2.1 THE MACROECONOMIC ENVIRONMENT

External and domestic macroeconomic developments were favourable in 2006. The strong economic activity was limited neither by further monetary policy tightenings in the USA and the euro area nor by growth in commodity prices. A faster-than-expected slowdown of the US economy, which could adversely affect economic activity in the euro area as well as the current positive market sentiment towards emerging economies, including the Czech Republic, remains a global risk for the period ahead. The Czech Republic is currently facing a risk of excessively optimistic expectations regarding its future development, driven by the high GDP growth rates, which, however, may not present a faithful picture of the improvement in household income. The Czech Republic's financial links and economic integration with the global economy are already approaching the levels common in Europe. The role of large companies in the structure of the economy and the specialisation in manufacturing do not give rise to any significant risks for future economic developments or financial stability.

Global economic growth accelerated further in 2006, but commodity prices rose as well. The higher-than-expected growth in the euro area was particularly important for the Czech economy (see Chart II.1). World prices of oil continued to rise in 2006 H1 against the backdrop of the rapid growth of the world economy. With some fluctuations, the oil price growth slowed as 2006 progressed, helping to contain inflation pressures. The reputation of oil as a highly volatile commodity was confirmed in the first month of 2007, when its world prices started to increase sharply again. Oil prices therefore remain a significant risk factor. Growth in prices of other commodities, especially metals, picked up pace in 2006 (see Chart II.2). This was due mainly to increased demand from fast-growing countries, including a number of emerging economies. A role was also played by speculative demand from hedge funds and other investors. The higher prices of metals and other commodities are increasing the costs of the real sector, exerting downward pressure on its currently high profitability. On the other hand, these developments are beneficial to the metal-mining and metal-processing sectors, which still account for a large share of Czech industry (see section 2.2).

Global imbalances remained sizeable in 2006. The US current account deficit rose only slightly, to 6.5% of GDP (compared to 6.4% in 2005). This deficit was “financed” chiefly by Asian economies and oil-exporting countries, which recorded significant current account surpluses. The structure of financing of the US deficit changed somewhat in 2006, with the share of riskier corporate bonds rising and that of government bonds falling. The risk of further significant depreciation of the dollar persists, but concerns regarding a potential reallocation of foreign exchange reserves from the dollar to other currencies did not materialise.

Another important factor is the persisting global savings surplus, which is helping to keep long-term interest rates on major currencies at lower levels, thereby contributing to the global excess liquidity. The savings surplus – especially in Asian economies – and the investment of that surplus abroad was due not only to structural factors such as the absence of a stable financial sector, the practical non-existence of social policy and demographic developments, but also to cyclical factors relating to low yields on the domestic markets (e.g. in Japan).

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1 In its World Economic Outlook (April 2007), the IMF stated that the output of the world economy increased by 5.3% in 2006, the joint-highest figure in a decade together with 2004. Slightly lower growth of 4.9% is expected for the next two years.
3 The terms “global savings surplus”, “global excess liquidity” and “search for yield” are explained in detail in the glossary.
Overall, the savings surplus and the excess liquidity on the financial markets fostered low long-term yields and thus a continuing \(^*\)search for yield\(^*\) by investors (see section 3.1). This factor is contributing to the appreciation pressures on the currencies of some emerging economies with floating exchange rates (see Chart II.3). These countries include the Czech Republic, whose currency has offered relatively high returns to foreign investors in recent years (see Chart II.4). Expectations of a monetary policy interest rate cut in the USA and a halt in the growth of monetary policy rates in the euro area emerged at the beginning of 2007 (see section 3.1). This could result in further pressure for excessive appreciation of the koruna, which is a risk factor from the point of view of domestic economic activity and the external balance. The available evidence suggests good resilience of the Czech economy and its export performance to a moderate appreciation of the koruna, but some adverse effects cannot be ruled out in the event of a sharper appreciation.

The increases in US monetary policy rates from 4.25% at the end of 2005 to 5.25% by June 2006 did not lead to any significant slowdown in GDP growth. However, the US economy is expected to cool somewhat during 2007 in the context of increasing negative signals from the mortgage and real estate markets (see Chart II.1). If the cooling were unexpectedly strong, it could result not only in a slowdown in the current economic recovery in the euro area, but also in a change in market sentiment on the financial markets, which currently seem very sensitive to bad news (see section 3.1). In such case, the impact on the euro area economy, which is the Czech Republic’s largest trading partner, would be particularly relevant to the domestic macroeconomic environment.

Despite the increases in ECB policy rates (from 2.25% in December 2005 to 3.75% in March 2007), the euro area experienced a welcome recovery. Despite the above-mentioned risk, the markets expect GDP growth to rise slightly further in the years ahead. This is in line with an expected shift of global economic output from the USA to Europe and Asia. This shift, which decreases the risk of excessive dependence of global growth on the US economy, may foster a gradual decrease in global imbalances.

