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DECEMBER 2005 UPDATE OF THE STABILITY PROGRAMME OF GREECE (2005-2008)

AN ASSESSMENT

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SUMMARY AND CONCLUSIONS[1]

Greece submitted its fifth update of the stability programme covering the period 2005-2008 on 21 December 2005, three weeks later than the deadline specified in the new Code of Conduct. The programme broadly follows the model structure and data provisions requirements for stability and convergence programmes specified in the code of conduct[2].

On 5 July 2004, the Council decided that Greece was in excessive deficit. On 17 February 2005, the Council decided to give notice to Greece, in accordance with Article 104(9) to correct the excessive deficit by 2006. The Commission services' autumn 2004 forecast underlying this decision expected the deficit to reach 5.5% of GDP in 2004. In its opinion of 6 April 2005 on the March 2005 revised updated stability programme, covering the period 2004-2007, the Council invited Greece to implement permanent measures to correct the excessive deficit by 2006 at the latest, reduce the cyclically-adjusted deficit by at least 0.5% of GDP from 2007 onward, ensure a faster debt reduction path, implement the enacted pension reforms to ensure the sustainability of public finances, and further improve the collection and processing of general government data.

Over the last decade, driven by robust productivity growth, Greece's real GDP growth (on average 3½% per year) was among the highest in the EU. Sustained growth has led to strong real convergence, accompanied by a dramatic fall in HICP inflation, which nevertheless remains well above the EU average and by rising external imbalances. The general government deficit, in spite of high growth, remained on average well above 5% of GDP and attained 6.6% of GDP in 2004. Together with large below-the-line operations, it contributed to the accumulation of public debt which remained close to or above 110% of GDP during the last ten years.

On the back of strong domestic demand, the programme projects growth accelerating from 3.6% in 2005 to 4.0% in 2008. The macroeconomic scenario appears favourable, with growth in 2006 and 2007 almost ½ a percentage point higher than in the vis-à-vis the Commission services' autumn 2005 forecasts, implying a relatively higher estimate of the potential output growth Inflation is set to decelerate from 3.5% in 2005 to 2.7% by 2008, consistent with the Commission services' autumn 2005 forecast.

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[1] This technical analysis, which is based on information available up to [14 February 2005], accompanies the recommendation by the Commission for a Council opinion on the update of the stability programme, which the College adopted on [22 of February 2005]. It has been carried out by the staff of and under the responsibility of the Directorate-General for Economic and Financial Affairs of the European Commission. Comments should be sent to Nikolaos Chryssanthou (Nikos.Chryssanthou@cec.eu.int). The analysis takes into account (i) the Commission services' autumn 2005 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), (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances and (iv) the broad economic policy guidelines included in the integrated guidelines for the period 2005-2008.

[2] The programme has a gap in the compulsory data (Exchange rates are presented in terms of €/USD instead of nominal effective exchange rates) and does not provide all optional data prescribed by the new code of conduct. In particular, "Optional tables on "general government expenditure by function" and "the long-term sustainability of public finances" are not given in the stability programme. Additional data on "the treatment of FISIM, the components of the stock-flow adjustments", liquid financial assets, net financial debt and "the contribution of potential GDP growth" are not provided by the programme.

The update estimates the 2005 deficit at 4.3% of GDP[3], which compares with 3.7% of GDP in the Commission services' autumn 2005 forecast and in the previous update. The difference with the latter mainly reflects carry-over effects of the September 2005 revisions of 2002-2004 deficit outcomes, notably leading to a revised 2004 deficit of 6.6% of GDP, while the Commission services' autumn 2005 forecasts included one-off revenues from an announced securitisation operation, which has not taken place.

The update's budgetary strategy aims at reducing the deficit below the 3% of GDP threshold of the Treaty by 2006, in accordance with the Council notice under Article 104(9), and at pursuing fiscal consolidation towards a balanced budget. The fiscal correction is frontloaded. The deficit is projected to decline from 4.3% of GDP in 2005 to 2.6% in 2006 and, then, to 1.7% in 2008. The time profile for the primary surplus is similar, improving from 0.9% of GDP to 2.8%. The projected adjustment is achieved through both higher tax revenues and reductions in expenditures (interest payments and public consumption). One-off revenues worth 0.6% of GDP are envisaged for 2006. The favourable macroeconomic scenario partly explains the frontloading of the adjustment in the current update when compared with the previous one.

According to the calculations of the Commission services on the basis of data in the programme and based on the commonly agreed methodology, the structural balance (the general government budget in cyclically-adjusted terms and net of one off and other temporary measures) is projected to improve from -4.8% of GDP in 2005 to -2.4% of GDP in 2008, against a background of high growth and a large positive output gap, thus providing for a reduction of around 0.6 % of GDP per year. The update clearly identifies a medium-term objective (MTO) for the budgetary position as meant in the Stability and Growth Pact of a balanced budget in structural terms, which the update does not envisage to achieve by 2008. As the MTO set in the programme is more demanding than the minimum benchmark (estimated at -1¼ % of GDP), its achievement should fulfil the aim of providing a safety margin, against the occurrence of an excessive deficit. The MTO set in the programme is at an appropriate level as it lies within the range indicated for euro area and ERM II Member States in the Stability and Growth Pact and the code of conduct and adequately reflects the debt ratio and average potential output growth in the long term.

The budgetary outcomes could be worse than projected in the programme. There are risks associated with the favourable macroeconomic scenario and information on measures envisaged at the end of the programme is lacking Moreover, there are still some pending statistical issues with Eurostat (the estimation of surpluses of social security funds and of local governments) which might lead to an upward revision of deficit figures until 2005, with possible carry-over effects in 2006 and beyond, while the one-offs planned for 2006 are still pending of Eurostat's classification as deficit-reducing.

Based on current information, conditional on the figures for actual deficits currently available, Greece is broadly on track to correct its excessive deficit by the 2006 deadline set by the Council. The planned 2005 deficit seems consistent with a rigorous implementation of the 2005 budget, while the 2006 budget targets a deficit of 2.6% of

[3] This figure does not include 0.3% of GDP (€512 million) corresponding to the reimbursement of European Regional Development funds. However, being a genuine one-off expenditure, its consideration would not have any impact on the fiscal effort in 2005, neither on the 2006-2008 adjustment path.

GDP. Since this includes one-off revenues worth 0.6% of GDP, the excessive deficit would not be corrected in 2006 on a permanent basis. However, the structural correction in 2006 is above the minimum 0.6% of GDP required by the Council. By contrast, the correction is less than 0.5% of GDP in 2008, when Greece is still expected enjoy an economic situation of good times. Moreover, according to the calculations of the Commission services on the basis of the programme based on the commonly agreed methodology the cyclically-adjusted budget balance is not expected to respect the minimum benchmark within the programme period.

The debt ratio is projected to fall from around 108% of GDP in 2005 to below 97% in 2008, mainly driven by the projected improvement in the primary surplus, and lower debt-increasing financial operations. The projected debt developments appear somewhat optimistic in the light of the risks to the budgetary projections and the history of large stock-flow adjustments, but the debt ratio seems to be sufficiently diminishing.

With regard to the sustainability of public finances, Greece appears to be at high risk on grounds of the projected budgetary costs of ageing populations. The debt ratio is currently the highest in the EU and is projected to remain at very high levels throughout the projection period up to 2050. It is therefore necessary to implement rigorously the planned consolidation of public finances over the medium-term and to further strengthen the budgetary position in order to reduce risks to public finance sustainability. At the same time, the projected high increase of government expenditure, notably on pensions, over the projection period is expected to put a significant burden on public finances. To this end, resolutely implementing measures enacted and designing and carrying out additional structural reforms, notably on pensions, are necessary so as to reduce the risks to public finance sustainability.

The envisaged measures in the area of public finances are broadly consistent with the broad economic policy guidelines included in the integrated guidelines for the period 2005-2008. In particular, the programme is consistent with the guideline (i) to secure economic stability; (ii) to safeguard economic and fiscal sustainability, and (iii) to promote a growth-and employment-oriented and efficient allocation of resources. However, actions to tackle important challenges in the pension system are postponed to a future social agreement, with an imprecise calendar.

The National Reform Programme of Greece, submitted on 15 October 2005 in the context of the renewed Lisbon strategy for growth and jobs, identifies the following challenges with significant implications for public finances: (i) long-term sustainability of public finances; (ii) employment and education;(iii) business environment and competition; and (iv) R&D and innovation. Its budgetary implications are reflected in the update. The measures in the area of public finances envisaged in the stability programme are broadly in line with the actions foreseen in the National Reform Programme. In particular, the programme outlines, among others, measures to reduce the corporate tax rate to 25% by 2007, to fight against tax evasion reform the property taxation, and to rationalise healthcare spending.

Overall, the programme is consistent with the correction of the excessive deficit by 2006, subject to a full implementation of the envisaged adjustment and conditional on the effects on the planned deficits of possible further statistical revisions of budgetary data. In the light of the recommendations made by the Council under Article 104(9) of 17 February 2005, it would be appropriate for Greece to:

(i) implement the necessary permanent measures leading to the correction of the excessive deficit by 2006 at the latest;

ii) further pursue the reduction of the deficit in structural terms towards the MTO set in the programme, taking advantage of good economic times to reduce primary spending;

(iii) enhance the efforts to identify and control factors other than net borrowing that contribute to the change in the debt levels, in order to ensure that the debt ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace;

(iv) control public pension expenditure and resolutely implement the approved pension reforms to ensure the long term sustainability of the public finances;

(v) further improve the collection and processing of the general government data, notably by enhancing the mechanisms that ensure a prompt and correct supply of budgetary data, in particular on social security.

Comparison of key macroeconomic and budgetary projections

		2004	2005	2006	2007	2008
Real GDP (% change)	**SP Dec 2005**	**4.7**	**3.6**	**3.8**	**3.8**	**4.0**
	COM Nov 2005	4.7	3.5	3.4	3.4	n.a.
	SP March 2004	*4.2*	*2.9*	*3.0*	*3.0*	*n.a.*
HICP inflation (%)	**SP Dec 2005**	**3.0**	**3.5**	**3.2**	**3.0**	**2.7**
	COM Nov 2005	3.1	3.5	3.1	3.0	n.a.
	SP March 2004	*3.0*	*n.a*	*n.a*	*n.a*	*n.a.*
Output gap (% of potential GDP)	**SP Dec 2005[1]**	**1.4**	**1.1**	**1.1**	**1.1**	**1.5**
	COM Nov 2005[5]	2.0	2.0	2.0	2.2	n.a.
	SP March 2004[1]	***2.1***	***1.6***	***1.5***	***1.5***	*n.a.*
General government balance (% of GDP)	**SP Dec 2005**	**-6.6**	**-4.3**	**-2.6**	**-2.3**	**-1.7**
	COM Nov 2005	-6.6	-3.7	-3.8	-3.8	n.a.
	SP March 2004	*-6.1*	*-3.7*	*-2.9*	*-2.4*	*n.a.*
Primary balance (% of GDP)	**SP Dec 2005**	**-0.9**	**0.9**	**2.3**	**2.4**	**2.8**
	COM Nov 2005	-0.9	1.7	1.2	0.9	n.a.
	SP March 2004	*-0.4*	*1.8*	*2.7*	*3.3*	*n.a.*
Cyclically-adjusted balance (% of GDP)	**SP Dec 2005[1]**	**-7.2**	**-4.8**	**-3.1**	**-2.8**	**-2.4**
	COM Nov 2005	-7.5	-4.5	-4.6	-4.8	n.a.
	SP March 2004[1]	*-7.0*	*-4.4*	*-3.5*	*-3.0*	*n.a.*
Structural balance[2] (% of GDP)	**SP Dec 2005[3]**	**-7.2**	**-4.8**	**-3.7**	**-2.8**	**-2.4**
	COM Nov 2005[4]	-7.5	-5.3	-4.6	-4.8	n.a.
	SP March 2004	*-7.0*	*-4.4*	*-3.5*	*-3.0*	*n.a.*
Government gross debt (% of GDP)	**SP Dec 2005**	**109.3**	**107.9**	**104.8**	**101.1**	**96.8**
	COM Nov 2005	109.3	107.9	106.8	106	n.a.
	SP March 2004	*110.5*	*109.5*	*107.2*	*104.7*	*n.a.*

Notes:
[1]Commission services calculations on the basis of the information in the programme
[2]Cyclically-adjusted balance (as in the previous rows) excluding one-off and other temporary measures
[3]One-off and other temporary measures taken from the programme (0.6% of GDP in 2006)
[4]One-off and other temporary measures taken from the Commission services' autumn 2005 forecast (0.8% of GDP in 2005)
[5]Based on estimated potential growth of 3.2%, 3.5%, 3.4% and 3.2% respectively in the period 2004-2007.
Source:
Stability programme (SP); Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

1. INTRODUCTION

Greece submitted its fifth update of the stability programme, covering the period 2005-2008, on 21 December[4], three weeks later than the deadline specified in the new Code of Conduct. The budgetary and economic projections for 2005 and 2006 are consistent with the 2006 State Budget adopted by the Parliament on 22 December 2005. The update was adopted by the Government on 21 December 2005 and was made available to the public on the Internet site of the Ministry of National Economy on 27 December 2005.

The programme broadly follows the model structure and data provision requirements for stability and convergence programmes specified in the new code of conduct. The programme has gaps in the compulsory[5] and does not provide all optional data[6] prescribed by the new code of conduct. Annex 2 provides a detailed overview of all aspects of compliance with the new code of conduct.

