



EUROPEAN COMMISSION
DIRECTORATE GENERAL
ECONOMIC AND FINANCIAL AFFAIRS

Brussels, 27 February 2007
ECFIN/50815/07-EN

**ECONOMIC ASSESSMENT
OF THE CONVERGENCE PROGRAMME OF HUNGARY
(UPDATE OF DECEMBER 2006)**

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

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs of the European Commission, was finalised on 27 February 2007. Comments should be sent to László Jankovics (laszlo.jankovics@ec.europa.eu) and Júlia Lendvai (julia.lendvai@ec.europa.eu). The main aim of the technical analysis is to assess the realism of the budgetary strategy presented in the programme as well as its compliance with the requirements of the Stability and Growth Pact. However, the analysis also looks at the overall macro-economic performance of the country and highlights relevant policy challenges.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 7 February 2007. The ECOFIN Council adopted its opinion on the programme on 27 February 2007.

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

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

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SUMMARY AND CONCLUSIONS¹

As part of the preventive arm of the Stability and Growth Pact, each Member State that does not use the single currency, such as Hungary, has to submit a convergence programme and annual updates thereof. The most recent programme, covering the period 2006-2010, was submitted on 1 December 2006. Under the corrective arm of the Pact, Hungary was placed in excessive deficit by the Council in July 2004. The deadline for correcting the excessive deficit is 2009.

Over the past 10 years, the growth performance of the Hungarian economy has been fairly strong. However, employment and labour market participation rates remain among the lowest in the EU and several imbalances started to build up in recent years related to the expansionary fiscal policy stance. The very high and increasing budget deficit resulted in a significant increase of the public debt and put the sustainability of Hungarian public finances, also in view of the expected long-term rise in age-related expenditures, at high risk. Increasing wage costs, especially since 2001, contributed to the stagnation of employment. Moreover, incentive schemes have not been sufficiently encouraging workers to remain in the labour market and the skills provided by the education and the training systems do not adequately match the requirements of new production structures. The expansionary fiscal policy also appears to have crowded out private investment. At the same time, it contributed to maintaining high external deficits and led to a significant increase of the net foreign debt stock. This was recently accompanied by a build-up of households' un-hedged foreign exchange liabilities increasing their exposure to exchange rate fluctuations.

Against this background, Hungary faces challenges related to stability, sustainability and efficiency of public finances. First, the stability of the Hungarian economy crucially hinges on achieving a lasting correction of the excessive deficit. This may be accomplished through reforms of the public administration pension, health-care, and education systems as well as through the introduction of comprehensive fiscal rules. Regarding sustainability, in recent years, various changes to the pension system have offset the expected positive impact of the pension reform that had been undertaken at the end of the 1990s. While first reform steps were taken in autumn 2006, unfavourable demographic trends combined with the current suboptimal parameters of the pension system constitute a serious risk to the long-term sustainability of public finances, already burdened by a high deficit and debt level. Health-related expenditures represent an additional challenge in this regard. Finally, an increase in labour market participation and employment as well as in labour productivity could raise efficiency. This could be achieved on the one hand through better incentive schemes (e.g. restructuring of the taxation system, comprehensive reform of disability pension and child-care benefit systems), and on the other hand through a comprehensive reform strategy for the education and training systems.

The macroeconomic scenario underlying the updated convergence programme expects a slow-down of economic activity for the years 2007 and 2008, as a result of the fiscal consolidation measures, with a recovery to pre-consolidation growth rates by 2009. Assessed against currently available information, this scenario appears to be broadly plausible for the years up to 2008 and might even be slightly cautious, while for the outer years it seems rather

¹ The analysis takes into account (i) the Commission services' autumn 2006 forecast, (ii) the code of conduct ("Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes", endorsed by the ECOFIN Council of 11 October 2005) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances.

favourable. The programme projects inflation to surge in 2007 and rapidly decline thereafter; however, the projected inflation path over the entire programme horizon is somewhat favourable. Based on the Commission services' autumn 2006 forecast for the evolution of the output gap and on the inflation and unemployment projections, Hungary seems to be in economic bad times over the next two years with an expected improvement thereafter.

For 2006, the general government deficit is estimated at 10.1% of GDP in the Commission services' autumn 2006 forecast, in line with the revised target of the September 2006 update², and against a target of 6.1% of GDP set in the December 2005 update of the convergence programme. The overshoot compared to the original deficit target took place almost entirely on the expenditure side (around 5% of GDP). The budgetary corrective package of 1½% of GDP adopted in summer 2006 consists of revenue-increasing measures, together with some immediate expenditure cuts in the areas of health-care, gas price subsidies and public administration. These measures (except the withdrawal of the 0.3% of GDP general reserve of the budget) are expected to produce important effects also in 2007 and thereafter.

The main goal of the update is to correct the excessive deficit by 2009 (reducing the deficit from 10.1% of GDP in 2006 to 3.2% of GDP in 2009³), in line with the September 2006 update against a background of a broadly similar macroeconomic scenario, with a further reduction in 2010. The improvement in the primary balance is of the same magnitude. The planned adjustment is front-loaded, with nearly half of the reduction in the deficit ratio to take place in 2007. The planned nominal adjustment over the programme period is to be achieved by increasing the revenue-to-GDP ratio by nearly 1 percentage point and by reducing the expenditure-to-GDP ratio by 6.5 percentage points. On top of the expenditure cuts and budgetary freezes adopted since summer 2006, the authorities have started to strengthen expenditure controls and enhance the institutional framework of public finances. Moreover, the programme spells out a broad structural reform agenda aimed to ensure the achievement of the deficit targets, especially in the outer years of the programme. The government gross debt, estimated to have reached 67½% of GDP in 2006, is expected in the programme to increase to 71¼% of GDP in 2008, mainly because of the envisaged deficit path. After 2008, it is expected to decrease again and return to 67½% in 2010 as a result of both the shift to a primary surplus of around 1% of GDP and the strong pick-up in growth.

The structural balance (i.e. the cyclically-adjusted balance net of one-off and other temporary measures) calculated according to the commonly agreed methodology is planned to improve from 9¾% of GDP in 2006 to around 3% at the end of the programme period. Based on the change in the structural balance as recalculated by Commission services, the stance of fiscal policy would be restrictive until 2009, turning to broadly neutral in the final year of the programme. The medium-term objective (MTO) for the budgetary position presented in the programme is a structural deficit of 0.5% of GDP, which is somewhat more ambitious compared to the previous update of the programme. It is in line with the Pact but is not targeted to be reached within the programme horizon.

² In its opinion on the December 2005 update of the convergence programme, the Council had invited Hungary to present by 1 September 2006 an adjusted convergence programme update identifying concrete and structural measures fully consistent with its medium-term adjustment path.

³ The deficit target of 3.2% of GDP in 2009 would still exceed the 3% of GDP threshold specified in the Treaty. It is assumed in the programme that the Council and the Commission take into account 20% of the yearly burden on the budget arising from the pension reform (which is expected to amount to 0.3% of GDP in that year) when taking a decision on abrogating the excessive deficit procedure for Hungary (in line with the corrective arm of the Pact, i.e. Council Regulation (EC) No 1467/97 as amended).

The budgetary outcomes could be worse than targeted in the programme, especially from 2008. The risks to the deficit path stemming from the macroeconomic outlook are broadly balanced until 2008, but lower-than-projected GDP growth in the outer years could lead to a higher deficit. Although the short-term expenditure cuts and temporary budgetary freezes were incorporated into the 2007 budget as planned, there is still some uncertainty about the effective enforcement of the expenditure freezes (also because of the poor track-record of similar controls in 2004-2006). The effectiveness of the new fiscal rules and the initial steps taken towards a multi-annual budgetary framework in reversing the pattern of regular expenditure overruns will have to be tested. The Government has taken decisions on a number of steps to reform the public administration, health, pension, price subsidies and education systems. Based on these measures the budgetary outcomes could be closer to the deficit targets for 2007 and 2008 than expected in the Commission services' autumn 2006 forecast, which projected the 2007 deficit at 7.4% of GDP and the 2008 deficit at 5.6% of GDP (against an official target of 6.8% of GDP and of 4.3% of GDP, respectively). However, the remaining structural reform steps, necessary to replace the expenditure-curbing measures that expire at the end of 2008, still need to be fully specified and implemented. In addition, in the outer years of the programme, there is a risk of a budgetary loosening, due to the electoral cycle, as evidenced by past experience. Finally, should the restructuring plans of the public transport companies fail to yield the expected results, the accumulating losses of these companies might temporarily increase the deficit.

In view of this risk assessment, the budgetary stance in the programme seems broadly consistent with a correction of the excessive deficit by 2009 as recommended by the Council provided that the budgetary strategy is fully implemented. This concerns in particular the full implementation of the consolidation measures announced in the 2007 budget and in the new programme as well as the further specification and timely adoption of the announced additional structural reform measures. In 2010, after the planned correction of the excessive deficit, the pace of the adjustment towards the MTO implied by the programme should be strengthened. This would also be a first step towards providing a sufficient safety margin against breaching the 3% of GDP deficit threshold with normal macroeconomic fluctuations, which is not in place. Concerning debt developments, given the risks to the budgetary targets, the evolution of the debt ratio is likely to be less favourable than projected in the programme and the debt ratio would not be sufficiently diminishing towards the reference value until the end of the programme period.

The long-term budgetary impact of ageing in Hungary is well above the EU average as mentioned above among the policy challenges, notably as a result of the high increase in pension expenditure as a share of GDP over the long term. While first important steps have been taken in autumn 2006, full implementation of further reform measures aimed at containing the significant increase in age-related expenditures as planned in the programme would contribute to reducing risks to the sustainability of public finances. Moreover, and importantly, the weak initial budgetary position, having deteriorated substantially compared with 2005, constitutes a risk to sustainable public finances even before the long-term budgetary impact of an ageing population is considered. In addition, the current level of gross debt is above the Treaty reference value. Further budgetary consolidation as planned would contribute to reducing risks to the sustainability of public finances. Overall, Hungary appears to be at high risk with regard to the sustainability of public finances.

The implementation report of the national reform programme (NRP) of Hungary, provided in the form of a revised national reform programme in the context of the renewed Lisbon strategy for growth and jobs, was submitted on 13 October 2006. Hungary's revised NRP

maintains the key challenges identified in the 2005 NRP, complements them by a new priority for energy and the environment and a new emphasis on active labour market policies and outlines plans to establish a sustainable budgetary position in the short term, conducive to growth and job creation over the medium term. The Commission's assessment of this programme (adopted as part of its December 2006 Annual Progress Report⁴) showed that Hungary has made limited progress in the implementation of its 2005 NRP. After major budgetary slippages, the government has had to significantly review its fiscal adjustment path and adopt and implement fiscal consolidation measures. Despite the adoption of some reforms in the employment and micro-economic policy areas, much more remains to be done in those fields as well as in improving macroeconomic stability. The convergence programme update and the NRP are to some extent integrated. While the structural reform plans and recently adopted measures outlined in the convergence programme entirely correspond to the reform agenda presented in the revised NRP, the convergence programme does not provide systematic information on the direct budgetary costs or savings of the main envisaged reforms.

The overall conclusion is that the updated convergence programme plans to reduce the high deficits of the past years, through a frontloaded adjustment effort and is broadly consistent with correcting the excessive deficit by 2009, the deadline set by the Council. A number of revenue-increasing and expenditure-containing consolidation measures have been taken since the summer of 2006. In addition, reform steps were adopted in autumn 2006 in the fields of public administration, health care, pension and education. All these are conducive to stabilisation. However, there are risks to the achievement of the budgetary targets, especially in view of uncertainties around the enforcement of the adopted expenditure freezes as well as the further specification and full implementation of structural reforms. In particular, the long-term sustainability of public finances requires additional steps to restructure the pension system. According to the convergence programme, the government therefore plans to review the key parameters of the pension system in 2007. Moreover, a revision of the disability and child-care benefit schemes could improve incentives to stay in the labour market – measures to this end are also foreseen for the first half of this year. The convergence programme also announces reforms in the field of education. These reforms need however to be specified in order to assess whether they respond to the need of a thorough reform strategy in this field. Finally, some fiscal rules were incorporated in the 2007 budget based on the recent amendments of the Public Finance Act. However, these steps were not comprehensive and also less ambitious than announced in the September 2006 adjusted convergence programme update.

⁴ Communication from the Commission to the Spring European Council, "Implementing the renewed Lisbon strategy for growth and jobs - A year of delivery", 12.12.2006, COM(2006)816.

Comparison of key macroeconomic and budgetary projections

		2005	2006	2007	2008	2009	2010
Real GDP (% change)	CP Dec 2006	4.2	4.0	2.2	2.6	4.2	4.3
	COM Nov 2006	4.2	4.0	2.4	2.7	n.a.	n.a.
	CP Sep 2006	4.1	4.1	2.2	2.6	4.1	n.a.
	CP Dec 2005	4.2	4.3	4.1	4.1	n.a.	n.a.
HICP inflation (%)	CP Dec 2006	3.6	3.9	6.2	3.3	3.0	2.8
	COM Nov 2006	3.5	3.9	6.8	3.9	n.a.	n.a.
	CP Sep 2006	3.6	3.5	6.2	3.3	3.0	n.a.
	CP Dec 2005	3.5	2.1	3.0	2.4	n.a.	n.a.
Output gap (% of potential GDP)	CP Dec 2006¹	0.5	0.9	-0.4	-1.2	-0.5	0.4
	COM Nov 2006 ⁵	0.6	1.0	0.1	-0.5	n.a.	n.a.
	CP Sep 2006 ¹	0.3	0.8	-0.3	-0.9	0.0	n.a.
	CP Dec 2005 ¹	-1.0	-0.5	-0.1	0.4	n.a.	n.a.
General government balance (% of GDP)	CP Dec 2006	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
	COM Nov 2006	-7.8	-10.1	-7.4	-5.6	n.a.	n.a.
	CP Sep 2006	-7.5	-10.1	-6.8	-4.3	-3.2	n.a.
	CP Dec 2005 ⁶	-7.4	-6.1	-4.7	-3.4	n.a.	n.a.
Primary balance (% of GDP)	CP Dec 2006	-3.7	-6.2	-2.4	0.0	0.9	1.1
	COM Nov 2006	-3.7	-6.1	-2.9	-1.4	n.a.	n.a.
	CP Sep 2006	-3.4	-6.3	-2.4	-0.2	0.8	n.a.
	CP Dec 2005 ⁶	-3.8	-2.9	-1.7	-0.7	n.a.	n.a.
Cyclically-adjusted balance (% of GDP)	CP Dec 2006¹	-8.0	-10.5	-6.6	-3.8	-3.0	-2.9
	COM Nov 2006	-8.1	-10.5	-7.4	-5.4	n.a.	n.a.
	CP Sep 2006 ¹	-7.6	-10.5	-6.7	-3.9	-3.2	n.a.
	CP Dec 2005	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Structural balance ² (% of GDP)	CP Dec 2006³	-8.0	-9.8	-5.6	-3.7	-3.0	-2.9
	COM Nov 2006 ⁴	-8.5	-10.3	-6.5	-5.1	n.a.	n.a.
	CP Sep 2006	-7.6	-9.7	-5.8	-3.6	-3.2	n.a.
	CP Dec 2005	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Government gross debt (% of GDP)	CP Dec 2006	61.7	67.5	70.1	71.3	69.3	67.5
	COM Nov 2006	61.7	67.6	70.9	72.7	n.a.	n.a.
	CP Sep 2006	62.3	68.5	71.3	72.3	70.4	n.a.
	CP Dec 2005 ⁶	61.5	63.0	63.2	62.3	n.a.	n.a.

Notes:

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

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

³One-off and other temporary measures taken from the programme (0.7% of GDP in 2006 and 1.0% of GDP in 2007 and 0.1% of GDP in 2008; all deficit increasing).

⁴One-off and other temporary measures taken from the Commission services' autumn 2006 forecast (0.4% of GDP in 2005, deficit reducing; 0.3% of GDP in 2006; 0.9% of GDP in 2007 and 0.3% in 2008; all deficit increasing).

⁵Based on estimated potential growth of 3.7%, 3.6%, 3.4% and 3.2% respectively in the period 2005-2008.

⁶ For the sake of comparability, the budgetary figures of the December 2005 Convergence Programme were adjusted to include pension reform-related costs.

Source:

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

1. INTRODUCTION

On 1 December 2006, Hungary submitted a convergence programme update (hereafter referred to as the programme) to the Council and the Commission.⁵ The programme covers the period from 2006 to 2010, but also gives some broad indications for 2011. The programme was adopted by the Government on 1 December after discussion with representatives of social partners. It was not submitted to the Parliament. The programme confirms the fiscal adjustment path of the September 2006 convergence programme update, which was endorsed by the Council on 10 October 2006 and which also formed the basis of the annual budget adopted by the Parliament on 21 December 2006. As regards the data requirements specified in the code of conduct for stability and convergence programmes, the programme provides all required data while there are some gaps in the optional data.⁶ Annex 3 provides a detailed overview of all aspects of compliance with the code of conduct.

2. ECONOMIC TRENDS AND POLICY CHALLENGES

The section consists of five parts. The first part provides a brief overview of the macroeconomic performance in terms of growth and other major macro-variables. The second part presents the results of a growth accounting exercise and tries to identify the main reasons for low or high average annual economic growth vis-à-vis the EU10. The third part looks at the volatility of growth and other key macroeconomic variables and the stabilising or destabilising role of macro-policies. The fourth part focuses on trends in public finances. Finally, based on the picture outlined in the first four parts, the fifth part identifies major economic challenges with implications for public finances.

2.1. Economic performance

Over the past ten years, real GDP growth in Hungary was quite strong at an average 4.2% per year, placing Hungary in the mid-field of new Member States. The per capita GDP in purchasing parity terms increased from below 50% in the mid-1990s⁷ of EU25 to 62.5% by 2005.⁸ Throughout the entire period, growth was primarily driven by domestic factors. It has become somewhat more balanced between components since 2003 when consumption growth decreased and the growth of gross fixed capital formation increased, although this latter increase was mainly due to the acceleration of government and household investment as corporate investment growth remained at the 2002 level. Also, since 2004, external factors have been contributing positively to GDP growth. Between 1996 and 2005, the unemployment rate averaged around 7% and was below the EU25 and EU10 averages over the entire decade. Inflation fell from close to 25% in 1996 to 3.5% in 2005.

This apparently robust economic performance conceals several imbalances.

⁵ The English translation was submitted on 8 December 2006.

⁶ In particular, Table 3 (general government expenditure by function) is entirely missing, as well as data on hours worked in Table 1c., data related to the government's financial assets and financial debt in Table 4 and some data on the long-term sustainability of public finances (Table 7).

⁷ In 1996, the Hungarian per capita GDP in purchasing power standards (PPS) terms amounted to 48.8% of the EU25 level.

⁸ Over the period 2000 to 2005, Hungary's per capita GDP in PPS grew on average 3% faster than that of the EU25. Considering this growth advantage as constant, Hungary would need about 16 years to reach the average EU25 per capita GDP level.

First, after the fiscal consolidation of the second half of the 1990s which decreased the general government deficit from over 8% of GDP to around 3% of GDP by 2000, the deficit significantly increased to 7.8% of GDP in 2005 and averaged around 6½% of GDP between 2001 and 2005. As a consequence, the sharply decreasing trend in general government debt (from close to 90% of GDP in 1994 to close to 50% in 2001) was reversed in 2001 to reach 61.7% of GDP at the end of 2005 (including the burden of the second pillar pension funds).

Second, the successive high budget deficits contributed to a sharp increase of the net foreign debt stock (excluding FDI) from 14.1% of GDP in 2001 to 27.3% of GDP in 2005 and the external deficit has been high throughout the past ten years (at an average 7.3% of GDP).⁹ The increase in the foreign debt stock was primarily due to a shift in the sectoral composition of the country's net financing requirement from corporate financing to the financing of the government. Indeed, the corporate financing requirement, which was largely covered by non-debt generating capital inflows (largely FDI) throughout the entire period, dropped to very low levels after 2000 compared to previous years¹⁰. At the same time, starting from 2001, the financing position of the government significantly deteriorated and could not be covered from internal resources given the household sectors' low savings rate.

In parallel, the household sector's stock of foreign exchange liabilities has been rapidly growing since 2003. As a result, the share of foreign currency loans in all outstanding household loans had reached 36% by the beginning of 2006. A large part of these positions being un-hedged, this exposes households increasingly to foreign exchange rate fluctuations. Nevertheless, as a percentage of GDP, households' net stock of foreign exchange liabilities is still rather low (6% of GDP at the end of 2005).

Third, wage inflation was well above the increase of labour productivity over the years 2001 to 2005. Overall, net real wages increased by 55.3% between 2000 and 2005 in the public sector and by 31.7% in the private sector while labour productivity in the total economy increased only by 22%. This resulted from large public wage increases (especially in 2001 and 2002) which led to sustained high private wage growth. Significant minimum wage increases (especially in 2001 and 2002, and overall by around 130% from 2000 to 2005) also contributed to this trend as over 20% of private sector employees are officially employed for minimum wages.¹¹ These developments are likely to have contributed to the stagnation of the employment rate since 2000 at around 57%, one of the lowest in the EU, while the labour market participation rate is also very low for structural reasons; between 2001 and 2005, it stood at an average 60.3% in Hungary compared to the EU10 average of 65.8% and the EU25 average¹² of 67%.¹³

⁹ The findings and the data described in this paragraph are based on Antal, J. (2006), Foreign Debt Dynamics, Magyar Nemzeti Bank Working Paper 2006/51.

¹⁰ Specifically, corporate financing requirement decreased from an average 7.5% of GDP between 1996 and 2000 to less than 2.5% of GDP on average between 2001 and 2004 (figures based on GDP data calculated according to the previously used methodology).

¹¹ The ratio of the minimum wage to the average wage is however still relatively low in international comparison.

¹² Strictly speaking, this is the average of the EU15 until 2004 and EU25 in 2005.

¹³ It should be noted that the low employment rate still reflects the transition shock, as a result of which many employees lost their jobs. As this cohort will progressively leave the age of active labour force, the employment rate will automatically increase. This does at the same time not explain the very low labour market participation rates. See Köllő, J. and B. Nacsá (2004), Flexibility and Security in the Labour Market – Hungary's experience, International Labour Office Flexicurity Paper 2004/02.

Finally, the unemployment rate, already on a slightly increasing trend between 2001 and 2004, increased by over 1 percentage point in 2005 to 7.2%. This might be due to a regulatory change encouraging job search adopted in 2004 which may have given the incentive to discouraged workers to enter the labour market and to search for jobs as registered unemployed. However this explanation is not evidently supported by the data.¹⁴ Other potential explanations could be a skill-biased technological change or the shrinking of industries traditionally employing low-skilled workers.

Figure 1: Average GDP growth: Hungary vs. EU25 and EU10

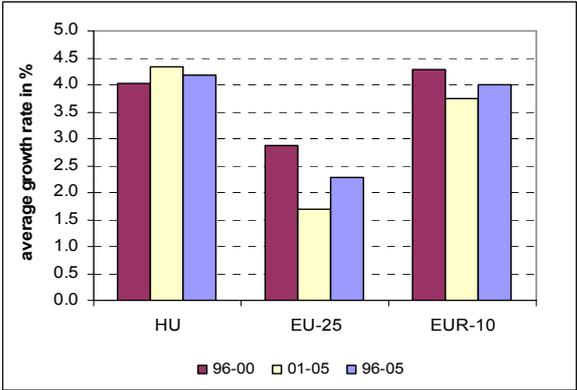
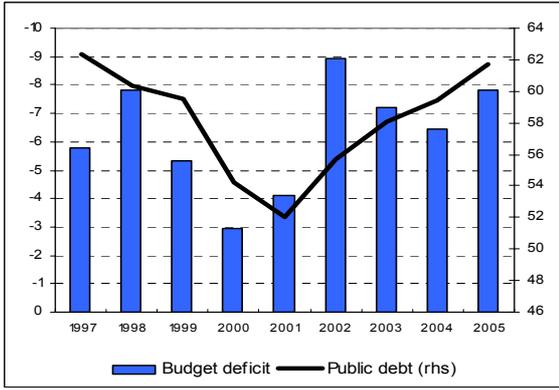


Figure 2: Budget deficit and Public debt (in % of GDP)



Source: Commission services

Note: ESA 95 data are not available before 1997.
Source: Commission services

Box 1: Monetary policy and exchange rate regimes of HUNGARY	
<p><i>Crawling peg</i> (since 1995 until October 2001)</p>	<p>In the mid-90's, the Hungarian exchange rate policy operated a crawling peg, keeping the HUF within +/-2.25 % band around the reference rate. The regime proved successful in lowering inflation from over 25% to below 10% in the mid-2001. In the last stage of the crawling peg regime, the currency was depreciated by 0.2% per month.</p>
<p><i>Regime combining inflation targeting since June 2001 and with an exchange rate peg since October 2001</i> (from 2001 onwards)</p>	<p>In mid-2001, the central bank adopted an inflation targeting framework, where inflation targets were set on a yearly basis up to the end of 2006, for at least two years ahead. As of 2007, a continuous inflation target of 3 % has been set. The HUF has been pegged to the euro within the broader fluctuation band of +/-15 percent. After the regime change in 2001, the central rate was changed once, from 276.1 to 282.4 HUF/EUR in June 2003. The full convertibility of the forint and the new Act on the NBH creating full independence date from mid-2001.</p> <p>The forint is not in ERM II. In spite of some similarities, the Hungarian exchange rate regime differs significantly from ERM II, especially as the central parity in the current Hungarian system does not have a prominent role.</p>

¹⁴ As discussed in Telegdy, A. (2006): "Labour market trends in Hungary 2005", in K. Fazekas and J. Koltay (eds.) *The Hungarian Labour Market – Review and Analysis 2006*, Institute of Economics, Hungarian Academy of Sciences, pp. 13-24., this explanation would be valid if both the inactivity rate and the rate of 'discouraged workers' decreased in parallel. While a slight decrease in the inactivity rate was registered in the past year, the number of discouraged workers has slightly increased.

