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**CYPRUS: MACRO FISCAL ASSESSMENT**  
**AN ANALYSIS OF THE FEBRUARY 2009 UPDATE OF THE STABILITY**  
**PROGRAMME**

The Stability and Growth Pact requires each EU Member State to present an annual update of its medium-term budgetary programme, called “stability programme” for countries that have adopted the euro as their currency and “convergence programme” for those that have not.

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs (DG ECFIN) of the European Commission, was finalised on 18 March 2009. Comments should be sent to Polyvios Eliofotou (Polyvios.Eliofofou@ec.europa.eu). The main aim of the analysis is to assess the realism of the budgetary strategy presented in the programme as well as its compliance with the requirements of the Stability and Growth Pact. However, the analysis also looks at the overall macro-economic performance of the country and highlights relevant policy challenges.

The analysis takes into account (i) the Commission services’ January 2009 interim forecast, (ii) the code of conduct (“Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes”, endorsed by the ECOFIN Council of 11 October 2005) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances. Technical issues are explained in an accompanying methodological paper prepared by DG ECFIN.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 24 March 2009. The ECOFIN Council is expected to adopt its opinion on the programme on 27 April 2009.

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

[http://ec.europa.eu/economy\\_finance/about/activities/sgp/main\\_en.htm](http://ec.europa.eu/economy_finance/about/activities/sgp/main_en.htm)

## **1. INTRODUCTION**

This document assesses the January 2009 update of Cyprus' stability programme. It takes into account all currently available information, notably the Commission services' January 2009 Interim Forecast and the short-term fiscal stimulus measures adopted by the Cypriot authorities in response to the economic downturn. The programme, which was submitted on 13 February 2009<sup>1</sup>, covers the period 2008-2012 and builds on the 2009 budget proposal. It was approved by the Council of Ministers on 17 December 2008 and subsequently amended on 3 February 2009. The programme is consistent with the 2009 budget and takes into account the recent European Commission proposal for a coordinated recovery plan to address the current economic downturn.

## **2. MAIN CHALLENGES IN THE ECONOMIC DOWNTURN AND THE POLICY RESPONSE**

Real GDP growth in Cyprus decelerated somewhat during 2008 as the global economic downturn led to subdued external demand. According to Commission services' calculations, the output gap remains positive but closing. Economic activity has been exclusively driven by robust domestic demand. Private consumption benefited from continued employment and wage growth, low interest rates and sustained credit expansion as well as euro adoption confidence effects. Gross fixed capital formation has decelerated from the unusually high levels of last year although still remained dynamic. A deteriorated external environment and a slowing of economic activity in Cyprus' main trading partners had an adverse effect on exports. Specifically, revenue from tourism decreased in nominal terms. Due to the more moderate growth of private consumption and investment, imports are also expected to slow down, compared with 2007. All in all, the growth contribution of external sector was negative. The labour market remained at almost full employment conditions throughout 2008. This, coupled with higher-than-anticipated contractual salary increases and the application of the backward-looking automatic wage indexation system (cost of living allowance, COLA) led to strong wage growth. As productivity grew only moderately, unit labour costs continued growing at high levels, above the euro area average thus eroding the country's competitiveness.

As a very small open economy, Cyprus is highly exposed to external shocks. Despite the resilience the Cypriot economy has hitherto shown, the global economic downturn is expected to weigh significantly on its growth prospects. Economic activity is expected to slow down significantly and remain exclusively driven by domestic demand. On the other hand, subdued external demand will pose a drag on growth. In particular, housing investment should decelerate strongly, largely due to dampened demand for dwellings by non-residents. Moreover, the prospects of the tourism sector appear particularly gloomy. Notwithstanding the tight labour market conditions and a modest acceleration in wages, a weaker employment growth, a rising household debt burden and an uncertain environment should dampen private consumption. As the economic crisis is set to deepen further, unemployment will increase in the course of 2009. Cyprus is thus expected to turn into economic bad times in 2009 and 2010.

Reflecting to some extent the economic downturn, the Cypriot public finances are expected to deteriorate in the medium term. After posting a surplus of 1% of GDP in 2008, the

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<sup>1</sup> The Programme submitted was in English.

Commission services' January 2009 interim forecast projects the budgetary balance to move into the red in 2009, on account of subdued revenues, though a rise in current expenditure is offset by a reduction in interest payments. The quickly changing outlook for the Cypriot economy seriously hampers the fiscal prospects mainly to the extent that important tax bases will suffer further from the demand retrenchment as suggested already by the developments observed in 2008. Even though the budgetary balance is departing from a very comfortable position, the 2010 deficit is projected at 1% on a no-policy-change basis, due to the increasing trend of current expenditure. The debt-to-GDP ratio is projected to fall to almost 46% of GDP by 2010.

Cyprus has adopted a number of measures to stimulate economic activity since the second half of 2008. These measures aim at mitigating the impact of the crisis on the most exposed economic sectors, particularly the construction and tourism sectors. The government has also adopted targeted measures to enhance social cohesion, providing support to low income families, as well as a series of structural measures, which are part of the longer-term policy reform agenda, but help to address the current challenges posed by the downturn. These measures are related to the medium-term reform agenda and the country-specific recommendations proposed by the Commission on 28 January 2009 under the Lisbon Strategy for Growth and Jobs. They aim at augmenting the growth potential, strengthening competitiveness and enhancing the physical and human capital.

All in all, taking into account the strong dynamism of the economy which is almost exclusively driven by domestic demand, the medium-term outlook for Cyprus would still appear relatively favourable once confidence recuperates from the financial crisis and growth of main trading partners recovers. However, in the near-term the economic crisis poses major challenges. In the light of the high external imbalance, maintaining prudent policies and strengthening fiscal sustainability should be a major priority. Therefore, controlling current expenditure and avoiding procyclicality represents a major challenge for the fiscal policy in Cyprus in order to safeguard a sound long-term budgetary position. In addition, fostering the quality of public finances is important also with a view to underpinning a smooth adjustment of the economy in the light of the imbalances it is faced with. Furthermore, ensuring sufficient and affordable credit flow to the productive sectors, particularly for small and medium size enterprises (SMEs) as well as addressing the structural weaknesses in the tourism and construction sectors, constitute areas requiring attention. Moreover, the accumulation of current account deficit during recent years requires close monitoring to ensure a smooth adjustment.

### **3. MACROECONOMIC SCENARIO**

The programme projects real GDP growth to decelerate from 3.8% in 2008 to 2.1% in 2009 and to return to a recovering trend from 2010 onwards. Thereafter, GDP would grow at around 3% per year, above potential (as estimated by the Commission Services for the January 2009 interim forecasts) until the end of the programme period. The downturn in 2009 would be mainly triggered by weakening domestic demand and lower export growth, whereas the mild recovery from 2010 onwards would be driven by stronger domestic demand, particularly investment, and a gradual pick-up in exports.

The programme foresees domestic demand to continue being the main driver of economic activity. Nonetheless, private consumption growth is projected to exhibit a significant correction in 2009, as households attempt to reduce their level of indebtedness, and then grow at more sustainable rates than the exuberant rates of the recent past. Furthermore, investment is expected to slow down sharply, owing mainly to slackening construction, on account of a

subdued external demand for housing. Despite a boost by public investment in infrastructure projects, the overall growth of construction investment is set to contract while total investment is expected to exhibit a smaller contraction. On the external side, the Programme also projects the growth of total exports to decelerate, dragged by the expected bleak outlook for tourism. Export services other than tourism are foreseen to moderate only slightly. As imports are forecast to slow down significantly from the very high levels of last years, the contribution of the external sector to growth is projected to become less negative during the programme period. Accordingly, the current account deficit is expected to remain relatively high over the medium term, declining only modestly from about 12% of GDP in 2009 to around 9¾% by 2012. This would imply an overall improvement in the savings-investment balance, as according to the update, the decline in the domestic saving ratio will be less than the fall in the investment rate.

Regarding the labour market, the programme projects that unemployment will increase slightly, as a result of the slowdown over the programme period. Thus, while employment growth will remain robust, in sectors more directly exposed to the external slowdown such as hotels, restaurants and construction, some increases in unemployment will be observed. Inflationary pressures are projected to ease steadily in 2009 and 2010.

The economic outlook described in the programme's central scenario is more favourable than the Commission services' January 2009 forecast. The Commission services' forecast expects a deeper and more protracted economic downturn, with real GDP growth remaining below potential also in 2010. Accordingly, in the Commission projections, labour market developments are less favourable and the recovery outlook more moderate. In addition, the Commission services also project a more gradual recovery of investment and trade.

