

2 Macroeconomic Scenario

The macroeconomic scenario was conceived as realistic and conservative with an effort to balance out the positive and negative risks of economic development.

2.1 The World Economy and Technical Assumptions

The world economy⁴

The assumptions relating to the future development of the external environment of the Czech economy can be summarised as follows:

- The world economy continues to grow at a dynamic pace. The Asian economies will contribute more and more to this growth, especially China and India. Growth in the USA will slow down in 2008.
- Economic growth in the EU-27, which in 2006 had reached its highest level since 2000 (3.0%), will slow down slightly to around 2.5% in upcoming years. Net exports and investments will have a particular impact on this slowdown. An important growth factor has been shown to be the free movement of goods and capital in relation to new member states, wider possibilities of cooperation and an increase in the mobility of the labour force in the enlarged EU. As a part of the convergence process, the new member states will grow at a faster pace than the old members.
- The USD price for oil will remain at a high level even in upcoming years with a slight declining tendency. The high demand especially in the Asian economies limits the possibility of a larger price drop.

Table 2.1: Assumptions on the external environment

		Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
USD/EUR exchange rate	<i>(annual average)</i>	1.25	1.35	1.34	1.34	1.34
GDP EU-27	<i>(real growth in %)</i>	3.0	2.7	2.5	2.5	2.5
GDP Germany	<i>(real growth in %)</i>	2.9	2.7	2.3	2.3	2.4
Oil prices	<i>(Brent, USD/barrel)</i>	65.4	68	73	67	65

Source: Eurostat, IMF, calculations of the Ministry of Finance

A risk associated with this scenario is the possible occurrence of unforeseeable events with a global impact that would further aggravate the geopolitical climate and the instability of world commodities and financial markets as well as the already disquieting mortgage crisis in the USA. Another risk is the possibility of a recession in the USA.

⁴ For technical reasons, it was not possible to use the “common assumptions on the external environment” in preparing the CP. The Spring EC Forecast published in May 2007 was, for obvious reasons, already outdated and the assumptions of the Autumn Forecast were not yet known at the time of preparing the macroeconomic scenario (September 2007). Therefore, the CP was supplemented by a sensitivity analysis of certain macro-indicators based on the exogenous variables in Section 5.

Technical assumptions

The assumptions on short-term interest rates were chosen to be consistent with meeting the CNB's inflation target.

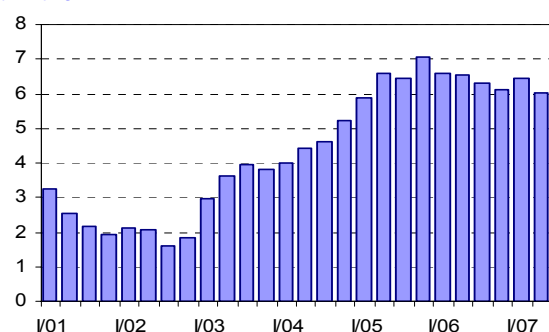
The lead in productivity growth over the Eurozone countries should be reflected in the real appreciation of the CZK/EUR exchange rate. Assuming the same or a slightly lower level of inflation, space for nominal appreciation at an average rate of ca 3.0% will be created, which should result in an average rate of 25.80 CZK/EUR in 2010. A technical assumption of stability of 1.34 USD/EUR was elected for the USD/EUR exchange rate.

2.2 Current Macroeconomic Development⁵

Robust growth of the Czech economy, which reached 6.4% in 2006, continued in H1 2007 as well (6.2% year-on-year; quarterly figures of 1.5% and 1.4% in Q1 and Q2, respectively). This growth was almost exclusively generated by domestic demand. In H1 2007, the dynamics of real gross domestic income was 1.8 percentage points higher than GDP growth due to terms of trade. The potential GDP growth rate has reached a value of just above 5.0%, especially thanks to the robust contribution from total factor productivity. At the end of 2005, the negative output gap closed and the position in H1 2007 is characterised by a positive gap of ca 1.4%.

