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ESTONIA: MACRO FISCAL ASSESSMENT

AN ANALYSIS OF THE NOVEMBER 2007 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 November 2007.

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs (DG ECFIN) of the European Commission, was finalised on 26 February 2008. Comments should be sent to Ingrid Toming (ingrid.toming@ec.europa.eu) and Baudouin Lamine (baudouin.lamine@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 2007 forecast, (ii) the code of conduct ("Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes", endorsed by the ECOFIN Council of 11 October 2005) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances. Technical issues are explained in an accompanying "methodological paper" prepared by DG ECFIN.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 13 February 2008. The ECOFIN Council is expected to adopt its opinion on the programme on 4 March 2008.

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

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

TABLE OF CONTENTS

SUMMARY AND CONCLUSIONS

As part of the preventive arm of the Stability and Growth Pact, each Member State that does not use the single currency, such as Estonia, has to submit a convergence programme and annual updates thereof. The most recent programme, covering the period 2007-2011, was submitted on 29 November 2007.

Estonia has been very successful in terms of catching-up, with GDP per capita in purchasing power standards increasing from just above 40% of EU-27 average in 1997 to above 70% a decade later. The main factor behind Estonia's catch-up over the period of 2001-2005 has been growth of total factor productivity, although capital-deepening also played an important role. From 2005 Estonia experienced a period of very rapid growth related to, inter alia, high credit growth and overall accommodative monetary conditions that fuelled a consumption and housing boom. During this period significant macroeconomic imbalances have emerged, with labour shortages having contributed to the emergence of a wage-price spiral and wage growth having outpaced that of productivity, leading to deteriorating competitiveness. Estonia's fiscal policy, which has particular importance given the constraints of the monetary policy regime, has been sound overall with budget surpluses since 2002 and low government debt. However, a tighter fiscal stance could have done more to counter the overheating tendencies of the economy and to correct the macroeconomic imbalances. Although the economy is now slowing, these imbalances are expected to moderate only gradually in coming years, with continuing tight labour market conditions, wage growth in excess of productivity growth, price pressures and persistent, albeit somewhat diminishing, external imbalances. The deceleration path is thus surrounded by downwards risks, though these are mitigated by the high degree of flexibility that the economy has hitherto demonstrated.

The macroeconomic scenario underlying the programme envisages that real GDP growth will moderate from 7½% in 2007 to 5¼% in 2008 and 6½% on average over the rest of the programme period. Assessed against currently available information[1], this scenario appears to be based on cautious growth assumptions for 2008 and plausible growth assumptions thereafter. The programme projects inflation to rise to 8½% in 2008 and remain high at 5½% in 2009, which appears realistic in the light of the recent surge in food prices and likely administered price increases. These projections show that Estonia will be making only limited progress towards nominal convergence. In addition, it is expected that wage growth will exceed that of productivity over most of the programme period. The external deficit is expected to narrow in line with the weakening of domestic demand growth from 14% of GDP in 2007 to around 10% in 2009 and around 8% thereafter; this is plausible, but subject to the risk that deteriorating competitiveness hampers this improvement. The overall assessment for 2008 and 2009 is that economic times will be neutral for the Estonian economy; however, taking into account tax elasticities there is a possibility that 2008 will still turn out to be "good" economic times in the sense of the Stability and Growth Pact.

For 2007, the general government surplus is estimated at 2.6% of GDP in the most recent update of the convergence programme, against a target of 1.2% of GDP set in the

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[1] The assessment takes notably into account the Commission services' autumn forecast and the Commission assessment of the October 2007 implementation report of the national reform programme.

previous update. The better outcome, expected also in the Commission services' autumn forecast, was largely due to the carry-over of the better-than-expected outcome in 2006, although revenue continued growing more rapidly than expenditure also in 2007. Budgetary implementation in 2007 was only partly in line with the invitation in the Council opinion of 27 February 2007 on the previous update of the convergence programme[2]. Although the budgetary surplus appears to be higher than planned, the structural balance (i.e. the cyclically-adjusted balance net of one-off and other temporary measures) is expected to have deteriorated compared with the previous year by above ½ percentage point of GDP, implying a pro-cyclical stance in good times. Moreover, the increase of expenditure via the supplementary budget adopted in December 2007 was inconsistent with fostering macroeconomic stability and the correction of the external imbalance.

The main goal of the programme's medium-term budgetary strategy is to foster macroeconomic stability and long-term sustainability of public finances by keeping the fiscal position in surplus and thus overachieving the medium-term objective (MTO), defined as structural balance. The general government headline surplus is expected to decline from 2.6% of GDP in 2007 to 1.3% in 2008 and subsequently to around and just below 1% in the outer years of the programme. The structural balance calculated according to the commonly agreed methodology will decrease from 1¼% of GDP in 2007 to ¾% in 2008 and increase again to 1½-1¼% of GDP beyond 2008. Compared to the previous update of the convergence programme, fiscal targets have been confirmed for 2008 and lowered by around ½ percentage point of GDP for subsequent years, against the background of a downward revision of economic projections and an upward revision of the inflation forecast. The reduction in the nominal surplus by about 2 percentage points of GDP over the programme period is attributable equally to a fall in the revenue-to-GDP ratio and a rise in the expenditure-to-GDP ratio. Revenues are expected to decline, driven primarily by gradual reductions in the income tax rate. Expenditures at the same time are expected to increase, with the largest impact arising from an increase in social payments, in particular pensions due to the adoption in 2007 of a more generous indexation rule.

The risks to the budgetary projections in the programme appear broadly balanced. On the one hand, the programme's macroeconomic assumptions are cautious for 2008, with the possibility that the budgetary outcome proves better than expected in the programme. The programme provides detailed information on envisaged revenue measures and tax projections seem plausible. On the other hand, despite an overall strong track record, there has been a practice in recent years to direct part of higher-than-expected revenues to increasing expenditures through supplementary budgets, thus not respecting set expenditure targets. If the economic slowdown proves to be more severe and/or protracted than in the programme scenario, this would also lead to more unfavourable public finances. In particular, were the credit-financed, domestically driven rapid growth of the Estonian economy to slow abruptly, or the composition of growth to change considerably towards a less tax-intensive growth pattern, the budget could come under pressure.

In view of this risk assessment, the projected budgetary policy seems sufficient to maintain the MTO with a good margin throughout the programme period, as envisaged in

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2 OJ C 72, 29.3.2007, p. 5.

the programme. However, the deterioration of the structural surplus in 2008 amounts to a fiscal expansion, which carries a risk that the fiscal policy stance implied by the programme may turn out to be pro-cyclical if the economy continues to grow at high rates. This would not be in line with the Stability and Growth Pact. Furthermore, at this stage of the cycle, when the economy has started to decelerate but substantial macroeconomic imbalances still persist, fiscal policy should avoid aggravating those imbalances.

Estonia appears to be at low risk with regard to the sustainability of public finances. The long-term budgetary impact of ageing is among the lowest in the EU and should remain so according to the programme, even taking into account the effect of the recent change in the pension indexation rule. 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 risks to the long-term sustainability of public finances.

Estonia's National Reform Programme (NRP) identified as key challenges the enhancing of R&D and innovation, as well as overcoming employment-related concerns. On 11 December 2007 the Commission adopted its Strategic Report on the renewed Lisbon strategy for growth and jobs, which included an assessment of the October 2007 implementation report of Estonia's NRP[3]. The Commission concluded that Estonia has been making very good progress in implementing its programme over the 2005-2007 period and advised Estonia to focus further efforts on improving macroeconomic stability and countering inflation; improving R&D and innovation; competition enforcement; active labour market policies and lifelong learning; labour law modernization and the promotion of flexible forms of work. The convergence programme seems to be consistent to some extent with the implementation report. In particular, the fiscal policy measures and the revision of the pension system, which have been announced in the NRP, are comprehensively assessed in the convergence programme update. However, a qualitative assessment of the overall impact of the national reform programme within the medium-term fiscal strategy is lacking. In addition, information on the direct budgetary costs and savings as well as projections associated with the main reforms envisaged in the NRP appear only partly provided.

Securing an orderly return to a balanced convergence path and ensuring continued smooth participation in ERM II requires determined policy efforts. Upon entry into the mechanism, Estonia undertook commitments related to fiscal, financial sector and structural policies. Fiscal performance has been overall strong in the ERM II period, although the recent fiscal stance was not particularly ambitious given the initial position and stage of economic cycle, having resulted in pro-cyclicality in 2007. Reserve and prudential requirements have been tightened to help contain rapid credit growth, but the direct impact on lending growth appears to be limited. Wage growth has picked up strongly both in private and public sector in the context of rapid economic growth and a tight labour market and represents currently the main challenge for the Estonian economy. Estonia planned measures to increase labour market flexibility in its NRP and has recently committed itself to introduce further measures to improve economy-wide productivity.

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3 Communication from the Commission to the European Council, "Strategic report on the renewed Lisbon strategy for growth and jobs: launching the new cycle (2008-2010)", 11.12.2007, COM(2007)803.

The overall conclusion is that the convergence programme aims at maintaining a sound budgetary position throughout the period with continued, albeit somewhat declining, surpluses above the MTO. The budgetary targets seem plausible. Macroeconomic imbalances that have accumulated in the economy during the years of high growth, notably wage growth exceeding that of productivity, price pressures and high net borrowing vis-à-vis the rest of the world, are expected to moderate only gradually and the deceleration path of the economy is surrounded by downwards risks. Setting budgetary strategy that aims at over-achieving the MTO is a step forward in addressing these macroeconomic challenges. Nevertheless, fiscal policy in 2007 appears to have been pro-cyclical and risks remaining so also in 2008 if Estonia continues to grow at high rates. It would be desirable to maintain a broadly neutral fiscal stance in 2008 and beyond, as it would support adjustment in the current phase of the cycle when imbalances accumulated during the period of very high growth still persist. The long-term sustainability of public finances is assessed to be at low risk.

Comparison of key macroeconomic and budgetary projections

		2006	2007	2008	2009	2010	2011
Real GDP (% change)	**CP Nov 2007**	**11.2**	**7.4**	**5.2**	**6.1**	**6.7**	**7.0**
	COM Nov 2007	11.2	7.8	6.4	6.2	n.a.	n.a.
	CP Dec 2006	*11.0*	*8.3*	*7.7*	*7.6*	*7.5*	*n.a.*
HICP inflation (%)	**CP Nov 2007**	**4.4**	**6.6**	**8.6**	**5.6**	**3.6**	**3.5**
	COM Nov 2007	4.4	6.3	7.3	4.8	n.a.	n.a.
	CP Dec 2006	*4.4*	*4.3*	*4.4*	*3.5*	*3.2*	*n.a.*
Output gap[1] (% of potential GDP)	**CP Nov 2007**	**3.6**	**2.7**	**0.1**	**-1.2**	**-1.5**	**-1.3**
	COM Nov 2007[2]	2.9	2.1	0.1	-1.7	n.a.	n.a.
	CP Dec 2006	*2.0*	*1.2*	*0.2*	*-0.3*	*-0.7*	*n.a.*
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	**CP Nov 2007**	**-13.2**	**-14.0**	**-9.9**	**-8.2**	**-7.8**	**-7.4**
	COM Nov 2007	-11.9	-13.6	-11.2	-9.6	n.a.	n.a.
	CP Dec 2006	*-10.2*	*-11.5*	*-9.9*	*-8.9*	*-7.2*	*n.a.*
General government balance (% of GDP)	**CP Nov 2007**	**3.6**	**2.6**	**1.3**	**1.0**	**0.9**	**0.8**
	COM Nov 2007	3.6	3.0	1.9	1.0	n.a.	n.a.
	CP Dec 2006	*2.6*	*1.2*	*1.3*	*1.6*	*1.5*	*n.a.*
Primary balance (% of GDP)	**CP Nov 2007**	**3.7**	**2.7**	**1.4**	**1.1**	**1.0**	**0.8**
	COM Nov 2007	3.7	3.1	2.1	1.1	n.a.	n.a.
	CP Dec 2006	*2.8*	*1.4*	*1.3*	*1.7*	*1.6*	*n.a.*
Cyclically-adjusted balance[1] (% of GDP)	**CP Nov 2007**	**2.5**	**1.8**	**1.3**	**1.4**	**1.3**	**1.2**
	COM Nov 2007	2.7	2.4	1.9	1.5	n.a.	n.a.
	CP Dec 2006	*2.0*	*0.8*	*1.2*	*1.7*	*1.7*	*n.a.*
Structural balance[3] (% of GDP)	**CP Nov 2007**	**1.8**	**1.2**	**0.8**	**1.4**	**1.3**	**1.2**
	COM Nov 2007	2.2	1.8	1.4	1.5	n.a.	n.a.
	CP Dec 2006	*1.4*	*0.4*	*1.2*	*1.7*	*1.7*	*n.a.*
Government gross debt (% of GDP)	**CP Nov 2007**	**4.0**	**2.7**	**2.3**	**2.0**	**1.8**	**1.6**
	COM Nov 2007	4.0	2.8	2.3	2.0	n.a.	n.a.
	CP Dec 2006	*3.7*	*2.6*	*2.3*	*2.1*	*1.9*	*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 8.8%, 8.7%, 8.4% and 8.1% respectively in the period 2006-2009.

[3]Cyclically-adjusted balance excluding one-off and other temporary measures. One-off and other temporary measures are 0.7% of GDP in 2006, 0.6% in 2007 and 0.5% in 2008; all surplus-increasing according to the most recent programme, of which the Commission services consider 0.2% of GDP in 2006 not to be of a one-off nature.

Source:

Convergence programme (CP); Commission services' autumn 2007 economic forecasts (COM); Commission services' calculations

1. INTRODUCTION

The 2007 update of the Estonian convergence programme, covering the period 2007-2011, was adopted by the Estonian government on 29 November 2007 and was submitted to the Commission and the Council the same day[4]. Economic projections presented in the programme reflect the authorities‘ autumn forecast which was finalised just prior to the adoption of the programme. The programme is based on the government‘s medium-term budgetary strategy covering period 2008-2011 that was adopted on 31 May 2007. The budgetary strategy in turn follows the government‘s objectives and policies as specified in the coalition agreement of the current government which assumed office on 5 April 2007. Budgetary projections for 2008 are based on the budget for the respective year which was adopted by the Parliament of Estonia on 13 December 2007.

This assessment is further structured as follows. Section 2 discusses the key challenges for public finances in Estonia, with a particular focus on structural change and the sustainability challenge. 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. Section 4 analyses budgetary implementation in the year 2007 and the medium-term budgetary strategy outlined in the new programme. Taking into account risks attached to the budgetary targets, it also assesses the appropriateness of the fiscal stance and the country's position in relation to the budgetary objectives of the Stability and Growth Pact. Section 5 reviews recent debt developments and medium-term prospects, as well as the long-term sustainability of public finances. Section 6 discusses the quality of public finances and structural reforms, while Section 7 analyses the consistency of the budgetary strategy outlined in the programme with the national reform programme and its implementation reports and with the broad economic policy guidelines. Section 8 reviews progress in implementing Estonia's ERM II commitments. The annexes provide a detailed assessment of compliance with the code of conduct[5], including an overview of the summary tables from the programme (Annex 1) and selected key indicators of past economic performance (Annex 2).

[4] The English language translation was submitted on 11 January 2008.

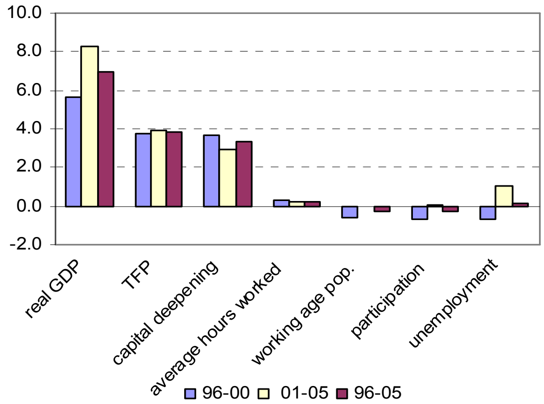
[5] Opinion of the Economic and Financial Committee on the "Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes" endoresed by the ECOFIN Council of 11 October 2005.

2. KEY CHALLENGES FOR PUBLIC FINANCES WITH A PARTICULAR FOCUS ON STRUCTURAL CHANGE AND THE SUSTAINABILITY CHALLENGE IN ESTONIA

The present section is in three parts, all related to the challenges which were identified in last year assessment of Estonia's December 2006 convergence programme update. The first part deepens the results of the growth accounting exercise initiated in the Commission's assessment, by extending the analysis to the sectoral level. On the basis of the results of this assessment, the second part discusses the main challenges faced by the Estonian economy, i.e. the macroeconomic imbalances and capacity constraints resulting from several years of high growth rates. The third part discusses the scope to address the excessive domestic demand, notably through restrained fiscal policy and fiscal surveillance.

2.1. Anatomy of medium-term growth at sector level

Figure 1: Real GDP growth and its components



Source: Commission Services

The growth accounting exercise undertaken in the assessment of Estonia's previous convergence programme[6] indicated that the dominant contributions to the average annual increase in real GDP in Estonia over the ten years to 2005 (6.9%) came from total factor productivity (TFP – 3.8%) and from capital-deepening (3.3%)[7]. The contribution from extra labour input was marginally negative (0.1%), and in some sub-periods slightly positive (2001-2005), consistent with the process of labour shedding at least until 2000 (see Figure 1).

The aim of the current exercise[8] is to broaden the growth accounting exercise to sectoral level with the aim of identifying whether the sectors which have recently contributed most to the expansion of output can continue expanding under increasing labour supply

[6] See Economic Assessment of the Convergence Programme of Estonia (update of December 2006) of 27 February 2007, Section 2.2.

[7] For the 2001-2005 period, the contribution to GDP growth ($\Delta Y/Y$ – 8.3%), of TFP ($\Delta TFP/TFP$), of capital ($\alpha\Delta K/K$) and of employment ($(1-\alpha)\Delta L/L$) are respectively 3.9%, 2.9% and 1.3%.

[8] Assuming a Cobb-Douglas-production function $Y=AL^{(1-\alpha)}K^{\alpha}$, where Y denotes the level of GDP, A total factor productivity, L employment (the average hours worked per person employed), K the capital stock and α the employment share (employees compensation) in GVA, and where $\Delta Y/Y = \alpha\Delta L/L + (1-\alpha)\Delta K/K + \Delta TFP/TFP$.

constraints and possibly a less favourable environment for attracting foreign direct investment inflows.

2.1.1. *Main developments in sectoral value-added over the 1995-2005 period*[9]

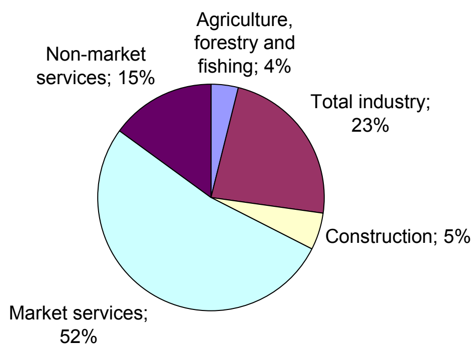
Output measured by value-added (VA) at 2000 prices increased by 95% over the 1995-2005 period. Developments over the reference period included:

- the stabilisation of output of the agricultural and forestry sector;
- a more than doubling in size of the construction and market services sectors, closely followed by the expansion of industry. Altogether the output share of market services and of construction expanded (respectively from 49.5% to 54.5% and from 5% to 6%), while the share of industry remained broadly stable, and with high losses in shares of non-market services and, in particular, in agriculture.

Estonia now closely resembles Western Europe in terms of sectoral economic structure, with a largely dominant market services sector (Figure 2)[10], and traditional tradable sectors contributing to less than a third of the overall value-added. Nevertheless, in 2005, Estonian GDP per capita (at current prices and purchasing parity standard) was only 60 percent of the EU-25 average.