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

	2008		2009		2010		2011	2012
	COM	SP	COM	SP	COM	SP	SP	SP
Real GDP (% change)	3.6	3.8	1.1	2.1	2.0	2.4	3.0	3.2
Private consumption (% change)	5.7	7.2	1.9	3.8	2.2	3.3	3.3	3.3
Gross fixed capital formation (% change)	4.2	2.8	1.0	-2.8	1.2	2.1	3.9	3.9
Exports of goods and services (% change)	5.5	6.1	-0.4	1.4	2.7	1.4	3.1	3.7
Imports of goods and services (% change)	7.1	9.6	1.8	2.4	2.9	3.1	4.1	4.1
<i>Contributions to real GDP growth:</i>								
- Final domestic demand	5.6	5.8	2.4	2.8	2.4	3.3	3.7	3.6
- Change in inventories	-0.7	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
- Net exports	-1.3	-2.4	-1.3	-0.7	-0.4	-1.2	-0.9	-0.7
Output gap <sup>1</sup>	1.9	0.8	0.5	-0.1	0.1	-0.6	-0.5	-0.2
Employment (% change)	2.0	1.9	0.1	1.1	1.0	1.3	1.8	1.9
Unemployment rate (%)	3.9	4.0	5.1	4.5	5.5	5.0	5.3	5.5
Labour productivity (% change)	1.6	1.9	1.0	1.0	1.0	1.1	1.2	1.3
HICP inflation (%)	4.4	4.4	2.0	2.0	2.3	2.5	2.5	2.5
GDP deflator (% change)	4.4	4.2	3.5	2.7	2.8	2.1	2.1	2.1
Comp. of employees (per head, % change)	5.5	7.0	5.7	5.3	4.5	4.8	4.8	4.8
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	-13.2	-12.4	-11.8	-12.1	-10.8	-11.5	-10.9	-10.2
<i>Note:</i>								
<sup>1</sup> In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services.								
<i>Source:</i>								
Commission services' January 2009 interim forecasts (COM); Stability programme (SP)								

## **4. BUDGETARY STRATEGY**

### **4.1. Budgetary implementation in 2008**

In 2008, GDP is estimated to have grown by 3.7% %. The general government surplus is estimated both by the Commission and the update to have fallen from 3.4% of GDP in 2007 to 1.0% in 2008 and the structural balance (i.e. the cyclically adjusted balance net of one-off and other temporary measures as recalculated by Commission services on the basis of the information in the programme update) to have fallen from 3½% of GDP to ¾%. Overall, fiscal policy was pro-cyclical in a context of still good economic times.

The budgetary changes mainly reflect revenue shortfalls, reflecting subdued activity in the real estate sector, and to a lesser extent expenditure overruns. In particular, subsidies and other expenditures accounted each for about ½% of GDP. Of these, the increased expenditure related to the drought and to the associated expenses to maintain water supply as well as compensation to farmers, accounted for ¾% of GDP. Moreover, social transfers and other social cohesion measures (to pensioners, persons with disabilities and other welfare recipients) accounted for almost ½% of GDP. Despite the positive base effect from 2007, when expenditure outturn was almost 1½% of GDP lower than planned, an acceleration of expenditure in 2008 by 12½% rather than 5½% as planned in the 2007 Stability Programme, more than offset the positive starting point, leading to an overrun of almost 1% of GDP.

The 2008 surplus is nonetheless above the target of 0.5% of GDP set in the 2007 stability programme. This was due to a higher than expected revenue, lower interest payments and a positive base effect from 2007, when the final budget surplus rose to 3.4% of GDP compared to an anticipated outcome of 1.5%. Although the large decline of the structural balance was affected by loss of revenues due to growth composition effects overall, fiscal policy was procyclical in a context of still good times.

### **4.2. Near-term budgetary strategy**

The update projects a budget deficit of 0.8% of GDP in 2009. Compared with the surplus of 1% of GDP targeted in the 2009 budget law (approved by the Parliament on 18 December 2008), it represents a downward revision by 1¾ percentage points of GDP.

The worsening of the budget balance is mainly explained by a downward revision of total revenue projections, consistent with slower growth prospects. The revenue-to-GDP ratio is projected in the update to decline by 1½ percentage points in 2009 compared with the outturn of 2008. This is largely due to composition effects associated to subdued activity in the real estate sector and to reduced corporate profitability as well as to the absence of dividend income from semi-governmental organisations. In particular, direct taxes and property income are foreseen to decline by 1% and ½% of GDP, respectively. A marginal decrease in indirect taxes is offset by an increase in social contributions of similar magnitude. It should be noted that the Programme's revenue projections do not include the impact of the proposed parametric reforms in the Social Security Scheme, recently adopted by the Parliament, with an annual fiscal impact of about ¾% of GDP of additional revenue.

On the other hand, public expenditure is expected to increase only slightly in 2009 (¼% of GDP). An increase in social transfers<sup>2</sup> (½% of GDP), in compensation of employees (¼% of GDP) and in other expenditure (½% of GDP) is partially offset by a decline in interest payments and subsidies (½% of GDP each).

**Table II. Main budgetary measures for 2009**

Revenue measures <sup>1</sup>	Expenditure measures <sup>2</sup>
<b>Measures in response to the downturn</b>	
<ul style="list-style-type: none"> <li>Reduction of landing fees at airports levied on airline companies and cancelation of overnight stay fees levied by local authorities on hoteliers for the period 1.4.2009 - 31.12.2009 (-0.12% of GDP)</li> <li>Application of the reduced VAT rate on hotel accommodation of 5% instead of 8% for the period 1.5.2009 - 30.04.2010 (&lt;0.1% of GDP, the impact in 2009)</li> </ul>	<ul style="list-style-type: none"> <li>Boosting tourism promotion and encouraging domestic tourism (0.13% of GDP)</li> <li>Increase of public infrastructure investments (1.2% of GDP)</li> </ul>
<b>Other measures</b>	
<ul style="list-style-type: none"> <li>Increase of the excise duty on petrol, due to the expiration of the transitional period granted upon EU accession (0.15% of GDP)</li> <li>No dividend income from semi-governmental organisations (-0.5% of GDP)</li> <li>Reduction of the corporate tax rate for the semi-governmental organisations from 25% to 10% to harmonise it with the one applied to private enterprises (-0.2% of GDP)</li> <li>Withholding tax on interest earned by the Social Security Funds will be reduced from 10% to 3%, bringing it in line with the tax levied on other pension funds. Due to consolidation reasons, this measure has no fiscal impact.</li> </ul>	<ul style="list-style-type: none"> <li>Compensating measures offsetting the impact of the increase on the excise duty on petrol. (0.15% of GDP)</li> <li>Application of the minimum VAT rate on building land (&lt;0.1% GDP)</li> </ul>
<p><u>Note:</u></p> <p>1 Estimated impact on general government revenue</p> <p>2 Estimated impact on general government expenditure</p> <p><u>Source:</u> Commission services and 2009 Budget Law.</p>	

Discretionary measures in response to the economic downturn amount to around 1½% of GDP and include the February 2009 stimulus package, which is in line with the European Economic Recovery Plan (EERP). The package encompasses measures directed to the two sectors most exposed to the economic downturn, tourism and construction. For the tourism

<sup>2</sup> This increase is due to the full year application of the social measures introduced in mid-2008 and to the dissipated effects from the extension of the retirement age, from 60 years of age to 63 years, which was introduced for the public sector in 2005.

sector, measures include funds earmarked for boosting the tourism promotion campaign, reduced VAT rate on hotel accommodation, reduction of landing fees, cancellation of overnight stay fees to local authorities, increasing subsidies to low income families for domestic vacations (amounting to about ¼ % of GDP). For the construction sector, the package consists mainly of increasing the implementation rate of infrastructure projects and other public investment (amounting to 1¼ points of GDP). A loan scheme to low income families for the acquisition of their primary residence, whose cost amounts to about 1 percentage point of GDP over the period 2009-2013, will not have any impact on the budget balance but on the government debt.

Overall, the stance of fiscal policy will be expansionary in 2009, in line with the recommendation of the EERP, of an order of 1½% of GDP.