Chart 2.1: Real GDP

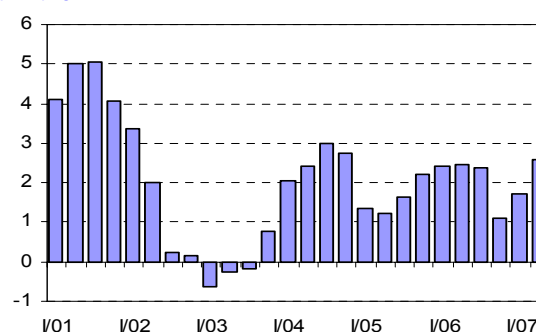
y-o-y growth in %



Source: Czech Statistical Office

Chart 2.2: Inflation rate (HICP)

y-o-y growth in %



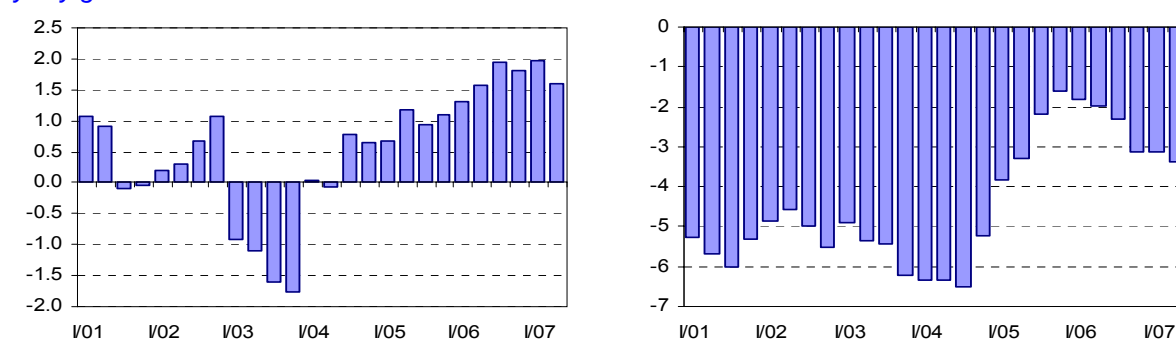
The low-inflationary environment in the Czech economy has managed to continue thanks especially to credible monetary policy. An important role is also played by the highly competitive environment. In 2006, the average annual inflation rate (based on the HICP) reached 2.1%. In August 2007, consumer prices increased year-on-year by 2.6%. In addition to the administrative impact, the prices of energy and food contributed most to HICP growth. Over the long term, CPI inflation has been pulled, in particular, by housing costs.

Development on the labour market has also been positive. Employment (according to ESA 95) has been increasing since Q3 2004. In Q2 2007, growth reached 1.6%. The dynamics of labour productivity growth has been continuing. The unemployment rate, according to the

⁵ Based on the available data as of 15 September 2007; commodity prices on world markets after this date are not taken into account.

Labour Force Survey, topped out at 8.4% in Q1 2004, and since this time, has sharply declined in relation to economic growth. It fell to 5.3% in Q2 2007, which is a decrease of 1.8 percentage points year-on-year and the lowest level in the last almost 10 years. Besides the cyclical effects, the structural characteristics have also apparently shown a slight improvement.

Chart 2.3: Employment (according to ESA 95) y-o-y growth in % **Chart 2.4: Current account/GDP in %**



Source: Czech Statistical Office, Czech National Bank

The external economic imbalance, expressed by the share of the current account balance in GDP has been within a sustainable range. Although it had slightly worsened in Q2 2007 against year-end 2006 by 0.3 of a percentage point to -3.4 %, the surplus for the balance of goods and services, on the contrary, increased by 0.7 of a percentage point to 2.8% of GDP. The main source of the current account deficit has been the outflow (repatriation) of income from foreign direct investment.

2.3 The Medium-Term Scenario

Potential GDP and the position within the economic cycle

The current dynamic economic growth is both structural and cyclical in character⁶. Increasing economic potential is generated by rapid growth in the trend components of total factor productivity.

⁶ Calculations of potential GDP and the output gap are currently made using the national methodology also based on the Cobb-Douglas production function. The methodology was described in the 2002 Pre-Accession Economic Programme. The main distinction from the European Commission's method, important for interpreting the results, is the use of the clause "zero sum of output gaps over time".

