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ECONOMIC ASSESSMENT OF THE CONVERGENCE PROGRAMME OF ESTONIA (UPDATE OF DECEMBER 2006)

The Stability and Growth Pact requires each EU Member State to present an annual update of its medium-term fiscal programme, called "stability programme" for countries that have adopted the euro as their currency and "convergence programme" for those that have not. The most recent update of Estonia's convergence programme was submitted on 1 December 2006.

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs of the European Commission, was finalised on 06.02.2007. Comments should be sent to Mart Maiväli mart.maivali@ec.europa.eu. The main aim of the technical analysis is to assess the realism of the budgetary strategy presented in the programme as well as its compliance with the requirements of the Stability and Growth Pact. However, the analysis also looks at the overall macro-economic performance of the country and highlights relevant policy challenges.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 13.02.2007. The ECOFIN Council is expected to adopt its opinion on the programme on 27 February 2007.

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All these documents, as well as the provisions of the Stability and Growth Pact, can be found on the following website:

http://ec.europa.eu/economy_finance/about/activities/sgp/main_en.htm

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SUMMARY AND CONCLUSIONS[1]

As part of the preventive arm of the Stability and Growth Pact, each Member State that does not use the single currency, such as Estonia, has to submit a convergence programme and annual updates thereof. The most recent programme, covering the period 2006-2010, was submitted on 1 December 2006.

Estonia successfully completed the transition to a functioning market economy and now enjoys the highest economic growth rate in the EU. Labour and product markets are highly flexible. The combination of high wage increases in tune with large productivity gains has enabled the country to rapidly catch up with the EU in terms of living standards. Along with a strong export performance, domestic demand has accelerated rapidly in the past years. More recently, Estonia's very success has been creating new challenges. After several years of rapid growth, the economy is facing capacity constraints, in particular in the labour market, which is drying out. The significant risk of overheating is indicated by rising core inflation, a large external deficit and strong credit growth feeding into a real estate boom.

Against this background, Estonia faces the following challenges in the area of public finances. First, the stability of the Estonian economy crucially hinges on preserving macro-economic stability in the wake of a large external deficit, strong credit growth and mounting inflationary pressures on the back of above-potential growth. In the absence of an independent monetary policy, prudent fiscal policies are the main tool to address this challenge which reflects a typical catch-up phenomenon. Second, Estonia faces an adverse demographic trend which is enhanced by skills mismatches that are partly still a heritage of the economic transition. Creating the conditions for improving the use of existing human resources should contribute in the medium term to a relaxation of the tight labour market. A comprehensive reform strategy for the education and training systems aiming at a better adjustment of public education to labour market demands should enhance production efficiency.

The macroeconomic scenario underlying the updated convergence programme envisages that real GDP growth abates from a peak of 11 % in 2006 to 8 ¼ % in 2007 and 7 ½ % per year in the outer years. Assessed against currently available information, this scenario appears to be based on cautious growth assumptions. However, the projected medium-term path of a smooth deceleration of growth from the current pace prone to overheating is clearly surrounded by risks. The programme's projections for inflation appear realistic. The economic good times of 2006 will likely persist in 2007. Although growth from 2008 onwards is expected to remain buoyant, it would be below the estimated growth potential of the economy, indicating that the current boom will subside to broadly neutral economic times.

For 2006, the general government surplus is estimated at 2.5% of GDP in the Commission services' autumn 2006 forecast, against a target of 0.3% of GDP set in the previous update of the convergence programme. The much better outcome, also expected

[1] The analysis takes into account (i) the Commission services' autumn 2006 forecast, (ii) the code of conduct ("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) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances.

in the new update, arises from carry-over from the better-than-expected outcome in 2005 and from the growth surprise in 2006.

The main goals of the medium-term budgetary strategy embodied in the programme are keeping the general government finances at least in balance and securing long-term sustainability in the light of the budgetary impact of population ageing. The budgetary strategy foresees the headline general government surplus to decline from 2 ½ % of GDP in 2006 to around 1 ¼ % in 2007-2008 and rebound to around 1 ½ % of GDP thereafter. The primary balance will follow a similar profile, given the negligible weight of interest expenditure. The drop in the surplus in 2007 is driven by a rise in the expenditure-to-GDP-ratio while the revenue ratio follows a declining trend. From 2008 onwards, the overall revenue and expenditure ratios decline in lock-step, reflecting notably the income tax cuts and expenditure growth remaining below the buoyant nominal GDP growth. The new programme departs from the past practice of always targeting zero balance for general government finances (which were as a rule overachieved over the last years) and targets instead a sizeable surplus over the entire programme period, which is a step forward in responding to the cyclical conditions of the economy. Compared with the previous update, the targets from 2007 onwards have been revised upwards by at least 1 percentage point of GDP against the background of a more favourable (and more realistic) macroeconomic scenario. Government gross debt, as per cent of GDP, is set to fall further from the current marginal level of 3.7% in 2006 to eventually below 2%.

The structural balance calculated according to the commonly agreed methodology is planned to drop by about 1 percentage point to reach ½ % of GDP in 2007, and rebound to above 1 % of GDP in 2008 and above 1 ½ % of GDP in 2009 and 2010. As in the previous update of the convergence programme, the medium-term objective (MTO) for the budgetary position presented in the programme is a balanced position in structural terms which the programme plans to maintain throughout the programme period. The MTO is above the minimum required level and fulfils the aim of providing a safety margin against the occurrence of an excessive deficit.

The risks to the budgetary projections in the programme appear broadly balanced. The programme's macroeconomic assumptions can be regarded as cautious over the programme period. The tax revenue projections appear plausible overall. However, the achievement of the envisaged moderation in expenditure growth would benefit from making the medium-term fiscal planning framework more binding.

In view of this risk assessment, the budgetary stance in the programme seems sufficient to maintain the MTO by a large margin throughout the programme period, as envisaged in the programme. A fortiori, it provides a sufficient safety margin against breaching the 3% of GDP deficit threshold with normal macroeconomic fluctuations over the programme period. However, the fiscal policy stance implied by the programme is not fully in line with the Stability and Growth Pact in the sense that it is pro-cyclical in good times during 2007, when the structural balance is set to decline by around 1 % of GDP.

The long-term budgetary impact of ageing in Estonia is among the lowest in the EU, with age-related expenditure projected to fall as a share of GDP over the coming decades, influenced by the considerable expenditure-reducing impact of the reform of the pension system. The current level of gross debt is very low in Estonia and maintaining sound government finances, in line with the budgetary plans over the programme period, would contribute to containing the risks to the long-term sustainability of public finances. Overall, Estonia appears to be at low risk with regard to the sustainability of public finances.

The implementation report of the national reform programme (NRP) of Estonia, provided in the context of the renewed Lisbon strategy for growth and jobs, was submitted on 12 October 2006. The NRP identifies as key challenges/priorities: R&D and innovation, and employment. The Commission's assessment of this programme (adopted as part of its December 2006 Annual Progress Report[2]) showed that Estonia is making very good progress with the implementation of its NRP. It also makes impressive efforts to ensure coherence between the NRP and cohesion policy. Against the background of progress made, Estonia was encouraged to also focus on the areas of: education and lifelong learning; R&D and innovation; competition policy; labour market flexibility and active labour market policies. The stability programme and the NRP are well integrated. In particular, both programmes emphasise prudent fiscal policies as a crucial element of macroeconomic stabilisation.

The overall conclusion is that the medium-term budgetary position is sound and the budgetary strategy provides a good example of fiscal policies conducted in compliance with the Stability and Growth Pact. Nevertheless, the planned weakening of the budgetary surplus in 2007 during good economic times implies a pro-cyclical stance of fiscal policy. The programme addresses the above-mentioned challenges of preserving macroeconomic stability and improving the use of existing human resources to enhance production efficiency.

[2] Communication from the Commission to the Spring European Council, "Implementing the renewed Lisbon strategy for growth and jobs - A year of delivery", 12.12.2006, COM(2006)816.

Comparison of key macroeconomic and budgetary projections

		2005	2006	2007	2008	2009	2010
Real GDP (% change)	**CP Dec 2006**	**10.5**	**11.0**	**8.3**	**7.7**	**7.6**	**7.5**
	COM Nov 2006	10.5	10.9	9.5	8.4	n.a.	n.a.
	CP Nov 2005	*6.5*	*6.6*	*6.3*	*6.3*	*6.3*	*n.a.*
HICP inflation (%)	**CP Dec 2006**	**4.1**	**4.4**	**4.3**	**4.4**	**3.5**	**3.2**
	COM Nov 2006	4.1	4.4	4.2	4.6	n.a.	n.a.
	CP Nov 2005	*3.5*	*2.6*	*2.6*	*2.7*	*2.7*	*n.a.*
Output gap (% of potential GDP)	**CP Dec 2006**[1]	**0.2**	**2.0**	**1.2**	**0.2**	**-0.3**	**-0.7**
	COM Nov 2006[5]	0.0	1.2	0.9	-0.6	n.a.	n.a.
	CP Nov 2005[1]	*-0.4*	*-0.6*	*-0.7*	*-0.5*	*-0.1*	*n.a.*
General government balance (% of GDP)	**CP Dec 2006**	**2.3**	**2.6**	**1.2**	**1.3**	**1.6**	**1.5**
	COM Nov 2006	2.3	2.5	1.6	1.3	n.a.	n.a.
	CP Nov 2005	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*n.a.*
Primary balance (% of GDP)	**CP Dec 2006**	**2.5**	**2.8**	**1.4**	**1.4**	**1.7**	**1.6**
	COM Nov 2006	2.5	2.7	1.8	1.5	n.a.	n.a.
	CP Nov 2005	*0.5*	*0.3*	*0.2*	*0.1*	*0.1*	*n.a.*
Cyclically-adjusted balance (% of GDP)	**CP Dec 2006**[1]	**2.2**	**2.0**	**0.8**	**1.2**	**1.7**	**1.7**
	COM Nov 2006	2.3	2.2	1.4	1.5	n.a.	n.a.
	CP Nov 2005[1]	*0.4*	*0.3*	*0.2*	*0.1*	*0.0*	*n.a.*
Structural balance[2] (% of GDP)	**CP Dec 2006**[3]	**2.2**	**1.4**	**0.4**	**1.2**	**1.7**	**1.7**
	COM Nov 2006[4]	2.2	1.5	1.0	1.3	n.a.	n.a.
	CP Nov 2005	*0.4*	*0.3*	*0.2*	*0.1*	*0.0*	*n.a.*
Government gross debt (% of GDP)	**CP Dec 2006**	**4.5**	**3.7**	**2.6**	**2.3**	**2.1**	**1.9**
	COM Nov 2006	4.5	4.0	2.7	2.1	n.a.	n.a.
	CP Nov 2005	*4.6*	*4.4*	*3.3*	*3.0*	*2.8*	*n.a.*

Notes:

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

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

[3]One-off and other temporary measures taken from the programme (0.6% of GDP in 2006 and 0.4% in 2007; all deficit-reducing)

[4]One-off and other temporary measures taken from the Commission services' autumn 2006 forecast (0.2% of GDP in 2005, 0.6% of GDP in 2006, 0.4% of GDP in 2007 and 0.2% in 2008; all deficit-reducing)

[5]Based on estimated potential growth of 9.1%, 9.6%, 9.9% and 9.9% respectively in the period 2005-2008.

Source:

Convergence programme (CP); Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations

1. INTRODUCTION

The 2006 update of the Estonian convergence programme, covering the period 2006-2010, was adopted by the Estonian government on 30 November 2006 and was submitted on 1 December 2006[3]. The programme is based on the government's medium term budgetary strategy covering 2007-2010 (State Budget Strategy 2007-2010, adopted 31 May 2006) and the economic projections underlying the budget for 2007. These economic projections, dating from August 2006, have been updated with more recent budgetary and economic data. The budget for 2007 was adopted by the Parliament on 13

[3] The English language translation was submitted on 3 January 2007.

December 2006. The programme update follows the government's objectives and policies as specified in the coalition agreement and strategic development plans.

The programme broadly follows the model structure for stability and convergence programmes specified in Annex 1 of the code of conduct. The programme provides all compulsory and most optional data prescribed by the code of conduct[4]. Annex 3 provides a detailed overview of all aspects of compliance with the code of conduct".

2. ECONOMIC TRENDS AND POLICY CHALLENGES

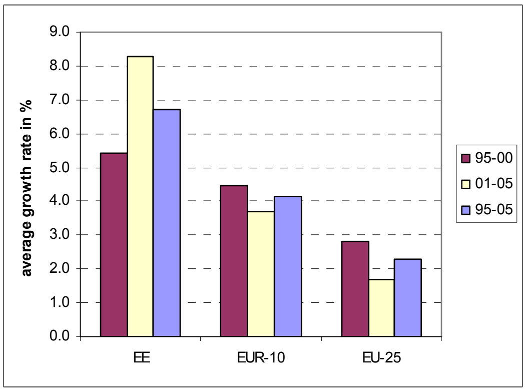
This section is in five parts. The first provides a brief overview of the macroeconomic performance in terms of growth and other major macro-variables. The second presents the results of a growth accounting exercise and tries to identify the main reasons for high average annual economic growth vis-à-vis the EU-10. The third looks at the volatility of growth and other key macroeconomic variables and the stabilising or destabilising role of macro-policies. The fourth part focuses on trends in public finances. Based on the picture outlined in the first four parts, the fifth identifies major economic challenges with implications for public finances.

2.1. Economic performance

Estonia's transition to a market economy started from a very low position with respect to per capita GDP and productivity, but sweeping economic reforms have led to an average annual real GDP growth of close to 7% during the past ten years, by far outpacing the EU-25 average of 1.7%, as well as the EU-10 average of 4%. In the wake of the 1998 Russian crisis, the Estonian economy suffered a temporary setback with a slump in growth in 1999. Economic activity in Estonia was more affected by the Russian crisis than most of the other EU-10 Member States, partly due to its closer trade links with the Commonwealth of Independent States (CIS) area. Owing to comprehensive structural reforms in the financial and enterprise sectors, which had increased the economy's responsiveness to market forces and its international openness, growth quickly resumed as from 2000. In the process, trade flows were re-directed towards the EU, and in particular to Estonia's Nordic neighbour countries. Continuous strong inflow of foreign direct investment has given considerable momentum to activity since 2000. Finally, EU accession in 2004 provided additional impetus to the convergence process.

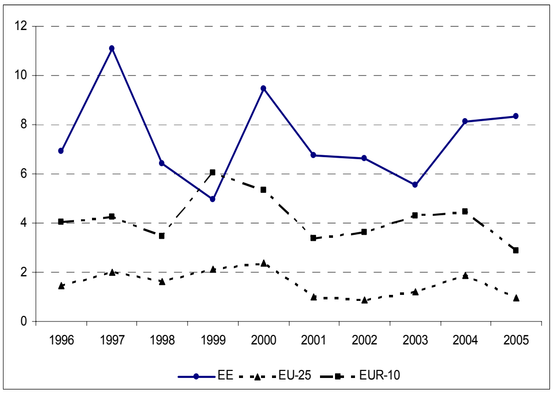
[4] The following optional data are not provided: Table 1c 'labour market developments': lines 2 (employment, hours worked) and line 5 (labour productivity, hours worked) are missing. Table 1d 'sectoral balances': lines 2 (net lending/borrowing of the private sector) and 3 (net lending/borrowing of the general government) are missing; line 5 (statistical discrepancy) is filled only for the compulsory first year 2005, but not for the (optional) 2006-2010 period. Table 4 'general government debt developments', lines 6 (liquid financial assets) and 7 (net financial debt) are missing, whereby the latter figure is a subtraction based on line 6. Table 5 'cyclical developments': sub-indicators of line 4 are missing (contributions to potential GDP growth). Table 7 'long-term sustainability of public finances': lines for sub-items 'of which: age-related expenditures', 'education expenditure' and 'other age-related expenditure' are missing. Table 8 'Basic assumptions': line for 'nominal effective exchange rate' is missing.

Figure 1: Average GDP growth: Estonia vs. EU-25 and EU-10



Source: Commission services

Figure 2: Labour productivity growth: Estonia vs. EU-25 and EU-10



Source: Commission services

Over the past decade, labour productivity growth has been well above the EU average, albeit starting from a very low base. Both GDP per hour worked and GDP per person employed, show a similar pattern: over the 1996-2005 period, the average annual labour productivity growth rates in Estonia were around 7 ½ %, as compared with an annual average of 4.2% in the EU-10 and just 1.6% in the EU-25. Consequently, Estonia's GDP per capita in purchasing power standards converged rapidly to 58.2% of the EU-25 average in 2005, from just 53.3% a year earlier. Recent high employment growth led to an employment rate of 66.5% of the working age population in 2005, which is the same level as the EU-25 average.

Employment had declined significantly during the early years of transition, from well over 70 % of the working age population before 1995 to an average of 65 % between 1995 and 2000. The systemic reforms in the financial and enterprise sectors created labour market participation challenges for many disadvantaged groups in the labour force, as reflected in low participation and high inactivity rates. Even though the recent years were marked by strong job creation and a swift reduction in unemployment, which has fallen sharply to 7.9% of the work force in 2005, problems in the labour market remain an important impediment to economic growth, in particular high structural unemployment, regional disparities and skills mismatches. Labour shortages in certain sectors (including manufacturing), exacerbated by emigration, indicate that labour supply could turn out to be the main bottleneck in the further catching–up process, driving up wages and unit labor costs. In order to alleviate the supply bottlenecks in the labour market, efforts to raise qualification and skill levels of the labour force via education, training and active labour market policies have been at the heart of Estonia's labour market policies in recent years.

Box 1: Monetary policy and exchange rate regimes of ESTONIA

Currency board (since June 1992)	In June 1992, the Russian rouble was replaced by the Estonian kroon, which was pegged to the DEM under a currency board system. The Bank of Estonia is obliged to back currency in circulation and liabilities to commercial banks fully with foreign reserves. The peg was switched to the euro in 1999, without affecting the external value of the kroon. Estonia's currency board has been a major cornerstone of macroeconomic stabilisation, and it enjoys high confidence with markets and the public.
ERM II participation *(since June 2004)*	Since 28 June 2004, the kroon participates in ERM II, with the pegging rate (1 EUR=15.6466 EEK) as the central rate. The and a standard fluctuation band of ±15 percent, but the currency board is maintained as a unilateral commitment. Since ERM II entry, the kroon has not deviated from its central rate.