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

(% of GDP)	2007	2008		2009		2010		2011	2012	Change: 2008-2012
	COM	COM	SP	COM	SP	COM <sup>1</sup>	SP	SP	SP	SP
<b>Revenue</b>	<b>46.4</b>	<b>45.6</b>	<b>45.3</b>	<b>44.1</b>	<b>43.8</b>	<b>44.1</b>	<b>44.0</b>	<b>44.4</b>	<b>44.8</b>	<b>-0.5</b>
<i>of which:</i>										
- Taxes on production and imports	19.7	19.9	19.7	19.5	19.6	19.5	19.5	19.6	19.8	0.1
- Current taxes on income, wealth, etc.	14.0	12.8	12.9	11.8	11.9	11.8	12.0	12.2	12.4	-0.5
- Social contributions	7.7	7.9	7.9	8.4	8.0	8.4	8.1	8.2	8.2	0.3
- Other (residual)	5.0	5.0	4.8	4.4	4.3	4.4	4.4	4.4	4.4	-0.4
<b>Expenditure</b>	<b>42.9</b>	<b>44.7</b>	<b>44.3</b>	<b>44.7</b>	<b>44.6</b>	<b>45.1</b>	<b>45.5</b>	<b>46.3</b>	<b>47.1</b>	<b>2.8</b>
<i>of which:</i>										
- Primary expenditure	39.8	41.8	41.4	42.3	42.2	42.9	43.3	44.2	45.0	3.6
<i>of which:</i>										
Compensation of employees	14.5	14.6	14.6	14.9	14.9	14.9	15.1	15.2	15.3	0.7
Intermediate consumption	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.6	0.3
Social payments	11.7	12.2	12.1	12.5	12.6	12.9	13.1	13.6	14.1	2.0
Subsidies	0.4	1.0	1.0	0.4	0.5	0.4	0.4	0.4	0.4	-0.6
Gross fixed capital formation	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.1	0.2
Other (residual)	5.1	5.8	5.6	6.1	6.0	6.3	6.2	6.4	6.6	1.0
- Interest expenditure	3.1	2.9	2.9	2.4	2.4	2.2	2.2	2.1	2.1	-0.8
<b>General government balance (GGB)</b>	<b>3.4</b>	<b>1.0</b>	<b>1.0</b>	<b>-0.6</b>	<b>-0.8</b>	<b>-1.0</b>	<b>-1.4</b>	<b>-1.9</b>	<b>-2.2</b>	<b>-3.2</b>
<b>Primary balance</b>	<b>6.5</b>	<b>3.9</b>	<b>3.9</b>	<b>1.8</b>	<b>1.5</b>	<b>1.2</b>	<b>0.8</b>	<b>0.2</b>	<b>-0.2</b>	<b>-4.1</b>
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>GGB excl. one-offs</b>	<b>3.4</b>	<b>1.0</b>	<b>1.0</b>	<b>-0.6</b>	<b>-0.8</b>	<b>-1.0</b>	<b>-1.4</b>	<b>-1.9</b>	<b>-2.2</b>	<b>-3.2</b>
Output gap <sup>2</sup>	1.1	1.9	0.8	0.5	-0.1	0.1	-0.6	-0.5	-0.2	-1.0
Cyclically-adjusted balance <sup>2</sup>	3.0	0.2	0.7	-0.8	-0.8	-1.1	-1.2	-1.7	-2.1	-2.8
<b>Structural balance<sup>3</sup></b>	<b>3.0</b>	<b>0.2</b>	<b>0.7</b>	<b>-0.8</b>	<b>-0.8</b>	<b>-1.1</b>	<b>-1.2</b>	<b>-1.7</b>	<b>-2.1</b>	<b>-2.8</b>
<i>Change in structural balance</i>		-2.8	-2.3	-1.0	-1.5	-0.3	-0.4	-0.5	-0.4	
Structural primary balance <sup>3</sup>	6.1	3.1	3.6	1.6	1.6	1.1	1.0	0.4	0.0	-3.6
<i>Change in structural primary balance</i>		-3.0	-2.5	-1.5	-2.0	-0.5	-0.6	-0.6	-0.4	
<b>Notes:</b>										
<sup>1</sup> On a no-policy-change basis.										
<sup>2</sup> Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission services on the basis of the information in the programme.										
<sup>3</sup> Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.										
<b>Source:</b>										
Stability programme (SP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations										



### **4.3. Medium-term budgetary strategy**

The Programme foresees the headline deficit to deteriorate gradually from a target of 0.8% of GDP in 2009 to 2.2% in 2012. By sub-sector, the budgetary worsening mainly takes place in the central government balance and in the Social Security Fund, while local government remains broadly in balance. The primary surplus will decline in tandem from 1.5% of GDP in 2009 to 0.2% in 2011 and then, turn into a deficit of 0.2% in 2012. The structural balance (i.e. in cyclically-adjusted terms net of one-off and other temporary measures) points to a deterioration of the deficit from ¾% of GDP in 2009 to about 2% of GDP in 2012. On the basis of the commonly agreed methodology, the structural balance points to a significant deviation from the MTO, defined as a balanced budget in structural terms, from 2009 onwards. Therefore, the Programme does not foresee a reversal or a stabilisation of the budgetary deterioration that commenced already in 2008. Overall, the significant deviation from the MTO in the subsequent years is problematic in the light of the large external imbalance of the Cypriot economy.

The projected increase of the fiscal deficit is mainly explained by an increase in current primary expenditure. In particular, primary expenditure rises by 2¾ percentage points of GDP driven by an increase in social payments (1½ percentage points of GDP) and to a lesser extent in wages and other expenditures. Interest payments are foreseen to decline by ¼ p.p. of GDP by 2012 of GDP during the programme period, in line with a declining debt. Over 2009-2012, government revenue is projected to rise by 1 percentage point of GDP. The bulk of this increase is expected to come from an increase in direct taxes (about ½ % of GDP), while indirect taxes and social contributions are set to rise by almost a ¼ p.p. each. The Programme does not provide any measures behind these increases, apart from the gradual recovery of the economy and of tax elasticities towards trend levels.

### **4.4. Risks to the budgetary targets**

The budgetary outcomes are subject to downside risks. In particular, the macroeconomic scenario projected in the update appears to be based on favourable growth assumptions throughout the programme period. Consequently, budgetary projections are subject to downside risks associated with a more severe or protracted slowdown of the Cypriot economy.

On the one hand, there are downside risks regarding the revenue projections, particularly in 2009-2010. Risks are higher than in previous years and are associated with a sharper contraction and rebalancing of economic growth towards a less tax rich composition of growth. Total revenue in 2009 is projected to decline by 1.5 percentage points of GDP. However, under the light of the bleak external outlook and the severe slowdown in Cyprus' main trading partners, particularly in the UK and Russia, growth prospects may be even more dismal due to its small size and openness as well as its strong specialisation in tourism. In the context of the unfolding developments, growth prospects for Cyprus may prove to be even more unfavourable than in the "more negative demand shock" scenario included in the sensitivity analysis of the programme. On the other hand, revenue surprises in recent years led to better-than-expected budgetary outturns, but these took place in an environment of high GDP growth, which is no longer available.

Moreover, in view of the expected economic slowdown and the planned increase in primary current expenditure, the risk of potential expenditure overruns is also non negligible, based on the experience with the previous slowdown (2002-2003). A negative risk to expenditure also

stems from the practise of adopting supplementary budgets during the course of the year, which has hitherto contributed to increase extra-budgetary current primary expenditure.

Overall, the balance of risks regarding the budgetary outcomes remains tilted to the downside.

## 5. DEBT DEVELOPMENTS AND LONG-TERM SUSTAINABILITY

### 5.1. Debt developments

The January 2009 update projects a progressive decline of the debt-to-GDP ratio over the programme's period. In particular, debt is foreseen to reach 44¼% of GDP by 2012, from 46¾% in 2009, and 45½% in 2010, benefiting from sustained, although rapidly decreasing, primary surpluses. The 2009 and 2010 projections are broadly in line with the Commission services' January 2009 interim forecast. Although the update foresees debt to remain on a downward path, these targets are somewhat higher than the targets of the Stability Programme 2007-2011, (45¼% and 43¾% of GDP for 2009 and 2010 respectively). The deviations are attributed to larger primary surpluses projected in the December 2007 Programme following the exceptional outcome for 2007 and its carry over effects, coupled with a downward revised set of projections for GDP growth in the January 2009 update.

