

2 Macroeconomic Scenario

The large dispersion of the potential future development of exogenous parameters is markedly increasing the level of uncertainty for the CP's macroeconomic scenario. Although it was drawn up to be realistic and conservative and with an effort to balance potential positive and negative divergence of economic development, given the current state¹ of knowledge it is not possible to estimate either the gravity of global economic problems or the duration, extent and subsequent impacts of the crisis situation on the Czech economy.

2.1 The World Economy and Technical Assumptions²

The world economy is passing through a turbulent period of crisis on financial markets, which is significantly complicating the formulation of actual expectations for future global development. At best, the US economy and a number of European economies will stagnate in 2009. Asian economies, especially those of China and India, will continue to grow markedly.

Economic growth in the EU-27 has been slowing since 2006. Considering the development on financial and equity markets as well as the decline in export dynamics, which significantly drive growth in the EU, the bottom of the economic cycle should clearly be reached during 2009. In the subsequent period, a gradual recovery can be expected. The new member states will likely continue to grow at a faster pace than will the old members.

Although the USD price for oil at present has certainly fallen from record levels above USD 140, it will likely remain at a high level even in coming years. The drop in demand in advanced countries will be compensated particularly by consumption growth in Asian economies, which should limit the possibility of a larger price decline.

Table 2.1: Exogenous assumptions of the scenario

	Year	Year	Year	Year	Year
	2007	2008	2009	2010	2011
USD/EUR exchange rate	(annual average) 1,37	1,49	1,39	1,35	1,35
CZK/EUR exchange rate	(annual average) 27,8	24,9	24,7	24,2	23,7
Government bond yield to maturity 10Y	4,28	4,65	4,43	4,26	4,24
PRIBOR 3M	3,09	3,96	3,76	3,71	3,39
GDP EU 27	(real growth in %) 2,9	1,4	0,9	1,7	2,0
Oil prices	(Brent, USD/barrel) 72,7	113	120	115	115

Source: Eurostat, IMF, Ministry of Finance calculations.

The risk to this scenario is the possibility for further deepening of the financial markets crisis, which would lead to a prolonged recession in the US as well as EU economies.

A technical assumption for a stable 1.35 USD/EUR exchange rate from 2010 was chosen. The CZK/EUR exchange rate should appreciate gradually and moderately to 23.50 CZK/EUR in

¹ The CP was prepared on the basis of data available as of 1 October 2008. The development on world financial and commodities markets after that date is not taken into consideration.

² For technical reasons, it was not possible to use "common assumptions on the external environment" in preparing the CP. The European Commission forecast from spring, 2008 was, for obvious reasons, already outdated and the definitive assumptions of the autumn forecast were not yet known at the time of preparing the macroeconomic scenario (the start of October 2008). Therefore, the CP was supplemented by a sensitivity analysis for certain macroeconomic indicators based on the exogenous variables in Section 4.

2011, which is consistent with the lead in productivity growth over the Eurozone countries. The assumptions on short-term interest rates were chosen to be consistent with meeting the CNB's inflation target.

2.2 Current Macroeconomic Development

During 2005 to 2007, the Czech economy went through a period of rapid GDP growth, averaging 6.6% annually. A slowing occurred in H1 2008, as expected, and that to 4.9%. Whereas the main source of economic growth in 2006 and 2007 was domestic demand driven by households spending on final consumption and by gross capital formation, the main factor in H1 2008 was foreign trade with a contribution of 3.1 percentage points. In contrast, domestic demand slowed, and that was due to both the effect of decelerating household consumption and the considerable decline in the growth dynamics of gross fixed capital formation. The potential GDP growth rate was 5.2% in H1, driven especially by the high contribution from total factor productivity. The positive output gap, which reached its peak in Q4 2007, is beginning to close and amounted to ca 1.6% in H1.