Asian countries continued to successfully support trade surpluses by maintaining relatively weak exchange rates of their currencies against the dollar. In 2006 this strategy was again implemented through intervention purchases mainly of dollar assets into their foreign exchange reserves. Total foreign exchange reserves (excluding gold) were more than USD 4,800 billion at the end of 2006. With Japanese reserves flat at around USD 875 billion, China became the largest reserves holder, breaking through the USD 1,000 billion barrier. Overall, the rate of growth of foreign exchange reserves increased further in 2006 (see Chart II.5).

The intervention purchases of the dollar into the foreign exchange reserves of Asian countries are pushing down the yields on US bonds (see section 3.1). This is reducing the effectiveness of Fed monetary policy.\(^*\) One of the negative effects of the long-running period of low interest rates may be a widening of the intertemporal imbalances in the US economy due to a shift in demand from the future to the present. In certain circumstances, especially a significant decrease in asset prices, these imbalances could result in a sharp fall in consumption. A decline in the value of collateral would be an equally large problem and would affect

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4 Empirical studies attempting to quantify this effect have arrived at very different conclusions, ranging from practically zero to 2 percentage points. The authors of these studies face considerable constraints as regards the availability of data on Asian investment. Earlier estimates of the effect of Japanese intervention purchases of the dollar, which worked with higher quality data, indicated an effect of up to 65 basis points for three-year bonds when interventions were at their strongest. For details, see ECB (2006): The Accumulation of Foreign Exchange Reserves. Occasional Paper No. 43, February 2006.
the corporate sector as well. Owing to the easy monetary policy in the past and to large household debt, it would not be easy to face off a looming recession with monetary policy instruments. The adjustment would require further depreciation of the dollar, which could be reflected in volatility on the financial markets. Risks connected with a potential drop in asset prices and high corporate and household debt are also present in some EU economies.

The risks to the Czech Republic stemming from economic developments in Central Europe depend partly on the willingness of financial market investors to differentiate between individual countries according to economic fundamentals. The macroeconomic developments in the other countries of this region were to a large extent heterogeneous in 2006 (see Table II.1). The macroeconomic situation in Slovakia and Poland was favourable, with both countries maintaining their relatively high rates of economic growth amid low inflation and stabilised or improving fiscal and external positions. By contrast, the macroeconomic situation in Hungary saw a deterioration, which is expected to deepen further in the near future. The differences between the individual countries are also reflected in their ratings.

The domestic macroeconomic environment can be regarded as very favourable (see Chart II.6). Economic growth, which reached 6.1% in 2006, was positively affected above all by stronger domestic demand (increased investment activity and household consumption), while the contribution of net external demand was much lower in 2006 than a year earlier. Inflation rose to around 3% during the year, but fell back at the close of the year.

The CNB’s April 2007 macroeconomic forecast expects a slight slowdown in real GDP growth to 5.7% in 2007 and 5.3% in 2008. As regards the components of economic growth, household consumption, external demand, investment demand and related increases in export performance will play an important role in both years. The real monetary conditions will be slightly easy over the entire forecast period.

Fiscal policy in the Czech Republic could have been a negative signal for foreign investors and rating agencies in 2006. It improved in comparison with 2005, as the public deficit under ESA95 methodology was 2.9% of GDP in 2006 (down from 3.5% of GDP in 2005) and public debt remained unchanged at 30.4% of GDP. However, the relatively high deficit in a situation of robust economic growth may signal a need for reform, with an uncertain impact on economic activity. Financial market indicators suggest that investors do not regard these figures as very negative in the context of developments in other Central European countries. Czech government bonds denominated in euro therefore hold low spreads against similar euro area bonds compared to other Central European economies (see Chart II.7). The low spreads are also aided by the Czech Republic’s public debt, which is low by Central European standards.

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5 A non-technical article by BIS Chief Economist William White received much attention from the financial community in 2006 (see White, W.: Is Price Stability Enough? BIS Working Paper No. 205, April 2006). It explains how financial imbalances and asset market bubbles can build up at times of low inflation, translating into macroeconomic instability in the longer term. Therefore, central banks should focus on the longer-term effects of monetary policy and take the effects on financial equilibrium into account when setting monetary policy.

6 Investors do seem to differentiate to some extent between individual countries of the region according to their economic fundamentals, but regional sentiment is still present at times of corrections on the financial markets (see section 3.1).
The risks to economic activity and the exchange rate stemming from the external balance remained limited in 2006. The trade and services balance recorded a surplus, albeit a slightly smaller one than a year earlier (see Table II.2). The current account deficit thus widened slightly to 4.2% of GDP, also partly due to a higher income deficit and to a current transfers deficit. The deficit was financed by foreign direct investment inflow and partly also by inflow of other investment, as a net outflow of portfolio investment was recorded as a result of higher growth in investment by residents abroad than by non-residents in the Czech Republic. In 2006, dividends paid abroad were for the first time higher than reinvested earnings, but the return on foreign direct investment in the Czech Republic increased overall. An outflow of capital can in the short term affect the exchange rate, which can behave seasonally and depreciate when dividends are transferred abroad.7

The inflow of foreign direct investment in recent years has influenced the structure of the Czech economy, resulting in a high degree of foreign ownership of corporations (see Box 1).8 Many branches are dominated by large companies, usually foreign-owned, which export a large share of their production. The structure of the Czech economy is characterised by a strong role of manufacturing (and some of its subsectors such as car industry), which accounts for a significant share of GDP and export performance. This may increase the economy’s dependence on global demand for certain manufactured products. The available evidence suggests that the role of large enterprises (those with 100 employees or more) and foreign-owned companies in the Czech economy is tending to strengthen over time. The exception is manufacturing, where the role of large producers is falling moderately due to an increase in the significance of smaller ones (see Chart II.8).

