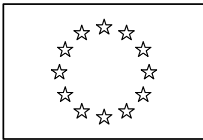

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DECEMBER 2005 UPDATE OF THE STABILITY PROGRAMME OF IRELAND (2005-2008)

AN ASSESSMENT

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SUMMARY AND CONCLUSIONS[1]

The 2005 update of the Irish stability programme, covering the period up to 2008, was submitted on 7 December 2005[2]. The programme broadly follows the model structure and data provision requirements for stability and convergence programmes specified in the new code of conduct[3].

Ireland has experienced an impressively rapid increase in real GDP per capita and employment levels over the last decade. In recent years the Irish economy has continued to grow at just below 5% p.a., the highest rates in the euro area, while employment is on the rise and inflation has converged rapidly towards the euro area average. As regards budgetary developments, the fiscal position has been broadly sound, with the general government balance recording surpluses in most years over the last decade and the debt ratio falling significantly (to under 30% of GDP in 2005).

The update projects GDP growth to remain in a narrow range of between 4½% and 5% over the programme period, only slightly less favourable than expected in the previous update. On the basis of currently available information, the macroeconomic scenario appears to be based on plausible growth assumptions and is broadly in line with the Commission services' autumn 2005 forecast for the period until 2007. However, while the current picture suggests a broadly healthy condition of the economy with robust growth to continue, there are some downside risks to the macroeconomic outlook in the medium term. In particular, these are related to global economic prospects, given the openness of the economy; and domestically, to any sharp downturn from the extended residential construction boom. The programme's projections for HICP inflation, which is assumed to decline below 2% by the end of the programme period, may be on the low side.

In its opinion of 17 February 2005, the Council endorsed the budgetary strategy presented in the previous update of the stability programme, covering the period 2004-2007. As regards budgetary implementation in 2005, the previous update targeted a general government deficit of 0.8% of GDP, while the current update estimates a 0.3% surplus despite a downward revision of growth. The main reason for the far better outcome in 2005 than initially targeted is to be found on the revenue side.

The update confirms the commitment of the Irish government to maintaining sound public finances. Starting from a ¼% of GDP surplus in 2005, the budgetary strategy envisages a general government deficit of 0.6% in 2006 and 0.8% of GDP in the final

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[1] This technical analysis, which is based on information available up to 14 February 2006, accompanies the recommendation by the Commission for a Council opinion on the update of the stability programme, which the College adopted on 22 February 2006. 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 Zdeněk Čech (email: zdenek.cech@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] According to the code of conduct, Ireland should be regarded as complying with the deadline in case of submission on "budget day", i.e. traditionally the first Wednesday of December.

[3] The programme provides all compulsory data prescribed by the new code of conduct, but some optional data are missing (in particular on price developments and net financial debt).

two years of the programme. The primary surplus falls from 1½% of GDP in 2005 to ½% in the years 2006-2008. The revenue-to-GDP ratio is on a declining trend, while the expenditure ratio initially increases and falls back to the 2005 level only towards the end of the programme period. The investment-to-GDP ratio is projected to increase by ½ percentage point of GDP over the period 2005 to 2008, which results in an average general government investment ratio over the programme period well above the EU average of recent years. Apart from the better-than-expected 2005 outturn, the new update broadly confirms the budgetary targets of the previous programme.

Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, the structural position (i.e. in cyclically-adjusted terms and net of one-off and other temporary measures) is planned to deteriorate in 2006 by some 1 percentage point of GDP before stabilising at around balance over the programme period, while the negative output gap is projected to widen from around 1¼% in 2005 to some 2% in the rest of the programme period[4]. The programme sets the medium-term objective (MTO) for the budgetary position as meant in the Stability and Growth Pact as a general government position close to balance in structural terms. As the 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 an excessive deficit. As regards appropriateness, the programme's MTO lies within the range indicated for euro area and ERM II Member States in the Stability and Growth Pact and the code of conduct and is more demanding than implied by the debt ratio and average potential output growth in the long term.

On balance, the risks to the budgetary projections in the update seem to be on the positive side, in particular in 2006. The revenue forecast might suggest cautious assumptions on tax projections in the programme. The degree of current expenditure restraint in the later years of the programme seems demanding, but the existence of the contingency provision against unforeseen developments might point to a better than projected outturn. The capital outlays might also turn out somewhat below planned allocations, in particular as a significant increase in capital spending to tackle the economy's infrastructure needs is projected over the programme period. Risks to the budgetary targets stemming from the macroeconomic projections in the update appear neutral and are broadly in line with the Commission services' evaluation; however, the budgetary projections could be vulnerable if the downside macroeconomic risks in the medium term were to be realised.

In view of this risk assessment, the budgetary strategy outlined in the programme seems sufficient to ensure that the programme's MTO is maintained throughout the programme period. It is also sufficient to provide a safety margin against breaching the 3% of GDP deficit reference value with normal macroeconomic fluctuations in each year.

The debt ratio, which was still just below 100% of GDP in the early 1990s, is estimated to have reached 28% of GDP in 2005, well below the 60% of GDP Treaty reference value. The debt ratio is projected to broadly stabilise at this level over the programme period. Both the primary balance and the interaction between interest payments and nominal GDP growth are projected to contribute to lowering the debt ratio, but this is broadly offset by sizeable stock-flow adjustments. The latter essentially reflect the

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[4]However, the special features of the Irish economy imply that the estimates of the output gap underlying such calculations are subject to an unusually high margin of uncertainty.

impact of the acquisition of non-general government assets by the *National Pensions Reserve Fund (NPRF)*, without which the gross debt ratio would be falling throughout the programme period.

With regard to the sustainability of public finances, Ireland appears to be at medium risk on grounds of the projected budgetary costs of an ageing population. The currently sound budgetary position, in conjunction with the low debt level and the accumulation of assets in the National Pension Reserve Fund, helps partly to offset the significant rise in age-related government expenditure, notably on pensions, projected over the long term. Ireland has also recently enacted reforms to the pension system for public servants and the authorities envisage further measures that should contribute to a more sustainable basis for the provision of public service pensions. The commitment to monitoring the adequacy of contribution rates through regular actuarial reviews is helpful. Implementing additional measures aimed at easing the budgetary impact of an ageing population over the long term would be nevertheless an important element in reducing risks to the sustainability of public finances.

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, Ireland respects its MTO and the update provides an overview of the government's structural reform programme that should contribute towards enhancing the quality of public services, increasing the efficiency of public spending and addressing the infrastructural needs of the Irish economy.

The National Reform Programme of Ireland, submitted on 28 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) to continue to prioritise public investment in economic and social infrastructure and other growth-enhancing expenditures; and (ii) to maintain a stable macroeconomic environment, sustainable public finances, and to ensure moderate inflation levels. The budgetary implications of the policy directions outlined in the National Reform Programme appear to be reflected in the budgetary projections of the stability programme. The measures in the area of public finances envisaged in the stability programme are in line with the actions foreseen in the National Reform Programme. The stability programme complements these measures with proposed changes in the institutional features of the public finances, including some innovations in the budgetary and estimates process.

In view of the above assessment, the fiscal position can be considered as sound and the budgetary strategy provides a good example of fiscal policies conducted in compliance with the Pact. It would be appropriate for Ireland to continue to implement measures to address the long-term budgetary implications of an ageing population.

Comparison of key macroeconomic and budgetary projections

		2004	2005	2006	2007	2008
Real GDP (% change)	**SP Dec 2005**	**4.5**	**4.6**	**4.8**	**5.0**	**4.8**
	COM Nov 2005[2]	4.5	4.4	4.8	5.0	n.a.
	SP Dec 2004	*5.3*	*5.1*	*5.2*	*5.4*	*n.a.*
HICP inflation (%)	**SP Dec 2005**	**2.3**	**2.2**	**2.0**	**2.0**	**1.8**
	COM Nov 2005	2.3	2.2	2.5	2.4	n.a.
	SP Dec 2004	*2.3*	*2.1*	*2.0*	*1.9*	*n.a.*
Output gap (% of potential GDP)	**SP Dec 2005[1]**	**0.1**	**-1.3**	**-1.9**	**-2.2**	**-2.1**
	COM Nov 2005[6]	0.1	-1.6	-2.2	-2.6	n.a.
	SP Dec 2004[1]	*-1.0*	***-1.8***	***-2.3***	***-2.0***	*n.a.*
General government balance (% of GDP)	**SP Dec 2005**	**1.4**	**0.3**	**-0.6**	**-0.8**	**-0.8**
	COM Nov 2005[2]	1.4	-0.4	-0.3	-0.1	n.a.
	SP Dec 2004	*0.9*	*-0.8*	*-0.6*	*-0.6*	*n.a.*
Primary balance (% of GDP)	**SP Dec 2005**	**2.6**	**1.5**	**0.6**	**0.4**	**0.5**
	COM Nov 2005[2]	2.7	0.8	0.8	0.9	n.a.
	SP Dec 2004	*2.1*	*0.6*	*0.6*	*0.7*	*n.a.*
Cyclically-adjusted balance (% of GDP)	**SP Dec 2005[1]**	**1.4**	**0.8**	**0.2**	**0.1**	**0.1**
	COM Nov 2005[2]	1.4	0.2	0.6	0.9	n.a.
	SP Dec 2004[1]	*1.2*	*-0.2*	*0.1*	*0.0*	*n.a.*
Structural balance[3] (% of GDP)	**SP Dec 2005[4]**	**0.7**	**1.1**	**0.1**	**0.1**	**0.1**
	COM Nov 2005[2,5]	0.7	0.6	0.6	0.9	n.a.
	SP Dec 2004	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
Government gross debt (% of GDP)	**SP Dec 2005**	**29.4**	**28.0**	**28.0**	**28.2**	**28.3**
	COM Nov 2005[2]	29.8	29.0	28.7	28.2	n.a.
	SP Dec 2004	*30.5*	*30.1*	*30.1*	*30.0*	*n.a.*

Notes:
[1] Commission services calculations on the basis of the information in the programme.
[2] Commission services' Autumn 2005 forecast predates the December 2005 Budget on which the updated stability programme is based.
[3] Cyclically-adjusted balance (as in the previous rows) excluding one-off and other temporary measures
[4] One-off and other temporary measures taken from the programme (0.3% of GDP in 2005; surplus decreasing). An estimate of one-offs for 2004 and 2006 provided by the Irish Department of Finance: 0.7% of GDP in 2004 and 0.1% of GDP in 2006 respectively (both surplus increasing).
[5] One-off and other temporary measures taken from the Commission services' Autumn 2005 forecast (0.4% of GDP in 2005; surplus decreasing).
[6] Based on estimated potential growth of 5.8%, 6.1%, 5.5% and 5.3% respectively in the period 2004-2007.

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

1. INTRODUCTION

The 2005 update of the Irish stability programme, covering the period up to 2008, was published and submitted to the Commission on 7 December 2005. On the same date, the programme was presented together with the budget for 2006 to the Irish Parliament[5]. There is no explicit parliamentary examination of the programme, though it may be referred to in general debate on the budget.

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 provides all compulsory data prescribed by the new code of conduct, but some optional data are missing[6]. Annex 2 provides a detailed overview of all aspects of compliance with the new code of conduct.

2. ECONOMIC OUTLOOK

Over the last decade Ireland has experienced an impressively rapid increase in real GDP per capita and employment levels. In the late 1990s, the Irish economy showed an remarkable economic turnaround, achieving annual double-digit GDP growth rates. The economy showed remarkable resilience in the early 2000s, in the light of high exposure to a global decline in the information and communication technology (ICT) sector. More recently, the economic momentum was helped also by buoyant construction output, for residential construction was boosted by fast-rising property prices. In the labour market the unemployment rate has recently stabilised at historical lows (at just above 4%), while recent sizeable employment gains have been driven notably by immigration from the new Member States. Inflationary pressures have eased significantly over the past years, with HICP inflation rapidly converging to the euro area average.