**Table IV: Debt dynamics**

(% of GDP)	average 2002-06	2007	2008		2009		2010		2011	2012
			COM	SP	COM	SP	COM	SP	SP	SP
<b>Gross debt ratio<sup>1</sup></b>	<b>67.5</b>	<b>59.4</b>	<b>48.1</b>	<b>49.3</b>	<b>46.7</b>	<b>46.8</b>	<b>45.7</b>	<b>45.4</b>	<b>44.2</b>	<b>44.2</b>
Change in the ratio	0.8	-5.3	-11.2	-10.1	-1.5	-2.5	-1.0	-1.4	-1.2	0.0
<i>Contributions<sup>2</sup>:</i>										
<b>1. Primary balance</b>	<b>0.4</b>	<b>-6.5</b>	<b>-3.9</b>	<b>-3.9</b>	<b>-1.8</b>	<b>-1.5</b>	<b>-1.2</b>	<b>-0.8</b>	<b>-0.2</b>	<b>0.2</b>
<b>2. "Snow-ball" effect</b>	<b>-0.6</b>	<b>-1.6</b>	<b>-1.5</b>	<b>-1.5</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>-0.1</b>	<b>-0.2</b>
<i>Of which:</i>										
Interest expenditure	3.3	3.1	2.9	2.9	2.4	2.3	2.2	2.2	2.1	2.0
Growth effect	-2.1	-2.7	-2.0	-2.1	-0.5	-1.0	-0.9	-1.1	-1.3	-1.3
Inflation effect	-1.9	-2.1	-2.4	-2.3	-1.6	-1.2	-1.2	-0.9	-0.9	-0.9
<b>3. Stock-flow adjustment</b>	<b>1.1</b>	<b>3.0</b>	<b>-5.8</b>	<b>-4.6</b>	<b>0.1</b>	<b>-1.0</b>	<b>0.1</b>	<b>-0.8</b>	<b>-0.9</b>	<b>0.1</b>
<i>Of which:</i>										
Cash/accruals diff.	0.2	0.2		0.0		0.0		0.0	0.0	0.0
Acc. financial assets	0.6	2.7		-4.3		-1.0		-0.7	-0.8	0.1
<i>Privatisation</i>	0.0	0.0		0.3		n.a.		n.a.	n.a.	n.a.
Val. effect & residual	0.1	0.0		0.0		0.0		0.0	0.0	0.0
<b>Notes:</b>										
<sup>1</sup> End of period.										
<sup>2</sup> The snow-ball effect captures the impact of interest expenditure on accumulated debt, as well as the impact of real GDP growth and inflation on the debt ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.										
<b>Source:</b>										
<i>Stability programme (SP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations</i>										

Stock-flow adjustments (SFA) in Cyprus are associated with the accumulation or decumulation of financial assets. In 2007, the accumulation of government assets was equivalent to 3% of GDP. This was followed in 2008 by a decumulation of government assets, equivalent to almost 4¾% of GDP, reflecting the planned reduction of deposits with the central bank (sinking funds) and other accumulated financial assets to repay maturing

debt. The SFA in 2008 also includes privatisation proceeds from the sale of the Cyprus Development Bank amounting to ¼ of a percentage point of GDP. SFAs are foreseen by the programme to be almost negligible until 2012.

The update's sensitivity analysis points out the high importance of growth assumptions for the envisaged consolidation path. The moderate impact from interest rates differentials is due to the fact that the bulk of the debt stock is at fixed interest rates and relatively long maturities. According to the programme, the share of short-term debt increased from 2% in 2007 to 4% in 2008, due to the extensive issue of issues of European Commercial Paper (ECP). During the period covered by the programme, the Government plans to keep short-term debt (below one-year maturity) at low level.

Overall, the balance of risks for the debt ratio is tilted on the downside due to risks associated with the growth prospects and the budgetary outcomes.

## 5.2. Long-term sustainability

This section presents sustainability indicators based on the long-term age-related government spending as projected by the Member States and the EPC in 2006 according to an agreed methodology. The projected increase in age-related spending in Cyprus is not fully comparable with the other Member States, since projections for long-term care expenditure were not available in the Ageing Report.<sup>3</sup>

Table 4 in Annex 2 shows that the projected increase in age-related spending is rising by 11.7 percentage points of GDP between 2010 and 2050, significantly above the EU average. Sustainability indicators for two scenarios are presented in Table 5 in Annex 2. Including the impact of age-related expenditure and assuming that the structural primary balance remained at its 2008 level, the sustainability gap (S2)<sup>4</sup> would amount to 5.6% of GDP; about 1½ percentage points of GDP wider than in last year's assessment, which is due to a lower estimated structural primary balance in the starting year. This starting budgetary position would be more than sufficient to stabilize the debt ratio over the long-term and to partly offset the long-term budgetary impact of ageing. However, if the 2009 budgetary position of the Commission services' January 2009 forecast was taken as the starting point, this offsetting effect would be considerably diminished by the budgetary deterioration. The sustainability gap would widen to about 7½ % of GDP.

While the "2008 scenario" already reflects the weakening of the budgetary position as a response to the current economic crisis, the "programme scenario", which is based on the end-of-programme structural primary balance, projects the budgetary situation to deteriorate. Risks to long-term sustainability of public finances would increase substantially, as shown by the sustainability gap (S2) reaching 9.4% of GDP.

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<sup>3</sup> Economic Policy Committee and the European Commission (2006), 'The impact of aging on public expenditure: projections for the EU-25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-50)', *European Economy – Special Report* No. 1/2006. European Commission (2006), 'The long-term sustainability of public finances in the European Union', *European Economy* No. 4/2006. European Commission (2008), *Public finances in EMU – 2008*, *European Economy* No. 4/2008.

<sup>4</sup> The S2 indicator is defined as the change in the current level of the structural primary balance required to make sure that the discounted value of future structural primary balances (including the path of property income) covers the current level of debt.

Based on the assumptions used for the calculation of the sustainability indicators, Figure 4 in Annex 2 displays the projected debt/GDP ratio over the long-term.

For an overall assessment of the sustainability of public finances, other relevant factors are taken into account. They are summarized in Table 6 in Annex 2.

The long-term budgetary impact of ageing is well above the EU average, mainly as a result of a relatively high increase in pension expenditure as a share of GDP over the coming decades partly due to the fact that the pension scheme is still in a maturing phase. The programme introduces a recently adopted pension reform that is projected to reduce the increase in pension expenditure. However, until the updated projections are not finally validated by the EPC, they can only be considered as "national projections". While the budgetary position in 2008 would have contributed to partly offsetting the projected long-term budgetary impact of ageing populations, the contrary would result from the budgetary developments projected in the programme. Improving the primary balance over the medium term and implementing further measures aimed at curbing the substantial increase in age-related expenditure would contribute to reducing high risks to the sustainability of public finances.

## **6. INSTITUTIONAL FEATURES OF PUBLIC FINANCES**

The programme notes that structural reforms will assist the development of sound and flexible public finances and enable Cyprus to develop a robust and flexible economy, able to withstand external shocks. In recent years, Cyprus' budgetary framework has demonstrated a good track record by overachieving the budgetary targets, in a context of buoyant economic growth.

In the recent past, the framework has been improved by the adoption of the Financial Management Accounting System (FIMAS), the gradual adoption as from 2006 of a 3-year medium term budgetary framework (MTBF) and the introduction in 2007 of a Programme and Performance Budgeting (PPB). The hitherto practice of adopting supplementary budgets during the course of the year, has implied an increase in current expenditure beyond the intended reallocation of funds. According to the Programme, the new budgeting framework is expected to cease this practise when fully implemented and lead to a more effective and efficient budgeting process, contributing to contain expenditure by ministry according to the ceilings set. At the same time, the new budgeting process would set a sound basis for reallocating expenditure in favour of growth enhancing activities consistent with the priorities set by the National Reform Programme. However, the new framework is still at an early stage of implementation and is only foreseen to be fully in place in 2012, while in the meantime the FIMAS will be upgraded to support it.

## **7. ASSESSMENT**

This section assesses the budgetary strategy, taking into account risks, in the light of (i) the adequacy of the fiscal stimulus package in response to the Commission Communication of 26 November 2008 on the European Economic Recovery Plan (EERP) as endorsed by the European Council conclusions on the European Economic Recovery Plan (EERP) on 16 December 2008 and the overall fiscal stance (ii) the criteria for short-term action laid down in the above mentioned Commission Communication, and (iii) the objectives of the Stability and Growth Pact.

The stimulus package for 2009 appears to be an adequate response to the economic downturn. In particular, it could support economic activity and consequently is in spirit of the EERP.

Namely, it is timely to the extent that it has the potential to quickly underpin economic activity; it is targeted as it is focused on well-defined areas; finally, it is temporary since it is foreseen to be limited to 2009. Overall, the stimulus package is foreseen to be at the core of the overall clearly expansionary fiscal stance planned for 2009. However, in view of Cyprus' limited fiscal space, it will weigh on the medium-term fiscal position.

