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# ESTONIA: MACRO FISCAL ASSESSMENT

## AN ANALYSIS OF THE JANUARY 2010 UPDATE OF THE CONVERGENCE PROGRAMME

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 29 January 2010.

The attached technical analysis of the programme prepared by the staff and under the responsibility of the Directorate-General for Economic and Financial Affairs (DG ECFIN) of the European Commission, was finalised on 17 March 2010. Comments should be sent to Ingrid Toming (ingrid.toming@ec.europa.eu). The main aim of the 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.

The analysis takes into account (i) the Commission services’ autumn 2009 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 10 November 2009) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances.

Based on this analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 17 March 2010. The ECOFIN Council is expected to discuss the opinion on the programme on 16 April 2010.

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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/sgp/index_en.htm**

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## 1. INTRODUCTION

This document assesses the January 2010 update of Estonia's convergence programme, which was submitted on 29 January and covers the period 2009-2013. The programme builds on the State Budget Strategy 2010-2013 adopted by the government on 28 May 2009, the 2010 budget approved by Parliament on 9 December and more recent decisions by the government coalition. The programme was approved by the government on 28 January 2010. The programme has not been presented to the national parliament before its publication (see also section 6.1 and Annex 1).

This assessment is structured as follows. Section 2 discusses the key challenges for public finances in Estonia. Section 3 assesses the plausibility of the macroeconomic scenario underpinning the public finance projections of the convergence programme against the background of the Commission services' economic forecasts[1]. Section 4 analyses budgetary implementation in the year 2009, the budgetary plans for 2010 and the medium-term budgetary strategy. It also assesses risks attached to the budgetary targets. Section 6 reviews recent debt developments and medium-term prospects, as well as the long-term sustainability of public finances. Section 6 discusses institutional features of public finances. Section 7 assesses the economic policies that aim at supporting a smooth participation in ERMII. Finally, Section 8 concludes with an overall assessment of the programme. The annex provides a detailed assessment of compliance with the code of conduct, including an overview of the summary tables from the programme.

[1] This assessment uses the Commission services' 2009 autumn forecast, as published on 3 November 2009, as a benchmark. However, more recent information that has become available has also been taken into account to assess the risks to the programme scenarios.

**Table 1. Comparison of key macroeconomic and budgetary projections**

| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| Real GDP (% change) | **CP Jan 2010** | **-3.6** | **-14.5** | **-0.1** | **3.3** | **3.7** | **4.0** |
| | COM Nov 2009 | -3.6 | -13.7 | -0.1 | 4.2 | n.a. | n.a. |
| | *CP Dec 2008* | *-2.2* | *-3.5* | *2.6* | *4.8* | *5.0* | *n.a.* |
| HICP inflation (%) | **CP Jan 2010** | **10.6** | **0.2** | **0.4** | **1.9** | **2.3** | **2.7** |
| | COM Nov 2009 | 10.6 | 0.2 | 0.5 | 2.1 | n.a. | n.a. |
| | *CP Dec 2008* | *10.6* | *4.2* | *2.8* | *3.0* | *3.2* | *n.a.* |
| Output gap[1] (% of potential GDP) | **CP Jan 2010** | **6.2** | **-8.8** | **-8.4** | **-5.7** | **-3.1** | **-0.5** |
| | COM Nov 2009[2] | 4.7 | -9.4 | -9.1 | -5.4 | n.a. | n.a. |
| | *CP Dec 2008* | *0.9* | *-5.7* | *-5.9* | *-3.9* | *-1.7* | *n.a.* |
| Net lending/borrowing vis-à-vis the rest of the world (% of GDP) | **CP Jan 2010** | **-8.4** | **6.9** | **8.5** | **6.3** | **2.9** | **-1.0** |
| | COM Nov 2009 | -8.2 | 6.3 | 3.7 | 2.4 | n.a. | n.a. |
| | *CP Dec 2008* | *-10.5* | *-5.1* | *-5.0* | *-4.7* | *-4.7* | *n.a.* |
| General government revenue (% of GDP) | **CP Jan 2010** | **37.1** | **45.0** | **45.7** | **44.0** | **41.5** | **39.2** |
| | COM Nov 2009 | 37.1 | 41.9 | 43.5 | 42.4 | n.a. | n.a. |
| | *CP Dec 2008* | *36.2* | *38.9* | *37.8* | *36.5* | *35.2* | *n.a.* |
| General government expenditure (% of GDP) | **CP Jan 2010** | **39.9** | **47.6** | **47.9** | **46.0** | **42.5** | **39.0** |
| | COM Nov 2009 | 39.9 | 44.8 | 46.7 | 45.4 | n.a. | n.a. |
| | *CP Dec 2008* | *38.2* | *40.6* | *38.8* | *36.4* | *35.0* | *n.a.* |
| General government balance[3] (% of GDP) | **CP Jan 2010** | **-2.8** | **-2.6** | **-2.2** | **-2.0** | **-1.0** | **0.2** |
| | COM Nov 2009 | -2.7 | -3.0 | -3.2 | -3.0 | n.a. | n.a. |
| | *CP Dec 2008* | *-1.9* | *-1.7* | *-1.0* | *0.1* | *0.2* | *n.a.* |
| Primary balance (% of GDP) | **CP Jan 2010** | **-2.5** | **-2.3** | **-2.0** | **-1.7** | **-0.6** | **0.7** |
| | COM Nov 2009 | -2.5 | -2.6 | -2.6 | -2.3 | n.a. | n.a. |
| | *CP Dec 2008* | *-1.8* | *-1.5* | *-0.8* | *0.3* | *0.4* | *n.a.* |
| Cyclically-adjusted balance[1] (% of GDP) | **CP Jan 2010** | **-4.7** | **0.1** | **0.4** | **-0.3** | **-0.1** | **0.4** |
| | COM Nov 2009 | -4.2 | -0.1 | -0.4 | -1.3 | n.a. | n.a. |
| | *CP Dec 2008* | *-2.2* | *0.0* | *0.8* | *1.3* | *0.7* | *n.a.* |
| Structural balance[4] (% of GDP) | **CP Jan 2010** | **-4.7** | **-1.1** | **-1.5** | **-0.9** | **-0.1** | **0.4** |
| | COM Nov 2009 | -4.4 | -2.5 | -2.4 | -1.9 | n.a. | n.a. |
| | *CP Dec 2008* | *-2.4* | *-0.1* | *0.4* | *1.2* | *0.7* | *n.a.* |
| Government gross debt (% of GDP) | **CP Jan 2010** | **4.6** | **7.8** | **10.1** | **13.0** | **14.2** | **14.3** |
| | COM Nov 2009 | 4.6 | 7.4 | 10.9 | 13.2 | n.a. | n.a. |
| | *CP Dec 2008* | *3.7* | *3.7* | *3.5* | *3.0* | *2.8* | *n.a.* |

Notes:

[1]Output gaps and cyclically-adjusted balances from the programmes as recalculated by Commission services on the basis of the information in the programmes.

[2]Based on estimated potential growth of 2.3%, -0.2%, -0.4% and 0.2% respectively in the period 2008-2011.

[3]Convergence Programme: ESA95 definition; Commission services: EDP definition.

[4]Cyclically-adjusted balance excluding one-off and other temporary measures. One-off and other temporary measures amount to 1.2% of GDP in 2009, 1.9% of GDP in 2010 and 0.6% of GDP in 2011, overall deficit-reducing, according to the most recent programme and 0.2% of GDP in 2008, 2.4% of GDP in 2009, 2.0% of GDP in 2010 and 0.6% of GDP in 2011, overall deficit-reducing, according to the Commission services' autumn 2009 forecast.

*Source:*

*Convergence programme (CP); Commission services' autumn 2009 forecasts (COM); Commission services' calculations.*

## 2. THE POLICY RESPONSE TO THE ECONOMIC DOWNTURN AND KEY CHALLENGES IN THE RECOVERY

This section describes recent economic and budgetary developments for Estonia, which form the background against which the current programme assessment should be viewed, and outlines the key challenges to be addressed by future economic policies.

The Estonian economy is currently emerging from a severe recession. Above-potential growth and accumulation of macroeconomic imbalances in the period 2005-2007 gave way in 2007 to a deceleration and subsequently in 2008 to a decline of economic activity, as the economy first overheated and hit capacity constraints, an extremely inflated property bubble burst and the accumulated imbalances undermined confidence of households, business and international investors; external cost competitiveness declined. This reversal of the cycle was progressively aggravated by the global economic and financial crisis.

The recession led to and reinforced the unwinding of these macroeconomic imbalances. A reversal of unsustainably buoyant domestic demand resulted in a sharp output contraction in sectors that contributed to previous high growth rates, particularly construction, financial intermediation and retail trade. A collapse in imports chiefly underlay a considerable narrowing of the merchandise trade deficit: in 2009, the external account reached a surplus of 7.4% of GDP despite a fall in exports reflecting the weak external demand. The private sector has accumulated relatively high levels of outstanding gross debt – ca 180% of GDP as of end-2009 – which is now being gradually reduced but will nevertheless weigh on the recovery, holding back consumption and investment. After an initial inertia – partly explained by the almost full employment achieved during the boom years – adjustment in the labour market became very pronounced from the beginning of 2009. Employment fell by 9.2% compared to 2008 and unemployment reached 15.5% in the fourth quarter of 2009. Wage growth turned negative in both private and public sectors from early 2009, due to labour market-led and policy-driven downward pressure, while consumer price inflation entered negative annual growth territory in summer 2009 (see also the discussion in Section 7 on the policy mix prior to the crisis and during the recession).

This reversal in the real economy also led to a marked deterioration of public finances, with high nominal budgetary surpluses achieved in the peak years of the cycle turning into deficits. The deterioration of the headline budgetary position reached 5.3 percentage points (pp.) of GDP in 2008, while the structural balance (cyclically-adjusted balance excluding one-off and temporary measures) declined by 3½ pp. of GDP in the same year, despite the adoption of a mid-year restrictive supplementary budget. Sizeable fiscal buffers accumulated by the government during the buoyant growth years, as well as a solid starting position due to previous surpluses, allowed withstanding the impact of the fiscal deterioration without the need to seek external financing. However, it soon became clear that unless fiscal policy reacted to the ongoing recession then these reserves would be quickly depleted.

The policy response to the economic downturn involved a wide-ranging and decisive consolidation of public finances implemented mostly in 2009 (see Section 4.1). Taking into account high macroeconomic imbalances prior to the downturn, this was a prudent response in line with the European Economic Recovery Plan agreed in December 2008. This consolidation was centred on considerable cuts in government consumption and containing social benefits, which was necessary to bring the level of public expenditure in line with the expectation of a permanently lower level of domestic demand in coming years. In addition, the consolidation also contributed to the ongoing price and wage adjustment in the economy.

The Estonian economy still faces several challenges ahead. Although the strengthening of the global economy and improving confidence led to bottoming out of the economy in late 2009, a return to previous high growth rates is unlikely in the medium term and growth in potential output will resume from a lower starting point. The prerequisite for a resumption of growth lies in adjusting the economy from the previous domestic-demand-led growth pattern towards a more sustainable growth composition, where exports play a more prominent role. Recent measures have aimed at developing the potential of export-oriented enterprises and accelerating the absorption of EU structural funds. Given the catching-up nature of the Estonian economy, reliance on foreign savings will nevertheless remain, therefore maintaining a stable and reliable financial system and attracting new inward investment, by further improving the business environment, will be a key plank of the recovery.

While the ongoing internal price and wage adjustment is leading to a recovery of the competitive position of the economy in the short run, sustained improvement over the medium term will require more emphasis on raising productivity and climbing up the value chain. The current high level of unemployment poses a particular risk here, given the possibility of skill losses through long-term unemployment becoming embedded and potential workers becoming discouraged and leaving the labour force, including by emigration. A challenge will be to help those currently unemployed to improve their skills and to match those to what is demanded as the economy recovers, including through targeted active labour market policies, making education and training systems more responsive to labour market needs and investing in life-long learning.

Broadly, the economic challenge is thus to restore positive and sustainable growth, avoiding any return to significant internal and external imbalances. While the major adjustment of public finances to a lower and less tax-rich growth pattern has already been made, the achievement of strict expenditure control and improving the fiscal framework remains to be secured. The potential for further revenue enhancement could also be explored, recognising that the existing tax wedge on labour is already very high.