Chart 2.5: Output gap
in % of potential GDP

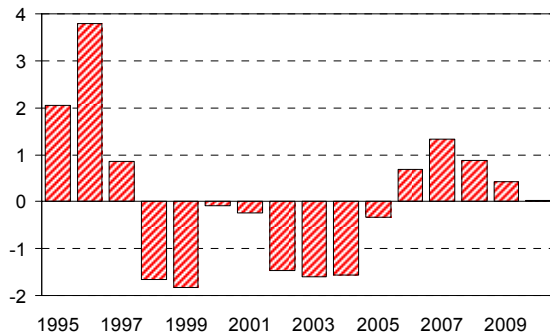
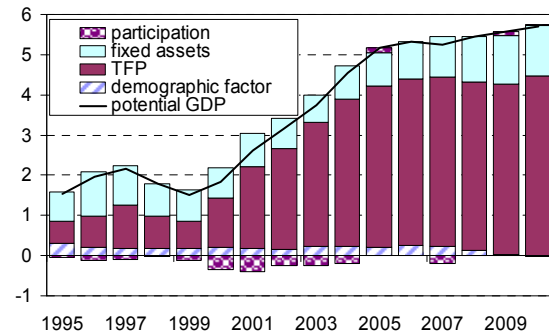


Chart 2.6: Potential GDP growth
contribution to growth in percentage points



Source: Calculations of the Ministry of Finance

The programme scenario is based on the assumption that the potential growth rate will be above 5.0% with a slight tendency towards acceleration and will reach 5.7% in 2010. Total productivity growth is based, in particular, on the improvement in institutional parameters in the economy and the quality of the business environment and on introducing new technology related to the inflow of foreign direct investment. The continued integration into the EU economic structures remains a long-term growth factor.

The contribution of capital stock growth will be above one percentage point and will, therefore, reflect the high level of investment in the Czech economy. On the contrary, the positive contribution of an increase in the number of persons in their productive years will be gradually reversed. The impact of the participation rate for 2007 will apparently register negative values. In the years to follow, it should again become positive thanks to increased work motivation as a result of economic reform.

We assume that macroeconomic policies will be set in such a way that economic performance and potential GDP will approach the same level by the end of the period.

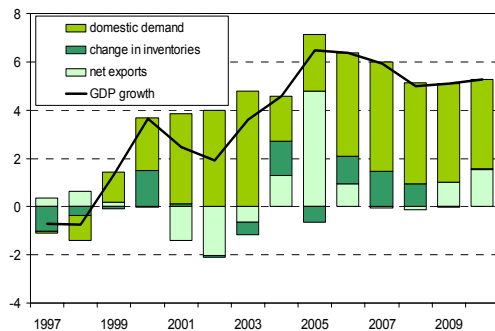
GDP and the demand side

Real GDP growth should be in a range of 5% in the period up to 2010. Domestic demand’s contribution to growth (without the change in inventory) should decline from 4.5 percentage points in 2007 to 3.7 percentage points in 2010.

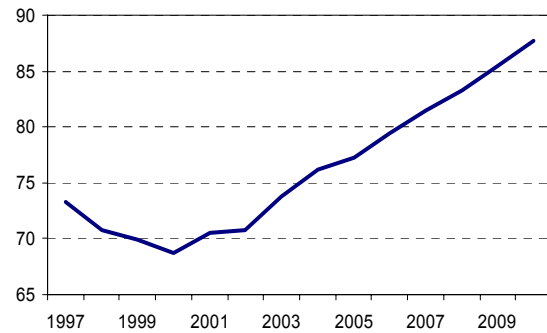
The growth trajectory of potential GDP implies that the process of economic convergence with the neighbouring advanced EU countries will continue. The Czech Republic’s economic level (GDP per capita in purchasing power parity) in comparison with the EU-27 will increase by about 8.0 percentage points against 2006 to ca 88% in 2010.

Chart 2.7: Decomposition of GDP growth

Contribution to growth in percentage points

**Chart 2.8: GDP per capita**

calculated in purchasing power parity, EU-27 = 100



Source: Czech Statistical Office – quarterly national accounts, Eurostat, calculations of the Ministry of Finance

Household consumption growth (including non-profit institutions) will begin to fall behind the growth rate for economic performance starting in 2008. The effects of the Act on Stabilisation of Public Finances will play a role here. In addition, the debt burden of households will reduce the growth rate of expenditures for final consumption.

Government consumption should be flat or even slightly decrease in the future. Government institutions are expected to behave economically with respect to employment in the general government as well as the purchase of goods and services. The decline in expenditures will be slightly curbed by the costs associated with the Czech Republic's EU presidency in 2009.