An international comparison reveals that although the share of manufacturing in GDP in the Czech Republic is the highest among all the EU countries, the degree of concentration in the individual branches is the lowest (see Chart II.9). The strong position of large corporations is no exception either. The Czech Republic ranks among the lowest in the world in terms of the level of concentration in the manufacturing industry, where the role of large producers is falling moderately due to an increase in the significance of smaller ones (see Chart II.9). The structure of the Czech economy is characterised by a strong role of manufacturing (and some of its subsectors such as the car industry), which accounts for a significant share of GDP and export performance. This may increase the economy’s dependence on global demand for certain manufactured products. The available evidence suggests that the role of large enterprises (those with 100 employees or more) and foreign-owned companies in the Czech economy is tending to strengthen over time. The exception is manufacturing, where the role of large producers is falling moderately due to an increase in the significance of smaller ones (see Chart II.8).

The continuing trade and financial integration of the Czech economy into the global and European economy is leading to significant interlinkages of the domestic economy with foreign economies through mutual financial links. As regards financial stability, these cross-border financial links increase the local economy’s sensitivity to foreign influences and are therefore a potential channel of cross-border contagion.9

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The use of the financial accounts is one way of capturing the degree of financial interlinkages between the local and external economies. The financial accounts describe the structure of financial assets and liabilities of the individual sectors of the economy (households, non-financial corporations, general government, financial institutions) and non-residents vis-à-vis residents. Financial assets do not necessarily equal financial liabilities for an individual sector or all residents as a whole, as regards either stocks or transactions. However, the net financial position of the local economy as a whole (i.e. the difference between the financial assets and liabilities of residents) must equal the countervalue of net financial assets of non-residents vis-à-vis residents, as non-resident institutions are the only remaining counterparty after consolidation of all financial links within the local economy.10

In Central European and advanced EU economies, the household sector as a whole is in surplus, having more assets than liabilities (see Table II.1 Box). Household savings are thus used to finance traditional deficit sectors such as non-financial corporations and partly general government. The net financial position of financial institutions is broadly balanced, as they serve as financial intermediaries. The higher level of financial assets and liabilities in advanced economies reflects greater depth of financial intermediation. The individual Central European economies are net debtors, with negative net international financial positions ranging from 30% to 100% of GDP. On average, advanced EU countries (and the euro area as a whole) are also net debtors, although some countries are net creditors (e.g. Germany, France, Belgium and the Netherlands).

It is relevant to ask whether the observed financial links of Central European countries with non-residents are higher than and different from those in other EU countries. Data from the financial accounts indicate that the differences lie in the structure of financing of the domestic economy by non-residents rather than in the degree of relevance of that financing. Total claims of non-residents vis-à-vis residents in Central European countries and advanced EU countries account for 20% to 30% of all liabilities of residents (see Table II.2 Box). However, non-residents play a greater role in the financing of Central European countries through cross-border loans (around 24% of all loans to residents in the Czech Republic compared to 15% in advanced EU countries) and corporate ownership (roughly 40% held by non-residents). As the loans and holdings represent strategic rather than speculative interests of non-residents (by contrast with bond holdings, for example), the higher degree of financing by non-residents is a stabilising factor.

The importance of residents’ financial investment abroad is starting to rise (see Table II.3 Box). However, the relevance of this channel of cross-border financial links remains lower for Central European countries than for advanced EU countries. Securities other than shares (i.e. bonds) are an exception. For example, they represent more than 50% of all bonds held by residents, a share similar to that in advanced EU countries.

The Czech economy is currently facing a risk of excessively optimistic expectations regarding its future development. These are based on the relatively high GDP growth rates seen in recent years and expectations of similar results in the coming years. Other factors include excessively easy fiscal policy and improved access to loans amid low nominal interest rates. Optimism is also being fuelled by growth in

10 Holdings of gold and other precious metals by residents are the only exception from this equation, as they are financial assets but represent no entity’s liability.
prices of assets (real estate and shares). This combination of factors could generate excessively high wage demands and excessive household consumption growth, accompanied by faster debt growth.

However, the high GDP growth rates on which the current optimism is based are not a sufficiently accurate indicator of growth in income. As in the previous year, the terms of trade deteriorated in 2006 as a result of rising prices of energy-producing materials and some other commodities and declining export prices in some segments of manufacturing. The outflow of income abroad (see Table II.2), which is giving rise to a significant gap between domestic and national income, is becoming increasingly important. It can be assumed that the growth rates of indicators such as real gross domestic income, real gross national income and real gross disposable income have been significantly lower than the real GDP growth rates over the past two years (see Chart II.11).11

### 2.2 NON-FINANCIAL CORPORATIONS

Non-financial corporations recorded very good results in 2006. Their financial indicators were the best in three years. At the same time, unlike in the advanced EU countries, non-financial corporations in the Czech Republic are not recording any major build-up in debt. Corporations have coped with the rising commodity prices. The corporate sector would be adversely affected by an unexpected sharp rise in interest rates or a significant appreciation of the exchange rate.