## 3. MACROECONOMIC OUTLOOK

Against the background of the current macroeconomic situation and the main policy challenges set out in the previous section, this section makes an assessment of the plausibility of the macroeconomic scenario underpinning the public finance projections of the programme.

The programme's baseline macroeconomic scenario[2] envisages that real GDP, estimated to have plunged 14.5% in 2009, is now beginning to recover and on a whole-year basis will be flat (-0.1%) in 2010. In the outer years of the programme growth is expected to recover to an average rate of 3.7%, which is comparable to some recent estimates of the post-crisis potential growth of Estonia[3].

In 2010 the scenario projects domestic demand to contract further, as a consequence of a subdued labour market situation, tightened credit conditions and ongoing fiscal consolidation. The environment of rising real interest rates, due to a projected increase in euro area short-term interest rates[4] and low inflation may also act as a drag on the recovery, although this trend can be partly offset by a reduction in risk premia. The contraction in domestic demand is counterbalanced by a modest recovery in external demand broadly in line with export market growth and by the turning in the inventory

[2] External assumptions underpinning the baseline macroeconomic scenario correspond to those in the Commission services' autumn 2009 forecast.

[3] Cf. IMF (2010), Republic of Estonia: Staff Report for the 2009 Article IV Consultation, also available at: http://www.imf.org/external/pubs/ft/scr/2010/cr1004.pdf and Bank of Estonia (2009), Economic forecast 2009-2011, also available at http://www.eestipank.info/pub/en/dokumendid/publikatsioonid/seeriad/ylevaade/_2009_02/_3_209.pdf

[4] In the context of Estonia's currency board arrangement, the interest rate environment is largely determined by developments in euro area money markets, for which the programme uses the assumptions of the Commission services' autumn 2009 forecast. EEK money markets, for which the programme does not provide assumptions of interest rate developments, are very shallow and therefore do not reflect broad-based liquidity considerations.

cycle. The overall projection is comparable to the Commission services' autumn 2009 forecast. However, the programme assumes a deeper contraction of domestic demand and in particular private consumption, while the Commission services' forecast projects a greater correction in internal factor prices (see Table 2). In 2011, the Commission services project a stronger recovery in investment, although this process may prove to be more muted if a cautious approach of the financial sector keeps lending conditions tight and/or economic agents maintain their current cautious approach to taking up new loans.

Cyclical conditions are projected to begin a gradual improvement in the course of 2010, while remaining very weak for the year as a whole. The negative output gap as recalculated by Commission services based on the information in the programme, following the commonly agreed methodology, is not expected to close fully by the end of the programme period[5]. At the same time it should be noted that the calculation of potential output growth has to be interpreted with caution for countries such as Estonia that are undergoing far-reaching structural adjustment, while the steep turnaround in the cycle adds further uncertainty to these estimates.

**Table 2: Comparison of macroeconomic developments and forecasts**

| | 2009 | | 2010 | | 2011 | | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| | **COM** | **CP** | **COM** | **CP** | **COM** | **CP** | **CP** | **CP** |
| Real GDP (% change) | -13.7 | -14.5 | -0.1 | -0.1 | 4.2 | 3.3 | 3.7 | 4.0 |
| Private consumption (% change) | -16.7 | -18.2 | -1.9 | -5.2 | 2.9 | 2.5 | 2.0 | 1.8 |
| Gross fixed capital formation (% change) | -32.8 | -32.2 | -3.2 | -4.1 | 8.8 | 7.2 | 8.3 | 9.0 |
| Exports of goods and services (% change) | -15.2 | -10.8 | 1.6 | 2.0 | 5.8 | 4.8 | 5.1 | 6.4 |
| Imports of goods and services (% change) | -29.7 | -26.2 | 0.8 | -1.3 | 5.5 | 6.5 | 6.4 | 8.1 |
| *Contributions to real GDP growth:* | | | | | | | | |
| - Final domestic demand | -19.5 | -20.2 | -2.4 | -4.8 | 3.8 | 3.0 | 3.2 | 3.6 |
| - Change in inventories | -6.4 | -4.2 | 1.8 | 2.6 | 0.0 | 1.7 | 0.9 | 0.9 |
| - Net exports | 12.3 | 12.8 | 0.6 | 2.3 | 0.4 | -0.8 | -0.6 | -0.8 |
| Output gap[1] | -9.4 | -8.8 | -9.1 | -8.4 | -5.4 | -5.7 | -3.1 | -0.5 |
| Employment (% change) | -9.0 | -8.8 | -2.5 | -2.4 | 1.6 | 0.6 | 1.6 | 2.3 |
| Unemployment rate (%) | 13.6 | 13.7 | 15.2 | 14.8 | 14.2 | 13.1 | 11.1 | 8.5 |
| Labour productivity (% change) | -5.1 | -6.3 | 2.4 | 2.4 | 2.6 | 2.7 | 2.1 | 1.7 |
| HICP inflation (%) | 0.2 | 0.2 | 0.5 | 0.4 | 2.1 | 1.9 | 2.3 | 2.7 |
| GDP deflator (% change) | -0.2 | -0.9 | -3.1 | -1.2 | 1.9 | 1.6 | 2.5 | 2.7 |
| Comp. of employees (per head, % change) | -4.5 | -3.9 | -2.7 | -1.4 | 1.4 | 3.4 | 4.1 | 4.6 |
| Net lending/borrowing vis-à-vis the rest of the world (% of GDP) | 6.3 | 6.9 | 3.7 | 8.5 | 2.4 | 6.3 | 2.9 | -1.0 |

Note:

[1]In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services.

*Source:*

*Commission services' autumn 2009 forecasts (COM); Convergence programme (CP).*

Monetary and exchange rate assumptions of the programme are consistent with the rest of the macroeconomic scenario. The programme assumes maintenance of the existing currency board arrangement and current exchange rate parity, making exchange rate pressures on inflation very unlikely. Projected monetary conditions suggest some increase in interest expenditure for the economy as a whole, acting potentially as a drag on consumption and investment decisions. The Estonian government aims at becoming a full member of Economic and Monetary Union as soon as possible.

[5] Compared to the recalculated information, the programme itself projects even a deeper negative output gap and its more belated closing, with the difference reaching 2 pps. in 2013. The discrepancy is mainly attributable to some methodological differences in treating exceptionally wide changes that took place on the labour market and resulting volatility of estimates.

The marked fall in employment and increase in unemployment that took place through 2009 are expected to continue at a more moderate pace in 2010 in both the programme's scenario and in the Commission services' autumn 2009 forecast, before some modest improvement of labour market conditions in 2011 in response to gradually rising output (with pressures to raise productivity inhibiting a stronger employment response). However, the programme expects a higher increase in the share of the inactive population, which would be a sign of risks described in Section 2 partly materialising. As a result of the continuing fall in labour input and investment, the level of potential output is estimated to decline in 2010, as was the case in 2009.

Despite some administrative price increases that have already taken place or are planned for 2010 and 2011, headline consumer price inflation is projected to remain subdued. Given that the GDP deflator is expected to trough in 2010 before recovering thereafter, nominal GDP declines by about 1¼% in 2010 but expands by 5% in 2011 in the programme scenario. Continuing nominal wage cuts are set to improve indicators of cost competitiveness according to both the programme scenario and Commission services' forecast, albeit with some differences. More pronounced differences concern the external balance, where an expectation of a deeper contraction of domestic demand and its slower recovery in the programme scenario contributes to higher surpluses than in the Commission services' forecast.

Overall, the programme's macroeconomic assumptions appear to be plausible, but subject to high uncertainty at both the global level and in Estonia.

## 4. GENERAL GOVERNMENT BALANCE

This section consists of four parts. The first three parts discuss the budgetary implementation in the year 2009, the budgetary plans for 2010 and the medium-term budgetary strategy in the programme. The final part analyses the risks attached to the budgetary targets.

### 4.1. Budgetary implementation in 2009

The programme estimates the general government budgetary position at -2.6% of GDP in 2009, which is similar to the outcome of 2008 and around 1 pp. of GDP worse than expectation in the previous programme update (-1.7% of GDP). This result, however, reflects comprehensive and wide-ranging budgetary consolidation implemented in the course of 2009 against a considerably worse economic outcome – compared with an expectation of flat nominal growth in the previous programme update, the current programme estimates that nominal GDP in 2009 contracted by 15%.

Given the authorities' strongly-held belief in sound public finances and ambition to maintain the general government deficit below the Treaty threshold, three major consolidation packages were passed in the course of the year against a progressive deterioration of the economic situation. The programme estimates the total impact of these measures at 20 bn Estonian kroon (EEK) or over 9% of GDP. Main measures with a lasting impact comprised cuts in public consumption, including the wage bill (with an impact of ca 2.0% of GDP in 2009), changes to the pension law that limited the increase in pension expenditure both in the short and medium terms (0.6% of GDP), establishing a less generous health insurance regime (0.5% of GDP), the postponement of previous plans to strengthen unemployment benefits (0.4% of GDP), an increase in VAT and excise tax rates (respectively 0.4% and 0.2% of GDP) and an increase in unemployment insurance tax (0.4% of GDP). The consolidation also involved measures with a temporary and one-off nature, in particular suspension of state contributions to the mandatory funded pension scheme (0.6% of GDP), higher dividends from state-owned companies (1.5% of GDP) and sales of non-financial assets (0.5% of GDP). The reliance on these latter measures seems to have been prompted by their limited negative impact on economic activity in the context of the exceptional worsening of the economic outlook.

**Table 3: Budgetary implementation in 2009**

| | 2008 | | 2009 | |
|---|---|---|---|---|
| | **Planned** CP Dec 2008 | **Outcome** CP Jan 2010 | **Planned** CP Dec 2008 | **Outcome** CP Jan 2010 |
| Government balance (% of GDP) | -1.9 | -2.8 | -1.7 | -2.6 |
| Difference compared to target [1] | -0.9 | | -0.9 | |
| **Difference excluding denominator effect [1,2]** | | | **-0.4** | |
| *Of which*: due to a different starting position end 2008 | | | -0.8 | |
| due to different revenue / expenditure growth in 2009 | | | 0.4 | |
| p.m. Residual [3] | | | 0.0 | |
| *p.m. Nominal GDP growth (planned and outcome)* | | | *0.8* | *-15.3* |
| Revenue (% of GDP) | 36.2 | 37.1 | 38.9 | 45.0 |
| Revenue surprise compared to target [1] | 0.9 | | 6.1 | |
| **Revenue surprise excluding denominator effect [1,2]** | | | **-0.9** | |
| *Of which*: due to a different starting position end 2008 | | | 1.0 | |
| due to different revenue growth in 2009 | | | -2.4 | |
| p.m. Residual [3] | | | 0.6 | |
| *p.m. Revenue growth rate (planned and outcome)* | | | *8.3* | *2.7* |
| Expenditure (% of GDP) | 38.2 | 39.9 | 40.6 | 47.6 |
| Expenditure surprise compared to target [1] | -1.7 | | -7.0 | |
| **Expenditure surprise excluding denominator effect [1,2]** | | | **0.5** | |
| *Of which*: due to different starting position end 2008 | | | -1.8 | |
| due to different expenditure growth rate in 2009 | | | 2.8 | |
| p.m. Residual [3] | | | -0.5 | |
| *p.m. Expenditure growth rate (planned and outcome)* | | | 7.1 | 1.0 |

Notes:

[1] A positive number implies that the outcome was better (in terms of government balance) than planned.

[2] The denominator effect captures the mechanical effect that, if GDP turns out higher than planned, the ratio of revenue or expenditure to GDP will fall because of a higher denominator. Although the denominator effect can be very significant for revenue and expenditure separately, on the balance they usually largely cancel against each other.

[3] The decomposition leaves a small residual that cannot be assigned to the previous components. The residual is generally small, except in some cases where planned and actual growth rates of revenue, expenditure and GDP differ significantly.

*Source: Commission services*

Table 3 compares the projected outcome for the general government balance, revenue and expenditure (as a percentage of GDP) in 2009 as presented in the new convergence programme with the targets from the previous update of the programme. Differences between outcome and targets (excluding the impact of unanticipated GDP developments which affected the ratio, referred to as the 'denominator effect') are decomposed into the impact of a different starting position (i.e. the 2008 outturn different from that anticipated in the previous programme update) and the impact of differences in the revenue / expenditure growth rate from the planned growth rates[6].