2.1.1.1. Labour market

Figure 2: Average shares of the main economic sectors in the value-added in 2000-2006 (at constant prices)



<u>Source</u>: *Statistics Estonia – Commission Services*

Total employment in Estonia declined by 4% over the 1995-2005 period. It reached its lowest level in 2000 in the aftermath of the Russian crisis and recovered thereafter[11]. But this was compatible with an unequal sectoral development. The construction and total

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[9] EU KLEMS provides gross value added data for the 1995-2005 period.

[10] Manufacturing 18%, wholesale/retail trade 14%, transport storage/communication 13%, real estate/business services 19%.

[11] Over the whole 1995-2005 period, agriculture (together with forestry and fishing) and total industry lost respectively 50% and 13% of their workforce. Construction, market services (in particular hotels and restaurants as well as real estate, renting and business activities) as well as non-market services registered employment growth respectively of 41%, 6% and 3%. In 2006, total employment exceeded its 1995 level.

market services sectors experienced a progressive increase of their shares in total employment and in their contribution to growth (see Table 1), although at higher pace for construction. The employment share of non-market services also increased. Conversely, industry registered a slow diminution till 2002, before partially and temporarily recovering thereafter, while that of agriculture and fishing declined rapidly and continuously.

2.1.1.2. Capital

Gross capital formation in Estonia was equivalent to around 34% of overall value-added in real terms over the 2001-2005 period, and was increasing towards the end of the period. Gross capital formation was mainly concentrated in market services, notably in the real estate, renting and business activities, in transport storage and communications as well as in the wholesale and retail trade sector. FDI in manufacturing, although sizeable in absolute value, represented only 16% of the total over the 1995-2006 period.

Estonia has been quite successful in attracting FDI, which is an important factor of knowledge and technology transfer, and therefore of TFP growth. At the end of 2006, its accumulated stock of FDI was above 70% of GDP (in nominal terms), approximately twice that of the other two Baltic States. But foreign direct investments had again been mainly (above 75% of total FDIs) made into the market services sector (48% in financial intermediation), with the bulk of FDI (above 80%) coming from the neighbouring Nordic countries.

2.1.1.3. Total factor productivity analysis

Results of analysing TFP contributions to growth over the 2001-2005 period at sectoral level are summarised in Table 1 below. The manufacturing sector in Estonia, more exposed than any other sector to international competition, registered a high TFP contribution to growth. But the TFP growth contribution was even higher in market services, notably in financial intermediation and in wholesale and retail trade sectors, which received considerable FDI inflows in recent years.

Table 1: Growth accounting by subsectors 2001-2005 (annual average)

	Agriculture	Mining	Manufacturing	Electricity	Construction	Wholesale - Retail	Hotels	Transport	Financial intermediation	Real estate	Non-market services	Total
$\alpha*(\Delta L/L)$	-2.7%	0.6%	2.0%	-1.0%	4.1%	0.1%	1.8%	-0.4%	-1.2%	1.5%	2.7%	0.9%
$(1-\alpha)*(\Delta K/K)$	4.3%	2.4%	2.9%	7.8%	2.5%	3.5%	2.2%	4.4%	1.0%	5.8%	-0.5%	3.0%
$\Delta TFP/TFP$	-1.6%	3.5%	5.9%	-3.9%	2.2%	9.0%	5.1%	2.9%	19.5%	0.0%	1.0%	4.3%
$\Delta Y/Y$	0.0%	6.5%	10.8%	2.8%	8.8%	12.5%	9.2%	6.9%	19.2%	7.4%	3.2%	8.2%

Note: the heading “agriculture” also covers “hunting” and “forestry”. “Mining” also covers “quarrying”. The figures for “electricity” include those of “gas” and “water” supply. “Wholesale” is meant for “wholesale and retail trade”. “Hotels” also cover “restaurants”. Figures for “transport” include those for “post” and “communication”. “Real estate” also covers “other businesses”.

Source : EU KLEMS – Commission services calculations

TFP growth is estimated to have been non-existent in the real estate and other businesses sector, despite the significant capital formation, including FDI entering the sector. This most probably reflects a “real estate bubble effect”, as high income expectations and the prevailing monetary conditions (low or even negative real interest rates) fed into a credit boom and a bullish real-estate investment activity financed by foreign banks.

Estonia‘s economic openness (over the 2001-2005 period, foreign trade turnover[12] was equivalent to 177% of value-added for Estonia, compared with about 110% and 125% in the other Baltic States) also contributed to the high TFP growth values as well as to the shift towards higher export product quality[13]: the unit value ratio of Estonia‘s exports relative to world exports rose quite rapidly, reflecting increasing nominal unit labour costs, in particular in the low-skilled segments of the economy, but also higher export quality, indicating that external competitiveness was still broadly adequate[14-15].

Nevertheless, in 2006, Estonia’s investment rate in technology development and knowledge creation, as well as its innovation rate, were still below the EU25 average, except in tertiary education and ICT expenditure. In the longer run, greater development of the “knowledge economy” and moving further up the technology ladder in production and exports seems to depend on maintaining sufficient levels of FDI inflows in the most tradable sectors[16], on further increasing R&D and innovation-related expenditure, both at private and public levels, as well as on further improving the quality of education.

2.1.2. Conclusions

Overall, Estonia has been very successful in terms of catching-up, with GDP per capita in purchasing power standards increasing from just above 40% of EU-27 average in 1997 to above 70% a decade later. The main factor behind Estonia’s catch-up in GDP has been TFP growth, although capital deepening also played an important role. Productivity increases were mainly driven by privatisation, high firm turnover and reallocation of output towards firms with faster productivity. Growth and productivity gains were high in financial intermediation as well as in wholesale and retail trade, and to a lesser extent in manufacturing. Estonia’s domestic investment, as well as FDI flows, were mostly directed towards the less or non-tradable sectors of the economy[17], raising the issue of the sufficiency of external sustainability in the medium term.

Further productivity increases are needed to close the gap with the EU average. However, with the privatisation process almost completed and with the sectoral economic structure resembling that of Western Europe, productivity growth may slow down in the coming years. Estonia now has to improve productivity in all sectors, rather

12 "Foreign trade turnover" corresponds to the sum of exports and imports of goods and services in the year under review.

13 High technology industries included machinery, electrical and optical equipment, and transport equipment.

14 Expressed in logarithms, Estonia’s UVR rose from below zero in 1994 to 0.8 in 2004 (a value of zero means country value equals world unit value). UVR is the unit value of a country’s exports divided by the unit value of world exports.

15 IMF (2006), Republic of Estonia - Selected issues, November 2006.

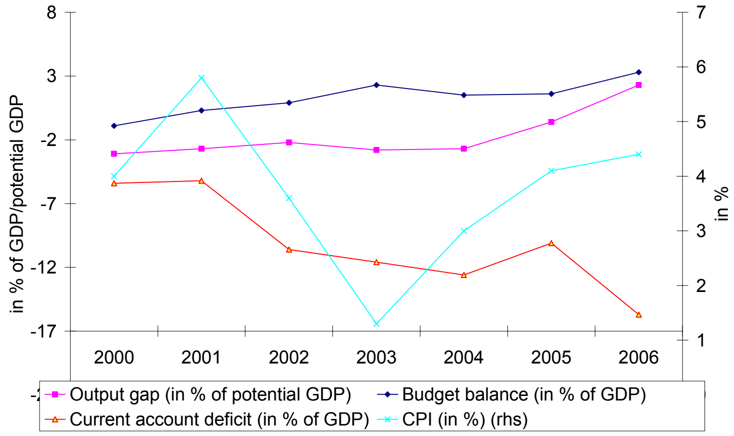
16 In 2006, the country’s exports of services represented only a third of its exports of goods.

17 Non-tradable sectors were repressed in the era of the central planning.

than further re-allocating resources towards the non-tradable sectors – indeed, a reallocation of resources towards its tradable sectors would even be warranted.

TFP growth predominantly came from the non-tradable sector, implying that inflation in Estonia did not stem from the so-called Balassa-Samuelson effect. Inflation essentially resulted from the stimulation to demand growth from financial convergence, i.e. the sudden access to cheap foreign credit and conventional price level convergence as part of the real convergence process.

Figure 3: Output gaps, current account deficit, CPI and budget balance in 2000-2006



Source: Circa – Bank of Estonia

The positive output gap (see Figure 3), induced by strong FDI inflows and the exceptional TFP developments in the financial intermediation sector, indeed also reflected the accommodative monetary conditions experienced in recent years, while the ample liquidity from abroad was one of the driving factors behind the buoyant real estate investment activity. In the short term, the demand expansion has fed into rising inflation and large external deficits. In terms of financing, the debt component of the International Investment Position (IIP) has considerably increased (see below), augmenting the economy‘s external vulnerability and highlighting the long-term external sustainability concerns.

Finally, after several years of rapid growth, Estonia's economy has been facing capacity constraints, in particular in the progressive tightening of the labour market, which was aggravating inflation and created risks to competitiveness. In particular, from the end of 2004, the acceleration of growth was indeed accompanied by stronger employment growth, especially in the non-tradable sectors (construction, hotels and restaurants, transport, storage and communications, real estate and business activities, as well as in the wholesale and retail trade sectors), and by declining unemployment. High employment growth led to an employment rate of 68% in 2006, total employment exceeded its 1995 level, and unemployment declined sharply, dipping below 6% of the labour force in 2006. This is another feature which raises concerns on the sustainability of the past high rates of GDP growth.

2.2. The stabilisation and sustainability challenges

2.2.1. Overheating signs

From 2005, a combination of growth above potential, accelerating inflation and large external deficits indicated that Estonia's economy was overheating. Monetary conditions, which became progressively expansionary from 2000, combined with high income expectations in recent years, resulted in a credit boom[18] and bullish real-estate investment activity financed by foreign banks. Asset prices soared and at the same time optimistic expectations about future income, as wages strongly increased, boosted domestic demand.[19] However, in the first half of 2007, through a progressive credit growth decrease induced by tightened conditions and higher interest rates from mid-2006, a slowdown developed in investment and consumption, and a moderation of demand was unfolding (with real GDP growth of 7.9% y-o-y during first three quarters of 2007). Domestic demand was however still strong in mid-2007 and, in the short run, was not expected to dampen down the still accelerating inflation (6.7% for 2007) nor to substantially reduce the large external imbalances.

Box 1: The macroeconomic effects of rapid financial convergence

EU membership and strong presence of foreign banks accelerated financial convergence in most RAMS. This has improved availability of credit to domestic borrowers, including households. As a result, many RAMS are going through periods of rapid private credit growth, in many cases financed through external borrowing by their commercial banks. Domestic private credit growth has been particularly strong in the Baltic countries and Bulgaria in recent years, reaching 33.1% y-o-y for loans to non-financial sector in Estonia in December 2007. Financial convergence tends to improve the capital allocation efficiency and, thus, enhances the growth potential.

Recent research in the European Commission points to a mechanism through which financial convergence may also influence real exchange rate and current account trends in RAMS. Results of model-based simulations show that improved access to credit, while leaving TFP growth unchanged, leads to a persistent real appreciation and a widening of the current account deficit in the short to medium run —just like in the case of the Balassa-Samuelson (B-S) effect (Székely and Watson, 2007). The longer-run implications are, however, markedly different from those of the B-S effect, where the real appreciation is due to a productivity shock in the tradable sector. In the longer run, when the impact of the improved access to credit is over, the real exchange rate returns to a level that is slightly more depreciated than in the baseline. The current account balance also starts to improve and in the long run returns to the same level as in the baseline. The faster the financial convergence the larger the swings in the real exchange rate and the current account balance are likely to be.

These results also indicate the vulnerabilities rapid financial development and integration can create in RAMS. When prices are sticky the exchange rate regime matters in the short run: a fixed exchange rate regime generates a larger current account deficit than a flexible exchange rate regime. The dynamics will depend on several factors, and trade-offs between these. These factors include the stickiness of prices, the extent of unhedged balance sheet exposures, and the degree of nominal flexibility afforded by the exchange rate regime.

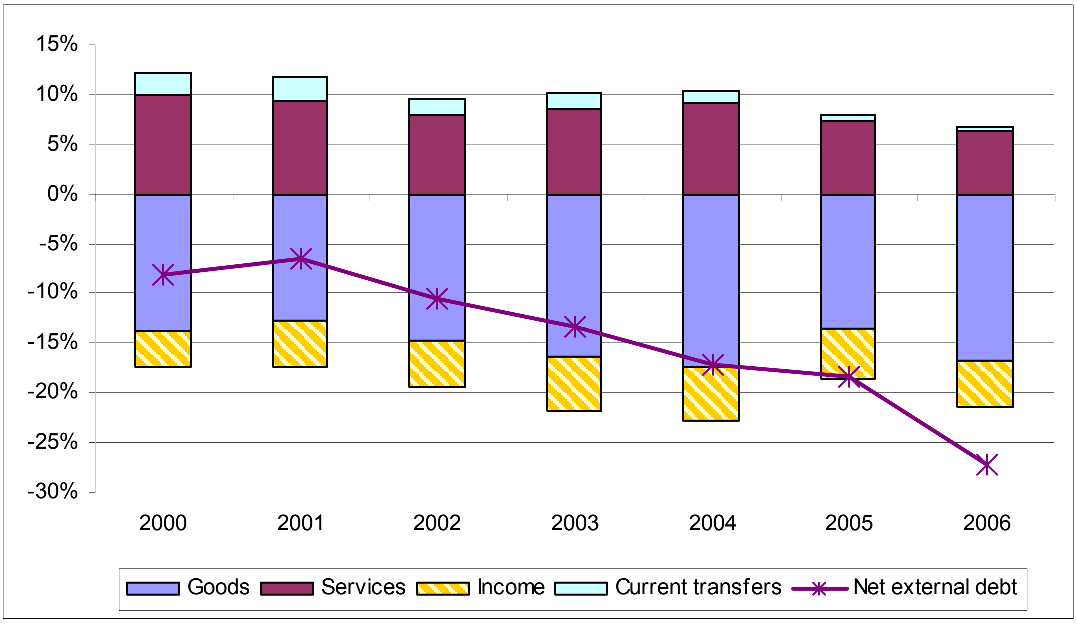
Székely, István P. and Maxwell Watson (2007), Growth and Economic Policy: Are There Speed Limits to Real Convergence? European Economy. Economic Papers. 294. December 2007. European Commission DG ECFIN.

[18] Domestic credit growth to non-government and broad money growth exceeded respectively 30% and 20% on average (y-o-y) over the 2000-2006 period.

[19] Inflationary pressures were expected to persist because of the rapid growth of earnings and consumption, planned administrative price increases, alignment of excise tax rates to EU legislation as well as food and oil prices increases, and motivated further wage increases.

2.2.2. External imbalances

Figure 4: Net external debt and composition of the external balance in% of GDP



<u>Source</u>: *Eurostat*

From 2002, the current account deficit widened sharply and reached double digit levels. It widened further in 2006 with the increase of credit and GDP growth in 2005. These large current account deficits (see Figure 4), mainly constituted of goods, largely reflected investment in the real-estate-related sectors of Estonia's economy.[20] Domestic private saving in recent years, although high (around 18% of GDP in 2006) by EU standards, was insufficient to finance private investment (33.4% of GDP in 2006). On the other hand, these large current account deficits have made Estonia dependent on foreign funding and have made it more vulnerable to capital outflows, even though the country's external debt is predominantly long term. Most of the current account deficit has been financed by intra-group lending by Nordic banks to their subsidiaries and branches in Estonia.

In parallel, the share of net FDIs, which are by essence less subject to abrupt reversal than short-term debt, have been on a decreasing trend. In 2006, reinvested earnings by foreign investors - despite their exceptional level of 8% of GDP - were largely offset by growing Estonian investment abroad at around 6% of GDP. The latter was mainly directed to neighbouring Latvia and Lithuania (respectively 34% and 31% of the total) and to the financial intermediation (46%) and real-estate (25%) sectors.

The debt component of the International Investment Position of Estonia therefore correspondingly increased. By end-2006 it had reached 96% of GDP in gross terms and 27% of GDP in net terms (see Figure 4 – "Net external debt"). Banks in Estonia have now considerable exposure to the real-estate market. Another element of vulnerability is the high share of foreign currency denominated loans (about 80% in 2006). However, so far, despite a progressive leveraging of corporate and household's balance sheets, loan

[20] However, a significant part of the deficit (about 5% of GDP in 2006) consists of reinvested profits, facilitated inter alia by favourable taxation of retained profits.

performance has been satisfactory, while strong prudential and supervisory management is in place.

The largely foreign-owned banking sector (mostly Nordic banks) has been reassuring, since the banking sector is well-capitalised and has deep liquidity to cope with possible shocks. Paradoxically, it has also exposed the country to contagion risks from mature markets, in particular in the context of the current global turmoil.

2.2.3. Labour market constraints

2.2.3.1. Labour supply

In 2006, after several months of largely beyond-potential expansion, labour shortages appeared in many sectors (including manufacturing), driving up wages and unit labour costs. International labour mobility resulting from the opening of EU labour markets, overall beneficial for the economy in the long run, coincided with the stage of the economic cycle and exacerbated those developments. Moreover, structural problems, such as skills mismatch and ageing, became important impediments to economic growth.

Optimizing the use of the existing human resources is therefore an important element of Estonia's growth strategy committed to in the Estonian Action Plan for Growth and Jobs. Estonia has recently eased the constraints affecting the inflow of workers from non-EU countries. Significant progress was also made in the labour market, in particular in 2006, when 26,700 formerly inactive people (7%, of which many were formerly retired) re-entered the labour market. But this mainly reflected the strong correlation between economic growth and employment dynamics, and the corresponding rising salaries. The high unemployment rate for young people (12% in 2006) and for non-ethnic Estonians (9.7% in 2006) remained problematic. The low-skilled structural unemployment was still concentrated in regions that most suffered from transition. Finally, further flexibility and transparency in the country's labour legislation[21] was necessary to facilitate the transfer of resources to the more productive or export-oriented sectors, as well as to support declining productivity gains.

2.2.3.2. Wages

Wage bargaining mainly takes place at enterprise level in Estonia[22]. Market adjustments to labour shortages were therefore reflected in sharp wage fluctuations (nominal wage growth of 16.5% in 2006 and 20.4% on average in 2007). These sharp wage increases, in particular in the construction and in the health sectors, partly resulted from the international labour mobility, mainly to neighbouring Finland, where wages are several times higher. Companies were trying to keep their workers, while the negotiation power of employees significantly increased, allowing workers to obtain strong wage increases.

2.2.3.3. Competitiveness

The indicators of external competitiveness have so far been mixed. Estonia's market shares have expanded by about 40% since 2000. But, in 2006, the average nominal

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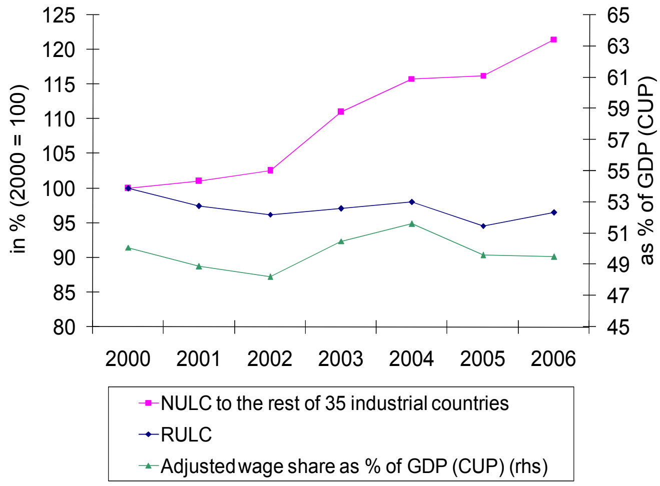
[21] 20% of firms in Estonia report labour regulations as a major obstacle to their activity. Estonia still shares with other EU countries a rather rigid labour legal framework (World Bank 2007).