Non-financial corporations are still banks’ most important clients, although loans to the household sector have been rising strongly in recent years. Loans to corporations accounted for around 80% of the total bank credit portfolio at the end of the 1990s, but their share is less than 45% today.12 Partly for this reason, but mainly because this sector is the largest contributor to GDP growth, the financial soundness of corporations is a key indicator of the stability of the economy as a whole.

#### 2.2.1 Enterprises with 100 employees or more

2006 was an extraordinarily successful year for large enterprises. Most of their financial indicators were the best in three years (see Chart II.12). Return on equity increased (see Chart II.13), the inventory turnover ratio and average collection period decreased, the ratio of personnel costs to value added declined and value added per employee increased. The rising productivity and corporate profitability is a result of past investments, restructurings, FDI inflows and a related increase in know-how.13 As corporations’ investment activity has increased, their indebtedness as a percentage of total liabilities has also risen – from 46.5% in 2005 to 47.5% in 2006. EBIT14 has been declining in recent years, despite the rising indebtedness and a slight increase in interest rates last year (see Chart II.14). Compared to the EU-12,

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11 The latest available data are for 2004. In that year, GDP rose by 4.2% and real gross domestic income increased by 4.5% thanks to an improvement in the terms of trade. Gross national income, however, grew by less than 3% and gross disposable income by 2.9%. Net disposable income rose by only 2.6%.
12 Bank loans are not the only source of external financing of corporations. Other important financing sources include loans from non-banking institutions and parent companies and trade payables. Bank loans account for around 55% of all loans received by non-financial corporations. As for the shares of other sectors in bank loans, households account for 38%, financial institutions 7%, general government 4% and non-residents the rest.
13 The effect of FDI on the corporate sector is examined in the article Foreign direct investment and the Czech corporate sector: Potential risks to financial stability in the thematic part of this report. Foreign investment in the banking sector is discussed in Box 8 in section 4.2.
14 EBIT = Earnings Before Interest and Taxes.
the corporate debt ratio is still low and does not pose a risk to financial stability (see Chart II.15).\(^\text{15}\)

Turning to the profitability of individual industries, construction corporations were the best performers. Growth in construction was supported by better availability of mortgage loans, low interest rates and higher household incomes. The high profitability in construction is also related to the current intensive growth in bank loans to the real estate sector (see section 4.2). Above-average profitability was recorded in manufacturing, in particular manufacture of basic metals and fabricated metal products and manufacture of transport equipment. Although the price growth on commodity markets (see section 2.1) is generally having a negative effect on corporations, some industries may be profiting from it. This was the case in the manufacture of basic metals and fabricated metal products. The high profitability in transport equipment manufacturing is associated with growth in the car industry supported by the launch of new production facilities (see Chart II.16). Food and tobacco product manufacture is consistently turning in above-average profits. The income elasticity of demand for these products is very low. By contrast, profitability in transport, energy,\(^\text{16}\) trade and hotels and restaurants tends to be below average. The worst results were recorded in agriculture (RoE of just 3.6%), although this is not particularly significant in terms of the overall economy.

### 2.2.2 Small and medium-sized enterprises

The financial soundness of large enterprises also affects small and medium-sized enterprises (SMEs), doing so through supplier-customer relations. SMEs account for a significant proportion of value added (around 46%), employment (around 48%), investment (around 43%) and overall output (around 42%).\(^\text{17}\)

The available aggregate CZSO data on SMEs show a positive trend in value added per employee. This variable has been increasing in real terms for enterprises of all sizes since 2002 (see Chart II.17). While real growth in value added is rather volatile for small enterprises with 1−9 employees, it is relatively stable over time for enterprises with 50−100 employees.\(^\text{18}\) The data also indicate a positive relationship between enterprise size and value added per employee (see Chart II.18). The larger the enterprise, the more value added per employee it is able to generate. At the same time, however, such enterprises have higher personnel costs per employee.\(^\text{19}\)

The positive trends recorded for corporate financial indicators are generating a rising rate of growth of loans to corporations (see Chart II.19). This growth started to pick up in 2003 and has continued rising since then, mainly due to the SME sector.\(^\text{20}\) The share of bank loans to SMEs in total loans to non-financial enterprises has gradually risen (reaching 44% at the end of 2006). The growth rate of bank loans to medium-sized and especially large enterprises has recovered at a slower pace. Growth in loans to large corporations picked up considerably in the last quarter of 2006, and at 15% is catching up with enterprises with 10-99 employees (17.5%). The highest credit growth is still being recorded by small enterprises with 1−9 employees.