The update foresees a broadly positive picture for the Irish economy to continue, though with slightly lower growth than projected in the previous programme. GDP growth for the period 2005-2007 is projected to remain in a narrow range of between 4½% and 5%, compared with a range of 5% and 5½% in the previous programme. Cyclical conditions, as measured by the recalculated output gaps on the information in the programme, appear

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[5] The code of conduct explicitly allows the Irish programme to be presented to the Commission beyond the 1 December standard deadline, given that the budget (including the updated stability programme) is traditionally presented on the first Wednesday of December. The budget documentation can be downloaded from www.budget.gov.ie.

[6] As regards the compulsory data, the Irish authorities provided an update of data on general government budgetary developments on 21 December 2005, as the initial submission included a number of omissions related to data on (i) total social transfers and (ii) other revenue. It did not, however, affect the headline deficit figures. Some optional data (see tables in Annex 2 of the new code of conduct) are, however, missing: Table 1b - Price developments (deflators for private consumption, public consumption and investment); Table 1d - Sectoral balances: optional data in line 1 (net lending/borrowing vis-à-vis the rest of the world), line 2 (net lending/borrowing of the private sector) and line 3 (net lending/borrowing of general government), line 4 (statistical discrepancy - only the level in 2004 is provided); Table 3 - General government expenditure by function; Table 4 - general government debt developments: breakdown for line 5 (stock-flow adjustment), line 6 (liquid financial assets) and line 7 (net financial debt); Table 5 - Cyclical developments (breakdown of potential GDP growth into contributions); Table 7 - Long-term sustainability of public finances (some lines - for example - total expenditure, total revenue, breakdown of total revenue, interest expenditure).

to worsen somewhat over the programme period[7]. Table 1 compares real GDP growth forecasts in the stability programme and the Commission services' autumn forecast, which is pre-budget. For the period 2005-2007, GDP growth rates are almost identical in both forecasts. The relative contributions from domestic demand and net exports are very similar for 2005. For the period 2006-2007, the update foresees a slightly stronger pick-up in domestic demand, which implies somewhat higher imports and a lower contribution from the external economy than the Commission services' forecast. In particular, the update assumes a strong pick-up in the private spending in 2006 and 2007, in the years when the bulk of funds in *Special Savings Incentive Accounts* (a government-sponsored saving scheme) reach maturity[8]. Expansionary fiscal measures, as outlined in the budget for 2006 (see box 1), are likely to provide a further stimulus to domestic demand. The projected "soft landing" in housing output over the programme period, down from recent record levels, acts only as a partial offset to buoyant consumption in the period 2006-2007. In 2008, a slight deceleration in GDP growth is envisaged by the update, as the positive demand effect of the SSIA scheme unwinds[9]. On balance, the GDP growth projected in the update seems plausible and close to the view of the Commission services.

Table 1: Comparison of macroeconomic developments and forecasts

	2005		2006		2007		2008
	COM	SP	COM	SP	COM	SP	SP
Real GDP (% change)	4.4	4.6	4.8	4.8	5.0	5.0	4.8
Contributions:							
- Final domestic demand	4.6	4.8	3.6	4.4	4.0	4.9	3.7
- Change in inventories	0.0	0.2	0.0	0.2	0.0	0.2	0.2
- External balance on g&s	-0.2	-0.4	1.1	0.2	0.9	-0.0	1.0
Output gap[1]	-1.6	-1.3	-2.2	-1.9	-2.6	-2.2	-2.1
Employment (% change)	3.8	4.7	2.2	3.1	2.0	2.2	1.9
Unemployment rate (%)	4.3	4.3	4.4	4.3	4.4	4.4	4.5
Labour productivity growth (%)	0.6	-0.2	2.6	1.7	2.9	2.7	2.8
HICP inflation (%)	2.2	2.2	2.5	2.0	2.4	2.0	1.8
GDP deflator (% change)	3.2	2.9	2.5	2.9	2.6	2.8	2.8
Compensation of employees (% change)	4.9	n.a.	4.5	n.a.	4.5	n.a.	n.a.
External balance (% of GDP)	-2.2	n.a.	-2.5	n.a.	-2.8	n.a.	n.a.

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)

While the current picture suggests a broadly healthy condition of the economy with robust growth to continue, risks to the macroeconomic outlook appear to have grown somewhat since the time of last update. In particular, downside risks centre on global economic prospects, given the openness of the economy; and domestically, a very high valuation of housing stock and, in conjunction, any sharp downturn from the extended

[7] However, estimated output gaps in Ireland are subject to an unusual margin of uncertainty (see further details below in this section).
[8] The effect of the *Special Savings Incentive Accounts* (SSIA) on domestic demand was also taken into account in the Commission services' autumn 2005 forecast.
[9] The impact of the release of SSIA funds on consumption expenditure is subject to a number of uncertainties. The programme notes, however, that: "The experience of the impact of similar schemes in other countries tends to support a view that a one-off factor of this nature is unlikely to have a lasting impact on overall consumption patterns".

residential construction boom. For example, given relatively strong trade and investment links between the US and the Irish economies, any disorderly movements in the euro/dollar exchange rate might have a more pronounced impact on economic activity in Ireland than in most other EU Member States. On the domestic front, housing construction now accounts for a historically high share of the aggregate output[10] and property prices have risen steeply[11]. While a number of factors (such as immigration, female participation etc.) influence estimates of sustainable housing output in Ireland, it is clear that any unexpected downward correction in housing output presents a significant macroeconomic risk.

The external assumptions, on which the programme's macroeconomic scenario is based, are in line with the Commission services' autumn forecast, with a slight slowing of world output growth after 2006 and a stable exchange rate against the dollar. For 2008 the programme assumes the same external assumptions as in 2007 (see annex 1).

The labour market performed very strongly in 2005, with significant employment gains in the construction and service sectors. More recent data suggest that part of this momentum is likely to be carried forward into 2006, which was not fully foreseen in the Commission services' autumn 2005 forecast. Over the period 2006-2008, employment growth is projected to weaken somewhat in line with projected gradual easing back of construction output, but job creation (in particular in the service sector) is expected to remain robust. According to the update, the unemployment rate should remain below 4½% over the programme period. This implies that labour force growth, at present being fuelled by significant immigration (notably from the new EU Member States) and increased participation, is projected to decelerate along with the employment trend. Despite the labour market tightness, the update assumes average per capita earnings to moderate slightly over the programme period. This can be partly explained by high immigration helping to moderate upward wage pressures.

Consumer price inflation in Ireland has recently stabilised close to the euro area average, with domestic inflationary pressures remaining reasonably subdued. In the final quarter of 2005, a modest increase in HICP inflation reflected notably rising energy prices. The update projects HICP inflation to fall in 2006, averaging around 2% over the period 2006-2008, and to be somewhat lower than the Commission services' autumn 2005 forecast (averaging 2½% over the period 2006-2007). In 2008, the profile of inflation is projected in the update to fall further below 2%. The budget for 2006 plans no changes to the main indirect taxes, which should help moderate consumer price inflation in the year ahead. As noted above, however, the programme projects a significant pick up in private consumption expenditure. This would be consistent with the release of *SSIA* funds into the economy, the cash re-payments of nursing home charges (see below) and the expansionary measures in the 2006 budget. A strong pick-up in domestic demand might thus pose an upward risk to the inflation projection in the period 2006-2007. On the basis

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[10] The share of residential construction in GDP in the first half of 2005, as estimated by the Central Statistics Office of Ireland, was around 12% of GDP. Figures for 2005 as a whole (www.eviron.ie) indicate that house completions increased by 5.2% on the year, reaching nearly 81,000 housing units. The projections by the *Economic and Social Research Institute* (Medium-Term Review 2005-2012, December 2005) suggest that a rate of housing completions of the order of 60,000 to 70,000 per annum would represent a more sustainable long-term path, depending on the macroeconomic (low or high growth) scenario.

[11] After some signs of moderation in early 2005, residential property prices accelerated again in the second half of 2005. According to the permanent tsb House Price Index, in 2005 prices nationally grew by 9.3%.

of currently available information, the programme's projections for HICP inflation thus may be on the low 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]	6.1	6.1	5.5	5.5	5.3	5.3	4.7
Contributions:							
- Labour	1.6	1.8	1.3	1.4	1.1	1.3	0.8
- Capital accumulation	1.9	1.9	1.9	1.9	1.8	1.9	1.8
- TFP	2.4	2.2	2.3	2.1	2.3	2.0	2.1

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

Table 2 presents estimates of potential growth on the basis of the information provided in the programme, according to the commonly agreed methodology as calculated by Commission services. The overall results are very similar to those presented in the Commission services' autumn 2005 forecast and the same holds for the contributions from individual components (labour, capital accumulation and TFP). Potential growth is estimated to decelerate over the period 2005-2008. In particular, the labour contribution is foreseen to decrease somewhat in line with the expected deceleration in employment growth over the programme period. However, as noted in the programme and also in previous assessments, estimates of potential growth in Ireland are subject to an unusual margin of uncertainty because of the difficulty in obtaining reliable estimates after the extraordinary growth performance and structural change over the last decade.

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 medium-term objective identified in the programme. The third analyses 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 general government balance is projected to deteriorate by around 1 percentage point of GDP over the programme period, from an expected surplus of 0.3% GDP in 2005 to deficit of 0.8% of GDP in 2008. Table 3 and Figure 1 provide an overview of the evolution of budgetary targets in successive updates of the programme. Nominal budget balances are expected to remain broadly in line with the previous update (to weaken slightly by ¼% of GDP in 2007), but it should be noted that the GDP growth projections have been revised somewhat downwards. The profile of revenue and expenditure ratios (as percentages of GDP) over the programme period is broadly comparable with those in

previous updates[12]. The revenue ratio is on a declining trend, while the expenditure ratio initially increases and falls back to the 2005 level only by the end of the programme period. The programme closes with a nominal deficit of above ½% of GDP when the economy is growing at a pace close to its medium-term sustainable rate.

The budgetary targets for the final two years, as in the previous updates, incorporate sizeable "contingency provisions" against unforeseen developments, which make the evaluation of the planned budgetary trajectory somewhat more difficult. As past experience suggests[13], however, these provisions appear more likely to be used than not. As compared to the previous update, the size of the provisions remains unchanged and amounts to 0.4% and 0.8% of GDP for the final two years of the programme (2007 and 2008 respectively). The projections in the budget for 2006 incorporate also "technical provisions" under the expenditure and tax headings for possible future budgets, but the exact amount is not specified.

Table 3: Evolution of budgetary targets in successive programmes[12]

		2004	2005	2006	2007	2008
General government balance (% of GDP)	**SP Dec 2005**	**1.4**	**0.3**	**-0.6**	**-0.8**	**-0.8**
	SP Dec 2004	0.9	-0.8	-0.6	-0.6	n.a
	SP Dec 2003	*-1.1*	*-1.4*	*-1.1*	*n.a*	*n.a*
	COM Nov 2005	1.4	-0.4	-0.3	-0.1	n.a.
General government expenditure (% of GDP)	**SP Dec 2005**	**33.7**	**34.9**	**35.1**	**35.4**	**35.0**
	SP Dec 2004	34.3	35.0	34.5	33.8	n.a
	SP Dec 2003	*34.6*	*34.2*	*33.6*	*n.a*	*n.a*
	COM Nov 2005	33.7	35.3	34.4	33.9	n.a.
General government revenues (% of GDP)	**SP Dec 2005**	**35.1**	**35.2**	**34.5**	**34.5**	**34.3**
	SP Dec 2004	35.2	34.2	33.8	33.2	n.a
	SP Dec 2003	*33.5*	*32.9*	*32.5*	*n.a*	*n.a*
	COM Nov 2005	35.1	34.9	34.1	33.7	n.a.
Real GDP (% change)	**SP Dec 2005**	**4.5**	**4.6**	**4.8**	**5.0**	**4.8**
	SP Dec 2004	5.3	5.1	5.2	5.4	n.a
	SP Dec 2003	*3.3*	*4.7*	*5.2*	*n.a*	*n.a*
	COM Nov 2005	4.5	4.4	4.8	5.0	n.a.
Source: *Stability programmes (SP) and Commission services' autumn 2005 economic forecasts (COM)*						

As regards budgetary implementation in 2005, the 2004 update targeted a general government deficit of 0.8% of GDP. In the September 2005 notification, the deficit target was revised slightly up to 0.9% of GDP, mainly due to the inclusion of the estimated cost of the repayment of nursing home charges[14] (around 0.6% of GDP), but this was largely

[12] Revenue and expenditure ratios from the 2005 update are not directly comparable vis-à-vis previous updates, because of the methodological change in national accounts compilation introduced in July 2005 (i.e. allocation of 'financial intermediation services indirectly measured' (FISIM) to user sectors). As a result nominal GDP in the 2005 update is increased by about 1½% and (correspondingly) both ratios are decreased by about ½ percentage points.