[22] (Maiväli and Lubenets, 2007).

wages grew considerably faster (about two times) than productivity. This resulted in an increase in nominal unit labour costs and a worsening of cost competitiveness indicators for the Estonian industry (see Figure 5). This has mainly affected the low-skilled sectors where investors were attracted by the initially low wage levels (machinery, textile), or where the price of raw materials (from Russia) significantly increased in recent months (wood). Real unit labour costs and the wage share in GDP at current prices were however stable, indicating that firms' profitability had not yet been affected.

Figure 5: Nominal and real unit labour costs and wage share in GDP



Source: AMECO

2.3. The role of fiscal policy in addressing the existing challenges

In the absence of an independent monetary policy, restrictive fiscal policy has a heightened responsibility to address the overheating and external imbalances challenges. Fiscal tightening can indeed be used to reduce domestic expenditure and slow the real appreciation caused by inflationary pressures, thereby reducing the external imbalance. Moreover, in a situation of high external imbalances, high government savings are expected to partially compensate for the deficit of private savings over private investment, in particular when the latter contains a high non-tradable or residential component (40% in the case of Estonia). Fiscal policy tightening thus serves as a direct contributor to reducing the aggregate domestic saving-investment imbalance. The direct impact of fiscal policy on Estonia's economic performance is however relatively limited, given the modest size of the government and the openness of the economy. Nevertheless, given the country's currency board regime, fiscal policy plays a major signalling role to the private sector as a communication of adjustment need and also as a signal of policy credibility internationally, while the adoption of prudent fiscal policies is also of intrinsic importance.

Estonian public finances have been strong in recent years, posting fiscal surpluses since 2002 (see Figure 6), despite the fact that until 2007 state budgets were targeting nominal balance of revenues and expenditures.[23] Better-than-expected outcomes originated largely from higher-than-forecasted budget revenues (see Figure 6). High surpluses allowed reducing further the already low government debt, which stood at 4 percent of

[23] In 2006, the government surplus was equivalent to 3.6% of GDP, the primary balance to 3.7% of GDP and the structural balance to 1.8% of GDP.

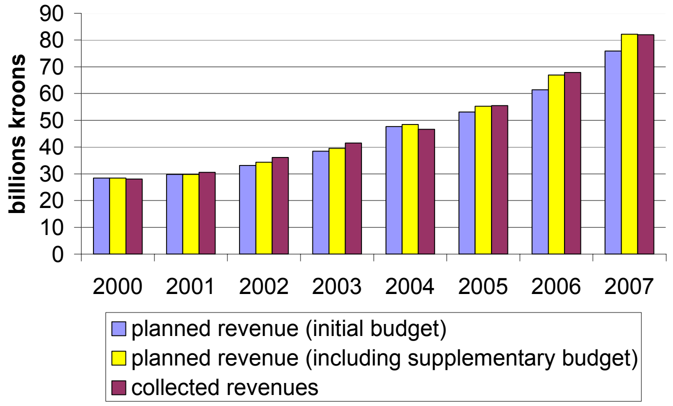
GDP as of end-2006, and is expected to fall below 3 percent of GDP in 2007. Financial assets accumulated by the general government exceeded 16 percent of GDP by end-2006. Nevertheless, the practice of recent years, where higher-than-expected revenues were partly used to increase expenditures via supplementary budgets, added a pro-cyclical impulse to the economy. Moreover, in terms of structural balance, the over-performance was in general more moderate, as there were several surplus-increasing one-offs.

2.3.1. Public finances

2.3.1.1. Revenue

The share of total general government revenue in GDP oscillated between 35% and 36½% over the 2000-2006 period,[24-25] with peak levels in 2003 and 2006. In 2006, the tax-to-GDP ratio was close to 31%, i.e. significantly below the EU-average, while the share of indirect taxation was relatively high (above 40% of the total). Both indicators reflected the authorities' willingness to limit labour taxation and to support growth. This clearly supported investment, job creation and participation

Figure 6: Revenues in the initial budget compared with collected revenues



Source: Ministry of Finance

in the labour market. However, despite the progressive reduction in the flat personal and corporate income tax rate in recent years[26], tax revenues increased, mainly reflecting real GDP growth higher than expected, a higher efficiency in collecting taxes as well as measures to reduce undeclared pay and illicit goods markets. The magnitude of growth in revenues and overachievement of targets in recent years is illustrated in Figure 6.[27] However, an important question is whether such high growth in budget revenues will continue in coming years, if economic growth significantly slows down.

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24 EU27 average is 45%.

25 EU funds (net) contributed to around 2% of GDP on average in this ratio (but on a declining trend) over the 2004-2006 period.

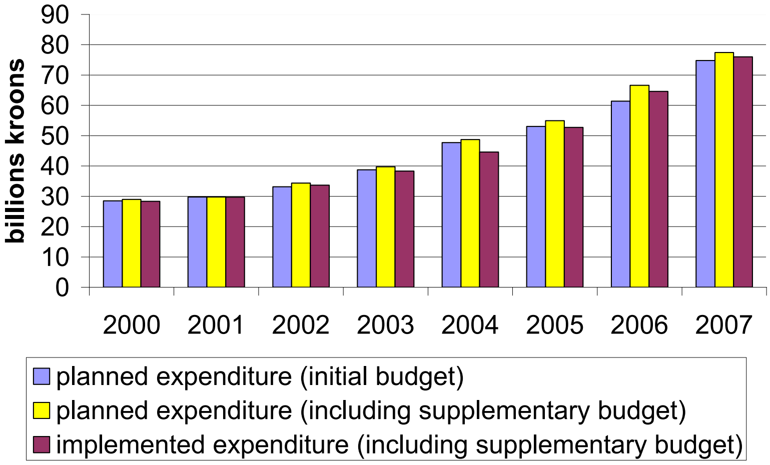
26 From 26% in 2005 to 22% in 2007. For companies, the tax rate on retained earnings is zero and distributed profits in gross terms are taxed at the same unique rate as personal income.

27 Note that revenues cover only central government and social security funds and that actual outcomes are measured on a cash basis. The chart also compares revenues of the initial budget (adopted usually in November or December before the beginning of the fiscal year), without taking into account supplementary budgets that have often been adopted in late summer to spend the proceeds of additional revenues.

There is also some room for improving efficiency, including by removing remaining limited fiscal incentives to household credit, in particular the deductibility of mortgage interest from taxable income and the government guarantees to certain target groups. This has contributed to high domestic demand, notably in the housing and the real estate-related sectors.[28]

2.3.1.2. Expenditure

Figure 7: Expenditure in the initial budget compared with implemented expenditure



Source: Ministry of Finance

The ratio of public expenditure to GDP slightly decreased from 34½% in 2003 to 33% in 2006.[29] In 2006, general government final consumption expenditure[30] and social benefits respectively amounted to 16% and 9% of GDP, which are very low levels by EU-27 standards (respectively 21% and 16%). Capital expenditure (4½% of GDP) was higher than the EU-27 average. However, in 2006 and 2007, the practice of recent years to direct part of higher-than-expected revenues to increasing expenditures through supplementary budgets resulted in higher expenditure than initially planned (see Figure 7).

Public employment increased in 2006, with an additional 8,000 jobs (1.3% of total employment), and with the share of that sector in total employment rising to over 20%. The initial 2007 budget already foresaw an increase in current expenditure by over 12 percent in real terms, comprising large public sector wages increases. These plans, although motivated by the necessity to retain public labour force, added to existing demand pressures: after several years of lagging behind the private sector, public sector wages increased strongly, particularly in the healthcare system. Wage growth in the public sector is expected to remain strong in 2008, despite central bank calls to limit wage increases to productivity growth. Finally, upwards changes to the principles of

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28 Reallocating resources to the most tradable sectors of Estonia's economy may imply that the KredEx foundation reinforces its collateral policy to business and exporters, while further limiting operations in favour of households, and that the mortgage interest deductibility for households is abolished.

29 EU27 average is close to 47%.

30 General government final consumption expenditure consists of expenditure incurred by resident general government units on goods or services that are used for the direct satisfaction of individual needs or wants or the collective needs of members of the community.

pension indexation have recently been adopted, so as to reduce the need for ad-hoc increases in the future.

Education expenditure, which is essential for ensuring higher participation and solving the skills problems in the labour market[31], was above the EU27 average. However, government expenditure for R&D, even though substantially increased (by around 50%) in 2006, was still far from the overall Lisbon target in this area.

2.3.2. The 2007 Budgetary Strategy

In their Coalition Programme and their 2007 three-year Budgetary Strategy, the Estonian authorities committed themselves to pursuing a strict budgetary policy with a budget surplus and a reduction of the government debt. However, at the same time certain elements of Estonia's fiscal policy indicated that the tax incentives (e.g. the planned lowering of the income tax rates)[32] and fiscal policy (of which an increase in expenditure, including in wages and pensions), as well as the limited budget surpluses programmed till 2011, if adhered to, could reinforce domestic demand. Fiscal policy could therefore fall short of sufficiently countering inflationary pressures and of reducing external deficit in the economy, although these seemed likely to be receding. At the same time, the planned weakening of the budgetary surplus in 2007, compared with the 2006 outcome, in particular in structural terms, implied a pro-cyclical stance of fiscal policy during good economic times.

2.3.3. Conclusions

Estonia's economy has strongly expanded and signs of overheating have appeared: macroeconomic imbalances, rising inflation, as well as capacity constraints in particular on the labour market. These overheating pressures may start hampering the country's further economic catching up with the other EU Member States.

On the supply-side, Estonia is still committed to implement bold structural reforms to facilitate the adjustment of its markets, notably of its labour market, as well as to foster its competitiveness through research, development and innovation. With respect to labour markets, it seems prudent to reinforce active labour market policies, to increase the supply of skilled labour by implementing a comprehensive lifelong learning strategy responding to labour market needs as well as to reduce labour market rigidities by urgent progress towards labour law modernization and by promoting flexible forms of work. As regards the product markets, ensuring that R&D results are translated into innovative services or products, encouraging closer cooperation between universities and enterprises and strengthening competition enforcement would also be beneficial. These measures are indeed expected to foster resources reallocation and sustainable growth, while contributing to the stability of the existing monetary framework. However, the reforms committed to in the Estonian Action Plan for Growth and Jobs are intrinsically long term, while the current macro-economic imbalances are predominantly short-term to medium-term concerns.

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[31] See the Estonian Action Plan for Growth and Jobs.

[32] Personal and corporate income tax rates will be stepwise reduced to 18% by 2011. This will only be partly compensated by higher contributions elsewhere. Overall, by 2011, Estonia's general budget should incur some losses.

Fiscal policy appears therefore as a necessary tool to rein in wage inflation and contain excessive domestic demand. Estonia's fiscal policy has posted budget surpluses since 2002 and has a low government debt. However, the fiscal stance has risked falling short of the determination needed to counter the overheating tendencies of the economy and to correct the external imbalances. Certain elements of Estonia's fiscal policy indeed indicate that the tax incentives and political signals may have contributed to macroeconomic imbalances, instead of limiting them.

In 2007, signs of slowdown have become more obvious, and the moderation of demand is expected to become more marked. Fiscal policy needs to preserve flexibility, in particular in the perspective of slower revenue growth and of higher age- and health-related expenditure. Moreover, in the context of the uncertainties surrounding the global financial sector developments, risks have grown and prudent strategies need to be on the agenda, as suggested by the recent weakening of Estonia's outlook assessment by several international rating agencies.

3. MACROECONOMIC OUTLOOK

This section assesses the plausibility of the macroeconomic scenario (economic activity, labour market, costs and prices) underpinning the public finance projections of the programme. It also examines whether good or bad economic times in the sense of the Stability and Growth Pact prevail. Finally, it describes macroeconomic vulnerabilities and how they are expected to develop according to the programme.

3.1. Economic activity

The Estonian economy started to decelerate in the first half of 2007 with growth rates decreasing rather abruptly from double-digit levels to 7.6% y-o-y in the second quarter and 6.4% y-o-y in the third quarter. As can be seen in Table 2, the projections[33] by the Estonian authorities in the updated programme foresee economic growth to slow to 7½% for 2007 as a whole and further to just above 5% in 2008, with subsequent recovery of the growth rates in the outer years of the programme. The slowing is expected to reflect the deceleration of domestic demand, which is in turn related primarily to the receding credit and real estate boom. Domestic demand growth is expected to decline from above 16% in 2006 and 11% in 2007 to just 4½% in 2008 and above 5% in 2009; fixed investments are particularly expected to moderate to 2½% in 2008. The contribution of net exports is expected to turn positive in 2008 and 2009, in line with the lower growth of domestic demand, but become again negative thereafter in parallel with its strengthening.

The output gap, as recalculated by Commission services based on the information in the programme, is expected to close in 2008 and turn negative in 2009-2011. Economic growth is thus expected to decrease in the programme compared with most recent years, returning broadly to the level it had before the positive shock of EU accession and financial deepening occurred, thus representing a "soft landing" scenario. Nevertheless imbalances that have been accumulated during the recent period of rapid growth will persist with tight labour market conditions, compensation of employees continuing to grow faster than labour productivity in coming years and high, although diminishing, external imbalances.

[33] The external outlook behind the programme's scenario is in line with that in the Commission services' autumn 2007 forecast.

Table 2: Comparison of macroeconomic developments and forecasts

	2007		2008		2009		2010	2011
	COM	CP	COM	CP	COM	CP	CP	CP
Real GDP (% change)	7.8	7.4	6.4	5.2	6.2	6.1	6.7	7.0
Private consumption (% change)	12.9	11.8	7.7	5.6	6.7	5.4	7.3	7.5
Gross fixed capital formation (% change)	11.9	10.0	4.6	2.6	4.9	4.7	6.6	7.6
Exports of goods and services (% change)	5.8	2.5	7.5	6.4	7.1	7.7	7.7	7.7
Imports of goods and services (% change)	7.4	3.5	6.8	4.7	6.2	5.9	7.3	7.5
Contributions to real GDP growth:								
- Final domestic demand	12.4	11.0	6.9	4.6	6.3	5.2	7.1	7.6
- Change in inventories	-2.1	0.0	0.0	-0.1	0.0	0.1	0.2	0.1
- Net exports	-2.5	-1.4	-0.5	0.7	-0.1	0.7	-0.6	-0.7
Output gap[1]	2.1	2.7	0.1	0.1	-1.7	-1.2	-1.5	-1.3
Employment (% change)	1.1	1.2	0.2	0.4	0.0	0.0	0.0	0.0
Unemployment rate (%)	4.9	5.2	4.8	5.3	4.9	5.3	5.3	5.3
Labour productivity (% change)	6.6	6.1	6.2	4.7	6.2	6.1	6.7	7.0
HICP inflation (%)	6.3	6.6	7.3	8.6	4.8	5.6	3.6	3.5
GDP deflator (% change)	8.7	8.7	8.2	8.3	6.4	5.4	3.8	3.6
Comp. of employees (per head, % change)	20.2	22.5	15.0	n.a.	12.8	n.a.	n.a.	n.a.
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	-13.6	-14.0	-11.2	-9.9	-9.6	-8.2	-7.8	-7.4

Note:

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

Source:

Commission services' autumn 2007 economic forecasts (COM); Convergence programme (CP)

The programme's macroeconomic assumptions appear to be cautious for 2008 and plausible thereafter. Compared with the Commission services' forecast, the authorities expect around 1 percentage point lower annual growth in 2008 and about ½ percentage point lower growth in 2007. Growth is expected to remain below its estimated potential level also in the outer years of the programme. It should be noted, however, that macroeconomic projections presented in the programme were finalised just prior to the adoption of the programme and thus take into account more recent information, notably the preliminary estimate of economic growth in the third quarter of 2007, as well as recent external trade statistics showing a remarkable decline in exports and imports of certain merchandise categories, mainly transit-like trade in mineral products and trade related to sub-contracting in electronics. The authorities' forecast assumes a steeper deceleration of private consumption and overall domestic demand than in the Commission services' forecast and, as a consequence, is more optimistic regarding the contribution of net exports in 2008 and 2009. According to information on wage developments, it is expected that wage growth will exceed that of productivity over most of the programme period.

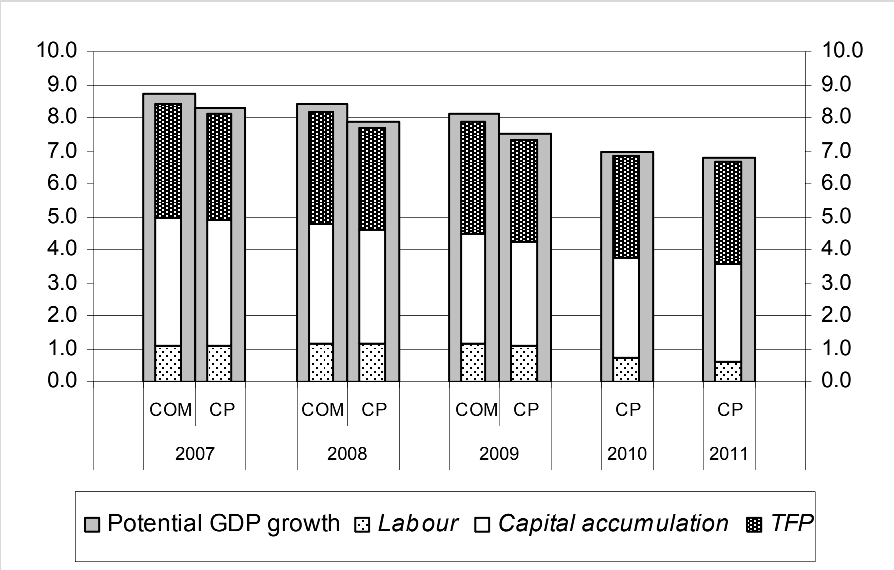
Estonia continues to pursue the objective of price stability through a firm exchange rate anchor to the euro in the form of the currency board system, which has been maintained for more than 15 years. The peg remains supported by a reserve cover well above the statutory minimum. Monetary conditions have been accommodative in the context of constraints implied by the set-up of monetary policy. Measures taken by the Estonian authorities to implement commitments undertaken in the context of joining ERM II are further analysed in Section 8.

Joining the euro area as soon as nominal convergence criteria are met remains the priority of the Estonian government. At the same time the programme acknowledges that due to volatility of price developments it is difficult to envisage with certainty when Estonia will be able to meet the Maastricht price stability criterion, which is the only criterion currently not met. Therefore the Estonian government has decided not to set a euro adoption target date at current stage.

Box 2: Potential growth and its determinants

The graph below compares the potential growth estimates of the Commission services autumn 2007 forecast with the Commission services' recalculations using the commonly agreed methodology based on the information provided in the programme. Due to the cautions nature of Estonian authorities' projections, the level of estimated potential growth based on the programme's information is somewhat lower than in the Commission services autumn forecast.

Potential growth and its determinants



Potential GDP growth is expected to moderate over the programme period compared with its peak in 2006-2007. Capital accumulation will continue to play the main role, as investments are expected to stay at robust levels, along with the TFP component. At the same time contribution of labour, already modest, is expected to decline further in the outer years of the programme when the impact of population ageing is expected to materialise.

According to both Commission estimations and as recalculated on the basis of the programme's macroeconomic scenario, calculations of the output gap confirm that economic cycle, which was at its peak in 2006-2007, is now turning into a deceleration phase with the output gap closing in 2008 and turning negative in 2009 and subsequent years of the programme[34]. At the same time it should be noted that the calculation of the potential output growth (and hence the output gap) needs to be interpreted with some caution for countries going through a rapid catching-up process, accompanied by strong

[34] Output gaps provided in the programme differ from estimates as recalculated by the Commission on the basis of the information provided in the programme by 1½ percentage points in 2008 and around 1 percentage point in 2009. This is mainly due to the difference in treatment of the increase in employment that took place in 2005 and 2006 – the Estonian authorities consider this to be rather a structural shift with an impact recorded mostly in the years when it occurred, while the Commission services calculations distribute the increase in employment over a longer period of time.

and rapid structural changes. Indeed, estimates of cyclical conditions have varied quite significantly in consecutive programmes and forecasts, including due to statistical revisions.