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\(^{15}\) Indebtedness of non-financial corporations is a widely discussed issue in Europe; see, for example, the ECB Financial Stability Review, June 2007.

\(^{16}\) Although the profitability of corporations in the energy sector was below average, ČEZ generated above-average profits.

\(^{17}\) The CZSO publishes data on SMEs with a two-year lag. The shares given are based on 2004 figures. These shares are relatively stable over time.

\(^{18}\) The volatility of real growth in value added per employee rises again for enterprises with more than 250 employees.

\(^{19}\) This relationship was analysed in the 2005 Financial Stability Report.

\(^{20}\) Growth in loans to SMEs was higher in both relative and absolute terms.
201 9 employees. Many banks are targeting special packages at this segment. Alongside credit to households, this segment generates most income for banks.21

2.2.3 Analysis of risks of non-financial corporations

The financial results of non-financial corporations are affected by the overall state of the domestic economy and can also respond to the situation in other countries. Corporate development is most affected by interest rates, the exchange rate, commodity prices, domestic economic growth and economic growth in major trading partner nations.

The commodity market has seen rising prices of oil and metals since 2004 (see section 2.1). The overall rate of growth of metals prices picked up considerably in 2006. At the same time, there was an increase in prices of other important inputs, such as imported intermediate products. However, the data suggest that the profitability of large Czech enterprises (100 employees or more) has not been significantly affected so far by the growth in these prices. Looking at profitability in the main commodity-dependent sectors (industry, construction and transport) since 2004, it seems that enterprises coped with the rising input costs either by reducing their wage cost-output ratios or in other ways (see Chart II.20). A gradual upturn in prices in most branches of industry in 2006 and 2007 Q1 suggested that enterprises, given favourable demand conditions, were gradually passing the accumulated rise in input costs into their prices.

The relationship between the profitability of non-financial corporations and real interest rates is obvious. Declining real interest rates make it cheaper to invest and also have a positive affect on the volume of investment. This should subsequently be reflected in higher corporate profits. This implies that the relationship between profitability and real interest rates should be negative.23 An empirical analysis for large non-financial corporations confirmed the negative correlation between profit and real interest rates (see Chart II.21).24

The exchange rate of the koruna appreciated considerably in both nominal and real terms between 2001 and the end of 2006. The negative correlation between the appreciation of the koruna exchange rate and the profitability of non-financial corporations in 2002–2006 was confirmed empirically (see Chart II.22). This is consistent with the export orientation of Czech production. The strong, faster-than-equilibrium appreciation of the koruna (see section 2.1) may result in lower competitiveness and a subsequent deterioration of corporate financial results. This could lead to a higher default rate with knock-on effects on the financial system.

The aggregate credit risk for the corporate sector as measured by the 12-month default rate was around 3% in 2006, the lowest level since 1997. According to the CNB’s internal prediction models, it should increase slightly in 2007.24 Despite this prediction, the figures are still very favourable and do not put any pressure on the stability of the financial sector.

21 Large enterprises usually negotiate a low interest margin thanks to potential alternative financing channels. By contrast, bank loans are a more important source of external financing for small enterprises, since they do not have access to the capital market. The available evidence suggests that the higher level of credit risk for small enterprises is reflected in higher interest margins on bank loans.

22 Corporate profitability can be also affected by nominal interest rates via the cash flow effect. See, for example, Mills, K., Morling, S. and Tease, W. (1994): The Influence of Financial Factors on Corporate Investment, RBA Research Discussion Papers No. 9402, Reserve Bank of Australia.

23 The fact that this relationship was examined as from 2002, i.e. at a time of relative interest rate stability with low nominal interest rates, might pose a problem for these analyses. Another potential problem is the lagged impact of interest rates on profitability via investment. The empirically observed negative relationship was fairly robust for the period studied.

24 Credit risk modelling is described in the article Credit risk and stress testing of the banking sector in the Czech Republic in the thematic part of this report.
It has been shown empirically that enterprise size is one of the determinants of credit risk. The larger the enterprise, the lower the risk of default. The 12-month default rate of large enterprises with more than 250 employees was 0.37% at the start of 2006, while that of enterprises with 100–249 employees was 2.13% and that of enterprises with 10–99 employees was 2.41%. Micro-enterprises with 1–9 employees are the most risky, recording a default rate of 7.93% at the start of 2006. The credit risk of all categories of enterprises seems to be stable despite the increased credit growth (see Chart II.23).

The available analyses confirm a link between the default rate and real GDP growth and real interest rates at the aggregate economy level. The current favourable trends in these macroeconomic determinants are leading to low default rates for both the corporate sector and the household sector. The overall situation in the corporate sector has long been improving and no major risks to its future development can be identified at present.

Box 2: Private equity as an alternative source of corporate financing

Low interest rates and excess liquidity on financial markets have motivated market agents to seek alternative forms of investment with higher yields. This has resulted in increased investor interest in the private equity market in recent years. Specialised private equity funds offer investors relatively high yields of around 10% a year and in particular a low correlation between such yields and yields on public stock markets. This helps to mitigate overall portfolio risk. In advanced European economies, investments in private equity funds have become part of the investment portfolios of many major institutional investors, among them pension funds, life insurance companies and funds of funds (see Chart II.1 Box).

