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NOVEMBER 2005 UPDATE OF THE CONVERGENCE PROGRAMME OF THE CZECH REPUBLIC (2005-2008)

AN ASSESSMENT

(Note for the Economic and Financial Committee)

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SUMMARY AND CONCLUSIONS¹

The second update of the Czech Republic's convergence programme, covering the period 2005-2008, was submitted on 24 November 2005. The programme broadly follows the model structure for stability and convergence programmes specified in the new code of conduct and provides all compulsory and most optional data prescribed by the new code of conduct.

On 5 July 2004 the Council decided that the Czech Republic was in excessive deficit. According to the Council recommendation under Article 104(7) of the same date, the excessive deficit has to be corrected by 2008. In its opinion of 18 January 2005 on the previous update of the Czech Republic's convergence programme covering the period 2004-2007, the Council recommended the Czech Republic "to allocate higher-thanbudgeted revenues to deficit reduction and adhere strictly to the medium-term expenditure ceilings for central government, which become legally binding from 2006." Furthermore, the Czech Republic was invited "to step up the pension reform and to undertake the reform of the healthcare system to improve the long-term sustainability of the public finances."

After achieving progress in economic reforms and in stabilisation by mid-1990s, the Czech Republic experienced macroeconomic imbalances, leading to a foreign-exchange crisis in May 1997 and to an economic recession in 1997-1999. Comprehensive structural reforms in the financial and enterprise sectors helped the economy to recover from 2000. Since then, real annual GDP growth has averaged about 3%, compared to an average annual growth rate of 1.7% in the EU.

The programme presents three scenarios for the macro-economic projections: a "baseline", an "optimistic", and a "pessimistic" scenario. The "baseline" scenario is considered as the reference scenario for assessing budgetary projections. It expects annual real GDP growth to be 4.8% in 2005 and 4.4% in 2006 followed by a slight decrease to 4¼% in 2007-2008. This is broadly in line with the Commission services autumn 2005 forecasts for the years 2005-2007. For the year 2008, growth is somewhat above the Commission services' estimate of potential growth. The growth assumptions underlying the programme can thus be considered as plausible, tilted to favourable in the outer year. Due to possible overestimation of potential growth, cyclical conditions are likely to be more favourable than implied by the programme's projections. Inflation is expected to increase from 1.5% in 2005 to 2.2% in 2006 and to slightly decrease to 2.0% in 2007, which appears relatively optimistic.

¹ This technical analysis, which is based on information available up to 23 December 2005, accompanies the recommendation by the Commission for a Council opinion on the update of the convergence programme, which the College adopted on 11 January 2006. It has been carried out by the staff of and under the responsibility of the Directorate-General for Economic and Financial Affairs of the European Commission. Comments should be sent to Marek Mora (Marek.Mora@cec.eu.int). The analysis takes into account (i) the Commission services' autumn 2005 forecasts, (ii) the code of conduct (Opinion of the Economic and Financial Committee on the "Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes", endorsed by the ECOFIN Council of 11 October 2005), (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances and (iv) the broad economic policy guidelines for the period 2005-2008.

After a depreciation of the koruna/euro exchange rate by almost 15% between July 2002 and February 2004, the Czech currency joined in a regional trend of sustained appreciation until March 2005 and regained some 12% against the euro. This trend was temporarily reversed by a depreciation in March-April 2005, but the koruna resumed its appreciation trend in June 2005. Czech long-term interest rates remain low. Following their easing in the second half of 2004, the spread against the euro area fluctuated between 0 and 40 basis points for most of 2005. The convergence programme specifies that the Czech Republic is preparing for joining the euro area in 2010 and reconfirms that ERM II participation should be limited to the minimum required period. An indicative calendar for achieving full euro area membership recently published by the Ministry of Finance suggests a possible ERM II entry in the second half of 2007.

The general government deficit for 2005 is estimated at 3.2% of GDP, based on the Commission services' autumn 2005 forecasts, against a targeted deficit of 4.7% of GDP in the previous update. The deficit outcome is expected to be influenced mainly by the budgetary performance of the central government, in particular of the state budget, which recorded (on a cash basis) higher-than-planned tax revenues and an under-execution of expenditures of about 1.5% of GDP.

This update aims at reducing the general government deficit to below the 3% of GDP reference value in 2008, in line with the Council recommendation under Article 104(7). In particular, it projects the deficit to be cut by over 2 percentage points of GDP between 2005 and 2008 and the primary deficit by 2.3 percentage points. However, excluding the impact of two one-off expenditures in 2005, the improvement in the nominal deficit over the period is only 1 percentage point of GDP. The deficit reduction mainly reflects a cut in the expenditure ratio (by 2.3 percentage points of GDP) over the programme period, while revenues are broadly unchanged (-0.2 percentage point). Public consumption and social transfers are the expenditure items that are planned to decline most as a percent of GDP. Public investment is foreseen to rise strongly, from 5% of GDP in 2004 to over 6% of GDP in 2008, well above the EU average (2.5% of GDP in 2005). Compared with the previous programme, the November 2005 update broadly confirms the planned adjustment, although the underlying macroeconomic scenario is considerably stronger.

Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, the structural balance is planned to improve only slightly over the programme period (by ½ percentage points of GDP). The planned fiscal effort is back-loaded and concentrated in years in which the output gap is projected to be positive. Indeed, in 2006 the fiscal position is expected to deteriorate. The update identifies a medium-term objective (MTO) for the budgetary position as meant in the Stability and Growth Pact of a structural balance of "around -1% of GDP", which it expects to achieve by 2012.

As the programme's MTO is more demanding than the minimum benchmark (estimated at a deficit of around $1\frac{1}{2}\%$ of GDP), its achievement should fulfil the aim of providing a safety margin against the occurrence of an excessive deficit. The programme's MTO is at an appropriate level because it adequately reflects the debt ratio and average potential output growth in the long term.

The risks to the budgetary projections in the programme appear broadly balanced. On the one hand, the track record of cautious budgetary planning indicates that outcomes could be better than targeted (as was the case in 2004 and is expected by the Commission services also for 2005). The growth assumptions underlying the budgets have usually

been realistic and the assumptions about tax elasticities cautious. Moreover, budgeted expenditures have not always been fully executed, mainly due to the possibility to carry over unspent funds from previous budgetary years. On the other hand, the programme refers to several (proposed) measures in the area of social spending which would increase expenditure under this heading rather than decrease it, as projected in the programme. Moreover, expenditure carryovers of more than 1% of GDP were accumulated in 2004 and Commission services expect their volume to further increase in 2005. If these sizeable carryovers were spent in addition to all budgeted expenditures – which cannot be excluded especially in the election year 2006 – budgetary outcomes could be worse than targeted, in particular in 2006. Furthermore, the growth assumption in the final year of the programme seems favourable.

In view of this risk assessment, the budgetary stance in the programme seems consistent with a correction of the excessive deficit by 2008 as recommended by the Council, which is the end-year of the programme. However, the envisaged adjustment path in structural terms could be strengthened, especially when the possibility of a much better outcome in 2005 and the upward revision of growth prospects are taken into account..

Between 2005 and 2008, government debt is expected to increase by ½ percentage point of GDP and reach almost 38% of GDP in 2008, well below the 60% of GDP reference value. The negative effect of the primary deficit is projected to be to a large extent compensated by a positive snowball effect whereby the negative contribution of a slightly increasing implicit interest rate should be more than offset by the continuation of high nominal GDP growth. The stock-flow adjustment is also expected to have a mitigating impact on the rise in debt.

With regard to the sustainability of public finances, the Czech Republic appears to be at high risk on grounds of the projected budgetary costs of ageing populations. While the debt ratio is currently relatively low in an EU perspective, the high deficit contributes to a rising debt ratio in the long-term projections until 2050, which increases the risk to debt sustainability. At the same time, the projected high increases of pension expenditure over the projection period are expected to put a significant burden on the public finances. A rigorous implementation of the planned consolidation of public finances over the medium term and a further strengthening of the budgetary position together with additional structural reforms to contain the increase in age-related expenditures, in particular on pensions and health care, appear to be of key importance in order to mitigate the risks to public finance sustainability.

The envisaged measures in the area of public finances are broadly consistent with the broad economic policy guidelines included in the integrated guidelines for the period 2005-2008. In particular, the programme foresees the correction of the excessive deficit in line with the Council's recommendations. It also presents measures to promote a growth- and employment-oriented allocation of resources, in particular by decreasing the weight of the public sector in the economy and by shifting the tax burden from direct to indirect taxation. However, while the government is aware of the problem of the long-term sustainability, the programme does not present concrete steps to address it.

The National Reform Programme of the Czech Republic, submitted on 14 October 2005 in the context of the renewed Lisbon strategy for growth and jobs, identifies long-term sustainability as the main challenge with implications for public finances. The budgetary implications of the limited number of concrete reform measures specified in the National Reform Programme are reflected in the budgetary projections of the convergence programme. The measures in the area of public finances envisaged in the convergence programme are in line with the actions foreseen in the National Reform Programme. In particular, the convergence programme outlines measures to support jobs and growth by changes in the revenue and expenditure structure (especially a shift of the tax burden from direct to indirect taxation and a cut in government consumption and transfers) and by making public investment a spending priority, but it does not present any concrete reform steps to address the problem of long-term sustainability. The programme further envisages a strengthening of the role of the medium-term expenditure ceilings by implementing the binding principles on the headings of the state budget and of the state funds and by inclusion of local governments in the budgetary planning process.

In view of the above assessment and in the light of the recommendations made by the Council under Article 104(7) of 5 July 2004, it would be appropriate for the Czech Republic to:

(i) strengthen the effort in the structural budgetary adjustment, in view of the small margin below the reference value targeted for 2008 (which is the deadline for the correction of the excessive deficit) and in order to fully take advantage of the upward revision of growth prospects compared to those underlying the Council recommendations;

(ii) enhance the quality of budgetary planning, in particular by analysing causes of significant expenditure carryovers and reinforcing the medium-term expenditure ceilings;

(iii) improve the long-term sustainability of the public finances, in particular by accelerating the pension reform and undertaking the reform of the healthcare system.

		2004	2005	2006	2007	2008
Pool CDP	CP Nov 2005	4.4	4.8	4.4	4.2	4.3
(% change)	COM Nov 2005	4.4	4.8	4.4	4.3	n.a.
(% change)	CP Dec 2004	3.8	3.6	3.7	3.8	n.a.
LUCD inflation	CP Nov 2005	2.6	1.5	2.2	2.0	2.1
	COM Nov 2005	2.6	1.7	2.9	2.6	n.a.
(70)	CP Dec 2004	2.7	3.2	2.6	2.2	n.a.
Output con	CP Nov 2005 ¹	-1.9	-0.8	-0.1	0.3	0.8
(% of not on tiol CDP)	COM Nov 2005 ⁵	-1.4	-0.2	0.6	1.2	n.a.
(% of potential ODF)	CP Dec 2004^{1}	-1.3	-0.9	-0.4	0.3	n.a.
Concred government helence	CP Nov 2005	-3.0	-4.8	-3.8	-3.3	-2.7
(% of GDP)	COM Nov 2005	-3.0	-3.2	-3.7	-3.3	n.a.
(/8 01 0 01)	CP Dec 2004	-5.2	-4.7	-3.8	-3.3	n.a.
Primary balance	CP Nov 2005	-1.8	-3.5	-2.5	-2.0	-1.2
(% of GDP)	COM Nov 2005	-1.8	-1.9	-2.3	-1.9	n.a.
(/8 01 0 01)	CP Dec 2004	-4.0	-3.4	-2.4	-1.7	n.a.
Cyclically adjusted balance	CP Nov 2005¹	-2.4	-4.5	-3.8	-3.4	-3.0
(% of GDP)	COM Nov 2005	-2.5	-3.1	-3.9	-3.8	n.a.
(/8 01 0 01)	CP Dec 2004^{1}	n.a.	n.a.	n.a.	n.a.	n.a.
Structural halan aa^2	CP Nov 2005³	-1.9	-3.4	-3.8	-3.4	-3.0
(% of GDP)	COM Nov 2005 ⁴	-2.0	-2.0	-3.9	-3.8	n.a.
(/8 01 0 01)	CP Dec 2004	n.a.	n.a.	n.a.	n.a.	n.a.
Government gross debt	CP Nov 2005	36.8	37.4	37.1	37.9	37.8
(% of GDP)	COM Nov 2005	36.8	36.2	36.6	36.9	n.a.
	CP Dec 2004	38.6	38.3	39.2	40.0	n.a.

Comparison of key macroeconomic and budgetary projections

Notes:

¹Commission services calculations on the basis of the information in the programme

²Cyclically-adjusted balance (as in the previous rows) excluding one-off and other temporary measures

³ One-off and other temporary measures taken from the fiscal notification (0.5% in 2004) and from the programme (1.1% in 2005); both deficit-increasing

⁴ One-off and other temporary measures taken from the Commission services' autumn 2005 forecasts (0.5% of GDP in 2004, 1.1% in 2005; both deficit-increasing

⁵ Based on estimated potential growth of 3.5%, 3.5%, 3.6% and 3.7% respectively in the period 2004-2007.

Source:

Convergence programme (CP); Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

1. INTRODUCTION

The second update of the Czech Republic's convergence programme, covering the period 2005-2008, was submitted on 24 November 2005, following approval by the government on 23 November.² The programme was discussed with the representatives of social partners and sent to the Chamber of Deputies of the Parliament of the Czech Republic. It was based on the 2006 draft state budget and on expenditure ceilings of the central government for 2007 and 2008.