[6] Mathematically, the difference in the revenue ratio in Table 3 can be expressed as:

$$\rho^o - \rho^p = \underbrace{\frac{1+r^p}{1+g^p}\Delta\rho_{-1}}_{\text{Base effect}} + \underbrace{\frac{\rho^o_{-1}}{(1+g^o)(1+g^p)}\Delta r}_{\text{Revenue growth effect}} - \underbrace{\frac{\rho^o_{-1}}{(1+g^o)(1+g^p)}\Delta g}_{\text{Denominator effect}} + \underbrace{\frac{\rho^o_{-1}\left(r^o g^p - r^p g^o\right)}{(1+g^o)(1+g^p)}}_{\text{Residual}}$$

where r is the growth rate of revenue and g is the growth rate of GDP. The subscript -1 refers to the previous year's value. Superscripts o and p refer to the outcome and the planned value respectively. Similar for the expenditure ratio.

As the table illustrates, revenue (excluding the denominator effect) turned out worse than expected in the December 2008 programme update, even taking into account the very significant revenue-increasing measures adopted in the course of 2009, described above. These measures nevertheless helped to secure a modest increase in nominal revenue (even if significantly less than planned in the previous update), despite a considerable fall in nominal GDP, leading to a very steep increase in the revenue-to-GDP ratio. While tax revenue was lower by 2½ percentage points of GDP than expected in the previous programme update, due to adverse developments related to the tax base, this was largely offset by higher than initially planned non-tax revenue, including dividends and profits shares from state-owned companies, as well as an increase in some tax rates in the second half of the year.

Consolidation measures implemented on the expenditure side in 2009 more than offset the impact of a worse starting position from larger expenditure in late 2008 than anticipated in the previous programme. Given this consolidation, nominal expenditure increased considerably less than planned in the previous programme update. The cuts, however, did not affect public sector gross fixed capital formation, which even increased in 2009, providing needed counter-cyclical support to the economy. This expenditure category is to a large extent driven by absorption of the EU structural funds.

The consolidation strategy thus relied extensively on reversing previously set expenditure growth in government consumption and social benefits. This partly explains the greater degree of consolidation in terms of the overall amount of discretionary measures (over 9% of GDP) compared with the resulting improvement in the structural balance (3¼% of GDP as recalculated by the Commission services on the basis of the information in the programme and 1¾% of GDP according to Commission services' autumn 2009 forecast[7]). Additional factors behind the difference include negative composition effects on tax revenue due to a pronounced fall in private consumption and wage bill, as well as uncertainties that relate to the calculation of cyclically adjusted balances, given the extent and characteristics of the downturn.

### 4.2. The programme's budgetary strategy for 2010

Budgetary projections in the programme are based on the 2010 state budget adopted by Parliament (*Riigikogu*) on 9 December 2009. Compared to the draft law approved by the government on 29 September 2009, the parliamentary discussion resulted in additional excise tax increases and some changes in central government expenditure, with an overall positive impact on the budgetary position of about 0.2% of GDP. These additional decisions are not reflected in the Commission services' autumn 2009 forecast, which predated them.

The programme projects a deficit of 2.2% of GDP in 2010, compared to an estimated deficit of 2.6% of GDP in 2009. The improvement is mainly attributable to a full-year impact of consolidation measures implemented from the second half of 2009 both on revenue and expenditure side. Overall, this full-year impact amounts to 2.5 pp. of GDP, including 1.2 pp. due to increase in tax revenue and 0.7 pp. due to expenditure cuts, with the remaining due to suspension of state contribution to the mandatory funded pension

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[7] The difference between recalculated information and the Commission services' autumn forecast is mainly attributable to a different treatment of the one-off nature of dividends and profit shares received from state-owned companies in 2009. While Commission services consider dividends and profit shares that exceeded the historical average (once corrected for an exceptional dividend related to the sale of $CO_2$ quota in 2006-2008) being of a one-off and temporary nature, the programme mentions only two such transactions in 2009.

fund. In addition, some excise tax rates increased further from 1 January 2010 and the 2010 budget foresees additional cuts in operational expenditure, against an increase in general government investment (see also Table 4). Combined tax increases from second half of 2009 and January 2010 are projected to result in an increase in tax revenue in 2010, both in nominal terms and as a share of GDP. The expenditure-to-GDP ratio is projected to remain broadly stable in the programme.

**Table 4. Main budgetary measures for 2010**

| Revenue measures[1] | Expenditure measures[2] |
|---|---|
| Excise tax increases for alcohol, tobacco, fuel and electricity (0.6% of GDP) | Cuts in general government expenditure (-0.5% of GDP)<br>Sales of non-financial assets (-0.5% of GDP)<br>Increase in general government investment (0.9% of GDP) |

Notes:

[1] Estimated impact on general government revenue
[2] Estimated impact on general government expenditure

*Sources: Commission services, explanatory memo to the 2010 budget law*

The share of non-tax revenue in the programme is projected to remain substantial at 8.6% of GDP. This partly relates to higher absorption of EU structural funds, but also to a reliance on one-off and temporary revenue sources, including above-the-historical-average dividends from state-owned companies. Other measures of a one-off and temporary nature in that year include the suspension of the state contribution into the funded mandatory pension scheme and planned sales of non-financial assets. Similarly to 2009, reliance on these measures seems to have been prompted by the intention to improve the budgetary outlook using consolidation measures that have limited negative impact on domestic demand, given an exceptionally high negative output gap.

Despite a positive impact of 2009 consolidation measures and additional steps adopted as part of the 2010 budget, the planned fiscal stance measured by a change in structural balance (recalculated on the basis of the information in the programme) is broadly neutral, while the whole-year negative output gap is little changed from 2009. The difference is partly explained by an increased reliance on one-off and temporary measures in the programme, and partly attributable to the above-mentioned uncertainties that relate to the calculation of cyclically-adjusted balances.

According to the programme, the general government deficit in 2010 is mostly attributable to central government (-2.0% of GDP), while the local governments' budgetary position is expected to improve, due to stricter limits established in 2009. Social security funds will reach a broadly balanced position, given the establishment of a less generous health insurance regime, increased unemployment insurance contributions against a declining number in newly registered unemployed and other measures.

### 4.3. The programme's medium-term budgetary strategy

This section describes the medium-term budgetary strategy outlined in the programme, as well as the composition of the budgetary adjustment, including the broad measures envisaged.

The main goal of the programme's medium-term budgetary strategy (see also Box 1) is to achieve the medium-term objective (MTO), which is defined as a structural balance, by the end of the programme period. There has been no change in the medium-term objective compared to the previous programme update.

**Box 1: The medium-term objective (MTO) for Estonia**

As noted in the Code of Conduct[8], the MTO aims to (a) provide a safety margin with respect to the 3% of GDP deficit limit; (b) ensure rapid progress towards fiscal sustainability; and (c) allow room for budgetary manoeuvre, in particular taking into account the needs for public investment. The MTO is defined in cyclically adjusted terms, net of one-off and other temporary measures. On 7 July 2009, the ECOFIN Council took note of a new methodology for setting MTOs, ensuring that implicit liabilities (costs related to ageing populations, in particular projected healthcare and pension expenditure) are also accounted for.

Specifically, the country-specific MTOs should take into account three components: (i) the debt-stabilising balance for a debt ratio equal to the (60% of GDP) reference value (dependent on long-term potential growth), implying room for budgetary manoeuvre for Member States with relatively low debt; (ii) a supplementary debt-reduction effort for Member States with a debt ratio in excess of the (60% of GDP) reference value, implying rapid progress towards it; and (iii) a fraction of the adjustment needed to cover the present value of the future increase in age-related government expenditure. This implies a partial frontloading of the budgetary cost of ageing irrespective of the current level of debt. In addition to these criteria, MTOs should provide a safety margin with respect to the 3% of GDP deficit reference value and, for euro area and ERM II Member States, in any case not exceed a deficit of 1% of GDP.

As communicated by the authorities, the MTO of Estonia is a structural balance. In view of the new methodology and given the most recent projections and debt level, the MTO more than adequately reflects the objectives of the Pact.

According to the programme, in 2011-2013 the structural balance as recalculated by Commission services will gradually improve by ½-1% of GDP annually, reaching the MTO by the end of the programme period in 2013, while the nominal balance will improve by around 1% of GDP annually over the same period, reaching a surplus position. The programme itself projects reaching a somewhat higher structural surplus than the recalculated information suggests, given the differences in the output gap estimates (see footnote 5). This adjustment takes place alongside gradually improving cyclical conditions, although the (recalculated) negative output gap will not quite fully close by the end of the programme period (see Table 5).

The improvement is projected to come mainly on account of the expenditure-to-GDP ratio declining more rapidly than the revenue-to-GDP ratio, with an expected nominal reduction in most primary expenditure categories in the outer years of the programme. Public sector investments – largely related to the absorption of structural funds in the 2007-2013 financial perspective – are projected to reach their peak in 2011 and gradually decline thereafter, while remaining at levels above 5% of GDP. Reliance on one-off measures to meet the budgetary targets will decline in 2011, in which year the state contributions to the funded mandatory pension pillar will partly resume, and disappear in outer years of the programme. As a reflection of this trend, as well as a running-down of financing available under the 2007-2013 financial perspective, the share of non-tax revenue is projected to decline to its 2008 level by the end of the programme period. The share of tax revenue will at the same time remain above the pre-crisis level, reflecting several tax increases that have already taken place or are taking place in 2011.

[8] "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 on 10 November 2009, available at: http://ec.europa.eu/economy_finance/sgp/legal_texts/index_en.htm

**Table 5: Composition of the budgetary adjustment**

| (% of GDP) | 2008 | 2009 | | 2010 | | 2011 | | 2012 | 2013 | Change: 2009-2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| | COM | COM | CP | COM | CP | COM[1] | CP | CP | CP | CP |
| **Revenue** | **37.1** | **41.9** | **45.0** | **43.5** | **45.7** | **42.4** | **44.0** | **41.5** | **39.2** | **-5.8** |
| *of which:* | | | | | | | | | | |
| - Taxes on production and imports | 12.1 | 13.7 | 14.6 | 14.5 | 14.9 | 14.4 | 14.5 | 14.5 | 14.1 | -0.5 |
| - Current taxes on income, wealth, etc. | 7.9 | 7.4 | 7.7 | 7.9 | 7.8 | 7.8 | 7.5 | 7.4 | 7.3 | -0.4 |
| - Social contributions | 11.9 | 13.1 | 13.8 | 13.9 | 14.4 | 13.1 | 13.7 | 12.9 | 12.7 | -1.1 |
| - Other (residual) | 5.2 | 7.6 | 8.9 | 7.2 | 8.6 | 7.1 | 8.3 | 6.7 | 5.1 | -3.8 |
| **Expenditure** | **39.9** | **44.8** | **47.6** | **46.7** | **47.9** | **45.4** | **46.0** | **42.5** | **39.0** | **-8.6** |
| *of which:* | | | | | | | | | | |
| - Primary expenditure | 39.6 | 44.5 | 47.3 | 46.1 | 47.6 | 44.7 | 45.7 | 42.1 | 38.5 | -8.8 |
| *of which:* | | | | | | | | | | |
| Compensation of employees and intermediate consumption | 18.4 | 20.0 | 20.9 | 19.6 | 20.6 | 19.4 | 19.2 | 18.2 | 16.6 | -4.3 |
| Social payments | 12.2 | 15.5 | 15.9 | 15.9 | 16.2 | 14.9 | 15.6 | 14.6 | 13.5 | -2.4 |
| Subsidies | 1.0 | 1.0 | 1.2 | 1.1 | 1.2 | 1.0 | 1.2 | 1.1 | 1.0 | -0.2 |
| Gross fixed capital formation | 5.3 | 6.2 | 5.8 | 7.2 | 6.1 | 7.2 | 6.5 | 5.8 | 5.3 | -0.5 |
| Other (residual) | 2.7 | 1.7 | 3.5 | 2.4 | 3.5 | 2.2 | 3.3 | 2.5 | 2.1 | -1.4 |
| - Interest expenditure | 0.2 | 0.4 | 0.3 | 0.5 | 0.3 | 0.7 | 0.3 | 0.4 | 0.5 | 0.2 |
| **General government balance (GGB)** | **-2.7** | **-3.0** | **-2.6** | **-3.2** | **-2.2** | **-3.0** | **-2.0** | **-1.0** | **0.2** | **2.8** |
| **Primary balance** | **-2.5** | **-2.6** | **-2.3** | **-2.6** | **-2.0** | **-2.3** | **-1.7** | **-0.6** | **0.7** | **3.0** |
| One-off and other temporary measures | 0.2 | 2.4 | 1.2 | 2.0 | 1.9 | 0.6 | 0.6 | 0.0 | 0.0 | -1.2 |
| **GGB excl. one-offs** | **-2.9** | **-5.4** | **-3.8** | **-5.2** | **-4.1** | **-3.6** | **-2.6** | **-1.0** | **0.2** | **4.0** |
| Output gap[2] | 4.7 | -9.4 | -8.8 | -9.1 | -8.4 | -5.4 | -5.7 | -3.1 | -0.5 | 8.3 |
| Cyclically-adjusted balance[2] | -4.2 | -0.1 | 0.1 | -0.4 | 0.4 | -1.3 | -0.3 | -0.1 | 0.4 | 0.3 |
| **Structural balance[3]** | **-4.4** | **-2.5** | **-1.1** | **-2.4** | **-1.5** | **-1.9** | **-0.9** | **-0.1** | **0.4** | **1.5** |
| *Change in structural balance* | | *1.8* | *3.2* | *0.1* | *-0.4* | *0.5* | *0.7* | *0.8* | *0.4* | |
| Structural primary balance[3] | -4.2 | -2.1 | -0.8 | -1.9 | -1.2 | -1.3 | -0.6 | 0.3 | 0.9 | 1.7 |
| *Change in structural primary balance* | | *2.0* | *3.3* | *0.2* | *-0.4* | *0.6* | *0.7* | *0.9* | *0.5* | |

Notes:

[1]On a no-policy-change basis.

