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**DECEMBER 2005 UPDATE**  
**OF THE STABILITY PROGRAMME OF SPAIN**  
**(2005-2008)**  
**AN ASSESSMENT**

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## SUMMARY AND CONCLUSIONS<sup>1</sup>

The seventh update of the Spanish stability programme, covering the period 2005-2008, was submitted on 30 December 2005, four weeks beyond the 1 December deadline set in the new code of conduct. The programme broadly follows the model structure and data provision requirements specified in the new code of conduct.<sup>2</sup>

In its opinion of 8 March 2005 on the previous update of the stability programme, also covering the period 2004-2008, the Council invited Spain to adopt measures to prevent the emergence of unsustainable trends, in particular a comprehensive reform of the pension system aimed at aligning more closely contributions and pension benefits.

At an average annual rate of 3½%, real GDP growth in Spain was among the highest in the EU over the last ten years. Increasing by 3¼% per year, job creation underpinned robust growth. In contrast, Spain has been lagging behind the euro area in terms of productivity growth (½% compared with 1% in the euro area). HICP inflation while easing to a level close to 3% in 2004 has remained above the euro-area average. The higher inflation and lower productivity growth than its main (trade) partners have led to competitiveness losses largely explaining the deterioration of the external position, which attained a deficit of 6½% of GDP in 2005. Fiscal consolidation in the second half of the nineties, by bringing the deficit from 6% in 1995 to 1% in 1999, has contributed to containing such developments. Public finances achieved and maintained a close-to-balance position already since the beginning of the current decade.

GDP growth is projected around 3¼% over the programme period. GDP should exclusively be sustained by domestic demand, especially by private consumption and residential construction. External trade is expected to continue weighing on growth and the external net borrowing is projected to widen further to above 8% of GDP by 2008. Inflation is forecast to fall from 3½% in 2005 to 2¼% in 2008. Based on the Commission services' autumn 2005 forecasts, this macroeconomic scenario appears plausible, although the negative contribution of the external sector to growth could be higher, thus leading to a faster deterioration of the external position.

The general government surplus for 2005 is estimated at 1% of GDP, which compares with 0.2% in the Commission services' autumn forecast and 0.1% of GDP in the previous update. The overachievement of last year's target is the result of higher-than-expected revenues, while the expenditure ceilings of the central government will most likely be met.

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<sup>1</sup> 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 Javier Yaniz-Igal ([Javier.Yaniz-Igal@cec.eu.int](mailto:Javier.Yaniz-Igal@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.

<sup>2</sup> The programme has gaps in the compulsory (interest rates, collective consumption and total social transfers projections) and does not provide all optional data prescribed by the new code of conduct.

The update aims at (i) maintaining budgetary stability over the economic cycle, (ii) prioritising productive government expenditure and policies aimed at improving the quality of public finances and (iii) ensuring the long-term sustainability of public finances as a necessary means of guaranteeing the sufficiency and sustainability of social spending. The general government budget balance surplus is planned to decline from 1% of GDP in 2005 to about ½% in 2008. The time profile of the primary surplus is similar, falling from 2¾% in 2005 to 2% in 2008. While an announced but not spelled out, direct tax reform would lower tax receipts by ½ percentage point of GDP over the programme period, the expenditure to GDP ratio should remain broadly unchanged. The previous update projected smaller, albeit rising, surpluses. The difference between the two updates is to be found in a much better 2004 deficit outcome than projected one year earlier, with carry-over effects over the programme period.

According to the calculations carried out by the Commission services on the basis of the programme, based on the commonly agreed methodology, the structural balance (i.e. the general government budget in cyclically-adjusted terms and net of one-off and other temporary measures) is estimated to attain a surplus of around 1¼% of GDP, stable over 2005-2007. In 2008 the surplus is estimated to decline to around 1% against the backdrop of a closing output gap. The update sets a medium-term objective (MTO) of a balanced budget in structural terms, which is planned to be maintained throughout the programme period. 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 new code of conduct and is more demanding than implied by the debt ratio and average potential output growth in the long term.

Overall, the risks to the budgetary targets seem broadly balanced. The budgetary projections in the update are based on plausible growth assumptions, below current estimates of potential GDP growth and in line with the Commission services' autumn 2005 forecasts.

The budgetary strategy outlined in the programme seems sufficient to ensure that the programme's MTO is maintained by a large safety margin throughout the programme period. The fiscal stance is broadly neutral and there seem to be no risks of pro-cyclical fiscal policies over the programme period. Overall the budgetary position is sound and the budgetary strategy provides a good example of fiscal policy in compliance with the Stability and Growth Pact.

The debt ratio is projected to fall from 43% in 2005 to 36% in 2008, remaining well below the 60% of GDP Treaty reference value. Together with high nominal GDP growth, the projected high primary balance surpluses in the programme are the main drivers of debt reduction. Overall, the debt reduction path projected in the update appears plausible.

With regard to the sustainability of public finances, Spain appears to be at medium risk on grounds of the projected budgetary costs of ageing populations. The currently favourable budgetary position, including the debt position and accumulation of assets in the Social Security Reserve Fund, contribute to absorb somewhat the projected increase of pension expenditures. However, the significant increase in these expenditures over the projection period suggests that the implementation of the measures within the announced social welfare reform aimed at containing the budgetary impact of ageing, notably concerning pensions, would be 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, the fiscal stance in the programme ensures the respect of the medium-term budgetary objective, avoids pro-cyclicality and should help address the risks associated with the potential unwinding of external imbalances. The budgetary strategy gives priority to measures aimed at enhancing productivity and encouraging accumulation of physical, human and knowledge capital. A broad package of reforms of the social security system was submitted to the social partners on 10 November 2005.

The National Reform Programme of Spain, submitted on 13 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) the reduction of the debt-to-GDP ratio to 34% in 2010, (ii) the relative increase of productive spending (such as infrastructure, R&D, better education and human capital). The budgetary implications of the actions outlined in the National Reform Programme are sufficiently reflected in the budgetary projections of the updated stability programme. The measures in the area of public finances envisaged in the update are in line with the actions foreseen in the National Reform Programme.

In view of the above assessment, overall, the budgetary position is sound and the budgetary strategy provides a good example of fiscal policies conducted in compliance with the Pact. Maintaining a strong budgetary position is important, in the light of rising external imbalances. It would be appropriate for Spain to implement the envisaged measures to address the long-term budgetary implications of ageing populations.

### Comparison of key macroeconomic and budgetary projections

		2004	2005	2006	2007	2008
Real GDP (% change)	<b>SP Dec 2005</b>	3.1	3.4	3.3	3.2	3.2
	COM Nov 2005 <sup>4</sup>	3.1	3.4	3.2	3.0	n.a.
	<i>SP Dec 2004</i>	2.6	2.9	3.0	3.0	3.0
HICP inflation (*) (%)	<b>SP Dec 2005*</b>	3.4	3.4	2.8	2.5	2.2
	COM Nov 2005	3.4	3.7	3.4	2.9	n.a.
	<i>SP Dec 2004</i>	3.0	3.1	2.9	2.7	2.4
Output gap (% of potential GDP)	<b>SP Dec 2005<sup>1</sup></b>	<b>0.0</b>	<b>-0.5</b>	<b>-0.8</b>	<b>-1.1</b>	<b>-0.7</b>
	COM Nov 2005	0.2	0.0	-0.2	-0.5	n.a.
	<i>SP Dec 2004<sup>1</sup></i>	-0.2	-0.2	-0.2	-0.2	-0.1
General government balance (% of GDP)	<b>SP Dec 2005</b>	<b>-0.1</b>	<b>1.0</b>	<b>0.9</b>	<b>0.7</b>	<b>0.6</b>
	COM Nov 2005	-0.3	0.2	0.1	-0.4	n.a.
	<i>SP Dec 2004</i>	-0.8	0.1	0.2	0.4	0.4
Primary balance (% of GDP)	<b>SP Dec 2005</b>	1.9	2.8	2.6	2.2	2.0
	COM Nov 2005	2.0	2.1	1.9	1.3	n.a.
	<i>SP Dec 2004</i>	1.5	2.2	2.2	2.3	2.3
Cyclically-adjusted balance (% of GDP)	<b>SP Dec 2005<sup>1</sup></b>	<b>-0.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>0.9</b>
	COM Nov 2005	-0.3	0.2	0.2	-0.1	n.a.
	<i>SP Dec 2004<sup>1</sup></i>	-0.7	0.2	0.3	0.5	0.4
Structural balance <sup>2</sup> (% of GDP)	<b>SP Dec 2005<sup>3</sup></b>	<b>0.7</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>0.9</b>
	COM Nov 2005 <sup>3</sup>	0.5	0.2	0.2	-0.1	n.a.
	<i>SP Dec 2004<sup>3</sup></i>	0.1	0.2	0.3	0.5	0.4
Government gross debt (% of GDP)	<b>SP Dec 2005</b>	46.6	43.1	40.3	38.0	36.0
	COM Nov 2005	46.9	44.2	41.9	40.7	n.a.
	<i>SP Dec 2004</i>	49.1	46.7	44.3	42.0	40.0

Notes:

<sup>1</sup>Commission services calculations on the basis of the information in the programme.

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

<sup>3</sup> One-off and other temporary measures taken from the programme (Assumption of debts from the national railway company RENFE, 0.7% of GDP and public television RTVE, 0.1% of GDP, in year 2004)

<sup>4</sup> According to first estimates, growth was 3.4 % in 2005. The Commission services' interim forecast of 21 February 2006 projects growth of 3.1 % in 2006.

\*Private consumption deflator

Source:

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

## 1. INTRODUCTION

Spain submitted its seventh update of the stability programme, covering the period 2005-2008, was submitted on 30 December 2005<sup>3</sup>, four weeks beyond the 1 December deadline set in the new Code of Conduct on the content and format of stability and convergence programmes. The budgetary projections provided in the update are more ambitious than the budgetary targets set in the 2006 Budget Law as approved by the Parliament on 29 December 2005. The update was approved by the Spanish government on 30 December and does not provide information on its status vis-à-vis the Parliament.

The programme broadly follows the model structure and data provision requirements for stability and convergence programmes specified in the new code of conduct. The programme has gaps in the compulsory<sup>4</sup> and optional<sup>5</sup> data prescribed by the new code of conduct. Annex 2 provides a detailed overview of all aspects of compliance with the new code of conduct.

## 2. ECONOMIC OUTLOOK

At an average annual rate of around 3½%, real GDP growth in Spain was among the highest in the EU over the last decade, more than one percentage point above the euro area as a whole of 2% (1¼ percentage point above the EU25 average). As a result, per capita income in purchasing power standards rose from 80 % of the euro area average (88% of the EU-25) in the mid-nineties to 91% in 2004 (99% of the EU-25). Employment has been the main driving force behind such a strong real convergence process. Employment growth averaged 3¼% per year in the last decade, which compares with 1¼% in the euro area, whereas unemployment, after attaining 19% in 1995, bottomed out at 9% in 2005, close to the euro area average. In contrast, productivity has been growing by less than ½% per year since the mid-nineties, which compares with more than 1% in the euro area. Real convergence went along with strong, albeit less successful, nominal convergence. Inflation, measured by the annual change in the HICP, eased at a level close to 3% in 2004, down from around 5% in 1995, still persistently higher by more than one percentage point than in the euro area as a whole.

The external position of the country deteriorated rapidly. The persistent inflation and productivity differentials between Spain and the EU trade partners during the last decade are worsening the competitive position of the Spanish economy and might jeopardise growth in the long term. Such differentials are also behind the recent deterioration in the

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<sup>3</sup> The English version was delivered on the same day.

<sup>4</sup> Missing compulsory data are: Table 2 (general government budgetary prospects), item 16 (collective consumption) and item 17 (total social transfers). Table 8 (basic assumptions) does not include projections on interest rates (neither short-term nor long term ones).

<sup>5</sup> Missing optional data are: Table 1b (price developments), item 3 (HIPC); table 1c (labour market developments), items 2 (employment in hours) and 5 (productivity per hour); table 2 (general government budgetary prospects): item 17a (social transfers in kind); table 3 (general government expenditure by function); table 4 (general government debt developments): details on the SFA and items 6 and 7 (other relevant variables); table 5 (cyclical developments): contributions to potential growth in item 4; table 7 (long-term sustainability of public finances): only partial information on pension expenditure is provided.

goods and services' balance. Specifically, the deficit in goods trade has widened and the surpluses in the services sector (mainly tourism) are in a persistent declining path. Furthermore, reflecting large FDI inflows in the past, the deficit on the primary incomes balance has increased, and the traditional surplus in the current transfers' account has turned into a deficit, largely due to the increase in migrants' current transfers abroad. As a result, the external position of the country has deteriorated significantly from a surplus of 1% in 1995 to a deficit of 4 ½ % of GDP in 2004. In 1995, Spain was recording a high public deficit at around 6% of GDP. A successful expenditure-based fiscal consolidation process in the second half of the nineties brought the Spanish public deficit at around 1% of GDP in 1999, and to a close-to-balance position already in the early 2000s.