The programme broadly follows the model structure for stability and convergence programmes specified in the new code of conduct. The programme provides all compulsory and most optional data prescribed by the new code of conduct.³ In particular, it does not provide the optional data on general government expenditure by function (Table 3 of the Annex 2 of the new code of conduct).⁴ Annex 2 provides a detailed overview of all aspects of compliance with the new code of conduct.

2. ECONOMIC OUTLOOK

After achieving progress in economic reforms and in stabilisation by mid-1990s, the Czech Republic experienced macroeconomic imbalances, leading to a foreign-exchange crisis in May 1997 and to an economic recession in 1997-1999. Comprehensive structural reforms in the financial and enterprise sectors helped the economy to recover from 2000. Since then, real GDP growth has averaged about 3%, with the exception of 2002 when the country was hit by serious floods, compared to an average annual growth rate of about 1.7% in the EU. Inflation rose during the economic recession, but was brought under control thereafter, reaching recently very low levels. Foreign direct investment facilitated GDP growth acceleration after 2000 and helped the Czech Republic to rapidly converge to the EU average. EU accession gave a new impetus to the convergence process. In 2005, GDP per capita in purchasing power terms is projected to reach over 70% of the EU average. Labour productivity growth has been slightly above the EU average over the last decade. Though the employment rate is slightly above the EU average and employment growth has started to recover, structural problems in labour market remain an important impediment to economic growth, in particular low geographical mobility of workers and skills mismatches. Economic performance is also hindered by shortcomings in the business-legal environment.

The programme presents three scenarios for the macro-economic projections: a "baseline", an "optimistic", and a "pessimistic" scenario. The "baseline" scenario, presented in Table 1, is considered as the reference scenario for assessing budgetary projections, because it appears most plausible in view of the Commission services' forecasts. The two alternative scenarios assume different developments of three key

² The English translation of the programme was submitted on 29 November 2005.

³ Obligatory data on short-term interest rates assumptions for the years 2006-2008 were sent to the Commission services on a confidential basis.

⁴ Optional data on "Liquid financial assets" and "Net financial debt" (lines 6 and 7) in Table 4 of the code of conduct are also missing.

exogenous variables: oil prices, foreign demand (GDP growth in the EU-15) and foreign inflation (growth in producer price inflation in the EU-15).⁵

The "baseline" macroeconomic scenario presented in the programme expects annual real GDP growth to be 4.8% in 2005. In 2006, real GDP growth is forecast to reach 4.4% and to slightly decrease thereafter, reaching 4.3% in 2008. Cyclical conditions implied by the programme (as measured by the output gap recalculated by Commission services with the commonly agreed methodology) gradually improve over the programme horizon.⁶

The growth outlook and its composition are broadly in line with the Commission services' autumn 2005 forecasts for the years 2005-2007. However, for the year 2008, the programme's growth projection is above the Commission services' estimate of potential growth. The growth assumptions underlying the programme can thus be considered as plausible, tilted to favourable in the outer year. As a result, cyclical conditions are likely to be more favourable than implied by the programme's projections. For instance, the Commission services' autumn forecasts foresee the output gap to become positive already in 2006, whereas the programme suggests a positive gap one year later.

The most important external assumptions underlying the programme's macroeconomic scenario include the exchange rate between USD and EUR, GDP growth in the EU 25, in particular in Germany, and the development of oil prices. These assumptions can be considered as broadly similar to those underlying the Commission services' 2005 autumn forecasts.

The updated programme predicts positive labour market developments against the backdrop of a favourable economic performance. Employment is expected to increase during the entire programme period, though at a falling rate. The projected average labour content of GDP growth is broadly in line with historical values, though slightly higher than projected by the Commission services' autumn 2005 forecasts. Favourable cyclical conditions are expected to largely contribute to the decline in the rate of unemployment which is projected to fall by 1 percentage point by the end of the programme period (from 7.9% in 2005 to 6.9% in 2008). The fall in the unemployment rate foreseen by the programme is more pronounced than projected in the Commission services' forecasts. The programme thus seems to be somewhat more optimistic about the structural effects of tax reforms on employment.

The convergence programme forecasts an increase of average HICP inflation from 1.5% in 2005 to 2.2% in 2006 and a slight decrease to 2.0% in 2007. While the programme's forecast for CPI inflation (not shown) is somewhat higher, it remains below the Czech National Bank (CNB) inflation target (see Section 3) in both 2006 and 2007. The programme assumes that wage growth will be higher than productivity growth (on average by about 2 percentage points) and that this will not generate additional inflation pressures. This appears relatively optimistic in view of the Commission services'

⁵ The "optimistic" macroeconomic scenario assumes a gradual oil price decrease from 51.3 USD per barrel in 2005 to 42.3 USD in 2008 and an acceleration of real GDP growth in the EU15 to 2.7% a year in 2008. On the other hand, the "pessimistic" scenario assumes an increase in oil prices from 61.8 USD per barrel in 2005 to 72.3 in 2008 and weaker growth in the EU15.

⁶ The calculation of potential growth (and therefore of the output gap) needs to be interpreted with caution, in particular for countries going through a rapid catching-up process.

forecasts which foresee slightly higher inflation, despite a much smaller positive difference between wage growth and productivity growth.⁷

	20	05	20	06	20	07	2008			
	COM	СР	COM	СР	COM	СР	СР			
Real GDP (% change)	4.8	4.8	4.4	4.4	4.3	4.2	4.3			
Contributions:					1					
- Final domestic demand	2.3	1.8	3.2	2.6	3.6	2.9	3.6			
- Change in inventories	-0.8	-1.0	0.0	0.6	0.0	0.3	0.2			
- External balance on g&s	3.3	4.0	1.2	1.2	0.7	1.0	0.6			
Output gap ¹	-0.2	-0.8	0.6	-0.1	1.2	0.3	0.8			
Employment (% change)	0.5	0.9	0.4	0.8	0.3	0.5	0.4			
Unemployment rate (%)	7.9	7.9	7.5	7.4	7.4	7.1	6.9			
Labour productivity growth (%)	4.3	3.8	4.0	3.6	3.9	3.6	3.9			
HICP inflation (%)	1.7	1.5	2.9	2.2	2.6	2.0	2.1			
GDP deflator (% change)	2.7	0.9	2.5	2.2	2.2	2.8	3.0			
Compensation of employees (% change)	4.6	5.2	5.6	5.3	5.4	6.0	6.5			
External balance (% of GDP)	-2.7	-2.6	-2.4	-2.2	-2.1	-0.6	0.8			
Note:	-				-					
¹ In percent of potential GDP, with potentia	¹ In percent of potential GDP, with potential GDP growth as reported in Table 2 below.									
Source:										
Commission services' autumn 2005 econo	mic forece	ists (CON	1): conver	gence nro	oramme u	ndate (CF	2)			

 Table 1: Comparison of macroeconomic developments and forecasts

The estimate of potential output based on Commission services' calculations according to the commonly agreed methodology and consistent with the programme's macroeconomic scenario is slightly above the estimate of potential output of the Commission services' autumn 2005 forecasts.

2005		20(06	200	2008	
СОМ	CP ²	СОМ	CP ²	СОМ	CP ²	CP ²
3.5	3.6	3.6	3.7	3.7	3.8	3.8
-0.3	0.2	-0.3	0.2	-0.2	0.3	0.1
1.5	1.5	1.5	1.4	1.5	1.5	1.6
2.2	1.9	2.3	2.0	2.3	2.1	2.1
-	-		-			
	200 COM 3.5 -0.3 1.5 2.2	2005 COM CP ² 3.5 3.6 -0.3 0.2 1.5 1.5 2.2 1.9	2005 200 COM CP ² COM 3.5 3.6 3.6 -0.3 0.2 -0.3 1.5 1.5 1.5 2.2 1.9 2.3	$\begin{tabular}{ c c c c c c c c } \hline 2005 & 2006 \\ \hline COM & CP^2 & COM & CP^2 \\ \hline 3.5 & 3.6 & 3.6 & 3.7 \\ \hline -0.3 & 0.2 & -0.3 & 0.2 \\ \hline 1.5 & 1.5 & 1.5 & 1.4 \\ \hline 2.2 & 1.9 & 2.3 & 2.0 \\ \hline \end{tabular}$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c } \hline \hline 2005 & 2006 & 2007 \\ \hline COM & CP^2 & COM & CP^2 & COM & CP^2 \\ \hline 3.5 & 3.6 & 3.6 & 3.7 & 3.7 & 3.8 \\ \hline -0.3 & 0.2 & -0.3 & 0.2 & -0.2 & 0.3 \\ \hline 1.5 & 1.5 & 1.4 & 1.5 & 1.5 \\ \hline 2.2 & 1.9 & 2.3 & 2.0 & 2.3 & 2.1 \\ \hline \end{tabular}$

Table 2: Sources of potential output growth

¹based on the production function method for calculating potential output growth

²Commission services' calculations on the basis of the information in the programme

Source:

Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

After peaking at 6.3% of GDP in 2003, the external deficit started to decline, mainly against the backdrop of the improving balance of goods and services. Vigorous export growth was boosted by EU accession and both the programme and the Commission services' forecasts expect strong export growth to continue. The trade balance is projected to reach a surplus for the first time since 1991, despite high oil prices and slow economic growth in the eurozone countries. Both the programme and the Commission

⁷ However, the Commission services' forecasts are based on a different assumption about the exchange rate EUR/CZK.

services' autumn 2005 forecasts foresee that surpluses in the balance of goods and services will grow faster than deficits in the income balance which would result in a substantial narrowing of the external deficit.

3. MEDIUM-TERM MONETARY POLICY OBJECTIVES AND THEIR RELATIONSHIP TO PRICE AND EXCHANGE RATE STABILITY

Czech monetary policy continues to combine inflation targeting with a managed float of the exchange rate. The Czech National Bank (CNB) has targeted year-on-year monthly CPI inflation within a band gradually decreasing from between 3 and 5% in January 2002 to between 2 and 4% by December 2005. As of 1 January 2006, a CPI inflation rate of 3% is targeted with a tolerance band of \pm 1 percentage point.

The convergence programme specifies that the Czech Republic is preparing for joining the euro area in 2010. This target date is underpinned by the fiscal consolidation strategy which aims at reducing the general government deficit to below 3% of GDP as from 2008. The programme also underlines that while the Czech Republic has been converging towards the economic level of the euro area, "the level of economic alignment (...) is still not enough (...) to reap clear benefits from adopting the single currency and common monetary policy". In line with the reconfirmed strategy to limit ERM II participation to the minimum required period and given the fiscal consolidation target, the government has recently decided not to seek ERM II entry in 2006. An indicative calendar for achieving full euro area membership recently published by the Ministry of Finance suggests a possible ERM II entry in the second half of 2007.

Following a progressive increase of year-on-year inflation rates between mid-2003 and mid-2004, headline HICP inflation fell again towards the end of 2004 and in the first half of 2005. It moved below the central bank target band for most of 2005 and equalled 1.5% on average between January and October (1.8% in CPI terms). The main reasons included the appreciation of the koruna since mid-2004, strong competition in retail, and favourable base effects of previous tax adjustments. In October and November, higher energy prices drove headline inflation to above 2% year-on-year.

After depreciation а of the koruna/euro exchange rate bv almost 15% between July 2002 and the beginning of February 2004, the Czech currency joined in a regional trend of sustained appreciation until March 2005 and regained some 12% against the euro. This trend was temporarily reversed bv а depreciation in March-April 2005, the koruna resumed but its appreciation trend in June 2005. The convergence programme assumes a



nominal exchange rate appreciation in 2005-2008, as a result of an expected average annual real appreciation of around 3% and low inflation. The underlying causes for the real appreciation, given low expected inflation, are not specified in the programme.

After increasing in the second half of 2004, Czech money market interest rates dipped below euro area levels following three successive reductions of policy rates by the Czech National Bank in January and April 2005, which brought the repurchase rate to 1.75%. Money market rates remained below the euro area level despite a 25 basis point interest rate hike by the CNB on 31 October 2005. The ECB decision to increase euro area key policy rates as of 6 December 2005 has sent Czech policy rates again below euro area levels.

Czech long-term interest rates remain low. Following their easing in the second half of 2004, the spread against the euro area fluctuated between 0 and 40 basis points for most of 2005. With the average 2005 bond yield until 22 November reaching 3.5% and rising, the convergence programme assumption of a bond yield at 3.3% for 2005 on average seems optimistic. The same holds for the assumptions for 2006 and 2007 of average bond yields of 3.4 and 3.9% respectively, both below the assumptions of the Commission services' autumn forecasts.

4. GENERAL GOVERNMENT BALANCE

This section is in four parts. The first briefly compares the targets for the general government balance in the new update with those presented in previous convergence programmes. It also discusses budgetary implementation in the year 2005. The second part describes the budgetary strategy in the new update, including the programme's medium-term objective. The third provides the analysis of the risks attached to the budgetary targets and assesses the country's position in relation to the budgetary objectives of the Treaty and the Stability and Growth Pact. The final part discusses the results of a sensitivity analysis."