[2]Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission services on the basis of the information in the programme.

[3]Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.

*Source:*
*Convergence programme (CP); Commission services' autumn 2009 forecasts (COM); Commission services' calculations*

Achieving 2011-2013 targets will require additional measures. The programme does not contain a detailed set of measures to underpin the planned consolidation. However, the programme specifies broad areas where work is ongoing and where the government intends to make further proposals. Firstly, according to the programme an analysis of existing tax exemptions and preferential treatments is currently being undertaken with the aim of identifying whether these measures meet their initial purpose or whether they meet these objectives in the most efficient way. Second ongoing analysis concerns links between revenue and expenditure (i.e. "earmarked taxes"), where the programme aims at reducing the number of such links. Thirdly, the programme refers to an ongoing optimisation of public services and improving the quality of the budgetary process to allow more precise planning in the future.

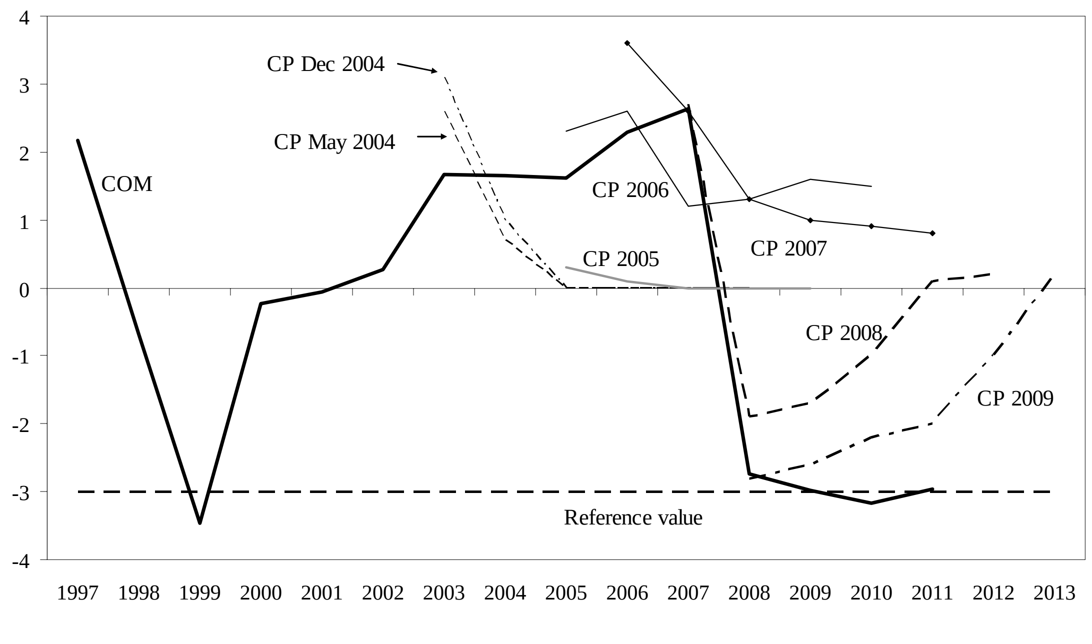
### 4.4. Risk assessment

This section discusses the plausibility of the programme's budgetary projections by analysing various risk factors. For the period until 2011, Table 5 compares the detailed revenue and expenditure projections in the Commission services' autumn 2009 forecast, which are derived under a no-policy change scenario, with those in the updated programme. However, although the assessment uses the Commission services' forecast as a benchmark, it also takes explicitly into account all available information about more recent developments.

As discussed in Section 3, the baseline macroeconomic scenario provided in the most recent Convergence Programme update appears plausible. However, uncertainties related to economic developments remain wide both globally and in Estonia and these carry obvious budgetary risks. The programme provides an alternative scenario which implies a deeper contraction of domestic demand in 2010 and more muted recovery in 2011-2013, alongside a more pronounced internal factor price decline. This scenario would imply a worsening of the budgetary position by 1–1½% of GDP in 2010-2012 with the deficit close to but above the reference value in 2010 and 2011.

Budgetary measures for 2010 are sufficiently spelled out in the programme. Differences between budgetary projections for that year in the Commission services' autumn 2009 forecast and in the programme can be partly explained by two recent developments. Firstly, as noted above, in December 2009 Parliament decided to further increase excise taxes for alcohol, tobacco and motor fuel in 2010 and 2011. Secondly, tax revenue in 2009 turned out better than expected in Commission services' forecast, partly as a result of intensified collection efforts of the Tax Board, which will have a positive impact also in 2010 and beyond. Nevertheless, there is still some risk that the budgetary outcome could turn out worse than projected in the programme, given reliance on volatile items. In particular, planned sales of non-financial assets in total amount of around 0.5% of GDP may not be fully realised, while subtracting dividends and profits shares from state-owned companies, of which 0.8% of GDP are of a one-off nature according to the programme, is subject to administrative decisions to be taken by respective governing boards and thus to some implementation risks. In addition, better-than-expected tax revenue in 2009 is partly attributable to a widespread stocking of goods subject to excise taxes prior to the tax rate increase, and may result in an offsetting negative impact on excise tax revenue in 2010.

**Figure 1: Government balance projections in successive programmes (% of GDP)**




*<u>Source</u>: Commission services' autumn 2009 forecast (COM) and successive convergence programmes*

The budgetary targets beyond 2010 are subject to some risks given the limited extent of information provided in the programme regarding measures underpinning the achievement of these targets. Additional risks could stem from the electoral cycle, with the next general parliamentary elections scheduled for March 2011. At the same time, the solid track record of the Estonian authorities in meeting their targets, the decisive consolidation implemented in 2009 despite an unprecedented economic contraction, as well as a history of adherence to sound fiscal policy (see also Figure 1), reduce those risks.

Overall, the budgetary outcomes are subject to some downside risks in the short and medium term. Uncertainties attached to the macroeconomic environment are wide and imply risks to attaining the budgetary targets, although there seems to be no reason to assume that these risks are biased to the upside or downside. Additional risks for 2010 relate to a reliance on volatile items, while for the outer years of the programme risks are due to limited information provided in the programme to underpin the targets. However, the solid budgetary track record of Estonian authorities partly mitigates these risks.

## 5. GOVERNMENT DEBT AND LONG-TERM SUSTAINABILITY

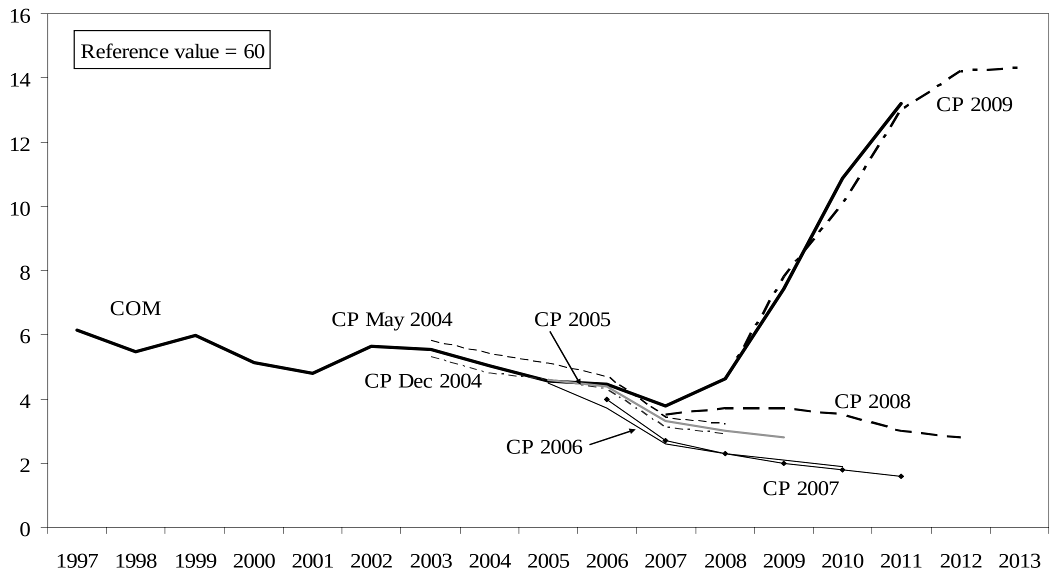
This section is in two parts. A first part describes recent debt developments and medium-term prospects, including risks to the outlook presented in the programme. A second part takes a longer-term perspective with the aim of assessing the long-term sustainability of public finances.

### 5.1. Recent debt developments and medium-term prospects

#### *5.1.1. Debt projections in the programme*

The programme estimates the general government debt-to-GDP ratio to have increased from 4.6% in end-2008 to 7.8% in end-2009, ascribed to new borrowing, in particular a loan from EIB signed in May 2009. Although projected to increase further over the programme period, the ratio will remain comfortably below the 60% reference value (see Figure 2).

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




*Source: Commission services' autumn 2009 forecast (COM) and successive convergence programmes*

**Table 6: Debt dynamics**

| (% of GDP) | average 2003-07 | 2008 | 2009 COM | 2009 CP | 2010 COM | 2010 CP | 2011 COM | 2011 CP | 2012 CP | 2013 CP |
|---|---|---|---|---|---|---|---|---|---|---|
| **Gross debt ratio**[1] | **4.7** | **4.6** | **7.4** | **7.8** | **10.9** | **10.1** | **13.2** | **13.0** | **14.2** | **14.3** |
| Change in the ratio | -0.4 | 0.8 | 2.8 | 3.2 | 3.4 | 2.3 | 2.4 | 2.9 | 1.2 | 0.1 |
| *Contributions* [2] *:* | | | | | | | | | | |
| **1. Primary balance** | **-2.2** | **2.5** | **2.6** | **2.3** | **2.6** | **2.0** | **2.3** | **1.7** | **0.6** | **-0.7** |
| **2. "Snow-ball" effect** | **-0.4** | **0.1** | **1.1** | **1.1** | **0.8** | **0.3** | **0.0** | **-0.2** | **-0.4** | **-0.4** |
| *Of which:* | | | | | | | | | | |
| Interest expenditure | 0.2 | 0.2 | 0.4 | 0.3 | 0.5 | 0.2 | 0.7 | 0.3 | 0.4 | 0.5 |
| Growth effect | -0.4 | 0.1 | 0.7 | 0.8 | 0.0 | 0.0 | -0.4 | -0.3 | -0.5 | -0.5 |
| Inflation effect | -0.3 | -0.2 | 0.0 | 0.1 | 0.2 | 0.1 | -0.2 | -0.2 | -0.3 | -0.4 |
| **3. Stock-flow adjustment** | **2.2** | **-1.8** | **-0.9** | **-0.2** | **0.0** | **0.0** | **0.0** | **1.4** | **1.0** | **1.2** |
| *Of which:* | | | | | | | | | | |
| Cash/accruals diff. | -0.2 | 0.1 | | n.a. | | n.a. | | n.a. | n.a. | n.a. |
| Acc. financial assets | 2.4 | -2.0 | | n.a. | | n.a. | | n.a. | n.a. | n.a. |
| *Privatisation* | 0.0 | 0.0 | | n.a. | | n.a. | | n.a. | n.a. | n.a. |
| Val. effect & residual | 0.0 | 0.0 | | n.a. | | n.a. | | n.a. | n.a. | n.a. |

Notes:

[1]End of period.