2. ECONOMIC OUTLOOK

Since the mid-1990s the Greek economy has enjoyed buoyant growth. Real GDP has on average increased by around 3½%, about 1½ percentage points above the euro area average (2¼% for the EU25). Growth has mainly been driven by domestic demand, supported by easy monetary conditions. The temporary boom in public consumption and investment linked to the organisation of the 2004 Olympic Games, as well as capital inflows from the structural funds have contributed significantly to the Greek's economic performance, in particular since 2000. Persistent growth differentials with the EU underpinned real convergence. GDP per capita in purchasing power standards, which was slightly above 64% of the euro area average in 1995 (71% of the EU25), attained more than 75% ten years later (81% in the EU25). Employment increased by an average rate of 0.8% per year between 1995 and 2005, which is comparable to the euro area average. Labour productivity increased by 2.8% per year, above the euro area average of 1% during the same period. Although HICP inflation has come down dramatically compared to 1995, when it was close to 9%, it remains well above the euro are average (3.5% in 2005, compared to 2.2%). Remarkable real and nominal convergence has been accompanied by rising macroeconomic imbalances, both on the domestic and the external side. On the domestic side, imbalances have emerged in the area of public finances over the past several years, in a context of high growth and positive output gaps. The general government deficit remained on average above 5% of GDP and attained 6.6% of GDP in 2004. Together with large below-the-line operations, it contributed to the accumulation of public debt, which remained close to or above 110% of GDP during the last ten years. Despite strong economic growth, the employment rate (59.4% in 2004) is still far below the Lisbon target, particularly for women and elderly workers, while at 10.5% unemployment remains high, a large part of which (around 6%) is of a long-term nature. On the external side, large deficits in the goods sector, only partially compensated

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[4] The updated stability programme submitted was an English version.

[5] Exchange rates are presented in terms of €/USD instead of nominal effective exchange rates

[6] Optional tables on "general government expenditure by function" and "the long-term sustainability of public finances" are not given in the stability programme. Additionally data on the treatment of FISIM, the components of the stock-flow adjustments, liquid financial assets, net financial debt and the contributions of potential GDP growth are not provided by the programme

by the surpluses recorded in services, have pushed the current account deficits up to around 8% of GDP, which compares with deficits of 3% of GDP recorded in the 1990s. External borrowing is practically devoted to finance the large deficit of the public sector.

The macroeconomic scenario in the update essentially coincides with the macroeconomic framework provided in the 2006 Budget law. Real GDP growth is estimated at 3.6% in 2005, well above the euro area average and consistent with the Commission services' autumn 2005 forecasts. For the period 2006-2008, GDP growth is projected to remain around 3.9%. In particular, real GDP growth is expected to accelerate to 3.8% in both 2006 and 2007 and further to 4.0% in 2008 (see Table 1). Overall, the programme's macroeconomic scenario assumes that the Greek economy will manage to sustain the economic momentum gathered in the run-up to the Olympic Games thanks to strong domestic demand, which is expected to more than compensate the external sector's increasing negative contribution to real GDP growth. The update assumes that dynamic public and private investment activity will be supported by a series of structural reforms recently initiated or planned aiming at enhancing productivity, investments and job creation. Private consumption is also expected to remain robust, underpinned by easy financial conditions, which should remain over the programme period. In spite of an increase in export activity, in particular in services, the update projects a negative contribution to growth of the external sector until the end of the programme period. Specifically, imports of goods are expected to accelerate sharply, compared to 2005, to accommodate increasing investment activity. Mirroring such growth prospects, the sizeable positive output gap recorded in 2004 (as recalculated by the Commission services on the basis of the information provided in the programme according to the agreed methodology) is expected to narrow somewhat in 2005 and to remain unchanged up to 2007 before widening again at the end of the programme period at the level of 2004.

The programme's economic outlook is not fully in line with the projections in the Commission services' autumn 2005 forecast. In the years 2006 and 2007 growth projections are higher by 0.4 pp than in the Commission forecasts on account of stronger domestic demand, especially private investment and consumption. The more prudent projections of private consumption of the Commission services' autumn 2005 forecast reflect more cautious assumptions about disposable income, mirroring lower employment and wage growth projections. High investment growth in the update is supported by a relatively optimistic assessment of the impact of the incentive law[7] and other reforms already initiated or planned. Overall, the update's macroeconomic scenario is favourable throughout the programme period, implying a relatively higher estimate of potential output growth than foreseen by the Commission services.

The external assumptions of the macroeconomic scenario are broadly in line with the Commission services autumn 2005 forecasts.

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[7] The new incentive law aims at promoting investments, the use of new technologies and innovation and contributing to higher employment and regional development. For the investment projects which fall under the provisions of the law, the following incentives are given: (i) cash grant, which covers part of the cost of the investment project; (ii) leasing subsidy, which covers part of the payable instalments relating to a lease of new mechanical and other equipments; (iii) tax exemption, which involves exemption from payment of income tax on non distributed gains for the first 10 years following completion of the investment;.(iv) subsidy of wages relating to the employment created by the investment.

According to the update, labour market outcomes will further improve over the programme period. Employment is projected to increase by an average of 1.5% over 2005-2008. This is higher than in the Commission services' autumn 2005 forecasts, which project employment growth at around 1¼% per year in 2005-2007. The programme does not spell out the factors behind higher job creation. However, it argues to be consistent with the announced measures in the National Reform Programme (NRP), according to which the government is planning to implement measures aiming at increasing participation and employment rates. The higher average-labour content of GDP growth foreseen in the programme, above the 2000-2005 average, suggests that employment projections are rather optimistic. The programme projects the unemployment rate to follow a declining path from 10.4% in 2005 to 8.0% in 2008, on the back of strong economic growth and a positive output gap, while it is projected to remain close to 10% still by 2007 in the Commission services' autumn 2005 forecast, reflecting lower GDP growth and employment projections.

The update envisages inflation to decelerate until the end of the programme period. In particular, HICP inflation is expected to slow down gradually, from 3.5% in 2005 and 3.0% in 2007, before falling to 2.7% by 2008. This is broadly consistent with the Commission services' autumn 2005 forecast. In parallel, the programme projects nominal compensation of employees per head to decelerate from 5½% in 2005 to 4% over 2006-2008. Labour productivity is expected to increase from 2.2% in 2005 to around 2.3% until the end of the programme period. These developments seem broadly consistent with the inflation performance outlined in the programme, but may be on the high side when compared with the Commission services' autumn 2005 forecast.

Table 1: Comparison of macroeconomic developments and forecasts

	2005		**2006**		**2007**		**2008**
	COM	**SP**	**COM**	**SP**	**COM**	**SP**	**SP**
Real GDP (% change)	3.5	3.6	3.4	3.8	3.4	3.8	4.0
Contributions:							
- Final domestic demand	2.9	2.8	3.4	3.8	3.4	4.1	4.2.
- Change in inventories	-0.3	-0.1	-0.1	0.02	0.0	-0.04	-0.01
- External balance on g&s	0.9	0.9	0.2	-0.02	0.0	-0.2	-0.2
Output gap[1]	2.0	1.1	2.0	1.1	2.2	1.1	1.5
Employment (% change)	1.2	1.4	1.3	1.3	1.3	1.6	1.7
Unemployment rate (%)	10.4	10.4	10.0	9.8	9.7	8.9	8.0.
Labour productivity growth (%)	1.9	2.2	1.6	2.4	1.6	2.2	2.3.
HICP inflation (%)	3.5	3.5	3.1	3.2	3.0	3.0	2.7.
GDP deflator (% change)	3.7	4.0	3.1	3.5	3.1	3.1	2.9.
Compensation of employees (% change)	7.8	7.7	7.2	7.2	6.6	7.2	6.9.
External balance (% of GDP)	-6.1	-4.9	-4.9	-4.0	-4.6	-3.9	-3.4.

Note:
[1]In percent of potential GDP, with potential GDP growth as reported in Table 2 below.

Source:
Commission services' autumn 2005 economic forecasts (COM); stability programme update (SP)

As to the medium term, the data of the macroeconomic scenario imply a rate of potential output growth (as recalculated by the Commission services on the basis of the information provided in the programme according to the agreed methodology) which gradually eases over the programme period from around 3.9% in 2005 to 3.6% in 2008. The estimates of potential output growth derived from the Commission services' 2005 autumn forecast, are ½ a percentage point lower. The deceleration in the underlying rate of growth implied by the macroeconomic scenario of the update is estimated to result from total factor productivity, alongside a rising contribution of capital accumulation. This is a further indication that investment projections may be on the high side.

Table 2: Sources of potential output growth

	2005		2006		2007		2008
	COM	**SP[2]**	**COM**	**SP[2]**	**COM**	**SP[2]**	**SP[2]**
Potential GDP growth[1]	3.5	3.9	3.4	3.8	3.2	3.7	3.6
Contributions:							
- Labour	0.6	0.8	0.6	0.9	0.5	0.9	0.8
- Capital accumulation	1.3	1.3	1.3	1.4	1.3	1.4	1.5
- TFP	1.6	1.7	1.5	1.5	1.3	1.4	1.3

Notes:
[1]based on the production function method for calculating potential output growth
[2]Commission services' calculations on the basis of the information in the programme
Source: Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

The programme provides detailed information on the development of sectoral balances over the programme period. The deterioration of the private sector's net borrowing position appears consistent with the programme's macroeconomic scenario of strong consumption and investment growth over the period 2005-2008. However, the projected deficit reduction is expected to offset such developments in the private sectoral balances and lead to a significant improvement of the net borrowing position vis-à-vis the rest of the world. Box 1 presents a more detailed analysis of developments in the external position of the country.

BOX 1: EXTERNAL DEFICITS AND SPENDING CONTROL

The story of the Greek economy in the current decade is one of buoyant growth and remarkable success in terms of real convergence. The macroeconomic stability framework provided by EMU represented a positive confidence shock for the Greek economy. Since 1999, interest rates have steadily declined to the current levels which, at close to 2%, are the lowest the country has seen in recent times. This has provided positive leverage for private investment and consumption.

However, during this cycle of buoyant growth, several economic imbalances have either emerged or worsened. Very high deficits in goods trade, above 15% of GDP, are only partially compensated by increasing surpluses in services (mainly tourism and transportation) of around 7-8% of GDP. In parallel, the cumulated surpluses of the incomes and transfers accounts do not account for more than 1% of GDP. As a result, the current account deficit has jumped to close 8% of GDP in the most recent past, compared with a position close to the surplus in the mid-nineties. Once the capital transfers of around 1½% to 2% of GDP are considered, the external position of the country in the mid-2000 posts a deficit of around 6% of GDP, which compares with a balanced position recorded ten years ago.

The persistence in the net borrowing position vis-à-vis the rest of the world of Greece is mirrored by a large and also persistent deficit recorded by the public sector in combination with a steady worsening of private balances. While in the second half of the 1990s private surpluses practically compensated public deficits of 5 to 10% of GDP, since the early 2000s, the increase in spending on housing by Greek households coupled with increasing borrowing needs in the corporate sector, have pushed the combined net balance of the private sector in deficit. As a result, high public deficits are not financed anymore by domestic saving and their developments almost fully mirror the external borrowing need of the country. Although part of the increase in public deficits over the last five years has financed public works and other major initiatives linked to the organisation of the Olympic Games, infrastructure investment is only marginally the source of the persistent Greek public deficit. As a matter of fact, public investment in Greece hovered around 3½% of GDP during the second half of the 1990s while it did not went significantly further than 4% in some of the years between 2000 and 2004, before returning to the current 3% of GDP. Therefore, the external borrowing is largely devoted to finance current public spending. This includes not only high interest expenditure, which following a still slow path of debt reduction and is now on a declining path, but also other current expenditures, such as public consumption. Although the Greek government appears firmly committed to fiscal consolidation, further focus on spending items which follow long-run trends linked to population ageing seems necessary. Specifically, ¾ of the total nominal adjustment projected for the period 2005-2008 is explained by higher revenues, and by lower interest payments and “other expenditures”.

Unless decisive steps are taken to correct the underlying imbalances, especially those expenditure items that put pressure on the public deficit in the long run, the external deficit may eventually weigh on growth prospects, thus harming Greece’s attractiveness as a place for productive investment in the long run. This requires a combination of fiscal consolidation, a rise of domestic savings, and comprehensive structural reforms to support growth and job creation.