Private equity funds mostly apply a leveraged buyout (LBO) strategy, i.e. they invest the funds raised from their investors in buying up businesses, which they then restructure and resell – at a profit, of course. A typical LBO transaction involves not only the fund’s investors, but also banks, which provide acquisition financing. Initial public offerings on public stock markets are a frequently used exit strategy for terminating such investments, although secondary sales to other private equity funds have also recently proved popular.

According to statistics from the European Private Equity & Venture Capital Association (EVCA), the European private equity market recorded a further increase in funds raised and investment in 2006 (see Chart II.2 Box). Investors are also showing increased interest in private equity funds investing exclusively in Central and Eastern Europe. Such funds raised EUR 1.3 billion from primary investors in 2005, a rise of 161% compared to 2004, and...
Most of the funds raised (about 80%) are invested in LBOs. Alongside Hungary and Poland, the Czech Republic is one of the largest recipients of investment from private equity funds specialising in Central and Eastern Europe. More than 20% of the investment activities of such funds were in the Czech Republic in 2005, which corresponds to roughly EUR 109 million. However, it remains a rather marginal source of financing of the corporate sector, totalling no more than tens of investments a year. This is reflected in a low ratio of private equity fund investment to GDP (see Chart II.3 Box). On the other hand, these funds have been behind new initial public offerings on the public stock market in the past two years, thereby helping to develop the financial market in the Czech Republic. This form of investment is expected to grow in significance and converge towards the more advanced EU countries.

With regard to financial stability, the most frequently discussed aspect of the growth in the private equity market is its effect on the banking sector and the credit derivatives and structured debt products markets. In the case of acquisitions, banks provide debt financing that exceeds the amounts invested in target companies by the funds themselves several times over. The available evidence suggests that the volume of debt financing has increased significantly in recent years (see Chart II.4 Box). According to information from the CVCA (Czech Venture Capital Association), a member of the EVCA, the investors in the Czech Republic – and in Central and Eastern Europe as a whole – are foreign funds raising their funds again from foreign, mostly Western European institutional investors. That said, acquisition debt financing is also increasingly being provided by local banks in the Czech Republic, even if the volumes are insignificant given the total number of transactions in the Czech Republic.

The debt provided by banks for LBOs is in many cases modified and structured in such a way as to postpone the repayments of principal as far as possible into the future (bullet-type debt). Banks are thus involved in relatively risky investments where recovery of the amount lent is shifted to the future and the risk of default is thereby increased. However, the bank debt does not always stay in the bank’s balance sheet. In advanced financial markets, banks often structure such debt into several layers according to seniority (and thus also according to degree of risk) and sell it to buyers on secondary markets. The available evidence suggests that in the European context debt is being structured into many layers in an increasingly sophisticated manner, meaning that the European market is converging towards the US one (see Chart II.5 Box). In 2006, around 30% of all transactions contained a relatively complicated four-layer debt structure, whereas no transaction had such a structure in 2002.

29 Central and Eastern Europe Statistics 2005. EVCA, November 2006. A Deloitte survey of expectations of private equity funds specialising in Central and Eastern Europe suggests a further increase in funds for 2006, along with expectations of growth in new investments and transaction size as well as increased availability of acquisition debt financing from banks (Central Europe – Private Equity Confidence Survey. Deloitte, June 2006).

30 As part of the ECB’s financial stability activities, a survey was conducted among banks that are active in financing LBOs in the EU (see ECB (2007): Large Banks and Private Equity Sponsored Leveraged Buyouts in the EU. ECB Occasional Paper, April 2007). The results reveal that many European banks prefer the portfolio model, i.e. they retain the acquisition financing in their balance sheets as an investment. By contrast, non-European (mainly US) banks active on the European LBO market tend to prefer the capital turnover model, where banks structure the debt financing and sell almost all of it on the secondary market.
2.3 HOUSEHOLDS

Households continued borrowing, albeit at a declining rate. However, as a percentage of GDP their debt remains around one-third that in advanced EU countries. The debt of low-income groups of households or households with only one breadwinner poses a risk. Many such households would not be able to meet their obligations if the main breadwinner were to become unemployed or fall ill.

Households create savings and – together with foreign entities – provide funds to non-financial corporations through banks and other financial intermediaries. They are simultaneously the second largest debtor of the financial sector. They borrow not only from banks (see section 4.2), but also from non-bank financial intermediaries (see section 4.4).

Although the rate of growth of bank loans to households is rising by around 30% year on year, households remain a surplus unit (see Box 1) and their aggregate income from the interest they receive exceeds the interest they pay (see Chart II.24). Of course, assets and liabilities are not evenly distributed across households. There is typically a multiple generation model where younger generations tend to be deficit units (with liabilities exceeding financial assets) and older generations tend to be surplus units.