[2]The snow-ball effect captures the impact of interest expenditure on accumulated debt, as well as the impact of real GDP growth and inflation on the debt ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

Source :

*Convergence programme (CP); Commission services' autumn 2009 forecasts (COM); Commission services' calculations*

The general government continues to have a net asset position, owing to the accumulation of previous years' surpluses and earlier privatisation receipts. By the end of the third quarter of 2009 gross liquid assets of the general government[9] amounted to 13.4% of expected yearly GDP, compared with 14.6% in the same period of 2008. The general government deficit was partly financed in 2008 and 2009 by running down those assets, as reflected in a negative stock-flow adjustment (see Table 6). The programme projects the accumulation of financial assets to resume from 2011.

### *5.1.2. Assessment*

The general government debt-to-GDP ratio is projected to increase from a very low level of 7.8% of GDP, according to the programme, to above 14% of GDP by the end of the programme period. The general government is nevertheless expected to maintain its net asset position and accumulation of financial assets is expected to resume from 2011. There are no significant differences between programme projections and estimates in the Commission services' autumn 2009 forecast.

Central government debt consists of long-term loans from multilateral financial organisations, in particular a loan received from EIB in 2009 and earlier loans from World Bank, Nordic Investment Bank and the Council of Europe Development Bank. The outstanding debt of local governments and entities classified inside the government sector while not covered by the state budget is more diverse in terms of sources and maturity structure, but does not pose major risks given its limited size.

[9] Including currency and deposits, securities other than shares and quoted shares.

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

### *5.2.1. Sustainability indicators and long-term debt projections*

This section presents sustainability indicators based on the long-term age-related government spending as projected by the Member States and the EPC in 2009 according to an agreed methodology[10].

Table 7 shows that the projected levels and changes in age-related spending are significantly lower than the EU average, falling by 0.1 percentage point of GDP between 2010 and 2060. This is due to a projected decrease in pension spending, thanks to an increasing share of pensions to be shifted to funded schemes. Sustainability indicators for two scenarios are presented in Table 8. 'The 2009 scenario' is based on a no-policy-change assumption and the 2009 structural primary balance as a starting year, while 'the programme scenario' takes into account the consolidation planned in the programme up to 2012 and is based on the projected 2012 structural primary balance as a starting position. Assuming that the structural primary balance remained at its 2009 level, the sustainability gap (S2)[11] would amount to 1.2% of GDP. This gap stems fully from the initial budgetary situation and is about 0.3 percentage points less than in last year's assessment, thanks to an improvement in the estimated structural primary balance in the starting year. This starting budgetary position, if maintained, would not be sufficient to stabilize the debt ratio over the long-term and entails a risk of unsustainable public finances.

**Table 7: Long-term age-related expenditure: main projections**

| (% of GDP) | **2007** | **2010** | **2020** | **2030** | **2040** | **2060** | **Change 2010-60** |
|---|---|---|---|---|---|---|---|
| **Total age-related spending** | **14.3** | **14.8** | **14.6** | **14.6** | **14.4** | **14.7** | **-0.1** |
| - Pensions | 5.6 | 6.4 | 5.9 | 5.6 | 5.4 | 4.9 | -1.6 |
| - Healthcare | 4.9 | 5.1 | 5.3 | 5.5 | 5.8 | 6.1 | 1.1 |
| - Long-term care | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| - Education and unemployment benefits | 3.7 | 3.2 | 3.3 | 3.5 | 3.1 | 3.5 | 0.3 |
| **Property income received** | 1.5 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | -0.3 |

*Source: Economic Policy Committee and Commission services*

[10] Economic Policy Committee and the European Commission (2009), '2009 Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-60)', European Economy No. 2/2009. European Commission (2009), 'Sustainability Report 2009, European Economy No. 9/2009. European Commission (2008), 'Public finances in EMU – 2008', European Economy No. 4/2008.

[11] The S2 indicator is defined as the change in the current level of the structural primary balance required to make sure that the discounted value of future structural primary balances (including the path of property income) covers the current level of debt.

**Table 8: Sustainability indicators and the required primary balance**

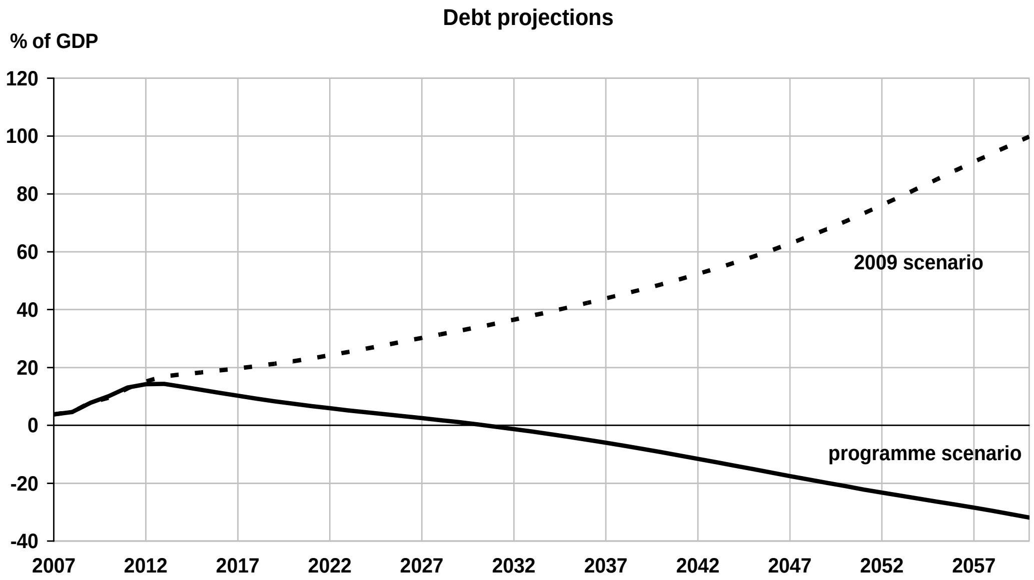
| | 2009 scenario | | | Programme scenario | | |
|---|---|---|---|---|---|---|
| | S1 | S2 | RPB | S1 | S2 | RPB |
| Value | 0.5 | 1.2 | 0.5 | -1.2 | -0.5 | 0.5 |
| *of which:* | | | | | | |
| Initial budgetary position (IBP) | 1.2 | 1.3 | - | -0.6 | -0.5 | - |
| Debt requirement in 2060 (DR) | -0.6 | - | - | -0.6 | - | - |
| Long-term change in the primary balance (LTC) | -0.1 | 0.0 | - | -0.1 | 0.0 | - |

*Source: Commission services*

While the "2009 scenario" reflects the recent weakening of the budgetary position in response to the current economic crisis, the "programme scenario" would eliminate the gap. If the budgetary consolidation planned in the programme was achieved, risks to long-term sustainability of public finances would be largely reduced.

Based on the assumptions used in the projection of age-related expenditure and the calculation of the sustainability indicators, Figure 3 displays the projected debt-to-GDP ratio over the long-term.

**Figure 3: Long-term projections for the government debt ratio**



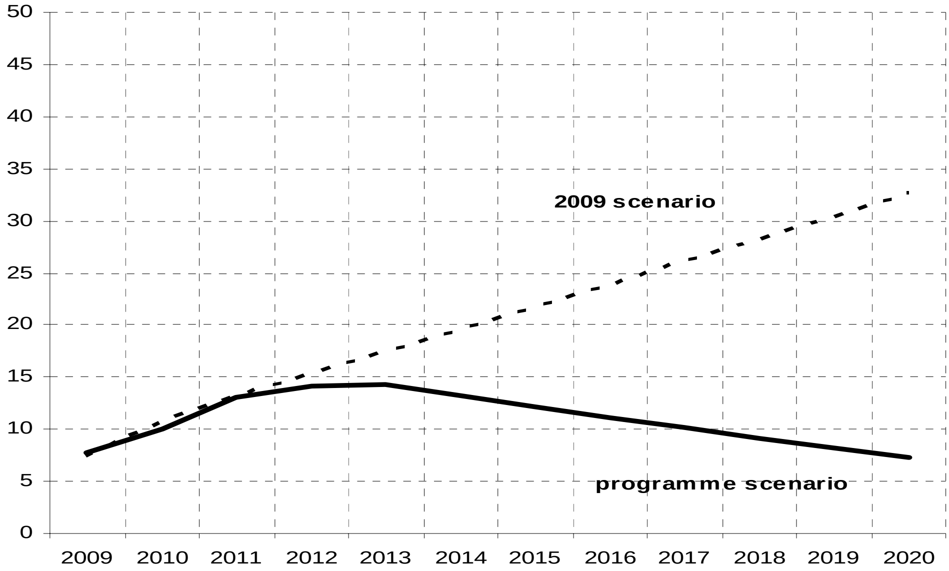

*Note:* Being a mechanical, partial-equilibrium analysis, the long-term debt projections are bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be seen as a forecast similar to the Commission services' short-term forecasts, but as an indication of the risks faced by Member States.
*Source: Commission services calculations*

Based on the alternative assumptions of economic developments presented in the Commission services autumn 2009 forecast publication[12], Figure 4 displays the projected medium-term trajectory of the debt-to-GDP ratio. The projected debt level in the 2009 scenario would increase faster than according to the baseline scenario presented above.

[12] Section 3.5 in European Commission (2009), 'European Economic Forecast – autumn 2009', European Economy No. 10/2009. This economic scenario assumes that the output gap caused by the crisis will be closed by 2017.

This is mainly due to the fact that the recent economic developments have been worse than assumed in the baseline scenario. However, under both assumptions the programme scenario would turn the debt ratio on a declining path.

**Figure 4: Medium-term projections for the government debt ratio**




*Source: Commission services' calculations*

### *5.2.2. Additional factors*

For an overall assessment of the sustainability of public finances, other relevant factors are taken into account. As shown in Table 9, none of such factors are currently considered as applicable for Estonia. Moreover, the programme update points to changes in pension indexation and a planned increase in the retirement age that could further reduce public pension expenditure in the coming decades.

**Table 9: Additional factors for the assessment of long-term sustainability risks**

| | **Impact on risk** |
|---|---|
| Debt and pension assets | na |
| Decline in structural balance until 2011 in COM Autumn 2009 forecast | na |
| Alternative projection of cost of ageing | na |
| Strong decline in benefit ratio | na |
| High tax burden | na |
| Difference between S1 and S2 | na |

*Note: '-': factor tends to increase the risk to sustainability, '+': factor tends to decrease the risk to sustainability, 'na': not applicable.*
*Alternative projections are often presented in the programmes, whose assumptions often diverge from the common method. Projections currently discussed in the Economic Policy Committee but not yet published, are for the time being also considered "unofficial".*

*An explanation on these factors can be found in chapter V of: European Commission (2009), Sustainability Report 2009, European Economy No. 9/2009.*

*Source: Commission services.*

### 5.2.3. Assessment

The long-term budgetary impact of ageing is significantly lower than the EU average. 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 limiting the already low risks to the long-term sustainability of public finances.

Medium-term debt projections, that assume GDP growth rates to only gradually recover to the values projected before the crisis and tax ratios to return to pre-crisis levels, show that the budgetary strategy envisaged in the programme, taken at face value, would be more than sufficient to stabilise the debt-to-GDP ratio by 2020.

## 6. FISCAL FRAMEWORK AND QUALITY OF PUBLIC FINANCES

This section is subdivided into two elements: the fiscal framework and the quality of public finances in a broader sense.

### 6.1. Fiscal framework

A cornerstone of Estonian economic policy since 1993 has been a nominal balance rule for the general government budgetary position. This helped in accumulating sizeable fiscal buffers during peak years of the cycle. The implementation of the rule has evolved in recent years by better aligning it with the cycle: the Estonian authorities switched to targeting nominal surpluses from the 2006 convergence programme update, while currently, given the extent of the downturn, the government is targeting small nominal deficits. However, the approach is still basically grounded by reference to a nominal balance and not a structural one (while the authorities foresee a return to slight structural surplus by the end of the programme period, as discussed in section 4.3). The balanced budget rule is complemented by a debt rule applicable at the level of local government; implementation of this rule has been strengthened on an interim basis by adding in early 2009 a temporary requirement of ex-ante approval of local governments' borrowing plans. There are, however, no separate expenditure or revenue rules, which may have contributed to partial spending of windfall revenue during cyclical upturns and peaks.