While progressively increasing labour costs appear to have affected the evolution of the labour market, there is no clear evidence that this trend, coupled with a significant appreciation of the currency, had a negative impact on the country's export performance. Over the past ten years, the volume of Hungarian exports increased by an annual average 13.2%, well above the EU10 average. The market shares of Hungarian exports increased on average annually by 6.2%.¹⁵ This is much faster than the market share increases of e.g. Czech Republic, Poland, Slovakia and Slovenia. From a dynamic perspective however, both the exports volume and market shares decelerated over time from an exceptionally fast pace between 1995 and 2000.¹⁶ This slowdown might well have been affected by the decreasing cost-advantage of Hungarian production compared to its competitors.

2.2. Anatomy of medium-term growth

Within the framework of a traditional growth accounting exercise, this section dissects the sources of average growth in Hungary as well as possible differences in average economic growth vis-à-vis the EU10. The growth accounting exercise is carried out on the basis of the Cobb-Douglas production function underlying the commonly agreed method for the assessment of stability and convergence programmes.

Figure 3 presents real GDP growth and its components for Hungary, while Figure 4 displays the results in difference to the EU10 as reference aggregate.

Growth in Hungary averaged at an annual 4.2% over the period 1996 to 2005 with only slight differences between the 1996-2000 and 2001-2005 periods (4.0% vs. 4.3%, respectively).¹⁷ This was an average 0.2 percentage points faster than EU10 growth over the entire period, being slightly below the average in the second half of the 1990s, when EU10 was growing relatively strongly (4.2%) and 0.6 percentage points above average between 2001 and 2005.

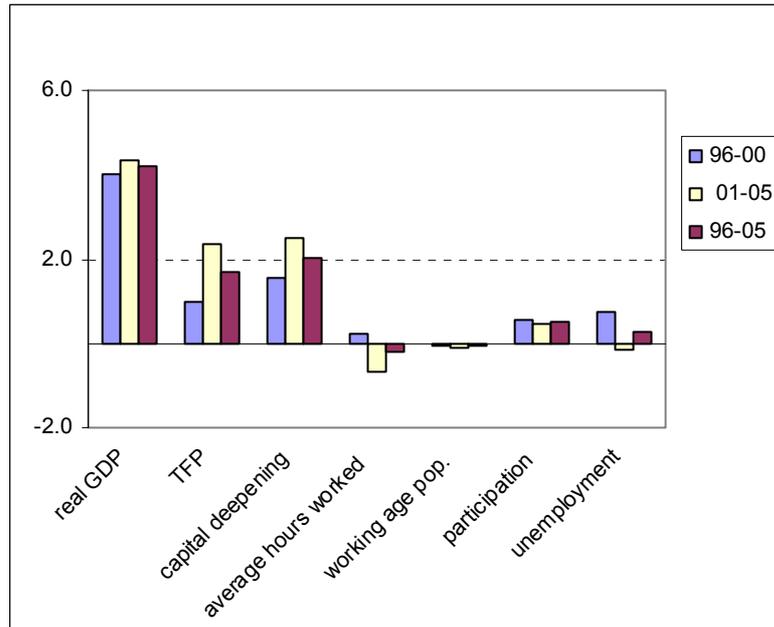
As can be observed in Figure 3, real GDP growth in Hungary was mainly driven by capital deepening (on average 2%) and TFP growth (1.7%) between 1996 and 2005, while the contribution of employment (i.e. the sum of all labour components) was rather moderate averaging only 0.5%. Overall, this pattern is similar to that observed in other new Member States although the comparison in Figure 4 also shows that the contribution of the two main driving factors was below the EU10 average (both by 0.3 percentage points) and the contribution of employment well above average (0.7 percentage points) in Hungary.

¹⁵ Growth rate of the indicator measuring the ratio of Hungary's exports volume to the volume of Hungary's exports markets (computed as the export weighted import volume in 35 industrial countries). Source: Commission services.

¹⁶ Between 1995 and 2000, average export growth was 17.3% and the growth of market shares averaged at 8.1%. In contrast, between 2000 and 2005, exports volume increased by an annual average of 9.1% and market shares increased on average annually by 4.4%.

¹⁷ It should be noted that the economy started to expand rapidly in 1997 after the transition shock of the beginning of the 1990s. Not taking into account 1996, i.e. the last year of low GDP growth, the average between 1997 and 2000 (4.7%) was higher than the average over the period 2001 - 2005.

Figure 3: Real GDP growth and its components



Note:

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

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

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

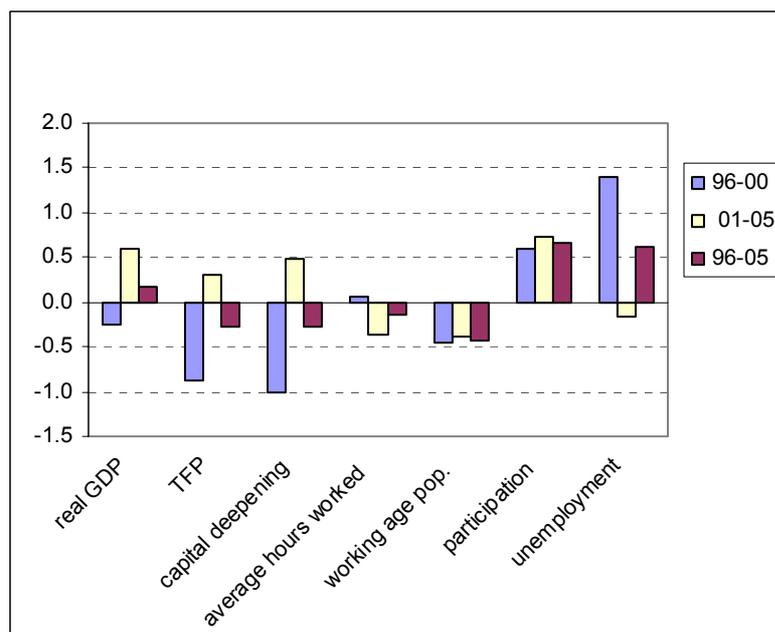
Source: Commission services

Nevertheless, the composition of growth in Hungary has changed over time. While the contribution of capital deepening and of TFP growth considerably increased from the second half of the 1990s to the period 2001-2005 from below average to above EU10 average values, the contribution of employment substantially decreased over the period. Indeed, employment growth was the second driving force between 1996 and 2000 with an average contribution of 1.4%, which is far above the -0.1% EU10 average; it exceeded the TFP growth contribution (1%) in this sub-period.¹⁸ But it turned negative and even dropped below EU10 average in the second half of the sample, and TFP growth became stronger. The decomposition of employment growth contribution shows that the documented drop was mainly driven by the decrease of the contribution of unemployment and average hours worked. In the meantime, the contribution of demographic changes and labour market participation remained more or less stable.

¹⁸ Again, considering only the period 1997–2000, the contribution of employment even reached an exceptional average of 2%.

The changes in the relative weights of GDP growth components reflect the evolution of private sector activity and employment in Hungary over the past ten years.¹⁹ After 1996, economic activity started to recover from the transition shock of the beginning of the 1990s and from the transitory restrictive impact of economic policy measures adopted in 1995 aimed at restoring internal and external equilibrium. Starting from 1997, real GDP growth remained above 4% and the capital stock grew quickly at a relatively steady pace of around 2.2% throughout the entire period. At the same time, the progressive change in the production structure as well as the end of the global economic boom and a change in the public wage policy seem to have led to a change in labour market trends around the year 2001.

Figure 4: Real GDP growth and its components: Difference vis-à-vis the EU10



Note: See note of Figure 3.

Source: Commission services

The very high contribution of employment growth to GDP growth documented for the period 1996 to 2000 reflects firms' high and relatively inelastic labour demand during this period of global and domestic economic boom. Firms trying to benefit from the upswing of the business cycle were constrained by the low degree of capital market development and substituted labour for capital, and their cost-sensitivity was relatively low.

The drop in labour contribution to GDP growth and the increase in the weight of other factors after 2001 in turn reflect the decreasing demand for firms' products in the wake of deteriorating external conditions around 2000. As firms were thus forced to rationalise their production, their cost-sensitivity increased. At the same time, wages accelerated, partly also due to substantial public sector wage increases and minimum wage hikes (especially in 2001 and 2002) which were transmitted to the private sector. These two parallel developments

¹⁹ Based on Körösi, G. (2005), *The functioning of private sector labour market*, Institute of Economic Sciences, HAS and Köllő, J. and B. Nacsa (2004), *Flexibility and Security in the Labour Market – Hungary's experience*, International Labour Office Flexicurity Paper 2004/02.

contributed to the stagnation of employment, along with the fast productivity growth between 2001 and 2005.

Behind the transmission of public sector wage developments to the private sector lies the relatively quick structural change of production which led to an increase in the demand for high-skilled labour and consequently to a competition between the private and the public sector for high-skilled workers. While the employment rate of skilled workers is close to EU15 levels, the demand for low-skilled workers has decreased and the gap between total employment rate and the employment rate of low-skilled has grown to an alarmingly high level of around 30 percentage points in 2000.²⁰ While the recent expansion of secondary and higher education is positive, these developments point to problems related to the quality of the Hungarian primary education system and to the failure of the training system to provide low-skilled employees with the skills required on the labour market. To make things worse, many of the jobless low-skilled employees left the labour market and now have limited chances to ever return there. This is one of the sources of the very low labour market participation levels.

Finally, it should be noted that Hungarian labour market institutions are relatively flexible and became increasingly liberalised over the period. Wage setting is basically decentralised, union density and coverage by collective wage agreements is low, unemployment benefit schemes became less favourable and the costs of dismissals are not too high. Working hours regulations were liberalised in 2001 which may have enhanced the adjustment of employment on the intensive margin, i.e. through the significant decrease in average hours worked after 2001, when labour market trends turned more negative. However, some specific features prevail which contribute to low employment levels. Specifically, the tax wedge on labour is with over 50% one of the highest in the OECD. In addition, in spite of the drastic decrease of early retirement after the pension reform of 1998, the combined flows to early retirement and disability pensions are still high and continue to give refuge for jobless people. Similarly, child-care schemes provide a haven for mothers with poor employment prospects and most probably encourage the choice of non-participation versus employment and job search. A recent change in child-care allowances points to the right direction, however it should be complemented by additional measures in order to fully achieve its objective.

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

While the annual GDP growth rate steadily remained above 4% from 1997 onwards with a peak 5.2% in 2000, the volatility of growth as measured by the standard deviation was 1.1% over the period 1996 – 2005. This is comparable with that of EU15 States while relatively low compared to the EU10.²¹ At the same time, changes in the Hungarian growth rate were broadly in line with EU10 growth rates, with a less pronounced deceleration of domestic production after 2000 but also a less marked upswing in 2003.

The fiscal deficit has been increasing since 2001 and the cyclically adjusted primary balance has also been negative since 2002. The impact of this on the economy is however not easy to

²⁰ Measured for the age group between 25 and 62 years in the year 2000. The gap was 32% in Hungary, while it was 25.3% in the Czech Republic and 18.5% in Poland. To compare, the same indicator was 14.4% in Germany, 15% in Denmark and 10.9% in Finland. Source: Körösi (2005) see footnote 19.

²¹ The standard deviation of annual growth over the same period was 1% in Germany, 1.1% in France and Italy and 0.6% in the United Kingdom, while it was 2.2% in the Czech Republic, 2.4% in Slovakia and 1.9% in Poland. Slovenia, with 0.9% appears to be the other outlier among new Member States in this respect. Considering the period 1997 – 2005 only, the volatility of Hungarian growth was exceptionally low at 0.4% even in comparison with old Member States. Considering the period 1997 – 2005 only, the volatility of Hungarian growth was exceptionally low at 0.4% even in comparison with old Member States.

discern as the large swings of the budget deficit were not accompanied by changes in the GDP growth rate. The evolution of the output gap and of changes in the cyclically adjusted primary balance since 1998 (as displayed in Figure 5) is not conclusive on the cyclicity of fiscal policy either.²²

At the same time, the figure suggests the existence of very strong political cycles, with highly expansionary fiscal policies in pre-election and election years,²³ and restrictive policies in the two years following elections. An econometric analysis (for a more detailed discussion see Box 2) suggests that such expansionary government spending "shocks" had persistent effects on both the budget and the economy. First, government expenditures remained persistently high after the initial increase which does not seem to have been accompanied by an increase in revenues hence leading to a persistent increase of the budget deficit. Second, while expansionary government spending does not seem to have significantly influenced real GDP, increasing government consumption appears to have led to some rise in household consumption. Moreover, evidence suggests that expansions in government investment significantly crowded out private investment and also decreased private output.

The monetary policy conditions were characterised by several changes over the period. The fiscal consolidation between 1995 and 2000 was roughly accompanied by the easing of monetary conditions (with the exception of the Russian crisis in 1998). During the years of major fiscal expansion in 2001 and 2002 the stance of monetary policy remained relatively stable; however a severe tightening followed at the end of 2003 and real interest rates - although decreasing - remained relatively high until 2005.²⁴

Figure 5: Output gap and fiscal stance

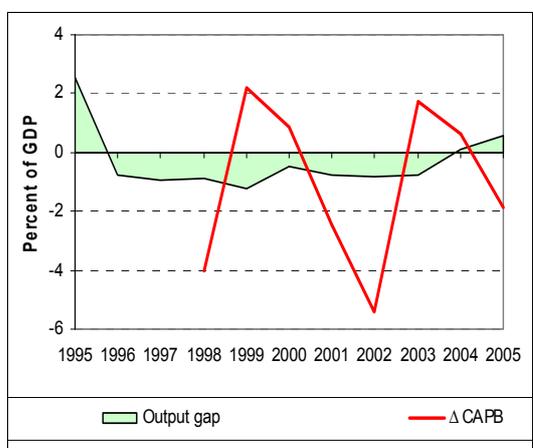
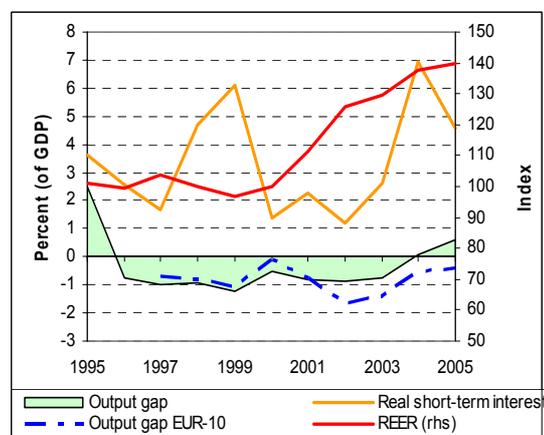


Figure 6: Output gap and monetary stance



Note: Δ CAPB denotes the change in the cyclically-adjusted primary budget balance.

Source: Commission services

Source: Commission services

²² The output gap measures for convergence economies are highly unstable, results based on these should therefore be treated with caution.

²³ Elections were held in the years 1998, 2002 and 2006.

²⁴ For a more detailed discussion see also Kovács, V. and L. Moulin (2004), Hungary's policy mix: From stabilisation to crisis to ...?, ECFIN Country Focus Vol. 1/Issue 9, May 2004.

Box 2: The impact of government spending

The impact of government spending in Hungary was assessed based on the estimation of a structural vector autoregressive (VAR) model for the period 1997Q1 to 2004Q1.¹ This model allows discriminating the economic impact of an unexpected change in government spending from other possible sources of fluctuations.

Defining government spending as the sum of real actual consumption of government and government investment, the analysis yields the following results. First, a sudden unexpected change in government expenditures (hereafter referred to as shock) is persistent in the sense that after a shock, expenditures take several quarters to return to their initial level. A persistent increase of government expenditures seems to have some delayed positive impact on consumption; however, this impact is not significantly different from zero. At the same time, the increase in government spending crowds out investment for several quarters. Thereby, private output also decreases persistently as a result of the shock whereas the impact of the shock on total output is not significant. Second, as regards the financing of the increase in expenditures, the results indicate that taxes do not significantly rise after the shock, whereas the budget deficit significantly and persistently increases.² While the transmission mechanism leading to the crowding-out of private investment needs further investigation, it should be noted, that evidence for crowding-out effects of fiscal policy was also reported for Poland since 2000.³

The decomposition of government spending in government consumption and government investment yields some further instructive insights. First, while the *government consumption* shock has a significant expansionary impact on household consumption lasting several quarters, this impact is not too big. In addition, government consumption does not influence private investment. The impact of the *government investment* shock on consumption is not significant. At the same time, the impact of the government investment shock on private investment is significantly negative and quantitatively important. These effects lead to the above described aggregate impact of the government spending shock. Second, both *government consumption* and *government investment* shocks are predominantly financed by budget deficits. The impulse response of the tax-to-GDP ratio was in neither case found to be significantly different from zero.

¹ Data included in the estimations are taken from the Hungarian National Bank's Quarterly Projection Model (NEM) database. Real economic variables are measured in constant prices deflated by their own deflators. Taxes and budget deficit were measured in percentage of nominal GDP. The estimated VARs include one lag of each variable based on the Schwarz information criterion. Government spending shocks were identified by Cholesky decomposition based on a variable ordering following Fatas, A. & I. Mihov (2001), *The Effects of Fiscal Policy on Consumption and Employment: Theory and Evidence*, CEPR Discussion Paper 2760. Government spending was ordered as the first variable in the vector of endogenous variables assuming that it is predetermined relative to other variables included in the VAR. These are: consumption or private investment, private GDP or GDP, GDP deflator, tax-to-GDP ratio, primary budget deficit-to-GDP ratio and the real effective exchange rate, in this order. All level variables are in logs, ratios are in percentages.

² Results previously reported for the US and other developed economies suggest a significant impact of the government spending shock on consumption, while the crowding-out of investment is in general not significant. Moreover, most studies report a significant positive impact of the spending shock on GDP. Deficit-financing of expenditures is also different in Hungary from evidence reported for other countries where shocks to government expenditures seem to lead to persistent tax increases with a one-year delay.

³ See European Commission, Directorate General for Economic and Financial Affairs (2006), *Country Study: Growth and Competitiveness in the Polish Economy: The Road to Real Convergence*, European Economy, Occasional Papers, Nr. 27, November 2006.

2.4. Public finances

Public finances markedly deteriorated in the mid-1990s, leading to unsustainable general government deficits and a growing debt ratio.²⁵ In March 1995, a strong stabilisation package was implemented (the so-called "*Bokros-package*", named after the incumbent Finance Minister at the time). Except for 1998 (an electoral year) sound macroeconomic policies were

²⁵ At the end of 1994, the deficit ratio was 8.4% of GDP and the debt ratio approached 90% of GDP. Budgetary figures until 1997 are on a cash-flow basis (GFS).

maintained until the end of the decade. The fiscal retrenchment was complemented with a second round of far-reaching structural measures that included privatisation of public utility companies; the adoption of a new regulatory environment for the corporate and the banking sector and the reform of pension system; further liberalisation of external transactions, as well as some streamlining of the budgetary institutional framework.

The adjustment of the "*Bokros-package*" was largely expenditure-driven, as the consolidation included substantial cuts in social transfers to households (accompanied by a move from universal entitlements to a means-tested system), nominal freezes of a number of budgetary appropriations, and the reduction of public sector employment. On the revenue side, the main measures were the introduction of a temporary 8% import surcharge and the broadening of the base of social security contributions. The package also included a 9% devaluation of the forint and the introduction of the crawling peg exchange rate policy, which together with the import surcharge led to an acceleration of inflation. The expenditure items affected by the package (most notably public wages, pensions, and social benefits) were not adjusted to the unexpected 10 percentage point rise in the average inflation rate in 1995 that chiefly resulted from the devaluation. This entailed a 17% fall in real wages by 1996 and consequently shrinking domestic consumption. On the other hand, the stabilisation played a crucial role in restoring credibility, reducing the crowding out effect and in rapidly improving the business climate, paving the way for a rebound of growth from 1997, fuelled by massive FDI inflows and accelerating private investment. The Hungarian experience seems to confirm that expenditure-based adjustments would be more beneficial for economic growth, as also suggested by the economic literature.²⁶

The consolidation efforts paved the way for the general government deficit to narrow from over 8% of GDP in 1994 to below 3% of GDP in 2000. The budgetary improvement contributed, together with large privatisation receipts, to the significant drop in the debt-to-GDP ratio from a peak of close to 90% of GDP in 1994-95 to around 52% in 2001. However, in 2001 the orientation of fiscal policy was sharply reversed in Hungary. Significantly increased social transfers and generous public wage increases resulted in budget deficits well over 6% of GDP in each year in the 2002-2005 period, persistently among the highest in the European Union. A number of tax cuts, carried out in spite of the high nominal and structural deficit, exacerbated the growing macroeconomic imbalances. Structural adjustment efforts were replaced by temporary measures, controversial accounting practices and optimistic budgetary planning. The track-record of fiscal policy between 2001 and 2005 was poor, as budgetary targets were regularly missed by wide margins over this period (see Figure 7). The continuous back-loading of the necessary fiscal consolidation visibly undermined confidence in the credibility of the fiscal policy, leading also to recurring downward pressures on the forint and consecutive downgrades of sovereign debt by the major rating agencies.

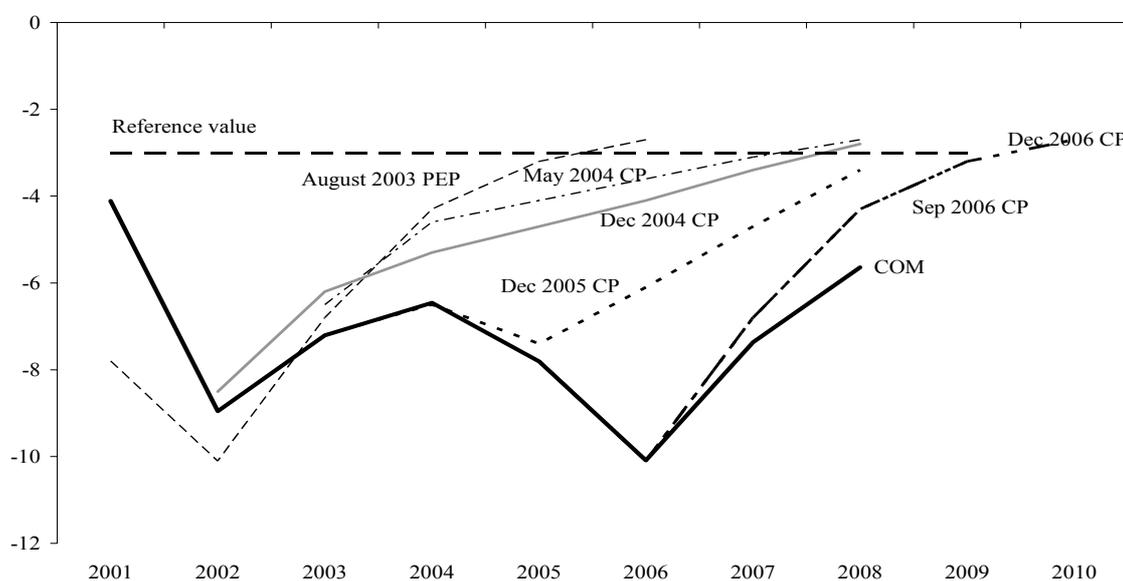
The soaring budget deficits and alarmingly growing public debt stock stem from high public expenditure relative to the income level. In 2005, total expenditure in Hungary was more than 7 percentage points of GDP higher than the average of the other EU-10 countries, and 2.5 percentage points of GDP higher than the average of the old member states (EU 15). Furthermore, government expenditure decreased only slightly over the period: from 50.5% of GDP in 1997²⁷ to 50% of GDP in 2005 (although in 2000, just before the fiscal relaxation, it

²⁶ A. Alesina and S. Ardagna (1998), "Tales of fiscal adjustment", *Economic Policy*, Vol. 13, No. 27, pp. 487-545; J. von Hagen, A. H. Hallett and R. Strauch (2001), "Budgetary Consolidation in EMU" *Economic Paper* No. 148, European Commission, Directorate-General for Economic and Financial Affairs.