Estonia features a very flexible labour market, with little central wage bargaining and a rather important element of profit sharing in wage formation. As a consequence, wages broadly move in line with productivity increases. Nonetheless, time lags of wage increases in relation to inflation developments as well as temporary overshooting relative to productivity increases against the background of a tightening labour market occur. The kroon's real effective exchange rate based on unit labour cost recorded a steady appreciation over the period 1998-2005, with the exception of the year 2000 when the effects of the 1998 Russia crisis still had a strong impact on the economy. Unit labour costs have grown on average slightly faster than in the EU-10, especially in recent years. This indicates a gradual erosion of cost competitiveness.

On the demand side, investment growth has accelerated to double-digit rates, and along with private consumption growth remains the major driving force of the recent boom. Although privatisation, a major driver of FDI in the early years of transition, came to an end, FDI inflows remained robust, at an annual average of 8.5% of GDP during the 1996-2005 period. An important part of that investment took place in the financial sector, with large Scandinavian banks heavily investing in Estonia. Net exports have shown mostly negative contributions to GDP growth over the 1996-2005 period, with the notable exceptions of the crisis year 1999 on the one hand, and the boom year 2005 on the other. Averaging 7.1% of GDP during the period 1997-2001, Estonia's external deficit was comparable with those of the other Baltic States, albeit significantly larger than in the EU-10 countries on average. It has widened sharply since 2002, despite a gradual increase in inflows of EU funds and a decline in borrowing costs on international markets. Since the public sector was a net saver on average during 2001-2005, underlying such deficits is a structural private sector saving-investment gap, as increasing saving of the private sector has been outweighed by higher and more rapidly increasing private sector investment. Investment growth has been especially rapid in the housing sector, as reflected in a real estate boom and credit growth. The share of dwellings in the overall value of investments was relatively stable at about 8 % between 1995 and 2001, after which it has sharply increased to 16% by 2005 (this explains the rise of the share of total construction in gross capital formation from 51% to 57%). The value of equipment investment has nevertheless grown at an average rate of 15 % p.a. over 2001 to 2005. While a high external deficit may be consistent with Estonia's stage of economic development, it also implies reliance on equally large capital inflows.

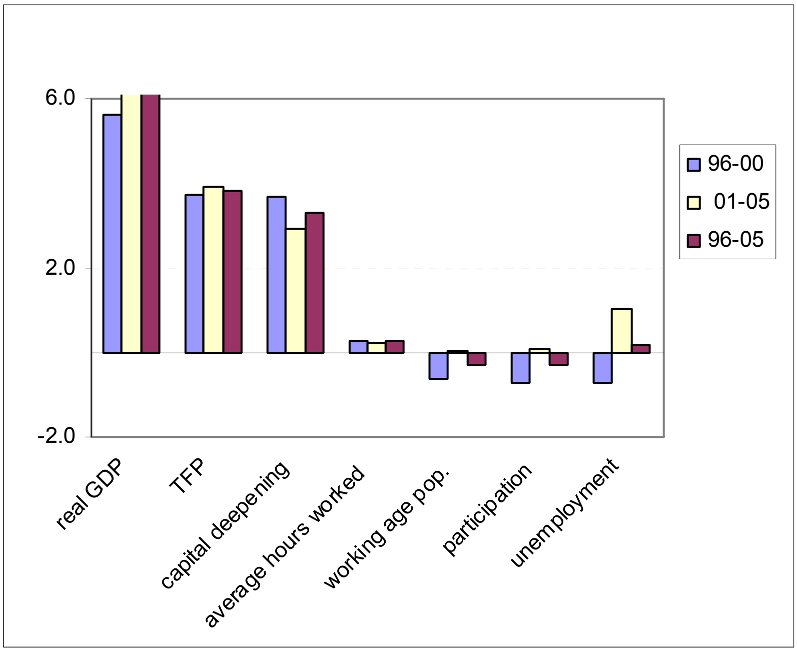
Economic development has amplified regional imbalances, which are reflected in regional per capita GDP figures. Whereas in 2005 the economically powerful Harju county (which comprises the capital Tallinn) representing 38.6% of Estonia's total population produced more than 60% of all industrial output and market services, the other regions lagged far behind.

The structure of Estonian exports is still very different from the EU average. Manufacturing value added and employment remain dominated by low-tech and labour intensive industries. Investment in R&D and innovation is still low compared with the EU-25 average, but is rapidly increasing.

2.2. Anatomy of medium-term growth

Within the framework of a traditional growth accounting exercise, this section examines the sources of Estonia's average growth performance as well as possible differences vis-à-vis the EU-10 group of countries. The growth accounting exercise is carried out on the basis of a Cobb-Douglas production function, the results of which are shown in Figure 3 for real GDP over the 1996-2005 period. The dominant contributions to real GDP in Estonia over the past ten years have come from total factor productivity (TFP) and from capital-deepening. The transition process, involving restructuring, higher competition, FDI inflows and transfer of technologies, has let to a more efficient use of production inputs and better managerial practices which are captured by TFP. Even though a large part of FDI was directed to the financial sector, recent trends confirm that investment in manufacturing has increased at the same time as the number of employees in this sector has fallen, freeing scarce labour to shift into the rapidly expanding services sector. TFP growth averaged about 4% per year, well above the EU-10 average (Figure 4). This indicates that modernisation should continue at a brisk pace also in the future, particularly given the dominance of low-technology and low-value-added sectors.

Figure 3: Real GDP growth and its components



Note:
Assuming a Cobb-Douglas-production function $Y = A(L \cdot H)^{\alpha} K^{1-\alpha}$ where Y denotes the level of *GDP, L* employment, H the average hours worked per person employed, K the capital stock and α the labour share in income, real GDP can be written as $Y = \frac{Y}{H \cdot L} H \cdot L = A \cdot \left(\frac{K}{H \cdot L}\right)^{1-\alpha} H \cdot WP \cdot PART \cdot (1-ur)$ where *WP* stands for working age population, *PART* denotes the participation ratio as a share of *WP* and *ur* the rate of unemployment. In terms of growth rates *g* this is:

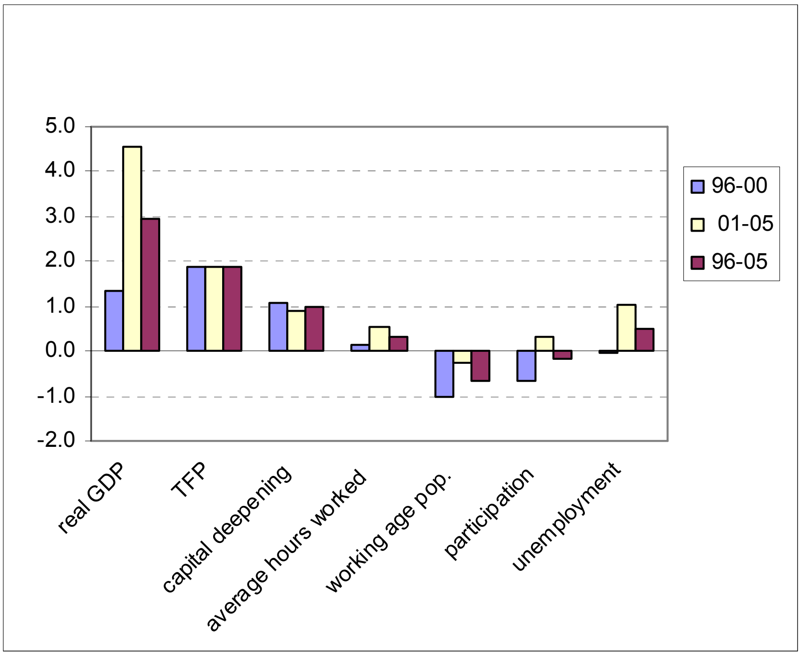
$$g_Y = g_A + (1-\alpha)(g_K - g_L - g_H) + g_H + g_{WP} + g_{PART} - g_{ur} \cdot \frac{ur}{1-ur}$$

The expression $(g_K - g_L - g_H)$ is referred to as capital deepening, i.e. the increase in the capital labour ratio.
Source: Commission services

Over the 1996-2005 period, both the contributions of TFP growth and capital deepening to GDP growth were higher in Estonia than the EU-10 average. The contribution to increased output from extra labour input has been marginal overall. The size of the working age population was unchanged in Estonia, while it was growing in the EU-10. Over the period 2001-2005, the reduction of unemployment had a more positive contribution to growth in Estonia than in the EU-10, appearing relatively stronger also because of the disappointing labour market performance of larger new Member States.

Since the 2000 peak in the aftermath of the Russia crisis, unemployment dropped significantly, while the estimated non accelerating inflation rate of unemployment (NAIRU) declined more gradually over the same period. The gap between the actual rate of unemployment and the NAIRU has nearly closed in 2005, reflecting the drying out of the labour market. Despite this overall positive development, structural problems in the labour market have remained an important impediment to economic growth, in particular skills mismatches and more recently large-scale emigration to other EU Member States, mostly to neighbouring Finland.

Figure 4: Real GDP growth and its components: Difference vis-à-vis the EU-10



Note: See note of Figure 3
Source: Commission services

2.3. Macro-policies against the backdrop of the economic cycle

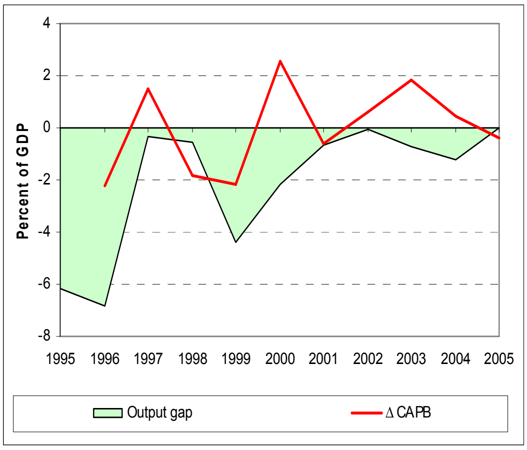
With the notable exception of 1999 when the Russia crisis led to a disruption, annual GDP growth was strong, averaging 6.9% over the 1996-2005 period. Given the rapid structural changes the Estonian economy has been undergoing, it is difficult to determine Estonia's position in the business cycle. Nevertheless, over the past few years a combination of very high growth rates, mounting inflation including wage inflation, and labour shortages indicate above-potential economic growth.

On the whole, the Estonian authorities apply a 'hands-off' attitude to the cyclical conditions in the Estonian economy. The fiscal situation appears healthy, in view of a low public debt ratio, significant fiscal surpluses and relatively high average potential output growth in the long term. However, developments in the structural balance indicate an inclination towards a pro-cyclical pattern, especially in recent years, as visible in Figure 5, which plots the estimates of the output gaps with the changes in the cyclically-adjusted primary balances. In addition, wage formation mechanisms in Estonia tend to magnify cyclical swings. As mentioned above, the wage setting in the private sector includes a strong profit-sharing element and generally follows closely the short-term economic conditions in the particular sector. Multi-year wage setting agreements are practically non-existent in the private sector. Public sector wage claims also follow closely the overall economic conditions and short-term budget revenue/surplus prospects.

Figure 6 assesses Estonia's cyclical position against the background of monetary conditions, by plotting the estimates of the output gap for Estonia and the EU-10 average and real short-term interest rates. Under the currency board, the Estonian central bank does not set monetary policy interest rates independently. Since Estonia's admission to the ERM II on 28 June 2004, with the unilateral adoption of narrow intervention margins against the euro central rate, the short-term interest rate is largely determined developments in the euro area. However, given that since 1992 Estonia has kept a hard peg to the DM and later the euro, this commitment in practice did not make a large difference for the country's monetary policy. Real interest rates have continuously declined over the analysed period thanks to the acquired credibility of the Estonian macroeconomic policy mix and a strong commitment to the currency board arrangement. Monetary conditions, as indicated by the level of real short-term interest rates, have become distinctly expansionary from 2000 onwards, even turning negative in 2005, and thus have intensified demand pressures. As evident from Figure 6, the economic cycle in Estonia was more pronounced than in the EU-10. Loose monetary conditions were one of the driving factors behind the real estate boom and buoyant real estate investment activity, which fuelled growth (and a credit boom) over the past few years. In order to curb credit growth, the Bank of Estonia since 2005 has twice tightened reserve requirements for banks.

Apart from such measures, only fiscal policy is available as a means to contributing to the correction of the overheating tendencies of the economy, through the generation of higher surpluses. It would also be important to build counter-cyclical elements into wage formation mechanisms.

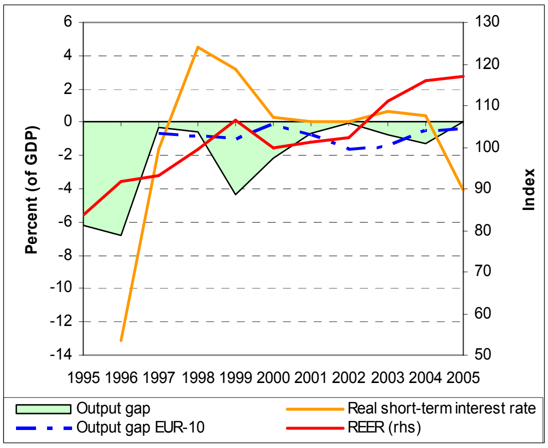
Figure 5: Output gap and fiscal stance



Note: ΔCAPB denotes the change in the cyclically-adjusted primary budget balance

Source: Commission services

Figure 6: Output gap and monetary conditions



Source: Commission services

2.4. Public finances

Public finances dipped from general government balances averaging a surplus of 0.8% of GDP during the early years of stabilisation (1994-1998) to a one-time deficit of 3.6% in 1999 as a consequence of the Russia crisis the previous year (Figure 7). A strong fiscal effort thereafter led to a swift reduction of the deficit to – 0.4% of GDP in 2000, and to five consecutive surpluses since 2001, at annual averages of 0.9% of GDP (2001-2005), on a broadly increasing trend. Public debt declined from 7.3% of GDP to just 4.5% over the 1996-2005 period, which is the lowest in the EU. Consequently, debt interest payments were modest at an average of 0.2% of GDP over the entire period. The implicit interest rate on government debt has fallen from around 7% to 4% over the same period, reflecting the decline in global interest rates but also the credibility of the macroeconomic framework and of the peg to the euro as indicated by improving country ratings.

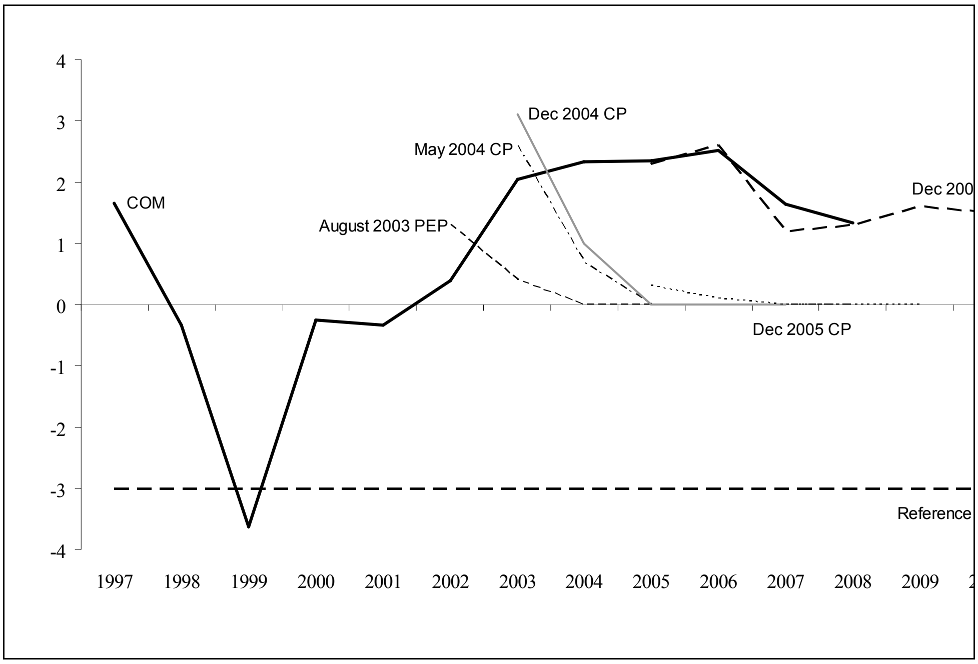
The Government's fiscal strategy aimed at budgets in balance. However, given the robust growth performance, the operational general government balance targets have been overachieved by a large margin ever since 2003. Looking at the track record of government projections for public finances over recent years, the outturn on average was markedly better than initially forecast. Since 2003, budget forecasts were regularly outperformed by roughly 2% of GDP each year, in particular because revenue growth was underestimated, while nominally anchored expenditure was either respected or spending remained even below budget attributions. This can be explained by a common practice of preparing budgets based on overly cautious macroeconomic forecasts. Also, constant improvements in tax collection (primarily over internet portals) and windfall gains from inflation boosted revenues considerably over the past few years. Typically, in the second half of the year supplementary budgets have been adopted that reduced the surpluses by 1-2 percentage points of GDP in most years. In the framework of these regular supplementary budgets only parts of the excess revenue is actually attributed to government spending. The larger part is usually put aside, especially into pension reserves.

The Estonian budgetary procedures feature first steps towards a multi-annual framework, which are meant to enhance budgetary discipline and improve the quality of the budget, although ongoing improvements to the definition of medium-term expenditure targets and control methods need to be completed.

The expenditure policy is aimed at a moderation of the public expenditure, while promoting growth. Over the past decade, the expenditure-to-GDP ratio has first declined from an average of 39.2% in the 1996-2000 period to 34.7% in 2001-2005, with the notable exception of the crisis year 1999. As for the functional classification of primary expenditure, spending on social protection has been reduced, while spending on education, health and economic affairs has increased. Lower interest payments due to a steady decline in interest rates also contributed to the decline in expenditure.

The revenue-to-GDP ratio has fluctuated with the economic cycle. Over the decade, it has first declined and returned to an increasing trend since 2002, in spite of tax cuts. Fiscal policy has been aiming at reducing the tax burden on the economy. Since 1996, the overall tax burden has declined from 34.5% of GDP to 31% of GDP in 2005. The share of direct taxes decreased gradually, whereas the share of consumption taxes (indirect taxes) expanded somewhat.