Chart 2.1: Real GDP

y-o-y growth in %

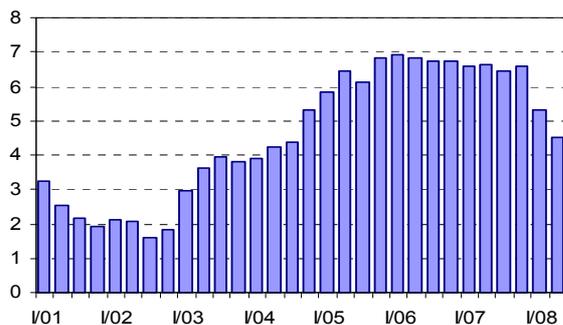
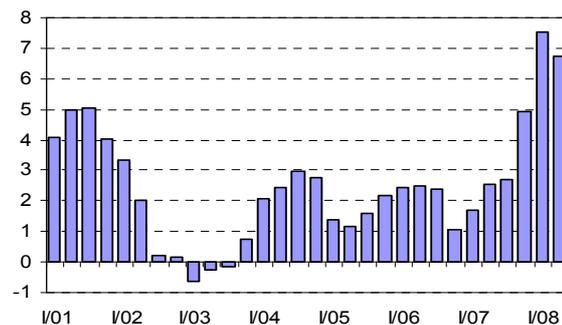


Chart 2.2: Inflation rate (HICP)

y-o-y growth in %



Source: Czech Statistical Office.

The low-inflationary environment that had been typical for the Czech economy in the years of high economic growth receded in Q4 2007. The average inflation rate reached 7.5% and 6.7% (on an HICP basis) in Q1 and Q2, respectively. The main factors behind the high price dynamics are administrative measures, which contributed to year-on-year inflation growth during H1 2008 by more than half, and the high prices of energy and food on world markets.

Due to improvement in the structural characteristics of the labour market and the impact of the cyclical development in the Czech economy, employment has been increasing since Q3 2004 (SNA basis). In Q2 2008, growth in the employment rate reached 1.7%. The positive development on the labour market has also been seen in a drop in the unemployment rate. Since Q1 2004, when the unemployment rate (according to the Labour Force Survey) reached 8.7%, its value has gradually fallen to 4.2% in Q2 2008.

The external economic imbalance, expressed by the current account balance as a proportion of GDP, has been within a sustainable range. In Q2 2008, the current account deficit amounted to 2.5% of GDP. The Czech economy's foreign indebtedness is connected with the high investment activity, which, however, is not reflected in adequate domestic savings. The foreign indebtedness is evident in the deficit income balance in the form of high outflow of

wages, interest expenditures, and repatriated or reinvested profits. The negative income balance exceeds the otherwise positive balance of goods and services, which, in contrast, points to the solid performance of foreign trade.

Chart 2.3: Employment (SNA basis)

y-o-y growth in %

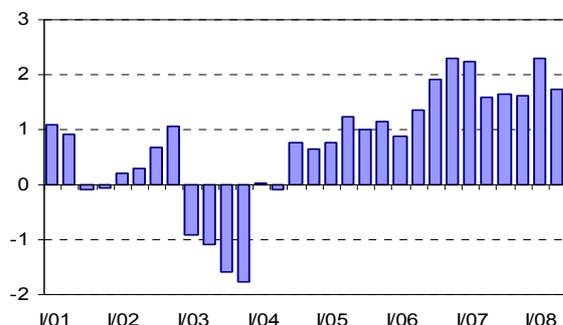
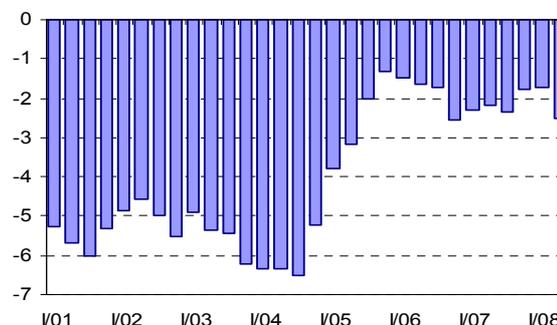


Chart 2.4: Current account/GDP

in %

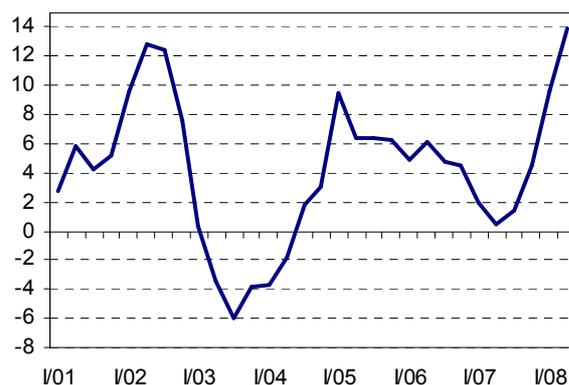


Source: Czech Statistical Office, Czech National Bank.