4.1. Targets in successive programmes and implementation in 2005

The updated programme foresees a gradual reduction of the general government deficit from 4.8% of GDP in 2005 to 2.7% of GDP in 2008. Although GDP growth was revised upwards considerably, the deficit reduction path in the update is exactly the same as foreseen in the May 2004 and December 2004 programmes.⁸

The estimated outcome for the 2005 deficit of 4.8% of GDP includes one-off expenditures of about 1.1% of GDP which were not included in the 2005 deficit target in the first convergence programme submitted in May 2004.⁹ However, even after taking account of one-off expenditures, the estimated 2005 deficit outcome in the most recent update appears too high in the light of the very positive cash development in the state budget.¹⁰

⁸ The only exception is the 2005 deficit target. The December 2005 update projects a deficit of 4.8% of GDP, instead of 4.7% of GDP foreseen by both 2004 programmes.

⁹ In the December 2004 update of the convergence programme, the 2005 deficit target included one-off expenditures of about only 0.4% of GDP. A one-off operation of about 0.7% of GDP was originally included in the 2004 target, but it was reclassified into 2005 in line with conclusions of the mission of Eurostat to the Czech Republic in August 2005. The one-off operations are described in detail below.

¹⁰ However, the programme admits that "economic growth accompanied by an increase in tax revenues and slower execution of budgetary expenditures has a positive effect on the budget deficit which creates space for a better deficit outcome than originally targeted."

The programme's 2005 estimated deficit outcome of 4.8% of GDP includes two major one-off operations, which were also included in the Commission services' 2005 autumn forecasts: (i) an alleviation of the debt of Syria and Russia of CZK 22 billion in total (about 0.8% of GDP); and (ii) the acquisition of military jets under a financial lease (CZK 9.6 billion, about 0.3% of GDP). Excluding these one-off expenditures, the deficit outcome would be 3.7% of GDP. This would be 1 percentage point of GDP lower than foreseen in the December 2004 update of the programme, but substantially higher than the 2004 outcome (a deficit of 2.5% of GDP, excluding one-off expenditures of about 0.5% of GDP). The Commission services' autumn 2005 economic forecasts expect a deficit of 3.2% of GDP in 2005 (about 2.1% of GDP without the one-off operations), which is 1.6 percentage point of GDP lower than estimated in the current update.¹¹

		2004	2005	2006	2007	2008
Conoral government	CP Nov 2005	-3.0	-4.8	-3.8	-3.3	-2.7
balance	CP Dec 2004	-5.2	-4.7	-3.8	-3.3	n.a.
(% of GDP)	CP May 2004	-5.3	-4.7	-3.8	-3.3	n.a
	COM Nov 2005	-3.0	-3.2	-3.7	-3.3	n.a.
Conoral government	CP Nov 2005	44.7	45.9	44.0	43.1	43.6
General government	CP Dec 2004	47.6	45.8	44.7	43.9	n.a
(% of GDP)	CP May 2004	52.7	51.6	50.6	49.9	n.a
	COM Nov 2005	44.7	45.0	45.2	44.7	n.a.
Comoral accommencent	CP Nov 2005	41.6	41.1	40.2	39.8	40.9
General government	CP Dec 2004	42.4	41.1	40.9	40.6	n.a
(% of GDD)	CP May 2004	47.4	46.9	46.8	46.6	n.a
	COM Nov 2005	41.6	41.8	41.5	41.4	n.a.
	CP Nov 2005	4.4	4.8	4.4	4.2	4.3
Real GDP	CP Dec 2004	3.8	3.6	3.7	3.8	n.a
(% change)	CP May 2004	2.8	3.1	3.3	3.5	n.a
	COM Nov 2005	4.4	4.8	4.4	4.3	n.a.
Note:		•	•		•	•

 Table 3: Evolution of budgetary targets in successive programmes

General government expenditures and revenues were not fully consolidated in the May and December 2004 convergence programmes.

Source:

Convergence programmes (CP) and Commission services' autumn 2005 economic forecasts (COM)

The more favourable outcome for the 2005 deficit expected in the Commission services' forecasts (even when the one-off expenditures are included) is influenced mainly by the budgetary performance of the central government, in particular of the state budget, which is forecast to record higher-than-planned revenues and an under-execution of expenditures. The positive budgetary developments in 2005 are mainly due to betterthan-foreseen economic developments but also reflect reform measures and institutional changes introduced in the course of 2003 and 2004 in order to consolidate the Czech public finances.¹² In particular, the under-execution of expenditures is mainly due to the newly created possibility to roll over unspent funds from previous budgetary years. According to the estimates based on cash results of the state budget and the state funds,

¹¹ For 2004, the deficit outcome of 3.0% of GDP was likewise considerably lower than expected in the December 2004 convergence programme (5.2% of GDP).

¹² For the detailed description of the reform measures of 2003 and 2004 see the technical assessment of the December 2004 convergence programme.

expenditures of about $1\frac{1}{2}$ % of GDP were unspent in 2005 and will be rolled over into 2006 (see Box 3 below). The cash-based tax revenues of the state budget are estimated to be almost 4% higher than planned.



Figure 1: General government balance projections in successive convergence programmes (% of GDP)

Box 1: The excessive deficit procedure for the Czech Republic

On 5 July 2004 the Council decided that the Czech Republic had an excessive deficit. At the same time, the Council addressed a recommendation under Article 104(7) specifying that the excessive deficit had to be corrected by 2008 in a credible and sustainable manner. In particular, the Czech Republic was recommended to take effective action regarding the measures envisaged to achieve the 2005 deficit target by the deadline of 5 November 2004 and to implement with vigour the measures envisaged in the May 2004 convergence programme, in particular to cut the wage bill of central government and to reduce spending of individual ministries. Furthermore, the Czech Republic was invited to allocate higher-than-budgeted revenues to deficit reduction, to introduce fiscal targeting based on medium-term expenditure ceilings, to design effective rules to reduce the risk of increasing indebtedness of regions and municipalities, to undertake the reform of the pension and healthcare systems so as to improve the long-term sustainability of the public finances and to minimise the negative budgetary impact of the operations of the Czech Consolidation Agency.

On 22 December 2004, the Commission concluded that the Czech government had taken effective action regarding the measures envisaged to achieve the 2005 deficit target, by the deadline of 5 November, in response to the Council recommendation, and that no further steps were necessary under the excessive deficit procedure.

4.2. The programme's medium-term budgetary strategy

This section covers in turn the following aspects of the medium-term budgetary strategy outlined in the programme: (i) the main goal of the budgetary strategy; (ii) the composition of the budgetary adjustment, including the broad measures envisaged; and (iii) the programme's medium-term objective and the adjustment path towards it in structural terms.

4.2.1. The main goal of the programme's budgetary strategy

The update aims at reducing the deficit to below the 3% of GDP reference value in 2008, in line with the Council recommendation under Article 104(7).

The programme targets a cut in the general government deficit by 2.1 percentage points between 2005 and 2008 (around 1 percentage points excluding the one-off expenditures in 2005) and a cut in the primary deficit by 2.3 percentage points over the same period (by about 1.2 percentage points excluding the one-offs). According to the programme, the most significant deficit reduction is planned to occur in 2006. However, excluding the one-offs affection 2005, the deficit actually worsens slightly. Furthermore, according to the Commission services' forecasts, which estimate a better outcome for the year 2005, the general government deficit is expected to widen more significantly, from 3.2% of GDP in 2005 (2.1% of GDP excluding the one-offs) to 3.7% of GDP in 2006.

Compared with the previous programme, the November 2005 update broadly confirms the planned adjustment, although the underlying macroeconomic scenario is considerably more favourable.

4.2.2. The composition of the budgetary adjustment in the programme

The budgetary consolidation is expected to occur mainly on the expenditure side. Both revenues and expenditures are planned to fall over the programme period (by 0.2 p.p. and 2.3 p.p. respectively) with public consumption and social transfers the expenditure items projected to decrease most and public investment to rise strong. Central government is expected to contribute most to the overall fiscal consolidation. Expenditure ceilings for central government are key to achieve the fiscal targets (see Section 6 below).

On the expenditure side, cuts in government consumption and in transfers (other than in kind) and subsidies are projected to contribute most to the expenditure reduction, in particular at the level of the central government. However, at the same time, indexation of pensions in 2006 is planned to go beyond the original plans in 2004, and in addition, the programme refers to several proposed measures in the area of social spending, which would increase government expenditure. Nevertheless, the favourable economic outlook creates good conditions for slower growth of social benefits as a percentage of GDP.

If the social measures currently proposed by the government to parliament were implemented in their current shape, the share of mandatory spending would increase, which would reduce the room for manoeuvre for other spending necessary to support the catching-up process.¹³ Among primary expenditure, spending on gross fixed capital formation is planned to be the fastest growing item. Public investment is expected to increase from 5.0% of GDP in 2004 to 6.1% of GDP in 2008, well above the EU average (2.5% of GDP in 2005). The planned increase in public investment is subject to considerable uncertainty as it assumes a substantial acceleration of absorption of the EU transfers under the structural funds and the Cohesion Fund which should be one of its main drivers. So far, the Czech Republic has had difficulties with the absorption of the EU funds.

¹³ The programme estimates a negative budgetary impact of these proposals to be almost 1% of GDP both in 2007 and 2008 (about ³/₄ on the expenditure side and about ¹/₄ on the revenue side).

(% of GDP)	2004	2005	2006	2007	2008	Change: 2008-2005
Revenues	41.6	41.1	40.2	39.8	40.9	-0.2
of which:						
- Taxes & social contributions	36.7	36.4	35.6	35.0	35.0	-1.4
- Other (residual)	4.9	4.7	4.6	4.8	5.9	1.2
Expenditure	44.7	45.9	44.0	43.1	43.6	-2.3
of which:						
- Primary expenditure	43.3	44.7	42.7	41.8	42.2	-2.5
of which:						
Consumption	22.6	22.5	22.0	21.3	20.7	-1.8
Transfers other than in kind & subsidies	14.1	14.1	13.8	13.4	13.2	-0.9
Gross fixed capital formation	5.0	5.2	5.2	5.3	6.1	0.9
Other (residual)	1.6	2.9	1.7	1.7	2.2	-0.7
- Interest expenditure	1.3	1.3	1.3	1.3	1.5	0.2
General government balance (GGB)	-3.0	-4.8	-3.8	-3.3	-2.7	-2.1
Primary balance	-1.8	-3.5	-2.5	-2.0	-1.2	-2.3
One-off and other temporary measures	0.5	1.1	0.0	0.0	0.0	0.0
GGB excl. one-off & other temporary	-2.5	-3.7	-3.8	-3.3	-2.7	-1.0
measures						
Source:						
Convergence programme update; Commissio	n service	es' calcul	ations			

Table 4: Composition of the budgetary adjustment

On the revenue side, the programme plans a continuation of the shift of the tax burden from direct to indirect taxation. Measures to decrease the effective taxation of personal income (see Box 2) are the main causes of the expected fall in budgetary revenues. This is partly offset by a rise in other revenues of 1.2 percentage points over the programme period which mainly reflects the inflow of EU structural funds.

Box 2: The budget for 2006

The state budget for 2006 was approved by parliament on 2 December 2005. The budget targets a general government deficit of 3.8% of GDP in 2006. The 2006 budget is the third one based on the medium-term expenditure ceilings for the central government. The government applied the expenditure ceilings already in the 2004 and 2005 budgets on a voluntary basis. As from 2006 the ceilings became legally binding.

In spite of this, the 2006 budget is the first one which explicitly exceeds the binding expenditure ceilings as adopted in 2004, by a substantial margin of about 0.8% of GDP (CZK 24.3 billion). When preparing the 2006 budget, the government targeted the deficit as a percentage of GDP as recommended by the Council under the excessive deficit procedure (3.8% of GDP), instead of targeting total central government expenditures as required by the fiscal targeting mechanism (see Box 3 below)

. Stronger economic growth than expected in 2004 (when the ceiling for 2006 was set) enabled the budget to aim at the EDP deficit target (as a percentage of GDP) despite breaching spending ceilings (in nominal levels). Although the ceilings are considered to be legally binding, there are no sanctions foreseen if the government exceeds them.

As in 2005, revenues are budgeted to fall, mainly due to lower personal income taxes. The tax rates for the two lowest brackets are reduced (from 15% to 12% and from 20% to 19% respectively), the first income-tax bracket is increased by almost 11% and deductible entries are replaced with tax credits. In addition, the corporate income tax rate is reduced from 26% to 24%. On the other hand, structural improvements in tax collection realised in previous years could be

further strengthened by second-round positive growth effects of these tax reductions, mainly on investment and labour market participation.

The programme foresees that the fall in revenues (by 0.9 percentage points of GDP) in 2006 will be more than compensated by the fall in expenditures (1.9 percentage points of GDP), but the latter includes the effect of large one-offs in 2005. If the expenditure cuts planned in the previous update of the convergence programme in order to meet the expenditure ceilings had been implemented, the fall in expenditures would have been considerably more pronounced.

4.2.3. The programme's medium-term objective (MTO) and the adjustment path in structural terms

According to the Stability and Growth Pact, stability and convergence programmes should present a medium-term objective (MTO) for the budgetary position. The MTO should be differentiated for individual Member States, to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risk to the sustainability of public finances. The country-specific MTO is defined in structural terms (i.e. cyclically-adjusted, net of one-off and other temporary measures) and should fulfil a triple aim, namely (i) provide a safety margin with respect to the 3% of GDP deficit limit; (ii) ensure rapid progress towards sustainability; and (iii), taking (i) and (ii) into account, allow room for budgetary manoeuvre, considering in particular the needs for public investment. The code of conduct (Section I thereof) further specifies that, as long as the methodology for incorporating implicit liabilities is not fully developed and agreed by the Council, the country-specific MTOs are set taking into account the current government debt ratio and potential growth (in a long-term perspective), while preserving a sufficient margin against breaching the deficit reference value of 3% of GDP. Member States are free to set an MTO that is more demanding than strictly required to achieve the triple aim of MTOs.