Figure 7: General government balance projections in successive stability programmes (% of GDP)



2.5. Medium and long-term policy challenges for public finances

Estonia successfully completed the transition from central planning to a functioning market economy and now enjoys the highest economic growth rate in the EU. Labour and product markets are highly flexible. The combination of high wage increases in tune with large productivity gains has enabled the country to rapidly catch up with the EU in terms of living standards. Along with a strong export performance, domestic demand has accelerated rapidly in the past years. More recently, Estonia's very success has been creating new challenges. After several years of rapid growth, the economy is facing capacity constraints, in particular in the labour market, which is drying out. The significant risk of overheating is indicated by rising core inflation, a large external deficit and strong credit growth feeding into a real estate boom.

In the light of this assessment, the following key medium- and long-term challenges in the area of public finances seem relevant for Estonia:

- **On stabilisation**

The stability of the Estonian economy crucially hinges on preserving macro-economic stability in the wake of a large external deficit, strong credit growth and mounting inflationary pressures on the back of above-potential growth. In the absence of an independent monetary policy, prudent fiscal policies are the main tool to address this challenge which reflects a typical catch-up phenomenon.

- **On efficiency**

Estonia faces an adverse demographic trend which is enhanced by skills mismatches that are partly still a heritage of the economic transition. Creating the conditions for improving the use of existing human resources should contribute in the medium term to a relaxation of the tight labour market. A comprehensive reform strategy for the education and training systems aiming at a better adjustment of public education to labour market demands should enhance production efficiency.

Table 1: Key economic indicators

	Estonia						EU-10					
	Averages			2003	2004	2005	Averages			2003	2004	2005
	'96 - '05	'96 - '00	'01 - '05				'96 - '05	'96 - '00	'01 - '05			
Economic activity												
Real GDP (% change)	6.9	5.6	8.3	7.1	8.1	10.5	4.0	4.3	3.7	4.0	5.1	4.6
Contributions to real GDP growth:												
Domestic demand	7.7	6.0	9.3	10.2	8.2	7.4	4.3	5.3	3.4	4.1	5.6	3.0
Net exports	-0.7	-0.4	-1.1	-3.1	-0.1	3.1	-0.3	-1.0	0.4	0.0	-0.5	1.6
Prices, costs and labour market												
HICP inflation (% change)	6.3	9.0	3.5	1.4	3.0	4.1	n.a.	n.a.	3.3	1.9	4.1	2.5
Labour productivity (% change)	7.4	7.8	7.1	5.5	8.1	8.3	4.2	4.6	3.7	4.3	4.5	2.9
Real unit labour costs (% change)	-1.1	-2.1	-0.2	4.7	2.3	-3.9	-0.8	-0.6	-1.0	-0.7	-2.5	-1.8
Employment (% change)	-0.4	-2.0	1.2	1.5	0.3	1.9	-0.1	-0.3	0.0	-0.2	0.6	1.7
Unemployment rate (% of labour force)	10.3	10.6	10.1	10.0	9.7	7.9	12.8	11.3	14.2	14.3	14.2	13.4
Competitiveness and external position												
Real effective exchange rate (% change) (1)	:	:	:	:	:	:	:	:	:	:	:	:
Export performance (% change) (2)	4.7	5.1	4.2	2.7	7.7	11.2	:	:	:	:	:	:
External balance (% of GDP)	-8.6	-7.9	-9.3	-10.5	-13.0	-8.4	:	:	:	:	:	:
Public finances												
General government balance (% of GDP)	0.2	-0.9	1.4	2.0	2.3	2.3	:	:	-4.2	-5.1	-3.7	-3.3
General government debt (% of GDP)	5.6	6.0	5.2	5.7	5.2	4.5	38.0	35.8	40.1	39.9	43.4	41.3
Structural budget balance (% of GDP) (3)	:	:	:	2.3	3.5	2.2	:	:	:	-4.5	-3.4	-3.0
Financial indicators (4)												
Long term real interest rate (%) (5)	:	:	2.3	2.9	2.2	-2.6	:	:	:	3.5	2.2	2.2
Household debt (% of GDP) (6)	:	:	:	20.2	24.9	:	:	:	:	:	:	:
Corporate sector debt (% of GDP) (7)	:	:	:	63.3	68.3	:	:	:	:	:	:	:

Notes:

More detailed tables summarising the economic performance of the country are included in Annex 4.

(1) Unit labour costs relative to rest of a group of industrialised countries (USD): EU24 (=EU25 excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ.

(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets.

(3) Cyclically-adjusted budget balance net of one-off and other temporary measures.

(4) Data available up to 2004.

(5) Using GDP deflator.

(6) Households' and non-profit institutions serving households' debt, defined as loans and securities other than shares.

(7) Non-financial corporate sector debt, defined as loans and securities other than shares.

Source:

Commission services

3. Macroeconomic outlook

This section is in seven parts, six of which refer to various dimensions of the macroeconomic scenario, notably: the external assumptions; economic activity; potential output growth; the labour market; costs and prices; and sectoral balances. The final part summarises the assessment and includes (i) an overall judgement on the plausibility of the macroeconomic scenario and (ii) an indication of whether economic conditions over the programme period can be characterised as economic 'good' or 'bad' times.

3.1. External assumptions

The external assumptions of the programme are fully in line with those of the Commission services autumn 2006 forecast. The slowing growth of Estonia's main trading partners is seen to impact export growth, especially in 2007. Oil prices are expected to rise only moderately, which is the main supply-side factor dampening inflation.

3.2. Economic activity

As presented in Table 2, the current programme update foresees GDP growth to abate from a peak of 11 % in 2006 to 8 ½ % in 2007 and to 7 ½ % in the outer years. The slowdown is led by a marked deceleration in private consumption, driven by slower credit growth, rising interest expenditure and a moderation in employment and wage growth from the very high rates in 2006. In addition, investment growth is expected to subside, as especially housing investment is seen to abate in tune with the cooling of the real-estate boom. The growth of both exports and imports is predicted to slow, with net exports turning positive from 2008 onwards. The slowdown in imports is influenced by dampening domestic demand, while exports are notably affected by the deterioration of competitiveness due to rapidly rising productions costs. The output gaps, as recalculated by Commission services based on the information in the programme, indicate that in spite of growth remaining robust, the economy is not expected to reach its full potential growth rate in the outer years of the programme period[5].

The programme's medium term growth outlook of 7 ½ % p.a. would be slightly lower than the average growth performance over the past five years. Particularly private consumption and investment are assumed in the programme to grow markedly slower than on average in the recent past. The contribution to growth from domestic demand is predicted to diminish, but it will be largely offset by an increasingly positive contribution from net exports.

For 2007 and 2008, the GDP growth projections in the programme are more cautious than the Commission services' forecast, the latter expecting almost 1 percentage point higher annual growth. There are some significant differences in the composition of growth between the two forecasts. The programme assumes a markedly steeper deceleration in private consumption and investments than the Commission services' forecast. While trade growth is projected to remain higher in the Commission services'

[5] The calculation of potential output growth (and hence the output gap) needs to be interpreted with some caution for countries going through a rapid catching-up process together with strong and rapid structural changes.

forecast, unlike the programme, it expects the external balance to remain negative. The growth of aggregate wages and salaries is seen in the programme to be higher for 2006, but the two forecasts are close for the other years, as the differences in compensation per head and employment forecast even each other out.

Estonia continues to pursue the objective of price stability through a firm exchange rate anchor to the euro, maintained by the long-standing currency board system. The peg continues to enjoy high credibility and remains supported by a reserve cover well above the statutory minimum. Similarly to 2005, the real interest rates remained slightly negative in 2006 (deflated by the HICP running at 4 ½ % p.a.) and continued to support rapidly increasing borrowing and investment. The low interest rate environment coinciding with a cyclical upswing has further pushed up relative wage and cost increases. The real exchange rate continued to appreciate relatively rapidly (see also section 2.1.), highlighting the deterioration in price competitiveness and the build-up of risks for a prolonged reverse medium-term adjustment process. In an attempt to curb credit growth and the booming real-estate market, the Bank of Estonia tightened capital requirements for housing loans in spring 2006, and later increased the required reserve ratio from 13% to 15% of bank liabilities (thus taking the ratio even further from the euro area level of 2%). The convergence programme affirms that the government will join the euro area as soon as possible, once the convergence criteria have been fulfilled, but does not set a specific date for the change-over.

Table 2: Comparison of macroeconomic developments and forecasts

	2006		2007		2008		2009	2010
	COM	CP	COM	CP	COM	CP	CP	CP
Real GDP (% change)	10.9	11.0	9.5	8.3	8.4	7.7	7.6	7.5
Private consumption (% change)	14.4	15.1	12.3	9.6	11.5	6.0	5.5	4.4
Gross fixed capital formation (% change)	14.5	13.1	12.9	11.0	11.4	9.4	7.9	7.8
Exports of goods and services (% change)	16.6	13.3	13.6	11.4	12.7	9.9	9.8	9.8
Imports of goods and services (% change)	17.7	15.5	15.4	12.1	13.9	8.7	8.3	7.8
Contributions:								
- Final domestic demand	13.1	12.9	11.7	9.6	11.0	7.1	6.5	5.8
- Change in inventories	-0.8	0.4	0.6	0.3	-0.2	0.2	0.2	0.2
- External balance on g&s	-2.1	-2.9	-2.9	-1.5	-2.4	0.4	0.9	1.5
Output gap[1]	1.2	2.0	0.9	1.2	-0.6	0.2	-0.3	-0.7
Employment (% change)	3.2	6.3	2.0	1.0	1.1	0.3	0.1	0.1
Unemployment rate (%)	5.4	5.6	3.8	5.2	3.1	5.3	5.5	5.4
Labour productivity growth (%)	7.5	4.6	7.4	7.2	7.2	7.4	7.5	7.3
HICP inflation (%)	4.4	4.4	4.2	4.3	4.6	4.4	3.5	3.2
GDP deflator (% change)	4.5	5.7	4.4	4.4	5.2	4.5	3.5	3.2
Comp. of employees (per head; % change)	12.7	14.1	11.5	12.6	11.3	11.6	11.0	10.7
Real unit labour costs (% change)	0.4	3.9	-0.5	0.6	-1.3	-0.6	-0.3	-0.1
External balance (% of GDP)	-10.3	-10.2	-9.2	-11.5	-8.3	-9.9	-8.9	-7.2

Note:

[1] In percent of potential GDP, with potential GDP growth as reported in Table 4 below.

Source:

Commission services' autumn 2006 economic forecasts (COM); Convergence programme

The output gap estimates, as recalculated by Commission services based on the information in the programme, confirm that the economy is at a cyclical peak in 2006, but is expected to slow thereafter. As presented in Table 3, the assessment of cyclical conditions has changed to a considerably more positive outlook over the years in both the Commission services' estimates and in the Convergence Programme vintages. The unexpected strength of growth in 2005 and 2006 has lead to a positive output gap in 2006 and 2007.

Table 3: Output gap estimates in successive Commission services' forecasts and convergence programmes

	2006		2007		2008	
	COM	CP[1]	COM	CP[1]	COM	CP[1]
Dec 2006	-	2.0	-	1.2	-	0.2
Autumn 2006	1.2	-	0.9	-	-0.6	-
Spring 2006	1.1	-	1.0	-	0.0	-
Nov 2005	-	-0.6	-	-0.7	-	-0.5
Autumn 2005	0.1	-	-0.1	-	0.0	-
Spring 2005	-0.5	-	0.0	-	0.0	-
Dec. 2004	-	-1.4	-	-1.2	-	-1.0

Note:

[1] Commission services' calculations according to the commonly agreed method based on the information in the programme.

Source: Commission services' forecasts, national Convergence programme and Commission services.

3.3. Potential growth and its determinants

Table 4 compares the potential growth estimates of the Commission services' autumn 2006 forecast with the calculations according to the commonly agreed methodology, based on the information provided in the programme. As evident, the Commission services' see the growth potential at almost 1 percentage point higher for 2007 and 2008 than the recalculated programme estimates. This stems from a more optimistic assessment of TFP growth prospects together with higher predicted investment activity and stronger labour component.

The growth potential is estimated to peak in 2007-2008, being even higher than the average growth rates of the past five years due to strong investment activity and rapidly increasing labour input. The growth potential is expected to moderate in the medium term, reflecting a lower contribution from labour, as the working age population is expected to start declining from 2009 onwards. TFP and capital accumulation are seen to remain the main drivers of growth.

Table 4: Sources of potential output growth

	2006		2007		2008		2009	2010
	COM	**CP[2]**	**COM**	**CP[2]**	**COM**	**CP[2]**	**CP[2]**	**CP[2]**
Potential GDP growth[1]	9.6	9.1	9.9	9.1	9.9	8.8	8.2	7.9
Contributions:								
- Labour	1.6	1.6	1.8	1.6	1.8	1.5	1.0	0.9
- Capital accumulation	3.6	3.6	3.7	3.6	3.8	3.5	3.4	3.3
- TFP	4.0	3.7	4.0	3.6	4.0	3.6	3.6	3.5

Notes:

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

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

Source:

Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations

3.4. Labour market developments

The acceleration of growth in 2005 and 2006 was accompanied by rapid employment growth (especially in construction, trade and manufacturing sectors) and declining unemployment. While in 2005 employment grew by 2 % (higher than the 1.2 % average growth over the past 5 years), for 2006 the programme expects employment to grow by over 6%, mainly on account of decreasing non-activity among discouraged workers who return to the labour market. Unemployment is seen to have declined sharply as well by over 2 percentage points to reach 5 ½ % of the labour force in 2006. Even these substantial increases in labour supply have not fully satisfied labour demand and labour shortages are evident in many sectors, further aggravated by labour emigration.

The programme projects employment growth to moderate to 1 % in 2007 and stagnate at just marginally positive growth rates in the outer years. The programme predicts unemployment to decline further to 5.2 % in 2007, but increase even slightly thereafter. The slowdown in employment growth is consistent with the declining output gap estimates, but the expected degree of stagnation of the labour market implies that the average labour content of GDP growth would drop below the average performance of past 5 years. While the Commission services' forecast also assumes a slowdown from the present exceptional rates, the labour market is seen to remain more buoyant over 2007-2008.

3.5. Costs and price developments

The strong demand for labour and increasing job vacancies have driven an acceleration in annual wage growth per head to about 14 % in 2006. Wage growth is foreseen in the programme to cool to 12 ½ % in 2007 and further to 10 ½ by 2010. The Commission services' forecast extending to 2008 sees wages increasing marginally slower. Labour productivity is predicted in the programme and in the Commission services' forecast to increase by 7 ½ % over 2007-2010, which is notably slower than wage growth. The temporary drop in 2006 to just 4 ½ % was influenced by exceptionally sharp rises in employment weighing down labour productivity in that year. Unit labour costs would therefore increase briskly over the programme period, well above the average growth predicted for the EU and EU-10 countries, indicating eroding external competitiveness of Estonia. This in line with the programmes' expectations of slowing export growth and inflation remaining relatively high.

HICP inflation growth increased in 2006 to 4 ½ %, up from 4 % in 2005. The relatively high inflation rates were driven by both external (energy and imported food) and domestic factors. The latter is reflected in a pick-up in core inflation amid booming domestic demand. Inflation is seen in the programme to moderate marginally in 2007, due to the stabilisation of fuel prices, but rebound in 2008, led by significant rises in excise taxes on tobacco, alcohol and fuel. This inflation outlook broadly matches that of the Commission services' forecast extending to 2008. In the outer years, inflation is seen to moderate to above 3 %, in line with cooling domestic demand. Those rates would correspond to the average inflation rates experienced over the past five years.

3.6. Sectoral balances

Estonia's fast economic development has been accompanied by persistently high external deficit levels, reaching over 10 % of GDP in 2006. While the government surpluses contribute to the correction of the external imbalance, the private sector is financing its domestic savings gap by extensive borrowing and to a smaller degree by FDI inflows. The external imbalance originates from the deficit in goods and services trade and to a smaller degree from the negative income balance, reflecting mainly reinvested earnings and repatriated profits of foreign investors. It is expected in the programme and in the Commission services' forecast that the external imbalance would unwind only marginally over the medium term.

3.7. Assessment

The assessment of the macroeconomic outlook covers two questions: first, whether the macroeconomic scenario is plausible, and, second, whether the economy should be considered to be in economic 'good' or 'bad' times.

3.7.1. Plausibility of the macroeconomic scenario

The programme presents a cautious macroeconomic scenario compared with the Commission services' forecast extending to 2008 and compared with the potential growth estimates for the years beyond. However, the forecast for 2006 is in line with that of the Commission services. The cautious macroeconomic scenario derives mostly from the expected lower growth of private consumption and investment, with implications for the evolution of tax bases (further discussed in Section 4.3).

3.7.2. Economic good vs. bad times

Estimates of the Commission services autumn forecast indicate that the above-potential growth in 2005 and 2006 turned the output gap clearly positive in 2006 (over 1 % of potential output), declining only marginally in 2007. Based on the assessment of output gaps, the economic good times of 2006 will persist in 2007. Although growth in 2008 is expected to remain buoyant, it would be below the estimated growth potential of the economy, warranting a more cautious assessment of economic times for the outer years of the programme period. As presented in Section 3.2, the assessment of cyclical conditions has turned markedly more positive over the past year.

The broader macroeconomic outlook presented in the Commission services' forecast confirms this assessment. As already discussed in the above sections, the economy is showing signs of overheating, reflected in supply constraints and mounting wage pressures amid labour shortages, rising core inflation, large external deficits and the real-estate boom led by strong credit growth. In spite of economic growth predicted to slow somewhat in 2007 and the household real-estate boom showing signs of subsiding, these elements of overheating are overall not expected to unwind to a significant degree in 2007. The predicted further cooling of the economy from 2008 onwards together with output gaps estimated to turn slightly negative indicates that neither good nor bad economic times prevail thereafter.

4. GENERAL GOVERNMENT BALANCE

This section consists of four parts. The first part discusses budgetary implementation in the year 2006 and the second presents the budgetary strategy in the new update, including the programme's medium-term objective (MTO) for the budgetary position. The third analyses the risks attached to the budgetary targets in the programme. The final part contains the assessment of the fiscal stance and of the country's position in relation to the budgetary objectives of the Stability and Growth Pact.