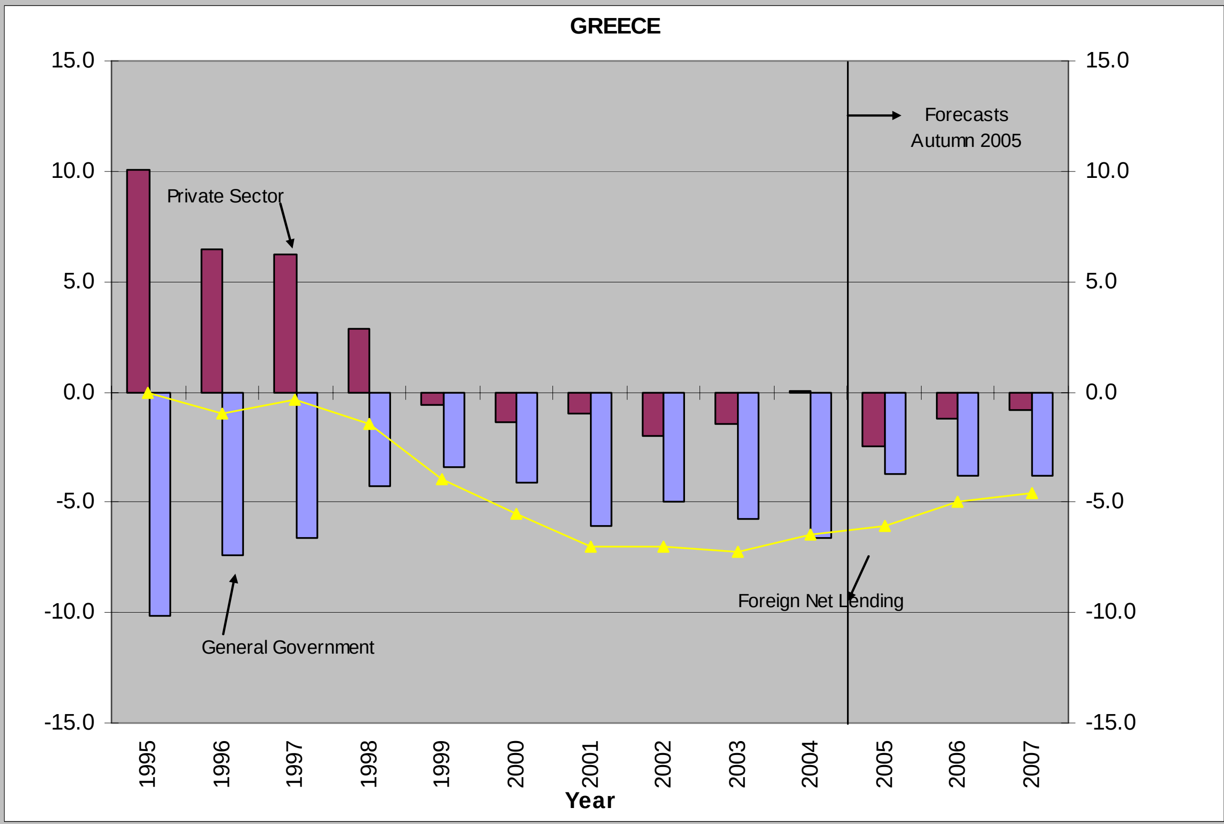


Table: Composition of the Greek foreign net lending/borrowing balance

% of GDP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
Trade Balance	-12.2	-13.2	-13.5	-14.8	-15.6	-18.7	-16.2	-16.6	-16.9	-17.9	-17.1
Service Balance	4.9	5.3	6.1	6.4	7.1	8.3	7.7	8.0	7.8	9.5	9.7
Net Primary Income	3.2	2.8	2.8	2.7	1.3	0.9	0.1	0.1	0.0	0.1	0.1
Net Transfers	3.3	2.8	2.4	2.1	1.5	1.4	1.3	0.7	0.6	0.1	-0.1
Current Account Balance	**-0.9**	**-2.4**	**-2.1**	**-3.5**	**-5.7**	**-8.2**	**-7.1**	**-7.8**	**-8.5**	**-8.2**	**-7.4**
Net Capital Transfers	0.8	1.4	1.8	2.1	1.8	2.7	0.1	0.8	1.3	1.7	1.3
Foreign net lending Balance	**-0.1**	**-1.0**	**-0.4**	**-1.4**	**-4.0**	**-5.5**	**7.0**	**7.0**	**7.2**	**6.5**	**-6.1**

Source: *Ameco, Commission services' autumn 2005 economic forecasts (COM);*

3. GENERAL GOVERNMENT BALANCE

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

3.1. Targets in successive programmes and implementation in 2005

The updated stability programme targets a reduction of the general government deficit of 2.6 % of GDP over the programme period, from 4.3% to 1.7% of GDP between 2005 and 2008. While the currently estimated outcome for 2005 is worse than projected in the previous update (March 2005), the deficit targets in the current update are lower than nine months ago. Differences between both updates for 2005 are accounted by the carry-over effects of the additional upward revisions of deficit figures until 2004, carried out in September 2005. However, lower deficit targets from 2006 onward reflect significantly higher real GDP growth and lower expenditure projections, which would only partially be offset by lower revenues.

For 2005, the update projects the deficit of the general government to decrease from 6.6% of GDP in 2004 to 4.3%, which is worse than the projected deficit of 3.7% of GDP in the Commission services' autumn 2005 forecasts. On the basis of the information provided by the Greek government in October 2005, the Commission services' autumn 2005 forecast included revenues of 0.8% of GDP coming from a one-off securitisation operation. Those revenues were subsequently removed from the 2006 draft budget and, hence, are not included in the current update.[8] Net of one-offs, the government deficit projected by the Commission services' for 2005 would be around 4½% of GDP, slightly above the target in the update, partially reflecting the effect of a marginally lower GDP growth projection by the Commission services for 2005.

According to the update, the adjustment in 2005 was expenditure-based (see Table 3). The 3 % of GDP fall in expenditures was partially offset by ½ % of GDP lower revenues. Public investment, which compared with 2004 fell in 2005 by more than 2 % of GDP, is the main budget item contributing to the adjustment. This contrasts with the limited control of current expenditure and, especially, of current primary spending. Current expenditures fell by ½ percentage point of GDP, the bulk of which (0.4 % of GDP) came from lower interest payments.

The developments presented in the programme seem to be consistent with cash data for the Central Government over January-December. During 2005, net revenues increased by 7.5% in nominal terms, which is 0.8 % higher than projected for the whole year (6.7%). However, primary current expenditures grew by 6.3% in nominal terms, above the

[8] The cut-off date of the Commission services' autumn 2005 forecasts was 7 November, while the draft 2006 budget was submitted to the Parliament on 21 November. Given the uncertainties surrounding the classification by Eurostat of the securitisation operation as deficit reducing the Greek authorities decided not to include it in the budget projections until Eurostat takes a final decision on the nature of the operation.

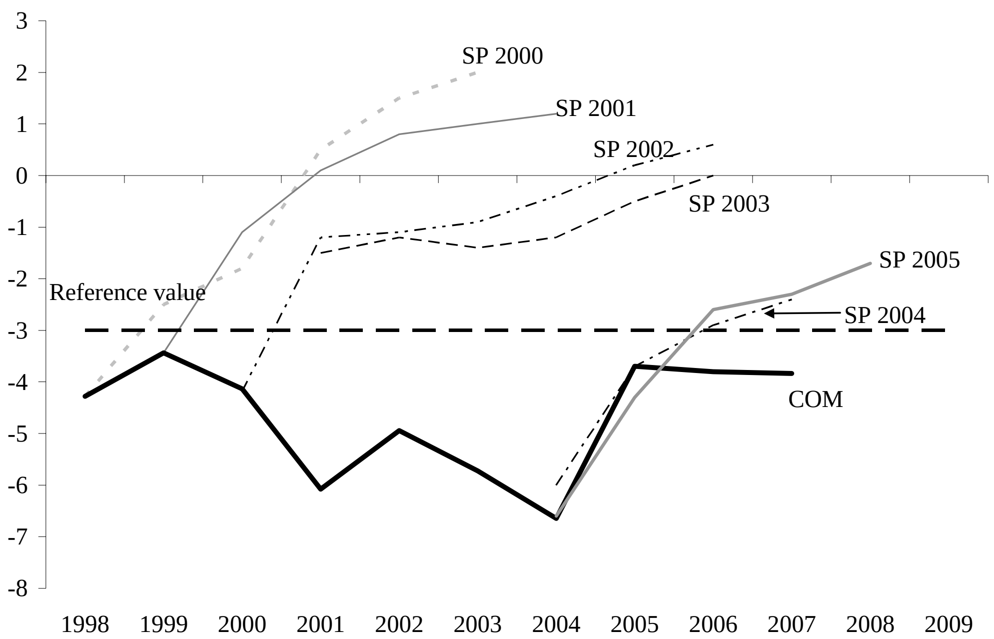
current plans aiming at a nominal growth rate of 5.9% for the whole year, while public investment expenditure fell by 21% in nominal terms, against the planned reduction of 19%. Overall, the cash deficit of the Central Government for 2005 is 5.9% of GDP, which is in line with that currently planned for the whole year.

Table 3: Evolution of budgetary targets in successive programmes

		2004	2005	2006	2007	2008
General government balance (% of GDP)	**SP Dec 2005**	**-6.6**	**-4.3**	**-2.6**	**-2.3**	**-1.7**
	SP (R) March 2005	-6.1	-3.7	-2.9	-2.4	n.a.
	SP Dec. 2003	-1.2	-0.5	0.0	n.a.	n.a.
	COM Nov 2005	-6.6	-3.7	-3.8	-3.8	n.a.
General government expenditure (% of GDP)	**SP Dec 2005**	**48.2**	**45.4**	**44.7**	**44.3**	**43.7**
	SP (R) March 2005	50.4	49.1	49.0	49.2	n.a.
	SP Dec. 2003	45.0	44.2	43.5	n.a.	n.a.
	COM Nov 2005	49.9	47.4	454	43.4	n.a.
General government revenues (% of GDP)	**SP Dec 2005**	**41.6**	**41.1**	**42.1**	**42.0**	**41.9**
	SP (R) March 2005	44.4	45.4	46.1	46.7	n.a.
	SP Dec. 2003	43.7	43.7	43.5	n.a.	n.a.
	COM Nov 2005	43.3	43.7	41.6	39.6	n.a.
Real GDP (% change)	**SP Dec 2005**	**4.7**	**3.6**	**3.8**	**3.8**	**4.0**
	SP (R) March 2005	4.2	2.9	3.0	3.0	n.a.
	SP Dec. 2003	4.2	4.0	3.8	n.a.	n.a.
	COM Nov 2005	4.7	3.5	3.4	3.4	n.a.

<u>*Source:*</u>
Stability programmes (SP) and Commission services' autumn 2005 economic forecasts (COM)

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



<u>Source</u> : Commission services' autumn 2005 forecast (COM) and successive stability programmes

BOX 2: The excessive deficit procedure for Greece

On 5 July 2004 the Council decided that Greece had an excessive deficit and addressed a recommendation under Article 104(7) specifying that the excessive deficit had to be corrected by 2005. On 18 January 2005, the Council decided in accordance to Article 104(8) that Greece had not taken effective action in response to these recommendations. On 17 February 2005, upon a Commission recommendation in accordance with Article 104(9), the Council decided to give notice to Greece to take measures for the deficit reduction judged necessary to remedy the situation. Specifically, the Council decided that '*Greece shall put an end to the present excessive deficit situation as rapidly as possible and at the latest by 2006 through: (i) a rigorous implementation of the 2005 budget as approved by its Parliament, and (ii) implementing in 2006 adjustment measures of a permanent nature leading to a correction in the deficit of at least 0.6 percentage point of GDP'*. The Council also required Greece to further pursue the efforts to *'identify and control factors other than net borrowing, which contribute to the change in debt levels'* and *'to improve the collection and processing of general government data'*. On 12 April 2005, based on a Commission communication, adopted on 6 April 2005 the Council concluded that the *'decisions taken by the Greek government are in line with the Council recommendations of 17 February in accordance with Article 104(9)'*.

In its Communication of 6 April, the Commission indicated that a new assessment of compliance would be made before the end of the year on the basis of the September 2005 EDP notification of government deficit and debt levels, the draft 2006 budget and the report to be submitted by the Greek authorities at the end of October. However, taking into account the still pending statistical issues and their likely size, the Commission will carry out its assessment once such issues have been fully settled and definitive data is published by Eurostat.

3.2. 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.

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

The budgetary strategy outlined in the programme aims at reducing the deficit below the 3% of GDP reference value by 2006, in line with the Council notice under Article 104(9), and at pursuing fiscal consolidation towards the medium-term objective of a balanced budget. While the general government deficit is targeted at 2.6% of GDP in 2006, the cyclically-adjusted deficit net of one-offs and other temporary measures is projected to be brought below 3% only by 2007

Table 4: Composition of the budgetary adjustment

(% of GDP)	2004	2005	2006	2007	2008	Change: 2008-2005
Revenues	41.6	41.1	42.1	42.0	41.9	**0.8**
of which:						
- Taxes & social contributions	37.3	36.9	37.3	37.8	37.7	**0.8**
- Other (residual)	4.3	4.2	4.8	4.2	4.2	**0.0**
Expenditure	48.2	45.4	44.7	44.3	43.7	**-1.7**
of which:						
- Primary expenditure	42.5	40.2	39.9	39.5	39.1	**-1.1**
of which:						
Consumption	16.6	16.3	15.9	15.4	15.1	**-1.2**
Transfers other than in kind & subsidies	17.3	17.7	18.0	18.3	18.5	**0.8**
Gross fixed capital formation	4.1	3.1	3.1	3.1	3.1	**0.0**
Other (residual)	4.5	3.1	2.9	2.7	2.5	**-0.6**
- Interest expenditure	5.6	5.2	4.8	4.8	4.6	**-0.6**
General government balance (GGB)	**-6.6**	**-4.3**	**-2.6**	**-2.3**	**-1.7**	**-2.6**
Primary balance	**-0.9**	**0.9**	**2.3**	**2.4**	**2.8**	**1.9**
One-off and other temporary measures			0.6			
GGB excl. one-off & other temporary measures	**-6.6**	**-4.3**	**-3.2**	**-2.3**	**-1.7**	**-2.6**

Source:
Stability programme update; Commission services' calculations

According to the update, the general government deficit would be reduced by 2.6 % of GDP between 2005 and 2008. The fiscal correction is frontloaded, particularly concentrated in 2005 and in 2006. Specifically, the update foresees the general government deficit to decline from 4.3% of GDP in 2005 to 2.6% in 2006. The deficit is expected to further decline gradually thereafter, to just 2.3% of GDP and 1.7% in 2007 and 2008 respectively. The time profile of the improvement in the primary surplus is similar, increasing from 0.9% of GDP in 2005 to 2.3% in 2006, and then to 2.4% in 2007 and 2.8% at the end of the programme period.

Compared with the previous programme, the new update frontloads the planned adjustment against a higher deficit starting point and a broadly more favourable macroeconomic scenario. Although the 2005 deficit is higher, the projected budgetary outcome for 2006 would be better, and the 2007 targets are comparable. According to the current update, the deficit should fall by 4% of GDP between 2004 and 2006, while the nominal correction envisaged in the March 2005 update was slight above 3% of GDP.