In particular, the programme foresees the headline deficit to deteriorate gradually from a target of 0.8% of GDP in 2009 to 2.2% in 2012. The primary surplus will decline in tandem from 1.5% of GDP in 2009 to 0.2% in 2011 and turn into a deficit of 0.2% in 2012. The structural deficit points to a permanent deterioration from a deficit of ¾% of GDP in 2009 to a deficit of about 2% of GDP in 2012 in a context of expected buoyant growth. On the basis of the commonly agreed methodology, the structural balance points to a significant deviation from the MTO, defined as a balanced budget in structural terms, from 2009 onwards. Overall, the fiscal stance is expansionary throughout the programme period, which is not warranted in the light of the overall economic situation and the growth prospects of Cyprus. Although it is important to note that Cyprus' budgetary framework has shown a good track record, considering that the risks over the medium term are tilted to the downside, the budgetary targets could turn out to be worse than projected. Given the existence of a large external imbalance, Cyprus has only a limited fiscal room of manoeuvre. In the light of the high external imbalances, maintaining prudent policies and strengthening fiscal sustainability should be a major priority. Therefore, controlling current expenditure and avoiding procyclicality represents a major challenge for the fiscal policy in Cyprus. In addition, fostering the quality of public finances is important also with a view to underpinning a smooth adjustment of the economy in the light of the imbalances it is faced with.

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## **ANNEX 1. SPECIAL TOPIC: THE COMPOSITION OF GOVERNMENT REVENUES IN CYPRUS, 2002-2007**

### **1. INTRODUCTION**

With an average GDP growth of 3½% in 2002-2007, the Cypriot economy has enjoyed buoyant demand-driven activity. GDP grew above potential for the largest part of the period, while output gaps have been closing in the latter years. A number of revenue-enhancing tax reforms have been adopted during the same period, only partly offset by measures aiming at reducing the tax burden on personal and corporate income. Concomitantly, the average tax revenue<sup>5</sup> elasticity with respect to GDP averaged at 1¾%. Tax revenues have been growing in nominal terms at 12% per year, while nominal GDP grew at an average rate of 6½%.

The purpose of this chapter is to assess the extent to which the tax-revenue increase recorded in Cyprus during the last decade is of a permanent nature or is to a large extent associated with temporary changes in GDP composition. The Stability Programme of Cyprus (2007-2011) acknowledged that part of the recently recorded increase in tax revenues could be associated with extraordinary profitability of the financial sector and the buoyant activity in real estate. Consequently, tax revenues were projected by the Programme to return to historical trends in the coming years. In its Opinion on the 2007 stability programme of Cyprus the Council referred to the expected normalisation of tax revenues and invited Cyprus to use revenue windfalls to further reduce public debt.

This chapter presents the main drivers of revenue growth, paying particular attention to developments in the tax bases, and decomposes the growth of the main categories of government receipts (direct taxes, indirect taxes and social contributions) into cyclical, composition and discretionary effects, and a residual<sup>6</sup>. The chapter ends with some policy implications are considered regarding the budgetary planning.

### **2. ROBUST ECONOMIC GROWTH AND BUOYANT REVENUES**

Since 2002 the Cypriot economy has been growing at an annual average rate of about 3½% in real terms, which compares with 1¾% in the euro area. Excluding the 2002-2003 period, which marks the impact on Cyprus of the global slowdown in the post-11 September 2001 period, annual average growth attained 4¼%. Such an expansionary period of the Cypriot economy appears to be explained by a succession of credit-led impulses, demographics and adjustment processes, such as the convergence of the nominal interest rates towards the levels of euro area on the road to EU accession in 2004 and the macroeconomic-stability policy framework put in place by Cyprus to ensure euro adoption in 2008.

Economic activity has been mainly driven by buoyant domestic demand. Dynamic private consumption has been supplemented by private investment, especially construction, and to a lesser extent, public consumption, whereas net exports have contributed negatively to GDP

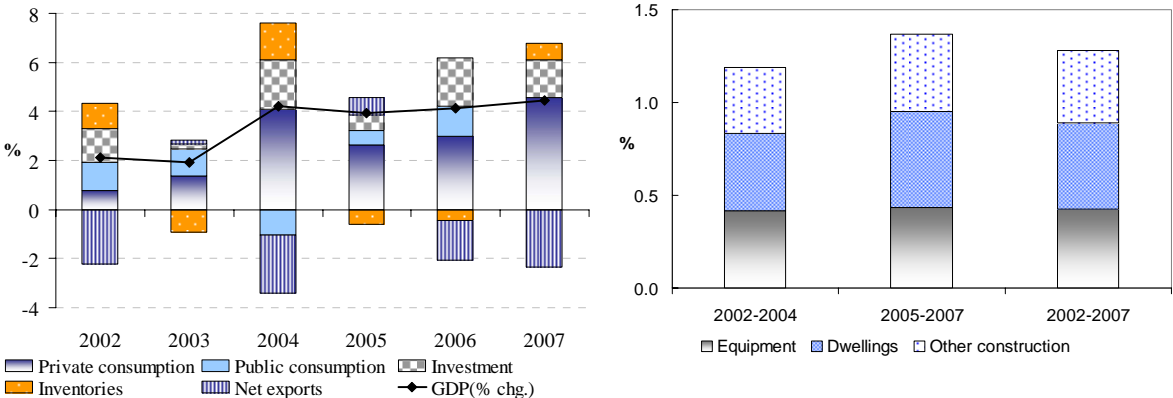
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<sup>5</sup> Total tax burden including imputed social security contributions.

<sup>6</sup> See Martinez-Mongay C., Maza Lasierra L.A., Yaniz Igal J., 2007, Asset Booms and Tax receipts: The case of Spain, 1995-2006, European Commission Directorate General for Economics and Financial Affairs, Economic Papers No. 293, November 2007.

growth (Fig. 1). Strong domestic demand benefited from a surge in credit growth, on the back of a fall in risk premia, financial integration, capital liberalisation and excess liquidity in the banking sector. Furthermore, for the small open economy of Cyprus, the confidence effect of EU accession and subsequent euro adoption, on both consumers and investors, has not been negligible. Economic growth has been accompanied by conditions of almost full employment, with remarkably high job creation (employment growth: 3% per year on average) and rising real disposable income. The latter has largely benefited from wage increases significantly higher than in the euro area<sup>7</sup> and from a broad tax reform<sup>8</sup> that shifted taxation from direct to indirect taxes<sup>9</sup>, aiming mainly to harmonise the Cypriot tax system to the EU acquis.

**Figure 1: a. Contributions to GDP growth. b. Contribution of investment to growth**



Source: AMECO, Commission services.

These factors, coupled with large migratory inflows during 2002 and 2007<sup>1</sup>, significantly raised demand, stimulated an asset repricing<sup>10</sup>, mainly of land, and engendered a higher level of private sector indebtedness. These phenomena seemed to have induced a higher contribution from investment in construction, although not to the extent we have seen in other Member States, like Ireland or Spain. Moreover, corporate profits soared in the latter years of the period, benefiting from extraordinarily high unusual income associated to asset repricing.

<sup>7</sup> See Country Focus “Cyprus: immigration, wage indexation and the adjustment in EMU”, October 2008, European Commission.

<sup>8</sup> For a more detailed review of the tax reform see the Convergence Programme 2003-2007 (Annex II) and the Stability Programme 2007-2011 (Box 5), Cyprus' Ministry of Finance.

<sup>9</sup> “Cyprus: Macro Fiscal Assessment. An analysis of the December 2007 Stability Programme”, EU Commission, February 2008.

<sup>10</sup> According to Pissarides (2008), the adjustments that are currently taking place in Cyprus in the relative prices of land and services are inevitable, after joining a union characterised by higher wages and prices. See Pissarides C. (2008), "The labour market and the Euro", Cyprus Economic Policy Review, Vol. 2, No. 1, pp. 3-9, 1450-4561

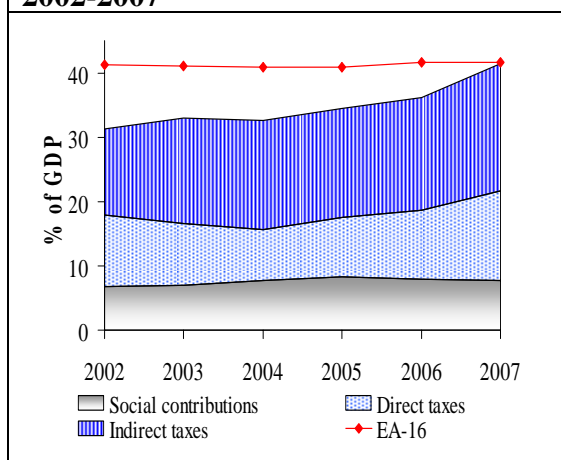
**Table 1: Average total tax elasticities in selected Member States**

Member States	Average % growth, 2002 - 2007		Average total tax elasticity, 2002 - 2007
	Nominal GDP	Nominal taxes	
CY	6.6	12.0	1.7
PT	3.9	5.4	1.4
IE	8.5	9.4	1.2
ES	7.5	9.3	1.2
IT	3.5	4.2	1.2
EL	7.7	7.3	1.0
FR	4.0	3.7	0.9
DE	2.3	2.1	0.8