²⁷ Figures for 1996-1999 are based on the extrapolation of revised GDP figures published for the years 2000 to 2005 on 1 October 2006. The extrapolation starts from the revised GDP level for the year 2000 and applies the officially published growth rates for the previous years.

reached a historical low of 46.5% of GDP). Expenditure at the State level remained persistently high, despite the significant reduction in interest expenditure.²⁸

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



Note: For the sake of comparability, all deficit targets and projections include the burden of the pension reform.

Source: Commission services; Convergence programmes (CP); Pre-Accession Economic Programme (PEP).

The expected significant rise in age-related expenditures constituted a strain to the long-term sustainability of Hungarian public finances as a result of the ageing population. A comprehensive reform of the pension system, implemented starting from 1998, was expected to substantially decrease risks stemming from this source. However, much of the potential positive impact of this reform was offset by measures adopted in subsequent years. Parallel to these developments, the deteriorating financing position of the government and the consequently increasing public debt also contributed to increasing the risks. As a result, in 2005, Hungary was considered to be at high risk as regards the long-term sustainability of public finances.

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

Over the past 10 years, the growth performance of the Hungarian economy has been fairly strong with an increasingly balanced composition since 2003. However, employment and labour market participation rates remain among the lowest in the EU and several imbalances started to build up in recent years related to the expansionary fiscal policy stance. The very high and increasing budget deficit resulted in a significant increase of the public debt and put the sustainability of Hungarian public finances, also in view of the expected long-term rise in age-related expenditures, at high risk. Increasing wage costs, especially since 2001, contributed to the stagnation of employment. Moreover, incentive schemes have not been sufficiently encouraging workers to remain in the labour market and the skills provided by the

²⁸ Interest outlays declined from a peak of close to 10% of GDP at the mid-90s to around 4% of GDP by 2005 due to falling domestic interest rates and narrowing spreads on external borrowing. In 2005, interest expenditure still represented close to 8% of total expenditure in Hungary, compared to less than 5% in the EU-10 excluding Hungary.

education and the training systems do not adequately match the requirements of new production structures. The expansionary fiscal policy also appears to have crowded out private investment. At the same time, it contributed to maintaining high external deficits and led to a significant increase of the net foreign debt stock. This was recently accompanied by a build-up of households' un-hedged foreign exchange liabilities increasing their exposure to exchange rate fluctuations.

Against this background, Hungary faces challenges related to stability, sustainability and efficiency.

- **On stabilisation**

The stability of the Hungarian economy crucially hinges on the correction of the excessive deficit. Past experience highlights the difficulty of implementing lasting cuts in public expenditure. A reduction in expenditures through reforms of the public administration pension, health-care, and education systems as well as through the introduction of comprehensive fiscal rules could ensure the durability of the consolidation. A well-designed and successful fiscal consolidation would restore the credibility of fiscal policy, thereby creating a stronger anchor for expectations and a more favourable economic environment that is less prone to fluctuations. Sound fiscal policy may also encourage private investment and contribute to increasing the households' savings rate.

- **On sustainability**

In recent years, various changes to the pension system (e.g. phasing in of the 13th month pension) have offset the expected positive impact of the pension reform that had been undertaken at the end of the 1990s. Unfavourable demographic trends along with high substitution rates, generous retirement age regulations and indexation rules as well as poor incentive schemes constitute a serious risk to the long-term sustainability of public finances, already burdened by a high deficit and debt level. The poor health state of the Hungarian population coupled with the inefficient organisation of the health-care services represents an additional challenge in this regard.

- **On efficiency**

Improved incentive schemes could contribute to increase labour market participation and employment. This could be achieved through the restructuring of the taxation system decreasing the high tax wedge on labour to the extent that the fiscal consolidation allows it, as well as through a comprehensive reform of disability pension and child-care benefit systems. A comprehensive reform strategy for the education and training systems aiming at a better adjustment of public education to labour market demands might also enhance the production efficiency.

Table 1: Key economic indicators

	Hungary						EU-10					
	Averages			2003	2004	2005	Averages			2003	2004	2005
	1996 – 2005	1996 – 2000	2001 – 2005				1996 – 2005	1996 – 2000	2001 – 2005			
Economic activity												
Real GDP (% change)	4.2	4.0	4.3	4.1	4.9	4.2	4.0	4.3	3.7	4.0	5.1	4.6
Contributions to real GDP growth (percentage points)												
<i>Domestic demand</i>	4.4	4.5	4.2	6.3	4.4	1.4	4.4	5.3	3.4	4.1	5.6	3.0
<i>Net exports</i>	-0.2	-0.5	0.2	-2.1	0.5	2.8	-0.3	-1.0	0.4	0.0	-0.5	1.6
Prices, costs and labour market												
HICP inflation (% change)	10.5	15.2	5.9	4.7	6.8	3.5	:	:	3.3	1.9	4.1	2.5
Labour productivity (% change)	3.5	2.8	4.2	2.8	5.6	4.3	4.2	4.6	3.7	4.3	4.5	2.9
Real unit labour costs (% change)	-0.4	-1.9	1.1	0.7	1.2	0.1	-0.8	-0.6	-1.0	-0.7	-2.5	-1.8
Employment (% change)	0.7	1.2	0.2	1.3	-0.7	0.0	-0.1	-0.3	0.0	-0.2	0.6	1.7
Unemployment rate (in % of labour force)	7.1	8.1	6.1	5.9	6.1	7.2	12.8	11.3	14.2	14.3	14.2	13.4
Competitiveness and external position												
Real effective exchange rate (% change) (1)	4.0	-0.2	7.0	3.1	6.3	1.5	:	:	:	:	:	:
Export performance (% change) (2)	6.3	8.1	4.4	1.3	7.0	4.7	:	:	:	:	:	:
Net borrowing v-à-v RoW (in % of GDP) (9)	-7.3	-7.7	-6.8	-8.0	-8.1	-6.1	:	:	:	:	:	:
Public finances												
General government balance (in % of GDP) (8) (9)	-6.2	-5.3	-6.9	-7.2	-6.5	-7.8	:	:	-4.2	-5.1	-3.7	-3.3
General government debt (in % of GDP) (9)	59.5	61.6	57.4	58.0	59.4	61.7	38.0	35.8	40.1	39.9	43.4	41.3
Structural budget balance (in % of GDP)(3) (9)	na	na	na	-6.9	-6.5	-8.5	:	:	:	-4.5	-3.4	-3.0
Financial indicators (4)												
Long term real interest rate (in %) (5)	na	na	1.6	1.0	3.7	4.5	:	:	:	3.5	2.2	2.2
Household debt (in % of GDP) (6) (9)	10.1	4.7	15.6	16.5	19.5	23.0	:	:	:	:	:	:
Corporate sector debt (in % of GDP) (7) (9)	44.1	41.5	46.8	47.2	47.1	51.7	:	:	:	:	:	:

Notes:

More detailed tables summarising the economic performance of the country are included in Annex 2

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

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

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

(4) Data available up to 2004.

(5) Using GDP deflator.

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

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

(8) Due to the lack of ESA 95 data for 1996, the series start in 1997.

(9) Figures for 1996 to 1999 are based on the extrapolation of revised GDP figures published for the years 2000 to 2005 on 1 October 2006.

The extrapolation departs from the revised GDP level for the year 2000 and applies the officially published growth rates for the previous years.

Source:

Commission services, Eurostat

3. MACROECONOMIC OUTLOOK

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

3.1. External assumptions

The external assumptions underlying the programme's macroeconomic scenario are broadly in line with the Commission services' autumn forecast for the years 2006 to 2008. Specifically, the GDP growth outlook of the world (5.7% in 2006, 5.2% in 2007 and in 2008) and the EU25 (2.8% in 2006 and 2.4% in 2007 and 2008) correspond precisely to the assumptions of the Commission services' autumn forecast. The programme's outlook for the growth rate of world imports, excluding EU 25, is with 8.8% for 2006, 8.2% for 2007 and 7.7% for 2008 slightly below the projections of the Commission services' autumn forecast. The programme's oil price assumptions are also somewhat more pessimistic than the Commission services' autumn forecast with 69, 71 and 70 USD/barrel in 2006, 2007 and 2008, respectively. All these figures are extrapolated for the years 2009 and 2010 assuming a constant growth rate which is slightly more cautious than the 2008 assumptions except for oil prices where the 2008 level is maintained for the outer years (which is not further explained).

3.2. Economic activity

The macroeconomic scenario presented in the programme covers the period 2006 to 2010 in detail and also refers to the year 2011 by indicating expected trends for selected variables.²⁹ It is broadly in line with that of the September 2006 adjusted convergence programme update. In particular, the real GDP growth outlook is exactly the same as in the previous update and its composition is very similar. At the same time, the GDP deflator inflation was modified upward by around ½ percentage point for the years 2007 to 2009. Therefore, the nominal GDP growth outlook is also higher in these years than it was projected previously. It should be noted that the outlook of the current update is based on revised Hungarian national account data which were published on 1 October 2006, i.e. after the submission of the September 2006 programme.³⁰ This revision led to an increase in the GDP in current prices by around 1½%. Changes also concerned real GDP growth and its components which may explain slight differences in the forecast of these aggregates.

The economic outlook is primarily determined by the fiscal consolidation strategy; initial measures thereof were implemented in the second half of 2006 with the majority of measures coming into force beginning of 2007. Hence, after a still robust real GDP growth of 4% in 2006, the programme expects economic activity to decelerate to 2.2% in 2007 and 2.6% in 2008 with a full recovery to growth rates above 4% by 2009 (see Table 2). After being in

²⁹ Section 3.6 of the programme presents three additional scenarios. These scenarios are however not detailed enough to allow a thorough assessment of anything but the central baseline scenario.

³⁰ National account data were revised retrospectively starting from 2000 following substantial methodological changes to harmonise the Hungarian national accounts with the ESA requirements.

positive territory in 2006, the output gap (recalculated by Commission services based on the information in the programme) is projected to be negative between 2007 and 2009 with a trough (at -1.2%) in 2008 (see Table 2).

The 2010 official target date for euro-adoption was abandoned in the September 2006 adjusted convergence programme update. A new date has not been specified since then. Following a strong depreciation of the Hungarian forint by over 10% between February and June 2006, the Hungarian National Bank increased its base rate from 6% to 8% in 5 consecutive steps between June and October this year. The exchange rate stabilised again after the first base rate hike in June, which was the first increase since November 2003, and it has become stronger again since October, reaching almost its February level by the end of November. The programme's foreign exchange rate assumptions partly reflect the recent appreciation of the Hungarian currency. The programme's assumptions for yields are in line with the Commission services' autumn forecast for the years 2006 and 2007 and below the forecast in 2008.

The growth outlook described in the programme seems broadly plausible for the years up to 2008 in view of the contractionary impact of the fiscal adjustment package. The programme's projected GDP growth rates of 2.2% for 2007 and 2.6% for 2008 are slightly below the expectations of the Commission services' autumn forecast (2.4% and 2.7% for 2007 and 2008, respectively) and might even be slightly cautious. As for 2009 and thereafter, the outlook is rather favourable as the full recovery of economic activity to growth rates around the average of the period 2001 to 2005 as expected by the programme hinges on the success of consolidation and on the growth-enhancing impact of structural reforms which are currently implemented or still to be undertaken over the upcoming years.

The projected composition of aggregate demand appears plausible. In particular, it can reasonably be expected that domestic demand decelerates during the period of fiscal consolidation not only because of the decline in real government consumption and investment in 2007 and 2008 but also because of its likely impact on household consumption and private investment. Consumption is expected to decline by 0.6% in 2007 and to increase by 0.7% in 2008, and investment growth is projected to decrease slightly to 2.4% in 2007 compared to the already slow growth in 2006 but to pick up already in 2008. During this period of domestic slowdown, growth is expected to be primarily driven by external factors, especially by strong export growth, which is also expected to lead to a significant improvement of external balances. These projections as well as expected wage developments are in line with the Commission services' autumn forecast.³¹

³¹ The projected sharp increase in investment growth for 2009 to 7.5% might be explained by the expected rise in the absorption of structural and cohesion fund commitments for 2007 – 2013. While this goes beyond the Commission services' autumn 2006 forecast horizon, it should be noted that there seem to be downside risks to this projection in view of the crowding-out risks linked to EU funds financed investment.

Differences between the cyclical conditions implied by the autumn 2006 forecast and those implied by the programme's macroeconomic scenario seem to suggest that the programme's growth outlook for the outer years is somewhat on the optimistic side.³²

Table 2: Comparison of macroeconomic developments and forecasts

	2006		2007		2008		2009	2010
	COM	CP	COM	CP	COM	CP	CP	CP
Real GDP (% change)	4.0	4.0	2.4	2.2	2.7	2.6	4.2	4.3
Private consumption (% change)	3.0	3.1	-0.5	-0.6	0.5	0.7	2.1	3.0
Gross fixed capital formation (% change)	5.2	2.8	2.2	2.4	3.6	4.0	7.5	6.8
Exports of goods and services (% change)	13.1	14.3	10.3	10.6	9.3	9.7	9.4	9.3
Imports of goods and services (% change)	9.6	11.1	7.0	8.1	7.2	7.5	8.6	8.9
<i>Contributions:</i>								
- Final domestic demand	3.0	2.5	-0.1	-0.2	0.8	0.6	3.1	3.4
- Change in inventories	-1.2	-0.5	0.0	0.5	0.0	0.0	0.0	0.0
- External balance on g&s	2.2	2.0	2.5	1.9	1.9	1.9	1.0	0.8
Output gap ¹	1.0	0.9	0.1	-0.4	-0.5	-1.2	-0.5	0.4
Employment (% change)	0.2	0.6	-0.2	0.0	0.1	0.3	0.7	0.7
Unemployment rate (%)	7.3	7.4	7.7	7.5	7.7	7.4	7.3	7.2
Labour productivity growth (%)	3.8	3.4	2.6	2.2	2.6	2.2	3.5	3.6
HICP inflation (%)	3.9	3.9	6.8	6.2	3.9	3.3	3.0	2.8
GDP deflator (% change)	2.9	3.2	4.7	4.8	3.4	2.4	3.0	2.9
Comp. of employees (per head;% change)	6.5	6.7	6.7	6.6	3.8	3.8	5.7	6.4
Real unit labour costs (% change)	-0.3	0.0	-0.8	-0.4	-2.1	-0.9	-0.8	-0.1
External balance (% of GDP)	-6.6	-6.1	-3.6	-3.6	-1.6	-1.7	-0.1	0.6
<u>Note:</u>								
¹ In percent of potential GDP, with potential GDP growth as reported in Table 2 below.								
<u>Source:</u>								
Commission services' autumn 2006 economic forecasts (COM); Convergence programme								

³² Specifically, the autumn forecast projects the output gap to be 0.1% in 2007 and -0.5% in 2008 as opposed to the output gaps of -0.4% and -1.2% in 2007 and 2008 respectively as implied by the programme (recalculated by the Commission services on the basis of the data provided in the programme). The large revisions of the output gaps in successive estimates for the same year, specifically 2006 (see Table 3), suggest that cyclical conditions should be assessed cautiously.

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

(% of potential GDP)	2006		2007		2008	
	COM	CP ¹	COM	CP ¹	COM	CP ¹
Dec 2006	-	0.9	-	-0.4	-	-1.2
Autumn 2006	1.0	-	0.1	-	-0.5	-
Spring 2006	-0.1	-	0.3	-	0.0	-
Sep 2006	-	0.8	-	-0.3	-	-0.9
Autumn 2005	-0.3	-	0.2	-	0.0	-
Spring 2005	-0.5	-	0.0	-	0.0	-
CP Dec. 2004	-	-0.8	-	-0.4	-	-0.2

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

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

3.3. Potential growth and its determinants

The potential output underlying the programme's macroeconomic scenario (recalculated by Commission services according to the commonly agreed methodology based on the information provided by the programme) indicates a slowdown compared to past growth rates. Specifically, the implied potential growth is around 3.5% as opposed to the average 4.3% GDP growth rate between 2001 and 2005. This is due to the expected contractionary impact of fiscal consolidation, which leads to a decrease of capital accumulation and TFP growth contribution to potential growth. The potential growth figures implied by the programme are in line with the potential output according to the Commission services' autumn forecast for the years 2006 to 2008, with slightly increasing differences over the forecast horizon.

Table 4: Sources of potential output growth

	2006		2007		2008		2009	2010
	COM	CP ²	COM	CP ²	COM	CP ²	CP ²	CP ²
Potential GDP growth ¹	3.6	3.6	3.4	3.5	3.2	3.4	3.5	3.4
<i>Contributions:</i>								
- Labour	-0.3	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1	-0.2
-Capital accumulation	2.1	2.0	1.9	1.9	1.9	1.8	1.9	1.9
- TFP	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6

Notes:
¹based on the production function method for calculating potential output growth
²Commission services' calculations on the basis of the information in the programme

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

3.4. Labour market developments

The programme projects employment growth to fall from an expected 0.6% in 2006 to 0% and 0.3% in 2007 and 2008, respectively; from 2009, employment is expected to grow by

0.7% annually reflecting the expected positive impact of planned structural measures aimed at encouraging job search and adjusting education to labour market needs. While the projected trend seems broadly plausible, downside risks remain. In particular, the planned lay-off of 21 thousand public administration employees which the Government started to carry out in the second half of 2006, as well as the projected economic slowdown in 2007 and 2008 may have a bigger negative impact on the labour market than expected. In addition, the trends projected for the outer years depend on the effective implementation and success of the planned reforms.

The average labour content of growth projected by the programme is above the average of the past five years, which appears to be on the optimistic side in light of the economic developments expected otherwise. The unemployment rate projections of the programme expect a peak 7.5% for 2007 and a decrease by 0.1 percentage point in every following year over the programme horizon. The figures for 2007 and 2008 are 0.2 respectively 0.3 percentage points below the unemployment rate expected by the Commission services autumn forecast.

3.5. Costs and price developments

The programme expects fiscal adjustment measures to directly and indirectly affect the HICP inflation rate. Inflation is projected to peak at 6.2% in 2007 (after 3.9% in 2006) and to decrease to the 3% inflation target of the National Bank of Hungary by 2009. The projected pattern can be explained by the VAT increase (as of 1 September 2006) and a series of regulated price increases starting from August 2006, as well as by other measures contained in the programme that create inflationary pressures by increasing factor costs (e.g. further increases in regulated prices, increases of personal income tax and social contributions). The upward revision of the GDP deflator with respect to the previous update appears realistic and lies also closer to the Commission services' autumn forecast.

Overall, the inflation rate expected by the programme seems on the low side. For 2007 and 2008, it is both below the projections of the Commission services' autumn forecast (6.8% and 3.9% in 2007 and 2008, respectively) and those of the National Bank of Hungary (6.9% in 2007 and 4.1% in 2008). The programme's expectations are also relatively favourable regarding the second-round effects of the policy measures as reflected in the low inflation projections for the outer years. According to the programme, these would be supported by the increasing credibility of the government policies, prudent wage policies, and moderate inflation expectations and by the effective inflation targeting of the central bank. These assumptions appear to be on the optimistic side.

3.6. Sectoral balances

The programme expects a substantial improvement of the country's net foreign financing position from a requirement of 6.1% of GDP in 2006 to a surplus of 0.6% in 2010. This is partly explained by the projected significantly improving balance of goods and services especially between 2006 and 2009. The decreasing financing requirement of the government and the increasing amount of EU transfers are also significantly contributing to the improvement of the country's net financing position. In parallel, the programme also expects an improvement of the private sector's financing requirement compared to past years. The trends expected by the programme are broadly in line with the Commission services' autumn

2006 forecast up to 2008 and might be on the optimistic side thereafter, in light of the pick-up in growth projected by the programme for the outer years.

3.7. Assessment

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

3.7.1. Plausibility of the macroeconomic scenario

The programme's macroeconomic scenario seems broadly plausible. In particular, this is the case for the growth outlook of 2.2% for 2007 and 2.4% for 2008 (perhaps slightly cautious) in view of the likely contractionary impact of the fiscal consolidation. The underlying composition projecting an exports-driven growth during the period of slowdown is also plausible. At the same time, the programme's inflation projection of a peak inflation rate of 6.2% in 2007 and a quick decrease thereafter seems favourable regarding the immediate impact of the implemented tax hikes and the adopted and upcoming regulated price increases as well as regarding the second-round effects of these measures. The programme's expectations related to labour market developments (0% growth in 2007, 0.3% in 2008 and 0.7% thereafter) also appear to be somewhat favourable in light of the downside risks stemming from the economic slowdown and risks surrounding the implementation and the impact of labour-related structural reforms.

The economic outlook for the outer years appears rather favourable. Specifically, the programme expects a recovery of the main economic indicators to their pre-consolidation growth rates by 2009 with a more balanced growth of domestic and external components, strong investment growth and moderate consumption growth. This outlook is subject to downside risks as it crucially hinges on the success of the envisaged fiscal consolidation and the positive impact of structural reforms to be implemented starting from the early programme years.

3.7.2. Economic good vs. bad times

The Commission services' autumn forecast projects the output gap to decrease from 1% of potential output in 2006 to close to zero in 2007 and -0.5% in 2008. These changes in the output gap are expected to be accompanied by an increase in the inflation rate and by increasing unemployment in 2007. Moreover, output gaps calculated for Hungary in successive Commission services' forecasts and in convergence programmes are slightly diminishing for 2007 and significantly decreasing for 2008. Overall, Hungary seems to be in economic bad times over the next two years with an expected improvement thereafter.

4. GENERAL GOVERNMENT BALANCE

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

4.1. Budgetary implementation in 2006

The December 2005 update of the convergence programme set a general government deficit target of 6.1% of GDP for 2006 (or 4.7% of GDP without the burden of pension reform).³³ Large budgetary slippages in the first months of 2006 led to a massive increase in the government deficit. In summer, the Government, re-appointed after the April elections, announced that without corrective measures the end-year deficit would be considerably higher than planned at around 11.6% of GDP (10.1% without the burden of pension reform).³⁴

Only about 0.3% of GDP of the total estimated deviation of 5½% of GDP compared to the initial target of 6.1% of GDP is due to a revenue shortfall, mainly in the area of social contributions, with the remainder explained by expenditure overruns. Close to 2½% of GDP of current expenditure overruns occurred in the areas of pension payments, preventive care, pharmaceutical subsidies, operational costs of central budgetary institutions (central government and decentralised bodies of the central administration) and other current expenditures. In addition, higher-than-expected local government investment linked to the election cycle increased the deficit by 0.5% of GDP. Interest expenditure (excluding interest outlays to the private pension funds) was also higher than budgeted by 0.3% of GDP due to the higher debt level and the substantial increase in interest rates by 100-150 basis points. The Hungarian authorities attributed another 0.4% of GDP to one-off and other temporary measures (debt cancellation, compensation payments in relation to the Budapest Airport and flood-related expenditure). Finally, 1½% of GDP extra spending was explained by accounting of motorway investment inside the general government (around 1% of GDP)³⁵ and the costs of military aircraft (0.3% of GDP) purchased under a financial lease. Both these outlays had not been included in the official budget deficit target for 2006.

When the Government announced the huge budgetary slippage, it also pledged to take budgetary adjustment measures, reducing the deficit in 2006 by 1½% of GDP to 10.1% of GDP (still by far the highest deficit in the EU), with a broadly even distribution between expenditure- and revenue-side measures. On 12 June, the government adopted a budgetary correction package, which was turned into law by Parliament on 10 July. The main elements of the revenue-increasing part of the consolidation package are increases in social contributions, in the middle VAT rate and in corporate taxes (producing an estimated increase in revenues by 0.7% of GDP already in 2006). Regarding the spending cuts, some immediate steps concerning health-related expenditure, gas price subsidies, operational expenses of central government institutions and the full withdrawal of the 0.3% of GDP general reserve

³³ Until the September 2006 adjusted convergence programme, the Hungarian authorities took advantage of the transitory period on the sectoral classification of pension schemes (granted by Eurostat on 23 September 2004) and set accordingly the deficit and debt targets by excluding the costs of pension reform.