The November 2005 update of the convergence programme identifies an MTO of "around -1% of GDP", which it expects to achieve by 2012. The programme foresees that after the excessive deficit will be corrected in 2008, the structural balance will improve by 0.5 percentage points of GDP per year.

Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, the structural balance will reach about -3.0% of GDP in 2008. The structural balance is planned to improve only slightly over the programme period (by $\frac{1}{2}$ percentage points of GDP). In 2006 the fiscal position is expected to deteriorate and to improve by $\frac{1}{2}$ percentage point of GDP in both 2007 and 2008. The fiscal effort planned in the programme is back-loaded and concentrated in years for which the programme envisages a positive output gap.¹⁴

% of GDP	2004		2005		2006		2007		2008	Change: 2008-2005
	СОМ	CP ¹	COM	CP ¹	COM	CP ¹	COM	CP ¹	CP ¹	CP ¹
Gen. gov't balance	-3.0	-3.0	-3.2	-4.8	-3.7	-3.8	-3.3	-3.3	-2.7	2.1
One-offs ²	-0.5	-0.5	-1.1	-1.1	0.0	0.0	0.0	0.0	0.0	1.1

 Table 5: Output gaps, cyclically-adjusted and structural balances

¹⁴ The structural effort presented in the programme is more pronounced since the calculation of the cyclical position therein is based on a national methodology which projects a higher growth rate of potential output.

Output gap ³	-1.4	-1.9	-0.2	-0.8	0.6	-0.1	1.2	0.3	0.8	1.6	
CAB ⁴	-2.5	-2.4	-3.1	-4.5	-3.9	-3.8	-3.8	-3.4	-3.0	1.5	
change in CAB	-9.1	-9.2	-0.6	-2.1	-0.8	0.7	0.1	0.4	0.4	-	
$CAPB^4$	-1.2	-1.1	-1.8	-3.2	-2.5	-2.5	-2.4	-2.1	-1.5	1.7	
Structural balance ⁵ -2.0 -1.9 -2.0 -3.4 -3.9 -3.8 -3.8 -3.4 -3.0 0.4											
<i>change in struct. bal.</i> -3.3 -3.4 0.0 -1.5 -1.9 -0.4 0.1 0.4 0.4 -											
Struct. prim. bal. ⁶ -0.7 -0.6 -0.7 -2.1 -2.5 -2.5 -2.4 -2.1 -1.5 0.6											
Notes:											
¹ Output gaps and cyclic	al adjust	ment ac	ccording	to the c	onverge	nce pro	gramme	(CP) as	recalculat	ed by	
Commission services of	n the bas	is of the	e informa	ation in	the prog	ramme					
² One-off and other tem	porary m	easures									
³ In percent of potential	GDP. Se	e Table	e 1 above								
${}^{4}CAB = cyclically-adju$	sted bala	nce; CA	APB = cy	clically	-adjuste	d prima	ry balan	ce.			
⁵ CAB excluding one-of	f and oth	ner temr	orary m	easures	5	1	5				
⁶ Structural primary bala	ance = C	APB ex	cluding	one-off	and othe	er tempo	orary me	asures			
C C			-								
<u>Source</u> :		~~ -	•		(2010)	~					
Commission services' a	utumn 2	005 eco	onomic fe	precasts	(COM);	Comm	ission se	rvices'	calculation	ns	

4.3. Assessment

This assessment is in three parts. The first assesses the appropriateness of the programme's medium-term objective. The second analyses risks attached to the budgetary targets and the third examines whether the budgetary strategy laid down in the programme is consistent with the budgetary objectives of the Treaty and the Stability and Growth Pact.

4.3.1. Appropriateness of the programme's medium-term objective

As the programme's MTO is more demanding than the minimum benchmark (estimated at a deficit of around $1\frac{1}{2}$ % of GDP), its achievement should fulfil the aim of providing a safety margin against breaching the 3% of GDP deficit reference value. The programme's MTO is at an appropriate level because it adequately reflects the debt ratio and average potential output growth in the long term.

4.3.2. Risks attached to the budgetary targets

The risks to the budgetary projections in the programme appear broadly balanced.

On the one hand, the track record of cautious budgetary planning indicates that outcomes could be better than targeted (as was the case in 2004 and is now expected for 2005 in the Commission services' forecasts). The growth assumptions underlying the budget projections are usually broadly realistic and the assumptions about the tax intensity of economic activity cautious (see Table 6). Moreover, budgeted expenditures have not always been fully executed, mainly due to the possibility to carry over unspent funds from previous budgetary years (see Box 3 below).

	200	6	20	07	2008	p.m.:
	СОМ	СР	\mathbf{COM}^2	СР	СР	OECD ¹
Total taxes						
Change in tax-to-GDP ratio	-0.1	-0.7	0.0	-0.6	-0.1	/
Difference	-0.6		-0	.6	/	/
of which ³ : - elasticity component	-0.6		-0.6		/	/
- composition component	-0.	1	-0	.1	/	/

Table 6: Assessment of tax projections

p.m.: Observed elasticity to GDP	1.0	0.7	1.0	0.7	1.0	0.99						
Notes:												
¹ OECD ex-ante elasticity relative to GDP												
² On a no-policy change basis												
³ The decomposition is explained in Annex 4. Small differences might appear due to the rounding effect.												
Source: Commission services' autumn 2005 eco OECD (N. Girouard and C. André (200 OECD Countries", OECD Working Pap	nomic foreca 5), "Measuri per No. 434)	sts (COM ng Cyclic	1); Commiss cally-Adjust	tion service ed Budget I	es' calculati Balances fo	ons and r the						

Table 7: Assessment of tax elasticities

	200)6	2007			
	COM (observed)	ex-ante ¹	COM ² (observed)	ex-ante ¹		
Total taxes			1			
Change in tax-to-GDP ratio	-0.1	0.0	0.0	0.0		
Difference	0.0	C	0.0)		
of which ³ : - elasticity component	-0.	1	-0.1			
- composition component	0.0	C	0.1	1		
p.m.: Elasticity to GDP	1.0	1.0	1.0	1.0		

Notes:

¹ Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD ² On a no-policy change basis

³ The decomposition is explained in Annex 4. Small differences might appear due to the rounding effect. *Source*:

Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

On the other hand, the programme refers to several (proposed) measures in the area of social spending which would increase expenditure under this heading rather than decrease it, as projected in the programme. Moreover, if sizeable expenditure carryovers were spent in addition to all budgeted expenditures – which cannot be excluded especially in the election year 2006 – budgetary outcomes could be worse than targeted, in particular in 2006. Furthermore, the growth assumptions in the outer year (2008) seem favourable.

The Commission services autumn 2005 forecasts project a much better budgetary outcome for 2005, and also for 2006, when the forecast deficit is slightly below the target set in the convergence programme. As regards 2007, the deficit of 3.3% of GDP seems also in reach.

4.3.3. Compliance with the budgetary requirements of the Treaty and the Stability and Growth Pact

The programme confirms the deficit reduction path specified by the Council in its recommendation under Article 104(7). Taking account of the balance of risks to the

budgetary targets, the fiscal stance in the update seems consistent with a correction of the excessive deficit by the deadline set by the Council (2008).¹⁵

However, given the better-than-estimated deficit outcome in 2004 (3.0%), the expectation of a similar development in 2005 and taking into account the one-offs in 2005, the envisaged deficit targets for 2006-2008 (3.8%, 3.3%) and 2.7% of GDP respectively) seem not very demanding. This conclusion is reinforced by the fact that the programme does not foresee any fundamental reforms in social expenditures.

The strategy for the reduction of the general government deficit outlined in the programme is broadly consistent with the broad economic policy guidelines in the area of public finances as it foresees the correction of the excessive deficit in line with the Council's recommendations (see also Annex 3).

4.4. Sensitivity analysis

As indicated in Section 2 above, the sensitivity analysis is presented in the programme in the form of two alternative scenarios – an optimistic and a pessimistic one – to the baseline macroeconomic framework. Since the Czech Republic is a small open economy highly dependent on raw materials, the scenarios are based on oil price shocks. Shocks in foreign demand and foreign inflation are also considered, but those can be understood as second-round effects of the oil price shocks.¹⁶ The analysis is only partly explicit about the underlying assumptions about how revenues and expenditure react to the shocks.

In the optimistic scenario, the general government deficit declines to 2.4% of GDP in 2008 and public debt remains below 37% of GDP. In the pessimistic scenario, the deficit would be 3.2% of GDP in 2008 and public debt would grow above 39% of GDP.

Commission services' simulations of the cyclically-adjusted balance under the assumptions of (i) a sustained 0.5 percentage point deviation from the real GDP growth projections in the programme over the 2005-2008 period; (ii) trend output based on the HP-filter¹⁷ and (iii) no policy response (notably, the expenditure level is as in the central scenario¹⁸), reveal that, by 2008, the cyclically-adjusted balance is 0.6 percentage point of GDP above/below the central scenario. Hence, in the case of persistently lower real growth, additional measures of more than ¹/₂ percentage point of GDP would be necessary to keep the public finances on the path targeted in the central scenario.¹⁹

¹⁵ The assessment of respect of the medium-term objective and of the safety margin is not applicable as the update foresees the excessive deficit to be corrected only at the very end of the programme period (2008).

¹⁶ The two scenarios are developed asymmetrically in relation to the baseline scenario with the negative shock having more pronounced effects. The update mentions that the pessimistic scenario might represent an underestimation of the impact on the deficit as it does not take account of possible indexation of old-age pensions and other social benefits to higher inflation.

¹⁷ In the absence of a fully-specified macroeconomic scenario that would underlie such deviations, it is obviously impossible to derive new estimates of potential growth from the agreed production function method.

¹⁸ The effect of lower/higher growth on revenues is captured by using the conventional sensitivity parameters adopted in cyclical adjustment procedures.

¹⁹ Unexpected changes in inflation are not assumed to affect the expenditure-to-GDP ratio as nominal expenditure should broadly move in lockstep with the price level.

Taking into account the conclusions reached in Section 2 above, namely that the risks to the macroeconomic scenario of the programme are slightly to the downside in the outer year, it cannot be excluded that the achievement of the budgetary targets in the programme might require a greater fiscal effort than envisaged in the programme.

5. GENERAL GOVERNMENT GROSS DEBT

This section is in two parts: the first describes the debt path envisaged in the programme and the second contains the assessment.

5.1. Debt developments in the programme

Between 2004 and 2008, the debt ratio is expected to increase by 1 percentage point of GDP, from 36.8% of GDP in 2004 to 37.8% of GDP in 2008. This is a much slower pace of increase in comparison with the previous five years when the debt-to-GDP ratio almost tripled, mainly due to activities of institutions involved in the transition process. The programme assumes that the impact of operations of these institutions (mainly of the Czech Consolidation Agency which will be dissolved by end 2007) will be very limited and that the government will no longer provide additional risk guarantees. It further foresees that the deficit ratio foreseen to be reached in 2008 would ensure stabilisation of the debt ratio.

The contribution of the primary deficit is projected to decline as a result of fiscal consolidation, though slowly. This effect should be to a large extent compensated by a positive snowball effect, whereby the negative contribution of a slightly increasing implicit interest should be more than offset by the continuation of high nominal GDP growth. The stock-flow adjustment, in particular in 2005 and 2006 is also projected to have a mitigating impact on the rise in debt because of privatisation proceeds growth. However, they are not explained in detail.

The December 2004 update projected for 2005 a debt ratio of 38.3%, a decrease by 0.3 percentage points when compared to 2004. The 2005 debt ratio foreseen in the previous update was thus higher than that projected by both the December 2005 update (37.4% of GDP) and the Commission services' autumn forecasts (36.2% of GDP).



Figure 2: Debt projections in successive convergence programmes (% of GDP)

Table 8: Debt dynamics										
	average 2000-2004	200	2005		2006		2007			
	СОМ	COM	СР	COM	СР	COM	СР	СР		
Government gross debt ratio	29.8	36.2	37.4	36.6	37.1	36.9	37.9	37.8		
Change in debt ratio $(1 = 2+3+4)$	3.9	-0.6	0.6	0.4	-0.3	0.3	0.8	-0.1		
Contributions:										
- Primary balance (2)	5.2	1.9	3.5	2.3	2.5	1.9	2.0	1.2		
- "Snow-ball" effect (3)	-0.3	-0.7	-0.7	-1.0	-1.0	-0.9	-1.1	-1.1		
- Interest expenditure	1.2	1.3	1.3	1.4	1.3	1.4	1.3	1.5		
- Real GDP growth	-0.8	-1.7	-1.7	-1.5	-1.5	-1.5	-1.5	-1.5		
- Inflation (GDP deflator)	-0.7	-0.3	-0.3	-0.9	-0.8	-0.8	-1.0	-1.1		
- Stock-flow adjustment (4)	-0.9	-1.7	-2.2	-0.9	-1.8	-0.8	-0.1	-0.2		
- Cash/accruals	-0.3	0.0	-0.5		-0.1		0.0	0.0		
- Accumulation of financial	-2.0	-3.5	-3.5		0.0		0.0	0.0		
assets	-2.1	-3.5	-3.5	0.0	0.0	0.0	0.0	0.0		
of which: Privatisation proceeds	1.4	1.8	1.8		-1.7		-0.1	-0.1		
- Valuation effects & residual										
adj.										