3.2. Labour market and cost and price developments

The peak of the economic cycle in 2005 and 2006 was accompanied by a rapid employment growth (especially in sectors related to real estate and consumption boom like construction and trade), growing participation rate and declining unemployment. This trend continued in 2007, albeit at a slower pace. The labour force supply constraints, further aggravated by labour mobility and ageing, as well as high structural unemployment in regions that were affected most by the economic transition, have become a major impediment to further economic growth. The working age population, which has been relatively stable since the turn of the century, started shrinking with the first effect felt already in 2007.

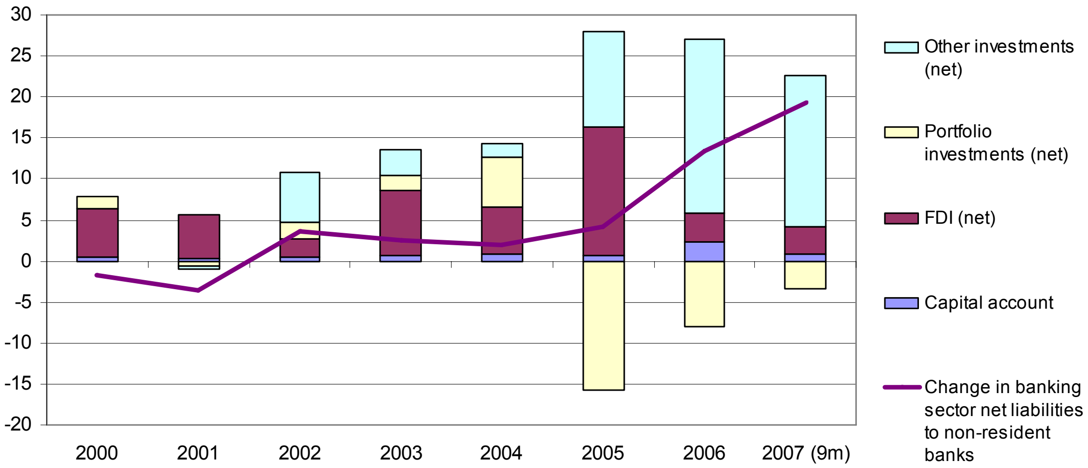
The programme projects employment growth of 1¼% in 2007 and ½% in 2008 with subsequent stabilisation of numbers of those employed and unemployed, implying thus a continuous decrease in the labour content of the economic growth. While moderation of labour market developments is in line – and a factor attributing to – economic slowdown, it is nonetheless expected that unemployment will not increase, as the demand for labour remains high. According to the programme, restructuring of the economy will continue over the programme period with a decline in those employed in the primary sector and an increase in the services sector, while manufacturing is expected to maintain its share of employment. Employment projections in the Commission services autumn forecast are broadly similar to those in the programme.

The programme expects consumer price inflation to rise from 4.4% in 2006 and 6.6% in 2007 and further to 8.6% in 2008, reflecting price pressures due to wage growth that exceeds productivity, recent increases in food world market prices, as well as several administrative price increases, including the rescheduling to 2008 of increases in excise taxes, the impact of which was previously distributed over the period of 2008-2011. HICP inflation projections in the programme are higher than in the Commission services' autumn forecast, but appear plausible in the light of the recent surge in food world market prices, as well as some recent developments with regard to administrative price increases.

3.3. Macroeconomic challenges

In recent years, a double positive shock of EU accession and financial deepening has influenced the Estonian economy. EU accession provided Estonia with access to new markets and to EU structural funds. Country risk premia for Estonia fell, reflected inter alia in an upward revision of external ratings. This coincided with a substantial financial deepening, triggered by the full-scale inclusion of the Estonian banking sector into major Nordic financial groups mostly during 2005. As a consequence, capital inflows into Estonia have exceeded 10% of GDP since 2002 and reached almost 20% of GDP in 2006 and the first nine months of 2007. During 2006 and 2007 capital inflows mainly took the form of credits or deposits placed by the parent financial groups.

Figure 8: Capital and financial flows to Estonia as % of GDP

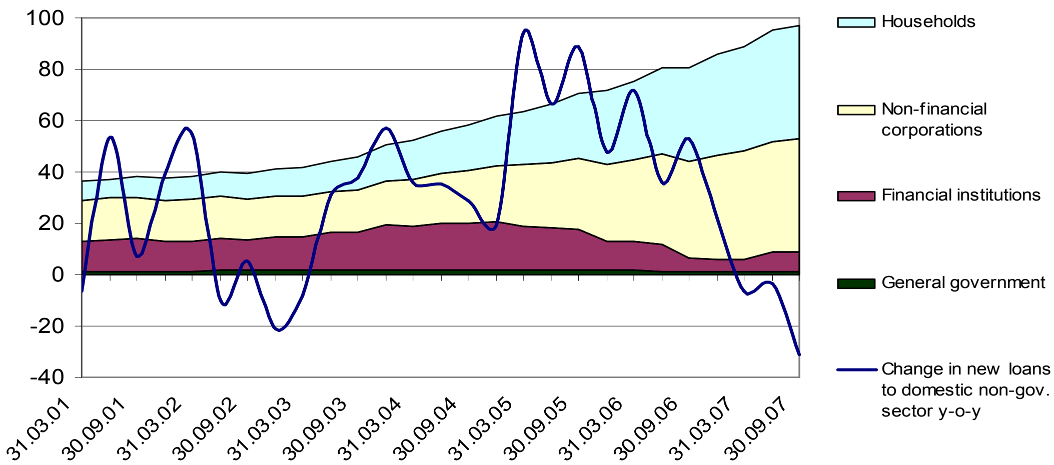


Source: Bank of Estonia

The attractiveness of Estonia as an investment destination was determined by expected high convergence gains – indeed, net investment income was around 6% of GDP on average in 2001-2007 with around three quarters of it being FDI reinvested earnings.

The availability of financing and high real income expectations triggered a credit and real estate boom, supported by accommodative monetary conditions. Real estate development was further facilitated by the fact that the housing stock, largely inherited from the years of central planning economy, was limited and had substantially depreciated during the years of transition. The stock of outstanding credit to households grew from just above 7% of GDP in end-2000 to above 44% of GDP by end-2007 and that of non-financial corporations from 15% of GDP to 44% of GDP over the same period.

Figure 9: Outstanding credit by groups of clients as % of GDP and change in newly issued loans to private sector



Source: Bank of Estonia

This implied growth rates of outstanding credit stock that exceeded in certain periods 40% per annum, while credit to the domestic non-financial sector in 2004-2007 grew by around 50% y-o-y on average. As a consequence, domestic demand growth in real terms reached 8½% in 2005 and above 16% in 2006. Recent indicators point to a slowdown in credit growth, with amounts of newly issued domestic loans below those of a year ago since May 2007. At the same time financing flows have continued and the stock of outstanding credit continues growing, albeit at a more moderate pace.

The rapid expansion of domestic demand drove net borrowing vis-à-vis the rest of the world to over 14% of GDP in 2006 and triggered a significant increase in core inflation. The situation was further aggravated by the very tight labour market situation, causing wages to grow at least double the rate of labour productivity in 2006 and 2007, reflecting labour market bottlenecks despite a remarkable rise in participation rates. As a result, competitiveness deteriorated, as reflected in the real effective exchange rate (calculated against 36 trading partners on the basis of nominal unit labour costs) appreciating by more than 10% between beginning of 2006 and October 2007. It is, however, more difficult to judge the extent to which this affected Estonian exports due to the high volatility of the external trade structure, the significant share of transit-like trade, which is prone to political risks, and transfer pricing in relation to sub-contracting goods.

Inflation is expected to peak in the first half of 2008 due to several factors. Firstly, high wage growth is driving up prices of services, which have increased at double-digit levels since second half of 2007 and are expected to stay elevated in line with high nominal wage growth. Secondly, the recent increase in world market food and energy prices affects Estonia to a greater extent – share of food in the Estonian HICP basket is 19.8% against 15.6% in the one of the euro area, while share of energy is 11.4% against 9.6%. Finally, consumer prices will be influenced in particular by excise tax and other administrative price increases that amount, according to the programme, to 1 percentage point in 2007, 2.7 percentage points in 2008 and 1.3 percentage points in 2009. While inflation is expected to abate subsequently starting from the second half of 2008 against the background of slowing economy and easing credit boom, evolving of the wage-price spiral cannot be excluded, in particular if inflationary expectations become entrenched and the situation on the labour market stays tight.

Spreads between Estonian and euro area short-term interest rates, which had fully converged in 2006, increased again during 2007, reaching around 250 basis points (for 3-month rates) towards the end of the year. The widening of money market spreads has mainly been a corollary to increased hedging activity by businesses with EEK/euro exposure, amid a re-emerging perception of exchange rate risk. The latter has also affected the structure of deposits held in the Estonian banking system, where the share of EEK deposits dropped from above 70% for demand deposits and above 60% for other deposits at the beginning of 2007 by more than 8 percentage points towards the end of the year, while the share of deposits in euro grew by a similar share.

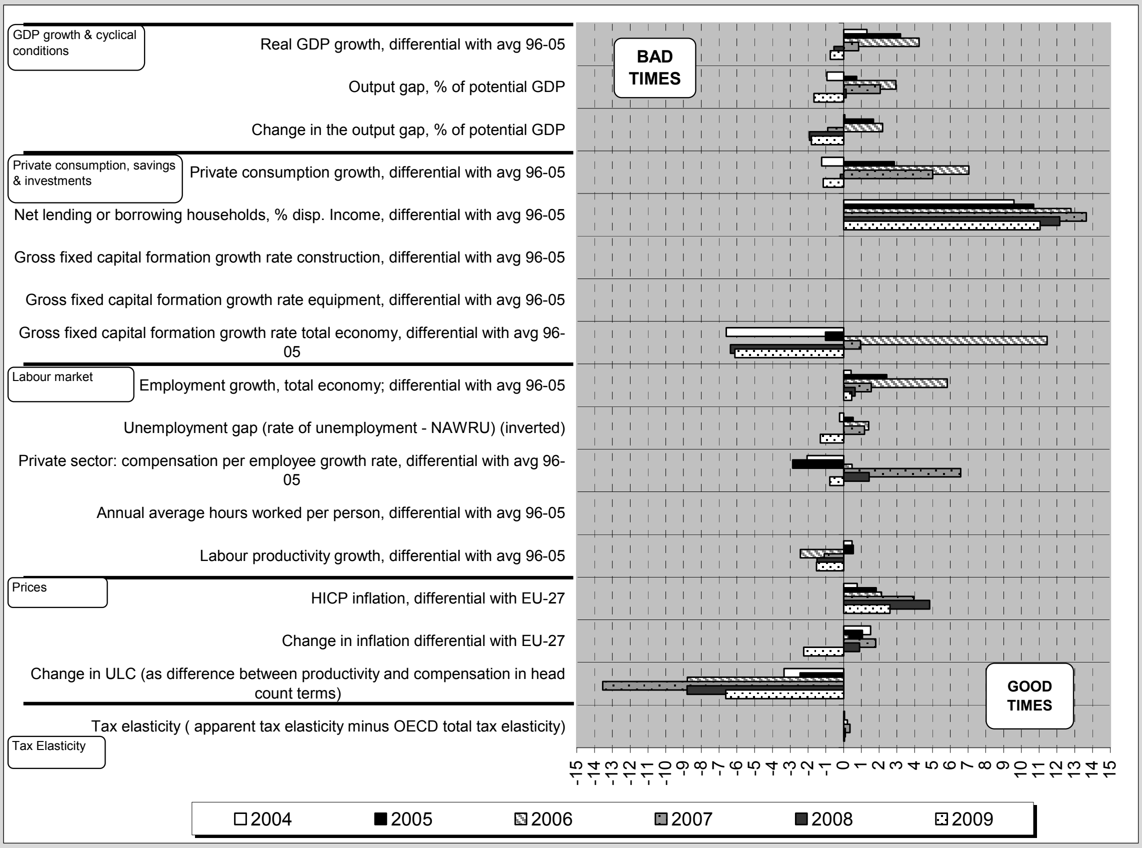
Overall, while the Estonian economy is now showing signs of deceleration with economic growth subsiding from double digit levels to more moderate rates (7.6% y-o-y in second quarter and 6.4% y-o-y in third quarter of 2007), macroeconomic imbalances that have been accumulated during years of high growth are expected to moderate only slowly. With the labour market remaining tight and inflation reaching double-digit levels, particular attention to the risks of a wage-price spiral is needed. While external imbalances are expected to diminish somewhat in line with lower domestic demand, deteriorating competitiveness can hamper this improvement. A re-emerging perception of exchange rate risks warrants continued attention to accumulated balance-sheet risks.

Box 3: Good or bad economic times?

According to the code of conduct, the assessment of whether the economy is experiencing good or bad economic times starts from the output gap, but draws on an overall economic assessment, which should also take into account tax elasticities. The figure below presents a set of macroeconomic indicators drawn from the Commission services' autumn 2007 forecast. Overall, the economy seems to be in good times until 2007, turning neither good nor bad ("neutral") economic times thereafter taking into account tax elasticities in the period 2007-2009.

Economic times have clearly been good in Estonia in recent years, including 2007. In coming years, however, the picture may become more mixed. The output gap, which is considered to be the main indicator to judge cyclical conditions, is expected to close in 2008 and turn negative in 2009, and growth rates are expected to decline below their average level of past decade. A particular weakening compared with average past rates is expected with respect to gross fixed capital formation, although one should keep in mind that the level of investments has been high in the Estonian economy in the last decade as structural transformation has proceeded. Rapidly increasing unit labour costs point to risks for external competitiveness. At the same time the labour market has remained buoyant and inflation is on the rise, indicating that the slowing of the economy can be partly attributed to reaching capacity constraints. Apparent tax elasticities are also higher than OECD standard ones. Thus, while the overall assessment for 2008 and 2009 is that economic times will be neutral for the Estonian economy, taking into account tax elasticities there is a possibility that 2008 will turn out to be "good" economic times.

Good versus bad times



4. GENERAL GOVERNMENT BALANCE

This section consists of four parts. The first part discusses budgetary implementation in the year 2007 and the second presents the medium-term budgetary strategy in the new update. The third analyses the risks attached to the budgetary targets in the programme. The final part assesses the appropriateness of the fiscal stance and the country's position in relation to the budgetary objectives of the Stability and Growth Pact.

4.1. Budgetary implementation in 2007

Table 3 compares the 2007 revenue and expenditure targets (as a percentage of GDP) from the previous update of the convergence programme with the results of the Commission services' autumn 2007 forecast. The difference between the revenue and expenditure targets for 2007 and the projected outcome is decomposed into a base effect, a GDP growth effect on the denominator and a revenue / expenditure growth effect[35]:

- The base effect captures the part of the difference that is due to the actual outcome for 2006 being different from what was projected in the previous update in the programme (either because the actual revenue / expenditure level in 2006 was different from the estimated outturn in the previous programme or because GDP turned out to be different from the scenario in the previous update of the programme). The base effect therefore also captures the effect of revisions to the GDP series.
- The GDP growth effect on the denominator captures the part of the difference that is related to current GDP growth projections for 2007 turning out higher or lower than anticipated in the previous update of the programme (therefore reducing / increasing the denominator of the revenue and expenditure ratio).
- The revenue / expenditure growth effect captures the part of the difference related to the revenue / expenditure growth rate in 2007 turning out to be higher or lower than targeted in the previous update of the programme. This would typically be due to GDP developments different from those expected in the previous update of the programme, or as a result of apparent tax elasticities different from the ex ante tax elasticities (or both).

[35] A fourth, residual component is usually small, except if there are very large differences between the autumn forecast and the target (the full mathematical decomposition is in the methodological paper mentioned above).

Table 3: Budgetary implementation in 2007

	2006		2007	
	Planned CP Dec 2006	Outcome CP Nov 2007	Planned CP Dec 2006	Outcome CP Nov 2007
Revenue (% of GDP)	38.3	36.6	37.8	37.2
Expenditure (% of GDP)	35.6	33.0	36.5	34.6
Government balance (% of GDP)	2.6	3.6	1.2	2.6
Nominal GDP growth (%)			13.1	16.8
Nominal revenue growth (%)			11.6	18.7
Nominal expenditure growth (%)			16.0	22.5
Revenue surprise compared to target (% of GDP)			**-0.6**	
Of which [1]: 1. Base effect			-1.7	
2. GDP growth effect on the denominator			-1.0	
3. Revenue growth effect			2.0	
Of which: due to a marginal elasticity of total revenue w.r.t. GDP larger than 1 [2]			*0.9*	
Expenditure surprise compared to target (% of GDP)			**-1.9**	
Of which [1]: 1. Base effect			-2.7	
2. GDP growth effect on the denominator			-0.9	
3. Expenditure growth effect			1.6	
Government balance surprise compared to target (% of GDP)			**1.4**	
Of which: 1. Base effect			1.0	
2. GDP growth effect on the denominator			-0.1	
3. Revenue / expenditure growth effect			0.3	

Notes:

[1] A positive base effect points to a higher-than-anticipated outcome of the revenue / expenditure ratio in 2006. A positive GDP growth effect (on the denominator) indicates lower-than-anticipated economic growth in 2007. A positive revenue / expenditure growth effect points to higher-than-anticipated revenue / expenditure growth in 2007. The three components may not add up to the total because of a residual component, which is generally small.

[2] Equal to (2)+(3). A positive sign means that the marginal elasticity of revenue with respect to GDP exceeds one.

Source:
Commission services

The 2006 update of the convergence programme targeted a headline general government surplus of 1.2% of GDP for 2007, which is expected to be outperformed by 1¾ percentage points according to the Commission services' autumn forecast and 1½ percentage points according to the new update of the convergence programme. The assessment in the new programme is thus more cautious than in the Commission services' forecast, reflecting more recent information on tax returns, in particular low VAT returns in October. Both revenues and expenditures are expected to have grown higher than nominal GDP in 2007, which was anticipated in the last year's programme for expenditures, but not for revenues. Nevertheless the bulk of the better than expected performance or the government balance surprise in 2007 can be explained by a base effect or higher-than-anticipated outcome of revenues / expenditures ratio in 2006.

While surprise revenue collection has been strong with regard to social contributions and taxes on income and wealth (respectively 0.8% and 0.6% of GDP in both Commission services' forecast and 2007 update of the convergence programme), collection of other revenues – mainly those related to EU financing – has been lower than projected by 1.5% of GDP in the Commission services' forecast and by 1.7% of GDP in the most recent update of the convergence programme. Underperformance with regard to other revenues is largely related to delays in activating EU structural funding under the 2007-2013 budgetary period, due to which overall financing from structural funds turned out lower than planned. The latter, however, can only affect the level of revenues and expenditures without changing the overall fiscal position; the same trend occurred also in 2006.

A supplementary budget adopted in December 2007 acknowledged a higher than expected collection of revenues compared with the initial budget revenues by 6.24 bn EEK or 2.6% of GDP and additional expenditures were planned of 2.75 bn EEK or 1.1% of GDP, with the remaining surplus of 1.5% of GDP attributed to the accumulation of financial assets. The supplementary budget targeted primarily expenditures that did not add directly to domestic demand pressures (such as new embassy buildings and international procurement), but had at the same time a direct impact on external balance. In addition, the supplementary budget brought forward some expenditure items that were initially planned for the 2008 budget.