³⁴ At first, the Hungarian authorities announced in June a deficit of 11% of GDP (9.5% without pension reform burden) in the absence of corrective measures. In this estimate the Government included ½ percentage point of GDP out of the 1.1% of GDP motorway investment, while the remaining 0.6% of GDP ongoing PPP projects ('programme roads') was considered to be extra-budgetary expenditure. In July, the authorities further increased their deficit forecast for 2006 to 11.6% of GDP after Eurostat clarified that, notwithstanding the sector classification of the State Motorway Management Company, the assets built ('programme roads' projects of 0.6% of GDP) should be recorded in the general government sector.

³⁵ Originally this investment was planned to be undertaken by Public Private Partnerships to be recorded off budget.

for 2006³⁶ were taken by government decrees by the end of June (producing estimated expenditure savings of 0.8% of GDP already in 2006). With the exception of the withdrawal of the general reserve (which is a one-off measure), all these measures are expected to produce significant effects also in 2007 and beyond (for further details on the measures of the consolidation package see Box 3).

Box 3: Summer 2006 consolidation package

Following major budgetary slippages in the first five months of 2006, on 12 June the Government adopted a set of fiscal corrective measures (the so-called 'New Equilibrium' package), aimed at lowering the budget deficit in 2006 by around 1½% of GDP, and at importantly contributing to the envisaged adjustment path in the 2007-2010 period. It did not include most of the structural reform plans that were progressively unveiled in subsequent months. On 10 July, Parliament adopted the tax amendments. At the same time, Parliament withdrew the remainder of the five-year tax cut plan that had been adopted on 7 November 2005 (its first steps – most notably a 5 percentage points cut in the upper VAT rate – had become effective on 1 January 2006 and led to revenue losses of around 1% of GDP in 2006).

The main elements on the revenue side of the 'New Equilibrium' package (most of which became effective on 1 September 2006) concern *social contributions* (increase in the rate of employees' healthcare contribution from 4% to 7% in two steps), the *corporate profit tax* (a 4% 'separate tax' on pre-tax corporate profits), and the *VAT rate* (increase in the middle-bracket of the VAT rate from 15 to 20%). In addition, the package contains increases in the *personal income tax* (a 4% 'special tax' for annual incomes above a certain threshold (around HUF 6.75 million) and reduction of tax allowances), hikes in *excise duties* for tobacco and alcohol, the introduction of a *20% tax on interest income and capital gains*, as well as a *special tax on the financial sector*. The package also introduces *measures to address the heightened risk of tax evasion*, in particular the centralisation of the fragmented investigative system of tax fraud (police, customs guard) and a twenty-fold increase in the number of reviews into the accumulation of personal wealth in 2007 compared to previous years.

On the expenditure side, by the end of June some *immediate spending cuts* concerning *pharmaceutical and gas price subsidies*, *health-care expenditures*, *administrative expenditures* and the *withdrawal of the general reserve* for 2006 were adopted by Government decrees. These measures are officially estimated to produce expenditure savings of 0.8% of GDP in 2006. In subsequent years the package outlines further expenditure savings to be generated by substantial *additional cuts in administrative costs* (reduction in general government employment and merging institutions); by the *nominal freeze of public wages* and other *across-the-board nominal freezes* of a number of expenditure items until 2008; as well as by further *reform of the universal price subsidy schemes*. The expected impact of various types of freezes (on the public wage bill, on operational expenditures of public administration, and on other budgetary appropriations) would amount to around 1.3% of GDP in 2008.

The current convergence programme update expects that the outturn will be fully in line with the revised deficit target of 10.1% of GDP for 2006 set in the September 2006 adjusted programme.³⁷ The deficit projection for 2006 of the Commission services autumn 2006 forecast is also fully in line with this revised target. Nevertheless, on the basis of currently

³⁶ The inclusion of this appropriation into the budget law is prescribed by the Public Finance Act. The function of this reserve is to meet unforeseen expenditures. The general reserve shall be between 0.5 and 2 percentage point of the total expenditure of the budget and could be used discretionally by the Government.

³⁷ After the submission of the September 2006 update, the general government deficit for 2005 was revised upwards by 0.3% of GDP. However, this was due to higher spending on some public investment projects at the central government level, and thus no carry-over effect is expected from the revision.

available information about the revenue impacts of the recently adopted tax increases, the budgetary outcome could be slightly better.

Table 5: Evolution of budgetary targets in successive programmes

		2005	2006	2007	2008	2009	2010
General government Balance ¹ (% of GDP)	CP Dec 2006	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
	CP Sep 2006	-7.5	-10.1	-6.8	-4.3	-3.2	n.a.
	CP Dec 2005	-7.4	-6.1	-4.7	-3.4	n.a.	n.a.
	CP Dec 2004	-4.7	-4.1	-3.4	-2.8	n.a.	n.a.
	COM Nov 2006	-7.8	-10.1	-7.4	-5.6	n.a.	n.a.
General government Expenditure ¹ (% of GDP)	CP Dec 2006	50.0	52.0	49.9	47.2	46.6	45.5
	CP Sep 2006	50.6	52.5	51.0	49.1	48.6	n.a.
	CP Dec 2005	51.2	47.2	45.8	43.6	n.a.	n.a.
	CP Dec 2004	47.4	46.9	45.6	45.2	n.a.	n.a.
	COM Nov 2006	50.0	51.7	50.3	48.6	n.a.	n.a.
General government Revenues ¹ (% of GDP)	CP Dec 2006	42.2	41.9	43.1	43.0	43.4	42.8
	CP Sep 2006	43.1	42.4	44.2	44.8	45.4	n.a.
	CP Dec 2005	43.8	41.1	41.1	40.2	n.a.	n.a.
	CP Dec 2004	42.7	42.8	42.2	42.4	n.a.	n.a.
	COM Nov 2006	42.2	41.6	42.9	43.0	n.a.	n.a.
Real GDP (% change)	CP Dec 2006	4.2	4.0	2.2	2.6	4.2	4.3
	CP Sep 2006	4.1	4.1	2.2	2.6	4.1	n.a.
	CP Dec 2005	4.2	4.3	4.1	4.1	n.a.	n.a.
	CP Dec 2004	4.0	4.2	4.3	4.6	n.a.	n.a.
	COM Nov 2006	4.2	4.0	2.4	2.7	n.a.	n.a.

Note:
¹ For the sake of comparability, the budgetary figures of the December 2004 and December 2005 Convergence Programmes were adjusted to include pension reform-related costs.
Source:
Convergence programme (CP); Commission services' autumn 2006 economic forecasts (COM)

4.2. The programme's medium-term budgetary strategy

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

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

The update confirms the Government's main policy objective, to correct the excessive deficit by 2009, already set out in the adjusted convergence programme update of September 2006. This is to be achieved by a steep deficit reduction of 6.9 percentage points of GDP within a period of three years from 10.1% of GDP in 2006 to 3.2% of GDP in 2009.³⁸ The adjustment

³⁸ All the budgetary figures in the new and the previous update of the Hungarian convergence programme already include the pension reform costs. For consistency with the convergence programme, the historical data and the Commission services' autumn 2006 forecast for Hungary also include the costs of pension reform, which in the 2005-2010 period are in the range of 1.3%-1.7% of GDP per year. However, data reported by the Hungarian statistical office (KSH) and published by Eurostat (Eurostat press release n° 139/2006 of 23.10. 2006) still benefit from the transitory period granted by Eurostat. These data series, in any case, will have to be revised in April 2007 in order to comply with the Eurostat decision of 2 March

is planned to continue in 2010 with an additional 0.5% of GDP reduction in the deficit to 2.7% of GDP (see Table 5).³⁹ Between 2006 and 2010, the primary balance would show an improvement of the same magnitude, from a deficit of 6.2% of GDP in 2006 to a surplus of 1.1% of GDP in 2010. The time profile of the consolidation is substantially front-loaded, with close to half of the projected nominal improvement over the entire programme horizon taking place in 2007 (3.3% of GDP).

The deficit target of 3.2% of GDP in 2009 would still exceed the 3% of GDP threshold specified in the Treaty. It is assumed in the programme that the Council and the Commission could take into account 20% of the yearly burden on the budget arising from the second pillar pension reform (which is expected to amount to 0.3% of GDP in that year) when taking the decision on the excessive deficit procedure for Hungary.⁴⁰ Even in this case, there would be no safety margin for possible slippages (see Box 4 for more details on the excessive deficit procedure for Hungary).

Box 4: The excessive deficit procedure for Hungary

According to the excessive deficit procedure (EDP), the Commission and the Council monitor the development of the budgetary position in each Member State, notably in relation to the reference values of 3% of GDP for the deficit and 60% of GDP for the debt, in order to assess the existence (or risk) of an excessive deficit and to ensure its correction. The EDP is laid down in Article 104 of the Treaty and further clarified in the Stability and Growth Pact.

On 5 July 2004, the Council adopted a decision stating that Hungary had an excessive deficit in accordance with Article 104(6). At the same time, the Council addressed a recommendation to Hungary under Article 104(7) specifying that the excessive deficit had to be corrected by 2008 at the latest in line with the adjustment path outlined in the country's May 2004 convergence programme. However, the Council decided on 18 January 2005 based on Article 104(8) that, despite the adoption of some measures reducing the deficit in 2004 and 2005, Hungary did not comply with the recommendations of July 2004, since both the 2004 and the 2005 targets were expected to be missed by a sizeable margin.

On 8 March 2005, the Council issued another recommendation based on Article 104(7), since Hungary is not yet a member of the euro area and therefore the next two steps of the excessive deficit procedure under Article 104(9) and 104(11) do not apply. The Council recommended the Hungarian authorities to "take effective action by 8 July 2005 regarding additional measures, as far as possible of a structural nature, in order to achieve the deficit target for 2005 as set in the updated convergence programme". Furthermore, the timing and implementation of any tax cuts should be made conditional upon the achievement of the deficit targets of the convergence programme update submitted in December 2004.

However, given a substantial deterioration of the budgetary outlook in Hungary, based on a Commission recommendation of 2 October 2005 incorporating the new information, the Council

2004 on the classification of funded pension schemes. This assessment's budgetary figures are therefore not directly comparable to data published by the KSH and Eurostat.

³⁹ The update also refers to 2011, for which it projects a further deficit reduction of 0.5 percentage point of GDP.

⁴⁰ According to Article 2(7) of Council Regulation 1467/97 as amended, which is part of the Stability and Growth Pact, if the general government deficit "...has declined substantially and continuously and has reached a level that comes close to the reference value" [of 3% of GDP], the Council and the Commission could consider degressively the net cost of a pension reform that includes a fully-funded pillar. Taking into account the implementing provisions in the code of conduct, the applicable figure according to this degressive scale in 2009 is 20%. As pension costs are estimated at 1.4% of GDP in 2009, a 20% deduction would correspond to around 0.3% of GDP.

decided on 8 November 2005 for the second time based on Article 104(8) that Hungary did not comply with the new 104(7) recommendations of March. Thereby it notably took into account the fact that both deficit targets of 3.6% of GDP in 2005 and of 2.9% of GDP in 2006 (excluding in both cases the pension reform burden) would be missed by a sizable margin and that the implementation of the tax cuts starting from 2006 was contrary to the Council recommendation of March 2005.

On 10 October 2006, the Council adopted for the third time a recommendation to Hungary under Article 104(7), extending the deadline for the correction of excessive deficit by one year to 2009 which seems appropriate, as it implies a substantial correction of the structural deficit by more than 6½% of GDP over three years. The Council asked Hungary to reduce the deficit in a credible and sustainable manner and to ensure that the government gross debt ratio is brought onto a firm downward trajectory, in accordance with the multi-annual path for deficit reduction as specified in the adjusted convergence programme update of September 2006. In addition, Hungary was invited to adopt and implement swiftly the planned structural reforms also with a view to ensuring a lasting improvement of public finances. Finally, Hungary was asked to improve budgetary control by enhancing fiscal rules as well as by strengthening the institutional framework. The deadline for Hungary to take effective action in response to these recommendations is 10 April 2007. After the expiry of this deadline, the Commission will make an assessment of action taken by the Hungarian authorities.

More details can be found at:

http://europa.eu.int/comm/economy_finance/about/activities/sgp/edp/edphu_en.htm

The current programme confirms the budgetary strategy and the adjustment path outlined in the 2006 September update. The adjustment path should be assessed against a higher nominal GDP level outlook, due to a base effect following the revision of the national accounts in October 2006⁴¹ and the consistently higher GDP deflators compared to the 2006 September programme. Keeping the same nominal deficit targets as in the adjusted 2006 September programme *ceteris paribus* entails a somewhat smaller consolidation effort over the 2006-2009 period by around 0.1-0.2% of GDP in each year.

4.2.2. *The composition of the budgetary adjustment*

The planned reduction of the nominal deficit by around 7½ percentage points of GDP between 2006 and 2010 is projected to be achieved by increasing the revenue-to-GDP ratio by 0.9 percentage point and by reducing the expenditure-to-GDP ratio by 6.5 percentage points (see Table 5). During the programme period, an initial increase in the tax burden of 1.6 percentage points of GDP in 2007 is to be partially phased out and progressively replaced by expenditure cuts. Therefore, although the planned frontloaded adjustment is increasingly expenditure-driven, it also has an important revenue component especially in the first year, which may be explained by the magnitude of the budgetary shortfall to be corrected.⁴²

Against a background of a broadly similar macroeconomic scenario, the previous update envisaged a higher revenue component (around 40%) in the consolidation effort (the

⁴¹ The Central Statistical Office revised the Hungarian national accounts for the 2000-2005 period in October 2006. The updated nominal GDP figures are around 1 percentage point of GDP higher than old ones in each year of the period.

⁴² This assessment of the composition of the adjustment is based on the total change in the revenue and expenditure ratios between end 2006 and end 2010, thereby ignoring the immediate effect of those consolidation measures which were effective already in 2006. Moreover, the assessment refers to the trajectory of total revenues and total expenditure, thus including EU transfers (which raise both expenditure and revenue ratios by some 1.8 percentage points over the programme period).

expenditure ratio was targeted to decline by close to 4 percentage points while the revenue ratio was envisaged to rise by 3 percentage points, see also Table 4 above). The shift towards a more expenditure-driven adjustment is partly explained by the addition of an extra year (2010) to the programme horizon, for which the update envisages a broadly parallel decline in *both* the revenue and expenditure ratio (0.6% of GDP and 0.9% of GDP, respectively). However, if one takes only into account a comparable period (2006-2009), the developments on the expenditure side are more ambitious than in the 2006 September update. The shift towards expenditure restraint in the composition of the adjustment in this period is partly due to changes in the Government's assessment of the expected budgetary effects of a number of consolidation measures for the years 2008 and 2009. On the expenditure side, the impacts of some of the already adopted pension and public education reform steps have been formally taken into account in the new programme, reducing expenditures by around ½% of GDP in both 2008 and 2009. On the revenue side, the Government's projections for taxes and social contributions are more cautious than in the previous update, lowering the revenue ratio by some ½% of GDP after 2007. Nevertheless, around half of the shift towards a more expenditure-based composition of the adjustment is due to the effect of progressively higher nominal GDP series compared to the September 2006 adjusted programme for a given expenditure path.⁴³ It is important to note at this point that while the lower revenue and expenditure ratios would not affect the deficit targets throughout the programme period, both changes help to shift the composition of the adjustment towards the expenditure side.

Table 6: Composition of the budgetary adjustment

(% GDP)	2005	2006	2007	2008	2009	2010	Change: 2010-2006
Revenues	42.2	41.9	43.1	43.0	43.4	42.8	0.9
<i>of which:</i>							
- Taxes & social contributions	37.2	36.5	38.1	37.9	37.2	37.0	0.5
- Other (residual)	5.0	5.4	5.0	5.1	6.2	5.8	0.4
Expenditure	50.0	52.0	49.9	47.2	46.6	45.5	-6.5
<i>of which:</i>							
- Primary expenditure	45.9	48.1	45.5	42.9	42.5	41.7	-6.4
<i>of which:</i>							
Consumption	22.4	23.2	21.4	20.3	19.4	18.9	-4.3
Transfers other than in kind & subsidies	15.8	16.4	16.4	16.3	15.7	15.1	-1.3
Gross fixed capital formation	4.0	4.8	3.5	3.0	3.9	4.0	-0.8
Other (residual)	3.7	3.7	4.2	3.3	3.5	3.7	0.0
- Interest expenditure	4.1	3.9	4.4	4.3	4.1	3.8	-0.1
General government balance (GGB)	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7	7.4
Primary balance	-3.7	-6.2	-2.4	0.0	0.9	1.1	7.3
One-offs ¹	0.0	-0.7	-1.0	-0.1	0.0	0.0	0.7
GGB excl. one-offs	-7.8	-9.4	-5.8	-4.2	-3.2	-2.7	6.7
Note:							
¹ One-off and other temporary measures taken from the programme.							
<i>Source:</i>							
<i>Convergence programme update; Commission services' calculations</i>							

⁴³ For example, the difference between the current and the previous programme's nominal GDP figure is around 3.3 percentage points of GDP in 2009, of which around 1/3 is explained by the higher base effect and the remaining part is due to higher GDP deflators in the new programme.

In the updated programme, the revenue-increasing measures confirmed in the 2007 budget (but already adopted in July 2006) are projected to lead to a large increase in the revenue-to-GDP ratio of 1.2 percentage points in 2007. The dynamics of tax receipts are driven by the significant increases in the tax rates of VAT, income taxes and social security contributions, together with some small increases in the tax base of social security contributions and the personal income tax and the introduction of some new taxes. After 2007, taxes and social contributions are expected to decline as a percentage of GDP. This decline is most pronounced in 2009, which may to some extent be linked to the fact that the substantial pick-up in nominal GDP growth (which in Hungary tends to lead to a decline in the revenue ratio) is not very tax-rich. This downward impact on the revenue-to-GDP ratio only partly offset by increases in other revenues (including EU transfers which more than offset the continuous decline of the remaining – and relatively stable in real terms – items included in other revenues). Overall, the revenue ratio will increase by 0.9 percentage point of GDP during the programme period as a result of a 0.5% of GDP increase in the tax-to-GDP ratio and a 0.4% of GDP increase in other revenues.

The planned decline in the expenditure-to-GDP ratio by 6.5 percentage points of GDP over the programme period⁴⁴ is expected to be achieved through: (i) a sharp cut in public consumption, by about 4.3 percentage points of GDP, reflecting a broad range of measures, in particular aimed at curbing the wage bill; (ii) savings on transfers and subsidies, particularly through a progressive revamping of the price subsidy systems (the positive impact on the deficit will be significant only after 2008; and (iii) an overall decrease in gross fixed capital formation of 0.8 percentage points of GDP over the programme period, which practically takes place already in 2007; the latter probably in part reflects a normalisation after the electoral public investment cycle of 2006 and is accompanied by a progressive shift from public investment programmes exclusively financed from domestic sources to programmes supported by EU financing (the pick-up in the outer years is also linked to EU funds, namely because of the increasing national co-financing requirements of the budget).

All revenue-enhancing measures to back the reduction of the deficit in 2007 (which, as explained above, are planned to be phased out in subsequent years) are already adopted. In recent months, the Hungarian authorities have taken a number of steps of the planned structural reforms (regionalizing the decentralized bodies of public administration; revamping gas, pharmaceutical and transport price subsidies; introducing co-payments for health-care services and restructuring the institutions of the health care system; deciding on stricter pension parameters).⁴⁵ However, for most of the measures on the expenditure side taken in the second half of 2006 (for further details on the measures of the 2007 budget see Box 5) follow-up steps will need to be put quickly into operation to ensure the planned expenditure cuts over the programme period. In particular, the programme does not specify how the expenditure-reducing impacts of the announced structural reform plans would be able to compensate for the expiry at the end of 2008 of the planned across-the-board expenditure freezes of approximately 1¼% of GDP.

⁴⁴ The overall reduction reflects the impact of the Government's expenditure-reducing measures (amounting to 8.2 percentage points of GDP) and the expenditure-increasing effect of the EU transfers (amounting to 1.8 percentage points of GDP).

⁴⁵ See Section 6 for further details on structural reforms.

Box 5: The budget for 2007

The draft budget for 2007 was presented on 31 October 2006. It was adopted by Parliament on 21 December 2006. The 2007 budget sets a general government deficit target of 6.8% of GDP in line with the envisaged adjustment path of the convergence programme, entailing a decrease in the deficit by 3.3 percentage points of GDP in 2007 compared to 2006. The budget specifies targets for the primary balance for the period 2008-2010, which correspond with the medium-term adjustment path set in the programme. Accordingly, in 2008 the primary balance is not negative, and it shows a surplus of 0.9% of GDP in 2009 and of 1.1% of GDP in 2010. As a further move towards medium-term budgetary planning, the annexes of the draft budget also contain a relatively detailed breakdown of indicative budgetary appropriations for all chapters for the period 2008-2010. This part of the budget, however, was not turned into law by Parliament.

On the revenue side, the budget confirms and, where necessary, clarifies the measures of the consolidation package adopted by Parliament on 10 July (see Box 3 above, which lists all the measures of the package that became effective on 1 January 2007). These measures consist of increases in both direct taxes and social contributions as well as introduction of new taxes, officially expected to produce an overall increase in the tax burden of 1.6 percentage points of GDP in 2007 (to 38.1% of GDP). It should be noted that the last time that the tax burden was above 38% was in 2001.

On the expenditure side, the planned expenditure reduction largely relies on freezes in operational and wage expenditure of the public administration and cuts in pharmaceutical and gas price subsidies. The budget also aims to reduce public investment expenditures by 1¼ percentage points of GDP (from the peak of 4.8% of GDP in 2006). In order to achieve the planned cuts, the budget introduces a new control mechanism from 2007 onwards, which enhances ministerial responsibilities for expenditure ceilings to be monitored on a quarterly basis. In case of an emerging overrun the *chapter balance reserves*, specified for each budgetary chapter (e.g. line ministries, social security funds, extra-budgetary funds) and amounting to around 0.3% of GDP in total, would be frozen. It should be noted that this new type of reserves is distinct from other types of budgetary reserves, namely the traditional general reserves and earmarked reserves, and the similarly newly introduced central balance reserve.

**Table: Main measures in the budget for 2007
(including tax increases adopted already in July but effective from 1 January 2007)**

Revenue measures*	Expenditure measures**
<ul style="list-style-type: none"> ○ Increase of the lower tax bracket by HUF 150 000 (-0.1% of GDP) ○ Introduction of the minimum expected profit tax for corporations (0.2% of GDP) ○ Introduction of a 4% 'separate tax' for personal incomes (0.1% of GDP) ○ Increase in the rate of employees' healthcare contribution from 6% to 7% (0.2% of GDP) ○ Introduction of co-payments in health care services (0.1% of GDP) 	<ul style="list-style-type: none"> ○ 1.3 percentage point of GDP decrease in public investment expenditures ○ Freezing the public wage bill at the end 2006 level and cuts in operational expenditures of public administration (-0.6% of GDP) ○ Cuts in universal pharmaceutical and gas price subsidies (-0.4% of GDP) ○ Increased subsidies (+0.2% of GDP) and capital injections (+0.4% of GDP) to the national railway company in the context of a restructuring plan

* Estimated impact on general government revenues.

** Estimated impact on general government expenditure.

Sources: Commission services, State Audit Office, December 2006 convergence programme of Hungary

According to the programme, no one-off and other temporary measures⁴⁶ took place in 2005. During the programme period, one-offs (all with a deficit-increasing effect) would amount to 0.7% of GDP in 2006, 1% of GDP in 2007 and 0.1% of GDP in 2008. No one-offs are foreseen for the outer years of the programme. The programme identifies as deficit-increasing one-offs for the 2006-2008 period the following measures: the purchase of Gripen fighters (0.3% of GDP in 2006 and 0.2% of GDP in 2007), debt cancellation (0.1% of GDP in 2006), flood-related extra spending (0.2% of GDP), legal compensation paid in the Budapest Airport lawsuit (0.1% of GDP in 2006), severance payments stemming from the streamlining of the public administration (0.4% of GDP), capital injections to the national railway company in the framework of a restructuring programme (0.4% of GDP in 2007 and 0.1% of GDP in 2008).

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

As specified in the Stability and Growth Pact, the programme identifies its medium-term objective (MTO) for the budgetary position in structural terms (i.e. cyclically-adjusted and net of one-off and other temporary measures) and sets it at a deficit of 0.5% of GDP. The MTO is expected to be achieved after the end of the programme period, without specifying a target year. In 2010, the final year of the programme, a structural deficit of 2.9% of GDP is projected (Commission services' calculations on the basis of the programme according to the commonly agreed methodology). This objective is 2.4 percentage points of GDP above the targeted MTO. The update mentions that after 2010 further reductions of the general government deficit in *nominal* terms will be undertaken, of 0.5 percentage point per year, until the MTO is achieved. Compared to the previous update of the programme, the MTO currently put forward is somewhat more ambitious: the MTO in the September 2006 adjusted programme, which was not expected to be achieved within the programme period, was a structural budget deficit in the range of 0.5-1% of GDP.