4.1. Budgetary implementation in 2006

As is evident from Table 5, the programme shows a general government surplus for 2006 that is significantly higher than predicted in the previous programme update. This follows from markedly stronger revenue collection (reflecting especially VAT and taxes on labour). By contrast nominal expenditure is only slightly higher than was anticipated in the previous programme update, even though higher central government revenues were partly assigned to expenditure through a supplementary budget on 22 November 2006. State budget implementation data for the entire year 2006 on a cash basis shows an under-spending amounting to 2 % of GDP compared with the total budgetary appropriations, while corresponding revenue targets were overachieved by ½ % of GDP on account of VAT and taxes on labour. However, even with expenditure staying behind appropriations, the state budget expenditure increased by about 19 % compared with 2005, while revenues increased by over 22%. The growth in expenditure in 2006 is significantly higher than the 10% average annual increase over the past decade.

This significant under-spending was expected and taken into account in the current programme update projections for 2006, because lower spending was a common occurrence also in the previous years. The under-spending compared with the budgetary appropriations arose mainly from lower expenditure on investments and transfers, part of which is EU funded. Budgetary regulations allow transferring most of the unspent funds to the following year with the aim to avoid a year-end rush to exhaust all budgetary appropriations. Based on preliminary budget execution data, the amount transferable to 2007 from 2006 is comparable to what was transferred to 2006 from 2005 (1.7% of GDP). This practice is not expected to lead to a significant accumulation of extra expenditure to any given year, as it is an ongoing process.

Revenues grew faster than nominal GDP in 2006 in spite of notable tax cuts due to the boost to non-tax items mainly from EU transfers and sales of assets, increasing by more than 2 percentage points of GDP (see also Table 6). The apparent decline in the revenue and expenditure-to-GDP ratios (compared with those in the previous update) results from substantially higher nominal GDP due to both extensive retrospective upward revisions to nominal GDP series and the recent growth surprise. The general government fiscal target for 2006 is in line with that of the Commission services' autumn forecast. State budget implementation data for 2006 confirm that the surplus estimated in the autumn forecast and convergence programme is likely to be marginally overachieved. Based on this data, the central government surplus appears about 0.2 % of GDP higher for 2006 than estimated in the programme.

Table 5: Evolution of budgetary targets in successive programmes

		2005	**2006**	**2007**	**2008**	**2009**	**2010**
General government balance (% of GDP)	**CP Dec 2006**	**2.3**	**2.6**	**1.2**	**1.3**	**1.6**	**1.5**
	CP Nov 2005	0.3	0.1	0.0	0.0	0.0	n.a.
	CP Dec 2004	*0.0*	*0.0*	*0.0*	*0.0*	*n.a.*	*n.a.*
	COM Nov 2006	2.3	2.5	1.6	1.3	n.a.	n.a.
General government expenditure (% of GDP)	**CP Dec 2006**	**33.2**	**35.6**	**36.5**	**35.5**	**34.6**	**34.3**
	CP Nov 2005	40.9	41.7	39.0	37.2	36.0	n.a.
	CP Dec 2004	*40.7*	*39.0*	*37.6*	*37.5*	*n.a.*	*n.a.*
	COM Nov 2006	33.2	32.3	31.5	30.8	n.a.	n.a.
General government revenues (% of GDP)	**CP Dec 2006**	**35.5**	**38.3**	**37.8**	**36.9**	**36.2**	**35.8**
	CP Nov 2005	41.2	41.8	39.0	37.2	36.0	n.a.
	CP Dec 2004	*40.7*	*39.0*	*37.6*	*37.5*	*n.a.*	*n.a.*
	COM Nov 2006	35.5	34.8	33.1	32.1	n.a.	n.a.
Real GDP (% change)	**CP Dec 2006**	**10.5**	**11.0**	**8.3**	**7.7**	**7.6**	**7.5**
	CP Nov 2005	6.5	6.6	6.3	6.3	6.3	n.a.
	CP Dec 2004	*5.9*	*6.0*	*6.0*	*6.0*	*n.a.*	*n.a.*
	COM Nov 2006	10.5	10.9	9.5	8.4	n.a.	n.a.

Source:
Convergence programme (CP); Commission services' autumn 2006 economic forecasts (COM)

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 main goals of the medium-term budgetary strategy embodied in the programme are keeping the general government finances at least in balance and securing long-term sustainability in light of the budgetary impact of population ageing. The headline balance will drop from a projected surplus of 2 ½ % of GDP in 2006 to around 1 ¼ % of GDP in 2007-2008, but is seen to rebound to 1 ½ % in the following years (see Table 6). The primary balance will follow a similar pattern, given the negligible weight of interest expenditure. Whereas the broader fiscal policy objectives have not changed compared with the previous programme, Estonia has departed from the past practice of always targeting zero balance for general government finances, while actual outcomes have turned out significantly better over the last years. For the first time, a sizeable surplus has been planned over the programme period, which is a step forward in responding to the cyclical conditions of the economy.

Table 6: Composition of the budgetary adjustment

(% GDP)	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**Change: 2010-2006**
Revenues *of which:*	35.5	38.3	37.8	36.9	36.2	35.8	**-2.5**

- Taxes & social contributions	30.7	31.3	30.5	29.9	29.3	28.3	**-3.0**
- Other (residual)	4.8	7.0	7.3	7.0	6.9	7.5	**0.5**
Expenditure	33.2	35.6	36.5	35.5	34.6	34.3	**-1.3**
of which:							
- Primary expenditure	33.0	35.4	36.4	35.4	34.5	34.2	**-1.2**
of which:							
Consumption	17.4	18.0	18.1	17.4	16.8	16.4	**-1.6**
Transfers other than in kind & subsidies	10.1	10.4	10.5	9.9	9.5	9.1	**-1.3**
Gross fixed capital formation	3.2	2.8	3.8	4.0	3.8	3.6	**0.8**
Other (residual)	2.3	4.2	4.0	4.1	4.4	5.1	**0.9**
- Interest expenditure	0.2	0.2	0.1	0.1	0.1	0.1	**-0.1**
General government balance (GGB)	**2.3**	**2.6**	**1.2**	**1.3**	**1.6**	**1.5**	**-1.1**
Primary balance	**2.5**	**2.8**	**1.3**	**1.4**	**1.7**	**1.6**	**-1.2**
One-offs[1]	0.0	0.6	0.4	0.0	0.0	0.0	-0.6
GGB excl. one-offs	**2.3**	**2.0**	**0.8**	**1.3**	**1.6**	**1.5**	**-0.5**
Source: *Convergence programme update; Commission services' calculations*							

4.2.2. The composition of the budgetary adjustment

The drop in the surplus in 2007 is driven by a rise in the expenditure-to-GDP ratio while the revenue ratio follows a declining trend (see Table 6). The growth of nominal general government expenditure is set to reach 16 % in 2007, similarly to 2006 outpacing the substantial growth in nominal GDP. In terms of expenditure categories, especially investment expenditure is set to accelerate sharply, reflecting principally EU funded projects. Non-tax items (mainly EU transfers and, as in 2006, sales of assets) remain strong in 2007 and partly offset the decrease in the tax ratio stemming from tax reform (see also Box 2).

From 2008 onwards, the overall revenue and expenditure ratios decline in lock-step, reflecting notably the income tax cuts and expenditure growth remaining below buoyant nominal GDP growth. Nominal general government expenditure growth is set in the programme to moderate to about 10 % annually, which is in line with past historic average growth rates, but is nevertheless a significant drop from the peak growth rates of 26% and 16% expected in the programme for 2006 and 2007 respectively. While the income tax measures and their impact are well specified in the programme, the moderation in expenditure growth relies on the loose budgetary targets set by the medium-term central government budgetary framework (see also section 4.3). The already very low interest burden is projected to drop further to a mere 0.1% of GDP over the programme period.

The one-off measures, mostly reflecting exceptional revenues from the sales of assets, will have a substantial effect in 2006 and 2007 (½ % of GDP) but not in the rest of the programme period.

In terms of general government subsectors, the surplus in general government finances is generated by the central government, while social security and local government are expected to remain close to balance.

Box 2: The budget for 2007

The budget for 2007 was presented by the government on 14 September 2006 and approved by parliament on 13 December 2006. The nominal expenditure of the state budget is set to increase by about 16 % in comparison with implemented expenditure in 2006. The expenditure ratio increases by around 1 percentage point, which allows for significant growth in all functions. In terms of the functional classification, the main expenditure categories growing faster than the overall budget increase are health care, economic affairs and defence. The most notable expenditure items are outlined below. The main revenue measure is the continuation of income tax cuts, which is part of a larger multi-year package (see Section 5).

Table: Main measures in the budget for 2007

Revenue measures*	Expenditure measures**
o A further reduction of the flat tax rate for personal income and corporate dividends by 1 percentage point to 22% (-0.3% of GDP)	o Education expenditure (0.6% of GDP)
o Extending basic allowance support to start from the second child (previously from third child) (-0.2% of GDP)	o 30 % wage rise for internal security services: police, rescue, customs and prisons (0.2% of GDP)
o Reducing the coverage of items taxed with lower VAT rates (0.1% of GDP)	o 26 % rise in R&D (0.1% of GDP)

* Estimated impact on general government revenues.
** Estimated impact on general government expenditure.
Sources: Commission services and budget for 2007.

4.2.3. The medium-term objective (MTO) and the structural adjustment

As in the previous update, the programme sets an MTO of 0% of GDP (in structural terms), which it aims to respect throughout the programme period by a wide margin.

Box 3: The medium-term objective (MTO) for the budgetary position

According to the Stability and Growth Pact, stability and convergence programmes must present a medium-term objective (MTO) for the budgetary position. The MTO is country-specific 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 MTO should fulfil a triple aim. First, it should provide a safety margin with respect to the 3% of GDP deficit limit. Second, it should ensure rapid progress towards sustainability. Third, taking into account the first two goals, it should allow room for budgetary manoeuvre, considering in particular the needs for public investment. The code of conduct 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 3% of GDP deficit reference value. Member States are free to set an MTO that is more demanding than strictly required by these provisions.

The MTO is defined in structural terms, i.e. it is adjusted for the cycle and one-off and other temporary measures are excluded. For countries belonging to the euro area or participating in the exchange-rate mechanism (ERM II), the MTO should be in a range between a deficit of 1% of GDP and balance or surplus (in structural terms).

As the MTO is more demanding than the minimum benchmark (estimated at a deficit of around 2 % of GDP), its achievement should fulfil the aim of providing a safety margin against the occurrence of an excessive deficit. The minimum benchmark is the estimated budgetary position in cyclically-adjusted terms that provides a sufficient safety margin for automatic stabilisers to operate freely during normal economic downturns without breaching the 3% of GDP deficit reference value. The MTO lies within the range indicated for euro area and ERM II Member States in the Stability and Growth Pact and the code of conduct and is significantly more demanding than implied by the debt ratio and average potential output growth in the long term. As indicated in the programme, the higher MTO derives from the fiscal policy objective of keeping the general government finances at least in balance.

Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, in 2007 the structural balance is set to drop by about 1 percentage point to reach ½ % of GDP. It will rebound to above 1 % of GDP in 2008 and above 1 ½ % of GDP in 2009 and 2010[6]. Taken at face value, the programme envisages a sizeable fiscal stimulus for 2007. The drop in the structural surplus in 2007 appears to be a temporary fiscal loosening. The fiscal stimulus in 2007 would be followed by a period of rising structural surpluses and restrictive fiscal policy in 2008-2009.

[6] As noted in section 3.2, there are significant differences in the estimates of the output gaps between the Commission services' autumn 2006 forecast and the recalculations on the basis of the data provided programme according to the commonly agreed methodology. However, the relatively low sensitivity estimate for the cyclical component of the budgetary balance means that the analysis would not be affected to a significant degree if alternative output gaps were used.

Table 7: Output gaps and cyclically-adjusted and structural balances

% of GDP	2005		2006		2007		2008		2009	2010	Change: 2010-2006
	COM	CP[1]	COM	CP[1]	COM	CP[1]	COM	CP[1]	CP[1]	CP[1]	CP[1]
Gen. gov't balance	2.3	2.3	2.5	2.6	1.6	1.2	1.3	1.3	1.6	1.5	-1.1
One-offs[2]	0.2	0.0	0.6	0.6	0.4	0.4	0.2	0.0	0.0	0.0	-
Output gap[3]	0.0	0.2	1.2	2.0	0.9	1.2	-0.6	0.2	-0.3	-0.7	-
CAB[4]	2.3	2.2	2.2	2.0	1.4	0.8	1.5	1.2	1.7	1.7	-0.3
change in CAB	-0.4	-0.5	-0.2	-0.2	-0.8	-1.2	0.1	0.4	0.5	0.0	-
CAPB[4]	2.5	2.4	2.3	2.2	1.5	0.9	1.6	1.3	1.8	1.8	-0.4
Structural balance[5]	2.2	2.2	1.5	1.4	1.0	0.4	1.3	1.2	1.7	1.7	0.3
change in struct. bal.	-1.3	-1.3	-0.7	-0.8	-0.5	-1.0	0.3	0.8	0.5	0.0	-
Struct. prim. bal.[5]	2.4	2.4	1.7	1.6	1.1	0.5	1.4	1.3	1.8	1.8	0.2

Notes:

[1] Output gaps and cyclical adjustment according to the convergence programme (CP) as recalculated by Commission services on the basis of the information in the programme.

[2] One-off and other temporary measures.

[3] In percent of potential GDP. See Table 2 above.

[4] CA(P)B = cyclically-adjusted (primary) balance.

[5] Structural (primary) balance = CA(P)B excluding one-offs and other temporary measures.

Source:

Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations

4.3. Risk assessment

Table 8 presents the comparison of fiscal projections in the programme update and in the Commission services' autumn 2006 forecast. In comparison with the Commission services' no-policy change forecast extending to 2008, the surplus projections are broadly in line, with the programme target for 2007 appearing somewhat cautious.

Table 8: Comparison of budgetary developments and projections

(% of GDP)	2005	2006		2007		2008		2009	2010
		COM	CP	COM	CP	COM[1]	CP	CP	CP
Revenues	35.5	34.8	38.3	33.1	37.8	32.1	36.9	36.2	35.8
of which:									
- Taxes & social contributions	30.7	29.8	31.3	28.8	30.5	27.8	29.9	29.3	28.3
- Other (residual)	4.8	5.0	7.0	4.4	7.3	4.3	7.0	6.9	7.5
Expenditure	33.2	32.3	35.6	31.5	36.5	30.8	35.5	34.6	34.3
of which:									
- Primary expenditure	33.0	32.1	35.4	31.4	36.4	30.7	35.4	34.5	34.2
of which:									
Consumption	17.4	17.0	18.0	17.0	18.1	16.7	17.4	16.8	16.4
Transfers other than in kind & subsidies	10.1	9.1	10.4	9.4	10.5	9.1	9.9	9.5	9.1
Gross fixed capital formation	3.2	3.4	2.8	3.5	3.8	3.5	4.0	3.8	3.6
Other (residual)	2.3	2.7	4.2	1.5	4.3	1.3	4.1	4.4	5.1
- Interest expenditure	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
GGB	2.3	2.5	2.6	1.6	1.2	1.3	1.3	1.6	1.5
Primary balance	2.5	2.7	2.8	1.8	1.3	1.5	1.4	1.7	1.6
One-offs[2]	0.2	0.6	0.6	0.4	0.4	0.2	0.0	0.0	0.0
GGB excl. one-offs	2.2	1.9	2.0	1.3	0.8	1.2	1.3	1.6	1.5

Notes:

[1] On a no-policy change basis.

[2] One-offs and other temporary measures.

Source:

Commission services' autumn 2006 economic forecast (COM); Convergence programme update (CP); Commission services' calculations

While there are large differences between the Commission services' forecast and the programme on the projected levels of revenues and expenditures, especially carrying-over from the discrepancies in 2006, they do not in themselves indicate risks to the budgetary targets. The programme's targets are set with the most up to date information available for 2006 and the assumptions about the tax intensity of economic activity are in line with the Commission services' forecast for 2007, presented in Table 9. For 2008, the revenue projections appear somewhat more optimistic in the programme compared with the Commission services' forecast. The discrepancy for 2008 arises from a higher estimate for the discretionary and elasticity component, while the composition of growth component counterbalances the differences between the two forecasts. A detailed breakdown of tax projections in Annex 5 reveals that the more optimistic tax elasticity assessment for 2008 arises from the tax category "taxes on production and imports" The same category largely explains the differences in the composition of growth component, originating from the forecast lower private consumption growth in the programme. Overall, the forecast composition of growth and tax intensity assumptions should not give rise to major risks to budgetary targets.

The one-off revenue measures (mainly larger-than-usual sales of assets) are well specified in the programme. The risks to the attainment of budgetary targets arising from the one-offs appear to be balanced.

As discussed in section 3.7.1, the macroeconomic scenario underlying the programme appears cautious, with the Commission services' forecast being somewhat more optimistic on growth prospects. This should limit the risks that could materialise from a scenario of possible overheating being followed by a hard landing. As elaborated in the programme, this risk scenario assumes that growth would be higher in 2007 compared with the baseline scenario, but drop lower from 2008 onwards. Due to faster growth in 2007, the budgetary surpluses would also be higher for that year (provided that the higher revenues are not spent through supplementary budgets). The higher base would carry over to 2008 and initially support still substantial surplus levels, even if the trend is declining.

The present programme update's sizeable surplus targets are a departure from the past practice of always aiming for fiscal balance at the general government level. The surplus targets are a recent innovation and are not yet entrenched in the medium-term fiscal planning framework. However, this shift in policy should be facilitated by the current economic good times, the track record of consistently generating surpluses and reserves, and the widely accepted need to counterbalance the overheating tendencies in the economy. Therefore, the next government, due to take office in spring 2007, appears to be well positioned to adhere to the new surplus targets. However, the new surplus targets could face some pressures especially from the expenditure side. Even though the envisaged general government expenditure growth of 10% from 2008 onwards would be in tune with past average expenditure increases, it is a sharp moderation in comparison with growth in 2006 and 2007. The expectations for spending to continue growing at present exceptional rates (for example via wage claims) could compromise the surplus targets. The foreseen moderation in expenditure is primarily guided by the central government medium-term expenditure framework, extending over 2007-2010 (see also Section 5). These plans provide for nominal expenditure ceilings, which are difficult to set beforehand in a rapidly growing economy, and are typically revised considerably in connection with the annual budget process and supplementary budgets. The achievement of the envisaged moderation in expenditure growth would benefit from making the medium-term fiscal planning framework more binding.