As measured by its actual performance and average price level, the Czech economy in the long term will draw near the EU average. A phenomenon associated with this process is the long-term strengthening of the CZK/EUR exchange rate. However, the currency's intense strengthening in H1 2008, which in Q2 reached 13.9% against the euro, did not match the trend. On one hand, the rate appreciation had a positive effect in the form of limiting the projection of rising world energy and food prices into the domestic price level, while, on the other hand, it significantly contributed to the worsening terms of trade. Thus, a solid actual contribution of foreign trade to GDP growth was achieved in H1 at the expense of worsening income conditions. This fact was reflected in the development of the real gross domestic income indicator, the growth of which was considerably lower than the GDP dynamics.

Chart 2.5: CZK/EUR exchange rate

y-o-y appreciation in %



Source: Czech Statistical Office.

One factor behind the intense strengthening of the Czech koruna in H1 2008 could be the shift of available liquidity away from American assets due to the financial crisis in the US. This also can be regarded as the only indirect effect of the continuing financial crisis recorded so far on the Czech economy. In future, we expect further indirect impact on the real economy through lower dynamics of foreign trade in connection with slowing of the world economy.

Direct impacts from unprofitable financial investments abroad and indirect impacts from the banking sphere are expected, but only in a very limited extent.

2.3 The Medium-Term Scenario

Potential GDP and the position within the economic cycle

The current economic growth results from growth in the structural component of GDP with a simultaneous decline in its cyclical component.³ Increasing economic potential is driven by a high level of addition to total factor productivity.

Chart 2.6: Output gap
in % of potential GDP

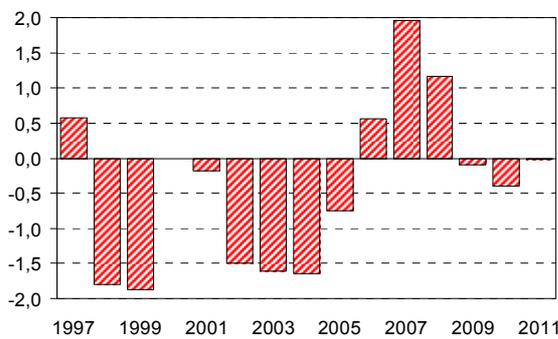
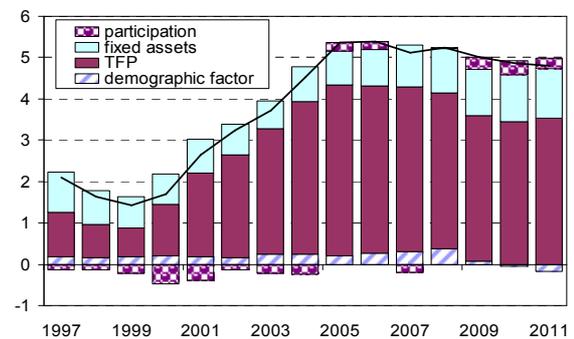


Chart 2.7: Potential GDP growth
contribution to growth in percentage points



Source: Ministry of Finance calculations.

The CP scenario is founded on the assumption that the potential growth rate will be around 5% and with a slight tendency towards deceleration. Total factor productivity will continue to contribute most significantly to its growth, and for the overall period its contribution will be above 3.5 percentage points. The continuing integration into the EU economic structures remains a growth factor. Also significant is the introduction of new technology related to the inflow of foreign direct investment. Total productivity growth also results from the improvement in the economy’s institutional parameters and the quality of the business environment.

The contribution of growth in capital stock 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 should again become positive due to increased work motivation as a result of structural measures.

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

³ Calculations of potential GDP and the output gap are currently made using the national methodology, likewise 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 “zero sum of output gaps over time” stipulation.

GDP and the demand side

After the effects of the global crisis have passed, real GDP growth should accelerate to 5.2% by 2011. Domestic demand's contribution to growth (without the change in inventories) should increase from 3.0 percentage points in 2009 to 3.7 percentage points in 2011.