[13] For a detailed analysis, see the box in the Commission services' assessment of the 2003 update of the stability programme: http://europa.eu.int/comm/economy_finance/about/activities/sgp/country/commwd/ie/com_ie20032004.pdf .

[14] The projected deficit includes higher net expenditure of around 0.6 percentage points of GDP, following a February 2005 court ruling that the Irish government had to repay charges which had been imposed by Health Boards on certain residents of public nursing homes. The September 2005 EDP return anticipated that the total amount to be repaid would be about €1,000m (0.6% of GDP). Eurostat, in a decision of 5 August 2005 (ESTAT/C-0/BM/LA/gr D(2005) 30235), agreed with the view of the Central Statistic Office of Ireland that all repayments due, whenever actually disbursed, should be accrued in 2005.

offset by a projected upward revision in tax receipts. The Commission services' autumn 2005 forecast pointed, on the basis of better than expected tax receipts and some savings in capital outlays, to a deficit of 0.4% of GDP. The outturn for the general government balance estimated in the new update is a surplus of 0.3% of GDP[15]. Given the one-off nature of the nursing homes charges (and discounting also one-off revenues from the investigations of the Irish tax authorities), the underlying balance is stronger, at around 0.6% of GDP.

The main reason for the far better outcome in 2005 than initially targeted is to be found on the revenue side, though some undershooting is also estimated to have occurred in expenditures. The revenue ratio[16] is estimated to have been some 1.5 percentage points higher than indicated in the previous update, mainly because of a sizeable tax overshoot. The more detailed Exchequer cash data, available for the year 2005 as a whole[17], confirm this trend, as capital gains tax and stamp duty (and to a lesser extent VAT, excise duties and personal income tax) were the major heads that over-performed. On the expenditure side, as noted above, the planned outturn for 2005 is heavily affected by a one-off cost related to the repayment of nursing home charges (around 0.6% of GDP). Some outlays are estimated to have been lower than budgeted, notably on gross fixed capital formation[18] and interest payments. In combination with lower nominal GDP, the expenditure-to-GDP ratio[16] is now some 0.5 percentage points higher than indicated in the previous update.

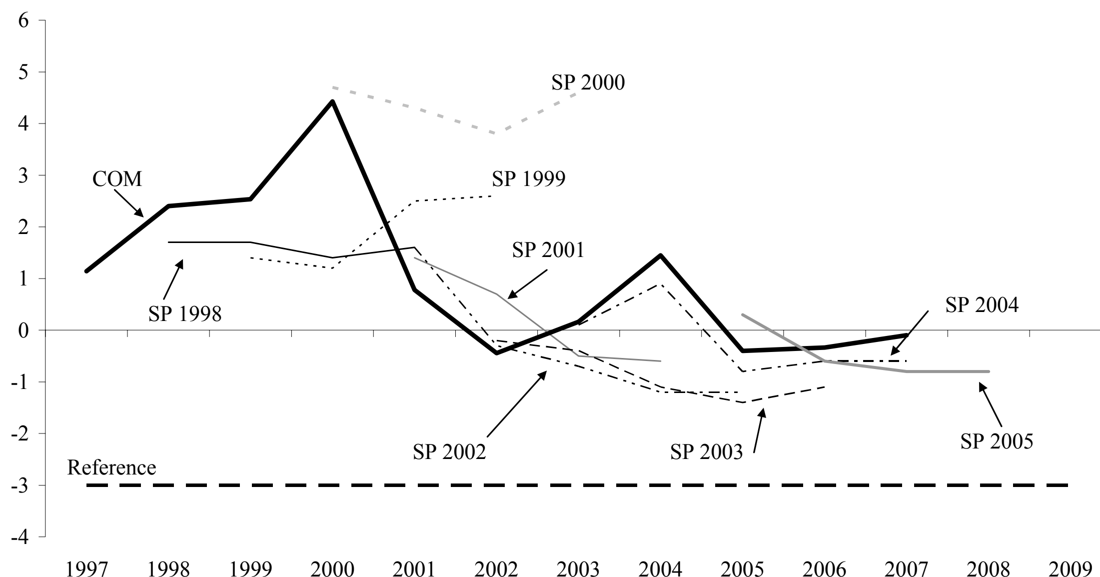
[15] The Irish authorities provided in January 2006 an update of the estimated general government balance for 2005, of a surplus of 0.4% of GDP.

[16] The ratios-to-GDP from the 2004 update were in this case, for comparability of data, recalculated using the series for GDP at current market prices with FISIM allocated to user sectors.

[17] Exchequer cash data for 2005 were released on 4 January 2006 (www.finance.gov.ie).

[18] The more detailed Exchequer cash data for the year 2005 suggest that the outturn for discretionary capital spending was around €141 million (0.1% of GDP) below the 2005 planned allocation. However, this included €346 million of capital carryover into 2006, which is higher by some €109 million (0.1% of GDP) than the saving from the previous year, i.e. when it was carried forward for the first time under the arrangements provided for in the 2004 Finance Act. The cash capital under-spending in 2005, according to the Department of Finance (www.finance.gov.ie), can be primarily explained by slower than expected spending by the Departments of Transport and Environment, Heritage and Local Government and the Health Service Executive.

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



Source : Commission services' autumn 2005 forecast (COM) and successive stability programmes

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 medium-term objective set in the programme and the adjustment path towards it in structural terms.

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

The update confirms the government's commitment to maintaining sound public finances, including their long-term sustainability, which is expected to have positive effects in terms of economic growth. The objective of the budgetary strategy is to conform to the requirements of the Stability and Growth Pact. In this respect, the programme states that the growth in public expenditure should be kept broadly in line with available resources and, within this, to create a room for an increase in investment outlays needed to tackle the country's "infrastructure deficit". The update aims at keeping the general government position, in structural terms, in a small surplus averaging around ¼% of GDP for the period 2006-2008, which is somewhat more demanding than the programme's medium-term objective (MTO - see below).

As shown in Table 4, starting from a relatively strong position in 2005 (a surplus of 0.3% of GDP), the headline budget balance is projected to deteriorate to deficits of 0.6% of GDP in 2006 and 0.8% in 2007-2008 (assuming "contingency provisions" are used). The nominal budgetary target for 2007 is thus somewhat worse than in the previous update (by 0.2 percentage points of GDP), against a slightly less favourable macroeconomic scenario. The profile of the primary surplus is similar, falling from some 1½% in 2005 to stabilise at just around ½% of GDP in the remainder of the programme period. Both the headline and primary balances thus fall by about 1 percentage point of GDP between

2005 and 2008, or by 1½ percentage points of GDP when excluding one-off factors affecting the headline balance in 2005[19].

Table 4: Composition of the budgetary adjustment

(% of GDP)	2004	2005	2006	2007	2008	Change: 2008-2005
Revenues	35.1	35.2	34.5	34.5	34.3	**-0.9**
of which:						
- Taxes & social contributions	31.5	32.0	31.5	31.5	31.5	**-0.5**
- Other (residual)	3.6	3.2	3.0	2.9	2.8	**-0.4**
Expenditure	33.7	34.9	35.1	35.4	35.0	**0.1**
of which:						
- Primary expenditure	32.5	33.7	33.9	34.2	33.8	**0.1**
of which:						
Consumption	15.6	16.1	16.1	16.4	16.1	**0.0**
Transfers other than in kind & subsidies	9.6	10.9	10.7	10.6	10.4	**-0.5**
Gross fixed capital formation	3.6	3.7	3.8	4.0	4.2	**0.5**
Other (residual)	3.7	3.1	3.3	3.2	3.2	**0.1**
- Interest expenditure	1.2	1.2	1.2	1.2	1.2	**0.0**
General government balance (GGB)	**1.4**	**0.3**	**-0.6**	**-0.8**	**-0.8**	**-1.1**
Primary balance	**2.6**	**1.5**	**0.6**	**0.4**	**0.5**	**-1.0**
One-off and other temporary measures	-0.7	0.3	-0.1	-	-	
GGB excl. one-off & other temporary measures	**0.7**	**0.6**	**-0.7**	**-0.8**	**-0.8**	**-1.4**
<u>Source</u>: *Stability programme update; Commission services' calculations.*						

3.2.2. The composition of the budgetary adjustment in the programme

Table 4 presents the medium-term developments in public finances, with the general government balance projected to deteriorate by around 1 percentage point of GDP in the period 2005-2008. As noted above, the revenue-to-GDP ratio is trending downwards, while the expenditure ratio initially slightly increases and falls to the 2005 level by the end of the programme period.

The weakening of the headline balance, in particular in 2006, results mainly from expansionary measures introduced in the 2006 budget (Box 1). It is notably driven by the decrease in revenue ratio (of which around 0.2% of GDP can be attributed to the impact of non-recurrence of one-off factors), while the increase in the expenditure ratio from 2005 accounts for some 0.2 percentage points of GDP. The underlying increase in the expenditure-to-GDP ratio is somewhat higher, notably on account of the non-recurrence of one-off expenditure on nursing home charges in 2005 (see above). On the expenditure side, the acceleration in growth of current discretionary expenditure from 9.5% estimated in 2005 to 12.2% in 2006 reflects mainly the measures to increase social spending. As regards the final two years of the programme, the multi-annual projections on a cash basis included in the 2006 budget documentation reveal that the growth rate of current discretionary spending (excluding contingency provisions) is being held to around 7.1% and 4.9%[20], below nominal GDP growth (projected at around 8% p.a. over the period).

[19] Excluding one-off factors and other temporary measures from the general government balance, the budget surplus in 2005 would be around 0.6% of GDP (see above).

[20] The budgetary documentation does not describe particular measures driving the deceleration in discretionary spending in 2007 and 2008 nor possible use of the "contingency provisions" against unforeseen developments.

The investment-to-GDP ratio, already high compared to the EU average of recent years, is projected to increase by a significant 0.5 percentage points of GDP over the period 2005 to 2008. On the revenue side, the 2006 budget lowers the tax-take by around 0.5% of GDP compared to a no-policy change scenario, mainly due to personal income tax relief. The revenue ratio falls also through lower growth in receipts of capital taxes.

Box 1: The budget for 2006

The budget for 2006 was presented on 7 December 2005. In line with the updated stability programme it targets a general government deficit of 0.6% of GDP. The main measures on the revenue side include an upward adjustment of the standard tax band for personal income and some further relief through an increase in the employee tax credit. On the expenditure side, the social welfare package is somewhat more generous than in 2005. A further rise in capital spending is also foreseen, focusing in particular on improvements in transport infrastructure. There are no significant changes in indirect taxes.

The main measures on the **revenue side** are (1) widening of the tax band for personal income tax; (2) increase in employee tax credit and (3) termination of certain tax reliefs;

- **Personal income tax measures**. The standard rate band is being widened by €2,600 per income (as compared to €1,400 in previous year). The employee tax credit increased by €220 (€230 last year) and personal credit rose by €50/€100 for single/ married (€60/120 last year)[21]. The cost of these measures is estimated at around 0.5% of GDP in a full year.
- **Termination of certain tax reliefs.** A series of tax reliefs (in particular for some property-based tax incentive schemes) is being abolished[22], subject to certain transitional arrangements. These measures are estimated to yield several hundred million euro p.a.

On the **expenditure side**, the main measures, in addition to the November *abridged estimates*, are (1) increases in social welfare; (2) a childcare package; (3) increases in funding for the 5-year capital expenditure envelopes.