3.2.2. The composition of the budgetary adjustment in the programme

According to the update, the adjustment path is based on a mixed consolidating strategy. In percent of GDP planned expenditure restraint is larger than the projected increase in revenues.

According to the programme, revenues will increase by 0.8% of GDP, from slightly above 41% of GDP in 2005 to just below 42% of GDP in 2008. This is fully attributed to an increase in taxes and social contribution receipts, as other revenues are expected to remain broadly stable in terms of GDP. The rise in receipts would come from an increase in the excise tax on oil products, as well as from a package of measures to fight tax evasion. These measures are meant to be particularly effective in 2007 when higher tax revenues should compensate for the 0.6% of GDP of one-off revenues included in the 2006 Budget Law (see Box 3). After discounting the effects of such one-offs in 2006, other revenues, which include EU grants, would remain constant at slightly above 4% of GDP over the programme period.

On the expenditure side, total outlays are envisaged to decrease by 1¾% of GDP to reach 43¾% of GDP in 2008, with interest expenditure falling by slightly more than ½% of GDP. Consequently, primary expenditure is expected to decrease by around 1pp of GDP between 2005 and 2008. Transfers other than in kind (notably pensions) and subsidies are projected to rise by 0.8% of GDP, partially offsetting the 2% of GDP planned savings in public consumption (1.3% of GDP) and other expenditures (0.6% of GDP). After declining by 1% of GDP in 2005, due to the finalisation of investment projects within the framework of the organisation of the Olympic Games, gross fixed capital formation is projected to remain broadly constant, just above 3% of GDP over the programme period.

As regards 2006, the year in which the bulk of the fiscal adjustment is expected to take place, the Budget Law envisages a significant contribution of revenues to the reduction of the deficit. One percent of GDP, out of the total 1.7% adjustment in 2006, is projected to come from an increase in revenues. However, only 40% of such additional revenues are considered to be of a permanent nature. Taxes and social contributions are expected to increase by 0.4 % of GDP thanks to legislative measures aiming at improving tax administration, fighting against tax evasion and broadening the tax bases. Additional revenues are also associated with the effects of the package of permanent measures implemented on 1 April 2005. The rest of the additional revenues, up to 0.6% of GDP, are expected to come from temporary revenues linked to one-off operations (see Box 3). Eurostat has not yet decided if such measures should be classified as deficit reducing[9]. Expenditure savings in the 2006 Budget law amount to 0.8% of GDP, half of which is attributable to lower interest expenditure. Gross fixed capital formation is projected to remain unchanged at 3.1% of GDP. The largest reduction in primary expenditure stems from government consumption (0.4% of GDP) which, together with a reduction in other expenditure (0.3% of GDP), largely offset an increase in transfers other than in kind (including pensions) and subsidies (0.3% of GDP). Savings on the wage bill as well as on operational expenditure should lower government consumption expenditure. Lower interest expenditure is the outcome of maturing debt being rolled over at lower rates, the reduction in public debt and, a prudent public debt management strategy. Overall, 60% of the reduction in current spending is projected to come from lower interest payments, while primary spending is projected to fall by 0.3% of GDP in 2006 compared with 2005.

Box 3: The budget for 2006

The draft budget for 2006 was presented on 21 November 2005 and was approved by Parliament on 22 December 2005. The 2006 budget targets a general government deficit of 2.6% of GDP in 2006.

On the revenue side, the main measures consist of:

[9] There is a risk that temporary measures for 2006 with an impact of 0.3% or 0.4% of GDP could not be considered as government revenue.

1) Temporary measures amounting to 0.6% of GDP. These include: (i) Dividends (0.3% of GDP); (ii) Sale and extension of concession rights (0.24% of GDP); and (iii) Payments by the Hellenic Telecommunications and Post Commission revenues from fines and licenses (0.06% of GDP).

2) Fighting against tax evasion, encompassing, cross-checking of invoices by the General Secretariat of Information Systems, targeted audits, and a campaign against tax evasion, aiming at raising the general public's awareness of the consequences of these practices.

3) A reform in property taxation, consisting of increases of the legal values of properties, which are the tax base for taxes on property transfers. In addition, a 19% VAT rate has been introduced on transfers of new constructions.

4) A rise in excise taxes on fuel by 5%, which is estimated to bring some €140 million in 2006. This is projected to be followed by a further adjustment bringing the total increase of the excise taxes on fuel to about 20% by the end of 2009 in order to comply with the EU directive 2003/96/EC on minimum levels of excise tax rates on fuel across the EU.

5) A package of measures, announced on March 2005 and in force since 1 April including a 1% increase in VAT rates.

On the expenditure side the main measures consist of:

1) Measures to restraint both the wage bill and operational expenditures.

2) Refunding to pensioners of past contributions on behalf of the Solidarity Account of Social Security Funds (0.08% of GDP), which would not be recurring expenditure.

3) Elections for local government (0.03% of GDP).

4) A new framework for Public Enterprises and Entities (DEKO) aiming to rationalise public spending and increase the efficiency of resource allocation. It is expected to yield saving in subsidies and transfers to these enterprises.

5) New legislation regarding Public Private Partnership which is expected to facilitate investment in small as well as large scale infrastructure projects without putting pressure on the Budget.

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

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

The update clearly identifies its MTO as a balanced general government budget in structural terms, i.e. cyclically-adjusted, net of one off and other temporary measures, which is not expected to be achieved by the end of the programme period. Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, the structural balance is projected to improve from -4.8% of GDP in 2005 to -2.4% of GDP in 2008, thus providing for a reduction of on average around 0.6 % of GDP per year. The consolidation effort is frontloaded, with the structural balance expected to decline by more than 1% of GDP in 2006. Over the remaining years the correction is unevenly distributed. The correction is also significant in 2007 (almost 1% of GDP), when one-off revenues of 0.6% of GDP planned for 2006 would be replaced by permanent measures. However, the adjustment at the end of the programme period falls short of the minimum 0.5% of GDP against a background of high growth and a large positive output gap

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

% of GDP	2004		2005		2006		2007		2008	Change: 2008-2005
	COM	SP[1]	COM	SP[1]	COM	SP[1]	COM	SP[1]	SP[1]	SP[1]
Gen. gov't balance	-6.6	-6.6	-3.7	-4.3	-3.8	-2.6	-3.8	-2.3	-1.7	-2.6
One-offs[2]			0.8			0.6				-
Output gap[3]	2.0	1.4	2.0	1.1	2.0	1.1	2.2	1.1	1.5	-
CAB[4]	-7.5	-7.2	-4.5	-4.8	-4.6	-3.1	-4.8	-2.8	-2.4	-2.4
change in CAB	-1.5	-1.3	3.0	2.4	-0.1	1.7	-0.2	0.3	0.4	-
CAPB[4]	-1.8	-1.5	0.8	0.4	0.4	1.7	0.0	1.9	2.1	1.7
Structural balance[5]	-7.5	-7.2	-5.3	-4.8	-4.6	-3.7	-4.8	-2.8	-2.4	-2.4
change in struct. bal.	-1.5	-1.3	2.2	2.4	0.7	1.1	-0.2	0.9	0.4	-
Struct. prim. bal.[6]	-1.8	-1.5	0.0	0.4	0.4	1.1	0.0	1.9	2.1	1.7

Notes:
[1]Output gaps and cyclical adjustment according to the stability programme (SP) as recalculated by Commission services on the basis of the information in the programme
[2]One-off and other temporary measures
[3]In percent of potential GDP. See Table 1 above.
[4]CAB = cyclically-adjusted balance; CAPB = cyclically-adjusted primary balance. COM figures exclude UMTS receipts of x.x% of GDP in Year.
[5]CAB excluding one-off and other temporary measures
[6]Structural primary balance = CAPB excluding one-off and other temporary measures

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

3.3. Assessment

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

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

As programme's MTO is more demanding than the minimum benchmark (estimated at a deficit of around 1¼ % of GDP) its achievement should fulfil the aim of providing a safety margin, against the occurrence of and excessive deficit.

The programme's MTO is at an appropriate level as it lies within the range indicated for euro area and ERM II Member States in the Stability and Growth Pact and the code of conduct and adequately reflects the debt ratio and average potential output growth in the long term.

3.3.2. Risks attached to the budgetary targets

The macroeconomic scenario of the update over the period 2006-2008 appears favourable, mainly reflecting optimistic assumptions about private consumption and investments. The favourable macroeconomic scenario is reflected in the budgetary projections of the update, especially in 2006.

The expected budgetary outturn for 2005 seems broadly plausible. However, the current 2005 deficit estimate of 4.3% of GDP might be increased by 0.3 percentage point of GDP corresponding to the one-off reimbursement of grants received in the past from the European Regional Development Fund. In addition, according to the Eurostat press release of 26 September 2005, there are still some pending issues to be settled with Greece regarding the accounts of social security funds for the years 2002-2004. Surpluses of the social security funds might have been overestimated. As a consequence, the government deficit figures for 2004 and earlier years might have to be revised upwards, which could trigger corresponding upward revisions of the planned deficit for 2005 and beyond. If they turned out to be significant, this new wave of statistical revisions would add to those already carried out since the March 2005 revised update of the stability programme (0.5% of GDP), and would put at risk compliance with the Council recommendations in accordance to Article 104(9).

Based on past experience, risks of expenditure overruns over the programme period can not be excluded, although steps are been taken towards a more efficient expenditure management system, focusing on spending lines, effective audit and accounting controls and transparency. In particular, in order to strengthen fiscal management, the Greek authorities have established task forces to examine the recommendation of the IMF technical assistance mission on expenditure management and tax administration. In addition they set up internal audit services in the ministries, the local authorities and public entities. However, it is very early to assess the effectiveness of these new initiatives[10]. In addition, the parliamentary elections of 2008 might result in expenditure overruns in 2007 and 2008, while the measures underlying the adjustment in the latter year are not outlined in the programme.

There are also risks on the revenue side. Specifically in 2006, around half of the announced one-off measures for this year, amounting to around 0.3% of GDP, might not be classified by Eurostat as deficit reducing, which, according to the programme, would bring the general government deficit close to the 3% of GDP reference value in that year. In addition, revenue shortfalls might materialise if the announced measures to fight tax evasion and tax fraud would turn out ineffective.

[10] Provisional data on cash basis for 2005 (see section 3.1 above) does not provide evidence on the effectiveness of these efforts to control expenditures and, especially, current spending in the most recent past.

According to Table 6, the tax intensity assumed in the update is broadly in line with the Commission services' autumn 2005 forecasts. However, in 2007 the update's assumption on tax intensity is much higher than in the Commission services autumn 2005 forecast, which was based on the no-change policy assumption. The higher tax intensity in the update is mainly due to a higher elasticity component assumed for indirect taxes. This difference reflects the estimated impact of discretionary revenue measures announced in the update which was not taken on board in the Commission services' autumn 2005. The assumed tax elasticities in the update therefore do not seem to constitute a significant risk for budgetary projections for 2007.

Overall, risks associated to the budgetary projections in the programme appear to be on the negative side. There are risks associated with the favourable macroeconomic scenario and information on measures envisaged at the end of the programme is lacking. Moreover, there are still some pending statistical issues with Eurostat (mainly overestimation of surpluses of social security funds) which might lead to a significant upward revision of deficit figures until 2005, with carry-over effects in 2006 and beyond, while the one-offs planned for 2006 are still pending of Eurostat's classification as deficit-reducing.

Table 6: Assessment of tax projections

	2006		**2007**		**2008**	**p.m.:**
	COM	**SP**	**COM**[2]	**SP**	**SP**	**OECD**[1]
Total taxes Change in tax-to-GDP ratio	0.3	0.4	0.0	0.4	0.0	/
Difference	0.1		0.4		/	/
of which[3]*: - elasticity component*	0.3		0.4		/	/
- composition component	-0.2		0.0		/	/
p.m.: Observed elasticity to GDP	1.1	1.2	1.0	1.2	1.0	1.07

Notes:
[1]OECD ex-ante elasticity relative to GDP
[2]On a no-policy change basis
[3]The decomposition is explained in Annex 4
Source:
Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

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

Taking account of the balance of risks to the budgetary targets, Greece appears broadly on track to correct its excessive deficit by the 2006 deadline set by the Council. This conclusion, however, needs to be qualified in the light of the risk, discussed above, of further upwards statistical revision of the deficit. In terms of fiscal effort, however, the actions taken and planned by the Greek authorities appear consistent with the recommendations given by the Council in its notice under Article 104(9). Specifically, the planned fiscal effort in 2005, as measured by the change in the structural balance, would amount to around 2 % of GDP, which is consistent with the fiscal effort corresponding to a rigorous implementation of the budget as projected in the Commission services' autumn 2004 forecasts, in line with the Council notice to Greece of 17 February. Where the correction for 2006 is concerned, the Commission services' autumn 2005 forecasts, on the basis of the limited information provided in the report submitted by the Greek authorities of 31 October[11], projected a fiscal adjustment net of one-offs close to 0.6% of GDP, thus broadly consistent with the Council recommendations. Such projections were based on an earlier version of the 2006 draft budget available at the cut-off date of the Commission services' forecast. The 2006 Budget Law approved by Parliament introduced additional measures, which might increase the fiscal effort by around 0.2% of GDP and bring the general government deficit down to around 3% of GDP, which compares with the 2.6% of GDP target in the budget law. A lower growth projection (3.4% compared with 3.8%) and a more prudent assessment of certain tax revenues explain the difference between the Commission services and the target in the update. In addition, since the 2006 Budget Law includes 0.6% of GDP of temporary revenues from one-off measures, the deficit is not brought below the 3% of GDP threshold on a permanent basis. The fact that such temporary revenues have not been yet classified by Eurostat as deficit reducing adds to the risks associated with the macroeconomic scenario and the tax projections. In addition, the settlement of the still pending statistical issues might lead to a significant upward revision of the deficit figures in the years up until and including 2004 with substantial carry-over effects in 2005 and beyond. The additional measures required to compensate such a carry-over effects may imply a nominal adjustment of more than 2% of GDP to bring the deficit below the 3% of GDP reference value.