The growth trajectory for 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 at purchasing power parity) in comparison with the EU-27 will increase by about 8 percentage points against 2007 to ca 90% in 2011.

Chart 2.8: Decomposition of GDP growth
contribution to growth in percentage points

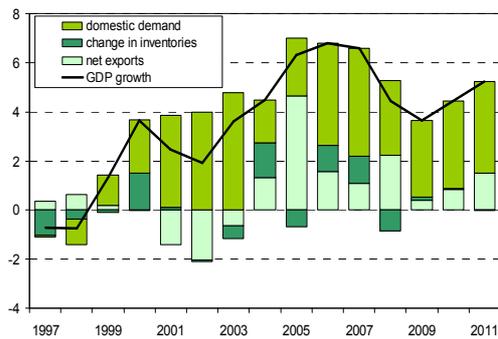


Chart 2.9: GDP per capita
calculated in purchasing power parity, EU-27 = 100



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

Household consumption growth should fall behind the growth rate for economic output, with the exception of 2009 when it should positively reflect disinflation. The increasing risks and debt burden of households will reduce the growth rate in final consumption spending.

Government consumption in future should be flat in real terms. Government institutions are expected to behave thriftily with respect to employment in the general government sector as well as in procuring goods and services. The development of expenditures will be slightly affected 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 2007 level ¹⁾	Year 2007 rate of change	Year 2008 rate of change	Year 2009 rate of change	Year 2010 rate of change	Year 2011 rate of change
Real GDP	B1*g	3427	6,6	4,4	3,7	4,4	5,2
Nominal GDP	B1*g	3551	10,4	6,9	5,8	7,4	7,7
Components of real GDP							
Private consumption expenditure	P.3	1660	5,9	3,3	3,9	4,2	4,2
Government consumption expenditure	P.3	688	0,5	1,1	0,5	0,0	0,0
Gross fixed capital formation	P.51	838	5,8	5,1	4,5	6,2	7,0
Changes in inventories and net acquisition of valuables ²⁾	P.52+P.53	96	2,7	1,6	1,9	1,7	1,7
Exports of goods and services	P.6	2822	14,6	11,6	7,1	9,3	10,7
Imports of goods and services	P.7	2676	13,8	9,3	7,1	8,8	9,7
Contribution to real GDP growth							
Final domestic demand			4,4	3,0	3,1	3,6	3,7
Change in inventories and net acquisition of valuables	P.52+P.53		1,1	-0,9	0,2	0,0	0,0
External balance of goods and services	B.11		1,1	2,2	0,4	0,9	1,5

¹⁾ Levels 2007 are stated in prices from the previous year.

²⁾ This item expresses change in inventories as a percent of GDP in current prices.

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

Following a temporary slowing of investment activities in 2009, the dynamics should be renewed. We expect a positive impact due to a higher drawdown of resources from the structural funds and the Cohesion Fund that will be channelled into infrastructure investment by way of co-financed public budgets. Resurgence in the inflow of foreign direct investment also can be expected. The tax reform measures should also stimulate the investment processes, and new capacities are expected to continue to be primarily export oriented.

The contribution of the trade balance for goods and services in constant prices to GDP growth has been positive since 2004. We anticipate a figure of 2.2 percentage points for 2008. After the global financial crisis subsides and foreign demand is restored, and along with the start-up of new capacities, another increase in the contribution of foreign trade to 1.5 percentage points can be expected during a rapid increase in foreign trade turnover's share in GDP.

Prices

The long-term low-inflationary character of the Czech economy (with the exception of 2008) 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 appreciation of the Czech koruna and smooth non-inflationary growth of unit labour costs.

Table 2.3: Prices of goods and services

	Rok 2007	Rok 2008	Rok 2009	Rok 2010	Rok 2011
Procentní změna					
HICP	3,0	6,4	2,9	3,0	2,5
Deflátor HDP	3,6	2,4	2,1	2,9	2,4
Deflátor spotřeby domácností	2,8	5,8	2,5	2,8	2,2

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

The increase in the average inflation rate as measured by HICP to about 6.4% in 2008 is a transient, one-time occurrence. This was caused by the combination of increasing global fuel and food prices and the large contribution of administrative measures (around 4.0 percentage points). The latter included increases in the reduced VAT rate, in excise taxes on tobacco products, and in regulated rent and energy prices.