- **Social welfare package**. The increase in social welfare payments amounts to an additional €1,065 million (0.7% of GDP) in a full year. The full-year costs of the social welfare package have increased as compared to previous year (by about 0.1% percentage points of GDP), but it is broadly in line with the trend of recent years. Weekly social benefits, including old age pensions, will be increased by between €14 and €17. Some additional increases are expected to increase the allowances for supporting carers and to enhance employment opportunities for the disabled.
- **Childcare package**. A five-year *National childcare strategy* (for both current and capital spending) is being introduced in order to assist to parents with the cost of childcare. The additional expenditure will average around €0.5bn a year over the period 2006-2010.
- **Capital expenditure**. The available Exchequer cash for capital spending is estimated at €6.7 billion, around 12% ahead of the expected 2005 outturn, which includes a carry-over[23] amount of €346 million (5.8% of discretionary capital outlays in 2005). Total capital investment in the 2006-2010 envelope will amount to €43.5 billion, with the stated aim of keeping public investment at around 5% of GNP (equivalent to around 4% of GDP) or higher over the period.

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[21] As regards personal income tax measures, the Finance Minister, Mr. Cowen, stated in his budget speech (on 7 December 2005) that the aim was to (i) keep those on the minimum wage out of the tax net, and (ii) keep those on the average industrial wage out of the higher tax rate.
[22] This followed a review by independent consultants that suggested that some of the schemes were costly and inefficient and that direct public expenditures would be a better method of delivering the incentive's objectives.
[23] In accordance with the Finance Act 2004, Departments and Offices can carry over to the following year unspent capital of up to 10% of their discretionary capital expenditure.

The projected path of negative nominal balances needs to be qualified in the light of the high level of public investment in Ireland. As compared to the previous update, the programme foresees a further increase in capital outlays (by around ¼ percentage point of GDP for the period 2006-2007). This policy is consistent with the government's commitment to addressing the significant "infrastructural deficit".

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) 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 sets a medium term objective of a general government position close to balance in structural terms[24]. The programme aims to respect the MTO by a positive margin averaging around ¼% of GDP throughout the programme period[25].

Based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology, there is a large reduction in the structural balance planned for 2006, which takes place against the background of a widening negative output gap. The output gap remains stable at around 2% below potential over the period 2006-2008. As noted above (Section 2), however, the special features of the Irish economy imply that the estimates of potential growth underlying such calculations are subject to an unusually high margin of uncertainty and any inferences should be drawn with caution. Some indications, in particular a buoyant labour market and strong domestic demand, might suggest that the current developments in the economy are

[24] The update states that "The underlying (structural) budgetary balance (…) averaging 0.2% for the period 2006-08, respects the terms of the Stability and Growth Pact, and is consistent with a medium term objective of keeping the budget close to balance over the 2006-2008 period".

[25] Table 5 presents the cyclically-adjusted and structural balances based on Commission services' calculations on the basis of the programme according to the commonly agreed methodology. The small difference vis-à-vis the figures in the update (which are stated to have been calculated also using the commonly agreed methodology) might reflect the effect of rounding.

consistent with a somewhat narrower difference between the actual and potential output[26].

The fiscal stance, as represented by the change in the structural balance, is estimated to have appeared slightly restrictive in 2005 (Table 5).The structural balance is projected to deteriorate in 2006 by some 1 percentage point of GDP[27], which reflects the expansionary measures of the 2006 budget, and is then set to stabilise at close to balance over the period (0.1% of GDP in years 2006-2008).

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	1.4	1.4	-0.4	0.3	-0.3	-0.6	0.1	-0.8	-0.8	-1.1
One-offs[2]	-0.7	-0.7	0.4	0.3	0.0	-0.1	-	-	-	-
Output gap[3]	0.1	0.1	-1.6	-1.3	-2.2	-1.9	-2.6	-2.2	-2.1	-
CAB[4]	1.4	1.4	0.2	0.8	0.6	0.2	0.9	0.1	0.1	-0.7
change in CAB	*0.9*	*1.0*	*-1.2*	*-0.6*	*0.4*	*-0.6*	*0.3*	*-0.1*	*0.0*	-
CAPB[4]	2.6	2.6	1.4	2.0	1.7	1.4	2.0	1.3	1.3	-0.7
Structural balance[5]	0.7	0.7	0.6	1.1	0.6	0.1	0.9	0.1	0.1	-1.0
change in struct. bal.	*n.a.*	*n.a.*	*-0.1*	*0.4*	*0.0*	*-1.0*	*0.3*	*0.0*	*0.0*	*n.a.*
Struct. prim. bal.[6]	1.9	1.9	1.8	2.3	1.7	1.3	2.0	1.3	1.3	-1.0

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.
[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

[26] OECD Economic Outlook No. 78 (December 2005) calculates for Ireland a positive output gap averaging around ½% of potential GDP for the period 2005-2007. The OECD estimates of output gaps are based on the production function method described in Giorno et al, "Potential Output, Output Gaps, and Structural Budget Balances", OECD Economic Studies, No. 24, 1995/I". For further details see www.oecd.org

[27] The calculated structural balance assumes the actual path of revenues as in the programme, where the cash projections of revenues from capital gains tax and stamp duties included in the budgetary documentation are projected broadly unchanged between 2005 and 2006. If instead the levels of these particular revenues in 2005 reflect buoyancy based on housing and financial market developments of a temporary nature, then *ceteris paribus* the underlying structural surplus in 2005 and in the following years would be lower. However, overall, the risks to the budgetary projections in the update appear on balance to be on the positive side (Section 3.3.2), which might imply a stronger-than-expected general government position in 2006 and thus a smaller deterioration in the structural balance than the above calculation suggests.

programme is consistent with the budgetary objectives of the Treaty and the Stability and Growth Pact.

3.3.1. Appropriateness of the medium-term objective identified in the programme

As the medium-term objective (MTO) identified in the programme, a general government position close to balance in structural terms, 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 an excessive deficit.

As regards appropriateness, the programme's MTO lies within the range indicated for euro area and ERM II Member States in the Stability and Growth Pact and the code of conduct and is significantly more demanding than implied by the debt ratio and average potential output growth in the long term. This reflects the commitment of the Irish government, restated in the update, to sound public finances, including their long-term sustainability.

3.3.2. Risks attached to the budgetary targets

Overall, the risks to the budgetary projections in the update appear on balance to be on the positive side. Over the medium term, however, fiscal policy should remain alert to a number of macroeconomic risks (outlined in Section 2).

As regards revenues, the actual outturns in recent years have been stronger than foreseen in previous updates (table 3). On tax revenues, table 6 presents annual changes in the overall tax-to-GDP ratio and the tax elasticity relative to GDP. Taking the Commission services' autumn 2005 forecast as a point of reference, the targets appear plausible. The fall of the tax-to-GDP ratio in 2006, foreseen in both the Commission services' forecast and the update, partly reflects the non-recurring revenue which accrued in 2005. For both 2006 and 2007, there is only a small difference between the changes in the tax-to-GDP ratio in the two projections made up of the "elasticity component" (see Annex 4)[28]. The results for the "composition component" suggest that the update's projection of the composition of GDP growth is also broadly in line with the Commission services' forecast. It should be also noted that the recent shift in the composition of Irish output, with a higher concentration in output of services and residential construction, may somewhat distort these calculations. The tax forecast in the outer years of the programme as foreseen in the update implies a tax elasticity slightly below the standard (ex-ante) tax elasticity estimated by the OECD. On efficiency of tax collections, the Finance Bill[29] (which gives effect to the budget for 2006) gave new powers to the Revenue Commissioner (the Irish tax authority). It might appear that the one-off revenues from special investigations might surprise in 2006 on the upside, which was also a common

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[28] However, the difference in calculated elasticity vis-à-vis the Commission services' autumn 2005 forecast can be also influenced by the inclusion of one-off revenue of around 0.1% of GDP in the update, an estimate provided by the Department of Finance. The pre-budget Commission services' autumn 2005 forecast did not fully foresee a better than expected outturn for general government balance in 2005 (see Section 3.1), notably on account of buoyant capital taxes.

[29] Finance Bill of 7 February 2006 (www.finance.gov.ie).

feature on the revenue side in recent years[30]. Overall, the programme's assumptions on tax revenue appear as relatively cautious.

As regards expenditures, Ireland has a very good record in adhering to targets for current spending in recent years[31], suggesting that various measures taken to strengthen control are proving successful. The multi-annual projections included in the budget for 2006 show a somewhat restrained growth rate of current discretionary spending in the outer years of the programme (see Section 3.2.2), but the existence of the contingency provision against unforeseen developments might point to a better than projected outturn. As regards capital spending, there was some under-spending in 2005[32]. This trend might well continue also over the programme period, in particular as the programme incorporates a significant increase in capital spending over the whole period.

Putting the budgetary projections into the broader context of the macroeconomic scenario, the update is close to the Commission services forecast (see Section 2.1). The economy's strong momentum is likely to be sustained over the coming years. However, some principal downside macro-economic risks appear to have grown somewhat since the last update. They are notably related to developments in the international economy (i.e. fluctuations in euro/dollar exchange rate), given the high Irish openness; and, domestically, to any sharp downturn[33] from the extended residential construction boom. The risks, if realised, would have a potential to push the public finances into a larger deficit than projected in the programme.[34]

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[30] The projections on a cash basis included in the budget for 2006 also reveal that the growth rate of current revenue is being projected at around 5.9% for 2006, well below nominal GDP growth (projected at around 7.9% in 2006).

[31] For a detailed analysis, see the Commission services assessment of the 2004 update.

[32] On budgetary implementation in 2005, see Section 3.1. In 2004, general government expenditure on gross fixed capital formation was also estimated to have been lower than budgeted (including 0.2% of GDP one-off savings related to the introduction of a capital envelopes facility in 2004).

[33] Despite the fact that the 2006 budget assumes a relatively subdued growth in capital taxes, a marked downturn in the residential sector towards more sustainable levels would affect the general government balance significantly. Indeed, the fact that the composition of economic growth has become somewhat imbalanced implies that the share of capital taxes, capital gains taxes and stamp duties in total revenue has increased substantially (see also Section 5). This might pose a risk for the years ahead if a relatively low tax burden in other categories is to be maintained.

[34] The sizeable "contingency provisions" incorporated in the budgetary targets for the final two years (see Section 3.1) would probably provide only a partial buffer against such developments. As past experience suggests, however, these provisions appear more likely to be used than not (Section 3.1).

Table 6: Assessment of tax projections

	2006		2007		2008	p.m.:
	COM[2]	SP	COM[2]	SP	SP	OECD[1]
Total taxes Change in tax-to-GDP ratio	-0.6	-0.5	-0.2	0.0	-0.1	/
Difference	*0.1*		*0.2*		/	/
of which[3]: - elasticity component	*0.1*		*0.3*		/	/
- composition component	*0.0*		*0.0*		/	/
p.m. Observed elasticity to GDP	0.7	0.8	0.9	1.0	1.0	1.14

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)

Table 7: Assessment of tax elasticities

	2006		2007	
	COM[2] (observed)	ex-ante[1]	COM[2] (observed)	ex-ante[1]
Total taxes Change in tax-to-GDP ratio	-0.6	0.3	-0.2	0.3
Difference	*-0.9*		*-0.5*	
of which[3]: - elasticity component	*-1.2*		*-0.8*	
- composition component	*0.5*		*0.4*	
p.m.: Elasticity to GDP	0.7	1.1	0.9	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)

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

Based on Commission services' calculations of structural balances on the basis of the programme according to the commonly agreed methodology and taking into account the risk assessment above, the budgetary strategy outlined in the programme seems sufficient to ensure that the programme's MTO is maintained throughout the programme period. It is also sufficient to provide a safety margin against breaching the 3% of GDP deficit reference value with normal macroeconomic fluctuations in each year.