The medium-term budgetary framework is centred on the State Budgetary Strategy. This forward-looking strategy, introduced in 2000 and updated annually in May, serves as a basis for the annual budgetary process. There are, however, some shortcomings in the process[13]. Firstly, while implementation of the annual budget – which covers central government finances on cash basis – is subject to ongoing monitoring, there is no formal monitoring by an independent national body of the levels and objectives set within the medium-term budgetary framework. In addition, there are no established rules for treating deviations from previous year's nominal targets and these targets can be revised annually, leading to weak continuity between the annual updates. The same shortcomings largely apply to annual convergence programme updates. Moreover, both documents are adopted solely by the government without any significant prior public or parliamentary debate and without an ex-post analysis of their implementation, which limits the government's accountability and awareness of the broader public in multi-annual budgeting process.

[13] For a detailed overview of fiscal framework in Estonia, see http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/framework/index_en.htm.

The programme update contains plans, which already are being implemented, to improve the budgetary process by improving strategic and annual planning, as well as by gradual integration of performance management into the budgetary process. This also includes wider use of accrual-based budgeting, which would allow more accurate operational monitoring of the budgetary situation. The lack of precision in meeting expenditure targets has been a problem in the past, as evidenced by large expenditure shortfalls in 2003-2007, followed by an expenditure overrun in 2008 (compared to levels expected in the December 2008 convergence programme update). During 2010-2011 the new system is under development and implementation starts step by step by using pilot projects in parallel to the existing one, in order to avoid possible disruptions.

### 6.2. Quality of public finances

The structure of revenue and expenditure is geared towards supporting real convergence, with a high share of "productive" spending, in particular public investment and education-related expenditure. On the revenue side, the share of direct taxes and in particular taxation of capital is lower than the EU average[14]. The lower relative size of the public sector and flat taxation, however, also imply a lower automatic stabilisation potential compared to an average EU government[15]. Tax changes implemented in 2009-2010 continue the strategy of shifting taxation towards consumption and the use of natural resources, although the share of labour taxes, which is already relatively high in peer comparison, was further increased due to rising unemployment insurance contributions. Further shifting taxation from labour towards less cyclically sensitive sources, while implementing other ongoing initiatives as described below, would contribute to improving the quality of public finances, as well as to mitigating risks to the budgetary outlook.

The programme refers to several planned measures to improve the quality of public finances in coming years. These include an ongoing analysis of the effectiveness of existing exemptions and preferential tax rates, as well as securing greater flexibility in the budgetary process by reducing the number of earmarked revenue. Ongoing efforts to counter tax avoidance are already resulting in improving tax revenue. In addition, the programme targets further simplifying and streamlining the tax administration, while the share of electronic tax declarations already exceeded 90% in 2009.

The public finance statistical framework is likewise evolving. In particular, Statistics Estonia switched to full accrual recording from its autumn 2009 EDP notification. A recent Eurostat EDP dialogue mission to Estonia concluded that almost all of the action points agreed during the previous visit in 2007 had already been implemented by the time of the mission in June 2009, while the remaining action points were to be closed by September 2009[16].

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[14] Lower direct tax ratios are associated with higher long-term GDP growth rates: see European Commission (2010), Cross-country study: Economic Policy challenges in the Baltics, also available at http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/op58_en.htm, Chapter IV

[15] *ibid*

[16] See final findings of the June 2009 EDP dialogue mission: http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/documents/FF%20-%20EE%20-%204-5%20June%202009.pdf

## 7. Assessment of the strategy ensuring a smooth participation in ERM II

The Estonian kroon entered ERM II on 28 June 2004. The ERM II central rate was set at the parity rate prevailing in the existing currency board arrangement, with a standard fluctuation band of +/-15%. Upon ERM II entry, the Estonian authorities unilaterally committed themselves to maintaining the currency board arrangement within the mechanism, including keeping the exchange rate of the kroon at the central rate. The strategy to maintain exchange rate stability is based on ensuring sufficient monetary buffers, maintaining financial and fiscal stability and preserving flexibility of labour and product markets.

### *7.1.1. Recent exchange rate and financial market developments*

In line with Estonia's unilateral commitment to maintain its currency board arrangement (CBA) within ERM II, the kroon has not deviated from the central rate. The central bank continues to maintain foreign exchange reserves comfortably above the statutory minimum under the CBA. Estonia's nominal effective exchange rate (NEER) remained broadly stable vis-à-vis its main trading partners in 2009 and in early 2010. Previously, in December 2008 the NEER had appreciated by 2% due to the depreciation of currencies of some trade partners (in particular Sweden and Russia).

Financial markets reacted to the recent global financial and economic crisis with a sharp increase in risk aversion for non-euro area Member States, including Estonia, in late 2008 and in early 2009. Subsequently, risk perceptions for Estonia declined in line with regional trends during 2009, while their drop became even more pronounced in late 2009, following favourable results of strong fiscal consolidation. Stock market indices followed global developments and remained at low levels from end-2008 until August 2009. The indices surged upwards in September 2009 and again in February 2010, reaching levels close to those registered in mid-2008, which were nevertheless twice lower than during their historical peak in the first half of 2007. Money market quotations peaked in line with financial market risk perceptions in early 2009 and reversed thereafter. Their spreads vis-à-vis euro area money market interest rates fell below 150 basis points in early 2010, comparable to the levels of mid-2008. Despite a very low level of government debt and significant fiscal reserves, credit default swaps for Estonia peaked in early 2009 after increasing five-fold within half a year, but returned close to their mid-2008 levels in late 2009. In addition, two credit rating agencies downgraded Estonia's sovereign credit rating in 2009, while revising the outlook for Estonia's sovereign credit rating from negative to stable in February 2010.

### *7.1.2. Policies supporting participation in ERM II*

Estonia has maintained robust monetary buffers to support exchange rate stability. Under the currency board arrangement, domestic liabilities of the central bank have to be fully backed by foreign exchange reserves or gold, therefore the size of those buffers fluctuates in line with the domestic liabilities of the central bank. The latter primarily include currency in circulation and commercial banks' deposits in the central bank that are mainly related to the minimum reserve requirement. The law guarantees full convertibility of the Estonian kroon at the parity rate and permits the issuance of cash into circulation only against a corresponding increase in reserves. The central bank does not set monetary policy interest rates. The domestic interest rate environment is instead directly affected by the monetary policy of the euro area, with developments in euro area money markets immediately transmitted into the Estonian financial market. The turnover of kroon money markets is very small and financial market transactions are performed mainly in euros.

Financial stability has been ensured by measures that aim at minimising risks to banks' liquidity and funding. The banking system has accumulated substantial liquidity and capital buffers, which have largely been maintained during the recent crisis. These buffers serve as a first line of defence against adverse developments. In addition to a high minimum reserve requirement of 15%, the capital adequacy ratio requirement is maintained at 10%, higher than required by the EU acquis. To restrain credit growth at the peak of the cycle, in 2005 the Estonian authorities strengthened prudential requirements; subsequent implementation in 2006 into the national legislation of the new EU capital requirements directive served as a basis for improving internal risk management practices in the banking system. While the impact of the recent severe economic contraction on households and businesses has resulted in an increase in levels of non-performing loans, the actual capital adequacy ratio remains high (at 22.3% at end-2009), despite a conservative approach to provisioning adopted by the banks. To mitigate risks related to global adverse developments, in late 2008 the government strengthened the deposit guarantee scheme and has recently proposed legislative changes to strengthen the crisis management framework. Enhanced cross-border cooperation between the national authorities in Estonia and the home countries of foreign-owned banks in particular contributed to maintaining financial stability, with regular meetings taking place to exchange data and analysis between the central banks of home and host countries. In February 2009, Eesti Pank (Bank of Estonia) entered into a precautionary arrangement with the Swedish central bank to secure financial stability. The additional liquidity channel under the arrangement was not used and the arrangement was not extended in 2010. The ownership structure of banks operating in Estonia eased their funding in the acute phase of the cycle, as Swedish and Danish parent banks have benefited from the guarantee schemes of their home countries. The challenges in the medium-term relate to the continuing consequences for the financial system of the severe recession and in particular the management of relatively high level of non-performing loans.

Fiscal policies have overall been supportive of the strategy of smooth participation in the ERM II, even though they fell short of decisively countering buoyant expectations at the peak of the cycle. Nevertheless, high nominal surpluses of pre-crisis years resulted in accumulating substantial fiscal buffers while keeping general government debt at the lowest level in the EU (see also Section 5.1). Estonia thus entered the crisis from a comparatively strong fiscal position and was able to withstand a marked deterioration of public finances without the need to rely on market financing at the time of high risk aversion. A decisive fiscal consolidation implemented in particular in 2009 (see also Section 4.1) contributed to restoring market confidence. A challenge ahead for public sector finances is to put the recent improvement on a secure footing, through strict expenditure control, efficiency improvements and, possibly, exploring the scope for revenue enhancements, nevertheless taking into account an already high total tax wedge on labour.

To support the functioning of labour and product markets, Estonia has recently implemented several structural reforms. Modernised labour legislation, which entered into force on 1 July 2009, makes Estonia's labour market more flexible, in particular through reduced administrative interferences, lower firing costs and increased possibilities of employment contracts with limited duration. In parallel, the modernisation of the Civil Service Law is moving forward, with a draft law under Parliamentary scrutiny. If adopted, the new law would affect both the number of staff and wages, since the draft law aims at making the wage formation in the public sector more transparent. There is no explicit indexation mechanism for public sector wages. In the competition policy area, the recent merger of the competition board with a number of regulatory agencies aims at improving the efficiency of competition policy. The latter will be further strengthened as a result of the adoption in January 2010 of legislation that implements an immunity and leniency programme. With respect to active labour market policies, which become particularly important in a situation of protracted recession, legislation appears flexible enough to provide measures preventing an aggravation of structural unemployment, and previously low participation in such schemes is increasing.

As a measure to strengthen the competitiveness of the economy and facilitating the restructuring towards tradable activities, exporting enterprises are increasingly supported by state programmes, including those partly financed from EU structural funds, while banks are becoming more active in financing initiatives in the tradable sector. In parallel, efforts to further raise labour skills help to strengthen human capital efficiency and support an ongoing shift to more sophisticated exports. Wage adjustment is taking place at a remarkable speed and is expected to continue for some time. Against the backdrop of a decentralised wage setting system, the role of the public sector in promoting wage moderation is largely limited to strict control of the public sector wage bill. By the end of 2009, the average public sector wage was declining more rapidly that in the economy as a whole.

#### *7.1.3. Assessment*

The strategy ensuring a smooth participation in ERM II is based on securing exchange rate stability by maintaining large monetary buffers, financial and fiscal stability and preserving flexibility of labour and product markets. Estonia entered the crisis from a comparatively strong position with large fiscal reserves, a broadly healthy banking sector and a comparatively high degree of wage and price flexibility. To contain the deterioration of public finances in the crisis, the authorities adopted in 2009 several sizeable consolidation packages. This consolidation will have a positive impact beyond 2009, while, in particular, the reduction of the public sector wage bill contributes positively to the unravelling of imbalances in the economy.

The banking sector has remained well-capitalised and has sufficient liquidity. Progress has also been made on structural policy. The recently adopted labour law has enhanced labour market flexibility, facilitating the adjustment of the economy from the previous domestic demand-led pattern to more sustainable growth. As regards product markets, policy measures aim at strengthening competition. Competitiveness of the tradable sector is benefiting from the ongoing adjustment in costs, as well as from targeted state programmes, including through an effective use of the available EU structural funds. The challenge going ahead is to avoid any relapse into significant internal and external imbalances once the recovery becomes established.

## 8. OVERALL ASSESSMENT

Taking into account risks attached to the budgetary targets discussed above, this section assesses the appropriateness of the fiscal strategy in relation to the budgetary objectives of the Stability and Growth Pact, against the background of the current economic situation, the debt and long-term sustainability position of the country, and the institutional features of its public finances.

The policy response to the economic downturn involved a wide-ranging and decisive consolidation of public finances implemented mostly in 2009 in Estonia. Taking into account high macroeconomic imbalances prior to the downturn, this was a prudent response in line with the European Economic Recovery Plan. Due to the fact that consolidation was largely centred on cutting the government expenditure, including the wage bill, this also contributed to beneficial price and wage adjustment in the economy. At the same time, an intensified absoprtion of EU structural funds provided a needed counter-cyclical support to the economy.