Box 6: The medium-term objective (MTO) for the budgetary position

According to the Stability and Growth Pact, stability and convergence programmes must present a medium-term objective (MTO) for the budgetary position. The MTO is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risk to the sustainability of public finances.

The MTO should fulfil a triple aim. First, it should provide a safety margin with respect to the 3% of GDP deficit limit. Second, it should ensure rapid progress towards sustainability. Third, taking into account the first two goals, it should allow room for budgetary manoeuvre, considering in particular the needs for public investment. The code of conduct further specifies that, as long as the methodology for incorporating implicit liabilities is not fully developed and agreed by the Council, the country-specific MTOs are set taking into account the current government debt ratio and potential growth (in a long-term perspective), while preserving a sufficient margin against breaching the 3% of GDP deficit reference value. Member States are free to set an MTO that is more demanding than strictly required by these provisions.

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

⁴⁶ For a definition of one-off and other temporary measures, including an indicative list, see Chapter 4.2 of the 2006 Public Finance Report (available at: http://ec.europa.eu/economy_finance/publications/publicfinance_en.htm).

As the MTO chosen by the Hungarian authorities is more demanding than the minimum benchmark⁴⁷ (estimated at a cyclically adjusted deficit of around 1½% of GDP in the case of Hungary), its observance would fulfil the aim of providing a safety margin against the occurrence of an excessive deficit. The MTO adequately reflects long-term potential output growth and the debt ratio.

Based on the Commission services' calculations on the basis of the programme according to the commonly agreed methodology, the update foresees a reduction in the structural deficit by almost 7 percentage points between 2006 and 2010. Since interest expenditure as a percentage of GDP is projected to decline by around ½ percentage point of GDP from the peak of 4.4% of GDP in 2007 to the current annual level of around 3.9% of GDP at the end of the programme horizon, the fiscal policy effort as measured by the change in the structural primary balance is also close to 7 percentage points of GDP. The evolution of the structural balance confirms that the fiscal adjustment is front-loaded, with more than half of the reduction over the programme period planned to take place in the first year, followed by another very significant improvement in 2008 and a more moderate one in 2009 and finally, no significant change in structural terms in 2010.

Based on the change in the structural balance as recalculated by Commission services, the stance of fiscal policy would be restrictive until 2009 (and especially in the first and also the following year), turning to broadly neutral in the final year of the programme. It should be noted that the significant reduction of deficit-increasing one-offs in 2008 and the elimination of these afterwards also contribute to the expected improvement in the general government balance from 2009.

It should be noted that there are uncertainties linked to the calculations of cyclically-adjusted and structural balances, notably due to the difficulty of contemporaneous output gap estimates and budgetary elasticity volatility. Thus, any interpretation should be made with caution.

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

% of GDP	2005		2006		2007		2008		2009	2010	Change: 2010-2006
	COM	CP ¹	COM	CP ¹	COM	CP ¹	COM	CP ¹	CP ¹	CP ¹	CP ¹
Gen. gov't balance	-7.8	-7.8	-10.1	-10.1	-7.4	-6.8	-5.6	-4.3	-3.2	-2.7	7.4
One-offs ²	0.4	0.0	-0.3	-0.7	-0.9	-1.0	-0.3	-0.1	0.0	0.0	-
Output gap ³	0.6	0.5	1.0	0.9	0.1	-0.4	-0.5	-1.2	-0.5	0.4	-
CAB ⁴	-8.1	-8.0	-10.5	-10.5	-7.4	-6.6	-5.4	-3.8	-3.0	-2.9	7.6
change in CAB	-1.6	-1.5	-2.5	-2.5	3.1	3.9	2.0	2.9	0.8	0.1	-
CAPB ⁴	-4.0	-3.9	-6.5	-6.6	-2.9	-2.2	-1.2	0.5	1.1	0.9	7.5
Structural balance ⁵	-8.5	-8.0	-10.3	-9.8	-6.5	-5.6	-5.1	-3.7	-3.0	-2.9	6.9
change in struct. bal.	-2.0	-1.5	-1.8	-1.8	3.7	4.2	1.4	2.0	0.7	0.1	-
Struct. Prim. bal. ⁵	-4.4	-3.9	-6.3	-5.9	-2.1	-1.2	-0.9	0.6	1.1	0.9	6.8

Notes:

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

²One-off and other temporary measures.

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

⁴⁷ The minimum benchmark is the estimated budgetary position in cyclically-adjusted terms that provides a sufficient safety margin for automatic stabilisers to operate freely during normal economic downturns without breaching the 3% of GDP deficit reference value.

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

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

Source:

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

4.3. Risk assessment

The budgetary targets contained in the programme are subject to a number of risks, especially in the outer years of the programme.

The risks to the deficit path stemming from the macroeconomic scenario are broadly balanced until end-2008. However, in the outer years, lower-than-projected GDP growth and in particular a possible negative reaction of employment could lead to a lower revenue as well as higher expenditure ratio and consequently to a higher deficit. In addition, given that the programme's interest rate assumptions appear to be on the low side, especially after 2008, a higher-than-expected debt service might result in higher deficits.

The programme presents a sensitivity analysis with respect to the baseline scenario with three different scenarios, presenting the effects of different assumptions about the reaction of economic agents to fiscal retrenchment, and of a negative shock in foreign demand.⁴⁸ Commission services' simulations of the cyclically-adjusted balance under the assumptions of (i) a sustained 0.5 percentage point deviation from the real GDP growth projections in the programme over the 2006-2010 period, (ii) trend output based on the HP-filter, and (iii) no policy response to the above-mentioned growth deviation (notably, the expenditure level is as in the central scenario), reveal that, by 2010, the cyclically-adjusted balance is 1 percentage point of GDP above/below the central scenario. Hence, in the case of persistently lower real growth, additional measures of around 1 percentage point of GDP would be necessary to keep the public finances on the path targeted in the central scenario.

⁴⁸ In the optimistic scenario, non-Keynesian effects in consumption and investment would lead to higher growth dynamics and a 0.3 percentage point of GDP improvement in the general government budget balance by 2009. In the first pessimistic scenario, slower wage dynamics would lead to a sharper decrease in household consumption and to lower trend growth, which results in a 0.3-0.4 percentage point of GDP deterioration in the general government budget balance throughout the programme horizon. In the second pessimistic scenario, external demand is lower compared to the central scenario, which results in a 0.3 percentage point of GDP higher budget deficit by 2009.

Table 8: Comparison of budgetary developments and projections

(% of GDP)	2005	2006		2007		2008		2009	2010
		COM	CP	COM	CP	COM ¹	CP	CP	CP
Revenues	42.2	41.6	41.9	42.9	43.1	43.0	43.0	43.4	42.8
<i>Of which:</i>									
- Taxes & social contributions	37.2	36.6	36.5	37.9	38.1	37.8	37.9	37.2	37.0
- Other (residual)	5.0	5.0	5.4	5.0	5.0	5.1	5.1	6.2	5.8
Expenditure	50.0	51.7	52.0	50.3	49.9	48.6	47.2	46.6	45.5
<i>Of which:</i>									
- Primary expenditure	45.9	47.7	48.1	45.8	45.5	44.3	42.9	42.5	41.7
<i>Of which:</i>									
Consumption	22.6	22.1	23.2	20.9	21.4	19.9	20.3	19.4	18.9
Transfers other than in kind & subsidies	15.9	16.7	16.4	16.9	16.4	16.7	16.3	15.7	15.1
Gross fixed capital formation	4.0	4.5	4.8	3.5	3.5	3.2	3.0	3.9	4.0
Other (residual)	3.5	4.4	3.7	4.5	4.2	4.5	3.3	3.5	3.7
- Interest expenditure	4.1	4.0	3.9	4.5	4.4	4.3	4.3	4.1	3.8
GGB	-7.8	-10.1	-10.1	-7.4	-6.8	-5.6	-4.3	-3.2	-2.7
Primary balance	-3.7	-6.1	-6.2	-2.9	-2.4	-1.4	0	0.9	1.1
One-offs ²	0.4	-0.3	-0.7	-0.9	-1.0	-0.3	-0.1	0.0	0.0
GGB excl. one-offs	-8.2	-9.8	-9.4	-6.5	-5.8	-5.4	-4.2	-3.2	-2.7
Notes:									
¹ On a no-policy change basis.									
² One-offs and other temporary measures.									
Source:									
Commission services' autumn 2006 economic forecast (COM); Convergence programme update (CP); Commission services' calculations									

As far as the revenue side is concerned, apart from the macro-economic risks in the outer years mentioned above there are no significant risks to the revenue trajectory contained in the programme (see Table 9 and Figure 8). All revenue-enhancing measures to back the reduction of the deficit in the first years of the programme are already adopted by the Hungarian authorities. The programme confirms the Government's intention to introduce a central real estate tax in 2008 with expected annual revenue of 0.3% of GDP from thereafter. However, this is only a Government intention at this stage and its estimated impact has not been included in the programme's revenue projections (so that it could be considered a safeguard against worse-than-planned budgetary developments). Towards the end of the programme period, the programme's tax projections become increasingly cautious as shown by the projected decreases in the tax-to-GDP ratio in the outer years of the programme (see Table 9). On the whole, it cannot be ruled out that the increased social security contributions and personal income taxes would produce less revenue than expected, if tax evasion rises together with the increased tax burden on labour, but this risk could be somewhat reduced by the strengthened link between social security payments and health-care provisions scheduled to be effective from 1 April 2007. Overall, the officially estimated revenue trajectory appears to be broadly realistic.⁴⁹

⁴⁹ On the basis of the same set of revenue measures, the Commission services autumn 2006 forecast projects a somewhat less tax-rich economic environment for both 2007 and 2008 compared to the programme's macroeconomic scenario; however, in 2008, this is more than offset by the more favourable assessment of the elasticity factors by Commission services.

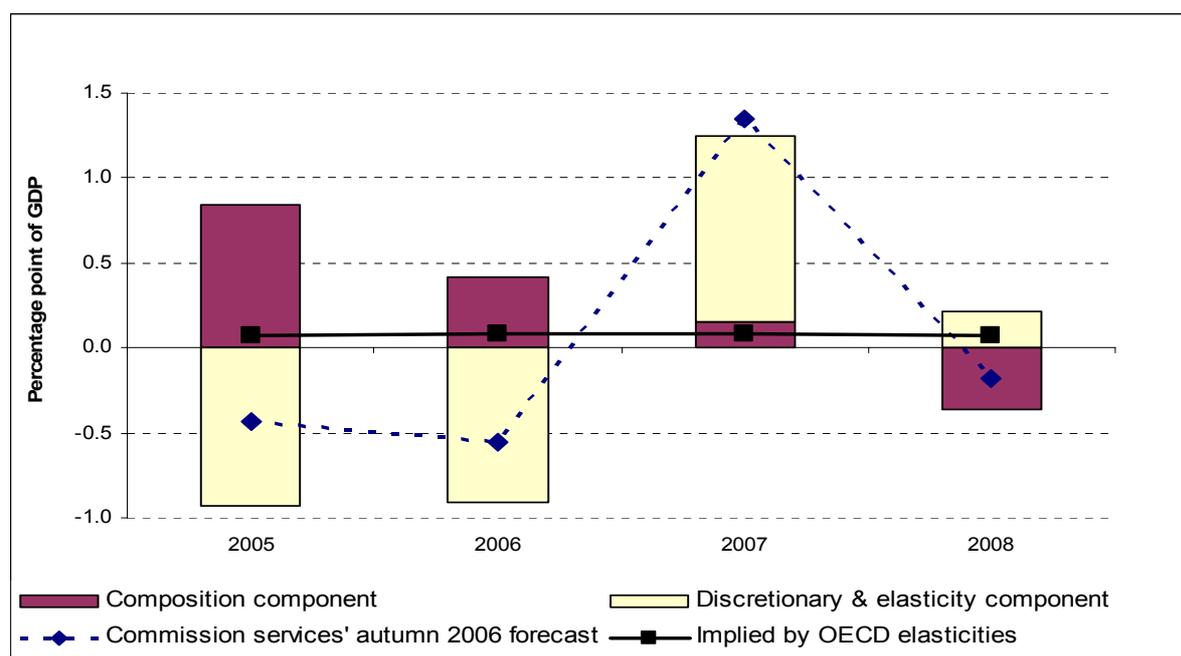
Table 9: Assessment of tax projections

	2007			2008			2009	2010
	CP	COM	OECD ³	CP	COM ¹	OECD ³	CP	CP
Change in tax-to-GDP ratio (total taxes)	1.7	1.4	0.1	-0.2	-0.1	0.1	-0.6	-0.2
<i>Difference (CP – COM)</i>	0.3		/	-0.1		/	/	/
<i>of which²:</i>								
- discretionary and elasticity component	0.3		/	-0.4		/	/	/
- composition component	0.1		/	0.3		/	/	/
<i>Difference (COM – OECD)</i>	/	1.3		/	-0.2		/	/
<i>of which²:</i>								
- discretionary and elasticity component	/	1.1		/	0.2		/	/
- composition component	/	0.2		/	-0.4		/	/
p.m.: Elasticity to GDP	1.7	1.5	1.0	0.9	1.0	1.0	0.8	0.9

Notes:
¹On a no-policy change basis.
²The decomposition is explained in Annex 5.
³OECD ex-ante elasticity relative to GDP.

Source:
Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

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



Note:

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

Source:

Commission services

As far as the expenditure side is concerned, there are a number of positive elements so far, but the negative risks prevail. On the positive side, the Hungarian Government has acknowledged the importance of expenditure control within the overall strategy of budgetary consolidation and adopted some measures in the second half of 2006 to strengthen budgetary implementation. New fiscal rules (concerning the primary surplus⁵⁰ and the control of expenditures) have been incorporated into the Public Finance Act and initial steps towards the establishment of a medium-term budgetary framework have been taken, but their effectiveness in reversing the pattern of regular expenditure overruns will have to be tested. Moreover, the 2007 budget includes a number of measures that should help curb expenditures and were not yet available at the time of the convergence programme of September 2006 and the Commission services autumn 2006 forecast. In particular, the increased level of reserves in the 2007 budget; the new law on streamlining the institutional system of health care services; the decisions about some merging of administrative bodies; and further steps to reform the gas and pharmaceutical price subsidies.

Although the Commission services' autumn 2006 forecast had a somewhat different assessment of one-off measures for the period 2005-2008⁵¹ (see also Table 7 above), this does not modify significantly the perceived risks linked to the adjustment path.

An important negative risk on the expenditure side is that the planned expenditure freezes may not be enforced as intended. In particular, it is uncertain whether the envisaged two-year freeze of the public wage bill will be fully implemented both in 2007 and 2008, given that the central government has no direct influence (only provides indirect financial incentives) on the wage policies of the local and regional governments and their budgetary units, which take up approximately 85% of all public sector employees. Moreover, the government's plan to keep most of the expenditure items constant at their present nominal level until end-2008 may be questioned given past experience with similar expenditure control: unspecified freezes were usually not respected or led to an accumulation of liabilities in the relevant budgetary chapters. To address this kind of risks, an increased level of budgetary reserves is set aside in the 2007 budget, amounting to 0.9% of GDP. Nevertheless, based on recent experience, the general and earmarked reserves (0.4% of GDP altogether) are likely to be fully spent during the course of 2007, leaving in practice only the newly introduced chapter balance reserves and central balance reserves (0.5% of GDP in total) to be frozen in case of budgetary slippages.

Furthermore, given that a large share of the planned expenditure reduction can be attributed to measures having temporary effects (expenditure freezes set to expire at the end of 2008), the effective implementation of the Government's structural reform plans is crucial for achieving

⁵⁰ Besides the 2007 budget which prescribes the minimum level of primary surpluses for the period 2008-2010, a recent amendment of the Public Finance Act specifies that from 2007 onwards it would not be possible for the Government to send a draft budget for Parliament containing a negative primary balance.

⁵¹ In 2005, the budget received revenues from the national oil company MOL (extra mining grants due to accelerated extraction of natural gas and concession for the extension for extracting rights) and from the sale of government property, altogether of around 0.4% of GDP deficit-reducing one-off revenues not considered by the programme. In 2006, the programme does not consider as deficit-reducing one-offs the withdrawal of the general reserve in June (which was fully spent in the previous years), the sale of government property, and additional mining grants from MOL, with a total deficit-decreasing impact of 0.4% of GDP in 2006. Therefore, the total impact of one-off and other temporary measures in 2006 would be 0.3% of GDP (deficit-increasing), compared to the programme's figure of 0.7% of GDP (also deficit-increasing). Since the cut-off date of the forecast, the Government has changed the time profile of the planned reorganisation of the national railway company, including the concerned one-off operations. Taking into account the new information the one-offs in 2007 would be 1% of GDP in 2007 and 0.1% of GDP in 2008 (all deficit-increasing), in line with the new programme figures.

a lasting improvement in public finances. Although first steps have been adopted to reform the public administration, health, pension, price subsidies and education systems, and more precise plans are announced in this update, there is still a significant risk that the remaining steps may not be fully specified and adopted. This risk would affect the credibility and durability of the adjustment and be particularly evident in the outer years. This makes it all the more important that the reform agenda announced in the September update and set out further in the new programme is pursued as scheduled.

In addition, Hungary's track record of fiscal policy is poor, as shown by budgetary developments in the last several years and the repeated slippages compared to targets adopted by the Government and recommended by the Council under the excessive deficit procedure. In 2006, the original deficit target has been significantly missed for the fifth year in a row by a large margin. On top of this, in the outer years of the programme, there is a risk of an electoral cycle in public finances, due to the proximity of the next Parliamentary elections in 2010 as evidenced by past experience.

Finally, the new deficit path does not include any debt takeovers from state-owned public transport companies. The largely state-guaranteed debt stock currently amounts to close to 2% of GDP, accumulated since end-2002. The largest part of this debt (around 1.5% of GDP) belongs to the national railway company (MÁV) for which the Government has started a restructuring scheme. It also envisages a partial privatisation and some paying-off of the company's debt through the proceeds of this operation.⁵² The streamlined and partially privatized company is then expected to be able to service the remaining part of its debt. If the operation does not yield the expected outcome, some debt assumption (with a temporary deficit-increasing effect) may still take place at some point in time. In addition, without a significant and successful restructuring of the public transport companies, the practice of accumulating losses and thus, implicit government liabilities, would be likely to continue.

The Commission services' autumn 2006 forecast projected the 2007 deficit at 7.4% of GDP against an official target of 6.8% of GDP. Under the conventional 'no policy change' assumption, the difference between the Commission services' deficit forecast and the official target was to widen further in 2008 (5.6% of GDP against 4.3% of GDP). However, as mentioned earlier in the context of positive elements on the expenditure side, this forecast could not yet take into account the 2007 budget since it was not available at the time of the cut-off date of the forecast. Taking into account the new information received after the finalisation of the Commission services' autumn forecast as discussed above, the budgetary outcome could be closer to the deficit targets for 2007 and 2008 than previously expected, especially in 2007.

Overall, the budgetary outcomes could be worse than projected in the programme, especially from 2008.

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

⁵² The 2007 budget foresees a capital injection of 0.4% of GDP into MÁV in 2007, and the Government also plans an additional capital injection of 0.1% of GDP in 2008. The 2007 budget contains increased subsidies to the company by 0.2% of GDP, which level is to be stabilized as a share of GDP from 2007 onwards. The railways' only profitable affiliate, MÁV Cargo, is to be privatised in 2007 and the privatisation proceeds (expected to amount to 0.2-0.3% of GDP) are planned to be used to pay off part of MÁV debt

role of the preceding analysis of the risks that are attached to the budgetary targets presented in the programme, this assessment is done in two stages: first, a preliminary assessment on the basis of the targets taken at face value is made (middle column) and, second, the final assessment that also takes into account risks (final column).

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

	Based on programme³ (with targets taken at face value)	Assessment (taking into account risks to targets)
a. Correction of excessive deficit by 2009 deadline on track?	Yes, if part of the pension reform burden is considered by the Council (0.3% of GDP in 2009)	yes, conditional on addressing risks, and assuming that part of the pension reform burden is considered by the Council (0.3% of GDP in 2009)
b. Safety margin against breaching 3% of GDP deficit limit ¹	not within programme period	not within programme period
c. Achievement of the MTO	not within programme period	not within programme period
d. Adjustment towards MTO in line with the Pact (after the correction of the excessive deficit) ² ?	should be strengthened significantly	should be strengthened significantly
<p><u>Notes:</u> ¹The risk of breaching the 3% of GDP deficit threshold with normal cyclical fluctuations, i.e. the existence of a safety margin, is assessed by comparing the cyclically-adjusted balance with the above mentioned minimum benchmark (estimated as a deficit of around 1½% of GDP for Hungary). These benchmarks represent estimates and as such need to be interpreted with caution. ²The Stability and Growth Pact requires Member States to make progress towards their MTO. In addition, the structural adjustment should be higher in good times, whereas it may be more limited in bad times. ³Targets in structural terms as recalculated by Commission services on the basis of the information in the programme. <u>Source:</u> <i>Commission services</i></p>		

The update confirms the new medium-term budgetary framework, laid down in the adjusted convergence programme update of September 2006, which puts forward 2009 as the deadline for the correction of the excessive deficit. In the light of the risk assessment in Section 4.3, the budgetary stance in the programme seems consistent with the recommended adjustment path for the correction, provided that all the broad reform measures announced in the programme together with the necessary follow-up steps are specified and effectively implemented and expenditures are strictly controlled. In 2009, the programme's deficit target of 3.2% of GDP would still exceed the 3% threshold specified in the Treaty. Even assuming, in line with the programme, that the Council and the Commission, when considering the case for an abrogation of the excessive deficit procedure for Hungary, could indeed take into account a part of the net cost of the pension reform, in line with the revised Stability and Growth Pact⁵³, the deficit target in 2009 leaves no safety margin against unforeseen slippages.

In the year after the correction of the excessive deficit, the planned structural improvement is negligible and therefore the progress towards the MTO should be strengthened significantly. The structural position at the end of the programme period would not provide a safety margin

⁵³ As discussed above, the allowed deduction of pension reform costs would amount to some 0.3% of GDP in 2009.

against the occurrence of an excessive deficit and the MTO would, as announced in the programme, not be reached within the programme period.

5. GOVERNMENT DEBT AND LONG-TERM SUSTAINABILITY

Government debt is the result of the financing needs of government over the years. It corresponds primarily to an accumulation of deficits, though the build up of financial assets and other adjustments may also play a role.⁵⁴ The reform of the Stability and Growth Pact has raised attention to the crucial importance of government debt and of sustainability in fiscal surveillance.

This section is in two parts: a first part describes recent developments and the medium-term prospects for government gross debt; it presents the convergence programmes targets, compares them with the Commission services' forecasts and assesses the associated risks. A second part looks into the government debt from a longer-term perspective with the aim of assessing the long-term sustainability of public finances.

5.1. Recent debt developments and medium-term prospects

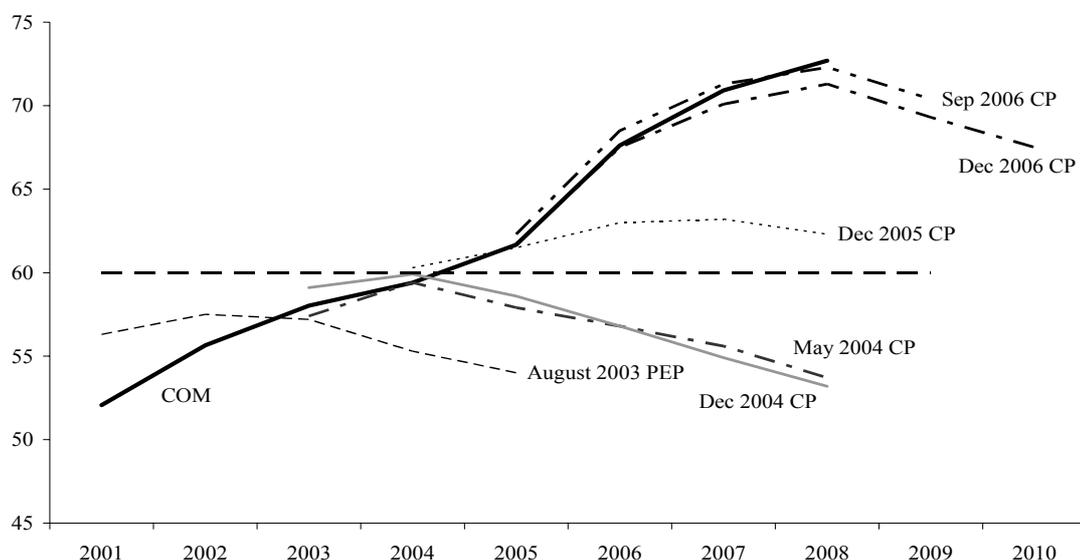
5.1.1. Debt projections in the programme

The update projects a further increase in the debt-to-GDP ratio from 67.5% in 2006 (after 61.7% in 2005) to 71.3% in 2008. This projection results from the planned deficit and growth developments, without any significant stock-flow adjustment. After 2008, the debt ratio is expected to decrease and return to 67.5% in 2010. The somewhat lower debt projections for the programme period compared to the 2006 September update are explained by the fact that the new update takes into account the October 2006 revision of the Hungarian national accounts.⁵⁵

⁵⁴ On the factors other than the deficit which explain the evolution of the government debt, see "The dynamics of government debt: decomposing the stock-flow adjustment", chapter II.2.2 of *Public Finances in EMU 2005*, European Economy, N°3/2005.