As regards the requirement for countries that have already reached their MTO to avoid pro-cyclical fiscal policies in good times, the structural position deteriorates by around 1 percentage point of GDP in 2006 before stabilising at a close to balance position throughout the rest of the programme period. As mentioned above, the fiscal expansion planned for 2006 takes place against an opening output gap and worsening cyclical conditions. Taking into account the uncertainties attached to the calculation of the output

gaps[35], however, Ireland's fiscal stance in 2006 cannot confidently be characterised as anti-cyclical (see also section 3.2.3).

The projected path of structural balances needs to be also qualified in the light of the high level of public investment in Ireland. The update foresees a gradual increase in the government investment to GDP ratio over the programme period to around 4%. This projection reflects the government's commitment to addressing the significant "infrastructural deficit" in Ireland, also in line with the Irish agenda under the Lisbon process.

The fiscal position of Ireland is broadly sound and the risks to the budgetary projections in the update appear on balance to be on the positive side. However, while the Irish economy is in a broadly healthy condition and robust economic growth is expected to continue, there are some downside risks to the macroeconomic outlook (Section 2.1). Fiscal policy over the medium should therefore remain alert to these risks term which have the potential to push the nominal balances into a larger deficit. In particular, the budgetary stance in the years ahead should ensure that there is room for full functioning of the automatic stabilisers and continuation of the initiatives as outlined in the National Reform Programme, including the projected increase in investment outlays aimed to tackle the economy's infrastructural needs.

Overall, the programme is broadly consistent with the broad economic policy guidelines regarding securing of economic stability and sustainability. In particular, the update projects a sufficiently strong medium-term budgetary position to be maintained over the programme period.

3.4. Sensitivity analysis

The programme looks at the sensitivity of the public finances with respect to economic activity. It is estimated that a 1 percentage point deviation from the expected GDP growth rate would change the budget ratio in cumulative terms by around ½ percentage point over the programme period, with results being broadly symmetrical in both high and low growth scenarios. The update notes that the changes in the growth composition might impact on the estimated sensitivity, which appears somewhat lower than in the previous updates. However, the analysis is not fully explicit on the underlying assumptions about how revenues and expenditures are projected to react to variations in economic variables including the interest rate (as required by the new code of conduct).

The cyclically-adjusted balances are also likely to be influenced by such deviations from expected growth, as the growth changes are likely to affect potential output. 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[36] and (iii) no policy response (notably, the expenditure level is as in the central scenario[37]), indicate that, by 2008, the cyclically-adjusted balance is 0.4 percentage point of GDP above/below the central scenario. Hence, in the case of persistently lower real growth,

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[35] For discussion, see Section 3.2.3.

[36] In the absence of a fully-specified macroeconomic scenario, it is not possible to derive new estimates of potential growth using the agreed production function method.

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

additional measures of around 0.4 percentage point of GDP would be necessary to keep the public finances on the path targeted in the central scenario.[38]

4. GENERAL GOVERNMENT GROSS DEBT

4.1. Debt developments in the programme

Thanks to Ireland's extraordinarily high nominal growth and sizeable budget surpluses, the debt ratio fell substantially in the second half of the 1990s. The ratio continued to fall in the period to 2005. General government debt is now estimated in the update to have been 28.0% of GDP in 2005, well below the 60% of GDP Treaty reference value. This is also significantly lower than the projection in the previous update (by around 2 percentage points of GDP), mainly reflecting a better-than-expected outturn for the primary balance in 2005.

Table 8: Debt dynamics

	average 2000-2004	2005		2006		2007		2008
	COM	COM	SP	COM	SP	COM	SP	SP
Government gross debt ratio	**33.1**	**28.6**	**28.0**	**28.3**	**28.0**	**27.8**	**28.2**	**28.3**
Change in debt ratio (1 = 2+3+4)	-3.7	-0.8	-1.4	-0.3	0.0	-0.5	0.2	0.1
Contributions:								
- **Primary balance** (2)	**-2.7**	**-0.7**	**-1.5**	**-0.8**	**-0.6**	**-0.9**	**-0.4**	**-0.4**
- **"Snow-ball" effect** (3)	**-2.2**	**-1.0**	**-0.9**	**-0.9**	**-0.9**	**-1.0**	**-0.9**	**-0.8**
- Interest expenditure	1.5	1.1	1.2	1.1	1.2	1.1	1.2	1.2
- Real GDP growth	-2.1	-1.2	-1.3	-1.3	-1.2	-1.3	-1.3	-1.3
- Inflation (GDP deflator)	-1.5	-0.9	-0.8	-0.7	-0.8	-0.7	-0.8	-0.8
- **Stock-flow adjustment** (4)	**1.1**	**0.9**	**1.0**	**1.4**	**1.5**	**1.4**	**1.5**	**1.3**
- Cash/accruals	0.0							
- Accumulation of financial assets	1.0							
	-0.5							
of which: Privatisation proceeds	0.1							
- Valuation effects & residual adj.								

Note:
The change in the gross debt ratio can be decomposed as follows:

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

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

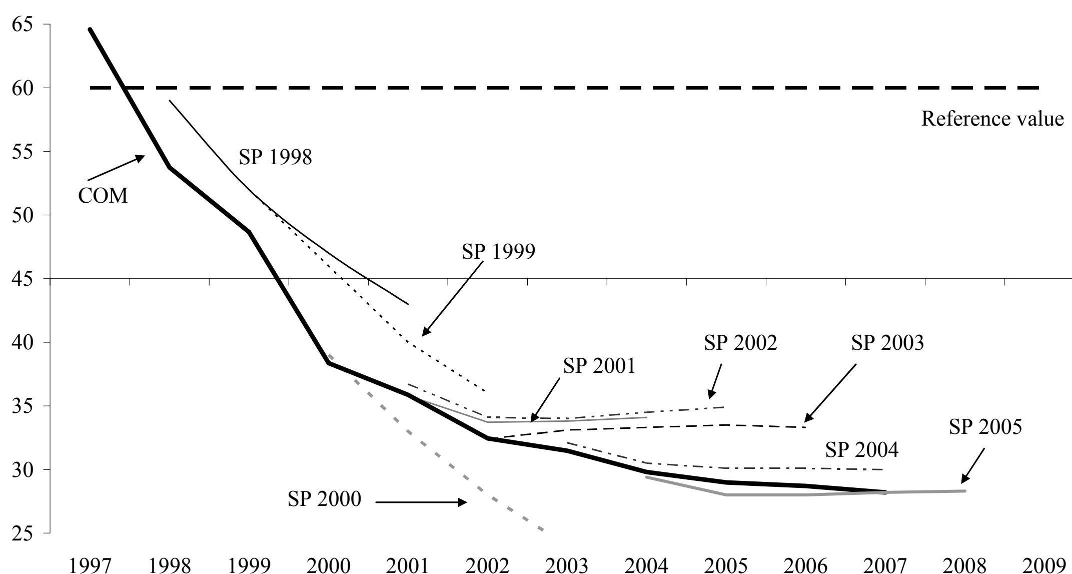
Source:
Stability programme update (SP); Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations

For the period 2006-2008 the debt ratio is now projected to stabilise at around 28% of GDP, rather than close to 30% as foreseen in the previous update. Table 8 shows that both the primary balance and the interaction between interest payments and nominal GDP growth (the "snow-ball effect") are projected to contribute to lowering the debt ratio, but this is broadly offset by stock-flow adjustments. Sizeable stock-flow

[38] In this partial analysis, unexpected changes in inflation are not assumed to affect the expenditure-to-GDP ratio as nominal expenditure is assumed broadly to move in lockstep with the price level.

adjustments reflect notably the impact of asset accumulation in non-general government instruments by the *National Pensions Reserve Fund* (*NPRF*), which was established in 2001 to pre-fund future pension liabilities and receives an equivalent of 1% of GNP annually from general government resources[39]. Without the accumulation of such assets, the debt ratio would be falling significantly throughout the programme period (see Box 2).

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



Source : Commission services' autumn 2005 forecast (COM) and successive stability programmes

4.2. Assessment

The debt trajectory described in the update is very similar to that in the Commission services' autumn 2005 forecast. For 2005, on the basis of similar growth prospects, the update assigns a more significant contribution to debt reduction from the primary balance. Overall, the low level of gross debt and the ongoing accumulation of assets in the National Pensions Reserve Fund are of particular relevance to the strategy for preparing for the budgetary impact of the ageing population (see also Section 6 below).

Box 2: Government gross debt and the impact of the National Pensions Reserve Fund[40]

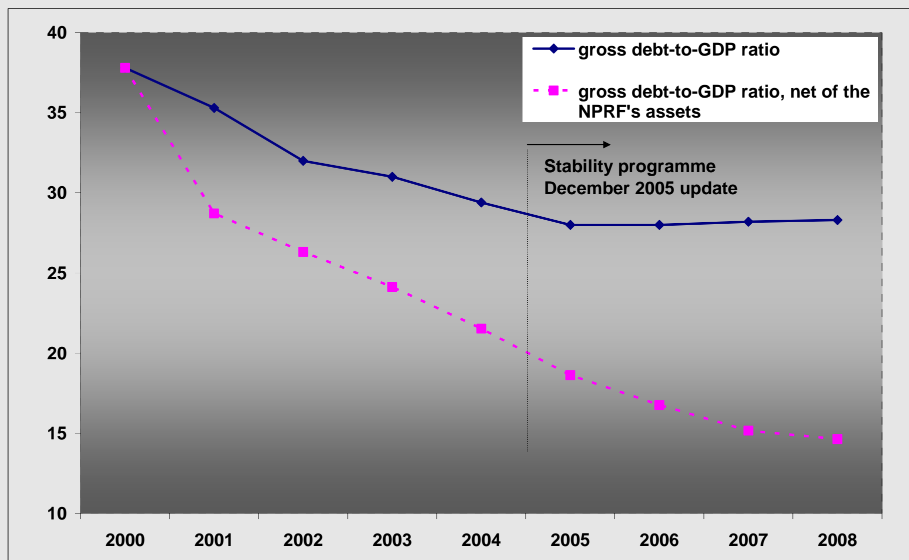
The new update of the Irish stability programme examines the sustainability of public finances and reviews some of the related past policy initiatives. In particular, the update highlights the establishment of the National Pensions Reserve Fund (NPRF) in 2001, which is expected "*to facilitate the easing of age-related spending in the future*". The programme also notes that the

[39] The update does not foresee any privatisation receipts over the programme period.

[40] The NPFR is not a pension fund in the sense of a pension scheme which collects social contributions and pays pensions. The NPFR is a reserve fund, that is, an institution that accumulates and manages assets which are economically and legally owned by the government, not by future pensioners.

NPRF's funding "*does not affect the general government balance,*[41] *but does add to the general government debt*".

The purpose of the National Pensions Reserve Fund is to build up assets which will contribute to the funding of the expected ageing-related general government costs from 2025 onwards[42]. The NPRF legislation provides for the statutory contribution to the NRPF of 1% of GNP annually, but the Irish government may also make additional contributions where circumstances allow. At inception, the government paid 5.6% of GDP to the NPRF, including receipts from the privatisation of Telecom Éireann. The NPRF market value is estimated by the programme at just above 9% of GDP at the end of 2005. In order to understand the underlying debt dynamics and the related impact of the NPRF, it is necessary to analyse the different contributions to the changes in government gross debt ratio. In recent years (see first column of Table 8), the pace of debt reduction in Ireland has been slower than implied by the primary surplus and the interaction between interest expenditure and GDP growth (so-called "snow-ball effect"), which both contributed to lowering the debt ratio. Their contributions have been largely offset by sizeable stock-flow adjustments (SFA), which mainly reflected the acquisition of non-government instruments by the NPRF. While the NPRF does not issue debt and therefore does not directly contribute to increase government gross debt, the accumulation of outside financial assets prevents a quicker fall in the gross debt ratio. The recent pattern is expected to continue over the programme period and beyond, in the absence of which the government debt-to-GDP ratio would be falling over the programme period (see figure below).



Source: Commission services' illustrative calculations assuming yearly payments amounting to 1% of GNP, real rate of return (interest and dividends) amounting to 3% and disregarding potential capital gains and losses.