Given a symmetrical impact on interest received and paid, a rise in interest rates would have a positive effect on the net interest income of households as a whole. However, it would have an adverse effect on those households with deficit financing and subsequently on the overall financial sector via a higher default rate of households. The increased default rate would reduce consumer demand, which would be negatively reflected in GDP growth and a rise in credit risk among non-financial corporations. The corporate sector might be similarly affected by an excessive rise in real wages due to lower-than-expected inflation caused, for example, by a strong appreciation of the exchange rate. Higher real wages have a positive effect on households’ disposable income, but simultaneously imply a rise in corporate costs and an increased risk of corporate bankruptcy.

Despite the rising household debt ratio, a slight decline in the rate of growth can be observed in 2006 compared to 2005 (see Chart II.25). Household debt meanwhile remains far below the EU-15 average. Loans to households amounted to just under 20% of GDP at the end of 2006, while the EU-15 average is above 60%. The ratio of debt to income is almost 41%, while the ratio of debt to assets is 26%. The slower growth in these indicators reflects a narrowing of the difference between the rate of debt growth and the rates of income and financial asset growth. Interest paid by households accounted for almost 1.6% of disposable income in 2006.

Given the increasing wealth of households and their efforts to achieve higher returns, the shares of their investment in building savings schemes, pension schemes and domestic and foreign fund units recorded further growth at the expense of bank deposits (see Chart II.26). As regards credit and loans, strong demand for housing led to a rise in mortgage loans and building society loans (see Chart II.27).

31 The quantification of this relationship can be demonstrated using an estimated model of the banking portfolio default rate for the household sector. According to this model, the default rate depends on the unemployment rate and real interest rates. A full description of the model can be found in the article Credit risk and stress testing of the banking sector in the Czech Republic in the thematic part of this report.

32 The scenario of a strong appreciation of the exchange rate is tested in the article Credit risk and stress testing of the banking sector in the Czech Republic in the thematic part of this report.

33 Loans to households totalled less than CZK 200 billion in 2001 and more than CZK 600 billion in 2006. This means the nominal debt more than trebled in five years.
One of the manifestations of the rise in debt is a rising number of households unable to repay their loans. This is evidenced, for example, by an ever-increasing number of executions ordered. In 2004 there were 155,000 such cases, but 2005 saw as many as 270,000 and 2006 a full 309,000. Nevertheless, these figures show that the sharp upswing in executions recorded in 2005 has since stabilised and slowed somewhat (see Chart II.28). A rise in the rate of growth of executions completed in 2006 implies some acceleration of execution proceedings. Another positive phenomenon is a decline in the number of appeals against execution proceedings, which suggests higher transparency and efficiency of such proceedings. Executions are a means of enforcing creditors’ individual claims. However, if a debtor in default has more than one creditor the execution process cannot be applied, as one creditor would enjoy undue preference over the others. In this situation, the insolvency law must be applied. In the case of indebted households, the new Insolvency Act offers the option of debt discharge, sometimes referred to as personal bankruptcy (see Box 3).

### Box 3: Personal bankruptcy

Act No. 182/2006 Coll., on Insolvency and Methods of Resolution Thereof (Insolvency Act), whose effective date has been postponed to 1 January 2008, will newly offer households the opportunity to discharge their debts if they are no longer able to meet their obligations. Two basic mechanisms have been defined to this end. The first option is a one-off realisation of assets, and the second is payment according to a five-year payment plan. Both options are conditional upon payment of at least 30% of the amount due and on the debtor having “honest intentions” to discharge his obligations. A discharge petition can be submitted only by the debtor, not by creditors. The discharge method is decided by the creditors by a simple majority of votes weighted according to the size of their claims. A court then decides whether to permit personal bankruptcy and approve the discharge plan. The plan must then be respected by the creditors. Where personal bankruptcy is not the best method for ensuring maximum recoverability of creditors’ claims (for example, if it would be better from the creditors’ perspective to have bankruptcy adjudicated in respect of the debtor’s estate), the court should dismiss the discharge petition. Where the discharge process takes the form of a payment plan, the debtor is obliged to work, keeping from his earnings only the subsistence level of income plus any amount necessary to perform gainful activity. Should he receive any extraordinary income by way of gifts or inheritances within this five-year period, he is obliged to sell such assets and use the funds to discharge the debt above and beyond his regular payments. If the debtor does not duly meet his obligations, a court can cancel the discharge process. Once the applicable statutory time-limits expire, a debtor may undergo the personal bankruptcy process several times during his lifetime, subject to fulfilment of the “honest bankrupt” condition (i.e. personal bankruptcy must not be abused by the debtor). The Act also establishes an insolvency register, which will be accessible to the public and administered by the Ministry of Justice (along with a database of bankruptcies). On termination of the insolvency proceedings, the court will delete the debtor from the list and the data will be made inaccessible.