**Table 1: Comparison of macroeconomic developments and forecasts**

	2005		2006		2007		2008
	COM	SP	COM	SP	COM	SP	SP
Real GDP (% change)	3.4	3.4	3.2	3.3	3.0	3.2	3.2
<i>Contributions:</i>							
- Final domestic demand	5.2	5.2	4.7	4.5	4.2	4.1	4.0
- Change in inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- External balance on g&s	-1.7	-1.8	-1.5	-1.1	-1.2	-0.9	-0.8
Output gap <sup>1</sup>	0.0	-0.5	-0.2	-0.8	-0.5	-1.1	-0.7
Employment (% change)	3.0	3.0	2.4	2.8	2.2	2.5	2.2
Unemployment rate (%)	9.9	9.0	9.4	8.4	9.0	8.1	7.8
Labour productivity growth (%)	0.3	0.4	0.6	0.5	0.7	0.7	1.0
HICP inflation (%)*	3.7	3.4	3.4	2.8	2.9	2.5	2.2
GDP deflator (% change)	4.3	3.9	3.8	3.2	2.9	3.1	2.8
Compensation of employees (% change)	3.1	2.8	3.9	2.8	3.5	2.7	2.7
External balance (% of GDP)	-6.3	-6.6	-7.3	-7.7	-8.2	-8.0	-8.2
<i>Note:</i>							
<sup>1</sup> In percent of potential GDP, with potential GDP growth as reported in Table 2 below.							
<i>Source:</i>							
Commission services' autumn 2005 economic forecasts (COM); stability programme update (SP)							

\* Private consumption deflator.

The update estimates GDP growth at 3.4% in 2005, which is fully in line with the Commission services autumn 2005 forecast. The programme presents broadly plausible GDP growth projections for 2006-2008. Specifically, in 2006 and 2007, GDP is expected to grow at 3.3% and 3.2%, respectively, compared with the Commission services' projections of 3.2% and 3.0% for the same years. The growth projection for 2008 of 3.2% also appears plausible, when assessed against current estimates of potential growth.

According to the update, GDP growth is projected to be exclusively sustained by domestic demand, the growth rate of which is forecasted to slow down from 5.2% in 2005 to 4% in 2008. This projection is based on a scenario of rising interest rates and decelerating job creation over the programme period. In contrast with past trends, public consumption growth is also projected to ease.

Overall, the update projects a slightly more balanced growth composition than the Commission services, with a negative external contribution to GDP growth declining in absolute terms throughout the programme period. In particular, the update projects higher export growth on the back of an assumed recovery of price competitiveness, whereas this is not the case in the Commission services as the inflation differential vis-à-vis the euro area is expected to remain at around 1½ percentage points.



The underlying external assumptions to the macroeconomic scenario in the update are broadly consistent with those in the Commission services' forecasts. The update assumes rising interest rates but does not quantify them.

The programme projects employment growth at 3% in 2005, 2.8% in 2006 and 2.5% in 2007, while the unemployment rate is expected to decrease from 9% in 2004 to 8.1% in 2007. This is broadly in line with the Commission services' autumn 2005 forecasts. The lowering of the job content of growth does not reflect tighter labour market conditions, but a slight improvement in productivity growth, which, according to the update, should accelerate slightly until the end of the programme period. In 2008, the programme projects a further easing of employment growth to 2.2%.

**Table 2: Sources of potential output growth**

	2005		2006		2007		2008
	COM	SP <sup>2</sup>	COM	SP <sup>2</sup>	COM	SP <sup>2</sup>	SP <sup>2</sup>
Potential GDP growth <sup>1</sup>	3.6	3.9	3.4	3.6	3.3	3.6	2.7
<i>Contributions:</i>							
- Labour	1.9	1.8	1.7	1.4	1.7	1.3	0.4
- Capital accumulation	1.6	1.7	1.7	1.7	1.7	1.7	1.7
- TFP	0.0	0.4	0.0	0.4	0.0	0.5	0.6
<i>Notes:</i>							
<sup>1</sup> based on the production function method for calculating potential output growth							
<sup>2</sup> Commission services' calculations on the basis of the information in the programme							
<i>Source:</i>							
Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations							

As the update does not provide information on changes in the HICP, the outlook for price inflation is assessed on the basis of the private consumption deflator. According to the programme, the deflator should decline from 3.5% in 2005 to 2.5% in 2007, broadly in line with the Commission services' autumn 2005 forecasts for the HICP (3.6% in 2005 and 2.6% in 2007)<sup>6</sup>. In 2008, the private consumption deflator should further moderate to 2.3%, close to the ECB target for HICP at a rate of 2%. Wage increases are projected below inflation expectations. Compensation of employees per head is expected to increase at a broadly stable rate of 2<sup>3</sup>/<sub>4</sub>% per year over the programme period, whereas according to the Commission services' autumn 2005 forecasts wages are expected to grow well above 3%, especially in 2006 when higher-than-expected inflation in 2005 will trigger safeguard clauses of the existing wage agreements, which protect wages against inflation surprises. According to the update, unit labour costs would grow at or below 2% in 2007 and 2008, which is significantly lower than the 3% increase projected in the Commission services' autumn 2005 forecast for 2007. This difference is largely explained by the more moderate wage growth projection in the update.

Table 2 presents the potential growth estimates on the basis of the Commission services calculations, based on the information in the programme and according to the commonly agreed methodology. The estimates are slightly higher than those implied by the Commission services' autumn 2005 forecast. Potential growth rates remain above 3.5% until 2007 in view of buoyant employment growth and high rate of investment. However,

<sup>6</sup> In the Commission services autumn 2005 forecast, HICP projections are broadly in line with the deflator of private consumption.

in 2008, potential growth appears to fall sharply driven by lower employment growth on the back of a sharply decelerating working age population.

As regards sectoral balances, the macroeconomic scenario of the update implies a steady deterioration of the net borrowing position vis-à-vis the rest of the world, which is projected to rise from 6.6% of GDP in 2005 to 8.2% of GDP in 2008. This stems mainly, but not exclusively, from a rising deficit in the trade balance, reflecting the deterioration of the competitiveness of the economy. In parallel, declining net tourism inflows are expected to further narrow the surplus recorded by services. Specifically, the update projects the deficit of the goods and services balance to increase from 5.6% of GDP in 2005 to around 6.8% in 2007 and 2008. Consistent with a worse performance of the external sector, the Commission services' autumn 2005 forecasts are somewhat more pessimistic and project a deficit above 7½% in 2007. The deficit of the balance of primary incomes and current transfers together is expected to remain broadly stable at around 2% of GDP, as the increase of migrants' transfers abroad would be compensated by higher revenues from the Spanish investments abroad. The programme projects a reduction of the surplus of the capital account (from 1.1% of GDP in 2005 to 0.5% in 2007), reflecting the steady decline of capital transfers from the EU. Taking into account the net lending position of the general government sector, the net borrowing requirement of the private sector, which is projected to increase from 7.6% of GDP in 2005, to 8.7% in 2007, is the counterpart of the external imbalance. Although the high borrowing requirement of the private sector mainly mirror the financial position of the corporate sector, the projected increase over the programme period is largely explained by increasing indebtedness of the household sector to finance spending on residential housing. According to the macroeconomic scenario depicted in the programme, such dynamics should slow down already by the end of 2006. By contrast, the Commission services' autumn 2005 forecast projects a continuous deterioration of the households' financial position until 2007.

### **3. GENERAL GOVERNMENT BALANCE**

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

#### **3.1. Targets in successive programmes and implementation in 2005**

According to the update the Spanish public finances will remain in a surplus position over the programme period. Specifically, general government surpluses are projected on a declining path falling from 1% of GDP in 2005 to 0.6% in 2008 (table 3). This path compares favourably with somewhat less ambitious targets set in previous programmes, and reflects more favourable growth projections and a better-than-expected budgetary outcome in 2005. When compared with the December 2004 update, the current programme takes account of a lower deficit in 2004 with carry-over effects over the programme period. Furthermore, the 1% of GDP surplus planned for 2005 is considerably higher than the surplus 0.2 % of GDP targeted in the 2006 Budget Law. The

significant difference between the update and the 2006 Budget Law reflects recent information on the implementation of the 2005 budget, which was included in the current update, but was not available at the moment of adopting the draft budget.

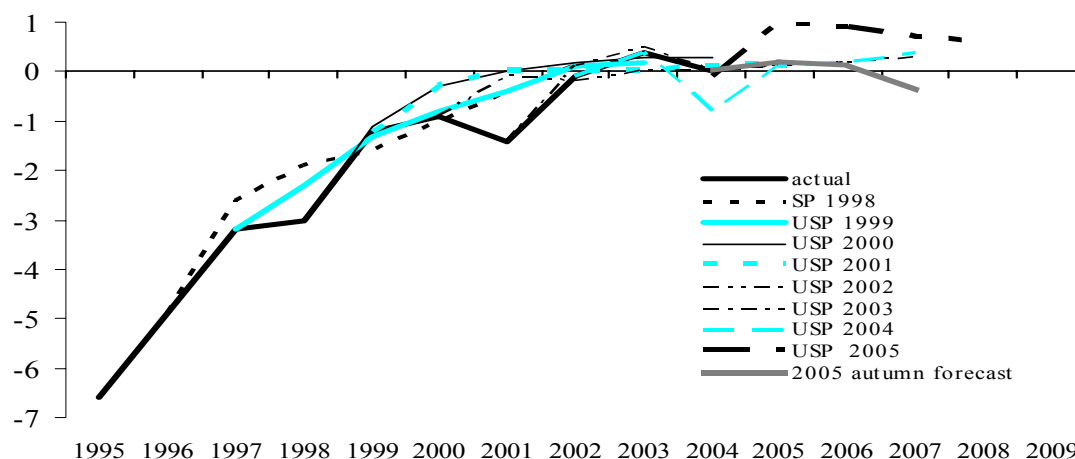
Compared with the previous update, both expenditures and revenues have declined as a percentage of GDP. This largely reflects a denominator effect of the revision of nominal GDP figures, triggered by a revision of labour statistics in 2005. Figure 1 shows that indeed the budgetary targets set in previous updates have been broadly achieved. The strong overlap between the projected budget balances in the different updates and the actual figures appears to confirm the Spanish authorities' commitment to budgetary stability.

Turning to the implementation of the 2005 budget, the December 2004 update, consistent with the 2005 Budget Law, targeted a small surplus of 0.1 % of GDP for the general government based on a growth assumption of 2.9%. The current update projects a 1 % of GDP surplus with 3.4% GDP growth. Based on the information available in autumn 2005, and with GDP growth also projected at 3.4%, the Commission services forecast a surplus of 0.2 % of GDP. The likely overachievement of the 2005 target appears to be the result of higher-than-expected revenues. Specifically, direct taxation, which represented 10 ¼ % of GDP in 2004, is estimated by the update to have increased to 11% of GDP in 2005 against an initial target of 10½% of GDP in the 2005 Budget Law as approved by the Parliament. As regards expenditures, the estimated outcomes would be fully in line with the initial budgetary plans. Therefore, the expenditure ceilings of the central government will most likely be met.

**Table 3: Evolution of budgetary targets in successive programmes**

		2004	2005	2006	2007	2008
General government balance (% of GDP)	<b>SP Dec 2005</b>	-0.1	1.0	0.9	0.7	0.6
	SP Dec 2004	-0.8	0.1	0.2	0.4	0.4
	<i>SP Jan 2004</i>	0.0	0.1	0.2	0.3	n.a.
	COM Nov 2005	0.0	0.2	0.1	-0.4	n.a.
General government expenditure (% of GDP)	<b>SP Dec 2005</b>	38.8	38.4	38.4	38.4	38.3
	SP Dec 2004	40.6	39.8	39.8	39.8	39.8
	<i>SP Jan 2004</i>	40.0	39.9	39.8	39.7	n.a.
	COM Nov 2005	38.9	38.8	39.1	39.6	n.a.
General government revenues (% of GDP)	<b>SP Dec 2005</b>	38.7	39.4	39.3	39.1	38.9
	SP Dec 2004	39.9	39.9	40.0	40.1	40.2
	<i>SP Jan 2004</i>	40	40	40	40	n.a.
	COM Nov 2005	38.9	39	39.2	39.2	n.a.
Real GDP (% change)	<b>SP Dec 2005</b>	3.1	3.4	3.3	3.2	3.2
	SP Dec 2004	2.6	2.9	3.0	3.0	3.0
	<i>SP Jan 2004</i>	3.0	3.0	3.0	3.0	n.a.
	COM Nov 2005	3.1	3.4	3.2	3.0	n.a.
<i>Source</i>						
<i>Stability programmes (SP) and Commission services' autumn 2005 economic forecasts (COM)</i>						

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



The breakdown by government sector in 2005 shows that the central government is estimated to have registered a surplus of 0.1% of GDP, as opposed to a deficit of 1.1% of GDP in 2004<sup>7</sup> and with a deficit target of ½% of GDP in the 2005 Budget Law. The regional governments are estimated to remain in a close-to-balance position, and the social security accounts to present a surplus close to 1 % of GDP, as targeted in the Budget Law.