Note:

The change in the gross debt ratio can be decomposed as follows:

$$\frac{D_{t}}{Y_{t}} - \frac{D_{t-1}}{Y_{t-1}} = \frac{PD_{t}}{Y_{t}} + \left(\frac{D_{t-1}}{Y_{t-1}} * \frac{i_{t} - y_{t}}{1 + y_{t}}\right) + \frac{SF_{t}}{Y_{t}}$$

where t is a time subscript; D, PD, Y and SF are the stock of government debt, the primary deficit, nominal GDP and the stock-flow adjustment respectively, and i and y represent the average cost of debt and nominal GDP growth. The term in parentheses represents the "snow-ball" effect.

Source:

Convergence programme update (CP); Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

5.2. Assessment

The programme's projections for government debt are slightly above the Commission services' autumn 2005 forecasts. This is mainly due a lower primary (and overall) deficit projected by the Commission services in 2005 (see Section 4.1). This is offset by debt decreasing stock-flow adjustment – notably valuation and other effects.

The interest rate risk is currently the most important risk to government debt. In order to minimise it, the government continues to follow a strategy of increasing the share of fixed-yield medium- and long-term treasury bonds and decreasing the share of T-bills. The Ministry of Finance issued a Eurobond of EUR 1.5 billion (about 1³/₄% of GDP) in 2004 and of EUR 1 billion (about 1% of GDP) in 2005. These operations were fully hedged so that there is no currency risk exposure of the Czech government debt.

6. STRUCTURAL REFORM, THE QUALITY OF PUBLIC FINANCES AND INSTITUTIONAL FEATURES

As highlighted above (Subsection 4.2.2), the reduction in the general government deficit over the programme period should be achieved mainly by a cut in the expenditure ratio (by about 2.3 percentage points of GDP) which more than compensates the planned reduction in the revenue ratio (by 0.2 percentage points of GDP). In addition to the decline of the weight of the public sector in the economy, the fiscal consolidation strategy plans to change the structure of both revenues and expenditures (see Subsection 4.2.2).

Making public investment a spending priority and shifting the tax burden form direct to indirect taxation is expected to be less distortive for economic activity and to have a positive effect on both economic growth and labour market participation, mainly among the low- and medium-income labour force.

As regards institutional features of the public finances, the quality of the budgetary process in the Czech Republic is influenced by two recently introduced innovations, which are meant to enhance budgetary discipline: expenditure carryovers and fiscal targeting (see Box 3).

Box 3: Quality of the budgetary process in the Czech Republic

1. Main institutional innovations in the budgetary process

The quality of the budgetary process in the Czech Republic was affected by two major institutional innovations introduced by the new law on budgetary rules of mid-2004.

The possibility of carryovers

First, the spending ministries were given the possibility to carry over unspent expenditures into the following year. The main motivation of this measure was to avoid wasteful spending towards the end of the year.

Fiscal targeting

Second, fiscal targeting was set up to give a medium-term perspective to the process of budgetary planning and to contribute to the reinforcement of aggregate fiscal discipline and to deficit reduction. The mechanism of fiscal targeting is based on the following five steps:

1. The authorities decide about **fiscal targets** defined in terms of **the general government balance as a percentage of GDP**. Currently, national fiscal targets are those defined in the Council EDP recommendation under Article 107(9) of 5 July 2004 (4.7% of GDP in 2005, 3.8% of GDP in 2006 and 3.3% of GDP in 2007 respectively). For 2008, the 2005 update of the convergence programme foresees a deficit target of 2.7% of GDP.

2. The general government target is translated into **the central government target** (i.e. for the state budget and the state funds) also as a percentage of GDP. Privatisation funds are not subject to fiscal targeting and neither are social security funds and local governments since they are not under the direct control of the central government. To translate the general government target into the central government target, assumptions have to be made about the fiscal behaviour of these sectors.

3. **Central government revenues** (in nominal levels) are projected autonomously, usually using growth assumption of the July quarterly forecast of the Ministry of Finance which are at the same time used for the first draft of the next year budget.

4. The combination of the central government fiscal target (step 2) and central government revenues (step 3) results in the **definition** of the balance (in nominal levels) and **of the expenditure ceiling (in nominal levels) for central government**.

5. The central government expenditure ceiling (as defined in step 4) is divided into the **expenditure ceilings for the state budget and for the state funds**. Within these units, the expenditure ceilings are translated in the expenditure ceilings of individual budgetary chapters and lines

According to the fiscal targeting mechanism, the central **government should** thus **follow only medium-term expenditure ceilings defined in nominal levels.** The main economic rationale behind this was to create conditions for an effective functioning of automatic fiscal stabilisers. If the government sticks to the expenditure ceilings the budgetary outcome will automatically be better-than-planned in case of higher-than-expected GDP growth. That means that expenditure ceilings defined in nominal levels should guarantee that higher-than-expected revenues are translated into a faster improvement of the budgetary balance. On the contrary, in case of lower-than-expected economic growth (i.e. less revenues in absolute terms and higher expenditure as a proportion of GDP), the budgetary outcome will be worse-than-planned due to the functioning of automatic stabilisers. In case when growth is lower than expected and the government still wants to achieve the original fiscal target, it has the possibility to present a budget with expenditures below the adopted ceilings.

These steps are **repeated every year** when the budget is prepared. **The planning horizon is three years**. In each year (*n*), the expenditure ceilings for years n+2 and n+3 are adopted together with the central government budget for year n+1. According to the law on budgetary rules, the expenditure ceiling is binding for the government when preparing the next year's budget. However, no sanctions are foreseen if the government exceeds them.

2. Effects of the new budgetary institutions

Experience from 2004 and 2005

The December 2004 convergence programme projected a general government deficit of 5.2% of GDP in 2004. The final outcome was 3.0% of GDP, much lower than expected. For 2005, the current update estimates a deficit of 4.8% of GDP, compared to 3.2% of GDP according to the Commission services' autumn 2005 forecasts. The systematic **overestimations of the outcome for the general government deficit by the Ministry of Finance** can be attributed to three factors.

1. Although the expenditure ceilings became legally binding only for the 2006 budget, the government applied them voluntarily already for the 2004 and 2005 budgets. Within the fiscal targeting framework, the Ministry of Finance applied **cautious assumptions about economic growth and tax revenues** under the ongoing legislative changes. In 2004, budgetary revenues were 0.4% of GDP higher than budgeted. In 2005, the tax revenues (on a cash basis) of the state budget are estimated to be by almost 4% higher than planned. These

positive tax developments occurred despite the decrease of the statutory tax rate in both years.

- 2. There appears to be a systemic under-execution of budgetary expenditures. In 2004, when it was for the first time possible to carry over unspent funds into the following year, expenditures of 1.1% of GDP were rolled over into 2005. The autumn 2005 Commission services' forecasts assume that the under-execution of expenditures will further deepen in 2005. According to the estimates based on the cash execution of the state budget and the state funds, expenditures of some 1½% of GDP are expected to be again carried over into 2006, in the line with the Commission services' autumn forecasts. Apart from the already mentioned cautious approach to GDP forecasting, there are two further reasons for the under-execution of budgetary expenditures. On the one hand, the spending ministries have difficulties to execute expenditures, mostly due to new comprehensive rules on public procurement and to low absorption of the EU structural funds and cohesion Fund. On the other hand, the significant carryovers point to potential over-budgeting of expenditures by spending ministries.
- 3. The budgetary process, including the expenditure ceilings, is on a cash basis (with some modifications) and there is still a high degree of **uncertainty** about the "translation" of cash results into ESA95. Given this uncertainty, it seems that the Ministry of Finance applies a "safety margin" in its ESA95 forecasts.

The 2006 budget

The ceilings became legally binding only for the 2006 budget. This means that, in 2005, when the government prepared the 2006 budget and the expenditure ceiling for 2007, the expenditure ceilings which were adopted in 2004 had to be followed (with some exceptions which are explicitly mentioned in the law). In spite of this, **the 2006 budget explicitly exceeds the binding expenditure ceilings** as adopted in 2004, **by a substantial margin** of about 0.8% of GDP. Moreover, it cannot be excluded that carryovers from 2005 (estimated by the Commission at some $1\frac{1}{2}$ % of GDP) will be spent in addition to all budgeted expenditures in the election year 2006.

3. Conclusions

The new budgetary rules (medium-term fiscal planning based on nominal expenditure ceilings and the possibility of expenditure carryovers) introduced in mid-2004 contributed to a large extent to the much better-than-expected budgetary outcomes in 2004 and 2005. However, the experience with the functioning of these new budgetary rules also reveals several shortcomings.

First, **the two budgetary rules appear not to be fully compatible**. The credibility of the fiscal targeting mechanism based on nominal expenditure ceilings which aim at introducing a medium-term perspective to the process of fiscal planning is undermined by the significant expenditure carryovers. Uncertainty about the spending or further accumulation of expenditure carryovers erodes fiscal policy control by the Ministry of Finance as the decision about the extent and timing to use the carryovers is *de facto* with spending ministries. This uncertainty also creates more general risks for macroeconomic management in the Czech Republic, in particular for the conduct of monetary policy based on inflation targeting. The possibility of carryovers should be accompanied by enhanced quality of budgetary planning concentrating on the analysis of causes of the significant carryovers. The fiscal management system could be improved by making use of expenditure audits and introducing a single treasury (see below).

Second, the explicit breach of the expenditure ceiling in the 2006 budget is not only inconsistent with the record of expenditure under-execution in 2004 and 2005, but it also weakened the credibility of the fiscal targeting mechanism.

The programme includes two further groups of measures which aim at improving the budgetary process. First, it foresees that a number of transformation institutions will be dissolved (the National Property Fund and the State Fund for Soil Fertilisation by end2005; Česká Inkasní²⁰ in 2006; the Czech Consolidation Agency and all its subsidiaries by-end 2007; and the Land Fund by end-2009).

Second, the role of the medium-term expenditure ceilings should be strengthened by implementing the binding principles on the headings of the state budget and of the state funds. Furthermore, the possibility of introducing sanctions for not complying with the expenditure limits of the budget headings is currently being considered. A first step was undertaken to incorporate local governments into the medium-term budgetary planning. The Ministry of Finance set up the "Public Finance Committee" which is an advisory body consisting of representatives of the local governments and of the Ministry of Finance. The inclusion of local governments in the budgetary planning process is very important as their fiscal autonomy is increasing.

The update recognises a number of challenges of the public finances. First, the legal framework for Public-Private-Partnership (PPP) is about to be adopted by parliament and the first projects are being prepared. The government wants to apply a prudent approach to state guarantees and to the creation of implicit government obligations when financing the PPP projects. Second, an Integrated Treasury System should be introduced by 2011. It should improve the administration of state finances, ensure an effective management of state financial operations and provide access to reliable information on state revenues and expenditures in real time. The third challenge is the integration of co-financing of structural operations of the EU funds in the national budgeting process.

The measures described above are broadly consistent with the broad economic policy guidelines in the area of public finances. In particular, the programme foresees the correction of the excessive deficit in line with the Council's recommendations. It also presents measures to promote a growth- and employment-oriented allocation of resources, in particular by decreasing the weight of the state in the economy and by shifting the tax burden from direct to indirect taxation. However, while the government is aware of the problem of the long-term sustainability, the programme does not present concrete steps to address it.

The above mentioned measures are also in line with the National Reform Programme, submitted on 14 October 2005. The budgetary implications of the limited number of concrete reform measures specified in the National Reform Programme are reflected in the budgetary projections of the convergence programme. The measures in the area of public finances envisaged in the convergence programme are in line with the actions foreseen in the National Reform Programme. In particular, the convergence programme outlines measures to support jobs and growth by changes in the revenue and expenditure structure (especially a shift of the tax burden from direct to indirect taxation and a cut in government consumption and transfers) and by making public investment a spending priority, but it does not present any concrete reform steps to address the problem of long-term sustainability. The programme further envisages a strengthening of the role of the medium-term expenditure ceilings by implementing the binding principles on the headings of the state budget and of the state funds and by inclusion of local governments in the budgetary planning process.

Finally, the measures described above are only partly consistent with the invitations included in the Council recommendations under article 104(7) to correct the excessive

²⁰ A defeasance structure created by the Ministry of Finance for consolidation of the Czech banking sector.

deficit procedure. In particular, the medium-term expenditure ceilings were not followed in the 2006 budget and no concrete measures were presented to reform the pension and healthcare systems in order to improve the long-term sustainability of the public finances.

7. THE SUSTAINABILITY OF THE PUBLIC FINANCES

The assessment of the sustainability of the Czech Republic's public finances is based on an overall judgement of the results of quantitative indicators and qualitative features. The debt projections and sustainability indicators are calculated according to two different scenarios, to take into account different budgetary developments over the medium term. The "programme" scenario assumes that the medium-term budgetary plans set up in the programme are actually achieved. The "2005" scenario assumes that the structural primary balance remains unchanged at the 2005 level throughout the programme period.

The long-term projections in the programme have been made in full compliance with the Economic Policy Committee (EPC) projections from 2008 onwards. On the basis of this information, age-related expenditure is foreseen to increase by 8.0 percentage points of GDP between 2008 and 2050, to which pension expenditures contribute most (5.4 percentage points of GDP).²¹ The Commission services analysis is based on the set of government expenditure items covered by the common projections carried out by the EPC^{22} . Tax revenues and non-age related expenditures have been kept constant throughout the projection period.