According to the NPRF's statute, the drawdown from the NPRF would begin after year 2025, in line with the decrease of the proportion of persons of working age relative to those over 65 years of age, though detailed legislation governing the manner of the fund's withdrawal has not yet been enacted. Financing pension payments through drawdown of the NPFR does not avoid an increase in expenditure and a corresponding deterioration in the general government balance. However, it reduces the debt issuance to finance such spending and the concomitant increase in the gross debt (during the drawdown phase net debt would then be expected to increase more quickly/fall more slowly than gross debt).

[41] Since the NPRF is part of the government sector, payments to it by the Exchequer consolidate and do not count as government expenditure.

[42] For details on the National Pensions Reserve Fund Act (2000), see www.finance.gov.ie/viewdoc.asp?fn=/ documents/news/june/mcc655pr.htm - 37k

The establishment of the NPRF is an important initiative to address the budgetary impact of population ageing, by pre-funding the expected future payments. Nevertheless, as the long-term public finance projections included in the update (Chapter 6, Table 14) reveal, the role of the NPRF should not be overestimated. Total age-related expenditures are projected in the programme to increase by 9.2 percentage points of GDP between years 2005 and 2050. In 2050, the NPRF reserve fund assets are expected (after partial drawdown, assumed to start after year 2025) at around 22% of GDP, i.e. covering just around 2½ years of the projected increase in age-related expenditures at this time horizon. Moreover, in terms of fiscal sustainability, the only significant difference between a strategy of accumulating assets in the NPRF and of reducing the government gross debt is related to the difference between the average interest rate of the government debt and the potentially higher rate of return (including net capital gains) of the reserve fund. Indeed, in order to fully meet the budgetary challenges posed by population ageing, some further fiscal effort in Ireland will be needed over the long-run.

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 improve the functioning of the supply side of the economy. The programme also provides a chapter on institutional features of public finances, including some important improvements to the budgetary process presented with the budget for 2006.

As regards quality of public finances and structural reform, the areas which are described in the update are notably (i) revenue and expenditure strategy, (ii) public services delivery and (iii) infrastructural investment. At the centre of all described reforms stands the drive for value for money (on both current and capital spending) and the ongoing effort to tackle the economy's infrastructure needs.

- On revenue strategy, the update highlights an increasing efficiency of the tax collection process in Ireland and reviews the recent yields from the Revenue Commissioner's investigations. The chapter comments also on the changing sources of tax revenues over the last decade. The analysis in the update (based on Exchequer cash data) reveals that the share of capital taxes in total taxes has risen, notably as a result of a recent buoyancy of the property market. In the somewhat stretched situation of the property market in Ireland, this suggests that an excessive reliance on capital taxes could turn out being as a risk for the revenue side in the years ahead (see also Section 3.3.2). As regards the expenditure side, the programme reviews some recent improvements aimed at increasing the efficiency of public spending.

- As regards public service delivery, the update refers to the budget for 2006 which included several provisions aimed at improving childcare and education. In particular, the improvements include a five-year *National childcare strategy* (see box 1), allocating money also to the supply side of the childcare, and a multi-annual investment programme for the tertiary education sector. Reforms to further increase labour market participation and focus on education are an integral part of the Irish agenda under the Lisbon process.

- On infrastructural investment, the update foresees a further increase in capital outlays by around ½ percentage points of GDP for the period 2006-2008 (see

Section 3.2). This policy is in line with the stated need to tackle Ireland's "infrastructural deficit", referring also to the framework of the upcoming 2007-2013 *National Development Plan (NDP)*. Building on reforms from recent years aimed at better management of capital projects, an extended ten-year spending envelope has been introduced for transport investment (called "Transport 21"), complementing the system of rolling five-year spending capital envelopes. Within the multi-annual envelopes, the government continues to encourage investment through 'public-private partnerships' (*PPPs*), thereby aiming to accelerate project delivery. Overall, the drive for value for money and the approach to public investment, including multi-annual budgeting, should enhance efficiency and increase the transparency of public expenditures.

The update discusses a number of improvements related to the budgetary process. As from 2006, (i) the Finance Minister will meet the parliamentary Finance and Public Services Committee to discuss the economic and fiscal background to the current and following two budgets; (ii) an update of the economic and fiscal projections in the *Stability Programme* will be published in the course of autumn and (iii) from 2007 individual Ministers will publish an annual statement on the outputs and objectives of their departments.

Overall, the policy intentions described in the programme, including the improvements to the budgetary process, are consistent with the broad economic policy guidelines in the area of public finances (see Annex 3 for further details). In addition, the 2006 update incorporates a number of policy directions in line with the Irish National Reform Programme, submitted on 28 October 2005 in the context of the renewed Lisbon strategy for growth and jobs, and in this sense the two documents are consistent. The budgetary implications of the policy directions outlined in the National Reform Programme appear to be reflected in the budgetary projections of the stability programme.

Box 3: The composition of government expenditure in Ireland since 1990: an increased room for financing the economy's infrastructural needs

Government expenditure in Ireland was around 35% of GDP in 2004, down by some 10 percentage points of GDP since the early 1990s. According to the economic classification of expenditures (see below), the main expenditure-reducing factor has been a clear fall in interest expenditure, while capital spending has picked up over the same period.

Interest payments (around 8% of GDP in the early 1990s) have fallen by around 7 percentage points to just above 1% of GDP in 2005. The reduction is both an effect of (i) the effort to reduce debt significantly and (ii) the ability to refinance debt at lower interest rates, notably benefiting from Ireland's membership of the euro area. Indeed, the very low debt level in Ireland underlies the programme projection that interest expenditure will remain at around 1% of GDP over the period 2006-2008. As interest rates are around historical lows, the latter source of reductions in interest payments seems to be nearly depleted. In this respect, a significant reduction in interest outlays, creating more room for primary expenditure, cannot be expected in future years.

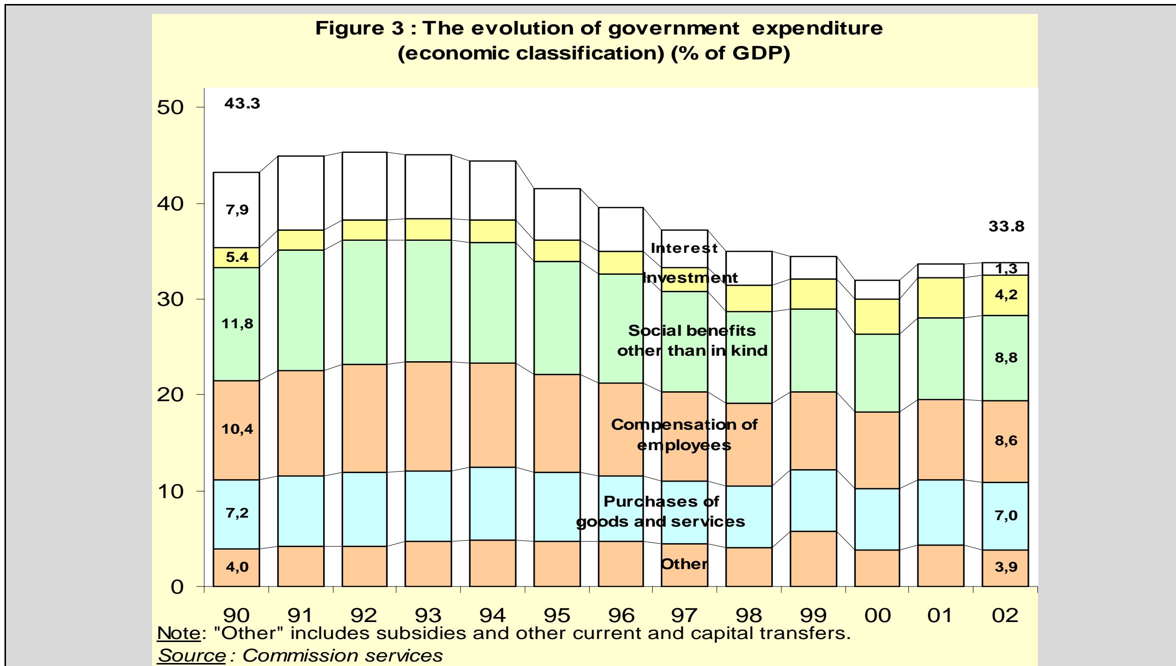


Figure 3 : The evolution of government expenditure (economic classification) (% of GDP)

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

According to the economic classification of expenditures[43], the reduction in the interest burden was largely translated into reduced total expenditure over the last decade. However, while other expenditure categories of the economic classification remained steady as a percentage of GDP (disregarding a small fall in item 'social benefits other than in kind'), a substantial part of the available margin was used to increase capital expenditure. In this respect, the improvement of the Irish fiscal position has created room for increasing investment outlays needed to tackle the country's "infrastructure deficit", while adhering to a policy of maintaining a low tax burden.

6. THE SUSTAINABILITY OF THE PUBLIC FINANCES

The assessment of the sustainability of Ireland's 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[44] remains unchanged at the 2005 level throughout the programme period.

On the basis of information in the programme, age-related expenditure is foreseen to increase by 9.4 percentage points of GDP between 2008 and 2050, to which pension expenditure contributes most, namely by 6.1 percentage points of GDP (see table A2 in Annex 5). The present analysis is based on national projections provided by the Irish authorities. [45] These projections cover the same set of government expenditure items as the common projections carried out by the Economic Policy Committee (EPC) and are

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[43] In terms of the functional classification, the increase in primary expenditure is fairly evenly distributed over all different categories of expenditure over last decade.

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

[45] National projections were submitted as the results of the EPC common projections exercise were not finalised in time for inclusion in Ireland's 2005 Stability Programme Update.

based on EPC assumptions[46]. In addition to these expenditure items, the Irish programme includes projection of spending on child-benefits. However, the projections methodology differs in some respects from that of the Economic Policy Committee.

The gross debt-to-GDP ratio is projected to remain below the 60% of GDP reference value in the '2005' scenario until the very end of the projection period (in 2050), though in the 'programme' scenario it would rise above the reference value in the mid-2030s[47]. When considering the adjusted gross debt/GDP ratio, which takes into account the assets accumulated in the National Pensions Reserve Fund (NPRF; see box 2), the debt dynamics are somewhat more favourable (see Table A4 in Annex 5).[48]

Indeed, according to the S1 indicator, a small sustainability gap emerges for Ireland in the '2005' scenario: the projected future budgetary impact of ageing populations up to 2050 is almost offset by the positive initial budgetary position, the low current level of gross debt and the assets held by the public pension fund. In the 'programme' scenario the sustainability gap widens to around 1¾% of GDP. However, S1 only takes into account changes in the primary balance up to 2050, which underestimates the cost of ageing.

A more demanding measure is the government's inter-temporal budget constraint, captured by the S2 indicator, according to which a sustainability gap of about 5% of GDP emerges in the '2005' scenario. The initial budgetary position is not sufficiently high to fully offset the sizeable future budgetary impact of ageing[49]. In the 'programme' scenario, the sustainability gap increases to about 6% of GDP, reflecting the loosening of the fiscal position over the programme period. This sustainability gap translates into a required primary balance (RPB) of about 7% of GDP, higher than the structural primary balance of about 1½% of GDP of the last year of the programme period.

Moreover, the sustainability gap, as measured by the S2 indicator, would increase by around ¼% GDP if the (budgetary or structural) adjustment was to be postponed by 5 years (see table A3 in Annex 5).

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[46] For government expenditure on pensions, healthcare, long-term care, education and unemployment benefits. Additional information on long-term projections on unemployment benefits was obtained from the Irish Department of Finance. In addition, changes to health-care expenditure and age-related expenditure in 2030 as well as supplementary information on the expenditure items in 2040 and on education in 2008 were provided by the Irish authorities. Other expenditure items and revenues are assumed to remain constant as a share of GDP over the projection period.

[47] 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.

[48] In the present analysis, the rate of return on assets in the NPRF is assumed to be the same as that paid on government debt. A real interest rate of 3% over the long-term (to 2050) is assumed for all Member States, which together with a uniform assumption of a 2% inflation rate yields a nominal interest rate of 5%. These assumptions are also used in the common long-term budgetary projection exercise by the AWG and the EPC (see 'The 2005 EPC projection of age-related expenditure: Agreed underlying assumptions and projection methodologies', ECFIN/CEFCPE(2005)REP/54772, 8 November 2005).