The Council opinion of 27 February 2007 on the previous update of the convergence programme invited Estonia to aim at higher budgetary surplus in 2007 than planned in the programme, so as to foster macroeconomic stability and to continue correction of the external imbalances. It also concluded that the planned weakening of the budgetary surplus in 2007, compared with the outcome of 2006, implied a pro-cyclical stance of fiscal policy during good economic times. This invitation was followed, but only partly: while the budgetary surplus has indeed been higher than planned in the 2006 convergence programme update, the structural balance is expected to decline by above ½% of GDP according to the most recent convergence programme update[36] and by ½% according to the Commission services' forecast, implying a pro-cyclical stance in 2007. Moreover, planning additional expenditures both domestically and abroad through the supplementary budget went against the purpose of the Council invitation that aimed at fostering macroeconomic stability and the correction of external imbalances. It should also be recognised that the evaluation of the fiscal stance is constrained by measurement problems that tend to result in a significant positive bias in the prevalent economic situation of 2006-2007, i.e. the structural balance could be overestimated and its deterioration in 2007 could be under-estimated.

4.2. The programme's medium-term budgetary strategy

This section describes the medium-term budgetary strategy outlined in the programme - and how it compares with the one in the previous update - as well as the composition of the budgetary adjustment, including the broad measures envisaged.

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

The main goal of the programme's budgetary strategy is to foster macroeconomic stability and long-term sustainability of public finances by keeping the fiscal position in surplus over the medium term. Since the 2006 convergence programme update Estonia has departed from the past practice of always targeting a zero balance for general government finances, which was a step forward in responding to the cyclical conditions of the economy. The new programme secures this decision by aiming at overachieving the medium-term objective (MTO), which is defined as a structural balance, by a comfortable margin over the programme period. The programme highlights the signalling role of fiscal policy, the need to support economic growth and to reduce

[36] Taking also into account that the Commission services consider 0.2% of GDP in 2006 to be not of a one-off nature.

imbalances and the long-term sustainability of public finances as the main reasons for setting a budgetary strategy which is more demanding than implied by the MTO.

Table 4: Evolution of budgetary targets in successive programmes

		2006	2007	2008	2009	2010	2011
General government balance (% of GDP)	**CP Nov 2007**	**3.6**	**2.6**	**1.3**	**1.0**	**0.9**	**0.8**
	CP Dec 2006	*2.6*	*1.2*	*1.3*	*1.6*	*1.5*	*n.a.*
	COM Nov 2007	3.6	3.0	1.9	1.0	n.a.	n.a.
General government expenditure (% of GDP)	**CP Nov 2007**	**33.0**	**34.6**	**36.9**	**37.2**	**36.5**	**35.5**
	CP Dec 2006	*35.6*	*36.5*	*35.5*	*34.6*	*34.3*	*n.a.*
	COM Nov 2007	33.0	34.7	35.7	36.5	n.a.	n.a.
General government revenue (% of GDP)	**CP Nov 2007**	**36.6**	**37.2**	**38.2**	**38.2**	**37.4**	**36.3**
	CP Dec 2006	*38.3*	*37.8*	*36.9*	*36.2*	*35.8*	*n.a.*
	COM Nov 2007	36.6	37.7	37.7	37.5	n.a.	n.a.
Structural balance[1] (% of GDP)	**CP Nov 2007**	**1.8**	**1.2**	**0.8**	**1.4**	**1.3**	**1.2**
	CP Dec 2006	*1.4*	*0.4*	*1.2*	*1.7*	*1.7*	*n.a.*
	COM Nov 2007	2.2	1.8	1.4	1.5	n.a.	n.a.
Real GDP (% change)	**CP Nov 2007**	**11.2**	**7.4**	**5.2**	**6.1**	**6.7**	**7.0**
	CP Dec 2006	*11.0*	*8.3*	*7.7*	*7.6*	*7.5*	*n.a.*
	COM Nov 2007	11.2	7.8	6.4	6.2	n.a.	n.a.

Note:

[1]Cyclically-adjusted balance excluding one-off and other temporary measures. Cyclically-adjusted balances according to the programmes as recalculated by the Commission services on the basis of the information in the programmes. One-off and other temporary measures are 0.7% of GDP in 2006, 0.6% in 2007 and 0.5% in 2008; all surplus-increasing according to the most recent programme, of which the Commission services consider 0.2% of GDP in 2006 not to be of a one-off nature.

Source:
Convergence programmes (CP); Commission services' autumn 2007 economic forecasts (COM)

The most recent programme update was adopted by the new government that assumed office on 5 April 2007. As seen in tables 3 and 4, the new programme confirmed fiscal target for 2008, but lowered targets for subsequent years by 0.6 percentage points of GDP in nominal terms and ¼-½ percentage points in structural terms, against the background of downward revision of the economic growth projections by 2½ percentage points for 2008, 1½ percentage points for 2009 and ¾ percentage points for 2010 compared with the previous update. The general government headline surplus is expected to decline from 2.6% of GDP in 2007 to 1.3% in 2008 and subsequently to around and below 1% of GDP in the outer years of the programme in line with decreasing economic growth. The structural balance as recalculated by the Commission services will decrease from 1¼% of GDP in 2007 to ¾% in 2008, implying thus an expansionary fiscal stance in 2008. When analysing the structural balance, it should be kept in mind that the calculation of the potential output growth (and hence the structural balance) needs to be interpreted with some caution for countries going through a catching-up process, accompanied by strong and rapid structural changes.

The structural balance is projected to increase again beyond 2008 to 1½-1¼% of GDP. The programme provides a detailed overview of one-off measures totalling 0.7% of GDP for 2006, 0.6% of GDP for 2007 and 0.5% of GDP for 2008, all of them surplus-increasing, while no one-offs are foreseen beyond 2008. One-offs include higher-than-average sales of non-financial assets (0.4% of GDP in 2006, 0.2% in 2007 and 0.3% in 2008), where average levels are based on revenues from sales of fixed assets in 2001-2005. Another one-off with a multi-annual impact (0.2% of GDP in 2006, 0.4% in 2007 and 0.2% in 2008) is related to dividends from the state-owned energy company Eesti

Energia; however, the final decision on how this exceptional dividend is to be recorded in the Estonian accounts, is still under discussion with Eurostat. The Commission services consider exceptional income tax collection in 2006 in the amount of 0.2% of GDP from the revenues earned from the sale of shares of Hansabank not to be of a one-off nature.

Table 5: Composition of the budgetary adjustment

(% of GDP)	2006	2007	2008	2009	2010	2011	Change: 2011-2007
Revenue	**36.6**	**37.2**	**38.2**	**38.2**	**37.4**	**36.3**	**-0.9**
of which:							
- Taxes on production and imports	13.3	13.1	13.4	13.5	13.1	12.8	**-0.3**
- Current taxes on income, wealth, etc.	7.1	7.7	7.4	7.0	6.8	6.6	**-1.1**
- Social contributions	10.3	10.8	11.1	11.6	11.7	11.8	**1.0**
- Other (residual)	5.9	5.6	6.3	6.1	5.8	5.1	**-0.5**
Expenditure	**33.0**	**34.6**	**36.9**	**37.2**	**36.5**	**35.5**	**0.9**
of which:							
- Primary expenditure	32.8	34.5	36.8	37.1	36.4	35.4	**0.9**
of which:							
Compensation of employees and intermediate consumption	15.3	15.5	16.5	16.2	15.9	15.6	**0.1**
Social payments	10.6	11.1	11.9	12.1	12.0	11.8	**0.7**
Subsidies	1.0	1.0	1.1	1.1	1.1	1.1	**0.1**
Gross fixed capital formation	4.5	5.6	5.8	6.1	5.9	5.5	**-0.1**
Other (residual)	1.4	1.3	1.5	1.6	1.5	1.4	**0.1**
- Interest expenditure	0.2	0.1	0.1	0.1	0.1	0.1	**0.0**
General government balance (GGB)	**3.6**	**2.6**	**1.3**	**1.0**	**0.9**	**0.8**	**-1.8**
Primary balance	**3.7**	**2.7**	**1.4**	**1.1**	**1.0**	**0.8**	**-1.9**
One-off and other temporary measures	0.7	0.6	0.5	0.0	0.0	0.0	**-0.6**
GGB excl. one-offs	**2.9**	**2.0**	**0.8**	**1.0**	**0.9**	**0.8**	**-1.2**
Output gap[1]	3.6	2.7	0.1	-1.2	-1.5	-1.3	**-4.0**
Cyclically-adjusted balance[1]	2.5	1.8	1.3	1.4	1.3	1.2	**-0.6**
Structural balance[2]	**1.8**	**1.2**	**0.8**	**1.4**	**1.3**	**1.2**	**0.0**
Change in structural balance		*-0.6*	*-0.4*	*0.6*	*0.0*	*-0.2*	
Structural primary balance[2]	2.0	1.3	0.9	1.5	1.4	1.3	**0.0**
Change in structural primary balance		*-0.7*	*-0.4*	*0.6*	*0.0*	*-0.2*	

Notes:

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

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

Source:

Convergence programme; Commission services' calculations

4.2.2. The composition of the budgetary adjustment

The reduction in the nominal surplus by approaching 2 percentage points of GDP over the programme period is attributable equally to a fall in the revenue-to-GDP ratio and a rise in the expenditure-to-GDP ratio. General government revenues are projected first to increase in the programme from above 37% of GDP in 2007 to above 38% in 2008 and 2009 but to decline again in 2010 and 2011. The overall reduction in revenues to GDP ratio between 2007 and 2011 is projected to be about 1 percentage point in nominal terms. In addition, effect of use of one-offs, all of which relate to revenues, is expected to fade beyond 2008. Social contributions are projected to increase most, by around 1% of GDP, determined by two factors. Firstly, wage increases are expected to exceed the rise in nominal GDP in the first years of the programme, with continuing legalisation of income playing its role. Secondly, the social tax minimum contribution basis is being raised gradually with the aim to reach 100% of the minimum wage (currently 75%). Taxes on income and wealth are at the same time projected to decline most between 2007 and 2011, also by around 1 percentage point of GDP, due to a gradual reduction in the income tax rate, which is the same for corporations and private individuals, from 26% in 2004 to 21% in 2008, with subsequent reductions by 1 percentage point yearly until it reaches 18% in 2011. Taxes on production and imports will increase in 2008 and 2009 due to excise tax increases, but remain relatively stable over the medium term. Other revenues, mainly those related to the EU structural funding, are expected to decline in relation to nominal GDP.

Government expenditure, which was the lowest in EU-27 in 2006 at 33% of GDP, is projected to increase in particular in 2008 (even though part of expenditure initially planned for that year was brought forward to 2007) and in 2009 to around 37% of GDP and decrease thereafter, with an overall increase between 2007 and 2011 of around 1 percentage point of GDP. The expenditure item that is expected to increase most (by 0.7% of GDP) is social payments, notably due to the changes in pension payment indexation. Gross fixed capital formation is expected to stay at very high levels between 5½ and 6% of GDP, largely related to the absorption of EU structural funds. The latter have in the most recent years played a significant role in determining the actual level of revenues and expenditures: due to the need to foresee in the budget all potential expenditures related to the absorption of the funds, this has often been the most underperforming category in the budget on both revenues and expenditures side. Due to the time-adjustment rules this does not, however, affect the budget balance. Overall, the projected expansion of public sector spending in relation to GDP, even if part of it may not materialise due to optimistic assumptions regarding the capacity to absorb EU funds, goes against the overall aim of reducing macroeconomic imbalances in the economy. Setting expenditure targets and adherence to them are further elaborated in sections 4.3 and 6.2.

The cyclically-adjusted balance as recalculated by Commission services on the basis of the information provided in the programme is expected to decline by ½% of GDP between 2007 and 2011. The structural balance is expected to deteriorate by ½% of GDP in 2008 but improve thereafter with the fading of the effect of use of one-offs beyond 2008, so that there is expected to be no change in the structural balance between 2007 and 2011.

The surplus of the general government is mainly attributed to the central government budget, while local governments are expected in the programme to have balanced accounts over the programme period and social security funds are projected to have small surplus in 2008 and balanced accounts thereafter.

Box 4: The budget for 2008

The draft budget for 2008 was adopted by the government on 20 September 2007 and the budget law was passed by Parliament on 13 December 2007. The budget covers revenues and expenditures of the central government and part of social security funds and is compiled on a cash basis. The nominal expenditures in the 2008 budget are set to increase by 20.7% compared with the 2007 budget (including supplementary budget), whereas nominal revenues are expected to increase by 17.2%.

In terms of the functional classification, the fastest growing expenditure categories are social protection (in particular pensions due to changes in the indexation), maintaining law and order and environment protection. On the revenue side, the most important changes are related to the reduction of labour-related taxes and increase in consumption and environmental taxes. The main measures are presented below.

Main measures in the budget for 2008

Revenue measures*	**Expenditure measures****
o Reduction of personal and corporate income tax rate from 22% to 21% (-0.75% of GDP)	o Increase in pensions, including due to changes in indexation (1.4% of GDP)
o Increase in personal income tax basic exemption (-0.15% of GDP)	o Increase in family benefits (0.4% of GDP)
o Increase in excise taxes for alcohol, tobacco and fuels and introduction of excise tax for electricity (0.7% of GDP)	o Wage increase for domestic security services (0.3% of GDP)
o Increase in social tax minimum contribution basis from 2 000 to 2 700 EEK (0.2% of GDP)	o Increase in R&D expenditures (0.2% of GDP)

* Estimated impact on general government revenues.
** Estimated impact on general government expenditure.

Sources: Commission services, budgets of 2007 and 2008 and the most recent update of the convergence programme.

4.3. Risk assessment

This section discusses the plausibility of the programme's budgetary projections by analysing various risk factors. For the period until 2009, Table 6 compares the detailed revenue and expenditure projections in the Commission services' autumn 2007 forecast, which are derived under a no-policy change scenario, with those in the updated programme.

Table 6: Comparison of budgetary developments and projections

(% of GDP)	2006	2007		2008		2009		2010	2011
	COM	COM	CP	COM	CP	COM[1]	CP	CP	CP
Revenue	**36.6**	**37.7**	**37.2**	**37.7**	**38.2**	**37.5**	**38.2**	**37.4**	**36.3**
of which:									
- Taxes on production and imports	13.3	13.3	13.1	13.2	13.4	13.0	13.5	13.1	12.8
- Current taxes on income, wealth, etc.	7.1	7.5	7.7	7.5	7.4	7.3	7.0	6.8	6.6
- Social contributions	10.3	11.0	10.8	11.1	11.1	11.2	11.6	11.7	11.8
- Other (residual)	5.8	5.8	5.6	5.9	6.3	6.0	6.1	5.8	5.1
Expenditure	**33.0**	**34.7**	**34.6**	**35.7**	**36.9**	**36.5**	**37.2**	**36.5**	**35.5**
of which:									
- Primary expenditure	32.9	34.6	34.5	35.6	36.8	36.4	37.1	36.4	35.4
of which:									
Compensation of employees and intermediate consumption	15.3	15.6	15.5	15.9	16.5	16.0	16.2	15.9	15.6
Social payments	10.6	11.5	11.1	11.9	11.9	12.4	12.1	12.0	11.8
Subsidies	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.1	1.1
Gross fixed capital formation	4.5	4.9	5.6	5.2	5.8	5.4	6.1	5.9	5.5
Other (residual)	1.4	1.5	1.3	1.5	1.5	1.5	1.6	1.5	1.4
- Interest expenditure	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
General government balance (GGB)	**3.6**	**3.0**	**2.6**	**1.9**	**1.3**	**1.0**	**1.0**	**0.9**	**0.8**
Primary balance	**3.7**	**3.1**	**2.7**	**2.1**	**1.4**	**1.1**	**1.1**	**1.0**	**0.8**
One-off and other temporary measures	0.5	0.6	0.6	0.5	0.5	0.0	0.0	0.0	0.0
GGB excl. one-offs	**3.1**	**2.4**	**2.0**	**1.4**	**0.8**	**1.0**	**1.0**	**0.9**	**0.8**
Output gap[2]	2.9	2.1	2.7	0.1	0.1	-1.7	-1.2	-1.5	-1.3
Cyclically-adjusted balance[2]	2.7	2.4	1.8	1.9	1.3	1.5	1.4	1.3	1.2
Structural balance[3]	**2.2**	**1.8**	**1.2**	**1.4**	**0.8**	**1.5**	**1.4**	**1.3**	**1.2**
Change in structural balance		*-0.4*	*-0.6*	*-0.4*	*-0.4*	*0.2*	*0.6*	*0.0*	*-0.2*
Structural primary balance[3]	2.4	1.9	1.3	1.5	0.9	1.7	1.5	1.4	1.3
Change in structural primary balance		*-0.5*	*-0.7*	*-0.4*	*-0.4*	*0.1*	*0.6*	*0.0*	*-0.2*

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 2007 economic forecasts (COM); Commission services' calculations

As discussed in Section 3 above, baseline macroeconomic assumptions in the programme are cautious for 2008 and plausible thereafter, assuming a decrease of economic growth to 7½% in 2007 and further to just above 5% in 2008, with a subsequent recovery of the growth rates in the outer years of the programme. The programme also assumes a higher inflation rate (and hence higher costs related to intermediate consumption) than the Commission services' forecast, taking into account the recent hike in food world market prices and more recent information on some administrative price increases. Given the cautious nature of the authorities' macroeconomic projections, as well as a continuingly buoyant labour market, there is a possibility that the outcome could be better than targeted in 2008, taking into account tax elasticities. It is important to note that both the Commission autumn forecast and the baseline scenario in the most recent update of the convergence programme, which form the basis of this assessment, assume a "soft landing" scenario, i.e. a moderation of economic growth to more sustainable levels once recent overheating tendencies diminish.

The recent update of the convergence programme includes also an alternative risk scenario, which assumes much a steeper decline in the supply of and demand for credit due to higher interest rates and lower confidence of households than in the baseline scenario. Lower investments and domestic demand would translate into economic growth rates of around 3% in 2008 and around 4% in 2009 (difference with the baseline scenario of around -2 percentage points for each year) while stronger growth in 2010 (difference with the baseline scenario of +1¾ percentage points), bringing also lower price increases and lower wage growth, but better contribution of net exports than in the baseline scenario. Taking into account that external demand-led growth would yield a lower tax collection than domestic demand-led growth pattern, this would bring, according to the programme, a general government deficit of ½% of GDP in 2008 and deficits above 2% of GDP in 2009-2011 in terms of the headline budgetary balance, with the cumulative deterioration in the headline balance over the programme period compared with the baseline scenario of 3¾ percentage points of GDP.

These calculations appear to be rather cautious. Commission services' simulations of the cyclically-adjusted balance under the assumptions of (i) a 2 percentage points deviation from the real GDP growth projections in 2008 and 2009, while returning to the baseline scenario growth path thereafter; (ii) trend output based on the HP-filter and (iii) no policy response (notably, the expenditure level is as in the central scenario), indicate that, by 2011, the cyclically-adjusted balance is 1¼ percentage point of GDP below the central scenario. Hence, in the case of lower real growth in 2008 and 2009, additional measures of around 1¼ percentage point of GDP would be necessary to keep the public finances on the path targeted in the central scenario.

The programme provides sufficient information on measures related to 2008 budget and future tax policy developments, with their budgetary impact clearly spelled out in the programme. Changes in income tax and excise taxes are already enacted. The income tax rate, which is the same for corporations and individuals, will continue to decrease by 1 percentage point yearly until it reaches 18% in 2011. Declining labour taxation is compensated in 2008 and 2009 by increase in excise taxes, which have been re-scheduled to 2008 (previously distributed over 2008-2010). Regarding financing pension increases due to changes in indexation, the programme refers to plans, imbedded also in the medium-term budgetary strategy of the government, to increase the social tax minimum contribution basis gradually until it reaches 100% of minimum wages in 2009, as well as foresees a decline in accumulated assets of public pensions from current 2.5% of GDP to 0.3% of GDP in 2010. In relation to the projected decrease in the share of government expenditure to GDP in 2010 and 2011 it should be noted, however, that it is attributed to the expected decrease in wage growth and inflation towards the end of the programme period, rather than to particular measures that the government intends to enact, and is thus directly linked to the macroeconomic risks surrounding the programme.