The gross debt ratio, despite being some way below the average level in the EU at present, is projected to rise above the 60% of GDP reference value already in the 2020s (see Table A4 in Annex 5)²³.

According to both sustainability indicators (S1 and S2), a high sustainability gap arises in the Czech Republic, to which both the weak initial budgetary position and the future budgetary impact of ageing contribute. While some budgetary consolidation is planned over the medium term, this 'programme' scenario is insufficient to fill the considerable sustainability gap. This sustainability gap translates into a required primary balance (RPB) of slightly more than $5\frac{1}{2}\%$ of GDP, significantly higher than the structural primary balance of about $-1\frac{1}{2}\%$ of GDP of the last year of the programme period. This required substantial strengthening of the budgetary position, as suggested by the RPB indicator, appears very difficult to achieve.

Moreover, the sustainability gap, as measured by the S2 indicator, would increase by around 2/3% of GDP if the planned adjustments were to be postponed by 5 years, highlighting that savings can be made over time if action is taken sooner rather than later.

²¹ See Table A2 in Annex 5.

²² Namely, government expenditures on pension, health-care, long-term care, education and unemployment benefits.

²³ It should be recalled that, being a mechanical, partial equilibrium analysis, projections are in some cases bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be taken at face value.

	Sustainability indicators and RPB							
	2005 scenario				Programme scenario			
	S1	S2	RPB		S1	S2		RPB
Value (of which)	4.3	7.4	5.7		3.7	6.8		5.6
initial budgetary position	2.5	2.7			1.9	2.1		
debt requirement in 2050	-0.3	:			-0.4	:		
future changes in budgetary position	2.2	4.7			2.2	4.7		

Note: The S1 indicator measures the sustainability gap as the difference between the constant revenue ratio as a share of GDP required to reach a debt ratio in 2050 of 60% of GDP and the current revenue ratio. The S2 indicator measures the sustainability gap as the difference between the constant revenue ratio as a share of GDP that guarantees the respect of the inter-temporal budget constraint of the government, i.e. that equates the actualized flow of revenues and expenses over an infinite horizon, and the current revenue ratio²⁴. The Required Primary Balance (RPB) measures the average primary balance over the first five years of the projection period (after the end of the programme period) that results from a permanent budgetary adjustment carried out to satisfy the inter-temporal budget constraint. See European Commission (2005), European Economy, 'Public finances in EMU – 2005', Section II.3 for a further description.

In interpreting these results, several factors need to be taken into account.

The Czech government is aware of risks related to the outlook for long-term sustainability and is committed to address the problem. However, the November 2005 updated programme does not present any new concrete measures in this respect.

The government intends to further pursue the pension reform measures of 2004. In particular, it intends to further increase the statutory retirement age, to strengthen the support for voluntary savings in old age, and to create a buffer fund, mainly financed by privatisation revenues and by expected temporary surpluses on social security accounts. The envisaged pension reforms are also meant to create better incentives for employment of older workers. Concrete measures to reform the health care system in a sustainable way are also on the agenda. Currently, the government is still in the process of adopting some plans to improve the financial stability of the health care system. These intentions and plans go in the right direction to address sustainability concerns but their impact depends crucially on their actual implementation.

With regard to the sustainability of public finances, the Czech Republic appears to be at high risk on grounds of the projected budgetary costs of ageing populations. While the debt ratio is currently relatively low in an EU perspective, the high deficit contributes to a rising debt ratio in the long-term projections until 2050, which increases the risk to debt sustainability. At the same time, the projected high increases of pension expenditure over the projection period are expected to put a significant burden on the public finances. A rigorous implementation of the planned consolidation of public finances over the medium term and a further strengthening of the budgetary position together with additional structural reforms to contain the increase in age-related expenditures, in particular on pensions and health care, appear to be of key importance in order to mitigate the risks to public finance sustainability.

* * *

²⁴ The sustainability gap indicators (S1, S2) do not necessarily suggest that taxes should be increased; strengthening the fiscal position by permanently reducing the level of non-age related primary spending could be preferable and has the same impact.

Annex 1: Summary tables from the convergence programme update

	ESA	2004	2004	2005	2006	2007	2008
	ESA Code	Laval	rate of	rate of	rate of	rate of	rate of
	Couc	Level	change	change	change	change	change
1. Real GDP	B1*g	2669	4.4	4.8	4.4	4.2	4.3
2. Nominal GDP	B1*g	2750	7.6	5.7	6.7	7.0	7.4
		Compon	ents of real	GDP			
3. Private consumption expenditure	P.3	1343	2.1	2.3	3.5	3.6	3.6
4. Government consumption expenditure	P.3	592	-2.0	-0.6	-0.2	-0.5	-0.5
5. Gross fixed capital formation	P.51	737	7.6	2.8	3.4	4.8	7.5
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	9.0	0.3	-0.4	0.3	0.6	0.7
7. Exports of goods and services	P.6	1938	21.9	9.5	10.2	9.8	10.0
8. Imports of goods and services	P.7	1950	18.4	3.9	8.8	8.9	9.8
	Co	ntribution	s to real GD	P growth			
9. Final domestic demand		-	2.6	1.8	2.6	2.9	3.6
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	0.1	-1.0	0.6	0.3	0.2
11. External balance of goods and services	B.11	-	1.7	4.0	1.2	1.0	0.6

Table 1a. Macroeconomic prospects

Table 1b. Price developments

	ESA	2004	2004	2005	2006	2007	2008
	Code	level	rate of change				
1. GDP deflator		155.4	3.0	0.9	2.2	2.8	3.0
2. Private consumption deflator		146.0	2.7	1.5	2.4	2.3	2.9
3. HICP ²⁵		108.7	2.6	1.5	2.2	2.0	2.1
4. Public consumption deflator		164.8	5.2	5.3	4.5	4.5	4.4
5. Investment deflator		126.8	1.7	0.3	0.7	0.4	1.2
6. Export price deflator (goods and services)		114.6	1.8	-2.4	-0.3	1.9	2.0
7. Import price deflator (goods and services)		102.1	1.7	-0.6	0.1	1.3	1.6

²⁵ Optional for Stability programmes.

Table 1c. Labour market developments

	ESA	2004	2004	2005	2006	2007	2008
	Code	Level	rate of change				
1. Employment, persons ²⁶		4849	0.1	0.9	0.8	0.5	0.4
2. Employment, hours worked ²⁷		9487	0.5	0.9	0.8	0.5	0.4
3. Unemployment rate (%) ²⁸		8.3	8.3	7.9	7.4	7.1	6.9
4. Labour productivity, persons ²⁹		567	4.4	3.8	3.6	3.6	3.9
5. Labour productivity, hours worked ³⁰		290	3.9	3.8	3.6	3.6	3.9
6. Compensation of employees	D.1	1178	5.4	5.2	5.3	6.0	6.5

Table 1d. Sectoral balances

% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-5.2	-2.6	-2.2	-0.6	0.8
of which: - Balance on goods and services		-0.3	2.1	2.8	4.1	4.7
- Balance of primary incomes and transfers		-4.8	-4.8	-5.2	-5.2	-5.0
- Capital account		0.2	0.2	0.4	0.7	1.3
2. Net lending/borrowing of the private sector	B.9/ EDP B.9	-2.2	2.2	1.6	2.7	3.5
3. Net lending/borrowing of general government	B.9	-3.0	-4.8	-3.8	-3.3	-2.7
4. Statistical discrepancy		0.0	0.0	0.0	0.0	0.0

²⁶ Occupied population, domestic concept national accounts definition.

²⁷ National accounts definition.

²⁸ Harmonised definition, Eurostat; levels.

²⁹ Real GDP per person employed.

³⁰ Real GDP per hour worked.

Table 2.	General	government	budgetary	pros	pects
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	ESA	2004	2004	2005	2006	2007	2008
	code	Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
		Net lending (EDP B.9) by s	ub-sector			
1. General government	S.13	-83.5	-3.0	-4.8	-3.8	-3.3	-2.7
2. Central government	S.1311	-81.3	-3.0	-4.9	-3.5	-3.0	-2.4
3. State government	S.1312	-	-	-	-	-	-
4. Local government	S.1313	-2.2	-0.1	-0.1	-0.3	-0.3	-0.3
5. Social security funds	S.1314	-0.1	0.0	0.1	0.0	0.0	0.0
		General	government (S13)			
6. Total revenue	TR	1145.0	41.6	41.1	40.2	39.8	40.9
7. Total expenditure	TE ³¹	1228.5	44.7	45.9	44.0	43.1	43.6
8. Net lending/borrowing	EDP B.9	-83.5	-3.0	-4.8	-3.8	-3.3	-2.7
9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	34.7	1.3	1.3	1.3	1.3	1.5
pm: 9a. FISIM		0.0	0.0	0.0	0.0	0.0	0.0
10. Primary balance ³²		-49.5	-1.8	-3.5	-2.5	-2.0	-1.2
		Selected co	mponents of r	evenue			
11. Total taxes (11=11a+11b+11c)		588.6	21.4	21.2	20.4	19.9	20.0
11a. Taxes on production and imports	D.2	327.2	11.9	11.8	11.9	11.6	11.3
11b. Current taxes on income, wealth, etc	D.5	260.6	9.5	9.3	8.5	8.3	8.6
11c. Capital taxes	D.91	0.8	0.0	0.0	0.0	0.0	0.0
12. Social contributions	D.61	419.4	15.3	15.2	15.2	15.1	15.0
13. Property income	D.4	22.3	0.8	0.5	0.5	0.5	0.4
14. Other (14=15-(11+12+13))		114.7	4.2	4.1	4.1	4.4	5.5
15=6. Total revenue	TR	1145.0	41.6	41.1	40.2	39.8	40.9
p.m.: Tax burden (D.2+D.5+D.61+D.91- D.995) ³³		1008.0	36.7	36.4	35.7	35.0	34.9

	Selected components of expenditure										
16. Collective consumption	P.32	311.4	11.3	11.2	11.0	10.6	10.2				
17. Total social transfers	D.62 + D.63	639.2	23.2	23.1	22.7	22.1	21.6				
17a. Social transfers in kind	P.31 = D.63	310.7	11.3	11.3	11.0	10.7	10.5				
17b. Social transfers other than in kind	D.62	328.5	11.9	11.8	11.7	11.4	11.2				
18.=9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	34.7	1.3	1.3	1.3	1.3	1.5				
19. Subsidies	D.3	59.3	2.2	2.3	2.1	2.0	2.0				
20. Gross fixed capital formation	P.51	138.7	5.0	5.2	5.2	5.3	6.1				
21. Other (21=22-(16+17+18+19+20))		45.3	1.6	2.9	1.7	1.7	2.2				
22=7. Total expenditure	TE ³⁴	1228.5	44.7	45.9	44.0	43.1	43.6				
Pm: compensation of employees	D.1	222.2	8.1	8.0	7.8	7.6	7.3				

³¹ Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

³² The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41 + FISIM recorded as intermediate consumption, item 9).

³³ Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

³⁴ Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

Table 3. General government expenditure by function

% of GDP	COFOG Code	2003	2008
1. General public services	1		
2. Defence	2		
3. Public order and safety	3		
4. Economic affairs	4		
5. Environmental protection	5		
6. Housing and community amenities	6		
7. Health	7		
8. Recreation, culture and religion	8		
9. Education	9		
10. Social protection	10		
11. Total expenditure (= item 7=26 in Table 2)	TE^{35}		

Table 4. General government debt developments

% of GDP		2004	2005	2006	2007	2008			
1. Gross debt ³⁶		36.8	37.4	37.1	37.9	37.8			
2. Change in gross debt ratio		0.0	0.6	-0.3	0.8	-0.1			
	Contr	ibutions to cha	nges in gross de	ebt					
3. Primary balance ³⁷		1.8	3.5	2.5	2.0	1.2			
4. Interest expenditure (incl. FISIM) ³⁸		1.3	1.3	1.3	1.3	1.5			
5. Stock-flow adjustment		-0.5	-2.3	-1.8	-0.1	-0.2			
of which: - Differences between cash and accruals ³⁹		-0.2	-0.5	-0.1	0.0	0.0			
- Net accumulation of financial assets ⁴⁰		-0.6	-3.5	0.0	0.0	0.0			
of which: - privatisation proceeds		-0.6	-3.5	0.0	0.0	0.0			
- Valuation effects and other ⁴¹		0.3	1.8	-1.7	-0.1	-0.1			
p.m. implicit interest rate on debt ⁴²		3.7	3.7	3.8	3.9	4.1			
Other relevant variables									
6. Liquid financial assets ⁴³		-	-	-	-	-			
7. Net financial_debt (7=1-6)		-	-	-	-	-			

³⁸ Cf. item 9 in Table 2.

³⁵ Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

³⁶ As defined in Regulation 3605/93 (not an ESA concept).

³⁷ Cf. item 10 in Table 2.

³⁹ The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.

⁴⁰ Liquid assets, assets on third countries, government controlled enterprises and the difference between quoted and non-quoted assets could be distinguished when relevant.

⁴¹ Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.

⁴² Proxied by interest expenditure (incl. FISIM recorded as consumption) divided by the debt level of the previous year.

⁴³ AF1, AF2, AF3 (consolidated at market value), AF5 (if quoted in stock exchange; including mutual fund shares).