Table 2.2: Economic growth

CZK billion, increase in %

	ESA code	Year	Year	Year	Year	Year	Year
		2006	2006	2007	2008	2009	2010
		level ¹⁾	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	3186	6.4	5.9	5.0	5.1	5.3
2. Nominal GDP	B1*g	3220	7.5	9.6	8.3	7.6	7.6
Components of real GDP							
3. Private consumption expenditure	P.3	1530	4.4	6.5	4.2	4.6	4.2
4. Government consumption expenditure	P.3	669	1.1	-0.6	-0.4	-0.3	-0.5
5. Gross fixed capital formation	P.51	803	7.6	6.0	9.0	7.8	7.2
6. Changes in inventories and net acquisition of valuables	P.52+P.53	61	1.9	3.0	3.7	3.8	3.6
7. Exports of goods and services	P.6	2497	15.9	13.2	11.9	12.9	13.5
8. Imports of goods and services	P.7	2374	15.2	13.9	12.7	12.4	12.4
Contribution to real GDP growth							
9. Final domestic demand			4.3	4.5	4.2	4.1	3.7
10. Change in inventories and net acquisition of valuables	P.52+P.53		1.1	1.5	0.9	0.0	0.0
11. External balance of goods and services	B.11		1.0	-0.1	-0.1	1.0	1.5

Note: 2006 levels are given in prices for the previous year.

Item 6 expresses the share of the change in inventories to GDP in current prices.

Source: Czech Statistical Office – quarterly national accounts, calculations of the Ministry of Finance

Following a temporary slowdown in investment activities in 2007, the dynamics should be renewed primarily due to the continued inflow of foreign direct investment. The tax reform measures should also stimulate the investment processes, while new capacities are expected to be primarily export oriented. A higher drawdown of resources from the structural funds and the Cohesion Fund in support of small and medium-size enterprises and channelled into infrastructure investment by way of co-financed public budgets should also have a positive impact.

The contribution of the trade balance for goods and services in constant prices to GDP growth has achieved positive figures since 2004. We expect figures of around zero for 2007 and 2008. Along with the rise in new capacities and weakening of domestic demand growth, another increase in the contribution of foreign trade can be expected in upcoming years to values above 1.0 percentage point during a rapid increase in the share of foreign trade turnover in GDP.

Prices

Table 2.3: Prices of goods and services

	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
Percentage changes					
HICP	2.1	2.4	3.9	2.3	2.1
GDP deflator	1.1	3.5	3.1	2.3	2.2
Consumption of households deflator	1.6	2.0	3.5	2.1	2.2

Source: Czech Statistical Office – price statistics and quarterly national accounts, calculations of the Ministry of Finance

The low-inflationary character of the Czech economy should be preserved in future years as well. The positive influence of the inflation targeting regime, which guides the inflation expectations of economic agents, and the high level of competition on the internal market have contributed to this development. Other anti-inflationary factors include the continued appreciation of the Czech koruna and smooth non-inflationary growth of unit labour costs. Nevertheless, the prices of electricity will rise. We expect a growth tendency for food prices in relation to using raw materials such as organic fuels. The market fluctuation of other prices should remain moderate.

In 2008, we anticipate a temporary, one-time increase in the HICP to 4.0%. This will be caused by the large contribution of administrative measures (around 3.0 percentage points to the December year-on-year growth in the national CPI methodology) primarily associated with reform measures. From the standpoint of individual items, it will concern, in particular, an increase in the reduced VAT rate (0.8 of a percentage point), an increase in excise taxes on cigarettes (0.6 of a percentage point), an increase in electricity prices (0.4 of a percentage point), a rise in regulated rent (0.4 of a percentage point) and introducing ecology taxes (0.2 of a percentage point).

In future years, we expect inflation expectations to gradually approach the CNB's new inflation target (national CPI of 2%) effective from 2010. This creates conditions for meeting the inflation convergence criterion with the assumption that prices in certain EU member states will not significantly deviate downwards from the ECB's definition of price stability.

During the monitored period, growth of the implicit GDP deflator should stabilise slightly above 2.0% close to HICP growth.

Chart 2.9: HICP
y-o-y growth in %

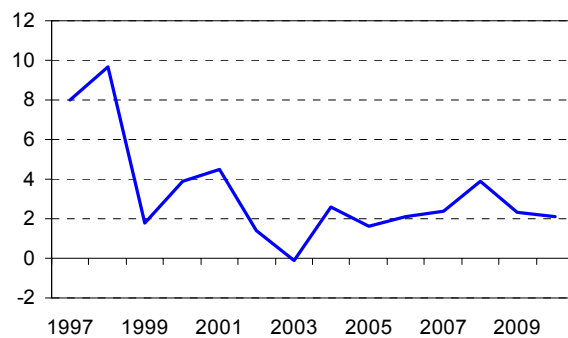
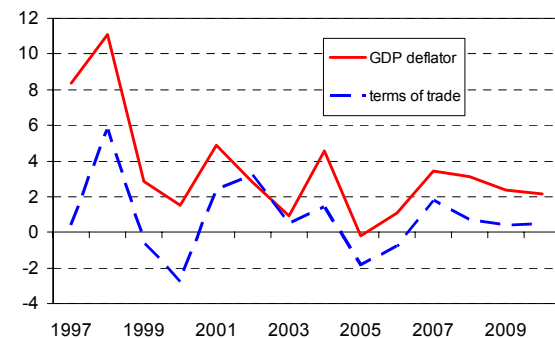