Overall, the risks to the budgetary projections in the programme appear broadly balanced. Compared with the Commission services' autumn 2006 forecast, the budgetary outlook is similar for 2006 and 2008, but outcomes in 2007 could be better than projected in the programme. The programme's macroeconomic assumptions can be regarded as cautious over the programme period. The risks emanating from the optimistic tax elasticity assumptions, especially for 2008, are counterbalanced by the less favourable composition of growth expected in the programme. While the envisaged moderation in expenditure growth is not backed by an entirely binding medium-term fiscal planning framework, the high-growth environment should make these expenditure plans achievable. The most notable risks could arise from a possible overheating and subsequent hard landing of the economy. However, as this risk scenario is expected to build up over several years, the impact on the more immediate fiscal targets should be limited.

Table 9: Assessment of tax projections

	2007			2008			2009	2010
	CP	COM	OECD[3]	CP	COM[1]	OECD[3]	CP	CP
Change in tax-to-GDP ratio (total taxes)	-0.9	-1.1	-0.5	-0.7	-1.1	-0.4	-0.7	-1.1
Difference (CP – COM)	0.2		/	0.4		/	/	/
of which[2]:								
- discretionary and elasticity component	0.2		/	0.9		/	/	/
- composition component	0.0		/	-0.3		/	/	/
Difference (COM - OECD)	/	-0.7		/	-0.6		/	/
of which[2]:								
- discretionary and elasticity component	/	-1.2		/	-1.0		/	/
- composition component	/	0.9		/	0.7		/	/
p.m.: Elasticity to GDP	0.8	0.7	0.9	0.8	0.7	0.9	0.8	0.7

Notes:

[1] On a no-policy change basis.

[2] The decomposition is explained in Annex 5.

[3] OECD ex-ante elasticity relative to GDP.

Source:

Commission services' autumn 2006 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)

4.4. Assessment of the fiscal stance and budgetary strategy

The table below offers a summary assessment of the country's position relative to the budgetary requirements laid down in the Stability and Growth Pact. In order to highlight the role of the preceding analysis of the risks that are attached to the budgetary targets presented in the programme, this assessment is done in two stages: first, a preliminary assessment on the basis of the targets taken at face value is made (middle column) and, second, the final assessment that also takes into account risks (final column).

Table 10: Overview of compliance with the Stability and Growth Pact

	Based on programme[3] (with targets taken at face value)	**Assessment** (taking into account risks to targets)
a. Safety margin against breaching 3% of GDP deficit limit[1]	throughout programme period	throughout programme period
b. Achievement of the MTO	throughout programme period	throughout programme period
c. Fiscal stance in line with Pact[3]?	not fully in line in 2007	not fully in line in 2007

Notes:

[1] The risk of breaching the 3% of GDP deficit threshold with normal cyclical fluctuations, i.e. the existence of a safety margin, is assessed by comparing the cyclically-adjusted balance with the above mentioned minimum benchmark (estimated as a deficit of around 2% of GDP for Estonia). These benchmarks represent estimates and as such need to be interpreted with caution.

[2] According to the Stability and Growth Pact, countries which have already achieved their MTO should avoid pro-cyclical fiscal policies in "good times".

[3] Targets in structural terms as recalculated by Commission services on the basis of the information in the programme.

Source:

Commission services

Taking into account the risk assessment above, the budgetary strategy outlined in the programme seems sufficient to ensure that the MTO is maintained by a comfortable margin throughout the programme period. In addition, as the cyclically-adjusted balance is estimated to be clearly better than the above-mentioned "minimum benchmark" over the entire programme period there is a sufficient safety margin against breaching the 3% of GDP deficit ceiling with normal cyclical fluctuations in every year.

For countries that have already achieved the MTO, such as Estonia, the only requirement in the Stability and Growth Pact is that pro-cyclical fiscal policies are avoided in "good times". The economy is expected to cool somewhat in 2007 from the unsustainable growth rates in 2006. Nevertheless, the output gap based on the Commission services' calculations on the basis of the programme according to the commonly agreed method is still clearly positive in 2007, albeit on a declining trend to slightly negative values after 2008. While there is a high degree of uncertainty attached to assessing the cyclical position of a small open economy undergoing continuous strong and rapid structural changes, the overall economic outlook confirms that Estonia is experiencing economic "good times" until 2007 (see Section 3.7.2 above). Moreover, the overheating risks, that built up during the previous years, are expected to be still manifest. During the outer years, the economy will slow to rates below the estimated growth potential. The change in the tax-to-GDP ratio (reported in Table 9 and Figure 8) net of the substantial discretionary measures indicates that the tax system is expected to yield more than implied by the OECD standard elasticities. While the elasticity component (net of discretionary measures) is in line with the OECD estimates, revenues are predicted to benefit from a tax rich composition of growth, which indicates good times for government revenue collection to extend at least until 2008. The overall assessment indicates that the times are expected to be good for 2007, but turning to neither good nor bad times thereafter.

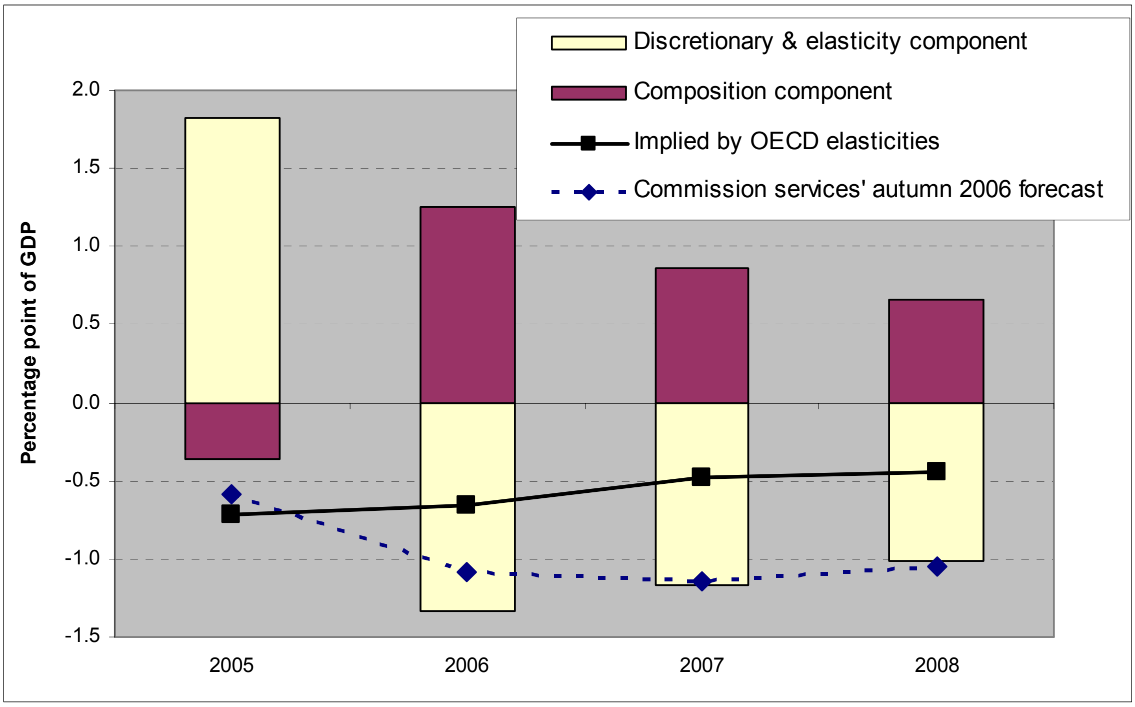
The fiscal stance is estimated to have eased in 2006, as the structural balance declined by about ¾ percentage points of GDP, deriving from a large estimated cyclical component, while the nominal balance itself even increased marginally. In 2007, the fiscal stance is expected to ease more rapidly with the structural surplus set to decline by about 1 percentage point. Unlike in 2006, this is accounted for by the fall in the nominal surplus, reflecting the rapid growth of government sector expenditure outpacing nominal GDP growth (as well as a decline in the revenue ratio in view of ongoing tax reform).

Even though a considerable surplus is planned for general government finances, the fiscal easing in 2007 coincides with still robust economic growth, overheating risks and persistent macroeconomic imbalances. The fiscal easing in 2007 is followed by a pronounced fiscal tightening in 2008, when the structural surplus rebounds[7]. Taking into account the importance of fiscal policy as the primary stabilisation instrument for Estonia and the recent aggravation of macroeconomic imbalances that have accompanied the economic boom, maintaining sizeable fiscal surpluses would be an appropriate stabilisation instrument (see also Section 2.5 above). The expansionary fiscal stance in 2007 is further driven by an acceleration of net inflows of EU structural funds, which is reflected in the high expenditure growth of the government sector (discussed above), but is not apparent in the structural balance estimates and analysis, because it has a neutral

[7] The fluctuations in the structural balance are more moderate according to the Commission services' autumn forecast (due to a higher nominal surplus forecast for 2007), but still indicate a strong fiscal impulse for 2007.

effect on fiscal balances. All in all, the fiscal policy stance implied by the programme is not fully in line with the Stability and Growth Pact in the sense that it is pro-cyclical in good times during 2007.

Figure 8: Changes in the tax-to-GDP ratio:
actual/projected changes vs. changes implied by OECD elasticity



Note:
The dashed line displays the change in the tax ratio in the Commission services' 2006 autumn forecast, for 2008, on a no-policy-change basis. The solid line shows the change in the tax ratio implied by the ex-ante OECD elasticity with respect to GDP. The difference between the two is explained by the bars. The composition component captures the effect of differences in the composition of aggregate demand (more tax rich or more tax poor components). The discretionary and elasticity component captures the effect of discretionary fiscal policy measures as well as variations of the yield of the tax system that may result from factors such as time lags, variations of taxable income that do not necessarily move in line with GDP e.g. capital gains. Both components may not add up to the total difference because of a residual component, which is generally small. The decomposition is explained in detail in Annex 5.

Source:
Commission services

5. GOVERNMENT DEBT AND LONG-TERM SUSTAINABILITY

Government debt is the result of the governments financing needs over the years. It corresponds primarily to an accumulation of deficits, although the build-up of financial assets and other adjustments may also play a role.[8] The reform of the Stability and Growth Pact has raised attention to the crucial importance of government debt and of sustainability in fiscal surveillance.

This section is in two parts: a first part describes recent developments and the medium-term prospects for government gross debt; it describes the convergence programmes targets, compares them with the Commission services' forecasts and assesses the

[8] On the factors other than the deficit which explain the evolution of the government debt, see “The dynamics of government debt: decomposing the stock-flow adjustment”, Chapter II.2.2 of *Public Finances in EMU 2005*, European Economy, N°3/2005.

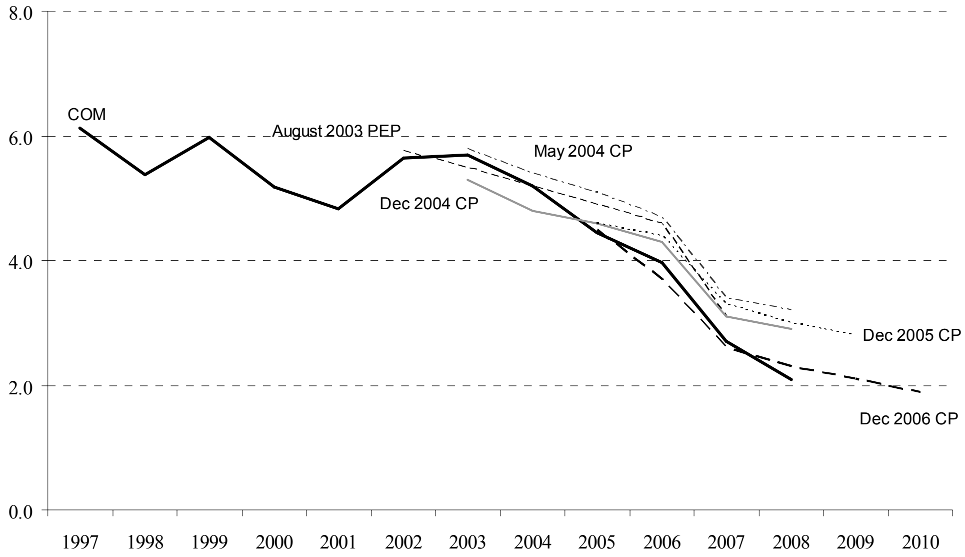
associated risks. A second part looks into the government debt from a longer-term perspective with the aim of assessing the long-term sustainability of public finances.

4.5. Recent debt developments and medium-term prospects

4.5.1. Debt projections in the programme

Estonia has currently the lowest gross government debt-to-GDP ratio in the EU. The update forecasts that the debt ratio is reduced progressively over the projection period to reach 1.9% of GDP in 2010, down from 3.7% at the end of 2006, as illustrated on Figure 9 and Table 12. The decline in the debt ratio that would result from the significant primary surpluses is tempered by a stock-flow adjustment, primarily reflecting the accumulation of assets by central government and social security. The stock-flow adjustment drops sharply in 2007, reflecting a reduction in assets on the occasion of the repayment of government bonds coming to maturity in that year.

Figure 9: Debt projections in successive convergence programmes (% of GDP



Source: Commission services' autumn 2006 forecast (COM) and successive convergence programmes.

Table 11: Debt dynamics

(% of GDP)	average 2000-04	2005	2006		2007		2008		2009	2010
			COM	CP	COM	CP	COM	CP	CP	CP
Gross debt ratio[1]	**5.2**	**4.5**	**4.0**	**3.7**	**2.7**	**2.6**	**2.1**	**2.3**	**2.1**	**1.9**
Change in the ratio	-0.2	-0.7	-0.5	-0.8	-1.3	-1.1	-0.6	-0.3	-0.2	-0.2
Contributions:[2]										
Primary balance	-1.1	-2.5	-2.7	-2.8	-1.8	-1.3	-1.4	-1.4	-1.7	-1.6
"Snow-ball" effect	-0.4	-0.6	-0.5	-0.5	-0.4	-0.3	-0.2	-0.2	-0.1	-0.1
Of which:										
Interest expenditure	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Growth effect	-0.4	-0.5	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.2	-0.1
Inflation effect	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
Stock-flow adjustment	1.2	2.4	2.7	2.5	0.9	0.5	1.0	1.3	1.6	1.5
Of which:										
Cash/accruals diff.	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acc. financial assets	1.7	2.5	0.0	3.7	0.0	1.7	0.0	2.7	2.9	2.8
Privatisation	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Val. effect & residual	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

[1] End of period.

[2] 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 (in the table, the latter is decomposed into the growth effect, capturing real GDP growth, and the inflation effect, measured by the GDP deflator). The term in parentheses represents the "snow-ball" effect. The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

Source:

Convergence programme update (CP); Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations

4.5.2. Assessment

The debt ratios foreseen in the update are broadly in line with the Commission services' autumn 2006 forecast. Overall, government debt is not a cause for concern in Estonia, given its very low level and the significant planned primary surpluses.

4.6. Long-term debt projections and the sustainability of public finances

The issue of long-term sustainability is a multi-faceted one. It involves avoiding imposing an excessive burden on future generations and ensuring the country's capacity to appropriately adjust budgetary policy in the medium and long run.[9]

Debt sustainability is derived from the government's *intertemporal budget constraint*. It imposes that current total liabilities of the government, i.e. the current public debt and the discounted value of future expenditure including the budgetary impact of ageing populations, should be covered by the discounted value of future government revenue. If current policies ensure that the intertemporal budget constraint is fulfilled, current policies are sustainable.

[9] For a detailed analysis of long-term sustainability issues, see "The Long Term Sustainability of Public Finances – A report by the Commission services", European Economy n°4/2006, published in October 2006 (hereinafter Sustainability Report).

The approach adopted by the Commission services and the Ageing Working Group of the Economic Policy Committee (EPC) is to project the debt, and to calculate the associated sustainability indicators (see Box 4), on the basis of two different scenarios. The first scenario assumes that the structural primary balance will remain unchanged from 2006 through 2009, the final year of the convergence programme; it is called the "2006 scenario". Debt projections in this scenario start in 2007. The second scenario assumes that the macroeconomic and budgetary plans until 2010 provided in the convergence programme will be fully respected. This is the "programme scenario". Debt and primary balance projections in this scenario start in 2011. Both projections assume zero stock-flow adjustments. In addition to this quantitative analysis, other relevant factors are taken into account which allows to better qualify the assessment with regard to where the main risks are likely to stem from and to reach an overall assessment.

4.6.1. Sustainability indicators and long-term debt projections

Table 12 shows the evolution of government spending on pensions, healthcare, long-term care for the elderly, education and unemployment benefits according to the EPC's projections.[10] Non age-related primary expenditure and revenue is assumed to remain constant as a share of GDP.

Table 12: Long-term age-related expenditure: main projections

(% of GDP)	**2004**	**2010**	**2020**	**2030**	**2040**	**2050**	**changes**
Total age-related spending	17.4	16.8	15.4	15.2	14.8	15.0	-2.5
Pensions	6.7	6.8	5.4	4.7	4.4	4.2	-2.5
Healthcare	5.4	5.8	6.1	6.2	6.4	6.5	1.1
Long-term care	0.3	0.3	0.4	0.4	0.5	0.6	0.3
Education	5.0	3.8	3.5	3.8	3.5	3.6	-1.3
Unemployment benefits	0.1	0.1	0.1	0.1	0.1	0.1	0.0

Source: Economic Policy Committee and Commission services.

The projected dynamics in age-related spending in Estonia is much below the EU average; falling by 2.5 p.p. of GDP between 2004 and 2050. This is mainly due to the projected decline in pension expenditures falling by the same amount as a share of GDP over the projection period, due to the large pension reform enacted in 2002. The increase in health-care expenditure is projected to be 1.1 p.p. of GDP, slightly below the EU average. For long-term care spending, the projected increase of 0.3 p.p. of GDP up to 2050 is below the EU average.

Based on the long-term budgetary projections, sustainability indicators can be calculated.

[10] These assumptions cover labour productivity growth, real GDP growth, participation rates, unemployment rate, demographic developments, government spending in pensions, healthcare, long-term care for the elderly, education and unemployment benefits. See Economic Policy Committee and European Commission (DG ECFIN) (2006), "The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health-care, long-term care, education and unemployment transfers (2004-2050)", European Economy, Special Report No 1 (hereinafter Ageing Report).

Table 13: Sustainability indicators and the required primary balance

	2006 scenario			Programme scenario		
	S1	S2	RPB	S1	S2	RPB
Value	-4.2	-3.2	-1.0	-4.4	-3.4	-1.0
of which:						
Initial budgetary position	-1.6	-1.6	-	-1.8	-1.8	-
Debt requirement in 2050	-1.1	-	-	-1.1	-	-
Future changes in budgetary position	-1.5	-1.7	-	-1.5	-1.7	-

Source: Commission services.