 Table 5. Cyclical developments

V 1						
% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Real GDP growth (%)		4.4	4.8	4.4	4.2	4.3
2. Net lending of general government	EDP B.9	-3.0	-4.8	-3.8	-3.3	-2.7
3. Interest expenditure (incl. FISIM recorded as consumption)	EDPD.41 + FISIM	1.3	1.3	1.3	1.3	1.4
4. Potential GDP growth (%) (1)		3.6	4.3	4.3	4.3	4.5
contributions:						
- labour		0.0	0.2	0.1	0.1	0.1
- capital		1.1	1.2	1.1	1.1	1.2
- total factor productivity		2.5	2.9	3.1	3.1	3.1
5. Output gap		-0.4	0.1	0.1	0.0	-0.2
6. Cyclical budgetary component		-0.1	0.0	0.0	0.0	0.0
7. Cyclically-adjusted balance (2-6)		-3.0	-4.8	-3.8	-3.3	-2.7
8. Cyclically-adjusted primary balance (7-3)		-1.7	-3.5	-2.5	-2.0	-1.2

(1) Until an agreement on the Production Function Method is reached, Member States can use their own figures (CP)

Table 6. Divergence from previous update

	ESA Code	2004	2005	2006	2007	2008
Real GDP growth (%)						
Previous update		3.8	3.6	3.7	3.8	
Current update		4.4	4.8	4.4	4.2	4.3
Difference		0.6	1.2	0.7	0.4	
General government net lending						
(% of GDP)	EDF D.9					
Previous update		-5.2	-4.7	-3.8	-3.3	
Current update		-3.0	-4.8	-3.8	-3.3	-2.7
Difference		2.2	-0.1	0.0	0.0	
General government gross debt						
(% of GDP)						
Previous update		38.6	38.3	39.2	40.0	
Current update		36.8	37.4	37.1	37.9	37.8
Difference		-1.8	-1.0	-2.1	-2.2	

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050
Total expenditure	42.1	45.9	43.0	43.3	45.8	57.6
Of which: age-related expenditures	19.9	20.0	19.0	19.1	21.0	27.3
Pension expenditure	8.7	8.3	7.9	8.1	9.2	13.5
Social security pension	8.7	8.3	7.9	8.1	9.2	13.5
Old-age and early pensions	7.7	7.5	7.2	7.4	8.4	12.8
Other pensions (disability, survivors)	1.0	0.8	0.7	0.8	0.8	0.7
Occupational pensions (if in general	-	-	-	-	-	-
government)						
Health care	6.0	6.6	6.5	6.9	7.5	9.1
Long-term care (this was earlier included	0.2	03	03	03	0.4	0.6
in the health care)	0.2	0.5	0.5	0.5	0.1	0.0
Education expenditure	3.5	3.7	3.2	2.8	2.9	3.1
Other age-related expenditures	1.4	1.1	1.0	1.0	0.9	1.1
Interest expenditure	0.9	1.3	1.1	1.3	2.0	7.5
Total revenue	38.5	41.1	40.9	40.9	40.9	40.9
Of which: property income	0.5	0.5	0.4	0.4	0.4	0.4
<i>of which</i> : from pensions contributions (or social contributions if appropriate)	7.9	8.9	8.9	8.9	8.9	8.9
Pension reserve fund assets	0.0	0.8	4.9	14.2	17.4	0.0
Of which: consolidated public pension fund assets (assets other than government liabilities)	0.0	0.0	0.0	0.0	0.0	0.0
		Assumptions				_
Labour productivity growth	4.6	3.8	3.4	3.0	2.7	1.7
Real GDP growth	3.9	4.8	3.6	2.5	1.9	0.8
Participation rate males (aged 20-64)	86.3	84.3	84.6	87.4	87.1	85.6
Participation rates females (aged 20-64)	68.9	68.5	70.6	76.4	76.1	74.0
Total participation rates (aged 20-64)	77.6	76.4	77.6	81.9	81.6	79.8
Unemployment rate	8.8	7.9	7.3	6.5	6.5	6.5
Population aged 65+ over total population	13.8	14.0	15.5	20.8	23.6	31.0

Table 8. Basic assumptions

This table should preferably be included in the programme itself; if not, these assumptions should be transmitted to the Council and the Commission together with the programme.

	2004	2005	2006	2007	2008
Short-term interest rate ⁴⁴	2.4	1.0			
(annual average)	2.4	1.9	-	-	-
Long-term interest rate	18	3.3	3.4	3.0	4.0
(annual average)	4.0	5.5	5.4	3.9	4.0
USD/€exchange rate (annual average)	1.2	13	1.2	12	12
(euro area and ERM II countries)	1.2	1.5	1.2	1.2	1.2
Nominal effective exchange rate	116.4	123.5	126.1	128.3	130.5
(for countries not in euro area or ERM II)	31.0	20.8	20.2	287	<u> </u>
exchange rate vis-à-vis the €(annual average)	51.9	29.0	29.2	20.7	20.2
World excluding EU, GDP growth	5.2	4.8	4.6	4.7	4.8
EU GDP growth	2.3	1.5	2.0	2.3	2.4
Growth of relevant foreign markets	7.6	4.3	6.2	5.5	6.6
World import volumes, excluding EU	9.5	8.3	8.0	7.5	7.7
Oil prices, (Brent, USD/barrel)	38.3	55.5	60.5	57.8	54.3

⁴⁴ If necessary, purely technical assumptions. Short-term interest rates assumptions for the years 2006-2008 were sent to the Commission services on a confidential basis.

Annex 2: Compliance with the code of conduct

The table below provides a detailed assessment of whether the programme respects the requirements of Section II of the new code of conduct. It is in four parts, covering compliance with (i) the window for the date of submission of the programme; (ii) the model structure (table of contents) in Annex 1 of the code; (iii) the data requirements (model tables) in Annex 2 of the code; and (iv) other information requirements. In the main text, points (ii) and (iii) are grouped into the "format" requirements of the code, whereas point (iv) refers to its "content" requirements.

Guidelines in the new code of conduct	Yes	No	Comments
1 Cubricsion of the macromene			
1. Submission of the programme	v		
Programme was submitted not earlier than mid-October and	А		
not later than 1 December ¹ .			
2. Model structure			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	Х		Some deviations, e.g. cyclical developments not very explicit in Section 2 "Economic outlook"; no analysis of below the line operations and stock-flow adjustment
3. Model tables (so-called data requirements)			
The quantitative information is presented following the	X		
standardised set of tables (Annex 2 of the code of conduct)			
The programme provides all compulsory information in these	X		
tables			
The programme provides all optional information in these tables.		Х	General government expenditure by function (Table 3): missing "Other relevant variables" missing in Table 4: line 6: Liquid financial assets, line 7: Net financial debt
The concepts used are in line with the European system of accounts (ESA).	X		
4. Other Information requirements			
a. Involvement of purilament	v		
parliament.	Λ		
The programme indicates whether the Council opinion on the	Х		
previous programme has been presented to the national			
parliament.			
b. Economic outlook	•		
Euro area and ERM II Member States uses the "common			not applicable
external assumptions" on the main extra-EU variables.			
Significant divergences between the national and the Commission services' economic forecasts are explained ² .			not applicable (CP finalised before the publication of the Commissions services' 2005 autumn forecasts)
The possible upside and downside risks to the economic	X		

Guidelines in the new code of conduct	Yes	No	Comments
outlook are brought out.			
The outlook for sectoral balances and, especially for countries	Х		
with a high external deficit, the external balance is analysed.			
c. Monetary/exchange rate policy			
The <u>convergence</u> programme presents the medium-term	X		
monetary policy objectives and their relationship to price and			
exchange rate stability.			
d. Budgetary strategy			
The programme presents budgetary targets for the general	Γ	Γ	not applicable
government balance in relation to the MTO, and the projected			
path for the debt ratio.			
In case a new government has taken office, the programme			not applicable
shows continuity with respect to the budgetary targets			
endorsed by the Council.			
When applicable, the programme explains the reasons for			not applicable
possible deviations from previous targets and, in case of			
substantial deviations, whether measures are taken to rectify			
the situation, and provide information on them.	Ļ		
The budgetary targets are backed by an indication of the broad	Х		
measures necessary to achieve them and an assessment of their			
quantitative effects on the general government balance is			
analysed.			
Information is provided on one-off and other temporary	Х		
measures.	L		
The state of implementation of the measures (enacted versus	X		
planned) presented in the programme is specified.	 		. 1. 1.1
If for a country that uses the transition period for the			not applicable
classification of second-pillar funded pension schemes, the			
programme presents information on the impact on the public			
finances.	<u> </u>	<u> </u>	
e. "Major structural reforms"	<u> </u>	<u> </u>	ant annliaghla
If the MTO is not yet reached or a temporary deviation is			not applicable
planned from the achieved wirth, the programme includes			
comprehensive information on the economic and oudgetary			
The programme includes a quantitative cost henefit analysis of			not annlicable
the short term posts and long term benefits of such reforms			not applicable
f Consistinity analysis		<u> </u>	
J. Sensurvuy unuysis The programme includes comprehensive sensitivity analyses	v	<u> </u>	However less detailed
and/or devalops alternative scenarios showing the effect on the	Λ		mainly concentrating on
allu/of uevelops allemative scenarios showing the effect on the budgetary and debt position of:			changes in the main
a) changes in the main economic assumptions			macroeconomic
b) different interest rate assumptions			assumptions.
c) for non-participating Member States different exchange			
rate assumptions			
d) if the common external assumptions are not used, changes			
in assumptions for the main extra-EU variables.			
In case of such "major structural reforms", the programme	†		not applicable
provides an analysis of how changes in the assumptions would			**
affect the effects on the budget and potential growth.			
g. Broad economic policy guidelines	<u>. </u>	<u> </u>	
The programme provides information on the consistency with	Х		
the broad economic policy guidelines of the budgetary			
objectives and the measures to achieve them.			
h Quality of nublic finances			

Guidelines in the new code of conduct	Yes	No	Comments
The programme describes measures aimed at improving the	Х		
quality of public finances on both the revenue and expenditure			
side (e.g. tax reform, value-for-money initiatives, measures to			
improve tax collection efficiency and expenditure control).			
i. Long-term sustainability		-	
The programme outlines the country's strategies to ensure the	Х		
sustainability of public finances, especially in light of the			
economic and budgetary impact of ageing populations.			
Common budgetary projections by the AWG are included in	Х		
the programme. The programme includes all the necessary			
additional information. () To this end, information included			
in programmes should focus on new relevant information that			
is not fully reflected in the latest common EPC projections.			
j. Other information (optional)	-	-	
The programme includes information on the implementation of	Х		
existing national budgetary rules (expenditure rules, etc.), as			
well as on other institutional features of the public finances, in			
particular budgetary procedures and public finance statistical			
governance.			
Notes:			

 $\frac{1}{1}$ The code of conduct allows for the following exceptions: (i) Ireland should be regarded as complying with the deadline in case of submission on "budget day", i.e. traditionally the first Wednesday of December, (ii) the UK should submit as close as possible to its autumn pre-budget report; and (iii) Austria and Portugal cannot comply with the deadline but will submit no later than 15 December. ²To the extent possible, bearing in mind the typically short time period between the publication of the Commission

services' autumn forecasts and the submission of the programme.

Annex 3: Consistency with the broad economic policy guidelines

The table below provides an overview of whether the strategy and policy measures in the programme are consistent with the broad economic policy guidelines in the area of public finances.

Integrated guidelines	Yes	No	Not applicable
1. To secure economic stability			
 Member States should respect their medium-term budgetary objectives. As long as this objective has not yet been achieved, they should take all the necessary corrective measures to achieve it¹. 			X
 Member States should avoid pro-cyclical fiscal policies². 			X
 Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits³. 	X		
 Member States posting current account deficits that risk being unsustainable should work towards (), where appropriate, contributing to their correction via fiscal policies. 			X
2. To safeguard economic and fiscal sustainability			
 Member States should undertake a satisfactory pace of government debt reduction to strengthen public finances. 			X
 Member States should reform and re-enforce pension, social insurance and health care systems to ensure that they are financially viable, socially adequate and accessible () 		X	
3. To promote a growth- and employment-orientated and eff	ficient all	ocation a	of resources
Member States should, without prejudice to guidelines on economic stability and sustainability, re-direct the composition of public expenditure towards growth- enhancing categories in line with the Lisbon strategy, adapt tax structures to strengthen growth potential, ensure that mechanisms are in place to assess the relationship between public spending and the achievement of policy objectives and ensure the overall coherence of reform packages.	Х		
Notes: $\frac{1}{1}$ As further specified in the Stability and Growth Pact and the nu	ew code of	f conduct	i e with an annual

¹ As further specified in the Stability and Growth Pact and the new code of conduct, i.e. with an annual 0.5% of GDP minimum adjustment in structural terms for euro area and ERM II Member States.

² As further specified in the Stability and Growth Pact and the new code of conduct, i.e. Member States that have already achieved the medium-term objective should avoid pro-cyclical fiscal policies in "good times".

³ As further specified in the country-specific Council recommendations and decisions under the excessive deficit procedure.