### **3.2. The programme’s medium-term budgetary strategy**

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

#### *3.2.1. The main goal of the programme’s budgetary strategy*

The update aims at (i) maintaining budgetary stability over the economic cycle, (ii) prioritising productive public expenditure and policies aimed at improving the quality of public finances and (iii) ensuring the long-term sustainability of public finances as a necessary means of guaranteeing the sufficiency and sustainability of social spending.

According to the update, the general government surplus is expected to narrow by almost ½% of GDP over the programme period (see Table 4). Specifically, the general government surplus is projected to decline from 1% of GDP in 2005 to 0.9% in 2006 and to 0.6% in 2008. The time profile of the primary surplus is similar, falling by 0.8% of GDP, from 2.8% in 2005 to 2% at the end of the programme period. This path is reflecting not only lower revenues, but also an increase in primary spending, which offsets the projected fall of 0.4% of GDP in interest payments until 2008. The declining primary surpluses in the current update contrast with broadly stable primary surpluses at

<sup>7</sup> The 2004 budgetary balance included temporary expenditures related to the assumption of debts from RENFE, the national railway company (0.7% of GDP) and the public television broadcaster RTVE (0.1% of GDP).

2.3% of GDP in the previous one. This implies a certain relaxation of fiscal policy compared with the budgetary plans set out one year ago.

**Table 4: Composition of the budgetary adjustment**

(% of GDP)	2004	2005	2006	2007	2008	Change : 2008-2005
<b>Revenues</b>	38.7	39.4	39.3	39.1	38.9	<b>-0.5</b>
<i>of which:</i>						
- Taxes & social contributions	35.6	36.4	36.4	36.2	36.1	<b>-0.3</b>
- Other (residual)	3.1	3.0	2.9	2.9	2.8	<b>-0.2</b>
<b>Expenditure</b>	38.8	38.4	38.4	38.4	38.3	<b>-0.1</b>
<i>of which:</i>						
- Primary expenditure	36.8	36.6	36.7	36.9	36.9	<b>+0.3</b>
<i>of which:</i>						
Consumption	17.8	17.9	18.0	18.0	17.9	-
Transfers other than in kind & subsidies	12.7	12.8	12.8	12.8	12.9	<b>+0.1</b>
Gross fixed capital formation	3.4	3.5	3.5	3.6	3.7	<b>+0.2</b>
Other (residual)	2.8	2.4	2.4	2.4	2.4	-
- Interest expenditure	2.0	1.8	1.7	1.5	1.4	<b>-0.4</b>
<b>General government balance (GGB)</b>	<b>-0.1</b>	<b>1.0</b>	<b>0.9</b>	<b>0.7</b>	<b>0.6</b>	<b>-0.4</b>
<b>Primary balance</b>	<b>1.9</b>	<b>2.8</b>	<b>2.6</b>	<b>2.2</b>	<b>2.0</b>	<b>-0.8</b>
One-off and other temporary measures	-0.7	0.0	0.0	0.0	0.0	-
<b>GGB excl. one-off &amp; other temporary measures</b>	<b>0.6</b>	<b>1.0</b>	<b>0.9</b>	<b>0.7</b>	<b>0.6</b>	<b>-0.4</b>
<i>Source:</i>						
<i>Stability programme update; Commission services' calculations</i>						

### 3.2.2. The composition of the budgetary adjustment in the programme

**Revenues** are projected to decrease by ½% of GDP during the programme period (from 39½% to 39%). The decline reflects the impact of an announced reform of direct taxes, which would further lower personal income tax rates from 2007 onwards. No significant policy changes have been introduced in the 2006 Budget Law on the revenue side. Revenues in the current update are around ¾ percentage points of GDP lower than in the December 2004 update. This is partially explained by the denominator effect of the upward revision of GDP figures that took place in 2005 and not by changes in tax legislation.

According to the update, **expenditures** will remain broadly unchanged at 38½% of GDP between 2005 and 2008. Public consumption is envisaged to increase only marginally, remaining around 18% of GDP between 2005 and 2008. Social transfers are set to increase by 0.1% of GDP over the programme period (from 11.8% of GDP in 2005 to 11.9% in 2008), while gross fixed capital formation is projected to slightly increase by 0.2% of GDP until 2008. The envisaged debt reduction (see Section 4), together with ongoing debt restructuring should bring interest payments down by 0.4% of GDP.

By subsectors of the general government, the social security institutions are the source of the surplus of the general government balance. Specifically, the central government is expected to register a small surplus of 0.1% of GDP in 2006, while regional governments would record a small deficit of 0.1% of GDP and local governments should present a balanced account. In 2007 and 2008, all the three government layers are expected to broadly remain in a close-to-balance position. In line with the recent past, and still

underpinned by buoyant employment creation, the social security subsector is envisaged to keep recording high surpluses, from 0.9% of GDP in 2006 to 0.6% in 2008.

### **Box 1: The budget for 2006**

The 2006 Budget Law was sent for approval by the government to the Parliament on 23 September of 2005 and adopted by the latter on 29 December of 2005. It targets a general government surplus of 0.2% of GDP. According to this target, the expected surplus of the social security of 0.7% of GDP should be partially compensated by deficits of 0.4% and 0.1% of GDP in the central government and in the regional and local governments respectively.

The main priorities of the 2006 Budget Law confirm those set out in the 2005 Budget Law. Specifically, the Budget aims at (i) strengthening competitiveness by promoting education and productivity-enhancing expenditure such as public R&D, (ii) further investing in infrastructures and (iii) raising social expenditure such as pensions and unemployment benefits. Spending on these policies is projected to increase above nominal GDP.

Compared with the 2005 budget, total revenues are set to increase by 8.9% in nominal terms, more than nominal GDP, which is projected to grow by 6.6%. Direct taxes are expected to grow by 12.6% boosted by buoyant employment creation. This is more than double the nominal rate of growth projected for indirect taxes (5.2%), which, in turn, appears consistent with the deceleration in private consumption projected in the macroeconomic scenario of the Budget Law. Fuelled by strong job creation, social security contributions are expected to grow by 8.4%. Such projections are consistent with past trends in tax collection and implicit taxation. The officially announced reform of direct taxation will not come into force until 2007. Moreover, the reform of the indirect taxes on alcoholic drinks and tobacco of September 2005 aimed at providing additional funding of health-care expenditure should have a negligible impact in total revenues (around € 0.3 billion).

Concerning some specific budgetary measures on the revenue side, the tax-brackets of the personal income tax will be partially deflated, and the taxes on hydrocarbons and gambling frozen. A reduction of employers' social security contributions aims at encouraging permanent employment contracts. The impact of all these measures is expected to amount to around € 2 billion (0.2% of GDP) of lower revenues.

Central Government expenditures are projected to grow at 8.1% in nominal terms. However, some productive expenditure is set to increase well beyond the average rate. R&D expenditure is projected to grow at 31% to attain 0.7% of the GDP. Education spending should increase by 16.6%, amounting to 0.2% of GDP. This only covers the small part under the direct control of the central government, since most education spending is directly managed by regional governments. Investment is budgeted to grow by 12.4%, attaining 1.3% of GDP. Substantial nominal increases are also projected for trade policies. Projects aiming at promoting tourism and at supporting SMEs will increase by 38% (representing 0.2% of GDP). Grants for housing accessibility will rise by 20.6% (0.1 % of GDP). Furthermore, as a result of the financing agreement reached between the Central Government and autonomous Communities in September of 2005, the Central Government will contribute € 1.7 billion (0.2% of GDP) to fund health-care expenditure in the regions. Social expenditure, which represents half the central government expenditure, is projected to increase at the average rate of 8.1% (14¼% of GDP), although pensions should increase by 6.9% (9% of GDP).

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

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

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

	2004		2005		2006		2007		2008	Change : 2008- 2005
	COM	SP <sup>1</sup>	COM	SP <sup>1</sup>	COM	SP <sup>1</sup>	COM	SP <sup>1</sup>	SP <sup>1</sup>	SP <sup>1</sup>
Gen. gov't balance	0.0	-0.1	0.2	1.0	0.1	0.9	-0.4	0.7	0.6	-0.4
One-offs <sup>2</sup>	-0.7	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Output gap <sup>3</sup>	0.2	0.0	0.0	-0.5	-0.2	-0.8	-0.5	-1.1	-0.7	-0.2
CAB <sup>4</sup>	-0.3	-0.1	0.2	1.2	0.2	1.2	-0.1	1.2	0.9	-0.3
change in CAB										
CAPB <sup>4</sup>	1.7	1.9	2.1	3.0	2.0	2.9	1.5	2.7	2.3	-0.7
Structural balance <sup>5</sup>	0.4	0.6	0.2	1.2	0.2	1.2	-0.1	1.2	0.9	-0.3
change in struct. bal.										
Struct. prim. bal. <sup>6</sup>	2.5	2.6	2.1	3.0	2.0	2.9	1.5	2.7	2.3	-0.8

**Notes:**  
<sup>1</sup>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  
<sup>2</sup>One-off and other temporary measures  
<sup>3</sup>In percent of potential GDP  
<sup>4</sup>CAB = cyclically-adjusted balance; CAPB = cyclically-adjusted primary balance  
<sup>5</sup>CAB excluding one-off and other temporary measures  
<sup>6</sup>Structural primary balance = CAPB excluding one-off and other temporary measures

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

The update sets an MTO of a balanced budget of the general government, which it aims to maintain by a large margin throughout the programme period.

Table 5 shows that according to the calculations carried out by the Commission services on the basis of the programme and the commonly agreed methodology the structural surplus is planned to remain stable at around 1 ¼ % of GDP per year between 2005 and

2007. In 2008, it is estimated to decline marginally to around 1 % of GDP against the backdrop of a sharp reduction in the estimated negative output gap. Structural primary balance is also projected to slightly decline from 3 % in 2005 to 2 ¾ % in 2007 and then to 2 ¼ % in 2008<sup>8</sup>.

### **3.3. Assessment**

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

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

As the medium-term objective (MTO) set in the programme is more demanding than the minimum benchmark (estimated at a deficit of around -1 ¼ % 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.

According to the update, a more demanding MTO places Spain's public accounts in a favourable position from which to face a weaker-than-expected economic situation over the programme's period and to face the longer-term challenges posed by population ageing and globalisation, which are important in Spain.

#### *3.3.2. Risks attached to the budgetary targets*

The budgetary projections in the update are based on plausible growth assumptions, in line with the Commission services autumn 2005 forecasts and below current estimates of potential GDP growth.

The slight downward path for revenue projections in terms of GDP seems to be based on cautious revenue projections, using projections for the tax-to-GDP elasticities around the unit, and compares with broadly stable revenue-to-GDP ratios in the Commission services' autumn 2005 forecast. The update includes the announced but not spelled-out reform of direct taxes (pointing to downward revenues) in the projections for 2007 and 2008. Although not explicitly mentioned, the foreseeable reduction of capital transfers

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<sup>8</sup> The update presents its own calculations for the structural balance, which also depart substantially from the calculations of the Commission services based on the information provided in the update. The reason for the difference is methodological. The calculations in the update are based on the Hodrick-Prescott trend GDP. According to the update, the output gap would be positive but close to zero (actually averaging 0.1% of trend GDP). Consequently, the general government balance and the structural balance figures coincide in the update own calculations. This contrasts with large negative output gaps estimated by the Commission services, which, using the commonly agreed production function method and on the basis of the programme figures, project a significantly higher potential GDP and hence higher structural balances for the same planned nominal balance.



from the EU by 2007 seems to have been partially taken into account, as shown by the decline in “other revenues”.

On the expenditure side, the update projects stable expenditures in terms of GDP over the programme period. The envisaged marginal increase in current primary expenditures (by 0.3% of GDP in four years) should be offset by the estimated reduction of interest payments (0.4% until 2008). However, in the light of the recorded past trends of both items, this projection appears to be slightly favourable.

The Commission services’ autumn 2005 forecasts projected expenditures to grow by 0.8pp of GDP between 2005 and 2007, largely reflecting developments in public consumption. However, according to the update, current expenditure, especially public consumption, should increase by a meagre 0.1% of GDP over the same period. The Commission services’ forecasts were based on the information available at the cut-off date, when final data on 2003 showed a relatively strong expansion of education and health care expenditures, which are managed by regional governments, including significant overruns (0.3% of GDP in 2003). This, coupled with the customary no-policy change assumption, led to spending projections on an upward trend for 2007. However, the most recent information about the implementation of the 2005 budget, which has been included in the update, seems to provide evidence of a partial reversal of past trends and overruns in public consumption. Consequently, the final outcome might lie somewhere in between the update and the Commission services’ autumn 2005 forecasts.

