

4 Comparison with the Previous Convergence Programme and Sensitivity Analysis

4.1 Comparison with the Macroeconomic Scenario of the Previous Convergence Programme

The differences between the macroeconomic scenarios of this year's programme and last year's programme ensue especially from the fact that the global financial and economic crisis hit the world and Czech economy to an extent such that at the time of compiling CP 2008 could not have been expected either by the Ministry of Finance of the Czech Republic or the European Commission.

Table 4.1: Change in the external assumptions of the scenario

	CP 2008			CP 2009			Difference		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
GDP growth in EU 27 (%)	1,4	0,9	1,7	0,8	-4,0	1,1	-0,6	-4,9	-0,6
Prices of oil (USD / barrel)	113	120	115	98	62	81	-15	-58	-34
Exchange rate USD / EUR	1,49	1,39	1,35	1,46	1,39	1,44	-0,03	0,00	0,09

Source: Ministry of Finance.

CP 2008 assumed only a slight slowdown in the Czech economy's growth for 2009 and perceived the possibility of deeper economic problems only as a risk scenario, not as the most likely possibility. The deep recession and anticipated subsequent slow recovery are reflected in the differing current and future developments of key labour market indicators and the individual components of GDP. CP 2008 also could not have foreseen the introduction of economising budgetary measures.

Table 4.2: Change in the indicators of the macroeconomic scenario

	CP 2008			CP 2009			Difference (p.p.)		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Growth in real terms (in %)									
GDP	4,4	3,7	4,4	2,5	-4,0	1,3	-1,9	-7,7	-3,1
Households consumption	3,3	3,9	4,2	3,6	1,4	-0,8	0,3	-2,5	-5,0
Government consumption	1,1	0,5	0,0	1,0	4,0	-1,7	-0,1	3,5	-1,7
Gross fixed capital formation	5,1	4,5	6,2	-1,5	-7,5	-3,7	-6,6	-12,0	-9,9
Contribution of domestic demand (pp)	2,2	3,3	3,6	1,2	-3,5	-0,2	-1,0	-6,8	-3,8
Contribution of foreign trade (pp)	2,2	0,4	0,9	1,3	-0,6	1,5	-0,9	-1,0	0,6
Potential product	5,2	5,0	4,8	3,6	3,1	2,5	-1,6	-1,9	-2,3
Output gap (%)	1,2	-0,1	-0,5	2,5	-4,6	-5,6	1,3	-4,5	-5,1
Growth (in %)									
HICP	6,4	2,9	3,0	6,3	0,6	1,8	-0,1	-2,3	-1,2
GDP deflator	2,4	2,1	2,9	1,8	3,1	0,5	-0,6	1,0	-2,4
Employment	1,7	0,7	0,3	1,2	-1,3	-1,6	-0,5	-2,0	-1,9
Unemployment rate (level in %)	4,4	4,4	4,6	4,4	6,7	8,8	0,0	2,3	4,2
Exchange rate CZK/EUR (level)	24,9	24,7	24,2	24,9	26,5	25,8	0,0	1,8	1,6
Balance of goods and services (in % of GDP)	5,4	5,4	6,7	4,6	6,0	6,8	-0,8	0,6	0,1
Net lending/borrowing (in % of GDP)	-1,0	-0,5	0,4	-2,4	-0,2	1,0	-1,4	0,3	0,6

Source: Ministry of Finance.

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The marked slowdown in household consumption growth in 2009 and its expected decline in 2010, the drop in employment and resulting decrease in the wage bill and the decrease or stagnation in compensation of employees, the increase in unemployment, and the economy's almost non-inflationary development can be regarded as the most significant divergences from a fiscal point of view. These negative divergences in growth rates in 2009 and 2010 will be evidenced in coming years by reduction in the level of tax bases.

4.2 Comparison with the Fiscal Framework of the Previous Convergence Programme

The fiscal scenarios for last year's and this year's CP updates are compared in Table 4.3. In 2008, the general government balance as well as general government debt achieved less favourable values than expected. This was caused particularly by the economic development in the second half of the year. Due to the insufficient reduction in expenditure frameworks and/or increasing of tax revenues, significantly higher deficit and debt levels than predicted in last year's CP update can be expected in the coming years as well.

Table 4.3: Comparison with the previous convergence programme

% of GDP	ESA code	Year 2008	Year 2009 (1)	Year 2010 (2)	Year 2011 (2)	Year 2012 (2)
Real GDP growth (%)						
Previous update		4,4	3,7	4,4	5,2	.
Current update		2,5	-4,0	1,3	2,6	3,8
Difference		-2,0	-7,7	-3,1	-2,6	.
General government net lending						
Previous update	EDP B.9	-1,2	-1,6	-1,5	-1,2	.
Current update	EDP B.9	-2,1	-6,6	-5,3	-4,8	-4,2
Difference		-0,9	-5,0	-3,7	-3,6	.
General government gross debt						
Previous update		28,8	27,9	26,8	25,5	.
Current update		30,0	35,2	38,6	40,8	42,0
Difference		1,2	7,3	11,7	15,3	.

(1) Forecast, notifications (October 2009).

(2) Outlook.

Source: Ministry of Finance.