Box 4 – Sustainability indicators*

- The **sustainability gap S1** shows the permanent budgetary adjustment (often presented as an increase in the tax burden**) required to reach a debt ratio in 2050 of 60% of GDP.
- The **sustainability gap S2**, shows the permanent budgetary adjustment that guarantees the respect of the intertemporal budget constraint of the government. In order to estimate S2, the revenue and expenditure ratios (age-related and non age-related) after 2050 are assumed to remain constant at the 2050 level.
- The sustainability indicators can be decomposed into the***: (i) **initial budgetary position (IBP)**; and, (ii) **long-term change in the budgetary position (LTC)**;
- In addition, the **required primary balance (RPB)** can be derived from the S2 indicator. It measures the average primary balance over the first five years after the programme horizon (i.e. 2011-2015) that results from a permanent budgetary adjustment carried out to comply fully with the S2 indicator.

Summarizing the sustainability indicators

	Impact of		
	Initial budgetary position		**Long-term changes in the primary balance**
S1*=**	Gap to the debt-stabilizing primary balance	+	Additional adjustment required to finance the increase in public expenditure *up to 2050*
S2=	Gap to the debt-stabilizing primary balance	+	Additional adjustment required to finance the increase in public expenditure *over an infinite horizon*

* For a complete description of the sustainability indicators, see Annex I of the "The Long Term Sustainability of Public Finances – A report by the Commission services", European Economy n°4/2006, published in October 2006.

** Although the sustainability gap indicators (S1, S2) are usually defined as differences between revenue ratios, this does not mean that countries are asked to increase taxes to reach sustainability. There are several ways to ensure sustainability and governments typically choose a combination of budget consolidation over the medium term (either through expenditure reduction and/or tax hikes) and the implementation of structural reforms aiming at curbing long-term public spending (e.g. pension reforms).

*** Moreover, in the case of S1, the decomposition also separates the impact of the debt position (60% of GDP in 2050); the debt requirement in 2050 (DR). In particular, if the current debt/GDP ratio is below 60% of GDP debt is allowed to rise and this component reduces the sustainability gap as measured by the S1 indicator, and

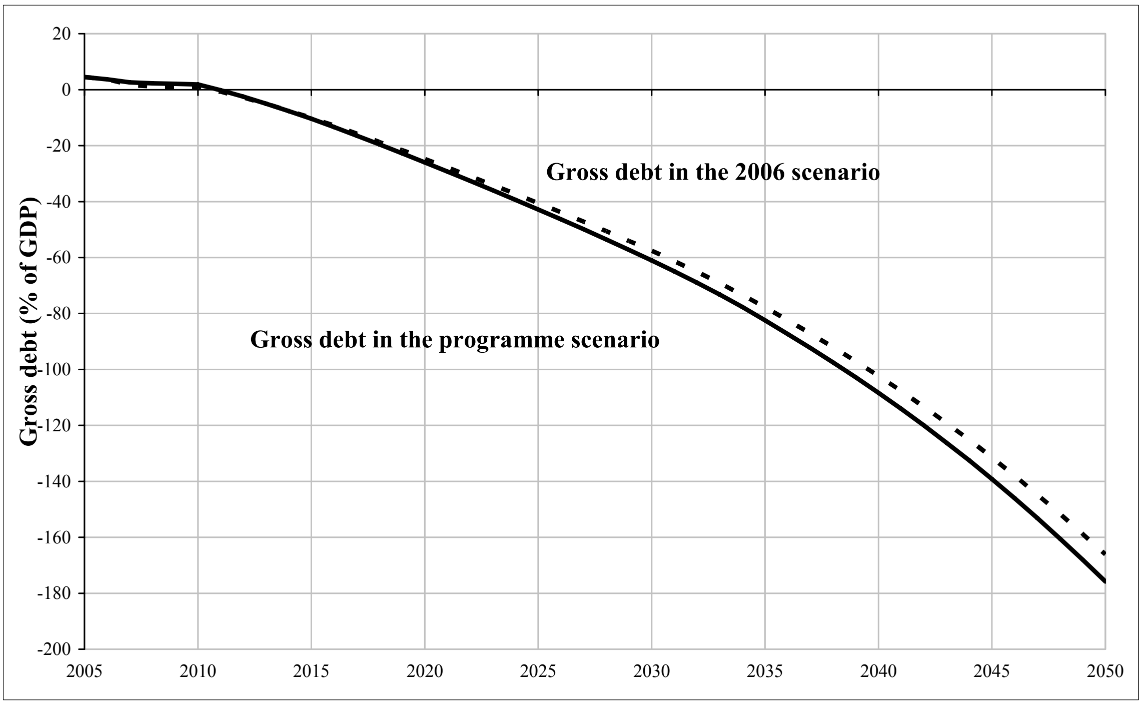
Table 13 shows the sustainability indicators for the two scenarios. Estonia has negative sustainability gaps. In the “2006 scenario”, (the sustainability gap (S1) that assures reaching the debt ratio of 60% of GDP by 2050 would be -4.2% of GDP and the sustainability gap (S2) which satisfies the intertemporal budget constraint would be -3.2% of GDP). These results are similar to those in the Commission's Sustainability Report,.

The initial budgetary position enables to maintain debt at a very low level. The budgetary plans in the programme imply a further strengthening of the structural primary balance, of around ¼% of GDP, between 2006 and 2010. If achieved, such a consolidation would further reduce risks to the long-term sustainability of public finances.

Another way to look at the prospects for long-term public finance sustainability is to project the debt/GDP ratio over the long-term using the same assumptions as for the calculations of S1 and S2. The long-term projections for government debt under the two scenarios are shown in Figure 10.

As a result of the strong fiscal position in recent years, the debt/GDP ratio has been kept at very low levels, estimated at 4.5% of GDP in 2006. According to both scenarios, the debt ratio is projected to decline throughout the projection period. In practice this would mean accumulation of financial assets.[11]

Figure 10: Long-term projections for the government debt ratio



Source: Commission's services.

Note: The government debt ratio is usually compiled in gross terms, that is assets are not netted out from government liabilities. Therefore, the gross debt can never be negative. In this chart, the negative values for the debt ratio should be understood as accumulation of financial assets. This issue has no implications on the conclusions drawn from the sustainability assessment.

[11] It should be recalled, however, that being a mechanical, partial-equilibrium analysis, the long-term debt projections are bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be seen as a forecast similar to the Commission services’ short-term forecasts, but as an indication of the risks faced by Member States.

4.6.2. Additional factors

To reach an overall assessment of the sustainability of public finances, other relevant issues are taken into account which in addition allows to better qualify the assessment with regard to where the main risks are likely to stem from.

First, as mentioned above Estonia's share of debt-to GDP is very low, estimated at below 5% of GDP in 2006. The sound public finances in Estonia, with structural surpluses projected throughout the programme period up to 2010 contribute to maintain the debt/GDP ratio at very low levels.

Second, under current policies the total benefit ratio (i.e. average pension relative to GDP per worker, including the pensions paid by private schemes) in Estonia is projected to decrease quite markedly, by more than 25% in the period to 2050, despite an already relatively low level of public pension expenditure today.[12] Pressure on current pension arrangements cannot be excluded in the long term, as recognised by the authorities in the convergence programme update. Should such concerns materialise, risks to long-term sustainability of public finances could appear.

4.6.3. Assessment

The long-term budgetary impact of ageing in Estonia is among the lowest in the EU, with age-related expenditure projected to fall as a share of GDP over the coming decades, influenced by the considerable expenditure-reducing impact of the reform of the pension system.

The current level of gross debt is very low in Estonia and maintaining sound government finances, in line with the budgetary plans over the programme period would contribute to contain the risks to the long-term sustainability of public finances.

Overall, Estonia appears to be at low risk with regard to the sustainability of public finances.

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

The update contains an overview of the budgetary institutions and the fiscal planning framework in place and recent developments in this regard. Notably, the medium-term budgetary planning framework has been enhanced by shifting the basis of expenditure planning towards strategic development plans and increasing the credibility of medium-term appropriations. Consequently, the practice of targeting specific balance/surplus levels has been complemented with elements of expenditure targeting, which should provide a better basis for counter-cyclical fiscal policies and sustain the quality of Estonia’s public finances, which overall appear to be sound.

[12] If the pensions from the private funded schemes are not considered, the decrease in the benefit ratio is larger, by more than 50%.

The government will continue to implement the strategy of shifting the tax burden from income to consumption and environment taxes. The single most important measure is the gradual reduction of income taxation by 6 percentage points over 2004-2009, relating to both personal and corporate income tax, which are taxed at the same proportional tax rate. It is planned to lower the income tax rate to 20% by 2009 with the aim of supporting the business environment and reduce taxation on labour. In addition, the non-taxable threshold of personal income is raised to reduce the tax burden on low-income people, which is currently higher than the EU average.

The government aims to improve the efficiency and effectiveness of tax collection by further developing the highly successful and widespread electronic tax collection system and simplifying tax administration. In addition, measures to reduce concealed pay and illicit goods markets subject to excise duties are expected to increase tax returns.

The implementation of the 2002 pension reform has progressed smoothly and, as discussed above, contributes significantly to limiting the risks to the long-term sustainability of public finances. As noted in the programme, the government has taken steps to further strengthen pension insurance (with the aim to maintain the pensions to average wage ratio) and sustainability of public finances. It is planned to reform the payment of special pension entitlements and raise the minimum social tax obligation. Also, in 2005 and 2006, a large part of the budgetary surpluses (worth about 1 % of GDP) was transferred to the pension reserves.

6. Consistency with the National Reform Programme and with the broad economic policy guidelines

The measures in the stability programme as described in preceding sections are in line with the National Reform Programme (NRP) and the progress recorded in the Implementation Report of the National Reform Programme (IR-NRP) submitted in October 2006 in the context of the renewed Lisbon strategy for growth and jobs. The convergence programme contains a qualitative assessment of the overall impact of the October 2006 implementation report of the national reform programme within the medium-term fiscal strategy. In addition, it provides some information on the direct budgetary costs or savings of the main reforms envisaged in the national reform programme. Its budgetary projections explicitly take into account the public finance implications of the actions outlined in the national reform programme, both being based on the medium-term strategic expenditure framework. The measures in the area of public finances envisaged in the convergence programme seem consistent with those foreseen in the national reform programme. In particular, both programmes envisage prudent fiscal policies as a crucial element of macroeconomic stabilisation.

Box 5: The Commission assessment of the implementation report of the National Reform Programme

The implementation report of the National Reform Programme of Country, provided in the context of the renewed Lisbon strategy for growth and jobs, was submitted on 12 October 2006. The Commission’s assessment of this report, which was adopted on 13 December 2006 as part of its Annual Progress Report, can be summarised as follows.

The main focus of the Estonian National Reform Programme is on R&D and innovation, and on employment challenges. Estonia is making very good progress with the implementation of measures responding to the country’s key challenges and to the four priority actions formulated by the 2006 Spring European Council. It also makes impressive efforts to ensure coherence between the National Reform Programme and cohesion policy and the Implementation Report can be considered a model in this regard.

The particular strengths of the Estonian National Reform Programme were seen to be: the upgrading of several policy targets, which shows an appropriately ambitious approach; the establishment of the new Strategy Office to strengthen implementation, which is a good example for others; the successful macro-economic policies proposed in the National Reform Programme on fiscal sustainability and on creating favourable conditions for employment growth; the considerable effort made to increase both public and private R&D expenditure and to improve the framework conditions for business R&D; measures to facilitate start-ups and financing of innovative SMEs; and progress on a broad range of environmental issues, notably ecological tax reform.

The Commission called for stronger focus on raising the skills level of the labour force further by reinforcing the reforms in education and lifelong learning, clearer prioritisation and improved inter-ministerial cooperation for the effective use of R&D and innovation expenditure; reinforcing efforts to ensure that R&D results are translated into innovative services or products; encouraging closer cooperation between universities and enterprises; vigorously implementing the planned proactive competition policy; improving labour market flexibility through further progress in the renewal of labour laws; reinforcing active labour market policies.

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, which are included in the integrated guidelines for the period 2005-2008. The assessment of guideline 1 corresponds to the evaluation in Section 4.4 above, whereas that of the pace of debt reduction in guideline 2 (relevant for high-debt countries only) is covered in Section 4.5.2 above. Information on the different elements covered by the remaining guidelines in the table can be found in Sections 4.6 and 5.

Overall, the budgetary strategy in the convergence programme is broadly consistent with the broad economic policy guidelines.

Table 14: Consistency with the broad economic policy guidelines

Broad economic policy guidelines	**Yes**	**Steps in right direction**	**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 it[1].	X			
– Member States should avoid pro-cyclical fiscal policies[2].		X		
– Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits[3].				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 In view of the projected costs of ageing populations,				
– 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 efficient allocation of resources				

Broad economic policy guidelines	Yes	Steps in right direction	No	Not applicable
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.	X			

Notes:

[1] As further specified in the Stability and Growth Pact and the 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 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.

Source:
Commission services

* * *

Annex 1: Glossary

Automatic stabilisers Various features of the tax and spending regime which tend to have a dampening effect on economic fluctuations without requiring a discretionary intervention of the fiscal authorities. As a result, the budget balance in percent of GDP tends to improve in years of high growth and deteriorate during economic slowdowns. See also *cyclically-adjusted balance*, *structural balance* and *minimum benchmark*.

Broad economic policy guidelines (BEPGs) Guidelines for the economic and budgetary policies of the Member States. Together with the Employment Guidelines, they form the Integrated Guidelines, prepared by the Commission and adopted by the Council of Ministers responsible for Economic and Financial Affairs (ECOFIN). See also *Lisbon strategy*.

Budget balance The balance between total public revenue and expenditure (according to *ESA95*); with a positive balance indicating a surplus (also know as *government net lending*) and a negative balance indicating a deficit (also known as *government net borrowing*). For the monitoring of Member States' budgetary positions, the EU uses *general government* aggregates. See also *cyclically-adjusted balance*, *primary balance, structural balance* and *reference values*.

Budget constraint A basic condition applying to the public finances, according to which total public expenditure in any one year must be financed by taxation, borrowing or changes in the monetary base; the latter is prohibited in the EU. See also *stock-flow adjustment* and *long-term sustainability*.

Budgetary sensitivity The variation in the *budget balance* brought about by a change in the *output gap*. In the EU, it is estimated to be 0.5 on average, i.e. for any percentage point of GDP below or above potential, the budget-balance-to-GDP ratio deteriorates or improves by half a percentage point. The size of the budgetary sensitivity essentially reflects (i) the revenue and expenditure elasticities of the budget and (ii) the size of discretionary government expenditure. See also *cyclically-adjusted balance, structural balance* and *tax elasticity*.

Code of conduct Policy document adopted by the Economic and Financial Committee (an advisory committee gathering high-level officials from national governments, national central banks, the European Central Bank and the European Commission which prepares the meetings of the Council of Ministers responsible for Economic and Financial Affairs (ECOFIN)) and endorsed by the ECOFIN Council in October 2005, containing specifications on the implementation of the *Stability and Growth Pact* and guidelines on the format and content of *stability programmes* and *convergence programmes*.

Contingent liabilities A possible government obligation to pay, the existence of which will be confirmed by the occurrence of one or more uncertain events in the future not wholly under the control of the government. For instance, government guarantees on debt issued by private or public companies are contingent liabilities since the government obligation to pay depends on the non-ability of the original debtor to honour its obligations. See also *implicit liabilities*.

Convergence programme Medium-term budgetary strategy presented by each Member State that has not yet adopted the euro; updated annually, according to the provisions of the *Stability and Growth Pact*. See also *stability programme, code of conduct* and *medium-term objective*.

Cyclically-adjusted balance The *budget balance* adjusted for its cyclical component (which captures the part of public revenue and expenditure that is linked to the *output gap*), i.e. the budget balance that would prevail if GDP were at its potential level. See also *structural balance, budgetary sensitivity* and *output gap*.

Cyclically-adjusted primary balance The *cyclically-adjusted balance* net of interest expenditure on *general government* debt. See also *interest burden*.

Debt dynamics The evolution of *government debt* as a ratio to GDP; it depends on the primary deficit, the debt-increasing impact of interest payments, the dampening effect of GDP growth on the ratio and the *stock-flow adjustment*.

EDP notification See *notification of deficit and debt*.

ERM II Exchange rate mechanism linking some currencies of non-euro Member States to the euro, which is the centre of the mechanism. For the currency of each Member State participating in the mechanism, a central rate against the euro and a standard fluctuation band of ±15% are defined.

ESA95 European accounting standards for the compilation and reporting of macroeconomic (including budgetary) data by the EU Member States.

Excessive deficit procedure (EDP) A procedure, laid down in the EC Treaty, according to which the Commission and the Council monitor the development of national *budget balances* and *public debt* in relation to the *reference values*, in order to assess the existence (or risk) of an excessive deficit in each Member State and to ensure its correction. Its application has been further clarified in the *Stability and Growth Pact*.

Fiscal stance A measure of the thrust of discretionary fiscal policy such as, in this document, the change in the *structural balance* (or in the *structural primary balance*) relative to the preceding year. When the change is positive (negative) the fiscal stance is said to be restrictive (expansionary).

Funded pension scheme Pension system in which current pension expenditures are financed by running down assets accumulated over the years on the basis of contributions by the scheme beneficiaries. According to *ESA95*, defined-contribution funded pension schemes are not considered as part of the *general government* sector. See also *pay-as-you-go pension scheme*.

Government debt See *public debt*.

General government The focus of EU budgetary surveillance under the *Stability and Growth Pact* and the *excessive deficit procedure* is on general government aggregates, with the general government sector covering national, regional and local government, as well as social security. In principle, public enterprises are excluded.

Government net lending/borrowing See *budget balance*.

Implicit liabilities Future government expenditure which has not yet been funded, even when future expenditure is not backed by law or contractual obligations, but is simply grounded in strong expectations of the public. To be meaningful for economic analysis, implicit liabilities should be assessed net of future revenue assuming that the government will keep collecting taxes (and other non-tax revenue) at rates comparable to current levels. See also *contingent liabilities*.

Interest burden *General government* interest expenditure on *government debt* as a share of GDP.

Intertemporal budget constraint A basic condition imposing that current total liabilities of the government, i.e. the current public debt and the discounted value of future expenditure including the budgetary impact of ageing populations, be covered by the discounted value of future government revenue.