**Table 6: Assessment of tax projections**

	2006		2007		2008	p.m.:
	COM	SP	COM <sup>2</sup>	SP	SP	OECD <sup>1</sup>
<b>Total taxes</b>						
Change in tax-to-GDP ratio	0.3	0.0	0.4	0.2	-0.1	/
<i>Difference</i>		-0.3		-0.2	/	/
<i>of which<sup>3</sup>: - elasticity component</i>		0.8		1.0	/	/
<i>- composition component</i>		-0.7		-0.8	/	/
p.m.: Observed elasticity to GDP	1.1	1.0	1.2	1.1	1.0	1.1
<b>Notes:</b>						
<sup>1</sup> OECD ex-ante elasticity relative to GDP						
<sup>2</sup> On a no-policy change basis						
<sup>3</sup> The decomposition is explained in Annex 4						
<b>Source:</b>						
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)						

The update targets a reduction of interest payments of 0.3% of GDP between 2005 and 2007, compared to 0.2% of GDP in the Commission services’ projections. Although the programme does not spell out interest rates assumptions, it seems that the update is based on an unchanged interest rate scenario. In the context of increasing interest rates expectations, the estimated reduction might be slightly favourable.

Table 6 presents annual changes in the overall tax-to-GDP ratio and the tax elasticity relative to GDP. The assumptions about the tax intensity of economic activity on which the update is based are broadly in line with those in the Commission services autumn 2005 forecasts, with the programme projections possibly being on the cautious side. The

assumed tax elasticities in the update therefore do not seem to constitute a significant risk for the budgetary projections.

Overall, the risks to the budgetary targets seem broadly balanced.

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

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 by a large margin throughout the programme period and can be considered as appropriate under the Pact.

Since the cyclical-adjusted balance is clearly better than the "minimal benchmark" (which in the case of Spain is -1¼% of GDP) over the whole programme period, there is a sufficient safety margin against breaching the 3% of GDP threshold for the deficit with normal cyclical fluctuations.

Table 7 shows that the projected change in the tax-to-GDP ratio net of the effect of discretionary measures is similar to the one implied by the OECD elasticities. However, it should be borne in mind that growth composition in Spain, strongly based on private consumption and residential housing investment, induces some uncertainties as regards tax projections in the long run and on the distinction between cyclical and permanent developments (see Box 2).

The fiscal stance is broadly neutral over the programme period and does not entail the risk of pro-cyclical fiscal policies.

**Table 7: Assessment of tax elasticities**

	2006		2007	
	COM (observed)	ex-ante <sup>1</sup>	COM <sup>2</sup> (observed)	ex-ante <sup>1</sup>
<b>Total taxes</b>				
Change in tax-to-GDP ratio	0.3	0.2	0.4	0.2
<i>Difference</i>		0.1		0.2
<i>of which<sup>3</sup>: - elasticity component</i>		0.0		0.0
<i>- composition component</i>		0.1		0.2
p.m.: Elasticity to GDP	1.1	1.1	1.2	1.1
<b>Notes:</b>				
<sup>1</sup> Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD				
<sup>2</sup> On a no-policy change basis				
<sup>3</sup> The decomposition is explained in Annex 4				
<b>Source:</b>				
<i>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)</i>				

### 3.4. Sensitivity analysis

The update includes two sensitivity analyses: the first looks at the budgetary impacts of changes in the growth scenario, and the second examines the effects of changes in interest rates on the deficit and public debt envisaged in the update.

The first analysis presents an alternative scenario in which real GDP growth is ½ percentage point per year lower than in the baseline scenario. Overall, the simulation appears plausible. The analysis is not explicit about how revenues and expenditures are projected to react; it only presents the changes in the budgetary balance and in the gross debt. Specifically, the lower-growth scenario would lead to a surplus of 0.7 % of GDP in 2006, 0.2 % in 2007 and a deficit of 0.1 % in 2008, compared to 0.9 %, 0.7 % and 0.6 % surplus in the growth scenario. Furthermore, gross debt would be 2 percentage points higher in the lower-growth scenario at the end of the programme period.

The second sensitivity analysis simulates the budgetary impact of an increase of 1pp in interest rates per year. Overall, this analysis appears also plausible. It projects budgetary surpluses at 0.9% of GDP in 2006, 0.6% in 2007 and 0.4% in 2008. Gross debt would be around ½pp higher in the high interest rate scenario at the end of the programme period.

Commission services' simulations of the cyclically-adjusted balance under the assumptions of (i) a sustained 0.5 percentage point downward deviation from the real GDP growth projections in the programme over the 2005-2008 period; (ii) trend output based on the HP-filter<sup>9</sup> and (iii) no policy response (notably, the expenditure level is as in the central scenario<sup>10</sup>), reveal that, by 2008, the cyclically-adjusted balance would be around ½ pp of GDP below the central scenario. Hence, in the case of persistently lower real growth, additional measures of around ½ % of GDP would be necessary to keep the public finances on the path targeted in the central scenario.<sup>11</sup> This estimate is broadly in line with the analysis provided in the programme.

### **Box 2: Tax elasticities in Spain**

The Spanish tax burden has increased by around 10 percentage points of GDP since the early eighties to attain a planned 35% of GDP in 2005. Although important tax reforms have taken place over the last 25 years, such as the introduction of VAT in the mid-eighties and consecutive reforms of the direct tax codes in the second half of the nineties and the early 2000s, temporary factors, associated to a particular growth composition, might have been behind the rise in tax revenue, especially in the long expansionary phase in which the Spanish economy is currently immerse. This box assesses the impact of such temporary factors on the observed developments in tax revenues in the 2000s.

The composition of taxes has significantly changed over the reference period, with indirect taxes explaining 60% of the increase in the total tax burden (Graph 1). Direct taxes grew by around 3 percentage points of GDP (from 7% of GDP in 1980 to 10% in 2005), while social contributions remained broadly stable at around 13% of GDP). However, indirect taxes have risen by around 6 percentage points of GDP (from 6% of GDP in 1980 to 12% in 2005). The bulk of such changes in both indirect and direct taxes took place during the eighties. Coincidental with an expansionary cycle that lasts already for a decade, in which GDP growth is underpinned by domestic demand, especially consumption and housing, indirect taxes have been on an upward trend since the second half of the nineties, while direct taxes have remained relatively stable since then. As

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<sup>9</sup>In the absence of a fully-specified macroeconomic scenario that would underlie such deviations, it is obviously impossible to derive new estimates of potential growth from the agreed production function method.

<sup>10</sup>The effect of lower/higher growth on revenues is captured by using the conventional sensitivity parameters adopted in cyclical adjustment procedures.

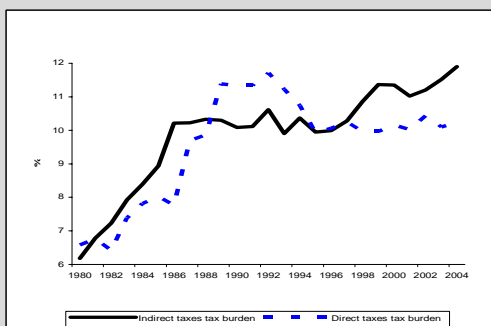
<sup>11</sup>Unexpected changes in inflation are not assumed to affect the expenditure-to-GDP ratio as nominal expenditure should broadly move in lockstep with the price level.

result, the implicit indirect tax rate\* has increased from around 18% in the mid-1990s to the current 22% (Graphs 2 and 3).

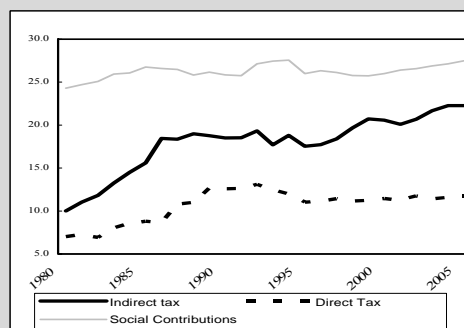
While private consumption has been growing at around 7% per year in nominal terms during the last ten years, thus in line with the nominal GDP, investment in construction grew as an average around 11% well above of GDP since 1990, clearly reflecting current boom in the housing sector. In parallel, the relative weight of residential construction in the economy rose from 4½% of GDP in 1995 (6% in the euro area) to the current 7% (5.3% in the euro area). This, coupled with two-digit annual increases in housing prices, largely seems to explain both the increases recorded by the implicit tax rate of indirect taxes and their high elasticity with respect to the tax base since 1995 (Graph 3 and 4).

While the increase of the implicit tax rate in the eighties was associated to some outstanding tax reforms, recent developments seem at odds with the scope of the most recent reforms. Specifically, the jump recorded by the implicit tax rate of indirect taxes (from 10% in 1980 to around 18% in the late eighties), is explained by the introduction of the VAT and special taxes on certain goods (oil, tobacco, alcohol). However, the additional further 4 percentage points, while appearing persistent, are not related to any major tax reform, but to the particular growth composition in Spain, strongly based on the construction sector. Therefore, although given its persistence, the recently recorded increases in indirect taxes might be considered as permanent, the reality may be that changes in the composition of growth in a more or less near future lead to a significant fall in tax revenues, even if growth would remain relatively close to the current rates. Therefore, a fall in growth may lead to particularly large tax shortfalls in case it also involves a change in the composition of growth. As shown in Graph 3 and 4, developments in indirect tax revenues over the last decade look very different after netting them out from the effects of indirect taxes on housing\*\*. Specifically, such taxes on housing largely account for the increase recorded by the implicit tax rate, and, thus by the elasticity of indirect taxes with respect to consumption.

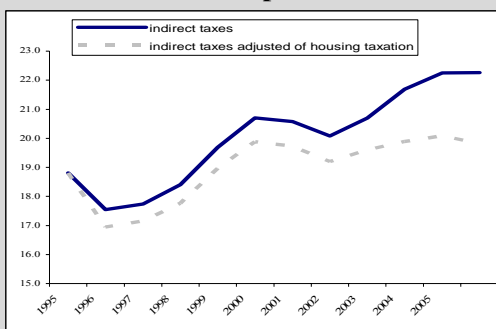
**Chart 1. Direct vs indirect tax revenues (% of GDP)**



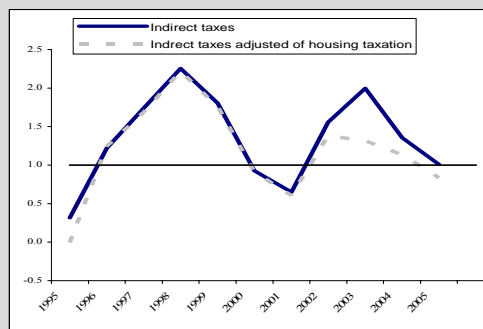
**Chart 2. Implicit tax rates**



**Chart 3. Effect of house taxation on the indirect taxes: Implicit tax rates**



**Chart 4 Elasticity (w.r.t. the base)**



Consequently, budgetary projections and plans over the long run in Spain should take account that recent developments in indirect taxation might mainly be associated to transitory factors, so that more prudent estimates of implicit tax rates and tax elasticities, better reflecting the underlying structural characteristics of the tax system, should be considered.

\* For the calculation of the implicit tax rates, the base for indirect taxes are referred to private consumption + public consumption – compensation of government employees – revenues from indirect taxes. The base for direct taxes is referred to the gross added value of the economy. Finally, the base for social security contributions' base is the compensation of employees of the whole economy.

\*\* Although the amount of indirect tax revenues stemming from the housing market is not available, an estimate can be calculated using the number of mortgages signed per year, the average square price, the average square meters per property and the average ratio price-mortgage and estimated by the Commission services.