The programme contains detailed information on one-off revenue measures, which – according to the programme – account to 0.7% of GDP for 2006, 0.6% of GDP for 2007 and 0.5% of GDP for 2008, all of them surplus-increasing, as discussed in section 4.2.1. Overall, the risks to the attainment of budgetary targets arising from the one-offs appear to be neutral and the assessment of their implications for the attainment of the budgetary targets plausible.

The programme assumes a somewhat higher tax elasticity to GDP than do the Commission services and thus an overall higher tax revenue projections, although it is counterbalanced by more cautious economic growth assumptions. Tax elasticities have been rather high in recent years and are expected to stay above standard OECD ones both in the convergence programme and in the Commission services' autumn forecast, including due to better tax administration, continuous legalisation of previously undeclared pay and measures to reduce illicit goods markets subject to excise taxes. The difference between tax projections in the programme and the Commission services' autumn forecast can be attributed almost equally to the discretionary and elasticity component and to the composition component. Regarding the overall level of expenditures and revenues, the programme's projections are likewise higher that those in the Commission services forecast, with the difference arising mainly from more optimistic projections of revenue and the use of structural funds in the authorities' programme. However, the latter does not indicate risks to the budgetary targets, as underperformance in relation to the use of structural funds should affect revenue and expenditure to a similar extent.

Table 7: Assessment of tax projections

	2008			2009			2010	2011
	CP	COM	OECD[3]	CP	COM[1]	OECD[3]	CP	CP
Change in tax-to-GDP ratio (total taxes)	0.3	-0.1	-0.6	0.2	-0.3	-0.5	-0.6	-0.4
Difference (CP – COM)	0.5		/	0.5		/	/	/
of which [2] *:*								
- discretionary and elasticity component	*0.4*		*/*	*0.3*		*/*	*/*	*/*
- composition component	*0.3*		*/*	*0.3*		*/*	*/*	*/*
Difference (COM - OECD)	/	0.5		/	0.2		/	/
of which [2] *:*								
- discretionary and elasticity component	*/*	*-0.1*		*/*	*-0.2*		*/*	*/*
- composition component	*/*	*0.7*		*/*	*0.5*		*/*	*/*
p.m.: Elasticity to GDP	1.1	1.0	0.9	1.1	0.9	0.9	0.8	0.9

Notes:

[1]On a no-policy change basis.

[2]The composition component captures the effect of differences in the composition of aggregate demand (more tax rich or more tax poor components). The discretionary and elasticity component captures the effect of discretionary fiscal policy measures as well as variations of the yield of the tax system that may result from factors such as time lags and variations of taxable income that do not necessarily move in line with GDP, e.g. capital gains. The two components may not add up to the total difference because of a residual component, which is generally small.

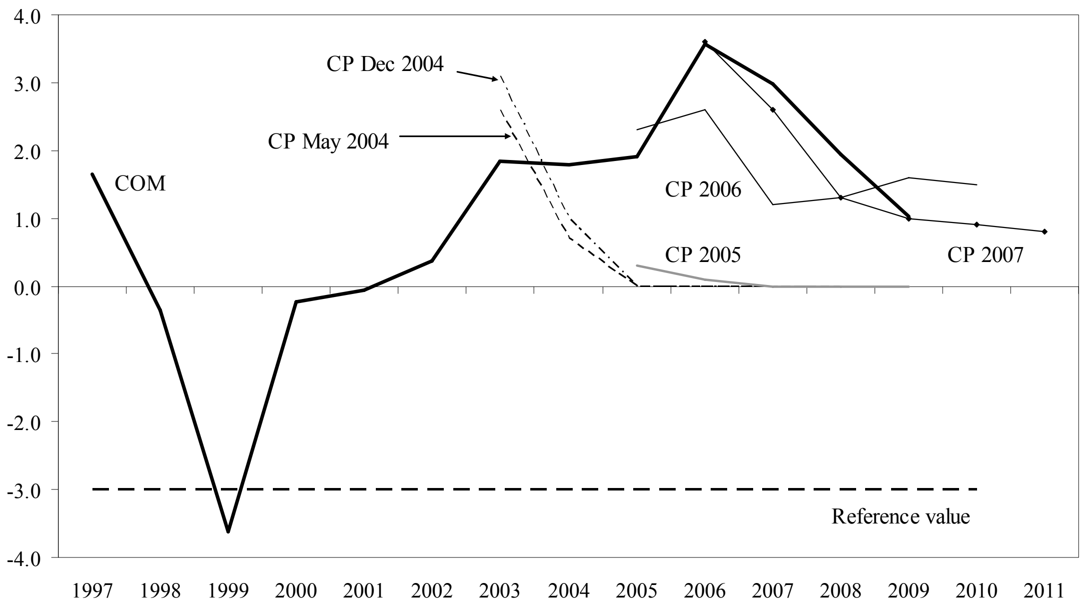
[3]OECD ex-ante elasticity relative to GDP.

Source:

Commission services' autumn 2007 economic forecasts (COM); Convergence programme (CP); Commission services' calculations; OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434).

While overall fiscal targets have often been outperformed in Estonia in recent years (see figure below), there has also been a practice of adopting supplementary budgets in the second half of the year to acknowledge higher-than-expected collection of revenues and to attribute them between expenditures and accumulation of financial assets. Thus, the 2005 supplementary budget included 1.2% of GDP in revenue and 1.1% in expenditure; the 2006 supplementary budget 2.6% of GDP in revenue and 2.5% in expenditure and the 2007 supplementary budget 2.6% of GDP in revenue and 1.1% in expenditure. In practice, however, part of planned additional expenditure was not implemented, so that the share of additional revenue attributed to the accumulation of financial assets was de facto higher. There is a risk that expenditure targets may be revised upwards during the programme period again, should the economic growth rebound earlier that foreseen in the programme and collection of revenue prove stronger. In addition, better-than-expected performance has been often related in the recent years to successive growth surprises and the flexibility of the budgetary process has not been tested lately in adverse developments situation, as the last negative supplementary budget was adopted in 1999 (more background information on setting expenditure targets is provided in section 6.2).

Figure 10: Government balance projections in successive programmes (% of GDP)



Source: Commission services' autumn 2007 forecast (COM) and successive convergence programmes

Overall, the risks to the budgetary projections in the programme appear broadly balanced. The programme's macroeconomic assumptions are cautious for 2008, with the possibility that the outcome for that year proves better than expected in the programme, if the baseline scenario prevails, and plausible thereafter. The programme provides detailed information on envisaged measures (especially on the revenue side) and use of one-offs, with clear estimates of their budgetary impact and the tax revenue projections appear plausible, taking into account that tax elasticities have been and are expected to remain in the near future above theoretical values due to continuous legalisation of previously undeclared pay and better tax administration. At the same time, while Estonia has a track record of outperforming set fiscal targets, the practice of recent years, where part of higher-than-expected revenues is used to increase expenditures, indicates that set expenditure targets have not always been adhered to. Moreover, if the baseline scenario assumptions do not hold and the economic slowdown proves to be more severe and/or protracted, this would also bring a less favourable outlook to the public finances. In particular, were the credit-financed, domestically driven rapid growth of the Estonian economy to slow abruptly, or the composition of growth to change considerably towards a less tax-intensive growth pattern, the budget could come under pressure.

4.4. Assessment of the fiscal stance and budgetary strategy

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

Table 8: Overview of compliance with the Stability and Growth Pact

	Based on programme[3] (with the targets taken at face value)	**Assessment** (taking into account risks to the targets)
a. Safety margin against breaching 3% of GDP deficit limit[1]	throughout programme period	throughout programme period
b. Achievement of the MTO	throughout programme period	throughout programme period
c. Fiscal stance in line with Pact[2]?	risk that it may not be in line (if 2008 turns out to be good times)	risk that it may not be in line (if 2008 turns out to be good times)

Notes:
[1]The risk of breaching the 3% of GDP deficit threshold with normal cyclical fluctuations, i.e. the existence of a safety margin, is assessed by comparing the cyclically-adjusted balance with the minimum benchmark (estimated as a deficit of around 2% of GDP for Estonia). These benchmarks represent estimates and as such need to be interpreted with caution.
[2]According to the Stability and Growth Pact, countries which have already achieved their MTO should avoid pro-cyclical fiscal policies in "good times".
[3]Targets in structural terms as recalculated by Commission services on the basis of the information in the programme.

Source:
Commission services

Taking into account the risk assessment above, the budgetary strategy outlined in the programme appears sufficient to ensure that the MTO is respected with a good margin and that the safety margin against breaching 3% of GDP deficit limit is maintained comfortably with normal cyclical fluctuations throughout the programme period.

For countries that have already achieved the MTO, like Estonia, the requirement in the Stability and Growth Pact is that pro-cyclical fiscal policies are to be avoided in good economic times. As discussed in section 4.1, Estonia has implemented a pro-cyclical policy in 2007 during good economic times. The economy is now slowing and the output gap combined with other indicators point to neutral times in the near term, with the possibility that 2008 would turn out to be a good economic times, as described in Box 4. According to the projections provided in the programme, the structural balance is expected to decline by about ½% of GDP in 2008 compared with 2007, which is in line with the Commission services forecast[37]. This deterioration, if materialised, would lead again to an expansionary fiscal policy stance in 2008 and would imply pro-cyclical fiscal policies if 2008 continues to be good economic times. There is thus a risk in 2008 that fiscal policy will not be in line with the Stability and Growth Pact.

The macroeconomic imbalances that have been accumulated during the years of rapid demand-led economic growth are expected to moderate only gradually over the programme period, with this moderation being subject to several risks. It is important that fiscal policy contributes to orderly unwinding of those imbalances, in particular taking into account the limited number of policy instruments in the context of the currency board, as well as the importance of fiscal policy as a signalling tool. It would be therefore desirable to maintain a broadly neutral fiscal stance in 2008 under the assumption that the economy returns to a more sustainable growth path. Such a tighter stance compared with that of the programme would better respond to the size of the

[37] As noted above, calculations of potential growth need to be interpreted with some caution for countries undergoing rapid structural change.

economic imbalances and commitments made under ERM II entry (see Section 8). Considering finally that the commonly agreed methodology tends to overestimate the potential growth rates for an economy such as Estonia's with high real estate investment[38], the structural surplus[39] appropriate for the current situation could also be larger than that in the programme.

[38] See Section 2-3.

[39] Applying the output gap figures derived with the commonly agreed methodology.

5. GOVERNMENT DEBT AND LONG-TERM SUSTAINABILITY

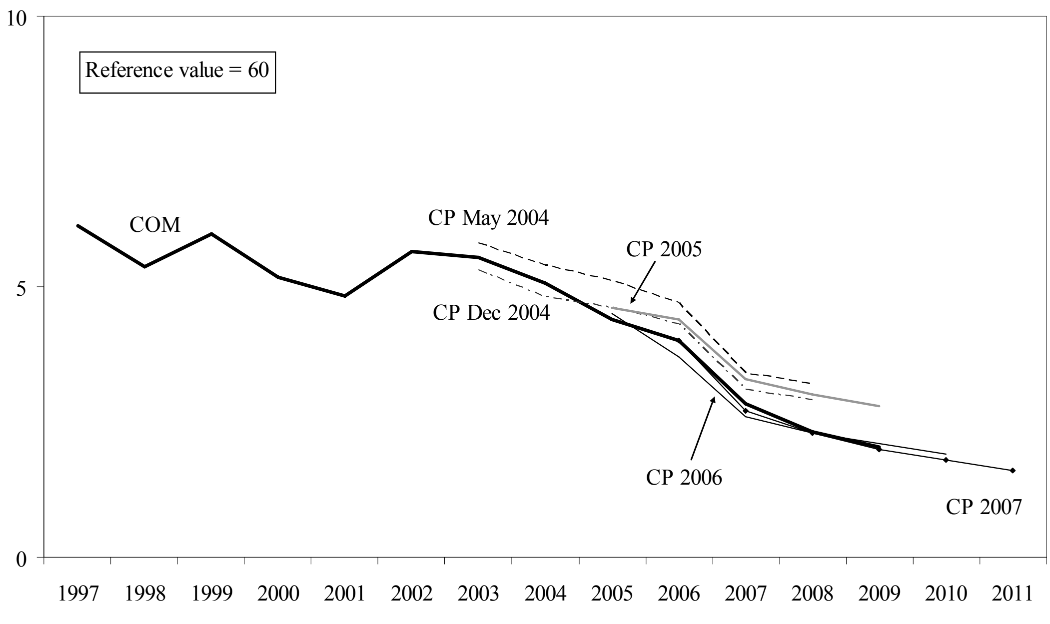
This section is in two parts. A first part describes recent debt developments and medium-term prospects, including risks to the outlook presented in the programme. A second part takes a longer-term perspective with the aim of assessing the long-term sustainability of public finances.

5.1. Recent debt developments and medium-term prospects

5.1.1. Debt projections in the programme

Adherence to sound fiscal policy has helped Estonia to keep general debt at very low levels: gross general government debt relative to GDP has been declining over recent years and reached 4% of GDP in end-2006, which is the lowest in the EU. After repayment of a Eurobond issue in June 2007, central government no longer has marketable liabilities, and the remaining part of central government debt (approximately 1.7% of GDP) is related to borrowing from multilateral institutions during period of transition; these loans are mostly expiring during 2009-2014. General government debt is thus projected to decline further over the programme period and reach 1½% of GDP by 2011.

Figure 11: Debt projections in successive programmes (% of GDP)



Source: Commission services' autumn 2007 forecast (COM) and successive convergence programmes

Table 9: Debt dynamics

(% of GDP)	average 2002-05	2006	2007		2008		2009		2010	2011
			COM	CP	COM	CP	COM	CP	CP	CP
Gross debt ratio[1]	**5.2**	**4.0**	**2.8**	**2.7**	**2.3**	**2.3**	**2.0**	**2.0**	**1.8**	**1.6**
Change in the ratio	-0.1	-0.4	-1.2	-1.3	-0.5	-0.4	-0.3	-0.3	-0.2	-0.2
Contributions [2] *:*										
Primary balance	**-1.7**	**-3.7**	**-3.1**	**-2.7**	**-2.1**	**-1.4**	**-1.1**	**-1.1**	**-1.0**	**-0.8**
"Snow-ball" effect	**-0.4**	**-0.5**	**-0.4**	**-0.5**	**-0.2**	**-0.2**	**-0.2**	**-0.1**	**-0.1**	**-0.2**
Of which:										
Interest expenditure	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Growth effect	-0.4	-0.4	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Inflation effect	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
Stock-flow adjustment	**2.0**	**3.9**	**2.4**	**1.9**	**1.8**	**1.2**	**1.0**	**0.9**	**0.9**	**0.8**
Of which:										
Cash/accruals diff.	-0.8	0.0		n.a.		n.a.		n.a.	n.a.	n.a.
Acc. financial assets	2.8	3.9		1.9		1.2		1.0	0.9	0.8
Privatisation	*0.0*	*0.0*		*n.a.*		*n.a.*		*n.a.*	*n.a.*	*n.a.*
Val. effect & residual	-0.1	0.0		n.a.		n.a.		n.a.	n.a.	n.a.

Notes:

[1]End of period.

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

$$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{PD_t}{Y_t} + \left(\frac{D_{t-1}}{Y_{t-1}} * \frac{i_t - y_t}{1 + y_t} \right) + \frac{SF_t}{Y_t}$$

where t is a time subscript; *D, PD, Y* and *SF* are the stock of government debt, the primary deficit, nominal GDP and the stock-flow adjustment respectively, and i and y represent the average cost of debt and nominal GDP growth (in the table, the latter is decomposed into the growth effect, capturing real GDP growth, and the inflation effect, measured by the GDP deflator). The term in parentheses represents the "snow-ball" effect. The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

Source:

Convergence programme (CP); Commission services' autumn 2007 economic forecasts (COM); Commission services' calculations

Due to the composition of debt, fiscal surpluses have not been used to reduce government gross liabilities, but rather to accumulate gross financial assets, as illustrated by a high stock-flow adjustment in recent years. The major component of the stock-flow adjustment is thus net acquisition of financial assets.

By end-2006, the general government sector had accumulated around 16% of GDP worth of liquid financial assets – 4% of GDP in currency and deposits, 9% of GDP in securities other than shares and 3% of GDP in quoted shares. Central government accounts for over three-quarters of accumulated financial assets.

5.1.2. Assessment

The debt developments foreseen in the most recent programme update are in line with the Commission services forecast. With steadily diminishing central government debt, negligible state guarantees and limits established for local governments' borrowing, the government debt is currently not a source of concern in Estonia.

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

This section analyses the long-term sustainability of public finances. It uses long-term projections of age-related expenditures to calculate sustainability gap indicators and make long-term government debt projections so as to assess the sustainability challenge the country concerned is facing.

5.2.1. Sustainability indicators and long-term debt projections

Table 10 shows the evolution of government spending on pensions, healthcare, long-term care for the elderly, education and unemployment benefits according to the EPC's projections and property income received by general government according to an agreed methodology. [40] Non age-related primary expenditure and primary revenue is assumed to remain constant as a share of GDP.

Table 10: Long-term age-related expenditure: main projections

(% of GDP)	2004	2010	2020	2030	2040	2050	Change up to 50
Total age-related spending	17.4	16.8	15.4	15.2	14.8	15.0	-2.5
- Pensions	6.7	6.8	5.4	4.7	4.4	4.2	-2.5
- Healthcare	5.4	5.8	6.1	6.2	6.4	6.5	1.1
- Long-term care	0.3	0.3	0.4	0.4	0.5	0.6	0.3
- Education	5.0	3.8	3.5	3.8	3.5	3.6	-1.3
- Unemployment benefits	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Property income received	1.0	0.8	0.8	0.7	0.7	0.7	-0.3

Source: Economic Policy Committee and Commission services.

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

Table 11: Sustainability indicators and the required primary balance

	2007 scenario			Programme scenario		
	S1	**S2**	**RPB**	**S1**	**S2**	**RPB**
Value	-3.6	-2.6	-0.7	-3.5	-2.5	-0.7
of which:						
Initial budgetary position (IBP)	-1.2	-1.1	-	-1.1	-1.0	-
Debt requirement in 2050 (DR)	-1.1	-	-	-1.1	-	-
Long-term change in the primary balance (LTC)	-1.3	-1.4	-	-1.3	-1.4	-

Source: Commission services.

Based on the long-term budgetary projections, sustainability indicators can be calculated. Table 11 shows the sustainability indicators for the two scenarios; the 2007 scenario assumes that the structural primary balance in 2007 is unchanged for the rest of the

[40] See the accompanying "methodological paper" for a description of the property income projections.

programme period and the programme scenario assumes that the programme's budgetary plans are fully attained.

In the "2007 scenario", the sustainability gap (S2) which satisfies the intertemporal budget constraint would be -2.6 percentage points of GDP.[41] This is around ½ percentage point of GDP higher than in last year's assessment. This is essentially due to the somewhat lower structural primary balance in 2007 (at 1.3 percentage points of GDP) than in 2006 (1.6 percentage points of GDP as estimated in last year's assessment).

The initial strong budgetary position with a structural primary balance of 1.6 percentage points of GDP contributes to the reduction of gross debt and the accumulation of financial assets. According to both sustainability gaps, the long-term budgetary impact of ageing is negative. The programme plans to maintain the structural primary balance roughly at its 2007 level over the programme period; no sustainability gap emerges in the programme scenario either.

The required primary balance (RPB) is slightly negative, due to the very low level of debt and the negative cost of ageing.

Another way to look at the prospects for long-term public finance sustainability is to project the debt-to-GDP ratio over the long-term using the same assumptions as for the calculations of the sustainability indicators. The long-term projections for government debt under the two scenarios are shown in Figure 12 [42].

The gross debt ratio is currently significantly below the 60% of GDP reference value, estimated in the programme at 2.7% of GDP in 2007. In both the "2007 scenario" and the "programme scenario", the debt ratio is projected to decrease over the projection period.