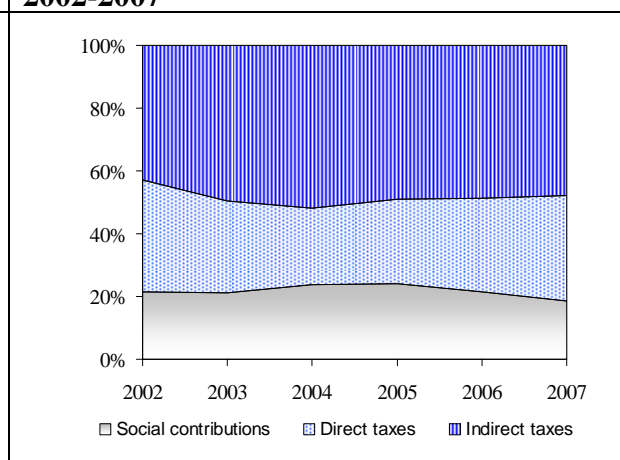
Source: AMECO, Commission services

Tax receipts in turn evolved consistently with the strong domestic demand and the asset repricing. Between 2002 and 2007, total taxes grew on average at 12% per year, which compares with a nominal GDP growth rate of 6½%, leading to an average annual elasticity clearly above unit and above that of other EU countries (table 1). As a result, the total tax burden (direct and indirect taxes plus social security contributions) rose from about 31¼% of GDP in 2002 to 41½% in 2007. Although partially offset by a concurrent increase in expenditure, this increase in tax revenues led to the improvement of the Cypriot budget balance, from a deficit of 4½% in 2002, to a surplus of 3½% in 2007.

**Figure 2: Tax burden in % of GDP, 2002-2007**



**Figure 3: Tax structure (% of Total Taxes), 2002-2007**



**Note:** In 2002 a tax reform was initiated that was completed by 2004, during which the weight shifted from direct to indirect taxes.

Source: Commission services, AMECO database

The reforms of direct and indirect taxation changed significantly the tax mix of public receipts (Fig. 2 and 3). While direct tax revenues accounted for 35¾% of total tax revenues in 2002, the share fell to almost 34% in 2007. Reflecting the introduction of the VAT regime, the share of indirect tax revenues in total tax revenues rose from 42¾% to 47¾% (19¾% of GDP). On the other hand, social contributions declined from 21½% of the total tax burden to 18½%.

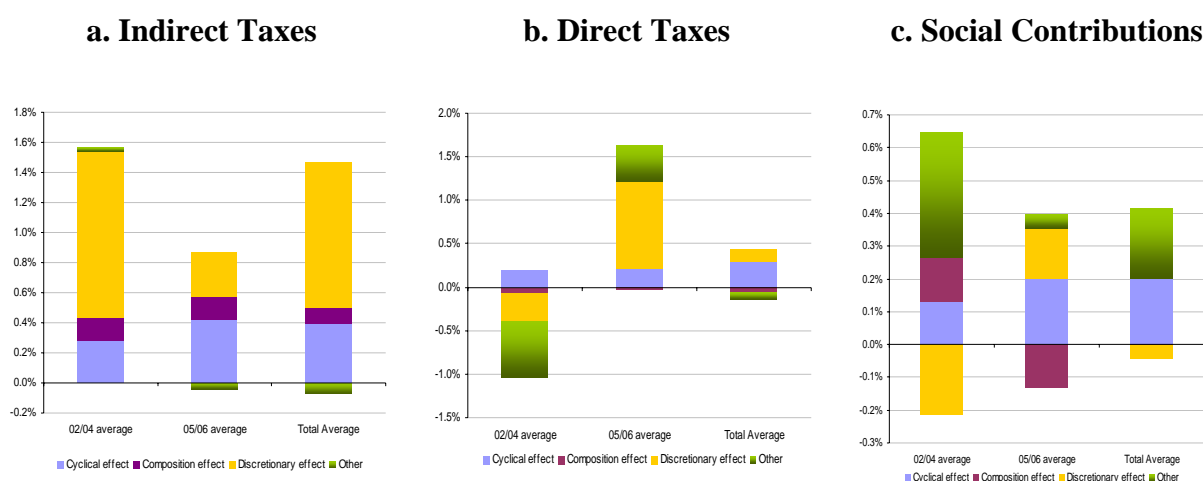


### 3. DEVELOPMENT AND STRUCTURE OF TAX REVENUES 2002-2006

This section analyses the main drivers behind the recorded developments in tax receipts and spells out main tax policy measures behind such developments. If taxes were strictly proportional with respect to their tax base and (i) GDP had grown in line with potential (cyclical effect<sup>11</sup>), (ii) the share of tax bases in the GDP had remained constant (composition effect) and (iii) assuming no discretionary measures (discretionary effect), the corresponding revenues would have changed in the same proportion as nominal GDP. Therefore, in the absence of other factors, a total tax elasticity above 1 should a priori point to a change in cyclical conditions, composition effects and/or discretionary effects. Indeed, these three effects may not exhaust the changes in tax revenues. The residual effects would reflect unobservable composition effects within the observable tax base, improvements in tax administration, progressivity or regressivity of the tax system etc.

The developments observed in tax receipts over the period 2002-2006 are decomposed into the three main categories of taxes (indirect, direct and social contributions). It is important to note that the period covering the years 2002-2006 marks the period during which the EU harmonisation and the main tax reform took place. Given their extraordinary nature, developments in 2007 are analysed separately in the next section.

**Figure 4: Decomposition of changes in main categories of tax revenues (% of GDP)**



Source: AMECO, Commission services and Budget Laws

Between 2002 and 2006, indirect-tax revenues, mainly consisting of receipts from VAT and excise duties, grew at an average annual rate of 13½%. This is well above the nominal GDP growth of 6¼% per year. Consequently, while indirect taxes represented 13¼% of GDP in 2002, they climbed to about 17½% in 2006 and the annual elasticity with respect to GDP averaged around 2. If private consumption and gross fixed capital formation on dwellings are taken as the tax base, instead of private consumption alone, the elasticity of indirect tax revenues with respect to the tax base hovers at about the same level on average (at 1.8) over the same period. This would point to negligible compositions effects. However, it should be borne in mind that housing investment can be a poor proxy of transactions in the housing

<sup>11</sup> Cyclical effect is calculated as the difference obtained from applying the growth rates of nominal GDP and potential GDP to the tax revenue of given base year.

markets, especially in an asset-price boom context. Unfortunately, the information on housing prices in Cyprus is not available.

This high elasticity of indirect taxes over 2002-2006 seems to be mainly explained by large positive discretionary effects, especially in the earlier years of the period. These are mainly associated with the harmonisation process that preceded EU accession in 2004. Policy measures encompassed the VAT and excise duties laws. Specifically, Cyprus adopted the minimum requirements prescribed by the EU acquis with respect to the excise duties (on petroleum products, tobacco and alcohol). Similarly, the minimum VAT rate was gradually introduced and the VAT base was widened in line with the acquis, including the establishment of a common value added tax base. Furthermore, the VAT rate was further raised from 8% in 2002 to 15% in late 2003. Moreover, as from 1 May 2004, a 15% VAT charge was applied on the sale of premises built with a permit issued post EU accession. In addition, as from the beginning of 2006, the VAT rate on hotel and restaurant services was increased from 5% to 8% which was estimated to add an additional 0.1% of GDP in indirect tax receipts.

Direct taxes, which include personal and corporate income taxes as well as property and capital gains taxes, have on average been growing during 2002-2006 at a nominal annual average rate of 6¾%. As a result, average elasticity with respect to nominal GDP and its tax base, namely the gross value added of total economy, was around 1.

Interestingly, this unit elasticity was observed despite the discretionary measures adopted during 2002-2006 aiming at reducing direct taxation in order to render the tax system less distortionary. The measures included a reduction of direct taxes to levels among the lowest in Europe, through the increase of tax-free income and the adjustment of the income tax brackets and the simultaneous abolition of tax allowances. The corporate tax system was also reformed during the EU harmonisation process. The hitherto preferential tax treatment of offshore companies was abandoned, by introducing a common corporate tax rate, at 10%, for both domestic and international companies. This implied a significant reduction of the corporate tax imposed on domestic companies, which had been paying a rate of 25% before the reform.

On the other hand, a tax amnesty, which took place in 2004 and 2005, yielded a one-off increase in revenue of about ¾ and 1 percentage points of GDP, respectively. The tax amnesty was also supplemented with measures to enhance tax administration and secure better tax compliance. In addition, the application of a "deemed dividend distribution" tax, a 15% tax on 70% of profits not distributed within two years, was introduced in 2002. Direct taxes revenues seem to have been positively affected by the withholding tax on interest earned. This is a 10% charge on interest earned by both physical and legal persons, a measure that was introduced in 2004.