An overall assessment of the macroeconomic prospects, in particular taking into account the strength of real GDP growth, the positive output gap and the employment outlook, supports the conclusion that the projected economic conditions can be characterised as "good times". This conclusion is not materially modified by taking into account tax elasticities which, at least in the period covered by the Commission services' autumn 2005 forecast appear close to normal values (see Table 7). The cyclical conditions in Greece over the programme period can be qualified as 'good times' as defined in the revised Stability and Growth Pact (SGP). Hence, the planned annual structural adjustment towards the MTO should be higher than the benchmark of 0.5% of GDP in the years following the correction of the excessive deficit. Taking the programme figures at face value, an additional effort justified by economic 'good times' is planned in 2007 but not in 2008, when the cyclically-adjusted budget balance is still expected to be well above the safety margin against breaching the 3% of GDP threshold for the deficit with normal cyclical fluctuations. However, in view of the risks associated with budgetary targets in 2007, the structural adjustment may turn out lower than expected. Therefore, not only is the MTO not reached and the safety margin not provided with the programme period, but also the fiscal adjustment may fall short of the requirements of the SGP toward the end of the programme.

The budgetary strategy outlined in the programme is broadly consistent with the broad economic policy guidelines in the area of public finance, although the achievement of the annual 0.5% of GDP minimum adjustment towards the MTO, as highlighted above, is subject to some risks.

[11] Required by the Council notice in accordance to Article 104(9).

Table 7: Assessment of tax elasticities

	2006		2007	
	COM (observed)	**ex-ante**[1]	**COM**[2] **(observed)**	**ex-ante**[1]
Total taxes Change in tax-to-GDP ratio	0.3	0.2	0.0	0.2
Difference	0.2		-0.2	
of which[3]*: - elasticity component*	0.0		-0.2	
- composition component	0.2		0.0	
p.m.: Elasticity to GDP	1.1	1.1	1.0	1.1

Notes:
[1]Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD
[2]On a no-policy change basis
[3]The decomposition is explained in Annex 4

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

3.4. Sensitivity analysis

The programme includes a lower GDP growth scenario to assess the budgetary impact of slower activity in the euro area, which, in turn, via a lower contribution of the external sector would result in almost ½ percentage point less real GDP growth from 2006 onwards. The low-growth scenario is in line with the Commission services' autumn 2005 forecast for 2006 and 2007. According to the programme, a lower GDP growth rate could reduce the nominal growth of total revenues by 0.6-0.7 percentage points which would partially be compensated by undisclosed expenditure cuts leading to a general government deficit still below the 3% of GDP reference value in 2006 (2.7% of GDP) and 2007 (2.5% of GDP). This compares with a deficit projection of around 3% of GDP obtained on the basis of the Commission services' autumn 2005 forecasts, assuming GDP growth at 3.4%.

Commission services' simulations of the cyclically-adjusted balance under the assumptions of (i) a sustained 0.5 percentage point deviation from the real GDP growth projections in the programme over the 2005-2008 period; (ii) trend output based on the HP-filter[12] and (iii) no policy response (notably, the expenditure level is as in the central scenario[13]), reveal that, by 2008, the cyclically-adjusted balance is 0.6 percentage point of GDP below the central scenario. Hence, in the case of persistently lower real growth, additional measures of around 0.6 percentage point of GDP would be necessary to keep the public finances on the path targeted in the central scenario.[14] Taking into account the conclusions reached in Section 2 above, namely that the risks to the macroeconomic scenario of the programme are mainly to the downside, and considering that the Commission services' own growth projections are more in line with the simulated low

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

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

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

growth scenario, the achievement of the budgetary targets in the update would require a significantly greater fiscal effort than envisaged in the programme.

4. General government gross debt

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

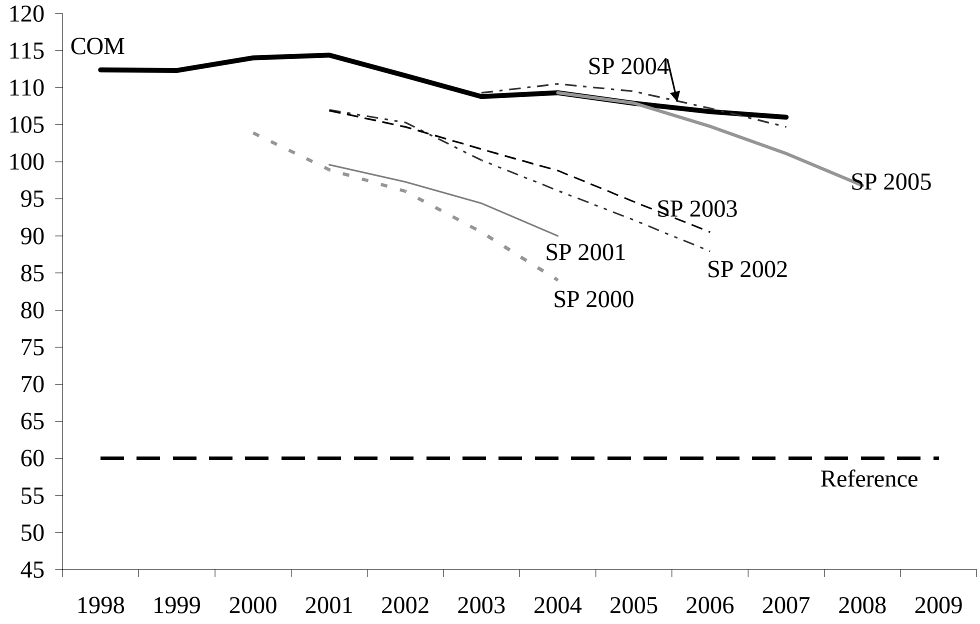
4.1. Debt developments in the programme

Table 8 describes the evolution of the debt ratio and its determinants. According to the programme, the debt ratio would fall by more than 10 percentage points of GDP between 2005 and 2008, thus still remaining well above the 60% of GDP reference value by the end of the programme period. In particular, the debt ratio is projected to decline from 108% of GDP in 2005 to 104¾% in 2006 and then 97% in 2008.

At 108% of GDP the estimated outcome for 2005 is lower than the figure of 109½% indicated in the March 2005 update. The difference is mainly due to a higher contribution of the “snow-ball” effect (significantly higher growth and somewhat lower interest rate) and to higher privatisation proceeds. From 2006 onwards, the combined effect of increasing primary surpluses and nominal GDP growth as well as privatisation proceeds (available only for 2005 and 2006) would be the main driving forces behind the projected path of debt-reduction. In addition, an integrated and prudent strategy aiming at improving the efficiency of public debt management should also contribute to a more rapid fall of the debt ratio via lower interest payments. However, a faster pace of debt reduction is still hampered by significant debt-increasing stock-flow adjustments (SFA), which, while declining compared to 2005, are expected to remain significant in spite of planned privatisation proceeds. The programme does not provide details on the composition of the projected SFA over 2005-2008.

Like for the budget balance, debt targets in the various updates have also been persistently missed. For instance, according to the update presented in 2001, the debt ratio should have been close to 90% of GDP by 2004. However, according to the 2005 update, the actual outturn will be 20 percentage points higher. Statistical revisions of the debt carried out until September 2005 are only a very partial explanation for such systematic divergences, which are rather due to the effect of the downward revision of the primary surplus from one update to the following, the impact of lower nominal growth and last, but not least, the effects of significant below-the-line financial operations not included in the medium-term projections of previous updates.

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



<u>Source</u> : Commission services' autumn 2005 forecast (COM) and successive stability programmes

Table 8: Debt dynamics

	average 2000-2004	2005		2006		2007		2008
	COM	COM	SP	COM	SP	COM	SP	SP
Government gross debt ratio	**111.6**	**107.9**	**107.9**	**106.8**	**104.8**	**106.0**	**101.1**	**96.8**
Change in debt ratio (1 = 2+3+4)	-0.6	-1.4	-1.4	-1.1	-3.1	-0.8	-3.7	-4.3
Contributions:								
- **Primary balance** (2)	**-1.1**	**-1.5**	**-0.9**	**-1.1**	**-2.2**	**-0.6**	**-2.4**	**-2.8**
- **“Snow-ball” effect** (3)	**-1.9**	**-2.2**	**-2.6**	**-1.9**	**-2.7**	**-2.1**	**-2.2**	**-2.2**
- Interest expenditure	6.6	5.2	5.2	4.9	4.8	4.5	4.7	4.5
- Real GDP growth	-4.6	-3.5	-3.7	-3.5	-3.8	-3.4	-3.7	-3.8
- Inflation (GDP deflator)	-3.9	-3.9	-4.2	-3.3	-3.6	-3.2	-3.2	-2.9
- **Stock-flow adjustment** (4)	**2.4**	**2.3**	**2.1**	**1.8**	**1.8**	**2.0**	**0.9**	**0.7**
- Cash/accruals	0.9							
- Accumulation of financial	0.9							
assets	-0.7	-1.2	-1.2	-0.9	-0.8	0.0	0.0	0.0
of which: Privatisation proceeds	0.6							
- Valuation effects & residual adj.								

<u>Note</u>:
The change in the gross debt ratio can be decomposed as follows:

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

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

<u>Source</u>:
Stability programme update (SP); Commission services’ autumn 2005 economic forecasts (COM); Commission services’ calculations

4.2. Assessment

Compared with the Commission services' autumn 2005 forecasts, debt developments in the programme appear somewhat optimistic. Specifically, the higher deficit projection and lower nominal growth featured in the autumn forecast imply a slower reduction of the debt ratio compared with the update. As mentioned before, the Commission services' autumn 2005 forecasts did not include the additional one-off revenue-increasing measures of 0.6% of GDP which have been incorporated in the update's projection for 2006. Assuming that such measures are deficit or debt-reducing, the reduction in the debt would be greater but its level would still be somewhat higher than in the programme.

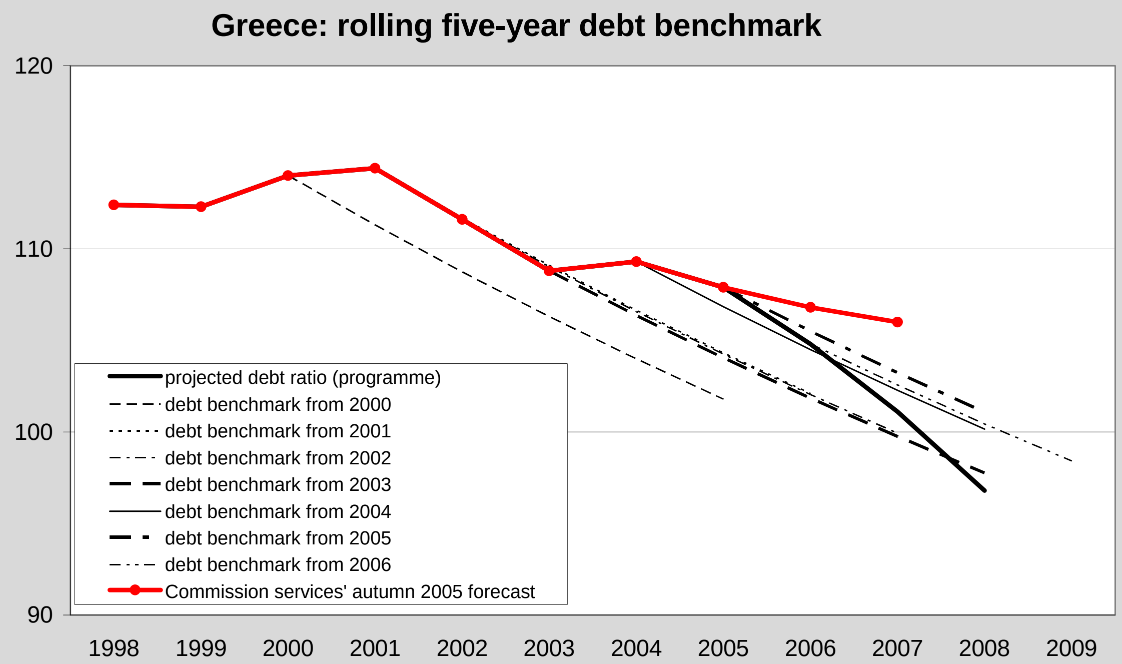
Overall, it can be concluded that if these debt projections are taken at face value the debt ratio is sufficiently diminishing (see Box 4) but the projected path is conditional on favourable growth projections and, on account of associated risks, to ambitious deficit targets. Moreover, significant stock-flow adjustments, albeit diminishing towards the end of the programme, indicate that Greek authorities have not fully controlled factors other than net borrowing, which contribute to the changes in the debt level, as requested by the Council notice to Greece according to Article 104(9).

Box 4: The rolling debt reduction benchmark

The debt ratio has been exceeding the 60% of GDP reference value since the presentation of the first stability programme in 1998.

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 2005 forecasts until 2007 (which are based 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" (see Annex 5). 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 2005 is compared with the value obtained for the same year by applying the formula starting in 2000. 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 stronger than implied by the five-year rolling debt reduction benchmark. This implies that the debt ratio is sufficiently diminishing if budgetary plans are fully implemented



Source: Stability programme and Commission services

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

The update provides an overview of the quality of public finances and recent structural policies being pursued to stimulate economic growth in the long run.