Compared to an estimated deficit of 2.6% in 2009, the programme projects an improvement in the headline deficit to 2.2% of GDP in 2010. While this is an appropriate target given continuing weak cyclical conditions, there is a risk that the budgetary outcome could turn out worse, given the uncertainties related to macroeconomic developments and some volatile sources of revenue. Sensitivity analysis of the programme likewise points to the absence of a sufficiently large safety margin against breaching the 3% threshold.

The medium-term objective of the programme is a structural balance, which more than adequately reflects the objectives of the Stability and Growth Pact. The programme targets achieving the MTO by the end of the programme period, which is an appropriately ambitious target that corresponds to the requirements of the Stability and Growth Pact and is consistent with a smooth participation in ERM II. Whilst the targeted consolidation in 2011-2013 is not underpinned by sufficient information in the programme on the measures to achieve it, this is partly mitigated by the authorities' solid budgetary track record to date.

The decisive fiscal consolidation already implemented in 2008-2010 and further improvements outlined in the programme mark considerable progress in adjusting the public finances to projected lower medium-term growth and to a less tax-rich growth pattern. However, the achievement of strict expenditure control and improving the medium-term budgetary framework remain work-in-progress. Strengthening the medium-term budgetary framework, particularly by improving expenditure planning and further strengthening the system of monitoring the strategic targets and reporting on them are among the ways forward.

Overall, the budgetary strategy in the programme can be regarded as broadly in line with the requirements of the Stability and Growth Pact.

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## ANNEX. COMPLIANCE WITH THE FORMAT AND CONTENT REQUIREMENTS FOR STABILITY AND CONVERGENCE PROGRAMMES

This annex provides an assessment of whether the programme respects the requirements of Section II of the code of conduct (guidelines on the format and content), notably as far as (i) the model structure (Annex 1 of the code of conduct); (ii) the formal data provisions (Annex 2 of the code of conduct); and (iii) other information requirements is concerned.

**(i) Model structure**

The programme fully follows the model structure outlined in the code of conduct.

**(ii) Data requirements**

The programme broadly adheres to the code of conduct as far as data requirements are concerned, although there are some gaps in the provision of both compulsory and optional data. Regarding compulsory data, in Table 8 "Basic assumptions" the line "Nominal effective exchange rate" is missing. In addition, the programme does not provide assumptions on EEK short- and long-term interest rates in Table 8, using instead assumptions of euro area interest rates. This can be justified by the fact that Euribor is the main benchmark interest rate in Estonia, while EEK money markets are very shallow and therefore do not reflect broad-based liquidity.

The tables on the following pages show the data presented in the January 2010 update of convergence programme, following the structure of the tables in Annex 2 of the code of conduct. Compulsory data are in bold, missing data are indicated with grey-shading.

**(iii) Other information requirements**

The table below provides a summary assessment of the adherence to the other information requirements in the code of conduct.

| The SCP… | Yes | No | Comments |
|---|---|---|---|
| *a. Involvement of parliament* | | | |
| … mentions status vis-à-vis national parliament. | | X | |
| … indicates whether Council opinion on previous programme has been presented to national parliament. | | X | |
| *b. Economic outlook* | | | |
| … (for euro area and ERM II Member States) uses "common external assumptions" on main extra-EU variables. | X | | |
| … explains significant divergences with Commission services' forecasts. | | | Not applicable |
| … bears out possible upside/downside risks to economic outlook. | X | | |
| … analyses outlook for sectoral balances and, especially for countries with high external deficit, external balance. | X | | |
| *c. Monetary/exchange rate policy* | | | |
| … (CP only) presents medium-term monetary policy objectives and their relationship to price and exchange rate stability. | X | | |
| *d. Budgetary strategy* | | | |
| … presents budgetary targets for general government balance in relation to MTO and projected path for debt ratio. | X | | |
| … (in case new government has taken office) shows continuity with respect to budgetary targets endorsed by Council. | | | Not applicable |
| … (when applicable) explains reasons for deviations from previous targets and, in case of substantial deviations, whether measures are taken to rectify situation (+ provides information on them). | X | | |
| … backs budgetary targets by indication of broad measures necessary to achieve them and analyses their quantitative effects on balance. | X | | |
| … specifies state of implementation of measures. | X | | |
| *e. "Major structural reforms"* | | | |
| … (if MTO not yet reached or temporary deviation is planned from MTO) includes comprehensive information on economic and | | X | |

| **The SCP…** | **Yes** | **No** | **Comments** |
|---|---|---|---|
| budgetary effects of possible ’major structural reforms’ over time. | | | |
| … includes quantitative cost-benefit analysis of short-term costs and long-term benefits of reforms. | | X | |
| *f. Sensitivity analysis* | | | |
| … includes comprehensive sensitivity analyses and/or develops alternative scenarios showing impact on balance and debt of:<br>a) changes in main economic assumptions<br>b) different interest rate assumptions<br>c) (for CP only) different exchange rate assumptions<br>d) if common external assumptions are not used, changes in assumptions for main extra-EU variables. | X | | |
| … (in case of “major structural reforms”) analyses how changes in assumptions would affect budget and potential growth. | | | No applicable |
| *g. Broad economic policy guidelines* | | | |
| … provides information on consistency with broad economic policy guidelines of budgetary objectives and measures to achieve them. | | X | |
| *h. Quality of public finances* | | | |
| … describes measures to improve quality of public finances, both revenue and expenditure sides. | X | | |
| *i. Long-term sustainability* | | | |
| … outlines strategies to ensure sustainability. | X | | |
| … includes common budgetary projections by the AWG and all necessary additional information (esp. new relevant information). | X | | |
| *j. Other information (optional)* | | | |
| … includes information on implementation of existing national budgetary rules and on other institutional features of public finances. | X | | |
| Notes: SCP = stability/convergence programme; CP = convergence programme<br>*Source:*<br>*Commission services* | | | |

## Tables from Annex 2 of the code of conduct

**Table 1a. Macroeconomic prospects**

| | ESA Code | 2008 Level | 2008 rate of change | 2009 rate of change | 2010 rate of change | 2011 rate of change | 2012 rate of change | 2013 rate of change |
|---|---|---|---|---|---|---|---|---|
| **1. Real GDP** | B1*g | *160 455.3* | -3.6 | -14.5 | -0.1 | 3.3 | 3.7 | 4.0 |
| **2. Nominal GDP** | B1*g | *251 492.8* | 2.9 | -15.3 | -1.2 | 5.0 | 6.3 | 6.8 |
| **Components of real GDP** | | | | | | | | |
| **3. Private consumption expenditure** | P.3 | *96 823.5* | -4.7 | -18.2 | -5.2 | 2.5 | 2.0 | 1.8 |
| **4. Government consumption expenditure** | P.3 | *22 965.2* | 4.1 | -2.9 | -4.7 | 0.3 | 0.9 | 2.3 |
| **5. Gross fixed capital formation** | P.51 | *55 218.8* | -12.1 | -32.2 | -4.1 | 7.2 | 8.3 | 9.0 |
| **6. Changes in inventories and net acquisition of valuables (% of GDP)** | P.52 + P.53 | *n.a.* | 0.4 | -3.7 | -1.2 | 0.5 | 1.4 | 2.3 |
| **7. Exports of goods and services** | P.6 | *133 951.2* | -0.7 | -10.8 | 2.0 | 4.8 | 5.1 | 6.4 |
| **8. Imports of goods and services** | P.7 | *162 551.5* | -8.7 | -26.2 | -1.3 | 6.5 | 6.4 | 8.1 |
| **Contributions to real GDP growth** | | | | | | | | |
| **9. Final domestic demand** | | - | -6.1 | -20.2 | -4.8 | 3.0 | 3.2 | 3.6 |
| **10. Changes in inventories and net acquisition of valuables** | P.52 + P.53 | - | -5.7 | -4.2 | 2.6 | 1.7 | 0.9 | 0.9 |
| **11. External balance of goods and services** | B.11 | - | 6.8 | 12.8 | 2.3 | -0.8 | -0.6 | -0.8 |

**Table 1b. Price developments**

| | ESA Code | 2008 Level | 2008 rate of change | 2009 rate of change | 2010 rate of change | 2011 rate of change | 2012 rate of change | 2013 rate of change |
|---|---|---|---|---|---|---|---|---|
| **1. GDP deflator** | | *156.7* | 6.7 | -0.9 | -1.2 | 1.6 | 2.5 | 2.7 |
| **2. Private consumption deflator** | | *145.3* | 9.2 | -0.7 | 0.5 | 2.2 | 2.4 | 2.8 |
| **3. HICP**[1] | | *146.7* | 10.6 | 0.2 | 0.4 | 1.9 | 2.3 | 2.7 |
| 4. Public consumption deflator | | *212.5* | 13.7 | -0.8 | -4.6 | 1.1 | 2.0 | 1.7 |
| 5. Investment deflator | | *133.6* | -0.6 | -1.4 | 1.1 | 3.1 | 3.6 | 4.6 |
| **6. Export price deflator (goods and services)** | | *142.0* | 7.7 | -10.2 | -0.5 | 1.7 | 1.8 | 2.0 |
| **7. Import price deflator (goods and services)** | | *123.5* | 6.9 | -4.8 | 0.9 | 1.2 | 1.9 | 2.2 |

[1] Optional for stability programmes.

**Table 1c. Labour market developments**

| | ESA Code | 2008 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Employment, persons[1]** | | *656.6* | 0.2 | -8.8 | -2.4 | 0.6 | 1.6 | 2.3 |
| 2. Employment, hours worked[2] | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **3. Unemployment rate (%)[3]** | | *n.a.* | 5.5 | 13.7 | 14.8 | 13.1 | 11.1 | 8.5 |
| **4. Labour productivity, persons[4]** | | *244.4* | -3.7 | -6.3 | 2.4 | 2.7 | 2.1 | 1.7 |
| 5. Labour productivity, hours worked[5] | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **6. Compensation of employees** | D.1 | *128 932.0* | 11.6 | -12.3 | -3.6 | 3.8 | 5.7 | 6.9 |
| **7. Compensation per employee** | | *196.4* | 11.4 | -3.9 | -1.4 | 3.4 | 4.1 | 4.6 |

[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 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **1. Net lending/borrowing vis-à-vis the rest of the world** | B.9 | -8.4 | 6.9 | 8.5 | 6.3 | 2.9 | -1.0 |
| *of which* :<br>- Balance on goods and services | | -4.3 | 5.6 | 6.8 | 6.2 | 5.4 | 4.2 |
| - Balance of primary incomes and transfers | | -5.1 | -1.1 | -0.9 | -2.1 | -4.0 | -6.6 |
| - Capital account | | 1.0 | 2.4 | 2.6 | 2.2 | 1.5 | 1.4 |
| 1a. Current account | | -9.4 | 4.5 | 5.9 | 4.1 | 1.4 | -2.4 |
| 2. Net lending/borrowing of the private sector | B.9 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3. Net lending/borrowing of general government | EDP B.9 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **4. Statistical discrepancy** | | 0.1 | 0.0 | optional | optional | optional | optional |