In coming years, we expect inflation expectations to gradually approach the CNB's new inflation target (national CPI of 2% with a 1 point tolerance band) effective from 2010. This creates conditions for meeting the inflation convergence criterion.

Chart 2.10: HICP

y-o-y growth in %

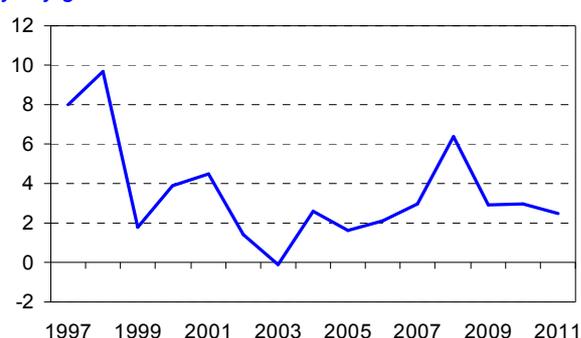
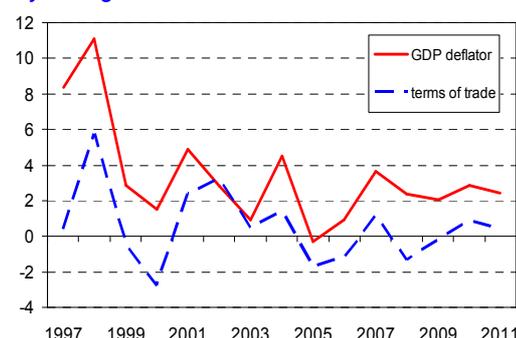


Chart 2.11: GDP deflator and terms of trade

y-o-y change in %



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

During the forecast time horizon, growth of the implicit GDP deflator should stabilise slightly above 2.5%, close to HICP growth.

The labour market and wages

The development of labour market indicators primarily results from the favourable position in the economic cycle. Certain structural problems still persist, however, and these are reflected especially in regional disparities. The reasons behind this development are low professional and regional mobility, the persisting lack of motivation for low-income groups actively to seek work, and the rigidity of labour contracts concluded for indefinite periods. Problems on the labour market are indicated also in the high number of job vacancies.

Table 2.4: Employment and wages

	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011
Percentage changes					
Employment (ESA 95)	1,8	1,7	0,7	0,3	0,3
Compensation of employees	9,1	9,1	8,0	6,9	7,5
Compensation per employee ¹⁾	7,1	7,3	7,3	6,7	7,3
Unit labour costs ²⁾	2,2	4,5	4,3	2,4	2,3
in %					
Unemployment rate ILO	5,3	4,4	4,4	4,6	4,7
Employment rate ³⁾	66,1	66,6	67,1	67,3	67,7
Activity rate ⁴⁾	69,9	69,8	70,3	70,6	71,2

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

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

³⁾ Share of 15-to-64-year-old employment to population of the same age, according to the Labour Force Survey.

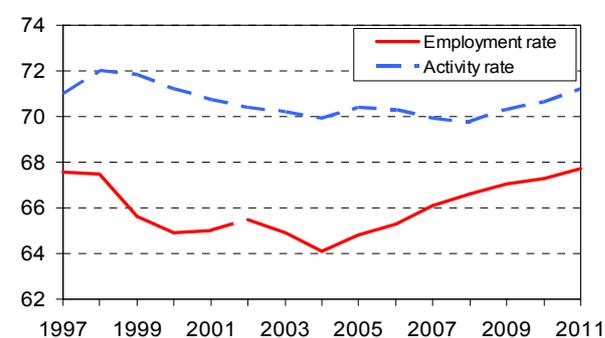
⁴⁾ Share of 15-to-64-year-old labour force to population of the same age, according to the Labour Force Survey.