According to the update, expenditure restraint is putting a brake on primary expenditure, which should grow below nominal GDP for the first time in the recent past. The nominal growth rate of primary expenditure in 2005 was the lowest since 2000. On the revenue side, the update emphasises the efforts to reverse the recent downward trend in revenue collection, and gradually returning to the much higher tax elasticities with respect to the GDP that prevailed in the past. To this end, the update refers to a series of measures aiming at fighting against tax evasion and tax fraud, especially, but not only, in VAT and other indirect taxes.

The update also briefly outlines reforms already initiated or planned with clear budgetary implications, namely (i) a tax reform which reduces the corporate tax rate to 25% by 2007 (from 35% in 2005) and a gradual reduction of personal income tax rates starting in 2007; (ii) the setting up of internal auditing services in the ministries, the local authorities and public entities in order to improve the fiscal auditing system and better control expenditures; (iii) the launching of the General Secretariat of Information Systems aiming at fighting against tax evasion; (iv) a new framework for the operation of public enterprises (DEKO), aiming at improving efficiency and at reducing drastically the recourse to public funding; (v) a major reform in property taxation, including the introduction of VAT on new buildings and increases on the official bases of taxes on property transfers; (vi) the establishment of a legal framework for public-private partnerships; (vii) the acceleration of privatisation. The government is also determined to push forward a new privatisation package with the aim of not only reducing debt but also enhancing competition in markets as well as a new and improved investment incentives law. In the area of long-term sustainability of public finances, the update refers to the following reforms: (i) the pension reform in the banking sector; (ii) the rationalisation of the healthcare expenditure by the introduction of the information system “IASYS”, which will contribute towards a more efficient use of resources and (iii) the application of the Public Private Partnership (PPP) in the area of health care;

Although ambitious, the aforementioned reforms identify and respond to the main challenges Greece is facing in the field of public finances. However, given the sharp deterioration of the dependency ratio and the large budgetary impact of ageing, the slow progress on pension reform is a particular concern. Actions to tackle important challenges for the pension system, such as early retirement, the system’s fragmentation, the reform of the pay-as-you go system, are postponed to a future social agreement, with an imprecise calendar.

The envisaged measures outlined above are consistent with the broad economic policy guidelines in the area of public finances, although pension reform would deserve greater attention.

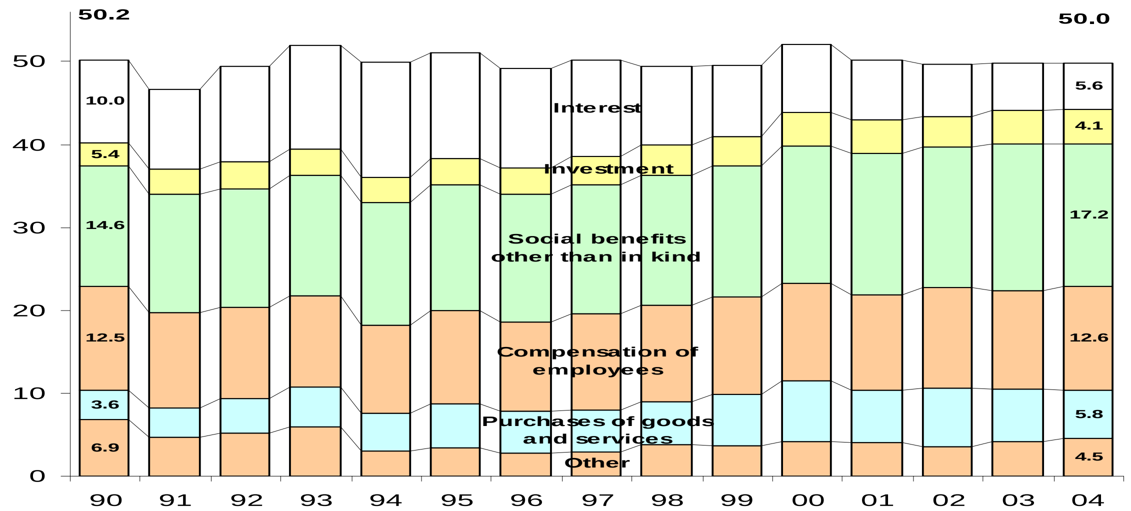
The National Reform Programme of Greece, submitted on 15 October 2005, identifies the following challenges: (i) to restore fiscal balance and ensure the long-term sustainability of public finances; (ii) to increase productivity; (iii) to improve the business environment; and (iv) to increase employment, reduce unemployment and improve the effectiveness of the educational, training and re-training systems. The budgetary implications of the actions outlined in the National Reform Programme are fully reflected in the budgetary projections of the stability programme, except for the securitisation of tax arrears which is not taken on board in the stability programme. The measures in the area of public finances envisaged in the update are in line with actions foreseen in the National Reform Programme

The Council in its notice in accordance with Article 104(9), requested Greece to improve the collection and processing of general government data. According to the update, the restructuring of the National Statistical Services of Greece (NSSG) is under way. No further details are given on measures taken to improve the collection and processing of general government data. According to the Eurostat press release of 26 September 2005, there are still some pending issues to be settled with Greece regarding the accounts of social security institutions and other items (other receivables and payables) for the years 2002-2004. Therefore, the government deficit figures for 2004 and earlier years may have to be revised upwards. A clarification of these issues allowing Eurostat to withdraw its reservations is being actively sought in the ongoing discussions with the National Statistical Service of Greece (NSSG). Compared with previous notifications, such pending issues seem to be better identified. In addition, a number of statistical revisions have been carried out at the initiative of the Greek authorities, within a framework of close cooperation with Eurostat. Nevertheless, the existence of such pending issues indicates that further efforts appear necessary with a view to improve the mechanisms that ensure the prompt and correct supply of the General Government data.

Box 5: The level and composition of government expenditure in Greece since 1990

Over the last 15 years, public expenditures have recorded significant changes both in terms of size and of composition. In 1990, total expenditures amounted to about 50% of GDP, just 1percentage point below the expenditure ratio of the euro area. Fifteen years latter, while expenditures in Greece remained broadly stable in terms of GDP, they actually decreased in the euro area to below 49% of GDP.

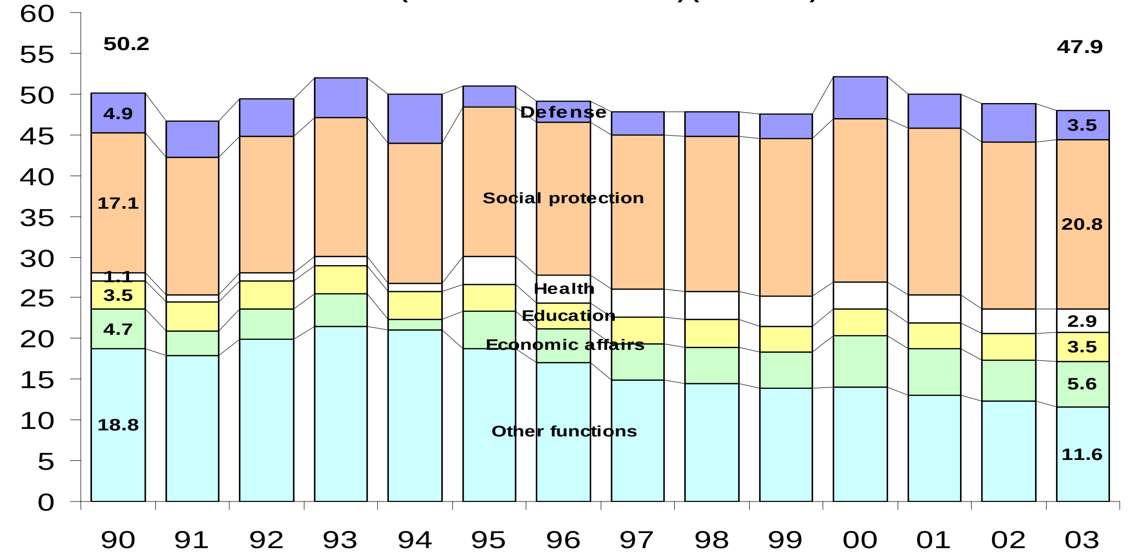
Figure 1 : The evolution of government expenditure (economic classification) (% of GDP)



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

Such a relative stability of expenditures as a percentage of GDP conceals a radically different behaviour of primary current expenditure. While interest payments have fallen by almost 4½pp of GDP, from 10% of GDP in 1990 to 5½% in 2004, and, albeit to a much lesser extent, investment also fell (by 1pp of GDP), the weight of current primary expenditures in the GDP has increased by more than 5pp. This contrasts with developments recorded in most euro-area countries, where current expenditures stabilised or slightly fell from the peak reached in the mid-1990s.

Figure 2 : The evolution of government primary expenditure (functional classification) (% of GDP)



Note: "Other functions" include general services, environment, culture, public order and housing.
Source : Commission services

This increase in current expenditures was mainly concentrated on social benefits to households, which increased by 2½% of GDP, and purchases of goods and services (by 2¼pp of GDP). Although the decline recorded in public investment (by 1¼pp) is sizeable, at 4% of GDP in 2004, remain above the government investment ratio in the euro area (2½% of GDP).

The increase in primary expenditure is closely associated with the development of the welfare state in Greece, especially to the rising number of beneficiaries and more generous entitlements (Figure 2). Expenditure on social protection (which includes unemployment benefits, old-age and survivor pensions, family allowance and social assistance) increased by almost 3.7 percentage points of GDP to reach 20¾% of GDP in 2003. This is slightly higher than in the euro area (19½% of GDP). Spending in health has also been very dynamic (1¾pp of GDP). However, the level of such expenditures in Greece (below 3% of GDP) is much lower than in the euro area (more than 6% of GDP). Military expenditure fell by 1.4 percentage points, to 3.5% in 2003, thought it is still significantly higher than in the euro area (around 1.5% of GDP in 2002). Expenditure in education remained at low levels (3.5% of GDP) and well below to euro-area average of 5% of GDP.

6. THE SUSTAINABILITY OF THE PUBLIC FINANCES

The assessment of the sustainability of the Greek public finances is based on an overall judgement of the results of quantitative indicators and qualitative features. The debt projections and sustainability indicators are calculated according to two different scenarios, to take into account different budgetary developments over the medium term. The "programme" scenario assumes that the medium-term budgetary plans set up in the programme are actually achieved. The "2005" scenario assumes that the structural primary balance[15] remains unchanged at the 2005 level throughout the programme period.

15 The primary balance where the effect of the cycle and any one-off or temporary measures have been netted out.

The updated stability programme of Greece does not contain long-term projections of age-related expenditures. The Commission services have therefore used the long-term projections from last year's assessment in the analysis, namely: long-term projections of spending on pension and health-care from the 2004 update; and, long-term projections of spending on education and unemployment benefits from the Economic Policy Committee's (EPC) report from 2003[16]. Tax revenues and non-age related expenditures have been kept constant throughout the projection period. On the basis of this information, age-related expenditure is foreseen to increase significantly by 11.6% of GDP between 2008 and 2050, to which the pension expenditures contribute most by an increase of 10.3% of GDP (see Table A2 in the Annex).

The gross debt-to-GDP ratio is significantly above the reference value of 60% of GDP, at 109.3% of GDP in 2004. It is projected to rise considerably over the projection period up to 2050, reflecting the high structural deficit and the strong rise in age-related expenditures over the long-term (see Table A4 in the Annex)[17].

According to both sustainability indicators (the S1 and S2), a high sustainability gap arises in Greece, to which both the weak initial budgetary position, notably in the '2005' scenario, and in particular the adverse future budgetary impact of ageing contribute. The need to consolidate the budgetary position is therefore a priority. While budgetary consolidation is planned over the medium-term, this 'programme' scenario is insufficient to contributing significantly to offsetting the considerable future deterioration in the budgetary position.

The sustainability gap, as measured by the S2 indicator, translates into a required primary balance (RPB) of slightly more than 9% of GDP, significantly higher than the structural primary balance of about 2% of GDP in the last year of the programme period. This required substantial strengthening of the budgetary position, as suggested by the RPB indicator, appears very difficult to achieve.

Moreover, the sustainability gap, as measured by the S2 indicator, would increase by about ¾% of GDP if the (budgetary or structural) adjustment was to be postponed by 5 years, highlighting that savings can be made over time if action is taken sooner rather than later. (See Table A3 in the Annex).

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

According to the update, the government aims to apply a combination of measures to increase the participation rate in the labour market and the rate of employment in order to tackle current ageing budgetary pressures. Although this would contribute to a better performance of the labour market and the economy, additional measures might be required to ensure progress towards more sustainable public finances.

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[16] The Commission's analysis is based on the set of government expenditure items covered by the common projections carried out by the Economic Policy Committee (i.e. government expenditure on pension, health-care, long-term care, education and unemployment benefits), with the exception of projections of expenditure on long-term care, which were not available for Greece.

[17] It should be recalled that, being a mechanical, partial equilibrium analysis, projections are in some cases bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be seen as a forecast.

Table 9: Sustainability indicators and the required primary balance

	Sustainability indicators and RPB							
	2005 Scenario				Programme scenario			
	S1	S2		RPB	S1	S2		RPB
Value (of which)	**6.2**	**8.9**		**9.2**	**4.6**	**7.3**		**9.1**
initial budgetary position	*0.8*	*1.2*			*-0.8*	*-0.5*		
debt requirement in 2050	*0.6*	*:*			*0.6*	*:*		
future changes in budgetary position	*4.8*	*7.8*			*4.8*	*7.8*		

Note: The S1 indicator shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP required to reach a debt ratio in 2050 of 60% of GDP and the current revenue ratio. The S2 indicator, which shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP that guarantees the respect of the inter-temporal budget constraint of the government, i.e. that equates the actualized flow of revenues and expenses over an infinite horizon, and the current revenue ratio[18]. The Required Primary Balance (RPB) measures the average primary balance over the first five years of the projection period that results from a permanent budgetary adjustment carried out to comply fully with the inter-temporal budget constraint. See European Commission (2005), European Economy, ‘Public finances in EMU – 2005, Section II.3 for a further description.