Chart 2.10: GDP deflator and terms of trade
y-o-y growth in %



Source: Czech Statistical Office – price statistics and quarterly national accounts, calculations of the Ministry of Finance

The labour market and wages

The positive development of labour market indicators is primarily the result of the favourable position in the economic cycle. However, structural problems are still present and are reflected in the strong regional disparity. The reasons behind this development are low professional and regional mobility, the lack of motivation of low-income groups to seek work actively, the rigidity of labour contracts concluded for indefinite periods, and the still underdeveloped mortgage market. The problems on the labour market also signal the growing number of job vacancies, which is the highest in the history of the market economy in the Czech Republic.

The demand side of the labour market will still be affected, in particular, by high economic growth in the scenario period. The newly approved set of measures geared to stabilising public finances, which will increase work motivation, will have a positive impact on the demand side, and in particular, on the supply side. In addition to reducing the burden of direct taxes, there will also be changes in the area of social benefits in 2008, which should increase the public accountability of the benefit system and prevent its abuse.

Table 2.4: Employment and wages

	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
Percentage changes					
Employment (ESA 95)	1.7	1.5	1.1	0.5	0.2
Compensation of employees	7.5	9.2	7.3	7.1	7.0
Compensation per employee ¹⁾	5.7	7.7	6.5	6.9	7.0
Unit labour costs ²⁾	1.0	3.2	2.6	2.2	1.8
Per cent					
Unemployment rate ILO	7.1	5.5	4.8	4.5	4.5
Employment rate ³⁾	65.3	66.0	66.6	66.9	67.1
Activity rate ⁴⁾	70.3	69.8	69.9	70.0	70.2

¹⁾ Compensation per employee (Czech concept) according to national accounts

²⁾ Ratio of nominal compensation per employee and labour productivity growth from real GDP

³⁾ Share of total employment in the population (both 15 to 64 years old) according to the Labour Force Survey

⁴⁾ Share of the labour force in the population (both 15 to 64 years old) according to the Labour Force Survey

Source: Czech Statistical Office – employment statistics and quarterly national accounts, calculations of the Ministry of Finance

We anticipate an additional rise in employment in the future, due mainly to the integration of foreigners and persons outside the labour force. The unemployment rate in 2008 should drop to 4.8% and to 4.5% in following years. This value can be considered to be the maximum limit.

Chart 2.11: Employment, participation rates
in %

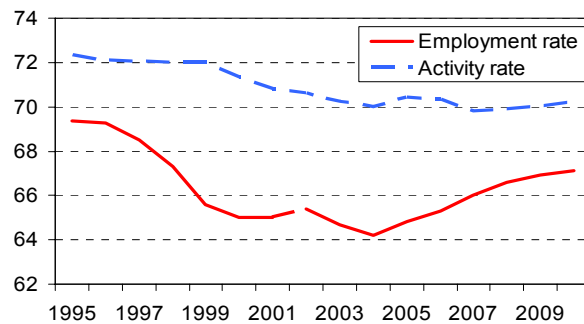
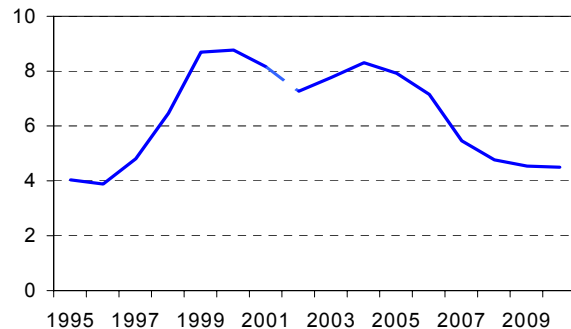


Chart 2.12: Unemployment rate
in %



Note: The employment and unemployment rate and economic activity from the Labour Force Survey is not comparable between 2001 and 2002 due to changes in methodology.

