is CZK 27,000. The distribution of households with and without mortgages confirms that mortgage loans tend to be demanded by households with higher net income (see Chart II.27). One factor of future demand for mortgage loans is the proportion of persons living in rented apartments, which was about 23% at the end of 2006. The majority (around 80%) were in apartments with unregulated rents. Rising interest in home ownership can thus be expected going forward.

### Box 3: The debt burden on households and loan repayment problems

The CZSO survey "Household income and living conditions in 2006" reveals that the share of households using consumer credit remained at 23%, whereas that of households with loans for house purchase increased compared to the previous year to 11%. The percentages of low-income and high-income households obtaining credit were similar, while the share of medium-income groups was much lower (see Charts II.8 and II.9 Box). Lower-income households continued to slightly prefer consumer credit, whereas higher-income households mainly demanded loans for house purchase, but used consumer credit, which is probably partly linked with the furnishing of their new homes. The lower use of loans by medium-income households can be explained primarily by the fact that they largely cover their consumption spending from current income and do not take out loans for house purchase due to budget constraints. Since loans for house purchase represent two-thirds of total loans in terms of volume, high-income households have a larger volume of loans than low-income and medium-income ones.

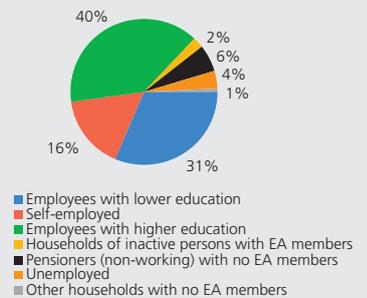
The debt burden expressed by the ratio of repayment of principal and interest to net money income was about 4% in 2006 and was roughly the same across all income groups of households. Repayment problems were reported by less than 3% of households. These problems were related mainly to consumer credit, which constituted a heavy burden for 6% of households and some burden for 15% (see Charts II.10 and II.11 Box). The biggest increase was recorded in the number of households for which consumer credit repayment represented some burden. Loan repayments constituted a heavy burden for lower-income households (as reported by the two lowest-

<sup>24</sup> See Backé, P., Égert, B., Walko, Z. (2007): Credit Growth in Central and Eastern Europe Revisited. Focus on European Integration 2/07, OeNB. The analysis finds that Latvia and Croatia, for example, have elevated debt levels relative to their economic fundamentals.

<sup>25</sup> Including pensioners, who account for about 15% of households.

CHART II.26

#### Breakdown of households with mortgages by social group (%)

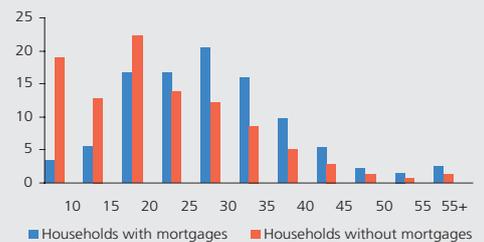


Source: CZSO

CHART II.27

#### Distribution of net monthly money income of households with and without mortgages

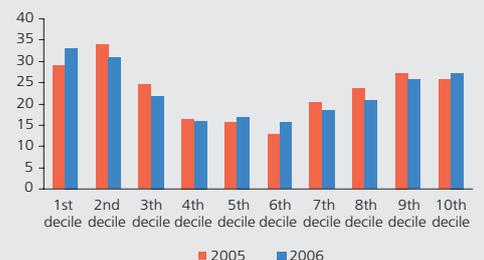
(x-axis: net monthly money income in CZK thousands; y-axis: % of households in given category)



Source: CZSO

CHART II.8 (Box)

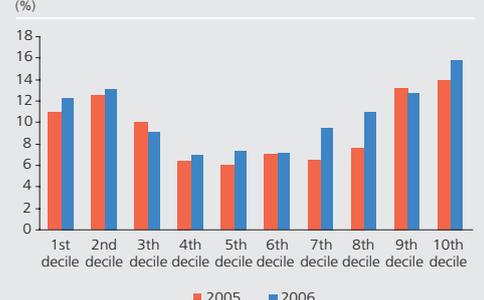
#### Shares of households with consumer credit in individual income groups (%)



Source: CZSO

CHART II.9 (Box)

#### Shares of households with loans for house purchase in individual income groups (%)



Source: CZSO

CHART II.10 (Box)