Lisbon strategy Partnership between the EU and Member States for growth and more and better jobs. Originally approved in 2000, the Lisbon Strategy was revamped in 2005. Based on the Integrated Guidelines (merger of the *broad economic policy guidelines* and the employment guidelines, dealing with macro-economic, micro-economic and employment issues) for the period 2005-2008, Member States drew up 3-year national reform programmes in autumn 2005. They reported on the implementation of the national reform programmes for the first time in autumn 2006. The Commission analyses and summarises these reports in an EU Annual Progress Report each year, in time for the Spring European Council.

Long-term sustainability A combination of *budget balance* and *public debt* that ensures that the latter does not grow without bound. While conceptually intuitive, an agreed operational definition of sustainability has proven difficult to achieve.

Maturity structure of public debt The profile of *public debt* in terms of when it is due to be paid back. Interest rate changes affect the *budget balance* directly to the extent that the *general government* sector has debt with a relatively short maturity structure. Long maturities reduce the sensitivity of the *budget balance* to changes in the prevailing interest rate. See also *interest burden*.

Medium-term objective (MTO) According to the *Stability and Growth Pact*, *stability programmes* and *convergence programmes* must present a medium-term objective for the budgetary position. It is country-specific 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, and is defined in structural terms (see *structural balance*).

Minimum benchmark Estimated budgetary position (in *cyclically-adjusted* terms) that provides a “safety margin” that is enough for the *automatic stabilisers* to operate freely during normal economic slowdowns without breaching the 3% of GDP deficit *reference value*. The minimum benchmarks are estimated by the European Commission. They do not cater for other risks such as unexpected budgetary developments and interest rate shocks.

National reform programme (NRP) See *Lisbon strategy*.

Notification of deficit and debt (EDP notification) Twice a year (by 1 April and 1 October), EU Member States have to notify their *general government* deficit and debt figures (and a number of associated data) to the Commission, the quality of which is then checked by Eurostat, the Commission department in charge of statistics. See also *budget balance* and *public debt*.

One-off and temporary measures Government transactions having a transitory budgetary effect that does not lead to a sustained change in the intertemporal budgetary position. See also *structural balance*.

Output gap The difference between actual GDP and potential GDP in any given year, usually expressed as a percent of potential GDP. Potential GDP is an unobserved variable and needs to be estimated from actual data. It is the level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build; if output falls below potential, then resources are lying idle and inflationary pressures abate. See also *production function method*.

Pay-as-you-go pension scheme (PAYG) Pension system in which current pension expenditures are financed by the contributions of current employees. Also known as *unfunded pension scheme*. See also *funded pension scheme*.

Primary balance The *budget balance* net of interest expenditure on *general government* debt. See also *interest burden*.

Pro-cyclical fiscal policy A *fiscal stance* which amplifies the economic cycle by lowering the *structural balance* when the *output gap* is positive or improving, or by increasing the *structural balance* when the *output gap* is negative or widening, as opposed to a counter-cyclical fiscal policy stance. A neutral fiscal policy keeps the *structural balance* unchanged over the economic cycle by letting the *automatic stabilisers* work.

Production function method A method to estimate potential GDP typically based on a Cobb-Douglas production function. Potential GDP is estimated as the level of GDP consistent with a full utilisation of capital, an unemployment rate that does not accelerate inflation and factor productivity at its trend level. See also *output gap, cyclically-adjusted balance, budgetary sensitivity*.

Public debt (or government debt) Consolidated gross debt for the *general government* sector. It includes the total nominal value of all debt owed by government units, except that part of the debt which is owed to government units in the same Member State. It is a gross debt measure meaning that government financial assets on other sectors are not netted out. See also *debt dynamics* and *reference values*.

Public investment The component of total public expenditure which consists in the acquisition of durable assets and through which governments increase and improve the stock of capital employed in the production of the goods and services they provide. Also known as government gross fixed capital formation (GFCF).

Public-private partnerships (PPP) Agreements between government and corporations according to which the latter build and operate public-use infrastructure (roads, tunnels, bridges, but also hospitals, prisons, concert halls, etc.) which were traditionally directly controlled by government. In exploiting the infrastructure, the corporation receives prices paid by final users, rentals or fees from the government or both. Infrastructure built under PPPs is considered as either *public investment* or corporate investment depending on a number of specific criteria.

Quality of public finances A multi-dimensional concept which refers to the contribution that public finances make to the efficient allocation of resources in the economy and to achieving the government's strategic objectives (sustainable growth, macroeconomic stability, competitiveness, social cohesion etc.). It concerns notably the overall level of expenditure and taxation, their composition, the budgeting and control mechanisms and the institutional arrangements for deciding on public finance issues.

Reference values for public deficit and debt Respectively, a 3 percent *general government* deficit-to-GDP ratio and a 60 percent *general government* debt-to-GDP ratio. See also *excessive deficit procedure, government debt* and *budget balance*.

Sensitivity analysis An econometric or statistical simulation designed to test the robustness of an estimated economic relationship or projection to changes in the underlying assumptions.

'Snow-ball' effect The self-reinforcing effect of *public debt* accumulation or decumulation arising from a positive or negative differential between the implicit interest rate on public debt and the GDP growth rate. See also *debt dynamics*.

Stability and Growth Pact (SGP) Approved in 1997 and reformed in 2005, the SGP clarifies the provisions on budgetary surveillance in the EC Treaty. The "preventive" arm of the SGP obliges Member States to submit annual *stability programmes* or *convergence programmes*, while the "corrective" arm of the SGP clarifies and speeds up the *excessive deficit procedure*.

Stability programme Medium-term budgetary strategy presented by each Member State that has already adopted the euro; updated annually, according to the provisions of the *Stability and Growth Pact*. See also *convergence programme, code of conduct* and *medium-term objective*.

Stock-flow adjustment (SFA) The stock-flow adjustment (also known as the debt-deficit adjustment) ensures consistency between *government net borrowing*, which is a flow variable, and the variation in *government debt*, which is a stock variable. It includes differences between cash and accrual accounting, accumulation of financial assets, changes in the value of debt denominated in foreign currency and remaining statistical adjustments. See also *debt dynamics.*

Structural balance The *budget balance* in *cyclically-adjusted* terms and excluding *one-off and temporary measures*. See also *fiscal stance*.

Structural primary balance The *structural balance* net of interest expenditure on *general government* debt. See also *interest burden*.

Tax elasticity A parameter measuring the relative change in tax revenues with respect to a relative change in GDP. The tax elasticity is an input to the *budgetary sensitivity*.

Annex 2: Summary tables from the programme update

The tables below present the information provided in the programme in the format prescribed by the code of conduct (Annex 2 thereof).

Table 1a. Macroeconomic prospects

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	141 968.7	10.5	11.0	8.3	7.7	7.6	7.5
2. Nominal GDP	B1*g	173 062.3	18.0	17.4	13.1	12.5	11.4	10.9
Components of real GDP								
3. Private consumption expenditure	P.3	77 662.8	8.2	15.1	9.6	6.0	5.0	4.4
4. Government consumption expenditure	P.3	20614.8	1.1	2.7	3.7	3.7	5.7	5.7
5. Gross fixed capital formation	P.51	46 242.5	12.7	13.1	11.0	9.4	7.9	7.8
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53		4.2	4.3	4.3	4.2	4.1	4.0
7. Exports of goods and services	P.6	129 320.5	21.5	13.3	11.4	9.9	9.8	9.8
8. Imports of goods and services	P.7	137676.7	15.9	15.5	12.1	8.7	8.3	7.8
Contributions to real GDP growth[1]								
9. Final domestic demand		-	8.8	12.9	9.6	7.1	6.5	5.8
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	-0.7	0.4	0.3	0.2	0.2	0.2
11. External balance of goods and services	B.11	-	3.1	-2.9	-1.5	0.4	0.9	1.5
Added value growth[2]								
12. Primary sector			2.3	-5.3	2.8	2.0	2.2	2.3
13. Industry			11.7	12.5	10.1	9.6	9.4	9.1
14. Construction			19.8	18.7	11.9	9.8	9.2	9.0
15. Services			10.6	10.4	7.7	7.1	7.0	6.9

[1] *Contribution to GDP growth indicates the share of a specific field in the economic growth. It is calculated by multiplying the fieds' growth with its share in the GDP. The sum of the fields' share makes up the economic growth (the reason for a little difference is a statistical error- the part of GDP that could not be divided between the fields*

[2] *Additional information, not in Code of conduct tables*

Table 1b. Price developments

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		-	6.8	5.7	4.4	4.5	3.5	3.2
2. Private consumption deflator		-	2.9	4.1	4.1	3.8	2.8	2.2
3. HICP[1]		-	4.1	4.4	4.3	4.4	3.5	3.2
4. Public consumption deflator		-	9.9	10.0	9.0	8.0	6.0	6.0
5. Investment deflator		-	3.3	6.3	5.4	4.6	4.2	4.1
6. Export price deflator (goods and services)		-	2.5	6.5	3.9	3.8	3.6	3.4
7. Import price deflator (goods and services)		-	4.3	6.8	3.9	3.7	3.6	3.4

[1] Optional for stability programmes.

Table 1c. Labour market developments

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[1]		607.4	2.0	6.3	1.0	0.3	0.1	0.1
2. Employment, hours worked[2]								
3. Unemployment rate (%)[3]			7.9	5.6	5.2	5.3	5.5	5.4
4. Labour productivity, persons[4]			8.3	4.6	7.2	7.4	7.5	7.3
5. Labour productivity, hours worked[5]								
6. Compensation of employees	D.1	78 947.90	15.5	21.3	13.7	11.9	11.1	10.8

[1] Occupied population, domestic concept national accounts definition.

[2] National accounts definition.

[3] Harmonised definition, Eurostat; levels.

[4] Real GDP per person employed.

[5] Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	2005	2006	2007	2008	2009	2010
1. Net lending/borrowing vis-à-vis rest of the world	B.9	-9.5	-10.2	-11.5	-9.9	-8.9	-7.2
1a.Current account balance[1]		-10.5	-12.4	-13.4	-11.8	-10.7	-9.0
of which: - Balance on goods and services		-6.2	-8.3	-9.0	-8.0	-6.8	-5.1
- Balance of primary incomes and transfers		-4.3	-4.1	-4.4	-3.8	-3.9	-3.9
- Capital account		1.0	2.2	1.9	1.9	1.8	1.8
2. Net lending/borrowing of the private sector	B.9						
3. Net lending/borrowing of general government	EDP B.9						
4. Statistical discrepancy		-0.1	..	..	..	..	..

[1] Additional information, not in Code of conduct tables

Table 2. General government budgetary prospects

	ESA code	2005	2005	2006	2007	2008	2009	2010
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
Net lending (EDP B.9) by sub-sector								
1. General government	S.13	4060.8	2.3	2.6	1.2	1.3	1.6	1.5
2. Central government	S.1311	3257.8	1.9	2.3	1.0	1.2	1.5	1.4
3. State government	S.1312	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Local government	S.1313	-48.7	0.0	0.1	0.0	-0.1	-0.1	-0.1
5. Social security funds	S.1314	851.7	0.5	0.2	0.2	0.2	0.2	0.2
General government (S13)								
6. Total revenue	TR	61442.7	35.5	38.3	37.8	36.9	36.2	35.8
7. Total expenditure	TE[1]	57381.9	33.2	35.6	36.5	35.5	34.6	34.3
8. Net lending/borrowing	EDP B.9	4060.8	2.3	2.6	1.2	1.3	1.6	1.5
9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	314.1	0.2	0.2	0.1	0.1	0.1	0.1
p.m.: 9a. FISIM		0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. Primary balance	[2]	4374.9	2.5	2.8	1.4	1.4	1.7	1.6
Selected components of revenue								
11. Total taxes (11=11a+11b+11c)		35033.6	20.2	21.0	20.3	19.8	19.3	18.4
11a. Taxes on production and imports	D.2	22801.2	13.2	13.6	13.4	13.1	12.8	12.4

11b. Current taxes on income, wealth, etc	D.5	12232.4	7.1	7.4	6.9	6.7	6.5	6.0
11c. Capital taxes	D.91	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. Social contributions	D.61	18114.1	10.5	10.3	10.2	10.1	10.0	9.9
13. Property income	D.4	1734.9	1.0	1.1	1.1	0.9	0.8	0.7
14. Other (14=15-(11+12+13))		6560.1	3.8	5.9	6.2	6.1	6.1	6.8
15=6. Total revenue	TR	61442.7	35.5	38.3	37.8	36.9	36.2	35.8
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[3]		54463.2	31.5	32.1	31.4	30.7	30.2	29.2
Selected components of expenditure								
16. Collective consumption	P.32	13692.0	7.9	8.3	8.3	8.2	8.0	7.9
17. Total social transfers	D.62+D.63	32247.9	18.6	19.1	19.3	18.1	17.3	16.7
17a. Social transfers in kind	P.31=D.63	16406.3	9.5	9.7	9.8	9.2	8.8	8.5
17b. Social transfers other than in kind	D.62	15841.6	9.2	9.4	9.5	8.9	8.5	8.2
18.=9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	314.1	0.2	0.2	0.1	0.1	0.1	0.1
19. Subsidies	D.3	1637.4	0.9	1.0	1.0	1.0	1.0	0.9
20. Gross fixed capital formation	P.51	5523.0	3.2	2.8	3.8	4.0	3.8	3.6
21. Other (21=22-(16+17+18+19+20))		3967.5	2.3	3.4	4.0	4.1	4.4	5.1
22=7. Total expenditure	TE[1]	57381.9	33.2	35.6	36.5	35.5	34.6	34.3
p.m.: Compensation of employees	D.1	16224.9	9.4	9.2	9.2	9.1	9.0	9.0

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

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

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

Table 3. General government expenditure by function[2]

% of GDP	COFOG Code	**2003**	**2004**	**2005**	**2006**	**2007**	**2009**
1. General public services	1	3.2	2,4	3.2	3.3	3.5	
2. Defence	2	1.7	1,5	1.2	1.4	1.6	
3. Public order and safety	3	2.6	2,4	2.1	2.1	2.1	
4. Economic affairs	4	3.6	4,0	5.1	5.6	6.0	
5. Environmental protection	5	0.7	0,6	1.4	1.4	1.3	
6. Housing and community amenities	6	0.5	0,3	0.4	0.5	0.5	
7. Health	7	4.0	4,1	3.8	4.3	4.5	
8. Recreation, culture and religion	8	2.1	2,1	1.9	2.0	2.0	
9. Education	9	6.8	6,2	5.0	5.3	5.4	
10. Social protection	10	10.1	10,5	9.1	9.8	9.	
11. Total expenditure (=item 7=26 in Table 2)	TE[1]	**35.3**	**34,2**	**33.2**	**33.2**	**33.2**	

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

[2] Additionaal information in the programme for 2003,2005-2007. Information for 2009 not provided

Table 4. General government debt developments

% of GDP		**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
1. Gross debt[1]		4.5	3.7	2.6	2.3	2.1	1.9
2. Change in gross debt ratio		-0.7	-0.8	-1.1	-0.3	-0.2	-0.2
Contributions to changes in gross debt							
3. Primary balance[2]		-2.5	-2.8	-1.3	-1.4	-1.7	-1.6
4. Interest expenditure (incl. FISIM)[3]		0.2	0.2	0.1	0.1	0.1	0.1
5. Stock-flow adjustment		2.4	2.5	0.4	1.4	1.6	1.5
of which:							
- Differences between cash and accruals[4]		3.6	3.7	1.7	2.7	2.9	2.8
- Net accumulation of financial assets[5]		0.0	0.0	0.0	0.0	0.0	0.0

of which:							
- privatisation proceeds		4.6	4.9	5.0	4.8	4.9	5.0
- Valuation effects and other[6]							
p.m.: implicit interest rate on debt[7]		7.0	6.2	6.6	6.3	6.0	5.7

Other relevant variables

6. Liquid financial assets[8]							
7. Net financial debt (7=1-6)							

[1] As defined in Regulation 3605/93 (not an ESA concept).

[2] Cf. Item 10 in Table 2.

[3] Cf. Item 9 in Table 2.

[4] The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.

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

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

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

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

Table 5. Cyclical developments

% of GDP	ESA Code	2005	2006	2007	2008	2009	2010
1. Real GDP growth (%)		10,5	11,0	8,3	7,7	7,6	7,5
2. Net lending of general government	EDP B.9	2,3	2,6	1,2	1,3	1,6	1,5
3. Interest expenditure (incl. FISIM recorded as consumption)	EDPD.41 incl. FISIM	0,2	0,2	0,1	0,1	0,1	0,1
4. Potential GDP growth (%)		8,1	11,1	8,5	8,3	7,9	7,6
contributions:							
- labour							
- capital							
- total factor productivity							
5. Output gap		1,0	0,9	0,7	0,2	-0,1	-0,2
6. Cyclical budgetary component		0,3	0,3	0,2	0,1	0,0	-0,1
7. Cyclically-adjusted balance (2-6)		2,1	2,3	1,0	1,2	1,6	1,6
8. Cyclically-adjusted primary balance (7-3)		2,3	2,5	1,1	1,3	1,7	1,7

Table 6. Divergence from previous update

	ESA Code	2005	2006	2007	2008	2009	2010
Real GDP growth (%)							
Previous update		6.5	6.6	6.3	6.3	6.3	-
Current update		10.5	11.0	8.3	7.7	7.6	7.5
Difference		4.0	4.4	2.0	1.4	1.3	-
General government net lending (% of GDP)	EDP B.9						
Previous update		2.6	0.1	0.0	0.0	0.0	-
Current update		2.3	2.6	1.2	1.3	1.6	1.5
Difference		-0.3	2.5	1.2	1.3	1.6	-
General government gross debt (% of GDP)							
Previous update		4.6	4.4	3.3	3.0	2.8	-
Current update		4.5	3.7	2.6	2.3	2.1	1.9
Difference		-0.1	-0.7	-0.7	-0.7	-0.7	-

Table 7. Long-term sustainability of public finances

% of GDP	2000	2006[5]	2010	2020	2030	2050
Total expenditure		35.6	34.3	32.9	32.1	31.6

Of which: age-related expenditures		6.4	5.8	4.5	3.9	3.4
Pension expenditure[1]		6.4	5.8	4.5	3.9	3.4
Social security pension		5.6	5.0	3.9	3.4	3.0
Old-age and early pensions[2]		0.8	0.8	0.6	0.5	0.4
Other pensions (disability, survivors)		-	-	-	-	-
Occupational pensions (if in general government)		4.6	4.6	4.5	4.4	4.4
Health care[3]		0.1	0.1	0.1	0.1	0.1
Long-term care *(this was earlier included in health care)*		0.2	0.1	0.1	0.1	0.1
Education expenditure[4]						
Other age-related expenditures[4]						
Interest expenditure		0.2	0.1	0.1	0.1	0.1
Total revenue		38.3	35.8	32.9	32.1	31.6
Of which: property income		1.0	1.0	1.5	2.2	3.4
of which: from pensions contributions (or social contributions if appropriate)		10.3	9.9	9.6	9.2	9.1
Pension reserve fund assets		1.8	0.6	8.4	17.8	39.8
Of which: consolidated public pension fund assets (assets other than government liabilities)		0.5	0.0	3.4	14.2	42.5
Assumptions						
Labour productivity growth		4.6	7.3	3.6	2.8	1.7
Real GDP growth		11.0	7.5	2.7	2.1	0.7
Participation rate males (aged 20-64)		83.9	85.3	87.4	87.6	85.8
Participation rates females (aged 20-64)		73.9	75.4	79.5	79.8	77.6
Total participation rates (aged 20-64)		78.7	80.1	83.3	83.6	81.7
Unemployment rate		5.6	5.4	6.3	5.9	5.3
Population aged 65+ over total population		17.1	17.1	18.7	20.9	25.4

[1] Including pension payments from other funds than Social Security Fund. Projection of the Ministry of Finance until 2010, projection of the EPC AWG afterwards, corrected with the effect of the stabilisation measures of 2006-2007.