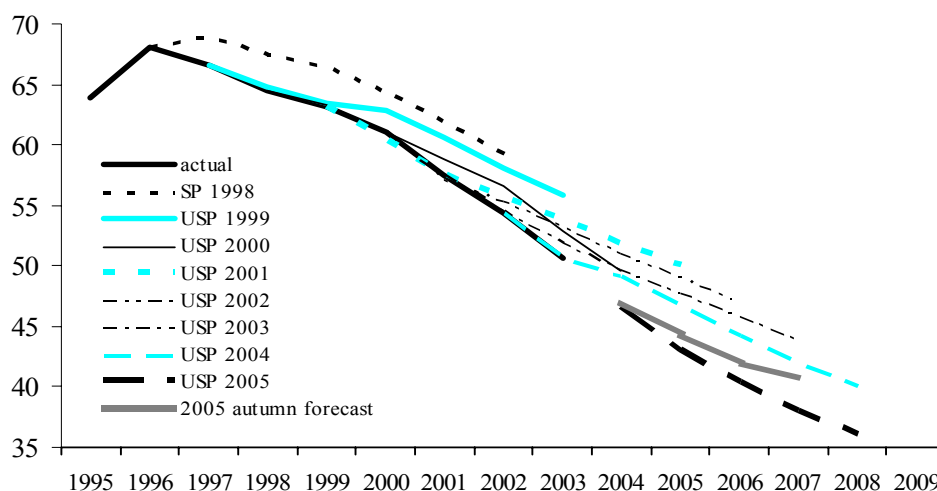
#### 4. GENERAL GOVERNMENT GROSS DEBT

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

##### 4.1. Debt developments in the programme

According to the update, the debt ratio will follow a downward path throughout the programme period and should remain well below the 60% of GDP Treaty reference value as illustrated in Figure 2 and Table 8. Specifically, the debt-to-GDP ratio is expected to steadily decline from 43% of GDP in 2005 to 36% of GDP in 2008. The Commission services autumn 2005 forecasts also projected the general government debt in a downward path in terms of GDP, although it was slightly less optimistic. The difference stems from higher primary balances projected in the update. The December 2004 update, in line with the current one, also projected a reduction of around 7% of GDP between 2005 and 2008. However, the debt level of around 47% projected one year ago for 2005 is 4 percentage points higher than in the current update. The difference is largely explained by the above-mentioned denominator effect associated with the revision of nominal GDP figures.

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



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

## 4.2. Assessment

Overall, the general government gross debt reduction path presented in the update appears plausible. Once taking into account the most recent information on the implementation of the 2005 budget, which points to a primary balance close to 3% of GDP, the projections in the programme are broadly in line with the Commission services' autumn 2005 forecast.

**Table 8: Debt dynamics**

	average 2000- 2004	2005		2006		2007		2008
	COM	COM	SP	COM	SP	COM	SP	SP
<b>Government gross debt ratio</b>	53.2	44.2	43.1	41.9	40.3	40.7	38.0	36.0
Change in debt ratio (1 = 2+3+4)	-3.1	-2.7	-3.8	-2.3	-2.8	-1.2	-2.3	-2.0
<i>Contributions:</i>								
- <b>Primary balance</b> (2)	-2.3	-2.1	-2.8	-1.9	-2.6	-1.3	-2.2	-2.0
- <b>“Snow-ball” effect</b> (3)	-1.3	-1.5	-1.8	-1.2	-1.0	-0.7	-0.9	-0.8
- Interest expenditure	2.7	1.9	1.8	1.8	1.7	1.7	1.5	1.4
- Real GDP growth	-1.8	-1.5	-1.5	-1.3	-1.3	-1.2	-1.2	-1.1
- Inflation (GDP deflator)	-2.2	-2.0	-2.1	-1.6	-1.4	-1.2	-1.2	-1.0
- <b>Stock-flow adjustment</b> (4)	0.6	0.9	0.7	0.8	0.8	0.8	0.8	0.8
- Cash/accruals								
- Accumulation of financial assets	0.6	0.9	0.7	0.8	0.8	0.8	0.8	0.8
<i>of which: Privatisation proceeds</i>								
- Valuation effects & residual adj.								
<u>Note:</u>								
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.								
<u>Source:</u>								
Stability programme update (SP); Commission services' autumn 2005 economic forecasts (COM); Commission services' calculations								

The projected pace of debt reduction does not seem to be subject to major risks. According to the high-interest-rate scenario included in the update, which projects a market interest rate increase of 1 percentage point per year, the debt-to-GDP ratio would fall to 38.2 % in 2007 and 36.4 % in 2008, which is still on a declining path and well below the 60 % of GDP threshold.

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

The 2005 update outlines measures, the objective of which is budgetary stability with a focus on the quality of public finances.

On the expenditure side, the priority is to enhance productivity by increasing public accumulation of physical, human and knowledge capital, through spending programmes on infrastructures, education and R&D. The programme also announces the creation of a State Agency for the evaluation of the quality of public policies aimed at improving the efficiency of the public sector. Furthermore, the government aims at improving the functioning of the labour market and maintain high job creation, reducing segmentation and encouraging high labour market participation. Other announced programmes in the same package aim at facilitating job search (through more efficient public employment services) and promoting on-the-job training. However, no further details are provided in the update on when or how these measures will be implemented.

On the revenue side, the update announces a reform of direct taxation, encompassing both personal and corporate taxes. It is not outlined in detail and should not be effective before 2007. The reform would aim at (i) reducing distortions on taxation including a more inflation-neutral tax code, (ii) increasing the efficiency of taxes by simplifying them, (iii) ensuring a more equitable treatment across tax payers by further taking into account their personal circumstances, and (iv) improving the fight against tax fraud.

A broad package of reforms of the Social Security System has also been submitted to the social partners on 10 November 2005, including measures aiming at (i) lengthening the working life by discouraging early retirement, (ii) achieving a closer link between contributions and benefits, and (iii) “correcting injustices in the system”, which would imply rising minimum pensions.

These structural reforms could improve the long-term sustainability and quality of public finances. However, a complete *ex ante* assessment of their effectiveness appears difficult since the measures are presented in a very general way.

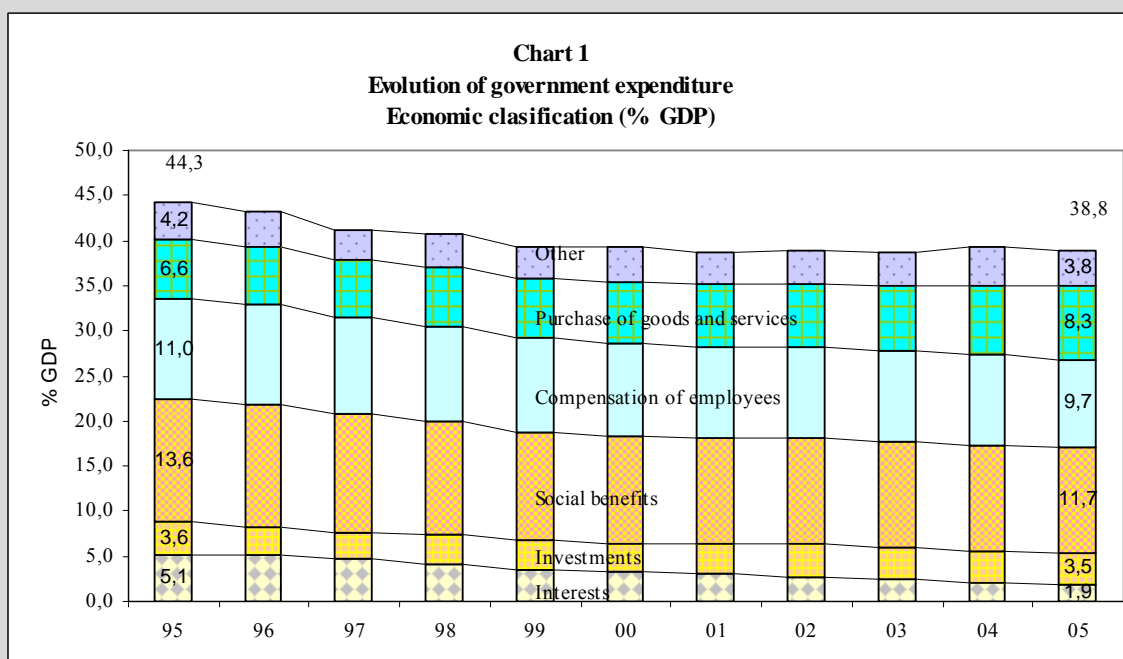
The measures outlined in the programme are broadly consistent with the broad economic policy guidelines in the area of public finances for the period 2005-2008, especially those geared towards promoting growth and job creation, such as the reform on the direct tax system.

The National Reform Programme of Spain, submitted on 13 October 2005, identifies the following challenges with significant implications for public finances: (i) to reduce the debt-to-GDP ratio to 34% in 2010, and (ii) to focus on productive spending (infrastructure, R&D). The measures in the area of public finances envisaged in the stability programme are also in line with the actions foreseen in the National Reform Programme.

Expenditure projections in the programme take account of the budgetary costs associated with the announced reforms aiming at promoting education, active labour market policies and social cohesion, as well as productivity-enhancing programmes within the framework of innovation and R&D projects, especially in 2006 (see Box 3). However, the update does not outline such efforts from 2007 onwards.

### Box 3: The level of government expenditure in Spain since 1995. Is government expenditure too high?

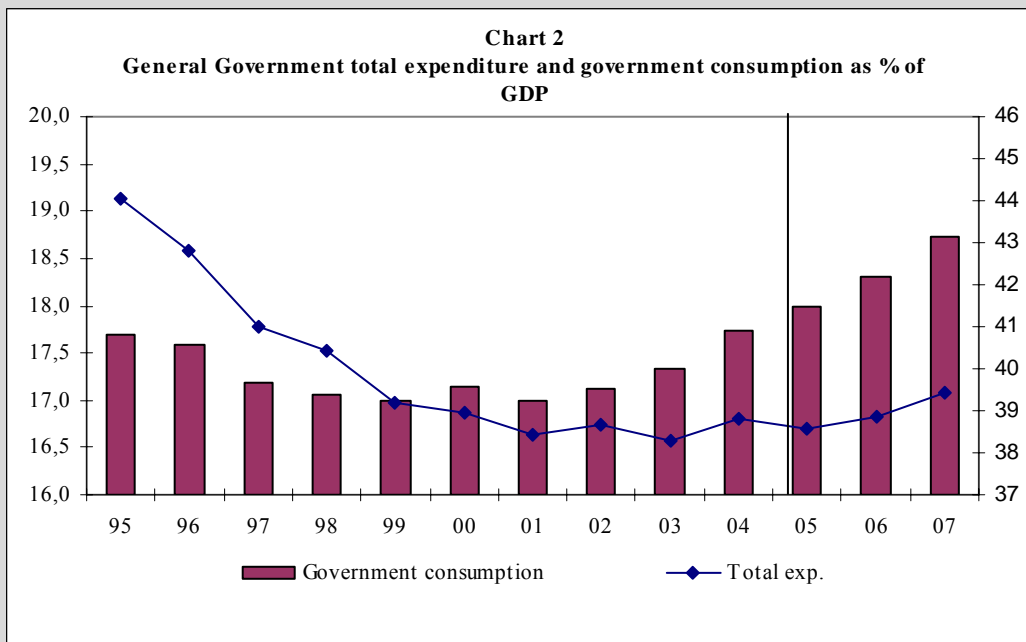
During the last decade, fiscal consolidation has been based on a significant reduction of total government expenditures in terms of GDP. While expenditures accounted for 44¼% of GDP in 1995, ten years later the ratio was 38¾% (see chart 1). The bulk of this reduction has come from lower interest expenditure, which has fallen from 5% in 1995 to 2% in 2005, driven by the reduction in both implicit interest rates and gross debt ratio. According to the Commission's services' autumn 2005 forecast, interest expenditure could just bottom out at around 1½% of GDP in 2007. While the reduction observed in the compensation of employees (-1.3% of GDP) over the last ten years has been offset by an increase in purchases of goods and services (+1.7%), the significant reduction of the unemployment rate, coupled with a moderate increase in pension expenditures, has made social benefits to grow well below nominal GDP. Government investment has remained broadly stable in terms of GDP (3 ½ pp.).



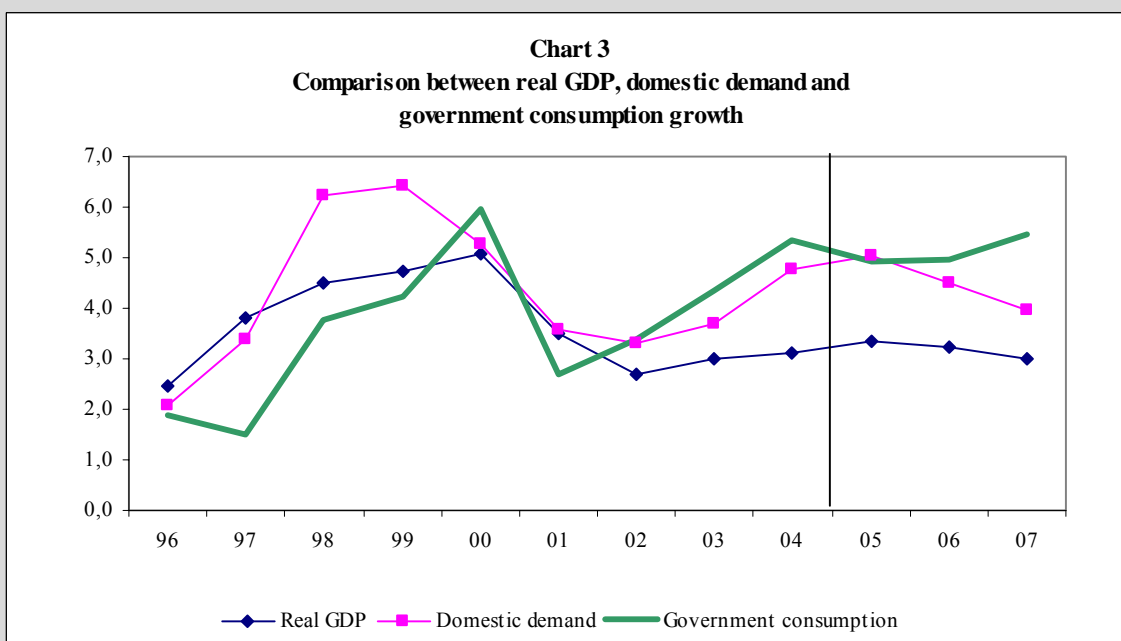
Focusing on the development of government consumption, two different periods can be distinguished in the path followed during the last decade (see chart 2). Between 1995 and 1999, within a process of strong expenditure retrenchment, public consumption fell, albeit marginally, from 17¾% of GDP in 1995 to 17% of GDP in 2000. This contrasts with the period 2002-2005, in which this downward trend was reversed and government consumption, growing above nominal GDP, attained again the GDP shares observed in 1995.