Annex 4: Assessment of tax projections

Table 6 compares the tax projections of the programme with those of the Commission services' autumn 2005 forecasts and Table 7 those of the Commission services' autumn forecasts with tax projections obtained by using standard ex-ante elasticities, as estimated by the OECD. The tables summarise the results for the total tax-to-GDP ratio. The underlying analysis is carried out exploiting information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see tables below)⁴⁵. Conceptually, the analysis draws on the definition of a semi-elasticity, which measures the change in a ratio vis-à-vis the relative change in the denominator. The semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written and the semi-elastic tax and tax

as:

$$\eta_i = \frac{d\left(\frac{T_i}{Y}\right)}{dY} Y = \left(\frac{dT_i}{dY}\frac{Y}{T_i} - 1\right) \frac{T_i}{Y} = \left(\frac{dT_i}{dB_i}\frac{B_i}{T_i}\frac{dB_i}{dY}\frac{Y}{B_i} - 1\right) \frac{T_i}{Y} = (\varepsilon_{T_i,B_i}\varepsilon_{B_i,Y} - 1)\frac{T_i}{Y}$$

where ε_{T_i,B_i} and $\varepsilon_{B_i,Y}$ denote the elasticity of the *i*-th tax T_i relative to its tax base B_i and the elasticity of the tax base B_i relative to aggregate GDP Y respectively.

To the extent that ε_{T_i,B_i} is derived from observed or projected data, it will typically reflect (i) the effect of discretionary measures (including one-offs) and (ii) the tax elasticity⁴⁶. By contrast, if ε_{T_i,B_i} is the standard *ex-ante* elasticity, as estimated by the OECD, it will be net of discretionary measures.

The second elasticity $\varepsilon_{B_i,Y}$ can be used as an indicator of the tax intensity of GDP growth; for instance, a higher elasticity of consumption relative to GDP means that for the same GDP growth indirect taxes will be higher.

The definition of a semi-elasticity has two practical implications. First, any change in the tax-to-GDP ratio of the *i*-th tax can be written as the product of the semi-elasticity and GDP growth:

$$d\left(\frac{T_i}{Y}\right) = \eta_i \cdot \frac{dY}{Y}$$

and the change in the total tax-to-GDP ratio is the sum:

$$\sum_{i} d\left(\frac{T_{i}}{Y}\right) = \sum_{I} \eta_{i} \frac{dY}{Y} \, .$$

Second, differences between two tax projections can be decomposed into an elasticity component and a composition component:

factors (OF) such as discretionary measures: $\frac{\Delta T_i}{T_i} = \varepsilon_{T_i, B_i exante} \frac{dB_i}{B_i} + \frac{OF_i}{T_i} = \varepsilon_{T_i, B_i expost} \frac{dB_i}{B_i}.$

⁴⁵ Private and corporate income taxes are generally not provided, neither in the programme nor in the Commission services' autumn 2005 forecasts. Only the aggregate, direct income taxes, is given. For the purpose of this exercise the breakdown is obtained using the average shares over the past ten years, i.e. the composition of direct taxes is assumed to stay constant.

⁴⁶ The observed or projected elasticity (ex-post elasticity) of the *i*-th tax also includes the effect of other

$$d\left(\frac{T_i}{Y}\right) - d\left(\frac{T_i}{Y}\right) = \left[\left(\varepsilon_{T_i,B_i} \varepsilon_{B_i,Y} - 1\right) \frac{T_i}{Y} - \left(\varepsilon_{T_i,B_i} \varepsilon_{B_i,Y} - 1\right) \frac{T_i}{Y}\right] \frac{dY}{Y}.$$

If $(\varepsilon_{T_i,B_i} - \varepsilon_{T_i,B_i}) = \alpha_i$; $(\varepsilon_{B_i,Y} - \varepsilon_{B_i,Y}) = \beta_i$, then $d\left(\frac{T_i}{Y}\right) - d\left(\frac{T_i}{Y}\right) = \left[\left(\alpha_i\varepsilon_{B_i,Y} + \beta_i\varepsilon_{T_i,B_i} + \alpha_i\beta_i\right)\frac{T_i}{Y}\right]\frac{dY}{Y}$

where $\alpha_i \varepsilon_{B_i,Y} \frac{T_i}{Y} \frac{dY}{Y}$ determines the elasticity component and $\beta_i \varepsilon_{T_i,B_i} \frac{T_i}{Y} \frac{dY}{Y}$ the composition component. The third component in the equation $\alpha_i \beta_i \frac{T_i}{Y} \frac{dY}{Y}$ measures the interaction of the elasticity and the composition components. It is generally small but can become important in some cases. The tax elasticity relative to GDP of total taxes is obtained as $\varepsilon = \sum_i w_i \varepsilon_{T_i,B_i} \varepsilon_{B_iY}$ with w_i the share of the *i-th* tax in the overall tax burden.

The tables below report the results of the assessment of the tax projections presented in the programme by major tax category, which, as mentioned above, are the basis for the aggregated results reported in Tables 6 and 7.

	20	06	2007		2008	p.m.:
	СОМ	СР	\mathbf{COM}^2	СР	СР	OECD ¹
Taxes on production and imports:						
Change in tax-to-GDP ratio	0.0	0.1	0.0	-0.3	-0.3	/
Difference	0	.1	-0).4	/	/
of which ³ : - elasticity component	0	.1	-0).3	/	/
- composition component	0	.0	-0).1	/	/
p.m.: Observed elasticity:		1 1 1				
- of taxes to tax base ⁴	1.2	1.3	1.1	0.7	0.7	1.0
- of tax base ⁴ to GDP	0.8	0.9	1.0	0.8	0.9	1.0
Social contributions:						
Change in tax-to-GDP ratio	0.1	0.0	0.0	-0.1	-0.1	/
Difference	-0).1	-0).1	/	/
of which ³ : - elasticity component	0	.0	-0).1	/	/
- composition component	-0.1		0.0		/	/
p.m.: Observed elasticity:		1 1 1				
- of taxes to tax base ⁵	1.2	1.3	1.2	1.0	1.0	1.1
- of tax base ⁵ to GDP	0.9	0.8	0.9	0.9	0.9	0.73
Personal income tax ⁶ :						
Change in tax-to-GDP ratio	-0.1	-0.4	0.0	-0.1	0.2	/
Difference	-0).4	-0).1	/	/
of which ³ : - elasticity component	-0).4	-0).1	/	/
- composition component	0	.0	0	.0	/	/
p.m.: Observed elasticity:		1 1 1		1 1 1		
- of taxes to tax base ⁵	0.9	-0.5	1.0	0.7	1.7	1.7
- of tax base ⁵ to GDP	0.9	0.8	0.9	0.9	0.9	0.73
Corporate income tax ⁶ :		1 1 1				
Change in tax-to-GDP ratio	-0.1	-0.4	0.0	-0.1	0.2	/
Difference	-0.3		-0).1	/	/
of which ³ : - elasticity component	-0	0.3	-0.1		/	/
- composition component	0	.0	0	.0	/	/
p.m.: Observed elasticity:						
- of taxes to tax base ⁷	0.7	-0.3	0.8	0.6	1.4	1.0

Assessment of tax projections by major tax category

- of tax base ⁷ to GDP		1.1	i	1.2		1.1	i	1.1	I	1.1	I	1.39
Notes:												
¹ OECD ex-ante elasticities												
² On a no-policy change basis												
³ The decomposition is explained in the	e tex	t abov	e									
⁴ Tax base = private consumption expe	ndit	ure										
⁵ Tax base = compensation of employed	es											
⁶ Taxes on income and wealth are split	intc	o priva	te an	d corpo	orate	incom	e tax	using	the a	average	e tax	share
over the past ten years, i.e. the share is	ass	umed	to be	e consta	int o	ver the	prog	gramme	e per	riod		
7 Tax base = gross operating surplus												
<u>Source</u> :												
Commission services' autumn 2005 ec	ono	mic fo	reca	sts (CC	<i>)M);</i>	Comm	issio	n servi	ices'	calcul	atior	is and
OECD (N. Girouard and C. André (20	05),	"Mec	isuri	ng Cyc	lical	ly-Adjı	usted	Budge	et Ba	lances	for t	the

Assessment of tax elasticities by major tax category

OECD Countries", OECD Working Paper No. 434)

	200	6	200	7						
	СОМ	ex-ante ¹	\mathbf{COM}^2	ex-ante ¹						
	(observed)	ex unite	(observed)	en unite						
Taxes on production and imports:										
Change in tax-to-GDP ratio	0.0	0.0	0.0	0.0						
Difference	0.0)	0.0)						
of which ³ : - elasticity component	0.1	-	0.1							
- composition component	-0.2	2	0.0							
p.m.: Observed elasticity:										
- of taxes to tax base ⁴	1.2	1.0	1.1	1.0						
- of tax base ⁴ to GDP	0.8	1.0	1.0	1.0						
Social contributions:										
Change in tax-to-GDP ratio	0.1	-0.2	0.0	-0.2						
Difference	0.3	3	0.2							
of which ³ : - elasticity component	0.1		0.1							
- composition component	0.2	2	0.2							
p.m.: Observed elasticity:										
- of taxes to tax base ⁵	1.2	1.1	1.2	1.1						
- of tax base ⁵ to GDP	0.9	0.7	0.9	0.7						
Personal income tax ⁶ :										
Change in tax-to-GDP ratio	-0.1	0.1	0.0	0.1						
Difference	-0.	1	-0.	l						
of which ³ : - elasticity component	-0.2	2	-0.2	2						
- composition component	0.0)	0.0							
p.m.: Observed elasticity:										
- of taxes to tax base ⁵	0.9	1.7	1.0	1.7						
- of tax base ⁵ to GDP	0.9	0.7	0.9	0.7						
Corporate income tax ⁶ :										
Change in tax-to-GDP ratio	-0.1	0.1	0.0	0.1						
Difference	-0.2	2	-0.	1						
of which ³ : - elasticity component	-0.1	1	-0.	1						
- composition component	-0.	1	-0.	1						
p.m.: Observed elasticity:										
- of taxes to tax base ⁷	0.7	1.0	0.8	1.0						
- of tax base' to GDP	1.1	1.4	1.1	1.4						

Notes:

¹Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD

²On a no-policy change basis

³The decomposition is explained in the text above

⁴Tax base = private consumption expenditure ⁵Tax base = compensation of employees

⁶Taxes on income and wealth are split into private and corporate income tax using the average tax share over the past ten years, i.e. the share is assumed to be constant over the programme period

 7 Tax base = gross operating surplus

Source:

Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

Annex 5: Indicators of long-term sustainability

% of GDP	20	2010		2010 24		2020 203		30 2050		50
	EPC	SCP	EPC	SCP	EPC	SCP	EPC	SCP		
Labour productivity growth	3.4	3.4	3.0	3.0	2.7	2.7	1.7	1.7		
Real GDP growth	3.6	3.6	2.5	2.5	1.9	1.9	0.8	0.8		
Participation rate males (aged 20-64)	84.6	84.6	87.4	87.4	87.1	87.1	85.6	85.6		
Participation rates females (aged 20-64)	70.6	70.6	76.4	76.4	76.1	76.1	74.0	74.0		
Total participation rates (aged 20-64)	77.6	77.6	81.9	81.9	81.6	81.6	79.8	79.8		
Unemployment rate	7.3	7.3	6.5	6.5	6.5	6.5	6.5	6.5		
Population aged 65+ over total population	15.5	15.5	20.8	20.8	23.6	23.6	31.0	31.0		

Table A1: Underlying assumptions compared

Table A2: Long-term projections

Main assumptions - programme scenario								Impact
(as % GDP)	2008	2010	2020	2030	2040	2050	changes	on S2
Total age-related spending	18.5	18.1	18.3	20.2	23.8	26.5	8.0	4.7
Pensions	8.1	7.9	8.1	9.2	11.8	13.5	5.4	3.3
Health care	6.5	6.5	6.9	7.5	8.3	9.1	2.6	1.7
Care of the elderly	0.3	0.3	0.3	0.4	0.5	0.6	0.3	0.2
Education	3.4	3.2	2.8	2.9	3.0	3.1	-0.3	-0.4
Unemployment benefits	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total primary non age-related spending	23.6	23.6	23.6	23.6	23.6	23.6	0.0	0.0
Total revenues	40.6	40.6	40.6	40.6	40.6	40.6	0.0	0.0

Table A3: The cost of a five-year delay in adjusting the budgetary position according to the S1 and S2

	S1	S2
2005 scenario	0.1	0.1
Programme scenario	0.6	0.6

Note: the cost of a delay shows the increase of the S1 and S2 indicators if they were calculated five years later.

Table A4: Debt development

Results (as % GDP)	2008	2010	2020	2030	2040	2050	changes
Programme scenario							
Gross debt	37.8	39.6	51.2	79.0	150.9	280.2	242.4
Gross debt, $i + 1^*$	37.8	40.3	56.4	91.6	179.1	342.0	304.2
Gross debt, i - 1*	37.8	38.8	46.5	68.5	128.6	233.8	196.0
Adjusted gross debt	37.8	39.6	51.2	79.0	150.9	280.2	242.4
2005 Scenario	İ						
Gross debt	40.3	43.2	60.9	95.7	177.5	320.3	280.0
Gross debt, $i + 1^*$	40.3	44.0	66.8	110.4	210.9	392.8	352.5
Gross debt, i - 1*	40.3	42.5	55.5	83.3	151.1	265.9	225.6
Adjusted gross debt	40.3	43.2	60.9	95.7	177.5	320.3	280.0

* i + 1 and i + 1 represents the evolution of debt under the assumption of the nominal interest rate being 100 basis points higher or lower throughout the projection period.