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

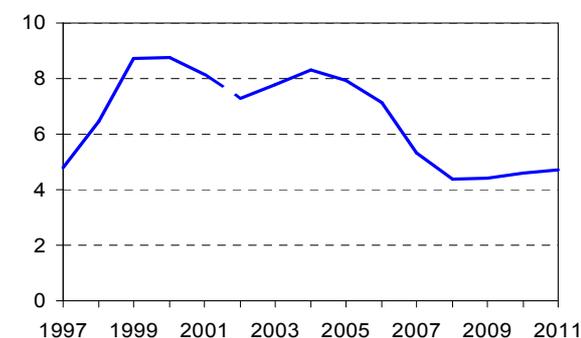
The demand side of the labour market will continue to be effected by relatively strong economic growth in the scenario period. Further reduction of the tax burden on labour and changes in the area of benefits for the unemployed and for those who have dropped out of the labour force, which should further strengthen motivation and prevent abuse of the system, will have a positive impact on the demand side as well as the supply side.

Chart 2.12: Employment, participation rates **Chart 2.13: Unemployment rate**

in %



in %



Note: The employment and unemployment rates from the Labour Force Survey are not comparable between 2001 and 2002 due to changes in methodology.

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

We anticipate a modest rise in employment in the future, due mainly to the integration of persons outside the labour force and of foreigners. The unemployment rate should increase slightly towards its structural level, from 4.4% in 2008 to 4.7% in 2011.

The growth rate in the dynamics of employees' compensation strengthened at the beginning of 2008, which should only have been a one-off event linked to the tax-optimisation shifts between 2007 and 2008. In future years, we expect a slowing in the growth of unit labour costs given the accelerating increase in labour productivity while there will be approximately constant growth in unit compensation of employees.

2.4 Net Lending/Borrowing and Sectoral Balances⁴

The process of gradual improvement in the net lending balance should continue despite the unfavourable effects from the external environment. After a deficit of –6.3% of GDP in 2003, the balance is currently around –1.0% of GDP, and it could achieve a surplus in 2010 for the first time in the history of the Czech Republic.

The increasing trend of the surplus in the non-fuel component of the goods balance should be halted in 2009 by the effect of limiting external demand. In future years, the surplus should again steadily rise thanks to better export performance and an improvement in the competitiveness of domestic producers. In the fuel component of the balance, the declining koruna prices of mineral fuels should have a positive effect after 2009. As for the services balance, we expect a slightly increasing surplus as a share of GDP.

Table 2.5: Net lending/borrowing

	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011
% of GDP					
Balance of goods and services	5,0	5,4	5,4	6,7	8,1
- mineral fuels (SITC 3)	-3,5	-4,4	-4,9	-4,5	-4,1
- other goods	6,9	7,8	8,2	8,8	9,4
- services	1,6	2,0	2,1	2,4	2,8
Balance of primary income and transfers	-6,5	-7,8	-7,5	-8,0	-8,6
- primary income	-6,0	-8,0	-8,3	-8,7	-9,3
- transfers	-0,5	0,2	0,7	0,8	0,7
Capital transfers	0,7	1,3	1,6	1,7	1,6
Net lending/borrowing vis-a-vis ROW (B.9)	-0,8	-1,0	-0,5	0,4	1,2
Net lending/borrowing of the private sector	0,2	0,2	1,1	1,9	2,4
Net lending/borrowing of general government (EDP B.9)	-1,0	-1,2	-1,6	-1,5	-1,2

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

The most significant negative component in net lending is – and will continue to 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 (structural funds, the Cohesion Fund, and resources supporting agriculture and regional development).

2.5 The Growth Implications of Structural Reforms

The CP implicitly contains the calculated effects of the reform measures approved in accordance with the National Reform Programme. These measures should contribute to an increase in the Czech economy's potential growth in the medium-term horizon.

⁴ In accordance with the rules of the “Code of Conduct”, this section is prepared using the national accounts methodology. Based on 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 analogous, customarily employed methodology of the balance of payments current account on the one hand in its categorisation of some items and on the other in the fact that it contains additional items (capital transfers; acquisition of non-produced, non-financial assets).

2 Macroeconomic Scenario

A combination of reform measures will bring positive effects especially to the labour market. Reducing direct taxation and increasing the accountability for social benefits will support the motivation to work. This will be reflected in a turn in the tendency of the economic activity rate, which should thus once again register a positive contribution to potential GDP growth.