[2] Including survivor pension paid after the retirement age and other pension-type benefits.

[3] 2005-2050: projection of the EPC AWG, 2000: OECD Health Data 2005.

[4] Projection of the EPC AWG.

[5] In the Code of conduct 2005 in stead of 2006

Table 8. Basic assumptions

	2005	2006	2007	2008	2009	2010
Short-term interest rate[1] (annual average)	2.2	3.1	3.7	3.6	3.2	3.2
Long-term interest rate (annual average)	3.4	3.8	4.0	4.2	4.2	4.2
for countries in euro area or ERM II: **USD/€ exchange rate (annual average)**	1.24	1.25	1.27	1.27	1.28	1.28
Nominal effective exchange rate						
for countries not in euro area or ERM II: **exchange rate vis-à-vis the € (annual average)**	15.7	15.7	15.7	15.7	15.7	15.7
World excluding EU, GDP growth	5.4	5.7	5.2	5.2	5.2	5.2
EU GDP growth	1.6	2.8	2.4	2.4	2.1	2.1
Growth of relevant foreign markets	3.4	3.3	2.7	2.8	2.8	2.8
World import volumes, excluding EU	8.2	9.1	8.3	7.9	7.9	7.9
Oil prices (Brent, USD/barrel)	55.0	65.6	66.3	68.0	69.0	69.0

[1] If necessary, purely technical assumptions.

Annex 3: 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 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..

Guidelines in the code of conduct	Yes	No	Comments
1. Submission of the programme			
Programme was submitted not earlier than mid-October and not later than 1 December[1].	X		
2. Model structure			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	X		
3. Model tables (so-called data requirements)			
The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct).	X		
The programme provides all compulsory information in these tables.	X		
The programme provides all optional information in these tables.		X	
The concepts used are in line with the European system of accounts (ESA).	X		
4. Other information requirements			
a. Involvement of parliament			
The programme mentions its status vis-à-vis the national parliament.		X	
The programme indicates whether the Council opinion on the previous programme has been presented to the national parliament.		X	
b. Economic outlook			
Euro area and ERM II Member States uses the “common external assumptions” on the main extra-EU variables.		X	
Significant divergences between the national and the Commission services’ economic forecasts are explained[2].	X		
The possible upside and downside risks to the economic outlook are brought out.	X		
The outlook for sectoral balances and, especially for countries with a high external deficit, the external balance is analysed.	X		
c. Monetary/exchange rate policy			
The convergence programme presents the medium-term monetary policy objectives and their relationship to price and exchange rate stability.	X		
d. Budgetary strategy			
The programme presents budgetary targets for the general government balance in relation to the MTO, and the projected path for the debt ratio.	X		
In case a new government has taken office, the programme shows continuity with respect to the budgetary targets endorsed by the Council.	X		
When applicable, the programme explains the reasons for possible deviations from previous targets and, in case of substantial deviations, whether measures are taken to rectify the situation, and provide information on them.	X		
The budgetary targets are backed by an indication of the broad measures necessary to achieve them and an assessment of their quantitative effects on the general government balance is analysed.	X		
Information is provided on one-off and other temporary measures.	X		
The state of implementation of the measures (enacted versus planned) presented in the programme is specified.	X		
If for a country that uses the transition period for the classification of			not applicable

Guidelines in the code of conduct	Yes	No	Comments
second-pillar funded pension schemes, the programme presents information on the impact on the public finances.			
e. "Major structural reforms"			
If the MTO is not yet reached or a temporary deviation is planned from the achieved MTO, the programme includes comprehensive information on the economic and budgetary effects of possible 'major structural reforms' over time.			not applicable
The programme includes a quantitative cost-benefit analysis of the short-term costs and long-term benefits of such reforms.			not applicable
f. Sensitivity analysis			
The programme includes comprehensive sensitivity analyses and/or develops alternative scenarios showing the effect on the budgetary and debt position of: a) changes in the main economic assumptions b) different interest rate 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.	X		
In case of "major structural reforms", the programme provides an analysis of how changes in the assumptions would affect the effects on the budget and potential growth.			not applicable
g. Broad economic policy guidelines			
The programme provides information on the consistency with the broad economic policy guidelines of the budgetary objectives and the measures to achieve them.	X		
h. Quality of public finances			
The programme describes measures aimed at improving the 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).	X		
i. Long-term sustainability			
The programme outlines the country's strategies to ensure the sustainability of public finances, especially in light of the economic and budgetary impact of ageing populations.	X		
Common budgetary projections by the AWG are included in 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.	X		
j. Other information (optional)			
The programme includes information on the implementation of 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.	X		

Notes:

[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.

[2] To the extent possible, bearing in mind the typically short time period between the publication of the Commission services' autumn forecast and the submission of the programme.

Source:
Commission services

Annex 4: Key economic indicators of past economic performance

This Annex includes two tables. The first displays key economic indicators that summarise the economic performance of the country. To put the country's performance into perspective, the second table displays the same set of indicators for the EU10.

[Estonia] - Key economic indicators

	Averages			2003	2004	2005
	1996 – 2005	1996 – 2000	2001 - 2005			
Economic activity						
Real GDP (% change)	6.9	5.6	8.3	7.1	8.1	10.5
Private consumption % change	7.4	6.6	8.1	6.9	6.9	8.2
Government consumption % change	1.1	0.6	1.6	0.3	2.2	1.1
Investment % change	10.9	8.4	13.4	7.0	13.5	12.7
Exports % change	12.3	14.6	10.0	7.6	17.1	21.5
Imports % change	12.3	14.4	10.2	10.6	15.2	15.9
Contributions to real GDP growth						
Domestic demand	7.7	6.0	9.3	10.2	8.2	7.4
Net exports	-0.7	-0.4	-1.1	-3.1	-0.1	3.1
Output gap	-1.7	-2.9	-0.5	-0.7	-1.2	0.0
Prices and costs						
HICP inflation % change	6.3	9.0	3.5	1.4	3.0	4.1
Unit labour costs % change	6.0	8.3	3.8	7.0	4.5	2.6
Labour productivity % change	7.4	7.8	7.1	5.5	8.1	8.3
Real unit labour costs % change	-1.1	-2.1	-0.2	4.7	2.3	-3.9
Comparative price levels (EUR25=100)	53.2	49.4	57.0	57.2	57.4	58.2
Labour market						
Employment % change	-0.4	-2.0	1.2	1.5	0.3	1.9
Employment % of pop work age	65.1	65.4	64.9	65.1	65.3	66.5
Unemployment rate in %	10.3	10.6	10.1	10.0	9.7	7.9
NAIRU in %	8.2	6.2	10.2	10.7	9.5	8.0
Participation rate in %	72.6	73.0	72.1	72.4	72.2	72.2
Working age population % change	-0.3	-0.6	0.0	0.0	0.0	0.0
Competitiveness and external position						
Real effective exchange rate % change (1)	:	:	:	:	:	:
Export performance % change (2)	4.7	5.1	4.2	2.7	7.7	11.2
External balance of g & s	-7.2	-8.0	-6.4	-7.8	-8.2	-6.1
Net borrowing v-à-v RoW	-8.6	-7.9	-9.3	-10.5	-13.0	-8.4
FDI	8.5	6.2	10.7	10.1	9.3	21.2
Public finances						
Total expenditure % of GDP	36.9	39.2	34.7	35.3	34.2	33.2
Total revenue % of GDP	37.2	38.3	36.0	37.4	36.6	35.5
General government balance % of GDP	0.2	-0.9	1.4	2.0	2.3	2.3
General government debt % of GDP	5.6	6.0	5.2	5.7	5.2	4.5
Structural budget balance % of GDP	:	:	:	2.3	3.5	2.2
Financial indicators (3)						
Short term real interest rate (4)	-1.0	-1.4	-0.6	0.6	0.4	-4.1
Long term real interest rate (4)	:	:	2.3	2.9	2.2	-2.6
Household credit % change	:	:	:	:	36.8	:
Corporate sector credit % change (5)	:	:	:	:	20.0	:
Household debt in % of GDP	:	:	:	20.2	24.9	:
Corporate sector debt in % of GDP	:	:	:	63.3	68.3	:

Notes:

(1) ulc relative to rest of a group of industrialised countries (usd): EUR24 (excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ

(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).

(3) Data available up to 2004

(4) Using GDP deflator

(5) Households' and non-profit institutions serving households' debt defined as loans and securities other than shares

(6) Non-financial corporate sector debt, defined as loans and securities other than shares

EU-10 - Key economic indicators

	Averages			2003	2004	2005
	1996 – 2005	1996 – 2000	2001 - 2005			
Economic activity						
Real GDP (% change)	4.0	4.3	3.7	4.0	5.1	4.6
Private consumption % change	4.2	4.7	3.8	3.9	4.1	3.7
Government consumption % change	2.5	1.9	3.1	5.0	1.8	2.0
Investment % change	5.6	8.4	2.9	1.7	7.2	6.2
Exports % change	10.0	11.0	9.0	9.1	14.5	10.3
Imports % change	10.2	12.7	7.8	8.5	14.6	6.9
Contributions to real GDP growth						
Demand						
Domestic demand	4.3	5.3	3.4	4.1	5.6	3.0
Net exports	-0.3	-1.0	0.4	0.0	-0.5	1.6
Output gap	:	:	-1.0	-1.4	-0.5	-0.4
Prices and costs						
HICP inflation % change	:	:	3.3	1.9	4.1	2.5
Unit labour costs % change	5.7	9.2	2.3	1.3	1.4	0.7
Labour productivity % change	4.2	4.6	3.7	4.3	4.5	2.9
Real unit labour costs % change	-0.8	-0.6	-1.0	-0.7	-2.5	-1.8
Comparative price levels (EUR25=100)	:	:	:	:	:	:
Labour market						
Employment % change	-0.1	-0.3	0.0	-0.2	0.6	1.7
Employment % of pop work age	58.0	59.4	56.6	56.1	56.2	57.0
Unemployment rate in %	12.8	11.3	14.2	14.3	14.2	13.4
NAIRU in %	:	:	13.1	13.5	13.2	12.6
Participation rate in %	66.4	66.7	66.1	65.7	65.6	65.8
Working age population % change	0.3	0.4	0.3	0.4	0.4	0.3
Competitiveness and external position						
Real effective exchange rate % change (1)	:	:	:	:	:	:
Export performance % change (2)	:	:	:	:	:	:
External balance of g & s	-3.4	-4.2	-2.6	-3.0	-2.6	-1.2
Net borrowing v-à-v RoW	:	:	:	:	:	:
FDI	:	:	:	:	:	:
Public finances						
Total expenditure % of GDP	:	:	44.2	44.9	43.4	43.6
Total revenue % of GDP	:	:	:	:	:	:
General government balance % of GDP	:	:	:	:	:	:
General government debt % of GDP	:	:	:	:	:	:
Structural budget balance % of GDP	:	:	:	:	:	:
Financial indicators (3)						
Short term real interest rate (4)	:	:	:	:	:	:
Long term real interest rate (4)	:	:	:	:	:	:
Household credit % change	:	:	:	:	:	:
Corporate sector credit % change (5)	:	:	:	:	:	:
Household debt in % of GDP	:	:	:	:	:	:
Corporate sector debt in % of GDP	:	:	:	:	:	:

Notes:

(1) ulc relative to rest of a group of industrialised countries (usd): EUR24 (excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ

(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).

(3) Data available up to 2004

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(5) Households' and non-profit institutions serving households' debt defined as loans and securities other than shares

(6) Non-financial corporate sector debt, defined as loans and securities other than shares

Annex 5: Assessment of tax projections

Table 9 in the main text compares the tax projections of the programme with those of the Commission services' autumn 2006 forecast and those obtained by using standard ex-ante elasticities, as estimated by the OECD. It summarises the results for the total tax-to-GDP ratio. The underlying analysis exploits information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see results in the table below)[13].

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 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 elasticity[14]. 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:

[13] Private and corporate income taxes are generally not provided, neither in the programme nor in the Commission services' autumn 2006 forecast. 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.

[14] The observed or projected elasticity (ex-post elasticity) of the *i*-th tax also includes the effect of other factors (OF) such as discretionary measures: $\frac{\Delta T_i}{T_i} = \varepsilon_{T_i,B_i exante}\frac{dB_i}{B_i} + \frac{OF_i}{T_i} = \varepsilon_{T_i,B_i ex post}\frac{dB_i}{B_i}$.

$$d\left(\frac{T_i}{Y}\right)' - d\left(\frac{T_i}{Y}\right) \approx \left[\left(\varepsilon'_{T_i,B_i}\varepsilon'_{B_i,Y} - 1\right)\frac{T_i}{Y} - \left(\varepsilon_{T_i,B_i}\varepsilon_{B_i,Y} - 1\right)\frac{T_i}{Y}\right]\frac{dY}{Y}$$

If $(\varepsilon'_{T_i,B_i} - \varepsilon_{T_i,B_i}) = \alpha_i$; $(\varepsilon'_{B_i,Y} - \varepsilon_{B_i,Y}) = \beta_i$,

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

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 $\varepsilon = \sum_i w_i\varepsilon_{T_tB_i}\varepsilon_{B_iY}$ with w_i the share of the *i-th* tax in the overall tax burden.

Assessment of tax projections by major tax category

	2007			2008			2009	2010
	SP/CP	COM	OECD[1]	SP/CP	COM[2]	OECD[1]	SP/CP	SP/CP
Taxes on production and imports: Change in tax-to-GDP ratio	-0.2	-0.4	0.0	-0.3	-0.5	0.0	-0.3	-0.4
Difference SP/CP – COM	0.1			0.1			/	/
of which[3]*:*								
- discretionary & elasticity component	0.3			0.8			/	/
- composition component	-0.1			-0.4			/	/
Difference COM – OECD	/	-0.4		/	-0.5		/	/
of which[3]*:*								
- discretionary & elasticity component	/	-0.6		/	-0.7		/	/
- composition component	/	0.3		/	0.3		/	/
p.m.: Elasticity								
- of taxes to tax base[4]	0.8	0.7	1.0	1.0	0.6	1.0	1.0	1.1
- of tax base[4] to GDP	1.1	1.2	1.0	0.8	1.2	1.0	0.7	0.6
Social contributions: Change in tax-to-GDP ratio	-0.1	-0.7	-0.4	-0.1	-0.5	-0.4	-0.1	-0.1
Difference SP/CP – COM	0.5		/	0.3		/	/	/
of which[3]*:*								
- discretionary & elasticity component	0.4		/	0.2		/	/	/
- composition component	0.1		/	0.1		/	/	/
Difference COM – OECD	/	-0.3		/	-0.1		/	/
of which[3]*:*								
- discretionary & elasticity component	/	-0.4		/	-0.2		/	/
- composition component	/	0.4		/	0.2		/	/
p.m.: Elasticity								
- of taxes to tax base[5]	0.9	0.6	1.0	1.0	0.8	1.0	0.9	0.9
- of tax base[5] to GDP	1.0	0.9	0.7	1.0	0.9	0.7	1.0	1.0
Personal income tax[6]**:** Change in tax-to-GDP ratio	-0.5	-0.1	-0.1	-0.2	-0.1	-0.1	-0.2	-0.5
Difference SP/CP – COM	-0.4		/	-0.1		/	/	/
of which[3]*:*								
- discretionary & elasticity component	-0.4		/	-0.1		/	/	/
- composition component	0.1		/	0.1		/	/	/

Difference COM – OECD	/	0.0		/	0.0		/	/
of which[3]:								
- discretionary & elasticity component	/	-0.1		/	-0.1		/	/
- composition component	/	0.2		/	0.1		/	/
p.m.: Elasticity								
- of taxes to tax base[5]	0.4	0.9	1.1	0.8	1.0	1.1	0.7	0.2
- of tax base[5] to GDP	1.0	0.9	0.7	1.0	0.9	0.7	1.0	1.0
Corporate income tax[6]:								
Change in tax-to-GDP ratio	-0.1	0.0	0.1	0.0	0.0	0.1	0.0	-0.1
Difference SP/CP – COM	-0.1		/	0.0		/	/	/
of which[3]:								
- discretionary & elasticity component	-0.1		/	0.0		/	/	/
- composition component	0.0		/	0.0		/	/	/
Difference COM – OECD	/	-0.3		/	-0.1		/	/
of which[3]:								
- discretionary & elasticity component	/	-0.4		/	-0.2		/	/
- composition component	/	0.4		/	0.2		/	/
p.m.: Elasticity								
-of taxes to tax base[7]	0.4	0.8	1.0	0.7	0.8	1.0	0.7	0.2
-of tax base[7] to GDP	1.0	1.0	0.7	1.0	1.1	0.7	1.0	1.0

Notes:

[1]Based on OECD ex-ante elasticities

[2]On a no-policy change basis

[3]The decomposition is explained in the text above

[4]Tax base = private consumption expenditure

[5]Tax base = compensation of employees

[6]Taxes 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 2006 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)