**Table 2. General government budgetary prospects**

| | ESA Code | 2008 Level | 2008 % of GDP | 2009 % of GDP | 2010 % of GDP | 2011 % of GDP | 2012 % of GDP | 2013 % of GDP |
|---|---|---|---|---|---|---|---|---|
| **Net lending (EDP B.9) by sub-sector** | | | | | | | | |
| **1. General government** | S.13 | *-6 946.6* | -2.8 | -2.6 | -2.2 | -2.0 | -1.0 | 0.2 |
| **2. Central government** | S.1311 | *-5 952.3* | -2.4 | -1.1 | -2.0 | -2.3 | -1.2 | -0.1 |
| **3. State government** | S.1312 | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **4. Local government** | S.1313 | *-1 620.4* | -0.6 | -0.8 | -0.3 | -0.2 | -0.6 | -0.6 |
| **5. Social security funds** | S.1314 | *626.1* | 0.2 | -0.8 | 0.1 | 0.5 | 0.8 | 0.9 |
| **General government (S13)** | | | | | | | | |
| **6. Total revenue** | TR | *93 324.8* | 37.1 | 45.0 | 45.7 | 44.0 | 41.5 | 39.2 |
| **7. Total expenditure** | TE[1] | *100 270.3* | 39.9 | 47.6 | 47.9 | 46.0 | 42.5 | 39.0 |
| **8. Net lending/borrowing** | EDP B.9 | *-6 946.6* | -2.8 | -2.6 | -2.2 | -2.0 | -1.0 | 0.2 |
| **9. Interest expenditure** | EDP D.41 | *556.5* | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 |
| **10. Primary balance**[2] | | *-6 390.1* | -2.5 | -2.3 | -2.0 | -1.7 | -0.6 | 0.7 |
| **11. One-off and other temporary measures**[3] | | *125.0* | 0.0 | 1.2 | 1.9 | 0.6 | 0.0 | 0.0 |
| **Selected components of revenue** | | | | | | | | |
| **12. Total taxes** (12=12a+12b+12c) | | *50 448.7* | 20.1 | 22.2 | 22.7 | 22.1 | 22.0 | 21.4 |
| **12a. Taxes on production and imports** | D.2 | *30 466.6* | 12.1 | 14.6 | 14.9 | 14.5 | 14.5 | 14.1 |
| **12b. Current taxes on income, wealth, etc** | D.5 | *19 982.1* | 7.9 | 7.7 | 7.8 | 7.5 | 7.4 | 7.3 |
| **12c. Capital taxes** | D.91 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **13. Social contributions** | D.61 | *30 415.5* | 12.1 | 13.8 | 14.4 | 13.7 | 12.9 | 12.7 |
| **14. Property income** | D.4 | *3 730.1* | 1.5 | 2.5 | 1.7 | 1.1 | 0.7 | 0.7 |
| **15. Other**[4] | | *8 729.5* | 3.5 | 6.4 | 6.9 | 7.1 | 5.8 | 4.4 |
| **16=6. Total revenue** | TR | *93 324.8* | 37.1 | 45.0 | 45.7 | 44.0 | 41.5 | 39.2 |
| **p.m.: Tax burden** (D.2+D.5+D.61+D.91-D.995)[5] | | 80 914.4 | 32.2 | 36.0 | 37.0 | 35.8 | 34.9 | 34.1 |
| **Selected components of expenditure** | | | | | | | | |
| **17. Compensation of employees + intermediate consumption** | D.1+P.2 | *46 360.8* | **18.4** | **20.9** | **20.6** | **19.2** | **18.2** | **16.6** |
| 17a. Compensation of employees | D.1 | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 17b. Intermediate consumption | P.2 | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **18. Social payments** (18=18a+18b) | | *32 225.8* | 12.8 | 15.9 | 16.2 | 15.6 | 14.6 | 13.5 |
| 18a. Social transfers in kind supplied via market producers | D.6311, D.63121, D.63131 | *5 470.2* | 2.2 | 2.7 | 2.9 | 2.8 | 2.8 | 2.5 |
| 18b. Social transfers other than in kind | D.62 | *26 755.6* | 10.6 | 13.2 | 13.4 | 12.8 | 11.8 | 11.0 |
| **19=9. Interest expenditure** | EDP D.41 | *556.5* | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 |
| **20. Subsidies** | D.3 | *2 558.8* | 1.0 | 1.2 | 1.2 | 1.2 | 1.1 | 1.0 |
| **21. Gross fixed capital formation** | P.51 | *13 380.2* | 5.3 | 5.8 | 6.1 | 6.5 | 5.8 | 5.3 |
| **22. Other**[6] | | *5 188.2* | 2.1 | 3.5 | 3.5 | 3.3 | 2.5 | 2.1 |
| **23=7. Total expenditure** | TE[1] | *100 270.3* | 39.9 | 47.6 | 47.9 | 46.0 | 42.5 | 39.0 |
| p.m.: Government consumption (nominal) | P.3 | *48 800.0* | 19.4 | 22.1 | 20.3 | 19.6 | 19.0 | 18.5 |

[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, item 9).

[3]A plus sign means deficit-reducing one-off measures.

[4] P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

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

[6] D.29+D4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

**Table 3. General government expenditure by function**

| % of GDP | COFOG Code | 2007 | 2013 |
|---|---|---|---|
| 1. General public services | 1 | 3.2 | 2.9 |
| 2. Defence | 2 | 1.3 | 2.0 |
| 3. Public order and safety | 3 | 2.2 | 2.4 |
| 4. Economic affairs | 4 | 4.6 | 4.6 |
| 5. Environmental protection | 5 | 0.9 | 0.9 |
| 6. Housing and community amenities | 6 | 0.6 | 0.5 |
| 7. Health | 7 | 4.4 | 4.8 |
| 8. Recreation, culture and religion | 8 | 2.0 | 2.2 |
| 9. Education | 9 | 6.0 | 6.9 |
| 10. Social protection | 10 | 9.6 | 11.8 |
| 11. Total expenditure (=item 7=23 in Table 2) | TE[1] | 34.8 | 39.0 |

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

**Table 4. General government debt developments**

| % of GDP | ESA Code | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **1. Gross debt[1]** | | 4.6 | 7.8 | 10.1 | 13.0 | 14.2 | 14.3 |
| **2. Change in gross debt ratio** | | 1.3 | 3.2 | 2.3 | 2.9 | 1.2 | 0.1 |
| **Contributions to changes in gross debt** | | | | | | | |
| **3. Primary balance[2]** | | -2.5 | -2.3 | -1.9 | -1.7 | -0.6 | 0.7 |
| **4. Interest expenditure[3]** | EDP D.41 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 |
| **5. Stock-flow adjustment** | | -1.4 | 0.6 | 0.1 | 0.9 | 0.2 | 0.9 |
| *of which:* | | | | | | | |
| - Differences between cash and accruals[4] | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| - Net accumulation of financial assets[5] | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| *of which:* | | - | - | - | - | - | - |
| *- privatisation proceeds* | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| - Valuation effects and other[6] | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **p.m.: Implicit interest rate on debt[7]** | | 5.2 | 2.5 | 2.5 | 3.0 | 3.5 | 4.0 |
| **Other relevant variables** | | | | | | | |
| 6. Liquid financial assets[8] | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 7. Net financial debt (7=1-6) | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

[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 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 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **1. Real GDP growth (%)** | | -3.6 | -14.5 | -0.1 | 3.3 | 3.7 | 4.0 |
| **2. Net lending of general government** | EDP B.9 | -2.8 | -2.6 | -2.2 | -2.0 | -1.0 | 0.2 |
| **3. Interest expenditure** | EDP D.41 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 |
| **4. One-off and other temporary measures[1]** | | 0.0 | 1.2 | 1.9 | 0.6 | 0.0 | 0.0 |
| 5. Potential GDP growth (%) | | 2.4 | 0.3 | 0.0 | 0.4 | 1.0 | 1.5 |
| contributions: | | | | | | | |
| - labour | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| - capital | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| - total factor productivity | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 6. Output gap | | 5.7 | -9.9 | -10.0 | -7.4 | -5.0 | -2.7 |
| 7. Cyclical budgetary component | | 1.7 | -3.0 | -3.0 | -2.2 | -1.5 | -0.8 |
| 8. Cyclically-adjusted balance (2 - 7) | | -4.5 | 0.4 | 0.8 | 0.2 | 0.5 | 1.0 |
| 9. Cyclically-adjusted primary balance (8 + 3) | | -4.3 | 0.7 | 1.0 | 0.5 | 0.9 | 1.5 |
| 10. Structural balance (8 - 4) | | -4.5 | -0.8 | -1.1 | -0.3 | 0.5 | 1.0 |

[1]A plus sign means deficit-reducing one-off measures.

**Table 6. Divergence from previous update**

| | ESA Code | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **Real GDP growth (%)** | | | | | | | |
| **Previous update** | | -2.2 | -3.5 | 2.6 | 4.8 | 5.0 | n.a. |
| **Current update** | | -3.6 | -14.5 | -0.1 | 3.3 | 3.7 | 4.0 |
| **Difference** | | -1.4 | -11.0 | -2.7 | -1.5 | -1.3 | n.a. |
| **General government net lending (% of GDP)** | EDP B.9 | | | | | | |
| **Previous update** | | -1.9 | -1.7 | -1.0 | 0.1 | 0.2 | n.a. |
| **Current update** | | -2.8 | -2.6 | -2.2 | -2.0 | -1.0 | 0.2 |
| **Difference** | | -0.9 | -0.9 | -1.2 | -2.1 | -1.2 | n.a. |
| **General government gross debt (% of GDP)** | | | | | | | |
| **Previous update** | | 3.7 | 3.7 | 3.5 | 3.0 | 2.8 | n.a. |
| **Current update** | | 4.6 | 7.8 | 10.1 | 13.0 | 14.2 | 14.3 |
| **Difference** | | 0.9 | 4.1 | 6.6 | 10.0 | 11.4 | n.a. |

**Table 7. Long-term sustainability of public finances**

| % of GDP | 2009 | 2010 | 2020 | 2030 | 2050 | ----- |
|---|---|---|---|---|---|---|
| Total expenditure | 47.5 | 47.9 | 39.7 | 39.0 | 38.5 | ----- |
| Of which: age-related expenditures | n.a. | n.a. | n.a. | n.a. | n.a. | ----- |
| Pension expenditure | 9.0 | 9.2 | 8.0 | 7.4 | 6.9 | ----- |
| Social security pension | 9.0 | 9.2 | 8.0 | 7.4 | 6.9 | ----- |
| Old-age and early pensions | 7.6 | 7.8 | 6.8 | 6.3 | 5.8 | ----- |
| Other pensions (disability, survivors) | 1.4 | 1.5 | 1.2 | 1.1 | 1.1 | ----- |
| Occupational pensions (if in general government) | n.a. | n.a. | n.a. | n.a. | n.a. | ----- |
| Health care | 5.7 | 5.9 | 5.8 | 5.7 | 5.7 | ----- |
| Long-term care *(this was earlier included in the* | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | ----- |
| Education expenditure | n.a. | n.a. | n.a. | n.a. | n.a. | ----- |
| Other age-related expenditures | n.a. | n.a. | n.a. | n.a. | n.a. | ----- |
| Interest expenditure | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | ----- |
| Total revenue | 44.8 | 45.7 | 39.7 | 39.0 | 38.5 | ----- |
| Of which: property income | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | ----- |
| *Of which* : from pensions contributions (or social contributions if appropriate) | 13.8 | 14.4 | 12.5 | 12.3 | 12.1 | ----- |
| Pension reserve fund assets | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | ----- |
| *Of which* : consolidated public pension fund assets (assets other than government liabilities) | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | ----- |
| **Assumptions** | | | | | | |
| Labour productivity growth | -6.3 | 2.4 | 3.2 | 2.6 | 1.7 | ----- |
| Real GDP growth | -14.5 | 0.1 | 2.4 | 2.0 | 0.5 | ----- |
| Participation rate males (aged 20-64) | 86.5 | 86.3 | 85.2 | 84.3 | 82.4 | ----- |
| Participation rates females (aged 20-64) | 76.5 | 76.3 | 76.4 | 77.1 | 75.8 | ----- |
| Total participation rates (aged 20-64) | 81.6 | 81.3 | 80.7 | 80.6 | 79.1 | ----- |
| Unemployment rate | 13.7 | 14.8 | 5.9 | 3.5 | 3.5 | ----- |
| Population aged 65+ over total population | 17.2 | 17.1 | 18.8 | 21.7 | 27.4 | ----- |

**Table 8. Basic assumptions**

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| **Short-term interest rate[1] (annual average)** | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Long-term interest rate (annual average)** | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **USD/€ exchange rate (annual average) (euro area and ERM II countries)** | 0.68 | 0.72 | 0.68 | 0.68 | 0.72 | 0.75 |
| **Nominal effective exchange rate** | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)** | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **World excluding EU, GDP growth** | 3.8 | -0.4 | 3.8 | 4.1 | 4.3 | 4.3 |
| **EU GDP growth** | 1.0 | -4.1 | 0.7 | 1.6 | 1.8 | 2.0 |
| **Growth of relevant foreign markets** | 1.0 | -6.0 | 0.3 | 1.7 | 2.0 | 2.5 |
| **World import volumes, excluding EU** | 4.6 | -12.6 | 4.6 | 5.0 | 5.3 | 5.3 |
| **Oil prices (Brent, USD/barrel)** | 98.5 | 61.3 | 76.5 | 80.5 | 84.0 | 85.0 |

[1]If necessary, purely technical assumptions.