⁵⁵ The updated nominal GDP figures in the 2000-2005 period are more than 1% higher than old ones. This explains an improvement in the debt ratio in 2005 by 0.6% of GDP compared to the 2006 September update.

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



Note: For the sake of comparability, all debt targets include the burden of the pension reform.

Source:

Commission services' autumn 2006 forecast (COM), successive convergence programmes (CP), Pre-Accession Economic Programme (PEP)

The expected large increase in the debt ratio in 2006 compared to 2005 by close to 6 percentage points is due to the massive budgetary slippage. The Commission services' autumn 2006 forecast projects an increase in the same order of magnitude for 2006. In the programme, the stock-flow adjustment is expected to be marginally negative in 2006 (see Table 11), as the revaluation of the foreign-currency denominated debt due to the weakening exchange rate in 2006 largely offset the debt-reducing impact of privatisation (notably the sale in two steps of the remaining State-owned shares for around 1.2% of GDP of the national oil company MOL in May and December). However, given the substantial strengthening of the national currency in the last months of 2006, the end-year exchange rate of the forint in 2006 (252 HUF per euro) is basically the same as in 2005; consequently the revaluation effect is close to zero and the debt-reducing impact of the above-mentioned privatisation receipts is expected in full, implying a negative stock-flow adjustment of 1¼ % of GDP in 2006.

Table 11: Debt dynamics

(% of GDP)	average 2000-04	2005	2006		2007		2008		2009	2010
			COM	CP	COM	CP	COM	CP	CP	CP
Gross debt ratio¹	59.4	61.7	67.6	67.5	70.9	70.1	72.7	71.3	69.3	67.5
Change in the ratio	0.1	2.3	6.0	5.8	3.3	2.6	1.8	1.2	-2.0	-1.8
<i>Contributions²</i>										
Primary balance	0.9	2.6	6.1	6.2	2.9	2.4	1.4	0.0	-0.9	-1.1
“Snow-ball” effect	-1.6	0.3	0.0	-0.3	-0.1	0.0	0.2	0.9	-0.8	-0.9
<i>Of which:</i>										
Interest expenditure	4.4	3.9	4.0	3.9	4.5	4.4	4.3	4.3	4.1	3.8
<i>Growth effect</i> <i>(real GDP)</i>	-2.2	-2.4	-2.3	-2.3	-1.5	-1.4	-1.8	-1.7	-2.8	-2.8
<i>Inflation</i> <i>(GDP deflator)</i>	-3.7	-1.2	-1.7	-1.9	-3.0	-3.0	-2.3	-1.7	-2.1	-1.9
Stock-flow adjustment ³	0.8	-0.7	-0.1	-0.1	0.5	0.2	0.2	0.3	-0.3	0.2
<i>Of which:</i>										
Cash/accruals diff.	-0.2	0.1	-	-	-	-	-	-	-	-
Acc. financial assets	1.1	-1.3	-	-	-	-	-	-	-	-
<i>Privatisation</i>	-0.4	-2.5	-	-1.1	-	-0.2	-	-0.1	0.0	0.0
Val. effect & residual	-0.1	0.6	-	-	-	-	-	-	-	-

Notes:
¹End of period.
²The 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.
³ Data on SFA components for years prior to 2006 come from the fiscal notification of 1 October 2006. Discrepancies because of the different sectoral classification of pension schemes (see footnote 28) have been allocated to ‘accumulation of financial assets.’
Source:
Convergence programme update (CP); Commission services’ autumn 2006 economic forecasts (COM); Commission services’ calculations

The programme foresees that in 2007 and 2008 the Government will continue to sell some of its remaining shares of state-owned companies (e.g. Hungarian Airlines Malév, Land Credit and Mortgage Bank). Nevertheless, the expected small privatisation proceeds will be overcompensated by other stock-flow adjustments, which however are not specified in the programme.

In the first years of the programme, the projected debt dynamics would be mainly induced by the envisaged deficit path. The "snow-ball" effect becomes important from 2008, when it is largely responsible for the projected rise in the debt ratio for that year. In the outer years of the programme, both the shift to a primary surplus of around 1% of GDP and the strong pick-up in growth contribute to the reduction in debt-to-GDP ratio.

5.1.2. *Assessment*

The Commission services' autumn 2006 forecast projects an increase in the debt ratio to 70.9% in 2007 and a further increase to 72.7% in 2008, against official debt targets of 70.1% and 71.3%, respectively. The widening difference primarily reflects the higher deficit projections of the Commission forecast.

According to the update, a steady 1 percentage point deviation in the primary balance from 2007 onwards compared to the baseline target would lead to a 4.1 percentage point increase in the debt-to-GDP ratio by the end of the programme period. Given that the reduction in the debt ratio crucially depends on achieving primary surpluses after 2008, the debt path contained in the update is subject to the same risks as those attached to the budgetary targets, discussed in Section 4.3. In particular, as indicated therein, any debt assumptions from State-owned public transport companies (e.g. if the restructuring and partial privatisation plan of the national railway company does not yield the expected results) would have implications for the debt ratio as well. The total debts of these companies are currently estimated to amount to close to 2% of GDP (around 1.5% of GDP of the national railway company alone).⁵⁶

Moreover, there are also specific risks. Given the relatively large share of foreign currency denominated debt (around 18% of GDP or one third of the debt stock in 2005) a weaker-than-expected HUF/euro exchange rate would lead to an upward revaluation of the gross debt. A 10% depreciation of the forint in any given year is estimated in the programme to produce an increase in the debt ratio of around 2 percentage points at the end of the year.

Furthermore, despite the fact that the Hungarian debt is being increasingly financed with long-term bonds, close to 40% of forint-denominated debt (or around 30% of total debt) still has a residual maturity of less than 1 year, which exposes it to possible risks stemming from adverse interest rate changes. Based on the information provided in the programme, the impact of a 1 percentage point increase along the yield curve from the beginning of 2007 would result in an approximately 0.9 percentage point higher debt ratio by 2010. In view of the programmed debt developments until 2008 and the above risk assessment for the whole programme period, the debt ratio would not appear to be sufficiently diminishing towards the reference value although it is programmed to fall by some 2 percentage points of GDP in both 2009 and 2010 (see Box 7).

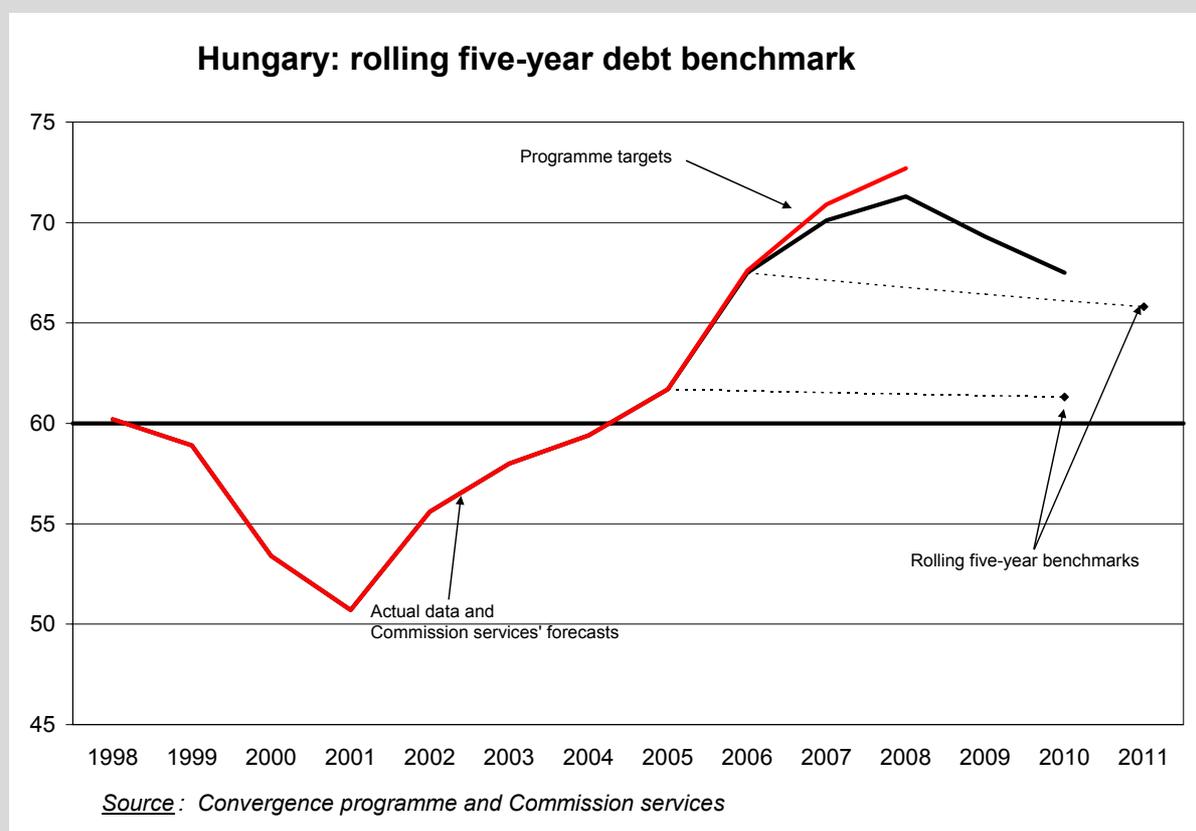
⁵⁶ More than half of these debts are State guaranteed. Note however that in the past, the Government assumed the entire debt of these companies, irrespective of the existence or not of a guarantee.

Box 7: The rolling debt reduction benchmark

The debt ratio exceeds the 60% of GDP reference value since 2005. From 2001 to 2008, the debt ratio is expected to increase by more than 20 percentage points.

A tentative assessment of the pace of debt reduction over a medium-term horizon is presented in the accompanying graph. It shows historical data, the Commission services' autumn 2006 forecasts until 2008 (which are on a no-policy change scenario) and the multi-annual debt projections in the update and compares them with the paths obtained by applying an illustrative "rolling debt reduction benchmark" (*). The benchmark reflects the idea that a minimum debt reduction should be ensured not year after year but over a medium-term horizon (five years in the graph). For instance, the debt projection for 2010 is compared with the value obtained for the same year by applying the formula starting in 2005. Debt level projections in the programme exceeding those obtained by applying the benchmark are taken as an indicator of a slow reduction in the debt ratio.

The graph clearly shows that the planned reduction of the debt ratio in the update is less than implied by the five-year rolling debt reduction benchmark.



(*) The rolling debt reduction benchmark for successive five-year periods is defined as a reduction in the difference between the debt ratio and the 60% of GDP reference value of 5 percent per year:

$$\left(\frac{D_t}{Y_t}\right)_{\text{benchmark}} = \left(\frac{D_t}{Y_t}\right)_{\text{benchmark}} - 5\% \times \left[\left(\frac{D_t}{Y_t}\right)_{\text{benchmark}} - 60\right], \text{ where } t \text{ is a time subscript and } D \text{ and } Y \text{ are the stock of government}$$

debt and nominal GDP, respectively. In the first year of the five-year period, the debt ratio in the previous year is the actual debt ratio. Given the usual approximation of the change in the debt ratio

$$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{DEF_t}{Y_t} - \frac{y_t}{1+y_t} \times \frac{D_{t-1}}{Y_{t-1}} \cong \frac{DEF_t}{Y_t} - y_t \times \frac{D_{t-1}}{Y_{t-1}}$$

and assuming that the stock-flow adjustment is zero, it is easy to show that the rolling debt reduction benchmark describes the path for convergence of the debt ratio towards 60% of GDP which would take place with the deficit at 3% of GDP and nominal GDP growth at 5%. In other words, the 5 percent per year benchmark is the value that makes consistent a continuous respect of the 3% of GDP deficit threshold and an asymptotic respect of the 60% of GDP debt reference value.

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

The issue of long-term sustainability is a multi-faceted one. It involves avoiding imposing an excessive burden on future generations and ensuring the country's capacity to appropriately adjust budgetary policy in the medium and long run.⁵⁷

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

The approach adopted by the Commission services and the Ageing Working Group of the Economic Policy Committee (EPC) is to project the debt, and to calculate the associated sustainability indicators (see Box 8), on the basis of two different scenarios. The first scenario assumes that the structural primary balance will remain unchanged from 2006 through 2010, the final year of the convergence programme; it is called the “2006 scenario”. Debt projections in this scenario start in 2007. The second scenario assumes that the macroeconomic and budgetary plans until 2010 provided in the convergence programme will be fully respected. This is the “programme scenario”. Debt and primary balance projections in this scenario start in 2011. In addition to this quantitative analysis, other relevant factors are taken into account, which allow to better qualify the assessment with regard to where the main risks are likely to stem from and to reach an overall assessment.

5.2.1. Sustainability indicators and long-term debt projections

Table 12 shows the evolution of government spending on pensions, healthcare, long-term care for the elderly, education and unemployment benefits according to the EPC's projections.⁵⁸ Non age-related primary expenditure and revenue are assumed to remain constant as a share of GDP.

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

(% of GDP)	2004	2010	2020	2030	2040	2050	changes
Total age-related spending	21,3	21,8	23,1	24,4	27,5	28,9	7,6
Pensions	10,4	11,1	12,5	13,5	16,0	17,1	6,7
Healthcare	5,5	5,7	6,0	6,3	6,4	6,5	1,0
Long-term care	0,6	0,8	0,8	1,0	1,2	1,2	0,6
Education	4,5	3,9	3,5	3,5	3,7	3,8	-0,7
Unemployment benefits	0,2	0,2	0,2	0,2	0,2	0,2	0,0

Source: Economic Policy Committee and Commission services.

Note: The convergence programme includes long-term projections for pensions which point to a lower increase in age-related expenditure, see below Section 5.2.2.

⁵⁷ For a detailed analysis of long-term sustainability issues, see “The Long Term Sustainability of Public Finances – A report by the Commission services”, European Economy n°4/2006, published in October 2006 (hereinafter Sustainability Report).

⁵⁸ These assumptions cover labour productivity growth, real GDP growth, participation rates, unemployment rate, demographic developments, government spending in pensions, healthcare, long-term care for the elderly, education and unemployment benefits. See Economic Policy Committee and European Commission (DG ECFIN) (2006), “The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health-care, long-term care, education and unemployment transfers (2004-2050)”, European Economy, Special Report No 1 (hereinafter Ageing Report).

The projected increase in age-related spending in Hungary is above the average of the EU; rising by 7.6 percentage points of GDP between 2004 and 2050. This is particularly due to expenditure on pensions, which, following a significant watering down of the reform of the pension system in 1998, are projected to increase more than on average in the EU, by 6.7 percentage points of GDP. The increase in health-care expenditure is projected to be 1 percentage point, lower than on average in the EU. For long-term care, the projected increase of 0.6 p.p. of GDP up to 2050 is below the EU average.

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

Table 13: Sustainability indicators and the required primary balance

	2006 scenario			Programme scenario		
	S1	S2	RPB	S1	S2	RPB
Value	10,5	12,3	6,3	3,0	5,2	6,0
<i>of which:</i>						
Initial budgetary position	6,9	7,2	-	-0,2	0,1	-
Debt requirement in 2050	0,6	-	-	0,1	-	-
Future changes in budgetary position	3,1	5,1	-	3,1	5,1	-

Source: Commission services.

Box 8 – Sustainability indicators*

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

Summarizing the sustainability indicators

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

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

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

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

Table 13 shows the sustainability indicators for the two scenarios. In the “2006 scenario”, the sustainability gap (S1) that assures reaching the debt ratio of 60% of GDP by 2050 would be 10.5% of GDP. The sustainability gap (S2) which satisfies the intertemporal budget constraint would be 12.3% of GDP. Compared with the results of the Commission's Sustainability Report, the sustainability gaps are significantly higher in the present assessment, by about 2½% of GDP. This is mainly due to a higher estimated structural primary deficit balance in 2006 (-5.9% of GDP compared with the structural primary balance in 2005 estimated in spring 2006 of -3.6% of GDP) than the one used in the Sustainability Report.⁵⁹

The initial budgetary position constitutes a risk to sustainable public finances even before the long-term budgetary impact of ageing is considered. The programme plans a substantial improvement of the structural balance of 5.0 percentage points of GDP between 2006 and 2010, implying a strengthening of the structural primary balance of almost 7 percentage points. If achieved, such a consolidation would appreciably reduce risks to long-term sustainability of public finances, reducing the S2 sustainability gap by about 7 percentage points. The difference between the initial budgetary position in the 2006 scenario and the programme scenario illustrates how the full respect of the stability programme targets will contribute to tackling the budgetary challenges raised by the demographic developments. Nevertheless, according to both sustainability gaps, the long-term budgetary impact of ageing is still high.

The required primary balance (RPB) is just above +6% of GDP, much higher than the structural primary balance of about -6% of GDP in 2006 and would still be significantly higher than the structural primary balance in 2009, despite the structural adjustment foreseen over the programme period.

Moreover, the S1 sustainability gap would increase by up to 1¾% of GDP if the planned adjustment was to be postponed by 5 years, highlighting that savings can be made over time if action is taken sooner rather than later.

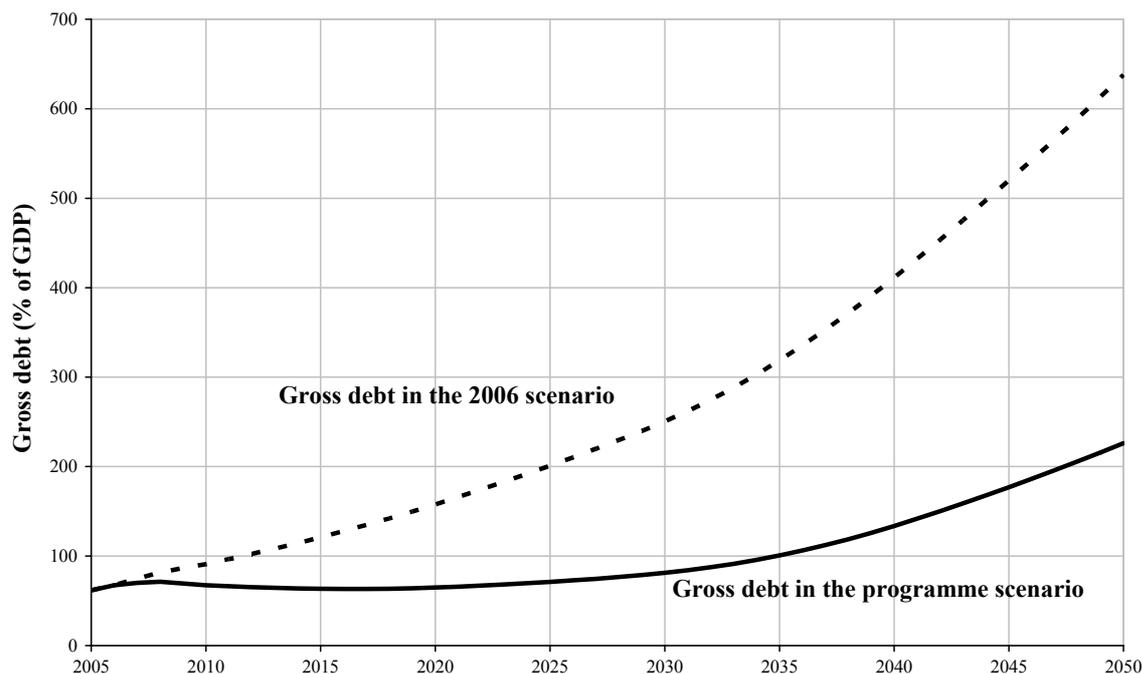
Another way to look at the prospects for long-term public finance sustainability is to project the debt/GDP ratio over the long term using the same assumptions as for the calculations of S1 and S2. The long-term projections for government debt under the two scenarios are shown in Figure 9.

The gross debt to GDP ratio is currently above the 60% reference value, estimated in the programme at close to 68% at the end of 2006. According to the “2006 scenario”, the debt ratio would increase exponentially throughout the projection period. In the “programme scenario”, due to the stronger budgetary position in 2010, debt would remain at this level until mid-2020s when it would be on an upward path throughout the rest of the projection period to 2050.⁶⁰

⁵⁹ Both figures include the revenue- and surplus-reducing impact of classifying funded defined-contribution pension schemes outside the general government sector.

⁶⁰ 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 9: Long-term projections for the government debt ratio



Source: Commission's services.

5.2.2. Additional factors

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

First, given the currently high budget deficit and government debt of 67.5% of GDP in 2006, it is necessary to pursue budgetary consolidation as planned to improve the long-term sustainability of public finances.

Second, according to the Hungarian authorities, the net cost for public finances is in fact lower than those mentioned above, by around 2½ percentage points of GDP by 2050. From 2013, the calculation of the pension payments will switch from net to gross basis and pensions will be taxed. This means that the sustainability gap indicators in Table 13 would be lower.⁶¹

Third, the long-term age-related expenditure projections in the convergence programme are not the same as those of the EPC though they are based on the underlying assumptions commonly agreed and used by the EPC.⁶² The projections in the programme include additional measures, enacted in November 2006, *inter alia*, stricter eligibility criteria for early retirement, introduction of measures to promote the extension of working lives and regulation of compatibility of income earning activity with pension receivable. These measures are

⁶¹ Supplementary information to the September 2006 update of the convergence programme were provided by the Hungarian authorities, see the Commission's assessment of the September 2006 updated convergence programme of Hungary. See also Hungary's country fiche to the Ageing Working Group, available at: http://ec.europa.eu/economy_finance/epc/documents/2006/ageing_hungary_fiche_en.pdf

⁶² See the Ageing Report (2006).

estimated in the update to in part offset the projected increase in pension expenditure.⁶³ In addition, the government is currently reviewing the system of pension allowances to special employment categories on the basis of which a relevant bill will be submitted to the parliament in 2007. If properly implemented, such measures would reduce the sustainability gaps, though further policy measures to ensure sustainability would still be necessary.

5.2.3. *Assessment*

The long-term budgetary impact of ageing in Hungary is well above the EU average, notably as a result of the high increase in pension expenditure as a share of GDP over the long-term. While some action is being taken, full implementation of further reform measures aimed at containing the significant increase in age-related expenditures as planned in the programme would contribute to reducing risks to the sustainability of public finances.

Moreover, and importantly, the weak initial budgetary position, having deteriorated compared with 2005, constitutes a risk to sustainable public finances even before the long-term budgetary impact of an ageing population is considered. In addition, the current level of gross debt is above the Treaty reference value. Further budgetary consolidation as planned would contribute to reduce risks to the sustainability of public finances.

Overall, Hungary appears to be at high risk with regard to the sustainability of public finances.

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

As discussed in section 4.2.2, the measures announced in the programme for the reduction of public expenditure between 2006 and 2008 are largely based on nominal expenditure freezes and are hence temporary. In order to ensure their implementation and the continuity of such expenditure cuts after 2008, the budgetary adjustment needs to be backed up by structural reforms. This is all the more important as the ageing population represents a major risk to the sustainability of public finances in Hungary.

To address these issues, the Government decided to implement extensive structural reforms in the areas of administration, health care, pension and public education as well as to revamp the subsidy system of household energy consumption, public transportation and of pharmaceutical products. Initial reform measures were taken in summer 2006 (e.g. central government reorganisation, increases in regulated prices and reform steps in public education). Acts on the reforms of the pension and the health-care systems were adopted by the Parliament at the end of November and beginning of December. A Government decree on the reorganisation of higher education financing was adopted at the beginning of November. Further measures are planned in most fields; they are to be specified in the course of 2007. Finally, two amendments to the Public Finance Act were adopted with the aim of strengthening budgetary discipline and transparency.