The pension system in Greece is still characterised by a high degree of legal and organizational fragmentation which has resulted in uneven pension entitlements, benefits and contributions. The system is one of the most generous in EU, due to high replacement rates and easy eligibility criteria for early retirement. At the same time the dependency ratio is increasing while the participation rate in particular for women is one of the lowest in EU despite of measures recently undertaken to promote active labour market operations.

Actions to tackle important challenges for the pension system, such as early retirement, the system’s fragmentation, the reform of the pay-as-you go system, are postponed to a future social agreement, with an imprecise calendar. In particular, a social dialogue process has already been launched which will be based on the results of new actuarial studies (which still are underway), and will be concluded by a mandate for the next government to implement the next steps. Although the programme reports progress on auxiliary pensions in the banking sector through the continuation and application of the general principles provided by the relevant legislation, it is still uncertain if the same or similar measures are foreseen to other economic activities and, if so, when they would be implemented. The implementation of the Law 3029/02 which provides as well for the establishment of a second pillar in the Greek pension system by the creation of fully funded auxiliary funds labelled as occupational funds and acting as private entities has started on a slow pace with only three funds created up to now. Moreover, incentives have been provided for the prolongation of working life beyond the statutory limit of 35 years. However, there is not yet clear evidence as to the effectiveness of this measure.

6.1. Overall assessment

With regard to the sustainability of public finances, Greece appears to be at high risk on grounds of the projected budgetary costs of ageing populations. The gross debt-to-GDP ratio is currently very high, above 100%, and is projected to remain at very high levels

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

throughout the projection period up to 2050. It is therefore necessary to implement rigorously the planned consolidation of public finances over the medium-term and to further strengthen the budgetary position in order to reduce risks to public finance sustainability. At the same time, the projected high increase of government expenditure, notably on pensions, over the projection period is expected to put a significant burden on the public finances. To this end, resolutely implementing measures enacted and designing and carrying out additional structural reforms, notably on pensions, are necessary so as to contain the considerable increase in age-related expenditures in view of reducing the risks to public finance sustainability.

* * *

Annex 1: Summary tables from the stability programme update

Table 1a. Macroeconomic prospects

	ESA Code	2004	2004	2005	2006	2007	2008
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	112631	4.7	3.6	3.8	3.8	4.0
2. Nominal GDP	B1*g	167169	8.4	7.7	7.4	7.1	7.1
Components of real GDP							
3. Private consumption expenditure	P.3	77189	4.4	3.2	3.2	3.2	3.3
4. Government consumption expenditure	P.3	16314	3.9	2.5	1.2	1.1	0.7
5. Gross fixed capital formation	P.51	30884	5.7	1.0	5.4	6.5	6.8
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	130	0.1	0.0	0.0	0.0	0.0
7. Exports of goods and services	P.6	25446	11.5	5.0	6.8	7.3	7.5
8. Imports of goods and services	P.7	37332	9.3	0.7	4.9	6.0	6.1
Contributions to real GDP growth							
9. Final domestic demand		-	5.13	2.83	3.80	4.07	4.22
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	0.05	-0.13	0.02	-0.04	-0.01
11. External balance of goods and services	B.11	-	-0.51	0.90	-0.02	-0.23	-0.20

	ESA Code	2004	2004	2005	2006	2007	2008
		level	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		1.484	3.6	4.0	3.5	3.1	2.9
2. Private consumption deflator		1.438	2.9	3.5	3.2	3.0	2.7
3. HICP[19]			3.0	3.5	3.2	3.0	2.7
4. Public consumption deflator		1.703	5.0	3.3	3.3	3.3	3.3
5. Investment deflator		1.373	2.1	3.5	2.8	2.4	2.2
6. Export price deflator (goods and services)		1.379	3.4	3.3	2.9	2.6	2.4
7. Import price deflator (goods and services)		1.318	1.1	2.1	1.4	1.0	1.0

Table 1b. Price developments

19 Optional for Stability programmes.

Table 1c. Labour market developments

	ESA Code	2004	2004	2005	2006	2007	2008
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[20]		4093.4	2.9	1.4	1.4	1.6	1.7
2. Employment, hours worked[21]		8432.5	1.6	1.5	1.5	1.6	1.7
3. Unemployment rate (%)[22]		-	11.0	10.4	9.8	8.9	8.0
4. Labour productivity, persons [23]		-	1.7	2.2	2.4	2.2	2.3
5. Labour productivity, hours worked[24]		-	3.1	2.1	2.2	2.2	2.3
6. Compensation of employees	D.1	57591	12.9	7.7	7.2	7.2	6.9

Table 1d. Sectoral balances

% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-6.5	-4.9	-4.0	-3.9	-3.4
of which: - Balance on goods and services		-8.4	-6.9	-6.2	-5.6	-5.0
- Balance of primary incomes and transfers		0.2	0.4	0.3	0.3	0.3
- Capital account		1.7	1.7	1.8	1.4	1.3
2. Net lending/borrowing of the private sector	B.9/ EDP B.9	0.1	-0.6	-1.4	-1.6	-1.7
3. Net lending/borrowing of general government	B.9	-6.6	-4.3	-2.6	-2.3	-1.7
4. Statistical discrepancy						

[20] Occupied population, domestic concept national accounts definition.
[21] National accounts definition.
[22] Harmonised definition, Eurostat; levels.
[23] Real GDP per person employed.
[24] Real GDP per hour worked.

Table 2. General government budgetary prospects

	ESA code	2004	2004	2005	2006	2007	2008
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
Net lending (EDP B.9) by sub-sector							
1. General government	S.13	-11105	-6.6	-4.3	-2.6	-2.3	-1.7
2. Central government	S.1311	-16298	-9.7	-6.4	-4.8	-4.7	-4.3
3. State government	S.1312						
4. Local government	S.1313	215	0.1	0.1	0.1	0.1	0.1
5. Social security funds	S.1314	4978	3.0	2.0	2.1	2.3	2.4
General government (S13)							
6. Total revenue	TR	69607	41.6	41.1	42.1	42.0	41.9
7. Total expenditure	TE[25]	80507	48.2	45.4	44.7	44.3	43.7
8. Net lending/borrowing	EDP B.9	-11105	-6.6	-4.3	-2.6	-2.3	-1.7
9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	9535	5.7	5.2	4.8	4.7	4.5
pm: 9a. FISIM							
10. Primary balance	[26]	-1570	-0.9	0.9	2.3	2.4	2.8
Selected components of revenue							
11. Total taxes (11=11a+11b+11c)		37913	22.7	22.1	22.4	23.0	22.9
11a. Taxes on production and imports	D.2	23194	13.9	13.2	13.3	13.8	13.9
11b. Current taxes on income, wealth, etc	D.5	14719	8.8	9.0	9.1	9.1	9.0
11c. Capital taxes	D.91	322	0.2	0.2	0.2	0.2	0.2
12. Social contributions	D.61	24467	14.6	14.7	14.9	14.8	14.8
13. Property income	D.4	1930	1.2	1.2	1.5	1.3	1.3
14. Other (14=15-(11+12+13))		4975	3.0	2.9	3.1	2.7	2.7
15=6. Total revenue	TR	69607	41.6	41.1	42.1	42.0	41.9
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[27]			37.3	36.8	37.3	37.8	37.7
Selected components of expenditure							
16. Collective consumption	**P.32**	16569	9.9	9.7	9.5	9.3	9.1
17. Total social transfers	D.62 + D.63	39955	23.9	24.2	24.3	24.3	24.5
17a. Social transfers in kind	P.31=D.63	11220	6.7	6.6	6.4	6.2	6.0
17b. Social transfers other than in kind	D.62	28735	17.2	17.6	17.9	18.1	18.5
18.=9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	9535	5.7	5.2	4.8	4.7	4.5
19. Subsidies	D.3	241	0.1	0.1	0.1	0.1	0.0
20. Gross fixed capital formation	P.51	6853	4.1	3.1	3.1	3.1	3.1
21. Other (21=22-(16+17+18+19+20))		7354	4.5	3.1	2.9	2.8	2.5
22=7. Total expenditure	TE[28]	80507	48.2	45.4	44.7	44.3	43.7
Pm: compensation of employees	D.1						

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

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

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

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

Table 3. General government expenditure by function

% of GDP	COFOG Code	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[29]		

Table 4. General government debt developments

% of GDP		2004	2005	2006	2007	2008
1. Gross debt[30]		109.3	107.9	104.8	101.1	96.8
2. Change in gross debt ratio		0.5	-1.4	-3.1	-3.7	-4.3
3. Primary balance[31]		-0.9	0.9	2.3	2.4	2.8
4. Interest expenditure (incl. FISIM) [32]		5.7	5.2	4.8	4.7	4.5
5. Stock-flow adjustment		2.3	2.2	1.8	0.9	0.7
of which: **- Differences between cash and accruals**[33]						
- Net accumulation of financial assets[34] ***of which:*** ***- privatisation proceeds***						
- Valuation effects and other[35]						
p.m. implicit interest rate on debt[36]		5.6	5.1	4.8	4.8	4.8
Other relevant variables						
6. Liquid financial assets[37]						
7. Net financial debt (7=1-6)						

29 Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.
30 As defined in Regulation 3605/93 (not an ESA concept).
31 Cf. item 10 in Table 2.
32 Cf. item 9 in Table 2.
33 The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.
34 Liquid assets, assets on third countries, government controlled enterprises and the difference between quoted and non-quoted assets could be distinguished when relevant.
35 Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.
36 Proxied by interest expenditure (incl. FISIM recorded as consumption) divided by the debt level of the previous year.
37 AF1, AF2, AF3 (consolidated at market value), AF5 (if quoted in stock exchange; including mutual fund shares).

Table 5. Cyclical developments

% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Real GDP growth (%)		4.7	3.6	3.8	3.8	4.0
2. Net lending of general government	EDP B.9	-6.6	-4.3	-2.6	-2.3	-1.7
3. Interest expenditure (incl. FISIM recorded as consumption)	EDPD.41+ FISIM	5.7	5.2	4.8	4.7	4.5
4. Potential GDP growth (%) (1)		3.8	3.8	3.8	3.8	3.8
contributions: - labour						
5. Output gap		3.1	2.9	2.9	2.9	3.0
6. Cyclical budgetary component		1.2	1.2	1.8	1.2	1.3
7. Cyclically-adjusted balance (2-6)		-7.8	-5.5	-4.4	-3.5	-3.0
8. Cyclically-adjusted primary balance (7-3)		-2.1	-0.3	0.4	1.2	1.6

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

Table 6. Divergence from previous update

	ESA Code	2004	2005	2006	2007	2008
Real GDP growth (%)						
Previous update		4.2	3.9	4.0	4.2	-
Current update		4.7	3.6	3.8	3.8	4.0
Difference		0.5	-0.3	-0.2	-0.4	-
General government net lending (% of GDP)	EDP B.9					
Previous update		-6.1	-3.5	-2.8	-2.2	
Current update		-6.6	-4.3	-2.6	-2.3	-1.7
Difference		-0.5	-0.8	0.2	-0.1	-
General government gross debt (% of GDP)						
Previous update		110.5	108.0	103.9	99.9	-
Current update		109.3	107.9	104.8	101.1	96.8
Difference		-1.2	-0.1	1.1	1.2	-

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						
Social security pension						
Old-age and early pensions						
Other pensions (disability, survivors)						
Occupational pensions (if in general government)						
Health care						
Long-term care *(this was earlier included in the health care)*						
Education expenditure						
Other age-related expenditures						
Interest expenditure						
Total revenue						
Of which: property income						
of which: from pensions contributions (or social contributions if appropriate)						
Pension reserve fund assets						
Of which: consolidated public pension fund assets (assets other than government liabilities)						
Assumptions						
Labour productivity growth						
Real GDP growth						
Participation rate males (aged 20-64)						
Participation rates females (aged 20-64)						
Total participation rates (aged 20-64)						
Unemployment rate						
Population aged 65+ over total population						

Table 8. Basic assumptions

	2005	2006	2007	2008
Short-term interest rate[38] (annual average)	2.1%	2.5%	3.0%	3.0%
Long-term interest rate (annual average)	3.3%	3.5%	3.8%	3.9%
USD/€ exchange rate (annual average) (euro area and ERM II countries)	1.25	1.21	1.22	1.22
Nominal effective exchange rate				
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)	-	-	-	-
World excluding EU, GDP growth	5.1%	4.9%	4.6%	4.6%
EU GDP growth	1.5%	2.1%	2.4%	2.4%
Growth of relevant foreign markets	5.0	5.2	5.1	5.1
World import volumes, excluding EU	8.6%	8.7%	8. 4%	8.4%
Oil prices, (Brent, USD/barrel)	55.0	61.4	60.3	60.0

[38] If necessary, purely technical assumptions.