[49] The S1 indicator is lower than the S2 indicator because the current debt ratio is relatively low in Ireland and the high increase up to 2050 in age-related expenditures is assumed to remain unchanged after 2050 with S2, while developments after 2050 are not considered with S1.

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)	**0.6**	**5.0**	**6.9**	**1.8**	**6.0**	**7.0**
initial budgetary position	*-2.3*	*-2.2*		*-1.3*	*-1.2*	
debt requirement in 2050	*-1.0*	*:*		*-0.8*	*:*	
future changes in budgetary position	*3.9*	*7.2*		*3.9*	*7.2*	

Note: The S1 indicator measures the sustainability gap as the difference 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 measures the sustainability gap as the difference 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[50]. 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.

In interpreting these results, several factors need to be taken into account. The assumptions underlying the long-term projections are those that are commonly agreed and used by the EPC in the current common projections exercise. Overall, the underlying assumptions in the programme can therefore be considered to be plausible. The update includes additional national long-term projections on expenditure of child benefits. The impact on the S2 indicator of incorporating this national projection would be a slight reduction of 0.1 percent of GDP51, thus hardly changing the results above. The National Pension Reserve Fund (NPRF) aims to pre-fund future pension liabilities and smooth the pension burden between generations. Assets of the NPRF were 8% of GDP in 2005.52

Reforms of the public service pension system are currently underway and the update announces an eventual overall reform package with acceptable retirement incomes on a more sustainable basis, the details of which are not yet decided. Moreover, the Pensions Board recently launched the National Pensions Review, covering the overall pension arrangements in Ireland[53]. It raised a number of issues, including among others that: (i) a much more significant increase in the annual costs of Social Welfare retirement pensions and public service pensions is now predicted (the updated pension projections in the update show a larger rise compared with those by the EPC in 2001); and, (ii) supplementary pension coverage is currently insufficient and a cause for concern. This suggests that some changes to the pension arrangements in Ireland could be envisaged. It should be noted, however, that there is no obligation on the Government to implement the recommendations of the National Pensions Review.

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[50] 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.

[51] The impact of this additional national long-term projection over the period 2010-2050 on the S2 sustainability indicator is reported here.

[52] For technical reasons, this figure is not fully comparable with the figure quoted in Box 2.

[53] See 'The National Pensions Review', report by the Pensions Board, October 2005, available at: http://www.pensionsboard.ie.

6.1. Overall assessment

With regard to the sustainability of public finances, Ireland appears to be at medium risk on grounds of the projected budgetary costs of ageing populations. The currently sound budgetary position, in conjunction with the low debt level and the accumulation of assets in the National Pension Reserve Fund, is not sufficiently strong to offset the significant rise in age-related government expenditure, notably on pensions, over the long term. Ireland has recently enacted reforms to the pension system for public servants and the authorities envisage further measures that should contribute to a more sustainable basis for the provision of public service pensions. Implementing additional measures aimed at easing the budgetary impact of ageing populations over the long term would be an important element in reducing risks to the sustainability of public finances.

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	145,319	4.5	4.6	4.8	5.0	4.8
2. Nominal GDP	B1*g	148,556	6.8	7.6	7.9	8.0	7.7
Components of real GDP							
3. Private consumption expenditure	P.3	67,733	3.8	5.3	5.8	6.8	4.6
4. Government consumption expenditure	P.3	19,464	2.4	3.2	3.5	3.5	3.5
5. Gross fixed capital formation	P.51	34,492	8.0	7.9	4.7	4.5	3.7
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	766	0.5	0.2	0.2	0.2	0.2
7. Exports of goods and services	P.6	124,558	7.0	2.0	4.0	4.3	4.3
8. Imports of goods and services	P.7	101,200	7.6	3.0	4.5	5.2	3.7
Contributions to real GDP growth*							
9. Final domestic demand		-	3.9	4.8	4.4	4.9	3.7
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	-0.1	0.2	0.2	0.2	0.2
11. External balance of goods and services	B.11	-	0.7	-0.4	0.2	-0.0	1.0

* figures subject to rounding

Table 1b. Price 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. GDP deflator			2.2	2.9	2.9	2.8	2.8
2. Private consumption deflator							
3. HICP*			2.3	2.2	2.0	2.0	1.8
4. Public consumption deflator							
5. Investment deflator							
6. Export price deflator (goods and services)			-0.8	1.0	2.2	2.0	2.0
7. Import price deflator (goods and services)			-0.5	1.5	2.5	2.0	2.0

* 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[1]		1,864,925	3.0	4.7	3.1	2.2	1.9
2. Employment, hours worked[2]							
3. Unemployment rate (%)[3]		86,825	4.4	4.3	4.3	4.4	4.5
4. Labour productivity, persons [4]		-	1.5	-0.2	1.7	2.7	2.8
5. Labour productivity, hours worked[5]		-					
6. Compensation of employees	D.1						

Notes:

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

[2] National accounts definition.

[3] Harmonised definition, Eurostat; levels.

[4] Real GDP per person employed.

[5] Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-0.8	-2.4	-3.3		
of which: - Balance on goods and services						
- Balance of primary incomes and transfers						
- Capital account						
2. Net lending/borrowing of the private sector	B.9/ EDP B.9					
3. Net lending/borrowing of general government	B.9					
4. Statistical discrepancy		-0.5 *				

* level= €-705m

Table 2. General government budgetary prospects

	ESA code	2004 Level	2004 % of GDP	2005 % of GDP	2006 % of GDP	2007 % of GDP	2008 % of GDP
Net lending (EDP B.9) by sub-sector							
1. General government	S.13	2,117	1.4	0.3	-0.6	-0.8	-0.8
2. Central government	S.1311	4,115	1.0	0.2	-0.6	-0.9	-0.8
3. State government	S.1312						
4. Local government	S.1313	285	0.2	-0.1	-0.1	-0.1	-0.1
5. Social security funds	S.1314	377	0.3	0.2	0.2	0.1	0.1
General government (S13)							
6. Total revenue	TR	52,206	35.1	35.2	34.5	34.5	34.3
7. Total expenditure	TE[1]	50,088	33.7	34.9	35.1	35.4	35.0
8. Net lending/borrowing	EDP B.9	2,118	1.4	0.3	-0.6	-0.8	-0.8
9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	1755	1.2	1.2	1.2	1.2	1.2
pm: 9a. FISIM		-17	0.0	0.0	0.0	0.0	0.0
10. Primary balance	[2]	3,873	2.6	1.5	0.6	0.4	0.5
Selected components of revenue							
11. Total taxes (11=11a+11b+11c)		37,739	25.4	25.8	25.3	25.4	25.4
11a. Taxes on production and imports	D.2	19,294	13.0	13.4	13.1	13.3	13.2
11b. Current taxes on income, wealth, etc	D.5	18,242	12.3	12.2	12.0	12.0	12.0
11c. Capital taxes	D.91	203	0.1	0.2	0.2	0.1	0.1
12. Social contributions	D.61	9,059	6.1	6.2	6.2	6.1	6.1
13. Property income	D.4	1,485	1.0	1.0	0.9	0.9	0.9
14. Other (14=15-(11+12+13))		3,923	2.6	2.2	2.1	2.0	1.9
15=6. Total revenue	TR	52,206	35.1	35.2	34.5	34.5	34.3
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995) [3]		47,122	31.7	32.3	31.7	31.8	31.7
Selected components of expenditure							
16. Collective consumption	P.32	8,015	5.4	5.6	5.7	5.9	5.8
17. Total social transfers	D.62 + D.63	25,578	19.2	20.8	20.5	20.4	20.0
17a. Social transfers in kind	P.31 =D.63	15,196	10.2	10.5	10.4	10.5	10.3
17b. Social transfers other than in kind	D.62	13,382	9.0	10.3	10.1	9.9	9.7
18.=9. Interest expenditure (incl. FISIM)	EDP D.41 incl. FISIM	1,755	1.2	1.2	1.2	1.2	1.2
19. Subsidies	D.3	820	0.6	0.6	0.6	0.7	0.7
20. Gross fixed capital formation	P.51	5,370	3.6	3.7	3.8	4.0	4.2
21. Other (21=22-(16+17+18+19+20))		5,550	3.7	3.1	3.3	3.2	3.2
22=7. Total expenditure	TE[4]	50,088	33.7	34.9	35.1	35.4	35.0
Pm: compensation of employees	D.1	-	-	-	-	-	-

Notes:

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

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

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

4) 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	2003	2008
1. General public services	1		
2. Defence	2		
3. Public order and safety	3		
4. Economic affairs	4		
5. Environmental protection	5		
6. Housing and community amenities	6		
7. Health	7		
8. Recreation, culture and religion	8		
9. Education	9		
10. Social protection	10		
11. Total expenditure (= item 7=26 in Table 2)	TE[1]		

Notes:

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

Table 4. General government debt developments

% of GDP		2004	2005	2006	2007	2008
1. Gross debt [1]		29.4	28.0	28.0	28.2	28.3
2. Change in gross debt ratio		-1.6	-1.4	0	+0.2	+0.1
Contributions to changes in gross debt						
3. Primary balance [2]		-2.6	1.5	-0.6	-0.4	-0.5
4. Interest expenditure (incl. FISIM) [3]		1.2	1.2	1.2	1.2	1.2
5. Stock-flow adjustment		0.3	0.7	2.1	2.3	2.1
of which: - Differences between cash and accruals[4]						
- Net accumulation of financial assets[5] *of which: - privatisation proceeds*						
- Valuation effects and other [6]						
p.m. implicit interest rate on debt [7]		4.0	4.2	4.3	4.6	4.4
Other relevant variables						
6. Liquid financial assets[8]						
7. Net financial debt (7=1-6)						

Notes:

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

2) Cf. item 10 in Table 2.

3) 3Cf. item 9 in Table 2.

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

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

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

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

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

Table 5. Cyclical developments*

% of GDP	ESA Code	2004	2005	2006	2007	2008
1. Real GDP growth (%)		4.5	4.6	4.8	5.0	4.8
2. Net lending of general government	EDP B.9	1.4	0.3	-0.6	-0.8	-0.8
3. Interest expenditure (incl. FISIM recorded as consumption)	EDP D.41 +FISIM	1.2	1.2	1.2	1.2	1.2
4. Potential GDP growth (%) (1)		5.8	6.1	5.5	5.3	4.8
contributions: - labour - capital - total factor productivity						
5. Output gap		0.1	-1.3	-2.0	-2.3	-2.3
6. Cyclical budgetary component		0.1	-0.5	-0.8	-0.9	-0.9
7. Cyclically-adjusted balance (2-6)		1.4	0.8	0.2	0.1	0.2
Change in CABB		1.8	-0.6	-0.6	-0.2	0.1
8. Cyclically-adjusted primary balance (7-3)		2.6	2.0	1.4	1.3	1.4
Change in CAPB		1.8	-0.6	-0.6	-0.2	0.1

* Figures may be affected by rounding

(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**		5.3	5.1	5.2	5.1	-
Current update		4.5	4.6	4.8	5.0	4.8
Difference		-0.8	-0.5	-0.4	-0.4	-
General government net lending (% of GDP) **Previous update**	EDP B.9	0.9	-0.8	-0.6	-0.6	-
Current update		1.4	0.3	-0.6	-0.8	-0.8
Difference		0.5	1.1	0.0	-0.2	-
General government gross debt (% of GDP) **Previous update**		30.5	30.1	30.1	30.0	-
Current update		29.4	28.0	28.0	28.2	28.3
Difference		-1.1	-2.1	-2.1	-1.8	-