Specifically, the structural reforms outlined in the programme are as follows.

⁶³ According to the update, the cumulative savings from the measures adopted in November 2006, at 2006 prices, will amount to HUF 9 billion in 2008, HUF 20 billion in 2009, HUF 40 billion in 2010, HUF 48 billion in 2011 and HUF 55 billion in 2012.

Public administration: Restructuring plans in this field concern both the central and the local government level. At the *central government* level, the number of ministries was reduced from 14 to 11 after the April 2006 elections. In addition, the consolidation and reorganisation of the decentralised bodies of the central administration has started and is to continue in the course of 2007. The Government expects these measures to support a planned decrease in the number of employees by 21000 persons, representing around 8% of the workforce in central government. Part of the lay-offs took place in 2006 with more planned for 2007. According to the programme, the 2007 budget is based on a decrease in central government employment by over 15000 persons. On the *local government* level, the Government targets a reorganisation via financial incentives laid down in the 2007 budget. These incentives encourage micro-regional and regional co-operation and the rationalisation of service provision within the currently highly fragmented system, especially in the areas of public education, social care and administration services. Further plans foresee among others the introduction of central capacity regulation for some public services (education, social care, child protection) and the streamlining of the local government's controlling system (bills to be submitted to Parliament in 2007). In addition to these plans, measures to improve the quality of administration and to reduce the administrative burden are to be elaborated in 2007.

Health-care: In addition to the immediate expenditure reducing measures (cut in subsidies through the reduction of the maximum quantity of service provision which is eligible for subsidies, more efficient control mechanisms, freezes of fees) introduced as of October 2006, measures to reorganise the health-care system were adopted by the Parliament in early December 2006: starting from April 2007, the provision of health-care services will be put on a strict insurance basis. Access to services will be conditional on contributions paid, preventing the current wide-spread free riding. The use and provision of services will be rationalised including through the introduction of co-payment (300 HUF \approx 1.2 euro per visit) as of 15 February 2007 and through the establishment of professional and financing protocols. The capacities of the health-care system will be decreased and a health-insurance supervision will be established. In addition to these adopted measures, the government is considering the liberalisation of the health-insurance market.

In the framework of this reform, **pharmaceutical subsidies** are being revamped. After the reduction of subsidies in 2006, the new regulation aims at avoiding overruns of planned expenditures through the following measures effective in 2007: eligibility criteria for subsidies will become more stringent; subsidy rates are decreased; fixed subsidy limits will be extended; prescription drugs which were formerly subsidised by 100%, will cost the customer at least 300 HUF (1.2 euro); overruns of the pharmaceutical fund are to be co-financed by pharmaceutical companies⁶⁴. New rules enter into force in 2007 conducive to efficient pharmaceutical and medical aid prescription. The establishment of pharmacies and the trade in non-prescription drugs will be progressively liberalised.

Pension: To tackle the problem of age-related expenditures, the pension reform adopted by the Parliament late November and early December 2006 includes various measures to discourage early retirement, in particular the downward actuarial adjustment of the pension benefit to early retirement and the suspension of retirement benefit payments below the retirement age if income earning activity is pursued. Moreover, old-age pensioners pursuing income earning activity are to pay pension contributions. Adjustments will be made to some

⁶⁴ According to an act adopted by the Parliament in November 2006, pharmaceutical companies and wholesale traders have to pay contributions proportional to the subsidies on their products. On top of this, pharmaceutical companies are obliged to co-finance overruns of the pharmaceutical funds contingent on their products' share in subsidies.

controversial elements of the pension calculations and are expected to lead to a 7-8% reduction of starting pensions and a more equal treatment of various cohorts of pensioners. These measures will progressively enter into force over the next years starting from 1 January 2007. In addition, draft bills for the reform of the disability benefit system are planned to be submitted to the Parliament in 2007: the system is to be reorganised with the aim of keeping population of active age on the labour market (rehabilitation benefits instead of disability pensions, changes in entitlements). Since, according to the most recent assessments by the Government, these measures are not sufficient to eliminate the risks to public finance sustainability, the Government plans to re-assess and review the pension system and its key parameters (retirement age, substitution rates, indexation) in 2007.

Public education: In *primary and secondary education*, the measures adopted in 2006 focus on the rationalisation of the current school network (minimum of 8 classes per primary school, mandatory hours taught by teachers increased by around 20%, financial incentives increasing the efficiency of the school structure and reorganisation of the financing system). Plans to improve the quality of public education are to be specified in 2007. In *higher education*, tuition fees have been introduced as of 1 September 2007. The number of State-financed students entering higher education will decrease (from 62000 in 2006 to 56000 in 2007); the financing structure across disciplines will change so as to adjust education to labour market needs (increased financing for technical and science degrees, reduction for law, agrarian and humanities degrees); and subsidies to institutions will be conditional on the quality of education. The Government further plans to reduce the fragmentation of the current system and to reorganise the structure of education and review its financing in line with the Bologna process.

Subsidy for household energy consumption: Following a substantial increase in the regulated prices of household energy consumption in the second half of 2006 (gas, electricity and central heating prices were increased by an average 30%, 15% and 18%, respectively as of 1 August) and the foreseen adjustment of gas prices to the world price level by 2008 a new subsidy system was elaborated, which entered into force as of 1 January 2007. The new system represents a clear shift from price towards means-tested subsidies.

Public transportation: The former proportional system for public transport price subsidies was transformed into lump-sum transfers to the public companies in July 2006. For 2007 the budget sets aside the same sum for subsidies as for 2006. The inter-urban transportation system is to be reorganised. In particular, the Hungarian Railway Company (MÁV Zrt.) is being restructured: MÁV will receive a state capital injection of 0.4% and 0.1% of GDP in 2007 and 2008, respectively; the rail freight transport was separated from MÁV Zrt. and it is to be privatised in the second half of 2007; a new passenger transport company is to be established in 2007, which will be partly financed by the Government (0.4% of GDP per year between 2007 and 2009) under a service contract.

Further reform plans for 2007: In addition to these reforms, in 2007, the Government is considering a comprehensive reform of the taxation system aiming at extending the tax base and to introduce more investment and incentives to savings. The Government's considerations are at an early stage and the programme does not contain sufficient information to assess the merits of such a reform.

Fiscal rules: Fiscal rules regulate the debt-creating commitments of local governments in Hungary. In addition to these, a modification of the Public Finance Act (PFA) approved in summer 2006 requires budgetary chapters to set up a chapter balance reserve in addition to the general reserve. The utilization of these reserves is subject to Government authorisation

conditional on the quarterly reporting by ministers to the Government. The precise mechanism of this rule is, however, still to be specified. A further modification of the PFA approved in December 2006 prescribes that, starting from 2007, the draft budget submitted to the Parliament has to be consistent with a non-negative primary balance.

Assessment:

Overall, the announced reform plans should, if fully adopted and swiftly implemented, be conducive to increasing the efficiency of public administration and public service provision and thereby they may contribute to decreasing public expenditures in a sustainable manner. The timeline for the reforms announced in the September 2006 adjusted convergence programme update has been broadly respected with the adoption of a large number of reform measures over the past months. Further measures are to be specified in 2007, especially in the area of disability pensions and public education. Decisions on a comprehensive reform of the taxation system, on additional reforms related to the pension system as well as on the liberalisation of the health-care insurance system are to be taken in the course of 2007.

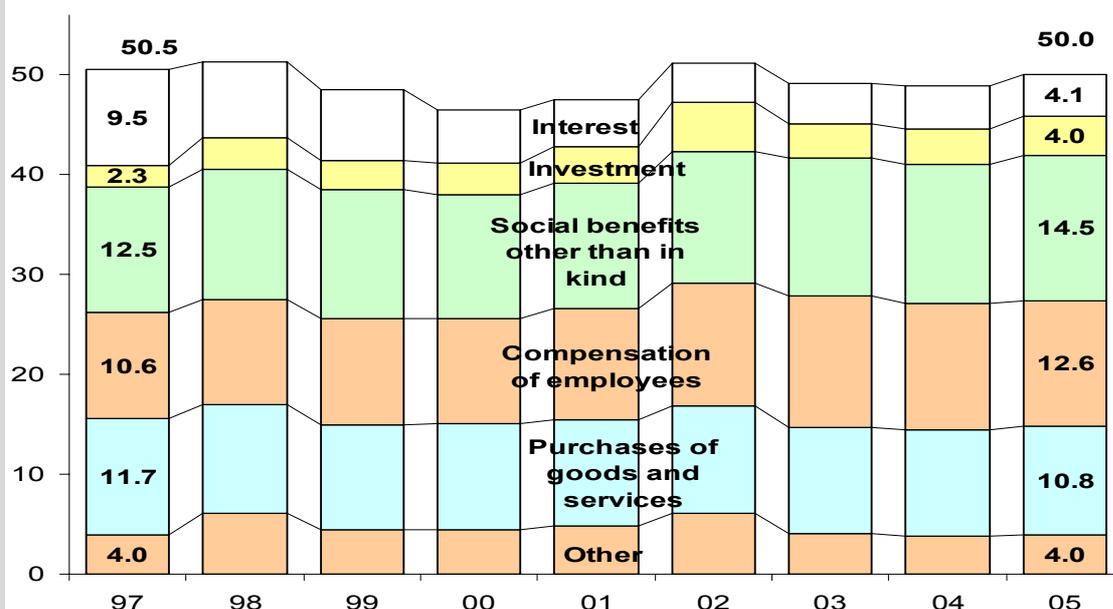
The present budgetary situation requires the thorough implementation of the adopted reforms in order to ensure that they achieve their purpose of containing and reducing expenditures, and of restoring fiscal credibility. In addition, timely decision on the still pending reforms would be desirable. The specification and introduction of comprehensive fiscal rules also appears to be crucial in controlling fiscal expenditures in light of the Government's bad track record. If rigorously pursued, these plans may also contribute over the medium term to raising the Hungarian economy's growth potential and enhancing real convergence to EU average.

Box 9: The level and composition of government expenditure in Hungary since 1997

Between 1997 and 2005, the ratio of government expenditures to GDP¹ averaged 49.3%. While Government expenditures have progressively decreased as a percentage of GDP from a peak 51.3% in 1998 to a trough 46.5 % in 2000, this trend was abruptly reversed thereafter, and by 2005, expenditures almost reached their 1997 level of around 50% of GDP (Figure 10).

The following is worth noting. First, the pattern shows visible electoral cycles with peak expenditure levels in the election years of 1998 and 2002 (51.3% and 51.2% of GDP, respectively). Second, the interest expenditures ratio has decreased by more than 5 percentage points of GDP between 1997 and 2005 (especially between 1997 and 2002). Hence, while total expenditures did not change over the entire horizon, the ratio of primary expenditures to GDP has progressively and significantly increased from 41% in 1997 to 45.9% in 2005. It should also be noted that even the trough 46.5% total government expenditure to GDP ratio in 2000 was above both the EU10 and the EU25 averages (42.6% of GDP and 45% of GDP, respectively). Moreover, the *primary* government expenditure to GDP ratio was above the EU10 average already in 2000, and by 2005, both the total and the primary expenditures were above the EU10 and EU25 averages.

Figure 10 : The evolution of government expenditure (economic classification) (% of GDP)



Note: "Other" includes subsidies and other current and capital transfers.

Source: Commission services

Finally, the economic classification² of government expenditures shows that the biggest increase between 1997 and 2005 concerned the compensation of employees and social benefits (each by 2 percentage points of GDP) followed by the increase of government investment (1.7 percentage point of GDP). The compensation of employees in total expenditures increased from 22.5% in 2000, below the ratios of the EU10 and the EU25, to above average levels by 2005. By contrast, social benefit payments were well below the EU10 and EU25 averages in 2000 (26.7% of total expenditures in Hungary as opposed to 33.2% and 34.5% in the EU10 and EU25, respectively) and with 29.1% in 2005, they still remained below the EU averages in spite of their relative increase over time. The ratio of government investment to total expenditures moved in line with the EU10 average. At the same time, the interest payments were monotonously decreasing from close to 20% of total expenditures to around 7.8% by 2002, after which this ratio stagnated around 8% of total expenditures, considerably higher than the EU10 and EU25 averages of 5.4% respectively 5.9%.

In conclusion, three features appear to cause concern regarding Hungarian government expenditures. First, the overall level of expenditures appears high and no lasting reduction was achieved over the past 8 years. Second, Hungary seems to maintain a relatively large and expensive public administration system. The announced reorganisation of the public administration may hence be a step in the right direction if it is fully implemented. Finally, Hungary seems to be paying a high price for its big budget deficits and increasing public debt in terms of high interest expenditures. A more prudent fiscal policy may in the future lead to a decrease of yields through improved credibility, the reversal of crowding-out effects and a more stable general economic environment.

¹ Figures for 1997-1999 are based on the extrapolation of revised GDP figures published for the years 2000 to 2005 on 1 October 2006. The extrapolation starts from the revised GDP level for the year 2000 and applies the officially published growth rates for the previous years.

² An analysis based on the functional classification was not possible due to the lack of data.

7. CONSISTENCY WITH THE BROAD ECONOMIC POLICY GUIDELINES

The previously described reform plans and measures are fully in line with the Implementation Report of the National Reform Programme (IR-NRP) submitted in October 2006 in the context of the renewed Lisbon strategy for growth and jobs. In particular, all the above described reform plans are also part of the national reform strategy as presented in the IR-NRP.

The convergence programme contains a qualitative assessment of the impact of various reform steps outlined in the revised NRP referring to the growth and employment enhancing effect of micro-economic and labour market reforms as well as to the positive implications of the above-described macro-economic reforms for public finance sustainability.

In addition, the programme quantifies the budgetary implications for some of the reform areas (e.g. pension, household energy consumption subsidies, public education, public transportation). The information is however neither comprehensive nor systematic. Also, the public finance implications of the actions envisaged in the IR-NRP are not fully and explicitly taken into account in the budgetary projections outlined in the programme.

Box 10: The Commission assessment of the implementation report of the National Reform Programme

The implementation report of the National Reform Programme of Hungary, provided in the context of the renewed Lisbon strategy for growth and jobs, was submitted on 13 October 2006. It takes the form of a revised National Reform Programme, which maintains the key challenges identified in the 2005 National Reform Programme and complements them by a new priority for energy and the environment as well as a new emphasis on active labour market policies. The revised National Reform Programme outlines plans to establish a sustainable budgetary position in the short term, which is conducive to growth and job creation over the medium term. The Commission's assessment thereof (adopted on 12 December 2006 as part of its Annual Progress Report) showed that Hungary has made limited progress in the implementation of its 2005 National Reform Programme. Some reforms have been implemented in both the employment and micro-economic policy areas. Also, in summer 2006, after major budgetary slippages, the government significantly reviewed its fiscal adjustment path and subsequently, it adopted and implemented fiscal consolidation measures. However, much more remains to be done in improving macro-economic stability as well as in the other fields.

On the positive side, corrective measures, including both revenue increases and expenditure cuts have recently been adopted. Moreover, the unemployment benefit system has been reformed, and initial steps have been taken towards the integration of the employment and social services systems. In addition, restrictions to market entry have been lifted in certain areas, in particular the retail pharmaceutical sector.

On the other hand, the planned budgetary consolidation needs to be persistently pursued also with the aim of laying the foundations for the long-term sustainability of public finances, currently at high-risk. Further progress needs also be achieved on the reinforcement of active labour market policies and on increasing incentives to work. The quality of education and training should be improved including through making it more responsive to labour market needs.

Against this background, the Commission recommended that Hungary:

- continue to implement the necessary measures to ensure a credible reduction of the government deficit and of gross debt ratios, with increased reliance on the expenditure side, including through the establishment of more thorough and comprehensive expenditure rules;
- reform the public administration, health care, pension and education systems with a view to ensuring long-term fiscal sustainability and improve economic efficiency. This should include steps to further limit early retirement, reduce the number of new recipients of disability pensions and further restructure health care;
- reinforce active labour market policies, introduce further incentives to work and to remain on the labour market and complete the establishment of an integrated employment and social services system;
- increase access to and responsiveness of education and training systems to labour market needs, including through the provision of a sufficient number of technology and science graduates.

In addition, it will be important for Hungary over the period of the National Reform Programme to focus on the reform of the public research system; reducing and redirecting state aids; developing a more coherent strategy for R&D, innovation and ICT; further reductions of the administrative burden on enterprises; improving the labour market situation of the disadvantaged; transforming undeclared work into formal employment; reducing persistent regional disparities in employment; and developing a lifelong learning strategy.

The table below provides an overview of whether the strategy and policy measures in the programme are consistent with the broad economic policy guidelines in the area of public finances, which are included in the integrated guidelines for the period 2005-2008. The assessment of guideline 1 corresponds to the evaluation in Section 4.4 above, whereas that of the pace of debt reduction in guideline 2 (relevant for high-debt countries only) is covered in Section 5.1.2 above. Information on the different elements covered by the remaining guidelines in the table can be found in Sections 5.2 and 6.

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

Table 14: Consistency with the broad economic policy guidelines

Broad economic policy guidelines	Yes	Steps in right direction	No	Not applicable
1. To secure economic stability				
– Member States should respect their medium-term budgetary objectives. As long as this objective has not yet been achieved, they should take all the necessary corrective measures to achieve it ¹ .		X		
– Member States should avoid pro-cyclical fiscal policies ² .				X (not yet in MTO)
– 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		

Broad economic policy guidelines	Yes	Steps in right direction	No	Not applicable
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		
<p><u>Notes:</u></p> <p>¹As 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.</p> <p>²As 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”.</p> <p>³As further specified in the country-specific Council recommendations and decisions under the excessive deficit procedure.</p> <p><u>Source:</u> Commission services</p>				

Annex 1: Glossary

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

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

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

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

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

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

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

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

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

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

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

EDP notification See *notification of deficit and debt (or EDP notification)*.

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

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

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

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

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

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

Government debt See *public debt*.

Government net borrowing See *budget balance*.

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

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

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

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

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

Medium-term objective (MTO) According to the *Stability and Growth Pact*, *stability programmes* and *convergence programmes* must present a *medium-term objective* for the budgetary position. It is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risk to the sustainability of public finances, and is defined in structural terms (see *structural balance*).

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

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

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

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

Output gap The difference between actual GDP and *potential GDP* in any given year, usually expressed as a percent of *potential GDP*. Potential GDP is an unobserved variable and needs to be estimated from actual data. See also *production function method*.

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

Potential GDP The level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build;

if output falls below potential, then resources are lying idle and inflationary pressures abate. See also *production function method* and *output gap*.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annex 2: Summary tables from the programme update

Table 1a. Macroeconomic prospects

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change					
1. Real GDP	B1*g	22026.8	4.2	4.0	2.2	2.6	4.2	4.3
2. Nominal GDP	B1*g	22026.8	6.3	7.3	7.0	5.1	7.3	7.3
Components of real GDP								
3. Private consumption expenditure	P.3	11827.0	3.7	3.1	-0.6	0.7	2.1	3.0
4. Government consumption expenditure	P.3	5 352.4	2.5	0.8	-1.6	-2.9	1.2	1.6
5. Gross fixed capital formation	P.51	4 995.3	5.6	2.8	2.4	4.0	7.5	6.8
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	157.8	0.7	0.2	0.6	0.7	0.7	0.7
7. Exports of goods and services	P.6	14 626.2	11.6	14.3	10.6	9.7	9.4	9.3
8. Imports of goods and services	P.7	14 932.0	6.8	11.1	8.1	7.5	8.6	8.9
Contributions to real GDP growth								
9. Final domestic demand		-	3.8	2.5	-0.2	0.6	3.1	3.4
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	-2.4	-0.5	0.5	0.0	0.0	0.0
11. External balance of goods and services	B.11	-	2.8	2.0	1.9	1.9	1.0	0.8

Table 1b. Price developments

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change					
1. GDP deflator		-	2.0	3.2	4.8	2.4	3.0	2.9
2. Private consumption deflator		-	3.6	3.9	6.2	3.3	3.0	2.8
3. HICP¹		-	3.6	3.9	6.2	3.3	3.0	2.8
4. Public consumption deflator		-	4.8	6.6	1.6	-0.7	1.7	2.5
5. Investment deflator		-	2.2	5.5	5.5	3.3	3.3	3.3
6. Export price deflator (goods and services)		-	-0.4	6.9	2.8	1.0	1.0	1.0
7. Import price deflator (goods and services)		-	1.1	8.8	2.6	0.9	0.9	0.9

¹ Optional for stability programmes.

Table 1c. Labour market developments

	ESA Code	2005	2005	2006	2007	2008	2009	2010
		Level	rate of change					
1. Employment, persons¹		3 901.5	0.0	0.6	0.0	0.3	0.7	0.7
2. Employment, hours worked ²								
3. Unemployment rate (%)³		-	7.2	7.4	7.5	7.4	7.3	7.2
4. Labour productivity, persons⁴		-	4.1	3.4	2.2	2.2	3.5	3.6
5. Labour productivity, hours worked ⁵								
6. Compensation of employees	D.1	10 171.9	7.1	6.7	6.6	3.8	5.7	6.4

¹ Occupied population, domestic concept national accounts definition.

² National accounts definition.

³ Harmonised definition, Eurostat; levels.

⁴ Real GDP per person employed.

⁵ Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	2005	2006	2007	2008	2009	2010
1. Net lending/borrowing vis-à-vis rest of the world	B.9	-6.0	-6.1	-3.6	-1.7	-0.1	0.6
<i>of which:</i>							
- Balance on goods and services		-0.8	-0.2	1.7	3.5	4.4	4.9
- Balance of primary incomes and transfers		-6.0	-6.7	-6.7	-6.8	-6.7	-6.4
- Capital account		0.8	0.8	1.4	1.6	2.2	2.1
2. Net lending/borrowing of the private sector	B.9	1.8	4.0	3.2	2.6	3.1	3.3
3. Net lending/borrowing of general government	EDP B.9	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
4. Statistical discrepancy		0.5

Table 2. General government budgetary prospects

	ESA code	2005	2005	2006	2007	2008	2009	2010
		Level	% of GDP					
Net lending (EDP B.9) by sub-sector								
1. General government	S.13	-1 719.2	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
2. Central government	S.1311	-1 164.2	-5.3	-8.8	-6.5	-3.7	-2.7	-2.1
3. State government	S.1312	-	-	-	-	-	-	-
4. Local government	S.1313	-100.7	-0.5	-0.8	-0.4	-0.4	-0.5	-0.6
5. Social security funds	S.1314	-454.3	-2.1	-0.6	0.0	-0.2	-0.1	0.1
General government (S13)								
6. Total revenue	TR	9 300.6	42.2	41.9	43.1	43.0	43.4	42.8
7. Total expenditure	TE ¹	11 019.8	50.0	52.0	49.9	47.2	46.6	45.5
8. Net lending/borrowing	EDP B.9	-1 719.2	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	905.7	4.1	3.9	4.4	4.3	4.1	3.8
p.m.: 9a. FISIM		5.3	0.0	0.1	0.1	0.1	0.1	0.1
10. Primary balance	²	-813.5	-3.7	-6.2	-2.4	0.0	0.9	1.1
Selected components of revenue								
11. Total taxes (11=11a+11b+11c)		5 421.3	24.6	24.1	25.0	25.0	24.6	24.5
11a. Taxes on production and imports	D.2	3 416.2	15.5	14.8	14.9	14.7	14.3	14.1
11b. Current taxes on income, wealth, etc	D.5	1 984.2	9.0	9.2	10.0	10.2	10.3	10.4
11c. Capital taxes	D.91	20.9	0.1	0.1	0.1	0.1	0.1	0.1
12. Social contributions	D.61	2 777.8	12.6	12.4	13.1	12.9	12.6	12.5
13. Property income	D.4	178.8	0.8	0.8	0.7	0.6	0.5	0.5
14. Other (14=15-(11+12+13))		922.7	4.2	4.6	4.3	4.5	5.6	5.4
15=6. Total revenue	TR	9 300.6	42.2	41.9	43.1	43.0	43.4	42.8
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)³		8 199.1	37.2	36.5	38.1	37.8	37.3	37.0
Selected components of expenditure								
16. Collective consumption	P.32	2 169.4	9.8	10.0	9.4	8.6	8.3	8.1
17. Total social transfers	D.62+D.63	5 986.4	27.2	28.4	27.1	26.6	25.6	24.8
17a. Social transfers in kind	P.31=D.63	2 784.0	12.6	13.2	12.0	11.7	11.1	10.8
17b. Social transfers other than in kind	D.62	3 202.4	14.5	15.2	15.1	15.0	14.5	14.0
18=9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	905.7	4.1	3.9	4.4	4.3	4.1	3.8
19. Subsidies	D.3	297.0	1.3	1.2	1.3	1.3	1.2	1.1
20. Gross fixed capital formation	P.51	876.9	4.0	4.8	3.5	3.0	3.9	4.0
21. Other (21=22-(16+17+18+19+20))		784.4	3.6	3.7	4.1	3.4	3.5	3.7
22=7. Total expenditure	TE ¹	11 019.8	50.0	52.0	49.9	47.2	46.6	45.5
p.m.: Compensation of employees	D.1	2 770.9	12.6	12.0	11.4	10.5	10.2	10.0

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

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

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

Table 3. General government expenditure by function

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

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

Table 4. General government debt developments

% of GDP		2005	2006	2007	2008	2009	2010
1. Gross debt¹		61.7	67.5	70.1	71.3	69.3	67.5
2. Change in gross debt ratio		2.3	5.8	2.6	1.2	-2.0	-1.8

Contributions to changes in gross debt

3. Primary balance²		3.7	6.2	2.4	0.0	-0.9	-1.1
4. Interest expenditure (incl. FISIM)³		4.1	3.9	4.4	4.3	4.1	3.8
5. Stock-flow adjustment		-2.0	-0.1	0.2	0.3	-0.3	0.2
<i>of which:</i>							
- Differences between cash and accruals ⁴							
- Net accumulation of financial assets ⁵							
<i>of which:</i>							
- privatisation proceeds		-0.1	-1.1	-0.2	-0.1	0.0	0.0
- Valuation effects and other ⁶							
p.m.: implicit interest rate on debt⁷		7.0	6.2	6.6	6.3	6.0	5.7

Other relevant variables

6. Liquid financial assets⁸							
7. Net financial debt (7=1-6)							

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

²Cf. Item 10 in Table 2.