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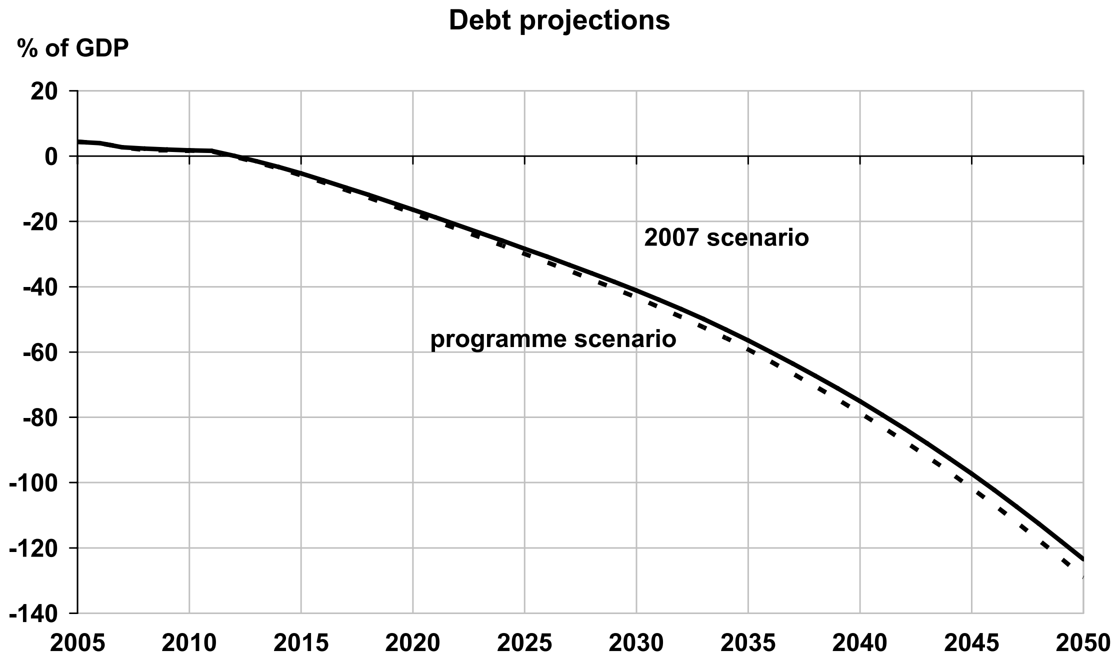
[41] The sustainability gap (S1) that assures reaching the debt ratio of 60% of GDP by 2050 would be -3.6 percentage points of GDP.

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

Figure 12: Long-term projections for the government debt ratio



Source: Commission services

5.2.2. Additional factors

To reach an overall assessment of the sustainability of public finances, other relevant factors are taken into account, which in addition allow to better appreciate where the main risks to sustainability are likely to stem from.

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

Second, the indexation of pensions has recently changed: as of 2008, pensions will be indexed 80% on tax revenue and 20% on retail price index (compared with 50% on social tax revenue and 50% on retail price index before reform). This reform aims at limiting the significant decrease in the benefit ratio[43] as estimated in the Ageing report. According to the programme, pension expenditure would still decrease as a share of GDP between 2010 and 2050 but significantly less (by around 0.9% of GDP) than before the reform.[44] Including the effect of the pension reform, the sustainability gap would increase by 0.8 percentage points of GDP but would still remain negative at -1.8 percentage points of GDP (the RPB would then be very close to zero).

5.2.3. Assessment

Estonia appears to be at low risk with regards the sustainability of public finances.

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[43] That is, the ratio between the average pension and the average wage.

[44] Those new projections were not submitted to a peer review exercise within the Ageing working group.

The long-term budgetary impact of ageing is among the lowest in the EU and should remain so, according to the programme, even taking into account the effect of the recent change in the indexation rule.

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 risks to the long-term sustainability of public finances.

6. Structural reform, the quality of public finances and institutional features

6.1. Structural features of the tax system, composition of revenue and administration

The government will continue implementing its strategy of shifting the tax burden from labour taxation to consumption and environment taxation. The most important measure in this area is the decision adopted in 2007 to continue with a further gradual reduction of the income tax rate, which is the same for corporations and private individuals, also in 2010 and 2011, until it reaches 18% in 2011 (reductions in 2008 and 2009 already had form of law). In parallel, the personal income tax basic exemption is being raised with the aim to reduce the tax burden of low-income people, which is currently above the EU average. Changes to the income tax legislation also foresee an additional basic tax exemption starting from the first child (currently from second child) that will take effect in 2009. These revenue-reducing measures are compensated by an increase in excise tax rates for fuel, alcohol and tobacco, including due to EU minimum requirements, as well as introducing excise tax for electricity. Overall, total revenue and tax burden are expected to peak at respectively 38¼% and 32½% of GDP in 2008 and 2009 (compared with 36.6% and 31.0% in 2006), before slightly declining thereafter. Over the whole programme period, the tax burden ratio is expected to remain significantly below the EU-27 average.

The Government intends to keep the tax system stable, simple and transparent. This contributes to the efficiency of the tax authorities in collecting taxes and to the growth of tax revenues resulting from higher economic growth. The government also aims to further improve tax collection by further developing the already very successful and widely used electronic reporting. In addition, measures to reduce undeclared pay and illicit goods markets subject to excise duties are bearing fruit and are expected to further increase tax returns. Finally, tax exemptions and tax incentives in force will be adjusted, if not proportional to the achieved goal, or removed, if not justified any more, according to the programme.

6.2. Structure and composition of public expenditure

Total expenditure is expected to reach 37.2% of GDP in 2009 (from 33% in 2006) before declining to 35.5% in 2011. This level is very low compared with EU-27 average, which is around 47%. Nevertheless, the projected expansion of public sector spending in relation to GDP goes against the overall aim of reducing macroeconomic imbalances in the economy. This in particular concerns compensation of public sector employees, which is expected to peak in 2008 and 2009, reflecting the recent substantial wage increases. Overall the wage increase in the public sector has been broadly on par with that in the private sector – wages in public administration grew lower than on average in the economy in 2005 and 2006, but faster than average in 2007. The 2008 budget foresees rather high increase in the overall wage bill, of 21.2% in total for those financed through the state budget, compared with overall increase in expenditure of 20.7%. Public wage increases, except a well-targeted ones, would be undesirable, given the very tight labour market and the possible development of a wage-price spiral. Public employment in public administration and defence already increased by respectively 5 and 6% in 2006 and 2007. Persistently high vacancy rates in the public administration suggest that further restructuring may be warranted.

Along with the priorities agreed in the coalition agreement of the new government, share of social payments, notably pensions and family benefits, will increase after a small decline in 2007. Gross fixed capital formation, at 4.5% of GDP in 2006, is expected to reach 6.1% of GDP in 2009, reflecting mainly absorption of EU structural funds. In accordance with the Growth and Jobs initiative, R&D expenditure are projected to be further increased in 2008 by 44% compared with 2007, while education expenditure, already above the EU-27 average, will reach 6.7% of GDP. Education expenditures are prioritised towards vocational training, while no reference is made in the programme to the possible cost of the lifelong learning initiatives. Expenditure in environmental protection will be likewise increased significantly by 34%.

As discussed above in sections 2.3, 4.1 and 4.3, adherence to set expenditure targets has not been strong in Estonia in recent years, with supplementary budgets increasing spending in line with better-than-expected revenue collection. Evolution of the expenditure targets is usually the following: in May the government adopts the medium-term budgetary framework, called State Budgetary Strategy, which sets spending priorities and distribution of expenditure for next 4 years on a rolling basis; expenditure targets are based on the spring forecast which is usually published in March. These targets do not constitute a binding limits: during preparations of the next year's budget the spending plans are adjusted on the basis of the autumn forecast which is prepared in September. In addition, a corrective or supplementary budget for the current year can be adopted, if revenues deviate significantly from what was anticipated in the initial budget; this is not a legislative requirement but a possibility foreseen by the budgetary law. Owing to the good economic situation of recent years, these supplementary budgets have normally increased revenue and expenditure targets, although in 1999 Estonia adopted a negative supplementary budget, due to the negative growth surprise in the aftermath of the Russian crises, which reduced expenditure by 1% of GDP.

6.3. Changes to the pension system

On 14 November 2007 Parliament adopted changes to the State Pension Insurance Act, which came into force on 1 January 2008. The aim of the change is to avoid the erosion of benefit and replacement ratios, which are already among the lowest in the EU, and would have continued declining on the basis of the former arrangements. The indexation formula, which according to the former legislation depended equally on wage growth and CPI, depends now more heavily on wage growth. In addition, the basic part of pensions has been increased at the expense of the part which depends on the individual contributions. According to a newly added clause, the new arrangements are to be reviewed every five years and adapted if necessary. The new calculation formula results in a higher increase in pensions (in 2008, by around 22% instead of 17% according to the old formula), especially in the next couple of years when high wage growth is expected to continue.

As a result, public pensions (Pillar I) will experience deficits estimated at 0.15% and 0.25% of GDP in 2008 and 2009, with a peak at around 0.6% of GDP in 2013-2014, as more people reach the retirement age and fewer people enter the labour market. Until 2011-2012, higher expenditures can be financed from the accumulated social contributions surplus of recent years (around 2.5% of GDP). Another financing measure relates to the social tax minimum contribution basis, which is being raised gradually with the aim to reach 100% of the minimum wage (currently 75%). Nevertheless, starting from 2011-2012, higher pension expenditures will become a direct burden for the budget.

The most recent update of the convergence programme does not elaborate in detail the subsequent financing arrangements. The programme also commits the government to reform the system of special pension entitlements.

6.4. Governance of public finances

There have been no major changes in 2007 to the budget process and budgeting procedures. However, legislative amendments to the budget law are expected to be submitted to Parliament in 2008. The amendments are aimed at improving public financial management by:

- developing the planning of resources and budgeting towards a performance-based and accrual-based system;
- developing the reporting system and tightening the link between reporting and planning;
- making the medium-term planning framework more stable;
- tightening the accountability mechanisms and internal control;
- developing the internal audit.

The Estonian authorities intend to pay more attention to increasing the possibility of redirecting state budget expenditure by reducing the share of revenue-related expenditure in the budget. More attention will also be paid to making budgeting more accurate and to improve implementation of the budgetary policy. This will require further development of the existing systems, methods and processes of forecasting, as well as national strategic planning and financial management.

In order to modernise the budgetary arrangements and financial management at the local government level, as well as to reinforce control over adherence to the budgetary discipline, the Ministry of Finance has drafted a proposal for a law regulating financing of local municipalities and intends to enforce the law starting from early 2009.

7. CONSISTENCY WITH THE NATIONAL REFORM PROGRAMME AND WITH THE BROAD ECONOMIC POLICY GUIDELINES

The October 2007 implementation report on Estonia's National reform Programme focuses on ensuring stable macroeconomic environment, long term sustainability of public finances, reduction of labour taxation, quality of R&D and innovation capacities, synergy between environment protection and growth, quality of the labour force, increased labour supply and labour market flexibility. The National Reform Programme presents a broad-based and very detailed strategy to reach these objectives.

The measures in the area of public finances envisaged in the Convergence Programme are in line with the actions foreseen in the implementation report of the National Reform Programme, in particular with respect to long term sustainability of public finances and shifting the tax burden from labour taxation. Both programmes also envisage conservative fiscal policies as a crucial element of macroeconomic stabilisation.

The convergence programme provides information and projections on the direct budgetary costs or savings of a number of major reforms envisaged in the National Reform Programme. However, while the convergence programme provides very comprehensive information on reforms in the area of public finances, it seems to somewhat overlook the detailed fiscal impact and projections of measures with a more microeconomic or employment-related character (R&D expenditure, lifelong learning, active labour market policies, etc…).

With respect to the qualitative assessment of the overall impact of the National Reform Programme within the medium-term fiscal strategy (impact on the public finance position, including via the impact on growth and employment), the convergence programme makes only very general reference to the relevance of the main measures in the NRP for economic growth.

Overall, the convergence programme and the National Reform Programme seem to be consistent to some extent.

Box 5: The Commission assessment of the October 2007 implementation report of the National Reform Programme

On 11 December 2007, the Commission adopted its Strategic Report on the renewed Lisbon strategy for growth and jobs, which includes an assessment of the October 2007 implementation report of Estonia's National Reform Programme[45] and is summarised as follows:

Estonia's National Reform Programme identifies as key challenges: R&D and innovation, as well as employment challenges.

The Commission's assessment is that Estonia has been making very good progress in implementing its National Reform Programme over the 2005-2007 period.

Against the background of progress made, the Commission recommends that Estonia is encouraged to focus on the areas of: macroeconomic stability and fight against inflation; R&D and innovation; cooperation between universities and enterprises; immunity and leniency

[45] Communication from the Commission to the European Council, "Strategic report on the renewed Lisbon strategy for growth and jobs: launching the new cycle (2008-2010)", 11.12.2007, COM(2007)803.

programme as well as competition enforcement; active labour market policies and lifelong learning; labour law modernization and flexible forms of work.

The table below provides an overview of whether the strategy and policy measures in the convergence programme are consistent with the broad economic policy guidelines in the area of public finances issued in the context of the Lisbon strategy for growth and jobs, in particular the integrated guidelines for the period 2005-2008, adopted by the Council in July 2005.

Overall, the convergence programme is broadly consistent with the Broad Economic Policy Guidelines. However, it would be desirable to maintain a broadly neutral fiscal stance in 2008 under the assumption of a gradual slowing down of the economy to more sustainable growth levels. Such a stance would promote adjustment in the current phase of the cycle when imbalances accumulated during the period of very high growth still persist and would help to preserve flexibility.

Table 12: Consistency with the Broad Economic Policy Guidelines (Integrated Guidelines)

Broad Economic Policy Guidelines (Integrated Guidelines)	Yes	Steps in right direction	No	Not applicable
1. To secure economic stability				
– Member States should respect their medium-term budgetary objectives. As long as this objective has not yet been achieved, they should take all the necessary corrective measures to achieve it[1].	X			
– Member States should avoid pro-cyclical fiscal policies[2].			X	
– Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits[3].				X
– Member States posting current account deficits that risk being unsustainable should work towards (…), where appropriate, contributing to their correction via fiscal policies.			X	
2. To safeguard economic and fiscal sustainability In view of the projected costs of ageing populations,				
– Member States should undertake a satisfactory pace of government debt reduction to strengthen public finances.				X
– Member States should reform and re-enforce pension, social insurance and health care systems to ensure that they are financially viable, socially adequate and accessible (…)	X			
3. To promote a growth- and employment-orientated and efficient allocation of resources				
Member States should, without prejudice to guidelines on economic stability and sustainability, re-direct the composition of public expenditure towards growth-enhancing categories in line with the Lisbon strategy, adapt tax structures to strengthen growth potential, ensure that mechanisms are in place to assess the relationship between public spending and the achievement of policy objectives and ensure the overall coherence of reform packages.	X			

Notes:
[1]As further specified in the Stability and Growth Pact and the code of conduct, i.e. with an annual 0.5% of GDP minimum adjustment in structural terms for euro area and ERM II Member States.
[2]As further specified in the Stability and Growth Pact and the code of conduct, i.e. Member States that have already achieved the medium-term objective should avoid pro-cyclical fiscal policies in "good times".
[3]As further specified in the country-specific Council recommendations and decisions under the excessive deficit procedure.

Source:
Commission services

8. PROGRESS IN IMPLEMENTING THE ERM II COMMITMENTS

On 28 June 2004, Estonia joined ERM II, thus linking its currency to the euro. In order to ensure a smooth participation in ERM II, it undertook commitments covering a broad range of areas, including fiscal policy, financial supervision / credit growth and structural reforms (see box). Taking into account also the information provided in the most recent update of the convergence programme, this section assesses Estonia's implementation of these commitments.

Box 6: ERM II commitments of Estonia

The agreement on participation of the kroon in ERM II is based on a firm commitment by the Estonian authorities to continue with sound fiscal policies, which are essential for preserving macroeconomic stability, for supporting an orderly and substantial reduction of the current account deficit, and for ensuring the sustainability of the convergence process. The authorities will closely monitor macroeconomic developments together with the responsible EU bodies, and they will strengthen the fiscal stance if warranted. To help reduce the external imbalance and contain it at a sustainable level, they will take the necessary measures to contain domestic credit growth and ensure effective financial supervision, and they will promote wage moderation. Structural reforms aimed at further enhancing the economy's flexibility and adaptability will be implemented in a timely fashion so as to strengthen domestic adjustment mechanisms and maintain the overall competitiveness of the economy.

The November 2007 update of the convergence programme contains an additional sub-chapter that explicitly covers aspects related to the participation of Estonia in ERM II, including an overview of specific measures taken in the context of those commitments.

The main emphasis of the ERM II communiqué was on the continuation of sound fiscal policies and strengthening of the fiscal stance. Estonia has a strong track record of fiscal policy with general government surpluses since 2002, including 1.9 percent of GDP in 2005 and 3.6 percent in 2006. Actual outcomes have persistently exceeded fiscal targets set out in convergence programmes, which until the 2006 programme update targeted nominal balance, as discussed in Section 4 above, although this was largely determined by buoyant tax collection. A similar outcome is expected in 2007. At the same time, it has been a practice in recent years to direct part of better-than-expected revenues via supplementary budgets towards increasing expenditures, while part has been added to the financial assets of the general government, which exceeded 16% of GDP by end-2006.[46] General government gross debt was just 4% of GDP at end-2006 and is expected to fall below 3% as of end-2007. Overall, while fiscal outturns have been stronger than targeted in recent years, the targets themselves have not been particularly ambitious given the initial positions and the stage of economic cycle, and implied a pro-cyclical fiscal stance in 2007.

As discussed in Section 3.3 on macroeconomic challenges, domestic credit growth picked up strongly during the period of ERM II participation. Credit growth in terms of change in outstanding loans to domestic non-financial sector has been on average above 50% y-o-y during 2004-2007. Recently, credit growth abated to around 33%, with lending rates increasing in parallel with ECB monetary tightening. Euro-denominated loans continue to account for around three-quarters of outstanding credit. According to the information provided in the programme, the Bank of Estonia raised the reserve requirements for banks from 13% to 15% in July 2006, compared with 2% in the euro area. In addition, in March 2006 the Bank of Estonia tightened mortgage loans-related

[46] Excluding non-quoted shares and other technical imputations of the balance sheet of the general government.

prudential requirements, which have in 2007 been replaced by the new risk assessment methodology bestowed in the new EU capital requirements directive. The authorities have repeatedly stressed in their public communications the need for caution on the part of borrowers. Financial stability indicators point to an overall resilient, well-capitalised and profitable banking sector, though the authorities closely monitor risks. In 2006 the central banks of Estonia, Latvia, Lithuania and Sweden signed a memorandum of understanding on cross-border arrangements for financial supervision and crisis management; in 2006 the Estonian financial authorities also signed a domestic agreement on crisis management. The scope of fiscal incentives, notably with regard to the deduction of mortgage interest payments from taxable income and the policy of providing mortgage collateral to certain target groups, has been reduced during 2004-2005, but these incentives were not completely eliminated.

As discussed in section 3.2, wages have grown strongly in recent years, with public sector wage growth broadly on par with that of the private sector. Rising wages reflect in particular tightening labour market conditions due to buoyant economic growth. The opening of the EU labour markets, overall beneficial for the economy in the long run, coincided with the stage of the economic cycle and exacerbated those tendencies, as the outflow of skilled labour has increased in recent years. The level of labour productivity remains relatively low at ca 67% in 2007 of the EU average (although up from 51% in 2002). To ease labour market constraints, the government passed in June 2007 decisions simplifying the issuance of work permits to non-residents. The State Budgetary Strategy adopted in May 2007 puts much emphasis on improving economy-wide productivity. An acceleration of wages in the context of Estonia's decentralised wage-setting system and constrained labour supply represents one of the major challenges that the economy currently faces, increasing the risk of encouraging a wage-price spiral. While the impact of opening the Estonian labour market to non-residents is unlikely be significant, measures aiming at improving productivity, if fully implemented, as well as reducing labour taxation, could be helpful in the long run.