During the period, cyclical effects had a small positive contribution. In addition, developments in observable tax bases point to negligible composition effects. Therefore, given that discretionary measures had an unambiguous negative effect on revenues, other factors would explain the relatively high growth of direct taxes. This residual seems to reflect the improvement in tax administration as well as measurement error in the tax base.. Next section provides some evidence on the size and nature of the asset boom in Cyprus. The fast credit expansion, the buoyant activity in the real estate sector and the asset repricing, particularly of land, observed especially in the latter years of the period are all evidence of an underlying asset boom. However, the net operating surplus, which is the usual tax base for corporate profits from national accounts, and actual profits, which is the actual tax base, may widely diverge if financial operations lead to unusually high profits, as it is the case in asset booms.

Finally, social contributions also grew faster than nominal GDP over the whole period, by 9%, on the back of strong employment and wage growth. As a result, the elasticity with respect to both GDP and its tax base has concomitantly remained above the unit (1½ and 1¼ respectively). Accordingly, while social security contributions represented 6¾% of GDP in 2002, they rose to 7¾% of GDP in 2006. Cyclical effects contributed positively throughout the reference period. Composition effects seem to have overall been negligible. Discretionary effects have also overall been negligible as a negative impact associated with the tax reform was later offset by the adoption of measures from the authorities to ensure better tax administration and compliance from the self employed persons. In particular, the contribution levels to the Social Security Funds of specific occupations of self-employed were increased and aligned with the actual level of earnings. Consequently, the improvement in tax administration would be behind the recorded developments in social contributions.

#### 4. MAIN REVENUE DEVELOPMENTS IN 2007

In terms of revenue performance, 2007 has been an exceptional year. Revenue growth has been surprisingly high across the board. Direct taxes accelerated by about 40% and indirect taxes by almost 21%. By comparison, nominal GDP in 2007 registered a growth of 7¾%. As a result, the elasticity with respect to GDP, particularly that of direct taxes, increased significantly compared to the past 5-year average (table 2). As a percentage of GDP, direct taxes increased by ¾ percentage points to 14% while indirect taxes rose by 2 percentage points to 19¾%. Social contributions remained broadly unchanged. Consequently, the Cypriot tax burden increased about 5 percentage points of GDP in a single year.

The remarkable increase in tax revenues in 2007 has taken place in spite of a discretionary fiscal policy aimed at reducing the tax burden. In particular, the adopted reform aimed at lowering direct taxation on households, by increasing the personal income tax-free threshold and readjusting the various tax brackets. As a result, personal income tax subsided. Also, the same year, indirect taxes were affected negatively from the reallocation of a number of goods and services under a reduced VAT rate.

**Table 2: Elasticities in 2007 compared with 2002-2006 average**

<b>Elasticity-to-GDP</b>	<b>2007</b>	<b>5-year average</b>
Direct Taxes	5.1	1.1
Indirect Taxes	2.7	2.1
Tax Burden	3.0	1.5
<i>p.m.</i>		
<i>Real GDP</i>	4.4	3.3
<i>Nominal GDP</i>	7.8	6.3
Source: AMECO, Commission services		

Both direct and indirect taxes benefited from positive cyclical effects reflecting the positive cyclical position of the country. Real GDP growth accelerated further to almost 4½%, above its potential, posting a positive output gap. Economic activity was exclusively driven by domestic demand, while the external sector pulled a drag on growth. Private consumption was particularly buoyant in 2007, growing at the highest pace of the last 12 years. Strong employment growth coupled with the increase of the personal income tax-free threshold in

2007 and fast credit expansion supported disposable income. Furthermore, private consumption benefited from a reduction in the tax on motor vehicles, which led to a growth of 33% of registrations, compared with a stagnant and a contracting rate respectively, the previous two years. This in turn boosted excise duties.

Given that such dynamic growth in 2007 has been exclusively driven by domestic demand, which is rich in taxes, one would expect strong composition effects affecting both direct and indirect tax receipts, stemming from a significant growth of the tax bases. However, the observed elasticities in 2007 of the used tax bases vis-à-vis the GDP are identical to their five-year average. As a result, regarding indirect taxes, the impact from private consumption growth and from gross fixed capital formation on dwellings, points to negligible composition effects. Nevertheless, it should be noted that housing investment can be a poor proxy of transactions in the housing markets, especially in an asset-price boom context. Similarly, regarding direct taxes, the analysis of developments in observable tax bases would not point to significant composition effects. As Martinez-Mongay et al. (2007) pointed, the usual tax base for corporate profits derived from the national accounts and used in economic analyses and the actual tax base consisting of actual profits, may widely diverge if financial operations lead to unusually high profits, as it is the case in asset booms. Exceptionally high tax revenues in Cyprus, as in the case of Spain, provide additional evidence of a strong credit impulse in the country<sup>12</sup>.

The examination of available indicators seems to support the case for the existence of an asset boom in 2007. Where the housing market is concerned, according to data from the Land and Survey department, the total number of real estate transactions in 2007 compared to 2006, increased by almost 20%. Although no official housing prices index are available, data from the aforementioned department show that the accepted value<sup>13</sup> of property sold increased by about 80%, the bulk of which reflects developments in the price of land. Moreover, fees of the Land and Survey department as well as capital gain taxes, which are paid by physical persons, have grown at exponential rates<sup>14</sup>, as a result of the buoyant activity in the real estate sector and the asset repricing.

Corporate tax revenues benefited from buoyant profitability and from the substantial increase of the number of companies that are established in Cyprus taking advantage of the favourable corporate tax regime and an array of double tax treaties. In particular, the performance of banks and financial institutions was remarkably impressive, according to data from their 2007 annual reports. Before taxation, corporate profits from the island's three largest banking and financial institutions soared, posting an increase of 52% (Bank of Cyprus), 230% (Marfin Popular Bank) and 116% (Hellenic Bank). The improvement in corporate profitability boosted significantly direct taxes, through corporate taxes and fees of the Land and Survey department. Therefore, while the additional tax revenues do not come from revenue-enhancing tax reforms, hence not adding to economic distortions, they could disappear along with the end of the asset boom, as it is already happened in Spain.

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<sup>12</sup> Martinez-Mongay C. (2008), "Spain and Portugal in the Euro Area: Lessons for Cyprus", Cyprus Economic Policy Review, Vol. 2, No. 1, pp. 33-62, 1450-4561.

<sup>13</sup> Persons, physical or legal, that engage in a transaction declare to the Land and Survey department the price of the sale or the purchase of a property. However, the department applies its fees and charges not on the declared value but on the value of its own assessment, which may coincide or not with the declared value. This is called the "accepted value". If the interested parties disagree with the department's assessment they have the right to dispute it over a court.

<sup>14</sup> Stability Programme of Cyprus (2007-2011).