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050
Total expenditure						
Of which: age-related expenditures		**15.9**	**16.0**	**17.8**	**19.5**	**25.1**
Pension expenditure *		4.6	5.2	6.5	7.9	11.1
Social security pension		3.4	3.8	4.5	5.5	8.4
Old-age and early pensions		2.3	2.5	3.3	4.2	7.1
Other pensions (disability, survivors)		1.1	1.2	1.3	1.3	1.3
Occupational pensions (if in general government)		1.2	1.4	2.0	2.4	2.7
Health care		5.9	5.8	6.2	6.6	8.5
Long-term care *(this was earlier included in the health care)*		0.7	0.7	0.9	1.1	1.7
Education expenditure		3.5	3.2	3.1	2.9	2.8
Other age-related expenditures		1.2	1.1	1.1	1.0	1.0
Interest expenditure						
Total revenue						
Of which: property income						
of which: from pensions contributions (or social contributions if appropriate)						
Pension reserve fund assets		**8.0 ****	**11.1**	**18.1**	**26.0**	**21.9**
Of which: consolidated public pension fund assets (assets other than government liabilities)						
Assumptions						
Labour productivity growth		**3.3**	**3.8**	**2.2**	**1.7**	**1.7**
Real GDP growth		**5.7**	**5.2**	**3.0**	**2.1**	**1.6**
Participation rate males (aged 20-64)		**86.2**	**87.3**	**88.4**	**88.1**	**88.3**
Participation rates females (aged 20-64)		**64.5**	**68.5**	**73.3**	**75.3**	**75.6**
Total participation rates (aged 20-64)		**75.4**	**77.9**	**80.9**	**81.7**	**82.0**
Unemployment rate		**3.6**	**3.1**	**3.1**	**3.1**	**3.1**
Population aged 65+ over total population		**11.2**	**11.8**	**14.8**	**18.4**	**26.2**
Real interest rate (%)	**-**	3.0	3.0	3.0	3.0	3.0

* Please refer to Annex 3 for the definition of pensions used in these projections
** For technical reasons, this figure is not comparable with the figure quoted in section 1.2

Table 8. Basic assumptions

	2004	2005	2006	2007	2008
Short-term interest rate [1] (annual average)					
Long-term interest rate (annual average)					
USD/€exchange rate (annual average) (euro area and ERM II countries)		1.25	1.21	1.22	1.22
Nominal effective exchange rate		0.0	-0.8	0.4	0.4
(for countries not in euro area or ERM II) exchange rate vis-à-vis the €(annual average)	-	-	-	-	-
World excluding EU, GDP growth		5.2	5.0	4.7	4.7
EU GDP growth		1.5	2.1	2.4	2.4
Growth of relevant foreign markets		5.1	5.7	5.7	5.7
World import volumes, excluding EU		8.6	8.7	8.4	8.4
Oil prices, (Brent, USD/barrel)		55.0	61.4	60.3	60.3

Notes:
1) 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		Ireland submitted the update on "budget day" (7 December 2005), as specifically allowed for under the new code (see footnote 1).
2. Model structure			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	X		
3. Model tables (so-called data requirements)			
The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct).	X		
The programme provides all compulsory information in these tables.	X		
The programme provides all optional information in these tables.		X	See footnote 2 of the assessment for details.
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[12].			not applicable
The possible upside and downside risks to the economic outlook are brought out.	X		
The outlook for sectoral balances and, especially for countries with a high external deficit, the external balance is analysed.		X	
c. Monetary/exchange rate policy			
The <u>convergence</u> programme presents the medium-term			not applicable

Guidelines in the new code of conduct	Yes	No	Comments
monetary policy objectives and their relationship to price and exchange rate stability.			
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.			not applicable
The budgetary targets are backed by an indication of the broad measures necessary to achieve them and an assessment of their quantitative effects on the general government balance is analysed.		X	
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	The update is not fully explicit on the underlying assumptions about how revenues and expenditures are projected to react to variations in economic variables including a test of the interest rate sensitivity.
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		
h. Quality of public finances			
The programme describes measures aimed at improving the quality of public finances on both the revenue and expenditure	X		

Guidelines in the new code of conduct	Yes	No	Comments
side (e.g. tax reform, value-for-money initiatives, measures to improve tax collection efficiency and expenditure control).			
i. Long-term sustainability			
The programme outlines the country's strategies to ensure the sustainability of public finances, especially in light of the economic and budgetary impact of ageing populations.	X		
Common budgetary projections by the AWG are included in the programme. The programme includes all the necessary additional information. (…) To this end, information included in programmes should focus on new relevant information that is not fully reflected in the latest common EPC projections.	X		
j. Other information (optional)			
The programme includes information on the implementation of existing national budgetary rules (expenditure rules, etc.), as well as on other institutional features of the public finances, in particular budgetary procedures and public finance statistical governance.	X		In particular, information on changes in budgetary process was included.

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

The table below provides an overview of whether the strategy and policy measures in the programme are consistent with the broad economic policy guidelines in the area of public finances.

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 strengthen pension, social insurance and healthcare systems to ensure that they are financially viable, socially adequate and accessible (…)		X	
3. To promote a growth- and employment-orientated and efficient allocation of resources			
Member States should, without prejudice to guidelines on economic stability and sustainability, re-direct the composition of public expenditure towards growth-enhancing categories in line with the Lisbon strategy, adapt tax structures to strengthen growth potential, ensure that mechanisms are in place to assess the relationship between public spending and the achievement of policy objectives and ensure the overall coherence of reform packages.	X		

Notes:
[1]As further specified in the Stability and Growth Pact and the 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, focussing on 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 Table below)[54]. 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:

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

.

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

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

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

And the change in the total tax-to-GDP ratio is the sum

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

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

---

[54] Private and corporate income taxes are generally not provided, neither in the programme nor 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.

[55] The observed or projected elasticity (ex-post elasticity) also includes the effect of other factors (OF) such as discretionary measures: $\frac{\Delta T}{T} = \varepsilon_{T,Bexante}\frac{dB}{B} + \frac{OF}{T} = \varepsilon_{T,Bexpost}\frac{dB}{B}$.

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

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

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

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 of total taxes is obtained as $\varepsilon = \sum_i \varepsilon_{T_iB_i}\varepsilon_{B_iY}$.

The table below reports the results of the assessment of the tax projections presented in the programme by major tax category, which, as mentioned above, is the basis for the aggregated results reported in Table 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	0.0	-0.3	0.0	0.2	-0.1	/
Difference	*-0.3*		*0.3*		/	/
of which[3]: - elasticity component	*-0.2*		*0.3*		/	/
- composition component	*-0.1*		*0.0*		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[4]	0.9	0.7	0.9	1.1	1.3	1.0
- of tax base[4] to GDP	1.1	1.0	1.1	1.1	0.7	1.0
Social contributions:						
Change in tax-to-GDP ratio	0.0	0.0	0.0	-0.1	0.0	/
Difference	*0.0*		*-0.1*		/	/
of which[3]: - elasticity component	*0.0*		*-0.1*		/	/
- composition component	*0.0*		*0.0*		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[5]	1.0	1.0	1.0	0.9	1.2	1.3
- of tax base[5] to GDP	1.0	1.0	0.9	0.9	0.9	0.7
Personal income tax[6]:						
Change in tax-to-GDP ratio	-0.4	-0.2	-0.1	-0.1	0.0	/
Difference	*0.3*		*0.0*		/	/
of which[3]: - elasticity component	*0.3*		*0.1*		/	/
- composition component	*0.0*		*0.0*		/	/
p.m.: Observed elasticity:						
- of taxes to tax base[5]	0.3	0.8	0.9	1.0	1.2	2.1
- of tax base[5] to GDP	1.0	1.0	0.9	0.9	0.9	0.7
Corporate income tax[6]:						
Change in tax-to-GDP ratio	-0.2	-0.1	0.0	0.0	0.0	/
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[7]	0.3	0.8	0.8	0.8	0.9	1.0
- of tax base[7] to GDP	1.0	1.0	1.1	1.1	1.1	1.3

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	0.0	0.0	0.0	0.0
Difference	*0.0*		*0.0*	
of which[3]: - elasticity component	*-0.1*		*-0.1*	
- composition component	*0.1*		*0.1*	
p.m.: Observed elasticity:				
- of taxes to tax base[4]	0.9	1.0	0.9	1.0
- of tax base[4] to GDP	1.1	1.0	1.1	1.0
Social contributions:				
Change in tax-to-GDP ratio	0.0	-0.1	0.0	-0.1
Difference	*0.0*		*0.0*	
of which[3]: - elasticity component	*-0.1*		*-0.1*	
- composition component	*0.2*		*0.1*	
p.m.: Observed elasticity:				
- of taxes to tax base[5]	1.0	1.3	1.0	1.3
- of tax base[5] to GDP	1.0	0.7	0.9	0.7
Personal income tax[6]:				
Change in tax-to-GDP ratio	-0.4	0.3	-0.1	0.3
Difference	*-0.7*		*-0.4*	
of which[3]: - elasticity component	*-0.8*		*-0.5*	
- composition component	*0.3*		*0.3*	
p.m.: Observed elasticity:				
- of taxes to tax base[5]	0.3	2.1	0.9	2.1
- of tax base[5] to GDP	1.0	0.7	0.9	0.7
Corporate income tax[6]:				
Change in tax-to-GDP ratio	-0.2	0.1	0.0	0.1
Difference	*-0.2*		*-0.1*	
of which[3]: - elasticity component	*-0.2*		*-0.1*	
- composition component	*-0.1*		*-0.1*	
p.m.: Observed elasticity:				
- of taxes to tax base[7]	0.3	1.0	0.8	1.0
- of tax base[7] to GDP	1.0	1.3	1.1	1.3

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: 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	**3.8**	**3.8**	**2.2**	**2.2**	**1.7**	**1.7**	**1.7**	**1.7**
Real GDP growth	**5.2**	**5.2**	**3.0**	**3.0**	**2.1**	**2.1**	**1.6**	**1.6**
Participation rate males (aged 20-64)	**87.3**	**87.3**	**88.4**	**88.4**	**88.1**	**88.1**	**88.3**	**88.3**
Participation rates females (aged 20-64)	**68.5**	**68.5**	**73.3**	**73.3**	**75.3**	**75.3**	**75.6**	**75.6**
Total participation rates (aged 20-64)	**77.9**	**77.9**	**80.9**	**80.9**	**81.7**	**81.7**	**82.0**	**82.0**
Unemployment rate (20-64)	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**
Population aged 65+ over total population	**11.8**	**11.8**	**14.8**	**14.8**	**18.4**	**18.4**	**26.2**	**26.2**

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	15.3	*15.5*	*17.3*	19.1	21.4	*24.7*	9.4	7.2
Pensions	5.0	5.2	6.5	7.9	9.3	11.1	6.1	4.8
Health care	5.8	5.8	6.2	6.6	7.4	8.5	2.7	2.0
Long-term care	0.7	0.7	0.9	1.1	1.4	1.7	1.0	0.8
Education	3.2	3.2	3.1	2.9	2.7	2.8	-0.4	-0.3
Unemployment benefits	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0
Total primary non age-related spending	16.8	16.8	16.8	16.8	16.8	16.8	*0.0*	*0.0*
Total revenues	*33.5*	*33.5*	*33.5*	*33.5*	*33.5*	*33.5*	*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	**0.1**	**0.2**
Programme scenario	**0.2**	**0.3**

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	28.3	24.6	19.9	36.7	78.1	156.2	127.9
*Gross debt, i + 1**	*28.3*	*25.1*	*22.4*	*42.1*	*90.2*	*182.8*	*154.5*
*Gross debt, i - 1**	*28.3*	*24.1*	*17.7*	*32.1*	*68.4*	*135.7*	*107.4*
Adjusted gross debt	21.0	17.7	13.7	30.1	70.8	148.1	127.0
2005 Scenario							
Gross debt	18.7	13.6	1.3	7.9	37.1	100.4	81.7
*Gross debt, i + 1**	*18.7*	*14.0*	*2.2*	*9.3*	*40.6*	*111.4*	*92.6*
*Gross debt, i - 1**	*18.7*	*13.3*	*0.5*	*6.9*	*34.2*	*91.5*	*72.7*
Adjusted gross debt	11.5	6.7	-5.0	1.4	29.8	92.3	80.8

* *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.