Annex 2: Compliance with the code of conduct

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

Guidelines in the new code of conduct	Yes	No	Comments
1. Submission of the programme			
Programme was submitted not earlier than mid-October and not later than 1 December[1].		**x**	21 December 2005
2. Model structure			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	x		No specific chapter on "institutional feature of public finance".
3. Model tables (so-called data requirements)			
The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct).	x		
The programme provides all compulsory information in these tables.		x	
The programme provides all optional information in these tables.		x	
The concepts used are in line with the European system of accounts (ESA).	x		
4. Other information requirements			
a. Involvement of parliament			
The programme mentions its status vis-à-vis the national parliament.		x	
The programme indicates whether the Council opinion on the previous programme has been presented to the national parliament.		x	
b. Economic outlook			
Euro area and ERM II Member States uses the "common external assumptions" on the main extra-EU variables.	x		
Significant divergences between the national and the Commission services' economic forecasts are explained[2].		x	
The possible upside and downside risks to the economic outlook are brought out.		x	

Guidelines in the new code of conduct	Yes	No	Comments
The outlook for sectoral balances and, especially for countries with a high external deficit, the external balance is analysed.	x		Partially
c. Monetary/exchange rate policy			
The convergence programme presents the medium-term monetary policy objectives and their relationship to price and exchange rate stability.			Not applicable
d. Budgetary strategy			
The programme presents budgetary targets for the general government balance in relation to the MTO, and the projected path for the debt ratio.	x		
In case a new government has taken office, the programme shows continuity with respect to the budgetary targets endorsed by the Council.			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.		x	
The budgetary targets are backed by an indication of the broad measures necessary to achieve them and an assessment of their quantitative effects on the general government balance is analysed.	x		
Information is provided on one-off and other temporary measures.	x		
The state of implementation of the measures (enacted versus planned) presented in the programme is specified.	x		
If for a country that uses the transition period for the classification of second-pillar funded pension schemes, the programme presents information on the impact on the public finances.			Not applicable
e. "Major structural reforms"			
If the MTO is not yet reached or a temporary deviation is planned from the achieved MTO, the programme includes comprehensive information on the economic and budgetary effects of possible 'major structural reforms' over time.			Not applicable
The programme includes a quantitative cost-benefit analysis of the short-term costs and long-term benefits of such reforms.			Not applicable
f. Sensitivity analysis			
The programme includes comprehensive sensitivity analyses and/or develops alternative scenarios showing the effect on the budgetary and debt position of: a) changes in the main economic assumptions b) different interest rate assumptions c) for non-participating Member States, different exchange rate assumptions d) if the common external assumptions are not used, changes in assumptions for the main extra-EU variables.	x		
In case of such "major structural reforms", the programme provides an analysis of how changes in the assumptions would affect the effects on the budget and potential growth.			Not applicable
g. Broad economic policy guidelines			
The programme provides information on the consistency with the broad economic policy guidelines of the budgetary objectives and the measures to achieve them.	x		Information provided. No explicit reference to the BEPGs
h. Quality of public finances			

Guidelines in the new code of conduct	Yes	No	Comments
The programme describes measures aimed at improving the quality of public finances on both the revenue and expenditure side (e.g. tax reform, value-for-money initiatives, measures to improve tax collection efficiency and expenditure control).	x		
i. Long-term sustainability			
The programme outlines the country's strategies to ensure the sustainability of public finances, especially in light of the economic and budgetary impact of ageing populations.	x		Partial analyses
Common budgetary projections by the AWG are included in the programme. The programme includes all the necessary additional information. (…) To this end, information included in programmes should focus on new relevant information that is not fully reflected in the latest common EPC projections.		x	
j. Other information (optional)			
The programme includes information on the implementation of existing national budgetary rules (expenditure rules, etc.), as well as on other institutional features of the public finances, in particular budgetary procedures and public finance statistical governance.	x		Partial analyses
Notes: [1]The code of conduct allows for the following exceptions: (i) Ireland should be regarded as complying with the deadline in case of submission on "budget day", i.e. traditionally the first Wednesday of December, (ii) the UK should submit as close as possible to its autumn pre-budget report; and (iii) Austria and Portugal cannot comply with the deadline but will submit no later than 15 December. [2]To the extent possible, bearing in mind the typically short time period between the publication of the Commission services' autumn forecast and the submission of the programme.			

Annex 3: Consistency with the broad economic policy guidelines

Integrated guidelines	Yes	No	Not applicable
1. To secure economic stability			
– Member States should respect their medium-term budgetary objectives. As long as this objective has not yet been achieved, they should take all the necessary corrective measures to achieve it[1].	x		
– Member States should avoid pro-cyclical fiscal policies[2].			x
– Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits[3].	x		
– Member States posting current account deficits that risk being unsustainable should work towards (…), where appropriate, contributing to their correction via fiscal policies.		x	
2. To safeguard economic and fiscal sustainability In view of the projected costs of ageing populations,			
– Member States should undertake a satisfactory pace of government debt reduction to strengthen public finances.	x		
– Member States should reform and re-enforce pension, social insurance and health care systems to ensure that they are financially viable, socially adequate and accessible (…)	x		Pension reforms are delayed to the next government

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

Annex 4: Assessment of tax projections

Table 6 compares the tax projections of the programme with those of the Commission services' autumn 2005 forecast and Table 7 those of the Commission services' autumn forecast with tax projections obtained by using standard ex-ante elasticities, as estimated by the OECD. The tables summarise the results for the total tax-to-GDP ratio. The underlying analysis is carried out exploiting information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see tables below)[39]. Conceptually, the analysis draws on the definition of a semi-elasticity, which measures the change in a ratio vis-à-vis the relative change in the denominator. The semi-elasticity of the tax-to-GDP ratio of the *i-th* tax $\frac{T_i}{Y}$ can be written as:

.

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

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

To the extent that ε_{T_i,B_i} is derived from observed or projected data, it will typically reflect (i) the effect of discretionary measures (including one-offs) and (ii) the tax elasticity[40]. 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:

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

---

[39] Private and corporate income taxes are generally not provided, neither in the programme nor in the Commission services' autumn 2005 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.

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

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

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

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

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

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

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

Assessment of tax projections by major tax category

	2006		2007		2008	p.m.:
	COM	SP	COM[2]	SP	SP	OECD[1]
Taxes on production and imports:						
Change in tax-to-GDP ratio	0.1	0.1	0.0	0.5	0.1	/
Difference	0.0		0.6		/	/
of which[3]: - elasticity component	0.0		0.6		/	/
- composition component	-0.1		0.0		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[4]	1.2	1.3	1.1	1.8	1.3	1.00
- of tax base[4] to GDP	1.0	0.9	0.9	0.9	0.9	1.00
Social contributions:						
Change in tax-to-GDP ratio	0.3	0.2	0.0	-0.1	0.0	/
Difference	0.0		-0.1		/	/
of which[3]: - elasticity component	0.1		-0.1		/	/
- composition component	-0.1		0.0		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[5]	1.2	1.2	1.0	0.9	1.0	0.90
- of tax base[5] to GDP	1.1	1.0	1.0	1.0	1.0	0.90
Personal income tax[6]:						
Change in tax-to-GDP ratio	0.0	0.1	0.0	0.0	-0.1	/
Difference	0.1		0.0		/	/
of which[3]: - elasticity component	0.1		0.0		/	/
- composition component	0.0		0.0		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[5]	0.8	1.2	1.0	1.0	0.9	2.00
- of tax base[5] to GDP	1.1	1.0	1.0	1.0	1.0	0.90
Corporate income tax[6]:						
Change in tax-to-GDP ratio	0.0	0.0	0.0	0.0	0.0	/
Difference	0.1		0.0		/	/
of which[3]: - elasticity component	0.0		0.0		/	/
- composition component	0.0		0.0		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[7]	0.9	1.1	1.0	1.0	0.8	1.00
- of tax base[7] to GDP	1.0	1.0	1.0	1.0	1.0	1.08

Notes:
[1]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 2005 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

Assessment of tax elasticities by major tax category

	2006		2007	
	COM (observed)	**ex-ante[1]**	**COM[2] (observed)**	**ex-ante[1]**
Taxes on production and imports:				
Change in tax-to-GDP ratio	0.1	0.0	0.0	0.0
Difference	0.1		0.0	
of which[3]: - elasticity component	0.2		0.1	
- composition component	-0.1		-0.1	
p.m.: Observed elasticity:				
- of taxes to tax base[4]	1.2	1.0	1.1	1.0
- of tax base[4] to GDP	1.0	1.0	0.9	1.0
Social contributions:				
Change in tax-to-GDP ratio	0.3	-0.2	0.0	-0.2
Difference	0.4		0.2	
of which[3]: - elasticity component	0.3		0.1	
- composition component	0.2		0.1	
p.m.: Observed elasticity:				
- of taxes to tax base[5]	1.2	0.9	1.0	0.9
- of tax base[5] to GDP	1.1	0.9	1.0	0.9
Personal income tax[6]:				
Change in tax-to-GDP ratio	0.0	0.3	0.0	0.3
Difference	-0.4		-0.3	
of which[3]: - elasticity component	-0.5		-0.4	
- composition component	0.1		0.0	
p.m.: Observed elasticity:				
- of taxes to tax base[5]	0.8	2.0	1.0	2.0
- of tax base[5] to GDP	1.1	0.9	1.0	0.9
Corporate income tax[6]:				
Change in tax-to-GDP ratio	0.0	0.0	0.0	0.0
Difference	0.0		0.0	
of which[3]: - elasticity component	0.0		0.0	
- composition component	0.0		0.0	
p.m.: Observed elasticity:				
- of taxes to tax base[7]	0.9	1.0	1.0	1.0
- of tax base[7] to GDP	1.0	1.1	1.0	1.1

Notes:
[1]Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD
[2]On a no-policy change basis
[3]The decomposition is explained in 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 2005 economic forecasts (COM); Commission services' calculations and OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434)

Annex 5: The rolling debt reduction benchmark

The rolling debt reduction benchmark discussed in Box 4 is calculated for successive five-year periods through a recursive application of the formula:

$$\left(\frac{D_t}{Y_t}\right)_{benchmark} = 0.05 * \left[60 - \left(\frac{D_{t-1}}{Y_{t-1}}\right)_{benchmark}\right] + \left(\frac{D_{t-1}}{Y_{t-1}}\right)_{benchmark}$$

where t is a time subscript and D and Y are the stock of government debt and nominal GDP, respectively (note that, in the first year of the five-year period, the debt ratio in the previous year is the actual debt ratio).

The change in the debt ratio can be decomposed as follows (assuming that the stock-flow adjustment is equal to zero):

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

where DEF is the government deficit and y represents nominal GDP growth.

Noting that 0.05*60 = 3, the formula for 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%. For nominal GDP growth rates higher than 5%, the benchmark can be respected with deficits in excess of 3% of GDP; for nominal GDP growth rates lower than 5%, respect of the benchmark necessitates deficits lower than 3% of GDP.

Annex 6: Indicators of long-term sustainability

Table A1: Underlying assumptions compared

% of GDP	2010		2020		2030		2050	
	EPC	**SCP**	**EPC**	**SCP**	**EPC**	**SCP**	**EPC**	**SCP**
Labour productivity growth	**1.3**	-	**1.9**	-	**1.7**	-	**1.7**	-
Real GDP growth	**2.2**	-	**1.6**	-	**1.0**	-	**1.1**	-
Participation rate males (aged 15-64)	**79.7**	-	**79.8**	-	**77.6**	-	**78.0**	-
Participation rates females (aged 15-64)	**57.3**	-	**60.4**	-	**60.4**	-	**61.6**	-
Total participation rates (aged 15-64)	**68.6**	-	**70.2**	-	**69.2**	-	**70.0**	-
Unemployment rate	**8.6**	-	**7.0**	-	**7.0**	-	**7.0**	-
Population aged 65+ over total population	**18.8**	-	**21.2**	-	**24.8**	-	**33.1**	-

Note: the Greek updated stability programme did not include long-term age-related expenditure projections or underlying assumptions.

Table A2: Long-term projections

Main assumptions - programme scenario (as % GDP)	**2008**	**2010**	**2020**	**2030**	**2040**	**2050**	**changes**	**Impact on S2**
Total age-related spending	21.0	20.8	23.6	26.5	29.6	32.6	11.6	7.8
Pensions	12.3	12.2	14.8	17.3	20.0	22.6	10.3	7.0
Health care	5.1	5.2	5.6	5.9	6.3	6.6	1.5	1.0
Long-term care	-	-	-	-	-	-	-	0.0
Education	3.2	3.0	3.0	3.0	3.1	3.2	0.0	-0.1
Unemployment benefits	0.4	0.4	0.3	0.3	0.3	0.2	-0.2	-0.1
Total primary non age-related spending	18.2	18.2	18.2	18.2	18.2	18.2	0.0	0.0
Total revenues	41.2	41.2	41.2	41.2	41.2	41.2	0.0	0.0

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

	S1	**S2**
2005 scenario	**1.0**	**0.8**
Programme scenario	**0.8**	**0.6**

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

Table A4: Debt development

Results (as % GDP)	2008	2010	2020	2030	2040	2050	changes
Programme scenario							
Gross debt	96.8	91.0	84.8	122.0	207.9	346.0	249.2
*Gross debt, i + 1**	*96.8*	*92.8*	*95.3*	*146.1*	*258.0*	*443.2*	*346.4*
*Gross debt, i - 1**	*96.8*	*89.2*	*75.3*	*102.2*	*169.6*	*276.2*	*179.4*
Adjusted gross debt	96.8	91.0	84.8	122.0	207.9	346.0	249.2
2005 Scenario							
Gross debt	99.6	96.9	107.0	165.2	279.0	451.3	351.6
*Gross debt, i + 1**	*99.6*	*98.8*	*119.0*	*194.5*	*342.3*	*575.7*	*476.1*
*Gross debt, i - 1**	*99.6*	*95.1*	*96.2*	*141.0*	*230.1*	*360.7*	*261.1*
Adjusted gross debt	99.6	96.9	107.0	165.2	279.0	451.3	351.6

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