³Cf. Item 9 in Table 2.

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

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

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

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

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

Table 5. Cyclical developments

% of GDP	ESA Code	2005	2006	2007	2008	2009	2010
1. Real GDP growth (%)		4.2	4.0	2.2	2.6	4.2	4.3
2. Net lending of general government	EDP B.9	-7.8	-10.1	-6.8	-4.3	-3.2	-2.7
3. Interest expenditure (incl. FISIM recorded as consumption)	EDPD.41 incl. FISIM	4.1	3.9	4.4	4.3	4.1	3.8
4. Potential GDP growth (%)		4.0	4.1	4.0	3.9	3.9	3.8
contributions:							
- labour		0.3	0.4	0.4	0.3	0.2	0.2
- capital		1.8	1.8	1.8	1.9	1.9	1.9
- total factor productivity		1.9	1.8	1.8	1.7	1.7	1.6
5. Output gap		1.3	1.2	-0.6	-1.8	-1.5	-1.0
6. Cyclical budgetary component		0.3	0.3	-0.2	-0.5	-0.4	-0.3
7. Cyclically-adjusted balance (2-6)		-8.1	-10.4	-6.7	-3.9	-2.8	-2.5
8. Cyclically-adjusted primary balance (7-3)		-4.0	-6.5	-2.3	0.5	1.3	1.4

Table 6. Divergence from previous update

	ESA Code	2005	2006	2007	2008	2009	2010
Real GDP growth (%)							
Previous update		4.1	4.1	2.2	2.6	4.1	4.3
Current update		4.2	4.0	2.2	2.6	4.2	4.3
Difference		0.1	-0.1	0.0	0.0	0.1	0.0
General government deficit (% of GDP)	EDP B.9						
Previous update		7.5	10.1	6.8	4.3	3.2	2.7
Current update		7.8	10.1	6.8	4.3	3.2	2.7
Difference		0.3	0.0	0.0	0.0	0.0	0.0
General government gross debt (% of GDP)							
Previous update		62.3	68.5	71.3	72.3	70.4	68.5
Current update		61.7	67.5	70.1	71.3	69.3	67.5
Difference		-0.6	-1.0	-1.2	-1.0	-1.1	-1.0

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050
Total expenditure						
Of which: age-related expenditures						
Pension expenditure ¹	9.1	10.4	10.3	10.7	10.7	13.5
Social security pension						
Old-age and early pensions ²	6.7	8.0	7.9	9.6	9.8	12.6
Other pensions (disability, survivors)	2.4	2.4	2.3	1.1	0.9	0.9
Occupational pensions (if in general government)						
Health care ³	5.0	5.5	5.7	6.0	6.3	6.5
Long-term care (<i>this was earlier included in health care</i>)						
Education expenditure ⁴	..	4.4	3.9	3.5	3.5	3.8
Other age-related expenditures ⁴	..	0.2	0.2	0.2	0.2	0.2
Interest expenditure						
Total revenue						
Of which: property income						
<i>of which: from pensions contributions (or social contributions if appropriate)</i>	6.9	6.5	7.1	6.8	6.8	7.0
Pension reserve fund assets						
Of which: consolidated public pension fund assets (assets other than government liabilities)						
Assumptions						
Labour productivity growth	4.2	4.0	3.6	2.9	2.7	1.7
Real GDP growth	5.2	4.2	4.3	2.5	2.1	1.1
Participation rate males (aged 15-64) ⁵	67.5	67.9	69.1	73.6	73.1	71.5
Participation rates females (aged 15-64) ⁵	52.6	55.1	57.7	61.5	62.6	61.3
Total participation rates (aged 15-64) ⁵	59.9	61.4	63.4	67.5	67.8	66.4
Unemployment rate	6.4	7.2	7.2	4.8	4.8	4.8
Population aged 65+ over total population	15.0	15.6	16.7	20.3	22.3	28.1
¹ Including pension payments from other funds than Social Security Fund. Projection of the Ministry of Finance until 2010, projection of the EPC AWG afterwards, corrected with the effect of the stabilisation measures of 2006-2007. ² Including survivor pension paid after the retirement age and other pension-type benefits. ³ 2005-2050: projection of the EPC AWG, 2000: OECD Health Data 2005. ⁴ Projection of the EPC AWG. ⁵ In the Code of conduct the age limits are 20-64						

Table 8. Basic assumptions

	2005	2006	2007	2008	2009	2010
Short-term interest rate¹ (annual average)	6.8	6.8	8.2	7.0	6.1	5.2
Long-term interest rate (annual average)	6.6	7.2	7.2	6.6	5.9	5.5
<i>for countries in euro area or ERM II:</i> USD/€ exchange rate (annual average)						
Nominal effective exchange rate						
<i>for countries not in euro area or ERM II:</i> exchange rate vis-à-vis the € (annual average)	248.1	266.5	271.0	271.0	271.0	271.0
World excluding EU, GDP growth	5.6	5.7	5.2	5.2	5.0	5.0
EU GDP growth	1.7	2.8	2.4	2.4	2.2	2.2
Growth of relevant foreign markets	6.4	9.3	6.6	6.7	6.4	6.4
World import volumes, excluding EU	7.3	8.8	8.2	7.7	7.5	7.5
Oil prices (Brent, USD/barrel)	54.1	68.9	71.0	70.0	70.0	70.0

¹If necessary, purely technical assumptions.

Annex 3: Compliance with the code of conduct

The table below provides a detailed assessment of whether the programme respects the requirements of Section II of the code of conduct. It is in four parts, covering compliance with (i) the window for the date of submission of the programme; (ii) the model structure (table of contents) in Annex 1 of the code; (iii) the data requirements (model tables) in Annex 2 of the code; and (iv) other information requirements.

Guidelines in the code of conduct	Yes	No	Comments
1. Submission of the programme			
Programme was submitted not earlier than mid-October and not later than 1 December ¹ .	X		
2. Model structure			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	X		
3. Model tables (so-called data requirements)			
The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct).	X		
The programme provides all compulsory information in these tables.	X		
The programme provides all optional information in these tables.		X	
The concepts used are in line with the European system of accounts (ESA).	X		
4. Other information requirements			
<i>a. Involvement of parliament</i>			
The programme mentions its status vis-à-vis the national parliament.		X	
The programme indicates whether the Council opinion on the previous programme has been presented to the national parliament.		X	
<i>b. Economic outlook</i>			
Euro area and ERM II Member States uses the “common external assumptions” on the main extra-EU variables.			not applicable
Significant divergences between the national and the Commission services’ economic forecasts are explained ² .			Not applicable, since there are no significant divergences between the national and the Commission services' forecast.
The possible upside and downside risks to the economic outlook are brought out.		X	Section 3.6 presents alternative scenarios, these are however not detailed enough to clearly bring out possible risks.
The outlook for sectoral balances and, especially for countries with a high external deficit, the external balance is analysed.	X		External balance is analysed in the text, sectoral balances are only presented in Annex table 1.
<i>c. Monetary/exchange rate policy</i>			
The convergence programme presents the medium-term monetary policy objectives and their relationship to price and exchange rate stability.	X		
<i>d. Budgetary strategy</i>			

Guidelines in the code of conduct	Yes	No	Comments
The programme presents budgetary targets for the general government balance in relation to the MTO, and the projected path for the debt ratio.	X		
In case a new government has taken office, the programme shows continuity with respect to the budgetary targets endorsed by the Council.			not applicable
When applicable, the programme explains the reasons for possible deviations from previous targets and, in case of substantial deviations, whether measures are taken to rectify the situation, and provide information on them.			not applicable
The budgetary targets are backed by an indication of the broad measures necessary to achieve them and an assessment of their quantitative effects on the general government balance is analysed.		X	The broad structural measures are indicated in the programme, but the assessment of their quantitative budgetary impacts are often missing
Information is provided on one-off and other temporary measures.	X		
The state of implementation of the measures (enacted versus planned) presented in the programme is specified.	X		
If for a country that uses the transition period for the classification of second-pillar funded pension schemes, the programme presents information on the impact on the public finances.	X		
<i>e. "Major structural reforms"</i>			
If the MTO is not yet reached or a temporary deviation is planned from the achieved MTO, the programme includes comprehensive information on the economic and budgetary effects of possible 'major structural reforms' over time.			not applicable
The programme includes a quantitative cost-benefit analysis of the short-term costs and long-term benefits of such reforms.			not applicable
<i>f. Sensitivity analysis</i>			
The programme includes comprehensive sensitivity analyses and/or develops alternative scenarios showing the effect on the budgetary and debt position of: a) changes in the main economic assumptions b) different interest rate assumptions c) for non-participating Member States, different exchange rate assumptions d) if the common external assumptions are not used, changes in assumptions for the main extra-EU variables.	X X X	X	
In case of "major structural reforms", the programme provides an analysis of how changes in the assumptions would affect the effects on the budget and potential growth.			not applicable
<i>g. Broad economic policy guidelines</i>			
The programme provides information on the consistency with the broad economic policy guidelines of the budgetary objectives and the measures to achieve them.	X		
<i>h. Quality of public finances</i>			
The programme describes measures aimed at improving the quality of public finances on both the revenue and expenditure side (e.g. tax reform, value-for-money initiatives, measures to improve tax collection efficiency and expenditure control).	X		
<i>i. Long-term sustainability</i>			
The programme outlines the country's strategies to ensure the sustainability of public finances, especially in light of the economic and budgetary impact of ageing populations.	X		
Common budgetary projections by the AWG are included in the	X		

Guidelines in the code of conduct	Yes	No	Comments
programme. The programme includes all the necessary additional information. (...) To this end, information included in programmes should focus on new relevant information that is not fully reflected in the latest common EPC projections.			
<i>j. Other information (optional)</i>			
The programme includes information on the implementation of existing national budgetary rules (expenditure rules, etc.), as well as on other institutional features of the public finances, in particular budgetary procedures and public finance statistical governance.	X		
<p><u>Notes:</u></p> <p>¹The code of conduct allows for the following exceptions: (i) Ireland should be regarded as complying with the deadline in case of submission on “budget day”, i.e. traditionally the first Wednesday of December, (ii) the UK should submit as close as possible to its autumn pre-budget report; and (iii) Austria and Portugal cannot comply with the deadline but will submit no later than 15 December.</p> <p>²To 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.</p> <p><u>Source:</u> <i>Commission services</i></p>			

Annex 4: Key economic indicators of past economic performance

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

Hungary - Key economic indicators

	Averages			2003	2004	2005
	1996 – 2005	1996 – 2000	2001 – 2005			
Economic activity						
Real GDP (% change)	4.2	4.0	4.3	4.1	4.9	4.2
Private consumption % change	4.6	2.8	6.4	8.4	3.1	3.9
Government consumption % change	2.4	1.2	3.5	5.4	1.9	1.9
Investment % change	7.3	8.5	6.1	2.1	7.7	5.6
Exports % change	13.2	17.3	9.1	6.2	15.7	11.6
Imports % change	13.2	18.0	8.5	9.3	14.1	6.8
Contributions to real GDP growth						
Demand						
<i>Domestic demand</i>	4.4	4.5	4.2	6.3	4.4	1.4
<i>Net exports</i>	-0.2	-0.5	0.2	-2.1	0.5	2.8
Output gap	-0.6	-0.9	-0.3	-0.8	0.1	0.6
Prices and costs						
HICP inflation % change	10.5	15.2	5.9	4.7	6.8	3.5
Unit labour costs % change	9.4	11.9	6.8	6.5	5.6	2.1
Labour productivity % change	3.5	2.8	4.2	2.8	5.6	4.3
Real unit labour costs % change	-0.4	-1.9	1.1	0.7	1.2	0.1
Comparative price levels (EUR25=100)	50.7	45.3	56.0	56.3	58.9	61.1
Labour market						
Employment % change	0.7	1.2	0.2	1.3	-0.7	0.0
Employment % of pop work age	54.4	53.1	55.8	56.2	55.9	56.0
Unemployment rate in %	7.1	8.1	6.1	5.9	6.1	7.2
NAIRU in %	6.6	7.5	5.6	5.4	5.6	6.0
Participation rate in %	58.6	57.8	59.4	59.7	59.5	60.3
Working age population % change	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Competitiveness and external position						
Real effective exchange rate % change (1)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Export performance % change (2)	6.3	8.2	4.4	1.3	7.0	4.7
External balance of g & s	-1.8	-1.3	-2.3	-3.9	-3.2	-1.4
Net borrowing v-à-v RoW	n.a.	-7.7	n.a.	-8.0	-8.1	n.a.
FDI	n.a.	n.a.	5.0	2.5	4.4	6.3
Public finances						
Total expenditure % of GDP	n.a.	n.a.	49.4	49.1	48.9	50.0
Total revenue % of GDP	n.a.	n.a.	42.4	41.9	42.5	42.2
General government balance % of GDP	n.a.	n.a.	-6.9	-7.2	-6.5	-7.8
General government debt % of GDP	59.5	61.6	57.4	58.0	59.4	61.7
Structural budget balance % of GDP	n.a.	n.a.	n.a.	-6.9	-6.5	-8.5
Financial indicators (3)						
Short term real interest rate (4)	3.4	3.3	3.5	2.6	6.9	4.6
Long term real interest rate (4)	n.a.	n.a.	1.6	1.0	3.7	4.5
Household credit % change	32.8	19.1	46.5	61.1	29.7	25.2
Corporate sector credit % change (5)	19.9	26.8	12.9	25.9	9.3	16.7
Household debt in % of GDP	10.1	4.7	15.6	16.5	19.5	23.0
Corporate sector debt in % of GDP	44.1	41.5	46.8	47.2	47.1	51.7
Notes:						
(1) ulc relative to rest of a group of industrialised countries (usd): EUR24 (excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ						
(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).						
(3) Data available up to 2004						
(4) Using GDP deflator						
(5) Households' and non-profit institutions serving households' debt defined as loans and securities other than shares						
(6) Non-financial corporate sector debt, defined as loans and securities other than shares						

EU-10 - Key economic indicators

	Averages			2003	2004	2005
	1996 – 2005	1996 – 2000	2001 – 2005			
Economic activity						
Real GDP (% change)	4.0	4.3	3.7	4.0	5.1	4.6
Private consumption % change	4.2	4.7	3.8	3.9	4.1	3.7
Government consumption % change	2.5	1.9	3.1	5.0	1.8	2.0
Investment % change	5.6	8.4	2.9	1.7	7.2	6.2
Exports % change	10.0	11.0	9.0	9.1	14.5	10.3
Imports % change	10.2	12.7	7.8	8.5	14.6	6.9
Contributions to real GDP growth						
Demand						
<i>Domestic demand</i>	4.3	5.3	3.4	4.1	5.6	3.0
<i>Net exports</i>	-0.3	-1.0	0.4	0.0	-0.5	1.6
Output gap	:	:	-1.0	-1.4	-0.5	-0.4
Prices and costs						
HICP inflation % change	:	:	3.3	1.9	4.1	2.5
Unit labour costs % change	5.7	9.2	2.3	1.3	1.4	0.7
Labour productivity % change	4.2	4.6	3.7	4.3	4.5	2.9
Real unit labour costs % change	-0.8	-0.6	-1.0	-0.7	-2.5	-1.8
Comparative price levels (EUR25=100)	:	:	:	:	:	:
Labour market						
Employment % change	-0.1	-0.3	0.0	-0.2	0.6	1.7
Employment % of pop work age	58.0	59.4	56.6	56.1	56.2	57.0
Unemployment rate in %	12.8	11.3	14.2	14.3	14.2	13.4
NAIRU in %	:	:	13.1	13.5	13.2	12.6
Participation rate in %	66.4	66.7	66.1	65.7	65.6	65.8
Working age population % change	0.3	0.4	0.3	0.4	0.4	0.3
Competitiveness and external position						
Real effective exchange rate % change (1)	:	:	:	:	:	:
Export performance % change (2)	:	:	:	:	:	:
External balance of g & s	-3.4	-4.2	-2.6	-3.0	-2.6	-1.2
Net borrowing v-à-v RoW	:	:	:	:	:	:
FDI	:	:	:	:	:	:
Public finances						
Total expenditure % of GDP	:	:	44.2	44.9	43.4	43.6
Total revenue % of GDP	:	:	:	:	:	:
General government balance % of GDP	:	:	:	:	:	:
General government debt % of GDP	:	:	:	:	:	:
Structural budget balance % of GDP	:	:	:	:	:	:
Financial indicators (3)						
Short term real interest rate (4)	:	:	:	:	:	:
Long term real interest rate (4)	:	:	:	:	:	:
Household credit % change	:	:	:	:	:	:
Corporate sector credit % change (5)	:	:	:	:	:	:
Household debt in % of GDP	:	:	:	:	:	:
Corporate sector debt in % of GDP	:	:	:	:	:	:
Notes:						
(1) ulc relative to rest of a group of industrialised countries (usd): EUR24 (excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ						
(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).						
(3) Data available up to 2004						
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Annex 5: Assessment of tax projections

Table 9 in the main text compares the tax projections of the programme with those of the Commission services' autumn 2006 forecast and those obtained by using standard ex-ante elasticities, as estimated by the OECD. It summarises the results for the total tax-to-GDP ratio. The underlying analysis exploits information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see results in the table below)⁶⁵.

Conceptually, the analysis draws on the definition of a semi-elasticity, which measures the change in a ratio vis-à-vis the relative change in the denominator. The semi-elasticity of the tax-to-GDP ratio of the i -th tax $\frac{T_i}{Y}$ can be written as:

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

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

To the extent that ε_{T_i, B_i} is derived from observed or projected data, it will typically reflect (i) the effect of discretionary measures (including one-offs) and (ii) the tax elasticity⁶⁶. By contrast, if ε_{T_i, B_i} is the standard *ex-ante* elasticity, as estimated by the OECD, it will be net of discretionary measures.

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

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

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

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

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

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

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

⁶⁵Private and corporate income taxes are generally not provided, neither in the programme nor in the Commission services' autumn 2006 forecast. Only the aggregate, direct income taxes, is given. For the purpose of this exercise the breakdown is obtained using the average shares over the past ten years, i.e. the composition of direct taxes is assumed to stay constant.

⁶⁶The observed or projected elasticity (ex-post elasticity) of the i -th tax also includes the effect of other factors

(OF) such as discretionary measures: $\frac{\Delta T_i}{T_i} = \varepsilon_{T_i, B_i, ex\,ante} \frac{dB_i}{B_i} + \frac{OF_i}{T_i} = \varepsilon_{T_i, B_i, ex\,post} \frac{dB_i}{B_i}$.

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

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

where $\alpha_i \varepsilon_{B_i, Y} \frac{T_i}{Y} \frac{dY}{Y}$ determines the elasticity component and $\beta_i \varepsilon_{T_i, B_i} \frac{T_i}{Y} \frac{dY}{Y}$ the composition

component. The third component in the equation $\alpha_i \beta_i \frac{T_i}{Y} \frac{dY}{Y}$ measures the interaction of the

elasticity and the composition components. It is generally small but can become important in some cases. The tax elasticity relative to GDP of total taxes is obtained as $\varepsilon = \sum_i w_i \varepsilon_{T_i, B_i} \varepsilon_{B_i, Y}$ with w_i the

share of the *i-th* tax in the overall tax burden.

Assessment of tax projections by major tax

	2007			2008			2009	2010
	SP/CP	COM	OECD ¹	SP/CP	COM ²	OECD ¹	SP/CP	SP/CP
Taxes on production and imports:								
Change in tax-to-GDP ratio	0.1	-0.1	0.0	-0.2	-0.2	0.0	-0.4	-0.2
<i>Difference SP/CP – COM</i>	0.2			0.0			/	/
<i>of which³:</i>								
- discretionary & elasticity component	0.3			-0.1			/	/
- composition component	-0.1			0.1			/	/
<i>Difference COM – OECD</i>	/	-0.1		/	-0.2		/	/
<i>of which³:</i>								
- discretionary & elasticity component	/	0.1		/	0.1		/	/
- composition component	/	-0.1		/	-0.2		/	/
p.m.: Elasticity								
- of taxes to tax base ⁴	1.4	1.1	1.0	0.9	1.1	1.0	0.8	1.0
- of tax base ⁴ to GDP	0.8	0.9	1.0	0.8	0.7	1.0	0.7	0.8
Social contributions:								
Change in tax-to-GDP ratio	0.7	0.6	-0.3	-0.2	-0.3	-0.2	-0.3	-0.1
<i>Difference SP/CP – COM</i>	0.1		/	0.0		/	/	/
<i>of which³:</i>								
- discretionary & elasticity component	0.1		/	-0.1		/	/	/
- composition component	0.1		/	0.1		/	/	/
<i>Difference COM – OECD</i>	/	0.9		/	0.0		/	/
<i>of which³:</i>								
- discretionary & elasticity component	/	0.6		/	0.1		/	/
- composition component	/	0.1		/	0.0		/	/
p.m.: Elasticity								
- of taxes to tax base ⁵	2.0	1.9	0.9	0.9	1.0	0.9	0.8	0.9
- of tax base ⁵ to GDP	0.9	0.9	0.7	0.8	0.7	0.7	0.9	1.0
Personal income tax⁶:								
Change in tax-to-GDP ratio	0.6	0.7	0.3	0.2	0.3	0.3	0.1	0.1
<i>Difference SP/CP – COM</i>	0.0		/	-0.1		/	/	/
<i>of which³:</i>								
- discretionary & elasticity component	-0.1		/	-0.2		/	/	/
- composition component	0.1		/	0.2		/	/	/
<i>Difference COM – OECD</i>	/	0.3		/	0.0		/	/
<i>of which³:</i>								
- discretionary & elasticity component	/	0.1		/	0.0		/	/
- composition component	/	0.2		/	-0.1		/	/
p.m.: Elasticity								
- of taxes to tax base ⁵	2.5	2.7	2.4	1.8	2.4	2.4	1.3	1.2
- of tax base ⁵ to GDP	0.9	0.9	0.7	0.8	0.7	0.7	0.9	1.0
Corporate income tax⁶:								
Change in tax-to-GDP ratio	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0
<i>Difference SP/CP – COM</i>	0.0		/	0.0		/	/	/
<i>of which³:</i>								
- discretionary & elasticity component	0.0		/	0.0		/	/	/
- composition component	0.0		/	0.0		/	/	/
<i>Difference COM – OECD</i>	/	0.9		/	0.0		/	/
<i>of which³:</i>								
- discretionary & elasticity component	/	0.6		/	0.1		/	/
- composition component	/	0.1		/	0.0		/	/
p.m.: Elasticity								
-of taxes to tax base ⁷	2.2	2.1	0.9	1.2	1.2	0.9	1.0	1.1
-of tax base ⁷ to GDP	1.0	1.1	0.7	1.2	1.3	0.7	1.1	1.0
Notes:								
¹ Based on OECD ex-ante elasticities								
² On a no-policy change basis								
³ The decomposition is explained in the text above								
⁴ Tax base = private consumption expenditure								
⁵ Tax base = compensation of employees								
⁶ Taxes on income and wealth are split into private and corporate income tax using the average tax share over the past ten years, i.e. the share is assumed to be constant over the programme period								
⁷ Tax base = gross operating surplus								
Source:								
Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)								