According to the Commission services' autumn 2005 forecast, in a context of no policy change scenario, public consumption could reach around 18¼% of GDP in 2006 and 18¾% of GDP in 2007, compared with 18% of GDP in 2005 (see chart 2). Supported by strong domestic demand, the projected higher revenues should be enough to finance additional government consumption over the forecast period. However, future increases in this spending item might be at odds with tax reforms aimed at reducing the tax burden.





In parallel, government consumption explained in the period 2002-2005 around 1/5 of domestic demand growth, compared with 1/6 in the period before. Consequently, since the beginning of the 2000s the expansion of public consumption has been feeding much more than in the 1990's an already highly dynamic domestic demand, which is not fully translated into higher growth but into higher imports, thus steadily deteriorating the external position of the country. This increase has still been compatible with the fiscal consolidation process, as higher revenues and lower interest payments are allowing Spain to stabilize total government expenditure and keep budget surpluses (see chart 3). However, should current trends remain in the long term, the maintenance of the close-to-balance position might require higher taxes in the future. Within this context, the issue of the consistency between a persistently rising public consumption and the need to rebalance the external sector, while maintaining a close-to-balance position, appears relevant since government consumption encompasses, not only the operational costs of the administration and public wages, but also items subject to long-run trends, largely associated with the ageing of the population, such as health care, which may be difficult to revert.



## 6. THE SUSTAINABILITY OF THE PUBLIC FINANCES

The assessment of the sustainability of the Spain'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<sup>12</sup> remains unchanged at the 2005 level throughout the programme period.

In the case of Spain, the Commission's analysis is based on government expenditure on pensions, which are the only age-related expenditure projection included in the update.<sup>13</sup> On the basis of the programme information, pension expenditure is foreseen to increase by 6.9% of GDP between 2008 and 2050 (see Table A2 in the Annex).

The gross debt-to-GDP ratio is currently below the reference value of 60%. According to the '2005' scenario, after a projected fall until around 2030, the debt-to-GDP ratio is expected to increase while remaining below the 60% of GDP reference value throughout the projection period<sup>14</sup>. In the 'programme' scenario the debt-to-GDP ratio is also projected to fall over the next two decades, however, in the subsequent years it is expected to breach the reference value just before the end of the projection period (see Table A4 in the Annex).

**Table 1: Sustainability indicators and the required primary balance**

	Sustainability indicators and RPB					
	2005 scenario			Programme scenario		
	S1	S2	RPB	S1	S2	RPB
<b>Value (of which)</b>	<b>-0.3</b>	<b>2.1</b>	<b>5.0</b>	<b>0.5</b>	<b>2.9</b>	<b>5.1</b>
<i>initial budgetary position</i>	-2.6	-2.5		-1.8	-1.7	
<i>debt requirement in 2050</i>	-0.4	:		-0.4	:	
<i>future changes in budgetary position</i>	2.7	4.6		2.7	4.6	

Note: The S1 indicator shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP required to reach a debt ratio in 2050 of 60% of GDP and the current revenue ratio. The S2 indicator, which shows the difference, the sustainability gap, between the constant revenue ratio as a share of GDP that guarantees the respect of the inter-temporal budget constraint of the government, i.e. that equates the actualized flow of revenues and expenses over an infinite horizon, and the current revenue

<sup>12</sup> The primary balance where the effect of the cycle and any one-off or temporary measures have been netted out.

<sup>13</sup> The other age-related items covered in the common projections (health-care, long-term care, education and unemployment benefits) are not provided in the programme. Other expenditure items and revenues are assumed to remain constant as a share of GDP over the projection period.

<sup>14</sup> 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.

ratio<sup>15</sup>. 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.

As a consequence, a small sustainability gap (S1) that ensures a debt level at 60% of GDP in 2050 emerges only in the “programme” scenario. In the “2005” scenario, the projected future impact of increasing pension expenditures due to ageing populations up to 2050 is more than offset by the positive initial budgetary position, the low current level of gross debt and the assets held by the social security reserve funds. 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 2 % of GDP emerges in the “2005” scenario. The initial budgetary position is not sufficiently high to fully offset the future increases in pension expenditures. In the “programme” scenario, the sustainability gap is somewhat larger, due to a deterioration of the budgetary position, indicating the importance of maintaining the currently sound budgetary position in dealing with the challenge posed by ageing populations. This sustainability gap translates into a required primary balance (RPB) of about 5% of GDP, higher than the adjusted structural primary balance of about 1 % of GDP of the last year of the programme period.

Moreover, the sustainability gap, as measured by the S2 indicator, would increase by around  $\frac{1}{4}$  % of GDP if the (budgetary or structural) adjustment was to be postponed by 5 years (see table A3 in the Annex).

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

The underlying assumptions used when making the long-term projections are those commonly agreed and used by the Economic Policy Committee (EPC) in the current common projections exercise.

No information is available in the update on other age-related expenditures than pensions, which underestimates the budgetary impact of ageing populations. In this context, it is worth noting that according to the 2001 and 2003 EPC long-term age-related expenditure projections, the combined increase in items other than pension expenditures (health care, education and unemployment benefits) amounted to 1% of GDP over the period 2008-2050, indicating an underestimation of budgetary impact of ageing in the results of the sustainability indicators presented above.

The policy strategy outlined in the update is based on (i) maintaining budgetary stability, (ii) fostering employment and encouraging longer working life, and (iii) revising social security systems and controlling other age-related expenditure. Budgetary stability should contribute to long-term sustainability by helping reduce government debt and continue increasing the assets of the social security reserve fund. Concerning the other two pillars, the government's proposal of the reform package to the social partners is a

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<sup>15</sup> 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.

step in the right direction. Nevertheless, besides listing the proposed measures very broadly, the update does not mention any time frame for their implementation.

The announced social welfare reform would include interlinked measures for: (i) lengthening of the working life – discourage early retirement and encourage voluntary lengthening of working lives, provide incentives to business to retain older workers; (ii) a closer link between contributions and benefits – simplifying the social security system; and (iii) adjustments in order to reward the working population, eliminate loopholes and to reduce incentives for abuses in the current social welfare system.

Concerning the control of healthcare expenditure, the programme update sets as objective to guarantee the financial viability of the National Health System by moderating the expenditure growth and making the system more efficient. The Strategic Plan on Pharmaceutical Policy and the Quality Plan (for the quality and cohesion of the National Health System) are being developed for this purpose, however the update is silent on the planned timetable as well as their quantitative impact on the viability of the National Health System.

### **Overall assessment**

With regard to the sustainability of public finances, Spain appears to be at medium risk on grounds of the projected budgetary costs of ageing populations. The currently favourable budgetary position, including the debt position and accumulation of assets in the Social Security Reserve Fund, contribute to absorb somewhat the projected increase of pension expenditures. However, the significant increase in these expenditures over the projection period suggests that the implementation of the measures within the announced social welfare reform aimed at containing the budgetary impact of ageing, notably concerning pensions, would be an important element in reducing risks to the sustainability of public finances.

\* \* \*

## Annex 1: Summary tables from the stability programme update

Provision of data on variables in bold characters is a requirement.

Provision of data on other variables is optional but highly desirable.

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
<b>1. Real GDP</b>	B1*g	112.9	3.1	3.4	3.3	3.2	3.2
<b>2. Nominal GDP</b>	B1*g	837.3	7.3	7.5	6.7	6.4	6.1
<b>Components of real GDP</b>							
<b>3. Private consumption expenditure (**)</b>	P.3	113.7	4.4	4.2	3.5	3.3	3.2
<b>4. Government consumption expenditure</b>	P.3	120.7	6.0	4.5	4.1	3.6	3.1
<b>5. Gross fixed capital formation</b>	P.51	119.6	4.9	7.1	5.9	5.2	5.1
<b>6. Changes in inventories and net acquisition of valuables (% of GDP)</b>	P.52 + P.53	96.2	0.4	0.4	0.4	0.3	0.3
<b>7. Exports of goods and services</b>	P.6	113.4	3.3	1.1	2.6	3.3	3.8
<b>8. Imports of goods and services</b>	P.7	125.3	9.3	7.0	5.8	5.5	5.5
<b>Contributions to real GDP growth</b>							
<b>9. Final domestic demand</b>		116.3	4.7	5.2	4.5	4.1	4.0
<b>10. Changes in inventories and net acquisition of valuables</b>	P.52 + P.53	96.2	0.0	0.0	0.0	0.0	0.0
<b>11. External balance of goods and services</b>	B.11	334.6	-1.6	-1.8	-1.1	-0.9	-0.8
(*)Chained volume indices: 2000=100, unless otherwise indicated							
(**) Includes Households and NPISH (non-profit institutions serving households)							
Source: INE and Ministry of Economic and Finance							

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
<b>1. GDP deflator</b>		117.7	4.1	3.9	3.2	3.1	2.8
<b>2. Private consumption deflator (**)</b>		113.1	3.4	3.4	2.8	2.5	2.2
<b>3. HICP<sup>16</sup></b>		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>4. Public consumption deflator</b>		113.9	3.3	3.4	3.2	2.5	2.3
<b>5. Investment deflator</b>		120.0	5.4	5.9	4.5	3.1	2.7
<b>6. Export price deflator (goods and services)</b>		104.5	2.0	3.8	2.2	0.5	0.5
<b>7. Import price deflator (goods and services)</b>		97.8	1.8	4.5	2.6	-0.2	-0.5
(*)Chained volume indices: 2000=100							
(**) Includes Households and NPISH (non-profit institutions serving households)							
Source: INE and Ministry of Economic and Finance							

<sup>16</sup> 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
<b>1 Employment, persons<sup>17</sup> (millions)</b>		18.3	2.6	3.1	2.9	2.6	2.3
<b>1. Employment,FTE (million people)</b>		17.4	2.6	3.0	2.8	2.5	2.2
2. Employment, hours worked <sup>18</sup>		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>3. Unemployment rate (%)<sup>19</sup></b>		n.a.	11	9.0	8.4	8.1	7.8
<b>4. Labour productivity, persons<sup>20</sup> (million euro)</b>		39	0.5	0.3	0.4	0.6	0.9
<b>4. Labour productivity, FTEQ (million euro)</b>		40.8	0.5	0.4	0.5	0.7	1.0
5. Labour productivity, hours worked <sup>21</sup>		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>6. Compensation of employees (**) (million euro)</b>	D.1	26.9	3.3	2.8	2.8	2.7	2.7
(*) National account definition, except the unemployment rate (**) Compensation of employees, full time equivalent employment (FTEQ).							
Source: INE and Ministry of Economic and Finance							

**Table 1d. Sectoral balances**

% of GDP	ESA Code	2004 level (*)	2004	2005	2006	2007	2008
<b>1. Net lending/borrowing vis-à-vis the rest of the world</b>	B.9	-40.1	-4.8	-6.6	-7.7	-8.0	-8.2
of which:		-31.6	-3.8	-5.6	-6.6	-6.8	-6.9
- Balance on goods and services		-17.3	-2.1	-2.1	-2.0	-1.9	-1.8
- Capital account		8.8	1.1	1.1	0.9	0.7	0.5
2. Net lending/borrowing of the private sector	B.9/ EDP B.9	-38.8	-4.6	-7.6	-8.6	-8.7	-8.8
3. Net lending/borrowing of general government	B.9	-1.3	-0.2	1	0.9	0.7	0.6
<b>4. Statistical discrepancy</b>		-	-	-	-	-	-
(*) Billion euro							
Source: INE and Ministry of Economic and Finance							

<sup>17</sup> Occupied population, domestic concept national accounts definition.

<sup>18</sup> National accounts definition.

<sup>19</sup> Harmonised definition, Eurostat; levels.

<sup>20</sup> Real GDP per person employed.