## Problems making consumer credit repayments in individual income groups

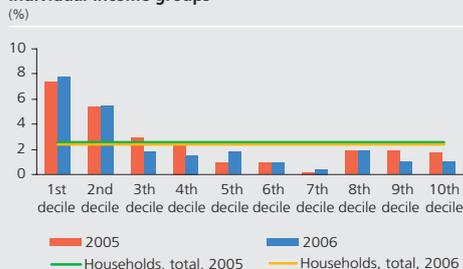


CHART II.11 (Box)

## Problems making housing loan repayments in individual income groups

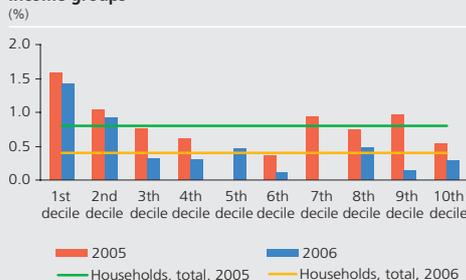
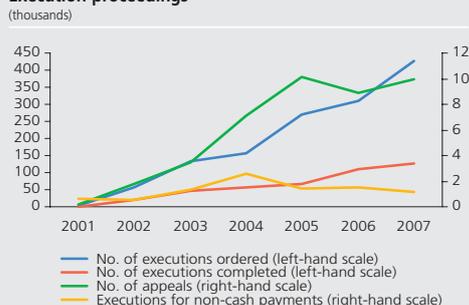


CHART II.28

## Execution proceedings



income groups – 15.8% and 11.8% respectively, although some burden was again found for all income groups).

According to subjective assessments, 68% of households had difficulty making ends meet with their income, which is slightly more than in the previous period. In the three lowest-income groups the figure was 80%–90%, whereas in the highest-income group it was only 30%. However, 41.3% of households could not afford to pay an unexpected expense of CZK 6,000, down by 2.8 percentage points from a year earlier, but the figure for the two lowest-income groups is 60%–78%. These households are more dependent on social benefits. In the two lowest-income groups, such benefits accounted for 18% and 7% of net money income, showing a year-on-year decline in the period under review. Overall, the share of households obtaining credit increased in 2006. Loan repayment problems were reported by a relatively small percentage of households. In the two lowest-income groups, however, the figure was above the average for households as a whole.

One of the manifestations of the rising indebtedness is marked growth in the number of executions ordered in 2007. This growth also reflects the fact that this instrument is starting to be used to recover a wider range of claims (see Chart II.28). Most cases involved minor claims associated with more radical recovery by creditors. The overindebtedness of low-income groups of households, along with insufficient financial education, still poses a risk, despite the relatively stable position of the household sector. Many people overestimate what they can afford and are unable to repay their debts. They resolve this situation by borrowing more, often at very high rates due to their low creditworthiness, and so fall into a debt trap. The non-bank sector is significant in this respect. Loans provided by this sector account for about 60% of the liabilities of this group of people. Some 86% of all loans provided to households by non-bank institutions are for consumption (CZK 126 billion at the end of 2007). This represents almost 50% of the consumer credit market (the remainder being bank loans). This market segment is governed primarily by the Consumer Credit Act, which now obliges creditors to inform debtors about their annual percentage rate of charge (APRC). In addition to the poor financial literacy of debtors, this market's problems include unfair business practices by lenders. Further planned measures to improve consumer protection should help mitigate this problem. Legislative measures in the area of loan agreement conditions, e.g. the banning of arbitration clauses, would also be helpful.<sup>26</sup> The planned implementation of financial education into primary and secondary school curricula should also have a positive effect.

People in difficult situations leading to indebtedness can get help from several non-profit institutions and citizens advice centres. These include the SPES, the Association of Citizens Advice Centres, the Consumer Protection Association, the Czech Consumer Association and People in Need. According to information from the SPES<sup>27</sup> and the new Financial Difficulties Advisory Centre,<sup>28</sup> the number of people seeking help from these organisations is gradually rising. The most frequent

<sup>26</sup> These clauses, implemented by some lenders in loan agreements, mean that any future disputes between the lender and the debtor will be settled by arbitration. Their problematic feature is the subsequent unilateral appointment of the arbiter by the lender under the terms and conditions of the loan agreement.

<sup>27</sup> More details about the SPES can be found at: <http://www.pomocsduhy.cz>.