Source: Czech Statistical Office – employment statistics, calculations of the Ministry of Finance

The growth rate dynamics of compensation of employees strengthened at the beginning of 2007, which should have only been a one-off event. In 2008, the increase in labour supply should curb wage pressures. Considering that the reduction in income taxes will have less of an effect than the measures relating to social benefits, there will be an overall slowdown in disposable income growth in nominal and especially real terms, which will be reflected in lower household consumption growth. In the income structure of households, there will be a positive shift in proportion in favour of the share of incomes from labour, adjusted for taxes and contributions to social security, and to the detriment of social benefits.

In future years, we anticipate smooth development with respect to growth in unit labour costs to the level of GDP deflator growth, which should not cause inflation pressures.

2.4 Net Lending/Borrowing and Sectoral Balances⁷

We anticipate a gradual improvement in the net lending balance from a deficit just below 3.0% of GDP in 2005 and 2006 to a surplus in 2010 for the first time in the history of the Czech Republic.

A surplus in the non-fuel component of the balance of goods should steadily rise thanks to increasing export performance and an improvement in the competitiveness of domestic producers. New capacities with a large export potential have had an impact, mainly in the automobile industry, information and communication technologies and with respect to the

⁷ In accordance with the rules of the “Code of Conduct”, this section is prepared using the methodology of national accounts. On the basis of the relationship between investments and savings, this allows the complete disaggregation of a surplus or deficit in foreign relations to the individual economic sectors. This differs from the analogical, ordinarily employed methodology of the balance of payment’s current account in the categorisation of some transactions and in the fact that it contains additional items (capital transfers, acquisition of non-produced, non-financial assets).

substitution of imported intermediate products with domestic products. In the fuel component of the balance, the declining koruna prices of mineral fuels should have a positive effect. As for the balance of services, we expect a stable surplus in the share in GDP with continued improvements in the balances for transportation and tourism and deterioration for so-called other services.

The most significant negative component in net lending will be the worsening balance of primary incomes, which reflects the increasing flow of repatriated and reinvested profits from direct investment and compensation of foreign employees. The balance of current and capital transfers will be positively affected by the balance of financial flows from the EU thanks to the contributions from the structural funds, the Cohesion Fund and those supporting agriculture and regional development.

Table 2.5: Net lending/borrowing

	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
% of GDP					
Balance of goods and services	3.2	4.2	4.3	5.2	6.6
- mineral fuels (SITC 3)	-4.3	-3.5	-3.5	-3.0	-2.6
- other goods	6.4	6.5	6.6	7.0	8.0
- services	1.1	1.2	1.2	1.2	1.2
Balance of primary income and transfers	-6.2	-6.9	-6.6	-6.6	-6.5
- primary income	-5.4	-6.5	-6.8	-7.1	-7.3
- transfers	-0.8	-0.4	0.2	0.4	0.8
Capital transfers	0.3	0.2	0.7	0.9	1.0
Net acquisition of non-produced assets	0.0	-0.1	-0.1	-0.1	-0.1
Net lending/borrowing vis-a-vis ROW (B.9)	-2.7	-2.6	-1.7	-0.6	1.0
Net lending/borrowing of the private sector	0.0	1.0	1.2	2.0	3.3
- households	-0.6	-1.2	-1.6	-1.0	-0.4
- financial and non-financial institutions	0.5	2.2	2.8	3.0	3.7
Net lending/borrowing of general government	-2.7	-3.6	-2.9	-2.6	-2.3

1) e.g. payments for licences, patents and trademarks

Source: Czech Statistical Office – annual national accounts, calculations of the Ministry of Finance

As for the specific sector contributions to net lending in the economy, the general government's position should improve after 2007. The position of households will continue to show a deficit due to substantial housing investments, which will be higher than generated savings. The main improvements could be expected in the sector of financial and non-financial institutions.

2.5 The Growth Implications of Structural Reforms

The CP contains the assessed effects of the approved reform measures in accordance with the National Reform Programme. These measures will bring a one-off negative impulse in 2008 that will be reflected especially in slowed household consumption growth. In the medium-term horizon, we expect the prevalence of effects contributing to an increase in the potential growth of the Czech economy.

A combination of reform measures will bring positive effects to the labour market as well. A reduction in direct taxation and increasing the accountability of social benefits will encourage

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work motivation. This will reflect a turn in the trend of participation rate. Labour should thus once again register a positive contribution to potential GDP growth.