<sup>21</sup> Real GDP per hour worked.

Table 2. General government budgetary prospects

	ESA code	2004	2004	2005	2006	2007	2008
		Level (*)	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
<b>Net lending (EDP B.9) by sub-sector</b>							
<b>1. General government</b>	S.13	-1,173	-0.1	1.0	0.9	0.7	0.6
<b>2. Central government</b>	S.1311	-9,600	-1.1	0.1	0.1	0.1	0.0
<b>3. State government</b>	S.1312	-185	0.0	0.0	-0.1	-0.1	0.0
<b>4. Local government</b>	S.1313	-23	0.0	0.0	0.0	0.0	0.0
<b>5. Social security funds</b>	S.1314	8,635	1.0	0.9	0.9	0.7	0.6
<b>General government (S13)</b>							
<b>6. Total revenue</b>	TR	323,799	38.7	39.4	39.3	39.1	38.9
<b>7. Total expenditure</b>	TE <sup>22</sup>	324,972	38.8	38.4	38.4	38.4	38.3
<b>8. Net lending/borrowing</b>	EDP B.9	-1,173	-0.1	1.0	0.9	0.7	0.6
<b>9. Interest expenditure (incl. FISIM)</b>	EDP D.41 incl. FISIM	17,125	2.0	1.8	1.7	1.5	1.4
<b>pm: 9a. FISIM (**)</b>		181	-	-	-	-	-
<b>10. Primary balance</b>	<sup>23</sup>	15,952	1.9	2.8	2.6	2.2	2.0
<b>Selected components of revenue</b>							
<b>11. Total taxes (11=11a+11b+11c)</b>		188,945	22.6	23.3	23.3	23.1	23.0
<b>11a. Taxes on production and imports</b>	D.2	99,632	11.9	12.0	11.9	11.9	11.9
<b>11b. Current taxes on income, wealth, etc</b>	D.5	85,642	10.2	10.9	10.9	10.8	10.7
<b>11c. Capital taxes</b>	D.91	3,671	0.4	0.4	0.4	0.4	0.4
<b>12. Social contributions</b>	D.61	109,037	13.0	13.1	13.1	13.1	13.1
<b>13. Property income</b>	D.4	5,970	0.7	0.7	0.7	0.7	0.7
<b>14. Other (14=15-(11+12+13))</b>		19,847	2.4	2.3	2.3	2.2	2.2
<b>15=6. Total revenue</b>	TR	323,799	38.7	39.4	39.3	39.1	38.9
<b>p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)<sup>24</sup></b>		290,257	34.7	35.5	35.5	35.3	35.2
<b>Selected components of expenditure</b>							
<b>16. Collective consumption<sup>(***)</sup></b>	P.32	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>17. Total social transfers<sup>(***)</sup></b>	D.62 + D.63	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17a. Social transfers in kind	P.31 -D.63	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17b. Social transfers other than in kind (***)	D.62	98,379	11.7	11.8	11.8	11.8	11.9
Government final consumption expenditure	P3	148,898	17.8	17.9	18.0	18.0	17.9
<b>18.=9. Interest expenditure (incl. FISIM)</b>	EDP D.41 incl. FISIM	17,125	2.0	1.8	1.7	1.5	1.4
<b>19. Subsidies</b>	D.3	8,278	1.0	1.0	1.0	1.0	1.0
<b>20. Gross fixed capital formation</b>	P.51	28,708	3.4	3.5	3.5	3.6	3.7
<b>21. Other (21=22-(16+17+18+19+20))</b>		23,584	2.8	2.4	2.4	2.4	2.4
<b>22=7. Total expenditure</b>	TE <sup>25</sup>	324,972	38.8	38.4	38.4	38.4	38.3
Pm: compensation of employees	D.1	84,302	10.1	10.0	10.1	10.1	10.1
(*) Million euro (**) Financial intermediation services indirectly measured. (***) The update stability programme includes figures for lines 16 and 17, but do not correspond with the SEC-95 codes required. On the other hand, the figure delivered for line 17 corresponds to the SEC-95 code for line 17b, which had been left blank in the update. Furthermore, the update provides figures for "government final consumption expenditure".							
Source: Ministry of Economy and Finance.							

<sup>22</sup> Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

<sup>23</sup> The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41 + FISIM recorded as intermediate consumption, item 9).

<sup>24</sup> Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

<sup>25</sup> 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	n.a.	n.a.
2. Defence	2	n.a.	n.a.
3. Public order and safety	3	n.a.	n.a.
4. Economic affairs	4	n.a.	n.a.
5. Environmental protection	5	n.a.	n.a.
6. Housing and community amenities	6	n.a.	n.a.
7. Health	7	n.a.	n.a.
8. Recreation, culture and religion	8	n.a.	n.a.
9. Education	9	n.a.	n.a.
10. Social protection	10	n.a.	n.a.
11. Total expenditure (= item 7=26 in Table 2)	TE <sup>26</sup>	n.a.	n.a.

**Table 4. General government debt developments**

% of GDP	2004	2005	2006	2007	2008	2008/2005 Increase
<b>1. Gross debt<sup>27</sup></b>	46.6	43.1	40.3	38.0	36.0	-7.1
<b>2. Change in gross debt ratio</b>	-2.4	-3.5	-2.8	-2.3	-2.0	-
<b>Contributions to changes in gross debt</b>						
<b>3. Primary balance<sup>28</sup></b>	-1.9	-2.8	-2.6	-2.2	-2.0	-6.8
<b>4. Interest expenditure (incl. FISIM)<sup>29</sup></b>	2.0	1.8	1.7	1.5	1.4	4.6
<b>5. Stock-flow adjustment</b>	0.8	0.8	0.8	0.8	0.8	2.4
of which:						
- Differences between cash and accruals <sup>30</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	-
- Net accumulation of financial assets <sup>31</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	-
of which:						
- privatisation proceeds	n.a.	n.a.	n.a.	n.a.	n.a.	-
- Valuation effects and other <sup>32</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	-
<b>p.m. implicit interest rate on debt<sup>33</sup></b>	4.47	4.23	4.12	4.05	4.02	-
<b>Other relevant variables</b>						
6. Liquid financial assets <sup>34</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	-
7. Net financial debt (7=1-6)	n.a.	n.a.	n.a.	n.a.	n.a.	-
8. Effect of nominal GDP growth	-3.3	-3.3	-2.7	-2.4	-2.2	-7.3

Source: Ministry of Economy and Finance

<sup>26</sup> Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

<sup>27</sup> As defined in Regulation 3605/93 (not an ESA concept).

<sup>28</sup> Cf. item 10 in Table 2.

<sup>29</sup> Cf. item 9 in Table 2.

<sup>30</sup> The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.

<sup>31</sup> Liquid assets, assets on third countries, government controlled enterprises and the difference between quoted and non-quoted assets could be distinguished when relevant.

<sup>32</sup> Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.

<sup>33</sup> Proxied by interest expenditure (incl. FISIM recorded as consumption) divided by the debt level of the previous year.

<sup>34</sup> 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
<b>1. Real GDP growth (%)</b>		3.1	3.4	3.3	3.2	3.2
<b>2. Net lending of general government</b>	EDP B.9	-0.1	1.0	0.9	0.7	0.6
<b>3. Interest expenditure (incl. FISIM recorded as consumption)</b>	EDPD.41+FI SIM	2.0	1.8	1.7	1.5	1.4
<b>4. Potential GDP growth (%)</b>		3.4	3.4	3.4	3.3	3.3
contributions:						
- labour		n.a.	n.a.	n.a.	n.a.	n.a.
- capital		n.a.	n.a.	n.a.	n.a.	n.a.
- total factor productivity		n.a.	n.a.	n.a.	n.a.	n.a.
<b>5. Output gap</b>		0.1	0.2	0.2	0.1	0.0
<b>6. Cyclical budgetary component</b>		0.1	0.1	0.1	0.0	0.0
<b>7. Cyclically-adjusted balance (2-6)</b>		-0.2	1.0	0.9	0.7	0.6
<b>8. Cyclically-adjusted primary balance (7-3)</b>		1.8	2.8	2.6	2.2	2.0
(*) Potential GDP calculated using Hodrick-Prescott filter for the 1960-2011 period ( $\lambda=100$ ) Source: Ministry of Economy and Finance						

**Table 6. Divergence from previous update**

	ESA Code	2004	2005	2006	2007	2008
<b>Real GDP growth (%)</b>						
<b>Previous update</b>		2.6	2.9	3.0	3.0	3.0
<b>Current update</b>		3.1	3.4	3.3	3.2	3.2
<b>Difference</b>		0.5	0.5	0.3	0.2	0.2
<b>General government net lending (% of GDP)</b>	EDP B.9					
<b>Previous update</b>		-0.8	0.1	0.2	0.4	0.4
<b>Current update</b>		-0.1	1.0	0.9	0.7	0.6
<b>Difference</b>		0.7	0.9	0.7	0.3	0.2
<b>General government gross debt (% of GDP)</b>						
<b>Previous update</b>		49.1	46.7	44.3	42.0	40.0
<b>Current update</b>		46.6	43.1	40.3	38.0	36.0
<b>Difference</b>		-2.5	-3.6	-4.0	-4.0	-4.0
Source: Ministry of Economy and Finance						

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

% of GDP	2000	2005	2010	2020	2030	2040	2050
Total expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Of which: age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pension expenditure	9.1	8.7	8.9	9.3	11.8	15.1	15.7
Social security pension	8.1	7.8	8.1	8.5	11.0	14.4	15.2
Old-age and early pensions	6.0	5.7	5.8	6.1	8.4	11.5	12.2
Other pensions (disability, survivors)	3.1	3.0	3.1	3.2	3.4	3.6	3.5
Occupational pensions (if in general government)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Health care	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Long-term care ( <i>this was earlier included in the health care</i> )	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Education expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total revenue	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Of which: property income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>of which: from pensions contributions (or social contributions if appropriate)</i>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pension reserve fund assets	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Of which: consolidated public pension fund assets (assets other than government liabilities)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Assumptions</b>							
Labour productivity growth	-	0.8	1.6	2.0	1.7	1.7	1.7
Real GDP growth	-	3.1	2.8	2.0	1.0	0.4	1.0
Participation rate males (aged 20-64)	-	85.6	86.9	87.9	87.0	86.1	87.8
Participation rates females (aged 20-64)	-	61.5	66.4	72.2	73.5	73.4	74.9
Total participation rates (aged 20-64)	-	73.6	76.7	80.2	80.3	79.9	81.5
Unemployment rate	-	10.4	8.7	7.0	7.0	7.0	7.0
Population aged 65+ over total population	-	16.8	17.2	19.6	24.4	30.5	35.0
Source: Ministry of Economy and Finance							

**Table 8. Basic assumptions**

	2004	2005	2006	2007	2008
<b>Short-term interest rate<sup>35</sup> (annual average)</b>	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Long-term interest rate (annual average)</b>	n.a.	n.a.	n.a.	n.a.	n.a.
<b>USD/€exchange rate (annual average) (euro area and ERM II countries)</b>	1.24	1.25	1.21	1.22	1.22
<b>Nominal effective exchange rate in the EU-25 (% change)</b>	3.9	-0.8	-1.5	0.5	0.0
<b>Nominal effective exchange rate in the euro area(% change)</b>	2.9	-1.0	-0.8	0.7	0.0
<b>(for countries not in euro area or ERM II) exchange rate vis-à-vis the €(annual average)</b>	-	-	-	-	-
<b>World excluding EU, GDP growth (*)</b>	5.9	5.1	4.9	4.6	4.0
<b>EU GDP growth (*)</b>	2.4	1.5	2.1	2.4	2.7
<b>Growth of relevant foreign markets (**)</b>	-	5.7	6.6	6.5	7.0
<b>World import volumes, excluding EU</b>	13.9	8.8	8.7	8.4	8.0
<b>Oil prices, (Brent, USD/barrel)</b>	37.8	55.0	61.4	60.3	60.0
(*) Real percentage change Intra-and-extra-EU trade					
Source: European Commission and Ministry of Economy and Finance					

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<sup>35</sup> 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
<b>1. Submission of the programme</b>			
Programme was submitted not earlier than mid-October and not later than 1 December <sup>1</sup> .		X	30 December 2005
<b>2. Model structure</b>			
The model structure for the programmes in Annex 1 of the code of conduct has been followed.	X		
<b>3. Model tables (so-called data requirements)</b>			
The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct).	X		
The programme provides all compulsory information in these tables.		X	
The programme provides all optional information in these tables.		X	
The concepts used are in line with the European system of accounts (ESA).	X		
<b>4. Other information requirements</b>			
<b>a. Involvement of parliament</b>			
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>b. Economic outlook</b>			
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 <sup>2</sup> .			Not applicable, as there are no significant divergences
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		
<b>c. Monetary/exchange rate policy</b>			
The convergence programme presents the medium-term monetary policy objectives and their relationship to price and exchange rate stability.			Not applicable
<b>d. Budgetary strategy</b>			
The programme presents budgetary targets for the general government balance in relation to the MTO, and the projected path for the debt ratio.	X		

<b>Guidelines in the new code of conduct</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
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.			Not applicable
The state of implementation of the measures (enacted versus planned) presented in the programme is specified.			Not applicable
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
<b><i>e. “Major structural reforms”</i></b>			
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
<b><i>f. Sensitivity analysis</i></b>			
The programme includes comprehensive sensitivity analyses and/or develops alternative scenarios showing the effect on the budgetary and debt position of: a) changes in the main economic assumptions b) different interest rate assumptions c) for non-participating Member States, different exchange rate assumptions d) if the common external assumptions are not used, changes in assumptions for the main extra-EU variables.	X		
In case of such “major structural reforms”, the programme provides an analysis of how changes in the assumptions would affect the effects on the budget and potential growth.			Not applicable
<b><i>g. Broad economic policy guidelines</i></b>			
The programme provides information on the consistency with the broad economic policy guidelines of the budgetary objectives and the measures to achieve them.	X		
<b><i>h. Quality of public finances</i></b>			
The programme describes measures aimed at improving the quality of public finances on both the revenue and expenditure side (e.g. tax reform, value-for-money initiatives, measures to improve tax collection efficiency and expenditure control).	X		
<b><i>i. Long-term sustainability</i></b>			
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	X		

<b>Guidelines in the new code of conduct</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
in programmes should focus on new relevant information that is not fully reflected in the latest common EPC projections.			
<b>j. Other information (optional)</b>			
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.			Not applicable
Notes:			
<sup>1</sup> 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.			
<sup>2</sup> 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.