<sup>28</sup> The centre was opened in January 2008. More details can be found at: <http://www.financnitisen.cz>.

visitors to such centres are men aged 30–40,<sup>29</sup> married with two children on average, with vocational or secondary education, an average monthly income of CZK 15,000–25,000 (see Chart II.29), 12 creditors and debts of CZK 300,000–CZK 600,000 (see Chart II.30). In the vast majority of cases (95%), the clients of such centres initially borrowed from banks, then moved to non-bank institutions and, in about 50% of cases ended up turning to advertisers offering loans to less creditworthy clients at very high interest rates. Only about every thirtieth client seeking help has a mortgage loan, but American mortgages and loans secured by property are very frequent. People ask most often about how to deal with multiple loans after misjudging what they could afford and ending up insolvent and faced with court cases and distraint. Other questions concern the option of debt discharge via personal bankruptcy.

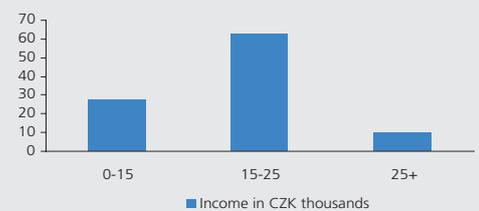
The new Insolvency Act,<sup>30</sup> which took effect in January 2008, introduces the option of debt discharge (personal bankruptcy) for private individuals who are unable to manage their debts. Two basic mechanisms have been defined to this end. The first option involves selling off the debtor's assets, and the second entails payment according to a five-year payment plan. Both are conditional upon payment of at least 30% of the amount due and on the debtor having "honest intentions" to discharge his obligations. The first case involves selling off all existing assets, whereas in the second case the debtor keeps his assets and repays the debt out of future income. This, however, only applies to unsecured debts. Secured creditors are satisfied preferentially through enforcement of the relevant pledges. The discharge method is decided on by the creditors by a simple majority of the votes cast. The debtor thus cannot choose the alternative that is more advantageous to him. Both cases end with the debt being completely cleared and at least 30% of the unsecured liabilities being repaid. The Act, however, allows less than 30% of the debt to be repaid to creditors who express their written consent. Creditors may also recover less than 30% if the debtor is unable – through no fault of his own, for example due to illness – to pay the agreed repayment amounts in compliance with the five-year payment plan. In such case, the court may decide to clear the debt at the end of the five-year period without the 30% threshold having been met. Personal bankruptcy creates better conditions for both debtors and creditors. Via the discharge process, it motivates debtors to repay their debts and allows them to become economically active again.<sup>31</sup>

In practice,<sup>32</sup> personal bankruptcy is usually applied for by people with an average monthly income of about CZK 20,000, debts of around CZK 800,000 and 12 creditors on average. The majority are divorced or single and aged either over 55 or around 30 years. 40 years of age tends to be the exception. The applicants have most difficulty completing the petition.<sup>33</sup> The insolvency procedure itself incurs no direct financial expenses, but the debtor must pay CZK 900 each month to the insolvency trustee. The aforementioned non-profit institutions help people to prepare for personal bankruptcy.

CHART II.29

#### Distribution of clients of Financial Difficulties Advisory Centre by monthly income

(% of all clients of Centre)

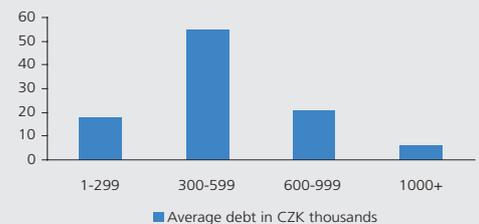


Source: Financial Difficulties Advisory Centre

CHART II.30

#### Distribution of average debt of clients of Financial Difficulties Advisory Centre

(% of all clients of Centre)



Source: Financial Difficulties Advisory Centre

<sup>29</sup> In the case of the SPES this is just an estimate, as clients are not asked to give their date of birth. By contrast, the Financial Difficulties Advisory Centre does ask about the age of its clients.

<sup>30</sup> Act No 182/2006 Coll., on Insolvency and Methods of Resolution Thereof (Insolvency Act).

<sup>31</sup> Another public source of information for potential creditors is the newly established insolvency register administered together with the bankrupts database by the Czech Ministry of Justice. In the first three months after the amendment came into effect, the courts permitted 135 discharges based on data from this register. The experience to date, however, shows that only a fraction of people with excessive debts meet the legal conditions for permitting the discharge process.

<sup>32</sup> In the first three months, the SPES prepared 41 persons for personal bankruptcy, 15 of whom were granted permission for debt discharge. Eight applications were refused and the remainder are in proceedings. Personal bankruptcy only applies to private individuals and cannot be used to discharge debts associated with business activities.

<sup>33</sup> The petition alone runs to 11 pages.