4.3 Sensitivity Analysis

At present, the Czech economy is passing through an unfavourable period in connection with the economic crisis. Considering the nature of the Czech Republic as a small and open economy, future development depends for the most part on the recovery of major trading partners' economies, especially the European economies. With regard to the risk of future development in the EU, we have analysed the dependence of the Czech economy on various economic growth scenarios for Europe.

The sensitivity analysis is made with two scenarios. The pessimistic scenario is based on the assumption of poorer development of economic growth in the EU, defined as 1 percentage

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point lower growth in real GDP and taken into account with the start of 2010. The optimistic scenario symmetrically assumes 1 percentage point higher growth in real GDP.

Simulation results

Positive effects on the Czech economy are seen within the optimistic scenario of higher growth in the EU due to higher exports, more than 80% of which are bound for EU countries. The higher foreign demand for exports is reflected in higher GDP growth and is projected into a lower unemployment rate. On the other hand, the impact on inflation is very moderate. This is due to offsetting effects in the form of real wages growth and lower import prices as a result of the Czech crown's appreciating exchange rate.

The impact on government finances can be observed in the more moderate deficit. The causes come both from the revenues side in the form of higher tax collection and from the expenditures side due to the slightly lower expenditures on unemployment benefits. The improved deficit is then reflected in the slower accumulation of government debt.

Table 4.4: Basic macroeconomic indicators – baseline scenario

		Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Gross domestic product						
Gross domestic product	volumes, y/y in %	2,5	-4,0	1,3	2,6	3,8
Inflation	y/y in %	6,3	1,0	2,0	1,8	2,0
Unemployment rate	in %	4,4	6,7	8,8	8,6	7,6
Government deficit	in % of GDP	-2,1	-6,6	-5,3	-4,8	-4,2
Gross government debt	in % of GDP	30,0	35,2	38,6	40,8	42,0
Current account	in % of GDP	-3,1	-1,0	0,5	-0,2	0,2

Source: Ministry of Finance.

NB: Consumer Price Index according to the national methodology (different from HICP methodology)

Table 4.5: Basic macroeconomic indicators – optimistic scenario

		Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Gross domestic product						
Gross domestic product	volumes, y/y in %	2,5	-4,0	2,4	4,0	4,8
Inflation	y/y in %	6,3	1,0	2,0	1,7	2,0
Unemployment rate	in %	4,4	6,7	8,5	8,3	7,5
Government deficit	in % of GDP	-2,1	-6,6	-4,9	-4,1	-3,6
Gross government debt	in % of GDP	30,0	35,2	38,5	40,6	41,6
Current account	in % of GDP	-3,1	-1,0	2,0	1,9	2,0

Source: Ministry of Finance.

NB: Consumer Price Index according to the national methodology (different from HICP methodology)

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Table 4.6: Basic macroeconomic indicators – pessimistic scenario

		Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Gross domestic product						
Gross domestic product	volumes, y/y in %	2,5	-4,0	0,2	1,2	2,8
Inflation	y/y in %	6,3	1,0	2,0	1,8	2,0
Unemployment rate	in %	4,4	6,7	9,0	8,9	7,7
Government deficit	in % of GDP	-2,1	-6,6	-5,7	-5,5	-4,7
Gross government debt	in % of GDP	30,0	35,2	38,7	41,1	42,5
Current account	in % of GDP	-3,1	-1,0	-0,9	-2,3	-1,6

Source: Ministry of Finance.

NB: Consumer Price Index according to the national methodology (different from HICP methodology)

4.4 Verification of the Scenario by Means of Other Institutions' Forecasts

The CP's macroeconomic scenario also was verified by a comparison with the prognoses of leading relevant institutions. The survey of macroeconomic prognoses of the Czech economy (the so-called Colloquium) is regularly conducted by the Ministry of Finance of the Czech Republic twice a year. The last survey was conducted in November 2009 and its results are based on the forecasts of 15 domestic and 3 foreign institutions.

Table 4.7: Verification of CP 2009 scenario by means of other institutions' forecasts

	Average of forecasts			CP 2009			Difference (p.p.)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Growth in real terms (in %)									
GDP	1,1	2,4	3,2	1,3	2,6	3,8	0,2	0,2	0,6
Households consumption	-0,1	1,5	2,6	-0,8	2,0	2,5	-0,7	0,5	-0,1
Government consumption	0,3	1,0	1,5	-1,7	0,0	-0,4	-2,0	-1,0	-1,9
Gross fixed capital formation	-1,0	2,3	3,9	-3,7	2,5	3,6	-2,7	0,2	-0,3
Growth (in %)									
National CPI (aop)	1,5	2,2	2,4	2,0	1,8	2,0	0,5	-0,4	-0,4
GDP deflator	1,3	1,9	1,8	0,5	1,0	1,5	-0,8	-0,9	-0,3
Employment (LFS)	-1,2	0,5	1,2	-1,8	0,0	0,7	-0,6	-0,5	-0,5
Unemployment rate (LFS-level in %)	8,4	8,0	6,9	8,8	8,6	7,6	0,4	0,6	0,7

Source: Ministry of Finance.

Generally, it can be said that the CP 2009 macroeconomic scenario does not deviate greatly from the average of other institutions' forecasts. Moreover, the existing divergences can be explained in part by the fact that the macroeconomic scenario is based on more recent data.