Estonia implemented fundamental structural reforms, including comprehensive pension reform, during the early years of transition. The most recent NRP identified R&D, innovation and employment as key challenges for sustaining strong economic growth and enhancing competitiveness. Progress in the area of R&D and innovation has been assessed as good during the last assessment round and an update of the labour law has been drafted and is under discussion with an aim to improve labour market flexibility. Positive results have been achieved with regards to improving the business environment, where in international comparison Estonia's position is rather favourable, ranking 17th in the IBRD Doing Business index and 12th in the Heritage Foundation Index of Economic Freedom.

Estonia's economy is subject to macroeconomic imbalances, fuelled by strong demand and credit growth and a tight labour market. Securing an orderly return to a balanced convergence path requires determined policy efforts, including with a view to continued smooth participation in ERM II. Upon entry into the mechanism, Estonia undertook commitments related to fiscal, financial sector and structural policies. Fiscal performance has been overall strong in the ERM II period, although the recent fiscal stance was not particularly ambitious given the initial positions and stage of economic cycle, having resulted in pro-cyclicality in 2007. Reserve and prudential requirements have been tightened to help contain rapid credit growth, but the immediate impact of those measures on lending activity appears to have been limited. Wage growth has picked up strongly both in private and public sector in the context of rapid economic growth and tight labour market and represents currently the main challenge for the Estonian economy. Estonia planned measures to increase labour market flexibility in the NRP and has recently committed itself to further measures to improve economy-wide productivity.

* * *

Annex 1: Compliance with the code of conduct

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 broadly follows the model structure outlined in the code of conduct, covering all principal sections.

(ii) Data requirements

The programme broadly adheres to the code of conduct as far as data requirements are concerned, but there are some gaps and deficiencies 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, under lines "Short-term interest rate" and "Long-term interest rate" assumptions for euro area interest rates are used. This can be justified by the fact that Euribor is the main benchmark interest rate used in Estonia, while the EEK short-term interest rate indicator (Talibor) is not sufficiently representative. Due to the absence of benchmark long-term government bonds in Estonia there are likewise no sufficiently representative long-term EEK interest rates.

Regarding provision of optional data, in Table 1c "Labour market developments" lines 2 (employment, hours worked) and 5 (labour productivity, hours worked) are missing. Line 7 (compensation per employee) is filled only for compulsory years; necessary information was however provided on informal basis. In Table 1d "Sectoral balances" line 2 (net lending/borrowing of the private sector) is missing; line 5 (statistical discrepancy) is filled only for the compulsory years 2006 and 2007, but not for the (optional) 2008-2011 period. In Table 2 "General government budgetary prospects" lines 17a (compensation of employees) and 17b (intermediate consumption) are missing. In Table 4 "General government debt development" lines 6 (liquid financial assets) and 7 (net financial debt) are missing. In Table 5 "Cyclical developments" sub-indicators of line 5 (contributions to potential GDP growth) are missing. In Table 7 "Long-term sustainability of public finances" lines for sub-items "of which: age-related expenditures", "education expenditure" and "other age-related expenditure" are missing. In addition, base year (2000) information is missing.

The tables on the following pages show the data presented in the November 2007 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[1].	X		
… 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	X		

The SCP…	Yes	No	Comments
their relationship to price and exchange rate stability.			
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.	X		
… (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 budgetary effects of possible 'major structural reforms' over time.			Not applicable
… includes quantitative cost-benefit analysis of short-term costs and long-term benefits of reforms.			Not applicable
f. Sensitivity analysis			
… includes comprehensive sensitivity analyses and/or develops alternative scenarios showing impact on balance and debt of: a) changes in main economic assumptions b) different interest rate assumptions c) (for CP only) different exchange rate assumptions 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.			Not 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
[1]To the extent possible, bearing in mind the typically short time period between the publication of the Commission services' autumn forecast and the submission of the programme.

Source:
Commission services

Table 1a. Macroeconomic prospects

	ESA Code	2006 Level	2006 rate of change	2007 rate of change	2008 rate of change	2009 rate of change	2010 rate of change	2011 rate of change
1. Real GDP	B1*g	*157901.3*	11.2	7.4	5.2	6.1	6.7	7.0
2. Nominal GDP	B1*g	*207061.3*	18.1	16.8	14.0	11.8	10.8	10.8
Components of real GDP								
3. Private consumption expenditure	P.3	*93477.2*	14.9	11.8	5.6	5.4	7.3	7.5
4. Government consumption expenditure	P.3	*21425.4*	2.6	3.5	1.4	1.8	2.3	2.6
5. Gross fixed capital formation	P.51	*56595.4*	22.4	10.0	2.6	4.7	6.6	7.6
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	*n.a.*	4.1	4.1	3.8	3.7	3.6	3.6
7. Exports of goods and services	P.6	*139010.6*	8.3	2.5	6.4	7.7	7.7	7.7
8. Imports of goods and services	P.7	*161982.3*	17.1	3.5	4.7	5.9	7.3	7.5
Contributions to real GDP growth								
9. Final domestic demand		-	16.2	11.0	4.6	5.2	7.1	7.6
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	1.2	0.0	-0.1	0.1	0.2	0.1
11. External balance of goods and services	B.11	-	-9.2	-1.4	0.7	0.7	-0.6	-0.7

Table 1b. Price developments

	ESA Code	2006 Level	2006 rate of change	2007 rate of change	2008 rate of change	2009 rate of change	2010 rate of change	2011 rate of change
1. GDP deflator		*131.1*	6.2	8.7	8.3	5.4	3.8	3.6
2. Private consumption deflator		*119.8*	3.8	4.8	6.3	4.4	2.5	2.0
3. HICP[1]		*124.3*	4.4	6.6	8.6	5.6	3.6	3.5
4. Public consumption deflator		*158.1*	10.2	15.0	14.4	11.0	8.5	8.2
5. Investment deflator		*124.7*	7.3	6.0	5.6	5.2	4.8	4.7
6. Export price deflator (goods and services)		*118.3*	9.6	5.0	5.5	4.9	4.6	4.3
7. Import price deflator (goods and services)		*116.0*	7.2	3.0	3.9	4.9	4.6	4.3

[1] Optional for stability programmes.

Table 1c. Labour market developments

	ESA Code	2006	2006	2007	2008	2009	2010	2011
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[1]		*646.3*	6.4	1.2	0.4	0.0	0.0	0.0
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.*	5.9	5.2	5.3	5.3	5.3	5.3
4. Labour productivity, persons[4]		*244.3*	4.5	6.1	4.7	6.1	6.7	7.0
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	*92285.9*	20.3	23.9	16.5	14.0	11.1	10.2
7. Compensation per employee		*142.8*	13.1	22.5	optional	optional	optional	optional

[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	2006	2007	2008	2009	2010	2011
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-13.2	-14.0	-9.9	-8.2	-7.8	-7.4
of which : - Balance on goods and services		-11.6	-9.6	-7.1	-5.8	-5.6	-5.5
- Balance of primary incomes and transfers		-3.9	-6.0	-4.7	-4.4	-4.2	-3.8
- Capital account		2.3	1.6	1.8	2.0	2.0	1.9
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		0.2	0.4	optional	optional	optional	optional

Table 2. General government budgetary prospects

	ESA Code	2006 Level	2006 % of GDP	2007 % of GDP	2008 % of GDP	2009 % of GDP	2010 % of GDP	2011 % of GDP
Net lending (EDP B.9) by sub-sector								
1. General government	S.13	*7380.5*	3.6	2.6	1.3	1.0	0.9	0.8
2. Central government	S.1311	*6161*	3.0	2.2	1.0	0.8	0.7	0.6
3. State government	S.1312	*n.a.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4. Local government	S.1313	*5.7*	0.0	0.0	0.0	0.0	0.0	0.0
5. Social security funds	S.1314	*1213.8*	0.6	0.4	0.3	0.2	0.2	0.2
General government (S13)								
6. Total revenue	TR	*75792.4*	36.6	37.2	38.2	38.2	37.4	36.3
7. Total expenditure	TE[1]	*68411.9*	33.0	34.6	36.9	37.2	36.5	35.5
8. Net lending/borrowing	EDP B.9	*7380.5*	3.6	2.6	1.3	1.0	0.9	0.8
9. Interest expenditure	EDP D.41	*329.3*	0.2	0.1	0.1	0.1	0.1	0.1
10. Primary balance[2]		*7709.8*	3.7	2.7	1.4	1.1	1.0	0.8
11. One-off and other temporary measures[3]		*1479*	0.7	0.6	0.5	0.0	0.0	0.0
Selected components of revenue								
12. Total taxes (12=12a+12b+12c)		*42359.2*	20.5	20.8	20.8	20.5	19.9	19.4
12a. Taxes on production and imports	D.2	*27556*	13.3	13.1	13.4	13.5	13.1	12.8
12b. Current taxes on income, wealth, etc	D.5	*14803.2*	7.1	7.7	7.4	7.0	6.8	6.6
12c. Capital taxes	D.91	*0*	0.0	0.0	0.0	0.0	0.0	0.0
13. Social contributions	D.61	*21355.7*	10.3	10.8	11.1	11.6	11.7	11.8
14. Property income	D.4	*2531*	1.2	1.2	0.8	0.5	0.5	0.4
15. Other[4]		*9546.5*	4.6	4.4	5.5	5.6	5.3	4.7
16=6. Total revenue	TR	*75792.4*	36.6	37.2	38.2	38.2	37.4	36.3
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]			31.0	32.0	32.3	32.5	32.1	31.6
Selected components of expenditure								
17. Compensation of employees + intermediate consumption	D.1+P.2	*31779*	**15.3**	**15.5**	**16.5**	**16.2**	**15.9**	**15.6**
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)		*22000.6*	10.6	11.1	11.9	12.1	12.0	11.8
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	*3701*	1.8	1.9	2.0	2.0	2.0	1.9
18b. Social transfers other than in kind	D.62	*18299.6*	8.8	9.2	9.9	10.1	10.0	9.9
19=9. Interest expenditure	EDP D.41	*329.3*	0.2	0.1	0.1	0.1	0.1	0.1
20. Subsidies	D.3	*2074.8*	1.0	1.0	1.1	1.1	1.1	1.1
21. Gross fixed capital formation	P.51	*9372.5*	4.5	5.6	5.8	6.1	5.9	5.5
22. Other[6]		*2855.7*	1.4	1.3	1.5	1.6	1.5	1.4
23=7. Total expenditure	TE[1]	*68411.9*	33.0	34.6	36.9	37.2	36.5	35.5
p.m.: Government consumption (nominal)	P.3	*33874.6*	16.4	16.7	17.0	17.2	17.2	17.2

[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	2005	2010
1. General public services	1	2.6	2.8
2. Defence	2	1.4	1.4
3. Public order and safety	3	2.2	2.3
4. Economic affairs	4	4.0	5.5
5. Environmental protection	5	0.9	1.3
6. Housing and community amenities	6	0.2	0.5
7. Health	7	4.0	4.1
8. Recreation, culture and religion	8	2.5	2.0
9. Education	9	6.0	6.6
10. Social protection	10	9.8	9.9
11. Total expenditure (=item 7=23 in Table 2)	TE[1]	33.4	36.5

[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	2006	2007	2008	2009	2010	2011
1. Gross debt[1]		4.0	2.7	2.3	2.0	1.8	1.6
2. Change in gross debt ratio		-0.4	-1.3	-0.4	-0.3	-0.2	-0.2
Contributions to changes in gross debt							
3. Primary balance[2]		-3.8	-2.7	-1.4	-1.1	-1.0	-0.9
4. Interest expenditure[3]	EDP D.41	0.2	0.1	0.1	0.1	0.1	0.1
5. Stock-flow adjustment		3.9	1.9	1.2	1.0	0.9	0.8
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]		3.9	1.9	1.2	1.0	0.9	0.8
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]		4.6	5.0	5.0	5.0	4.9	5.0
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	2006	2007	2008	2009	2010	2011
1. Real GDP growth (%)		11.2	7.4	5.2	6.1	6.7	7.0
2. Net lending of general government	EDP B.9	3.6	2.6	1.3	1.0	0.9	0.8
3. Interest expenditure	EDP D.41	0.1	0.1	0.1	0.1	0.1	0.1
4. One-off and other temporary measures[1]		0.7	0.6	0.5	0.0	0.0	0.0
5. Potential GDP growth (%)		10.6	7.9	7.4	6.8	6.6	6.5
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		1.7	1.2	-0.8	-1.5	-1.3	-0.8
7. Cyclical budgetary component		0.5	0.4	-0.2	-0.5	-0.4	-0.2
8. Cyclically-adjusted balance (2 - 7)		3.1	2.2	1.5	1.5	1.3	1.0
9. Cyclically-adjusted primary balance (8 + 3)		3.2	2.3	1.6	1.6	1.4	1.1
10. Structural balance (8 - 4)		2.4	1.6	1.0	1.5	1.3	1.0

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

Table 6. Divergence from previous update

	ESA Code	2006	2007	2008	2009	2010	2011
Real GDP growth (%)							
Previous update		11.0	8.3	7.7	7.6	7.5	n.a.
Current update		11.2	7.4	5.2	6.1	6.7	7.0
Difference		0.2	-0.9	-2.5	-1.5	-0.8	n.a.
General government net lending (% of GDP)	EDP B.9						
Previous update		2.6	1.2	1.3	1.6	1.5	n.a.
Current update		3.6	2.6	1.3	1.0	0.9	0.8
Difference		1.0	1.4	0.0	-0.6	-0.6	n.a.
General government gross debt (% of GDP)							
Previous update		3.7	2.6	2.3	2.1	1.9	n.a.
Current update		4.0	2.7	2.3	2.0	1.8	1.6
Difference		0.3	0.1	0.0	-0.1	-0.1	n.a.

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050
Total expenditure	n.a.	34.6	36.5	34.6	33.9	33.6
Of which: age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pension expenditure	n.a.	6.0	7.1	6.2	5.7	5.4
Social security pension	n.a.	6.0	7.1	6.2	5.7	5.4
Old-age and early pensions	n.a.	5.1	6.1	5.3	4.9	4.8
Other pensions (disability, survivors)	n.a.	0.9	1.0	0.9	0.8	0.6
Occupational pensions (if in general government)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Health care	n.a.	4.7	5.2	5.1	5.0	4.8
Long-term care *(this was earlier included in the*	n.a.	0.1	0.1	0.1	0.1	0.1
Education expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest expenditure	n.a.	0.1	0.1	0.1	0.1	0.1
Total revenue	n.a.	37.2	37.4	34.6	33.9	33.6
Of which: property income	n.a.	1.0	1.1	1.1	1.1	1.1
Of which : from pensions contributions (or social contributions if appropriate)	n.a.	10.8	11.7	11.5	11.3	10.9
Pension reserve fund assets	n.a.	2.5	0.3	0.0	0.0	1.7
Of which : consolidated public pension fund assets (assets other than government liabilities)	n.a.	2.5	0.3	0.0	0.0	1.7
Assumptions						
Labour productivity growth	n.a.	6.1	6.7	3.6	2.8	1.7
Real GDP growth	n.a.	7.4	6.7	2.7	2.1	0.7
Participation rate males (aged 20-64)	n.a.	83.9	85.3	87.4	87.6	85.8
Participation rates females (aged 20-64)	n.a.	73.9	75.4	79.5	79.8	77.6
Total participation rates (aged 20-64)	n.a.	78.7	80.1	83.3	83.6	81.7
Unemployment rate	n.a.	5.2	5.3	6.3	5.9	5.3
Population aged 65+ over total population	n.a.	17.1	17.1	18.7	20.9	25.4

Table 8. Basic assumptions

	2006	2007	2008	2009	2010	2011
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)	0.80	0.74	0.70	0.70	0.74	0.76
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)	15.6	15.6	15.6	15.6	15.6	15.6
World excluding EU, GDP growth	6.0	5.6	5.3	5.4	5.3	5.3
EU GDP growth	3.0	2.9	2.4	2.4	2.3	2.3
Growth of relevant foreign markets	4.1	3.9	3.2	2.8	2.8	2.8
World import volumes, excluding EU	8.5	8.1	7.4	7.9	7.7	7.7
Oil prices (Brent, USD/barrel)	65.2	70.6	78.8	76.0	70.4	69.0

[1]If necessary, purely technical assumptions.

Annex 2: Key indicators of past economic performance

This annex displays key economic indicators that summarise the past economic performance of Estonia. To put the country's performance into perspective, right-hand side of the table displays the same set of indicators for the recently acceded Member States.

Table: Key economic indicators

	Estonia						Recently acceded Member States					
	Averages			2005	2006	2007	Averages			2005	2006	2007
	'96 - '05	'96 - '00	'01 - '05				'96 - '05	'96 - '00	'01 - '05			
Economic activity												
Real GDP (% change)	6.9	5.6	8.3	10.2	11.2	7.8	3.8	3.6	4.1	4.8	6.3	6.0
Contributions to real GDP growth:												
Domestic demand	*7.8*	*6.0*	*9.6*	*8.2*	*20.4*	*10.3*	*4.4*	*4.6*	*4.1*	*4.1*	*7.3*	*7.8*
Net exports	*-0.9*	*-0.4*	*-1.3*	*2.0*	*-9.2*	*-2.5*	*-0.5*	*-1.0*	*-0.1*	*0.8*	*-0.9*	*-1.8*
Real GDP per capita (PPS; EU27 = 100)	48	42	54	62	67	70	47	45	49	52	54	56
Real GDP per capita (% change)	7.7	6.8	8.7	10.8	11.4	8.0	4.1	3.8	4.4	4.9	6.4	6.1
Prices, costs and labour market												
HICP inflation (%)	6.3	9.0	3.5	4.1	4.4	6.3	7.8	12.9	5.7	3.8	3.4	4.0
Labour productivity (% change)	7.7	8.2	7.2	8.3	5.3	6.6	4.2	4.3	4.1	3.3	3.6	3.5
Real unit labour costs (% change)	-1.6	-2.2	-1.1	-3.4	2.0	3.7	-1.3	-1.4	-1.3	-0.6	-1.5	0.4
Employment (% change)	-0.5	-2.0	1.1	2.0	5.4	1.1	-0.3	-0.6	0.0	1.4	2.6	2.4
Unemployment rate (% of labour force)	10.3	10.6	10.1	7.9	5.9	4.9	11.3	9.7	12.9	11.9	9.9	7.8
Competitiveness and external position												
Real effective exchange rate (% change)	3.1	3.7	2.5	0.3	6.8	10.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Export performance (% change)[1]	4.5	5.1	3.9	10.2	-1.5	-1.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	-8.5	-7.9	-9.0	-7.9	-11.9	-13.6	-4.5	-4.8	-4.3	-4.3	-5.0	-6.1
Public finances												
General government balance (% of GDP)	0.1	-0.9	1.2	1.9	3.6	3.0	-4.2	-3.8	-4.4	-3.5	-3.3	-2.7
General government gross debt (% of GDP)	5.5	6.0	5.1	4.4	4.0	2.8	37.7	35.4	39.0	39.6	38.8	37.9
Structural balance (% of GDP)[2]	n.a.	n.a.	2.0	1.7	2.7	2.4	n.a.	n.a.	-3.8	-3.3	-3.6	-3.0
Financial indicators												
Short-term real interest rate (%)[3]	-1.1	-1.4	-0.9	-3.6	-2.8	-3.7	3.9	6.3	2.9	1.4	1.0	0.5
Long-term real interest rate (%)[3]	3.2	5.1	2.0	-2.1	-1.8	-2.6	n.a.	n.a.	n.a.	n.a.	1.6	1.1

Notes:

[1]Market performance of exports of goods and services on export-weighted imports of goods and services of 35 industrial markets.

[2]Cyclically-adjusted balance net of one-off and other temporary measures; available since 2003.

[3]Using GDP deflator.

Source :
Commission services