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34 Executions are discussed in detail in the 2005 Financial Stability Report.
35 For example, where a debtor needs a computer and a car to earn income, he may keep this property. By contrast, the consumer electronics and motorcycle in his possession will be sold and the income used to discharge the debt.
Personal bankruptcy is a standard instrument used in most Western European countries and the USA. Comparing personal bankruptcy law in the Czech Republic and Germany, the largest difference consists in the monthly amount that a debtor may keep. In the Czech Republic this equals the subsistence level of income, whereas under German law it depends on the amount earned, which is more motivating for the debtor. Bankruptcy in the USA can take two forms. The first is the declaration of full liquidation of the bankrupt’s estate, while the other is more akin to debt restructuring. In the event of bankruptcy of the former type, the debtor’s property is sold off and creditors are subsequently satisfied according to seniority. Secured debts are settled by enforcement of collateral, while unsecured debts are settled by sale of the remaining assets. This mechanism enables a debtor to discharge a large proportion of his unsecured debts, as settlement takes place within a relatively short period of time (3–6 months) and the remaining debts are expunged by the court. Unlike in the Czech Republic, a debtor may apply for this type of discharge no more than once every six years. The latter type corresponds to the payment plan method in the Czech Republic. The payment plan is approved by a court and any remaining debts are forgiven at the end of a 3- or 5-year period. Unlike in the Czech Republic, the type of bankruptcy is entirely at the debtor’s discretion. The latter type is preferred in many cases, as it generally ensures a better assessment from financial institutions for any future loan applications. Financial institutions can obtain information about the bankruptcy and the type thereof from a credit register. The discharge process does not apply to some specific claims such as alimony, claims on the state and student loans.

Personal bankruptcy is a potential solution for those whose debts are already so high they would be unable to repay them even by the end of their lifetime. The Act gives such people the chance to start over, while aiming to provide maximum recoverability for creditors. It is too early to say how well the Act will work in practice, but significant interest in debt discharge is expected from the moment the Act takes effect.

In the context of household debt, information about the distribution of debt across income categories is important as regards financial stability (see Chart II.29). This distribution remained broadly unchanged compared to 2004. The upward debt trend in high-income groups is continuing (see Chart II.30). The debt of low-income groups has also long been rising. Compared to 2004, there was an increase in new loans in the first and second income deciles and in the sixth to tenth income deciles. By contrast, the third to fifth deciles were flat or falling. Debt presents a risk primarily for low-income groups, which have relatively lower savings and depend more on social benefits. As in 2005, on the other hand, it was confirmed in 2006 that the households most dependent on social benefits are those with below-average income, not those with the lowest income, which borrow relatively little (in particular, households of old-age pensioners).
Box 4: The consumer credit burden on households

Total household debt is rising apace. Its ratio to gross disposable income increased further in 2006, to almost 41%. The ratio of consumer credit to gross disposable income also rose, reaching 12%. The CZSO conducted a new survey entitled “2005 Living Conditions”.36 Although roughly two-thirds of the debt consists of loans for house purchase, the CZSO focused the survey primarily on consumer credit.37 The latter is riskier than the former and any problems relating to its repayment might effect consumption.

The survey captures how households subjectively perceive their situation and hence does not necessarily reflect the true situation. The survey reveals that consumer credit had been obtained by 23% of the households surveyed. It was used more by low-income households than those with high incomes (40% in the lowest-income group and 28% in the highest-income group).38 Consumer credit repayments constituted a burden on households (a heavy burden for 7.3% and some burden for 13.3%). The situation differed across the income groups of households. Consumer credit payments were a heavy burden mainly for low-income households (see Chart II.6 Box). More low-income households than high-income households had difficulties making such repayments (see Chart II.7 Box). This indicates a risk of potential default primarily for low-income households, as well as a higher sensitivity of their balance sheets to shocks, with subsequent impacts on consumption.

Loan repayment is also associated with the issue of to what extent households make ends meet with their net money income. Almost 67% of households stated that they had difficulty making ends meet with their income (of which 37% had minor difficulties). In the three lowest-income groups the figure was 70–90%, whereas in the highest-income group it was only 30% (see Chart II.8 Box). This confirms the differences across the income groups of households and the fact that low-income households use consumer credit more frequently to finance consumption, as their income is limited. The higher the debt and the lower the income group, the lower the ability of households to cover an unexpected expense. 44% of households could not afford to pay an unexpected expense of CZK 6,000. In the two lowest-income groups the figure was as high as 50–70% (compared to around 16% in the highest-income group). Moreover, low-income households depend on social transfers and are more burdened with fixed housing costs. Differences in the consumer credit burden on households can be also seen in consumer expenditure. The Lorenz curve (see Chart II.9 Box) suggests that the inequality of income groups of households as regards consumption almost naturally reflects the inequality of households as regards net money income.

Overall, the survey reveals that loan repayment constitutes some burden for all households. Difficulties with repayment were experienced most of all by lowest-income households. They were relatively very sensitive to payment of an unexpected expense. However, the share of the consumption expenditure of the lowest-income group of households in total consumption was relatively low, although the combined share of the three lowest income groups accounted for almost half of consumer expenditure.

36 The conducting of an annual survey in the Czech Republic results from an amendment to Regulation (EC) 1177/2003 and related implementing regulations of the European Commission.
37 At the end of 2006, consumer credit totalled CZK 213 billion, of which bank loans amounted to CZK 110 billion.
38 The box is based on the quintile distribution of net money income per capita.