<b>Integrated guidelines</b>	<b>Yes</b>	<b>No</b>	<b>Not applicable</b>
<b>1. To secure economic stability</b>			
– 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 <sup>1</sup> .	X		
– Member States should avoid pro-cyclical fiscal policies <sup>2</sup> .	X		
– Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits <sup>3</sup> .			X
– Member States posting current account deficits that risk being unsustainable should work towards (...), where appropriate, contributing to their correction via fiscal policies.	X		
<b>2. To safeguard economic and fiscal sustainability</b>			
In view of the projected costs of ageing populations,			
– Member States should undertake a satisfactory pace of government debt reduction to strengthen public finances.	X		
– Member States should reform and re-enforce pension, social insurance and health care systems to ensure that they are financially viable, socially adequate and accessible (...)	X		
<b>3. To promote a growth- and employment-orientated and efficient allocation of resources</b>			
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	X		

<b>Integrated guidelines</b>	<b>Yes</b>	<b>No</b>	<b>Not applicable</b>
and ensure the overall coherence of reform packages.			
Notes:			
<sup>1</sup> 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.			
<sup>2</sup> 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”.			
<sup>3</sup> As further specified in the country-specific Council recommendations and decisions under the excessive deficit procedure.			

#### Annex 4: Assessment of tax projections

Table 6 compares the tax projections of the programme with those of the Commission services’ autumn 2005 forecast and Table 7 those of the Commission services’ autumn forecast with tax projections obtained by using standard ex-ante elasticities, as estimated by the OECD. The tables summarise the results for the total tax-to-GDP ratio. The underlying analysis is carried out exploiting information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see tables below)<sup>36</sup>. Conceptually, the analysis draws on the definition of a semi-elasticity, which measures the change in a ratio vis-à-vis the relative change in the denominator. The semi-elasticity of the tax-to-GDP ratio of the *i*-th tax  $\frac{T_i}{Y}$  can be written

as:

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

where  $\varepsilon_{T_i, B_i}$  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  $\varepsilon_{T_i, B_i}$  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<sup>37</sup>. By contrast, if  $\varepsilon_{T_i, B_i}$  is the standard *ex-ante* elasticity, as estimated by the OECD, it will be net of discretionary measures.

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

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

<sup>36</sup>Private and corporate income taxes are generally not provided, neither in the programme nor in the Commission services’ autumn 2005 forecast. Only the aggregate, direct income taxes, is given. For the purpose of this exercise the breakdown is obtained using the average shares over the past ten years, i.e. the composition of direct taxes is assumed to stay constant.

<sup>37</sup>The observed or projected elasticity (ex-post elasticity) of the *i*-th tax also includes the effect of other factors (OF) such as discretionary measures:  $\frac{\Delta T_i}{T_i} = \varepsilon_{T_i, B_i, ex\,ante} \frac{dB_i}{B_i} + \frac{OF_i}{T_i} = \varepsilon_{T_i, B_i, ex\,post} \frac{dB_i}{B_i}$ .

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

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

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

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

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

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

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

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

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

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



### Assessment of tax projections by major tax category

	2006		2007		2008	p.m.:
	COM	SP	COM <sup>2</sup>	SP	SP	OECD <sup>1</sup>
<b>Taxes on production and imports:</b>						
Change in tax-to-GDP ratio	0.2	0.0	0.1	0.1	0.0	/
<i>Difference</i>	-0.2		0.0		/	/
<i>of which<sup>3</sup>: - elasticity component</i>	0.0		0.2		/	/
<i>- composition component</i>	-0.2		-0.2		/	/
p.m.: Observed elasticity:						
- of taxes to tax base <sup>4</sup>	1.1	1.1	1.1	1.3	1.1	1.0
- of tax base <sup>4</sup> to GDP	1.1	0.9	1.1	0.9	0.9	1.0
<b>Social contributions:</b>						
Change in tax-to-GDP ratio	0.1	0.0	0.1	0.1	-0.4	/
<i>Difference</i>	-0.1		0.0		/	/
<i>of which<sup>3</sup>: - elasticity component</i>	0.5		0.7		/	/
<i>- composition component</i>	-0.4		-0.4		/	/
p.m.: Observed elasticity:						
- of taxes to tax base <sup>5</sup>	1.2	1.8	1.2	2.1	1.9	0.8
- of tax base <sup>5</sup> to GDP	0.9	0.6	1.0	0.5	0.5	0.9
<b>Personal income tax<sup>6</sup>:</b>						
Change in tax-to-GDP ratio	0.1	0.0	0.1	0.0	0.0	/
<i>Difference</i>	-0.1		-0.1		/	/
<i>of which<sup>3</sup>: - elasticity component</i>	0.3		0.3		/	/
<i>- composition component</i>	-0.2		-0.2		/	/
p.m.: Observed elasticity:						
- of taxes to tax base <sup>5</sup>	1.2	1.8	1.2	1.9	1.9	2.1
- of tax base <sup>5</sup> to GDP	0.9	0.6	1.0	0.5	0.5	0.9
<b>Corporate income tax<sup>6</sup>:</b>						
Change in tax-to-GDP ratio	0.0	0.0	0.0	0.0	0.0	/
<i>Difference</i>	0.0		0.0		/	/
<i>of which<sup>3</sup>: - elasticity component</i>	-0.1		-0.1		/	/
<i>- composition component</i>	0.1		0.1		/	/
p.m.: Observed elasticity:						
- of taxes to tax base <sup>7</sup>	1.0	0.7	1.2	0.7	0.7	1.0
- of tax base <sup>7</sup> to GDP	1.1	1.4	1.0	1.4	1.4	1.15
<b>Notes:</b>						
<sup>1</sup> OECD ex-ante elasticities						
<sup>2</sup> On a no-policy change basis						
<sup>3</sup> The decomposition is explained in the text above						
<sup>4</sup> Tax base = private consumption expenditure						
<sup>5</sup> Tax base = compensation of employees						
<sup>6</sup> 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						
<sup>7</sup> Tax base = gross operating surplus						
<b>Source:</b>						
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 <sup>1</sup>	COM <sup>2</sup> (observed)	ex-ante <sup>1</sup>
<b>Taxes on production and imports:</b>				
Change in tax-to-GDP ratio	0.2	0.0	0.1	0.0
<i>Difference</i>	-0.2		-0.1	
<i>of which<sup>3</sup>: - elasticity component</i>	-0.1		0.0	
<i>- composition component</i>	-0.1		-0.1	
p.m.: Observed elasticity:				
- of taxes to tax base <sup>4</sup>	1.1	1.0	1.1	1.0
- of tax base <sup>4</sup> to GDP	1.1	1.0	1.1	1.0
<b>Social contributions:</b>				
Change in tax-to-GDP ratio	0.1	-0.3	0.1	-0.3
<i>Difference</i>	-0.4		-0.4	
<i>of which<sup>3</sup>: - elasticity component</i>	-0.3		-0.3	
<i>- composition component</i>	0.0		-0.1	
p.m.: Observed elasticity:				
- of taxes to tax base <sup>5</sup>	1.2	0.8	1.2	0.8
- of tax base <sup>5</sup> to GDP	0.9	0.9	1.0	0.9
<b>Personal income tax<sup>6</sup>:</b>				
Change in tax-to-GDP ratio	0.1	0.4	0.1	0.4
<i>Difference</i>	0.4		0.3	
<i>of which<sup>3</sup>: - elasticity component</i>	0.4		0.4	
<i>- composition component</i>	0.0		0.0	
p.m.: Observed elasticity:				
- of taxes to tax base <sup>5</sup>	1.2	2.1	1.2	2.1
- of tax base <sup>5</sup> to GDP	0.9	0.9	1.0	0.9
<b>Corporate income tax<sup>6</sup>:</b>				
Change in tax-to-GDP ratio	0.0	0.0	0.0	0.0
<i>Difference</i>	0.0		0.0	
<i>of which<sup>3</sup>: - elasticity component</i>	0.0		0.0	
<i>- composition component</i>	0.0		0.0	
p.m.: Observed elasticity:				
- of taxes to tax base <sup>7</sup>	1.0	1.0	1.2	1.0
- of tax base <sup>7</sup> to GDP	1.1	1.2	1.0	1.2
<b>Notes:</b>	<sup>1</sup> Tax projections obtained by applying ex-ante standard tax elasticities estimated by the OECD <sup>2</sup> On a no-policy change basis <sup>3</sup> The decomposition is explained in the text above <sup>4</sup> Tax base = private consumption expenditure <sup>5</sup> Tax base = compensation of employees <sup>6</sup> 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 <sup>7</sup> Tax base = gross operating surplus <b>Source:</b> <i>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)</i>			

## 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	1.6	1.6	2.0	2.0	1.7	1.7	1.7	1.7
Real GDP growth	2.8	2.8	2.0	2.0	1.0	1.0	1.0	1.0
Participation rate males (aged 20-64)	86.9	86.9	87.9	87.9	87.0	87.0	87.8	87.8
Participation rates females (aged 20-64)	66.4	66.4	72.2	72.2	73.5	73.5	74.9	74.9
Total participation rates (aged 20-64)	76.7	76.7	80.2	80.2	80.3	80.3	81.5	81.5
Unemployment rate	8.7	8.7	7.0	7.0	7.0	7.0	7.0	7.0
Population aged 65+ over total population	17.2	17.2	19.6	19.6	24.4	24.4	35.0	35.0

**Table A2: Long-term projections**

Main assumptions - programme scenario (as % GDP)	2008	2010	2020	2030	2040	2050	changes	Impact on S2
<i>Total age-related spending</i>	8.8	8.9	9.3	11.8	15.1	15.7	6.9	4.6
Pensions	8.8	8.9	9.3	11.8	15.1	15.7	6.9	4.6
Health care	-	-	-	-	-	-	-	-
Care of the elderly	-	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-	-
Unemployment benefits	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<i>Total primary non age-related spending</i>	28.1	28.1	28.1	28.1	28.1	28.1	0.0	0.0
<i>Total revenues</i>	39.2	39.2	39.2	39.2	39.2	39.2	0.0	0.0

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

	S1	S2
“2005” scenario	-0.1	0.2
“Programme” scenario	0.1	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 developments**

Results (as % GDP)	2008	2010	2020	2030	2040	2050	changes
<i>Programme scenario</i>							
Gross debt	36.0	31.5	12.7	9.6	39.1	95.8	59.8
<i>Gross debt, i + 1*</i>	36.0	32.2	15.9	14.6	48.1	115.1	79.1
<i>Gross debt, i - 1*</i>	36.0	30.9	9.9	5.7	32.7	82.2	46.2
Adjusted gross debt	35.3	30.9	12.0	8.8	38.1	94.6	59.2
<i>2005 Scenario</i>							
Gross debt	31.5	25.7	-0.7	-13.5	2.4	42.6	11.0
<i>Gross debt, i + 1*</i>	31.5	26.3	1.4	-11.7	3.8	46.5	15.0
<i>Gross debt, i - 1*</i>	31.5	25.1	-2.5	-14.6	2.2	40.3	8.8
Adjusted gross debt	30.9	25.0	-1.4	-14.3	1.4	41.3	11.0

\*  $i + 1$  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.