## 5. POLICY IMPLICATIONS

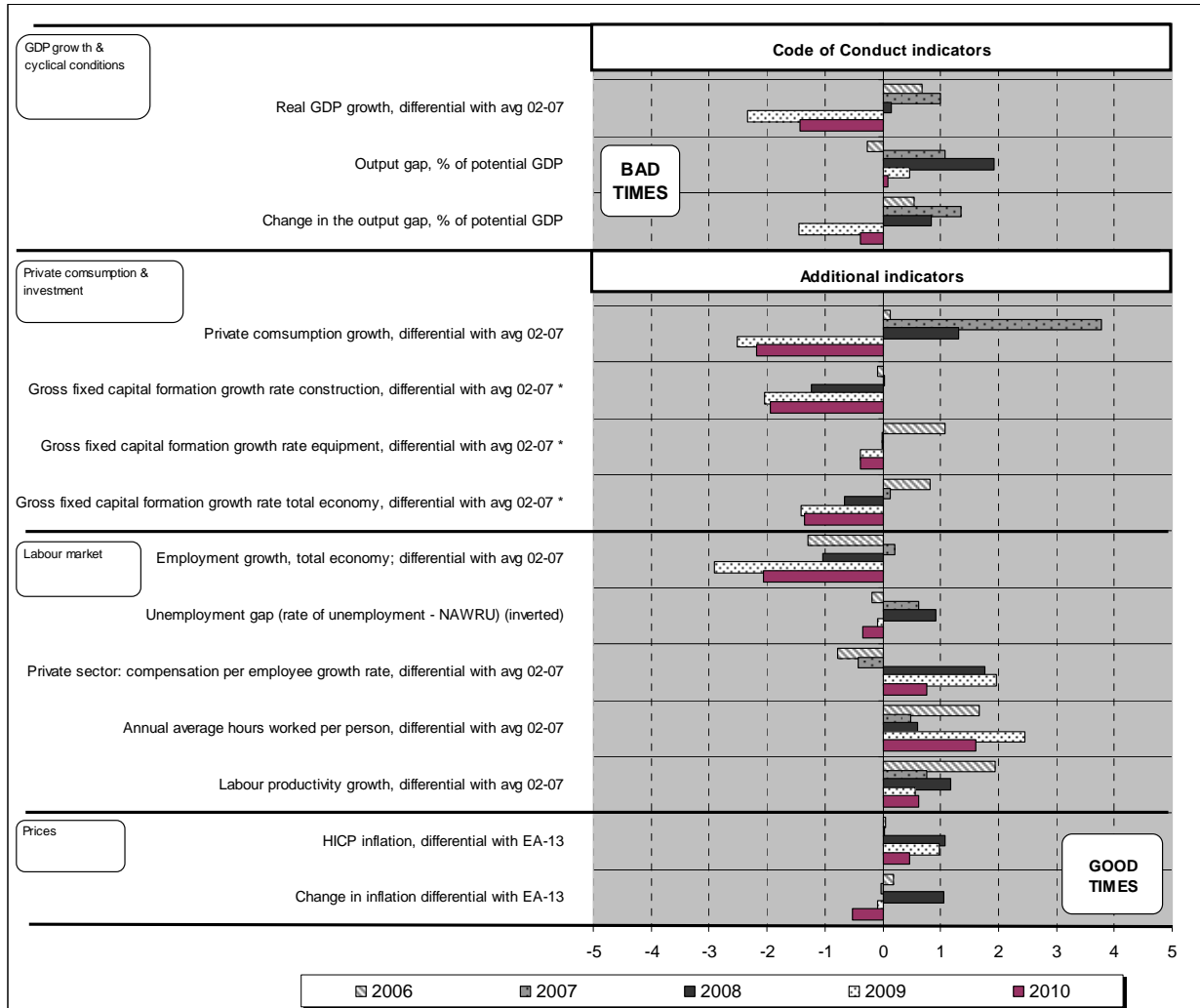
Given that the changes in fiscal tax measures that the Cypriot authorities adopted in the run-up to EU accession are largely of a permanent nature, part of the associated increases in tax revenues is structural. However, notwithstanding existing data limitations, the developments which led to the remarkable revenue performance in 2007, point clearly to the existence of sizeable composition effects. Therefore at the current juncture, when a significant slowdown of the Cyprus economy is in sight, the tax burden might fall, in line with not only the cyclical deterioration but also reflecting a change in the composition of growth once the asset boom has faded out. On this basis, the main challenges for public finances in Cyprus can be summarized as follows:

- In the short term, expenditures and, in particular those of a current nature, should be kept under control, in line with the expected lower tax growth.
- In the medium term, while controlling current expenditures, it would be important to shift public expenditure to more growth-friendly and production capacity-enhancing structure, while pursuing product market reforms that would promote competition and speed up effective restructuring.
- In a more long-run perspective, the most important challenge for Cyprus public finances is to secure their long-term sustainability, namely through implementing the pension and the health care reforms.

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## ANNEX 2. ADDITIONAL TABLES AND FIGURES

### Figure 1: Good and bad economic times



Source: Commission services' January 2009 forecast (COM) and successive stability programmes

**Table 1: Budgetary implementation in 2008**

	2007		2008	
	Planned	Outcome	Planned	Outcome
	SP Dec 2007	SP Jan 2009	SP Dec 2007	SP Jan 2009
Government balance (% of GDP)	1.5	3.4	0.5	1.0
<b>Difference compared to target</b>	<b>1.9</b>		<b>0.5</b>	
<i>Of which</i> : due to a different starting position end 2007			2.0	
due to different revenue / expenditure growth in 2008			3.2	
p.m. Denominator effect and residual <sup>2,3</sup>			-0.1	
<i>p.m. Nominal GDP growth (planned and outcome)</i>			7.0	8.2
Revenue (% of GDP)	45.9	46.4	44.3	45.3
<b>Revenue surprise compared to target</b> <sup>1</sup>	<b>0.5</b>		<b>1.0</b>	
<i>Of which</i> : due to a different starting position end 2007			0.5	
due to different revenue growth in 2008			0.9	
p.m. Denominator effect <sup>2</sup>			-0.5	
p.m. Residual <sup>3</sup>			0.1	
<i>p.m. Revenue growth rate (planned and outcome)</i>			3.3	5.6
Expenditure (% of GDP)	44.4	42.9	43.8	44.3
<b>Expenditure surprise compared to target</b> <sup>1</sup>	<b>1.5</b>		<b>-0.5</b>	
<i>Of which</i> : due to different starting position end 2007			1.5	
due to different expenditure growth rate in 2008			-2.3	
p.m. Denominator effect <sup>2</sup>			0.4	
p.m. Residual <sup>3</sup>			-0.1	
<i>p.m. Expenditure growth rate (planned and outcome)</i>			5.6	11.7
<b>Notes:</b>				
<sup>1</sup> A positive number implies that the outcome was better (in terms of government balance) than planned.				
<sup>2</sup> The denominator effect captures the mechanical effect that, if GDP turns out higher than planned, the ratio of revenue or expenditure to GDP will fall because of a higher denominator. Although the denominator effect can be very significant for revenue				
<sup>3</sup> The decomposition leaves a small residual that cannot be assigned to the previous components. The residual is generally small, except in some cases where planned and actual growth rates of revenue, expenditure and GDP differ significantly.				
<i>Source: Commission services</i>				

**Table 2: Evolution of budgetary targets in successive programmes**

		2007	2008	2009	2010	2011	2012
General government balance (% of GDP)	<b>SP Jan 2009</b>	<b>3.4</b>	<b>1.0</b>	<b>-0.8</b>	<b>-1.4</b>	<b>-1.9</b>	<b>-2.2</b>
	<i>CP Dec 2007</i>	<i>1.5</i>	<i>0.5</i>	<i>0.5</i>	<i>0.7</i>	<i>0.7</i>	<i>n.a.</i>
	COM Jan 2009	3.4	1.0	-0.6	-1.0	n.a.	n.a.
General government expenditure (% of GDP)	<b>SP Jan 2009</b>	<b>42.9</b>	<b>44.3</b>	<b>44.6</b>	<b>45.5</b>	<b>46.3</b>	<b>47.1</b>
	<i>CP Dec 2007</i>	<i>44.4</i>	<i>43.8</i>	<i>44.0</i>	<i>44.0</i>	<i>44.1</i>	<i>n.a.</i>
	COM Jan 2009	42.9	44.7	44.7	45.1	n.a.	n.a.
General government revenue (% of GDP)	<b>SP Jan 2009</b>	<b>46.4</b>	<b>45.3</b>	<b>43.8</b>	<b>44.0</b>	<b>44.4</b>	<b>44.8</b>
	<i>CP Dec 2007</i>	<i>45.9</i>	<i>44.3</i>	<i>44.5</i>	<i>44.6</i>	<i>44.7</i>	<i>n.a.</i>
	COM Jan 2009	46.4	45.6	44.1	44.1	n.a.	n.a.
Structural balance <sup>1</sup> (% of GDP)	<b>SP Jan 2009</b>	<b>3.4</b>	<b>0.7</b>	<b>-0.8</b>	<b>-1.2</b>	<b>-1.7</b>	<b>-2.1</b>
	<i>CP Dec 2007</i>	<i>0.3</i>	<i>0.7</i>	<i>0.7</i>	<i>0.8</i>	<i>0.7</i>	<i>n.a.</i>
	COM Jan 2009	3.0	0.2	-0.8	-1.1	n.a.	n.a.
Real GDP (% change)	<b>SP Jan 2009</b>	<b>4.4</b>	<b>3.8</b>	<b>2.1</b>	<b>2.4</b>	<b>3.0</b>	<b>3.2</b>
	<i>CP Dec 2007</i>	<i>4.2</i>	<i>4.1</i>	<i>4.0</i>	<i>4.0</i>	<i>4.0</i>	<i>n.a.</i>
	COM Jan 2009	4.4	3.6	1.1	2.0	n.a.	n.a.

Note:  
<sup>1</sup>Cyclically-adjusted balance excluding one-off and other temporary measures. Cyclically-adjusted balances according to the programmes as recalculated by the Commission services on the basis of the information in the programmes. There are no one-off and other temporary measures in the most recent programme and Commission services' autumn forecast.

Source:  
*Stability programmes (SP); Commission services' January 2009 interim forecasts (COM)*

**Table 3: Assessment of tax projections**

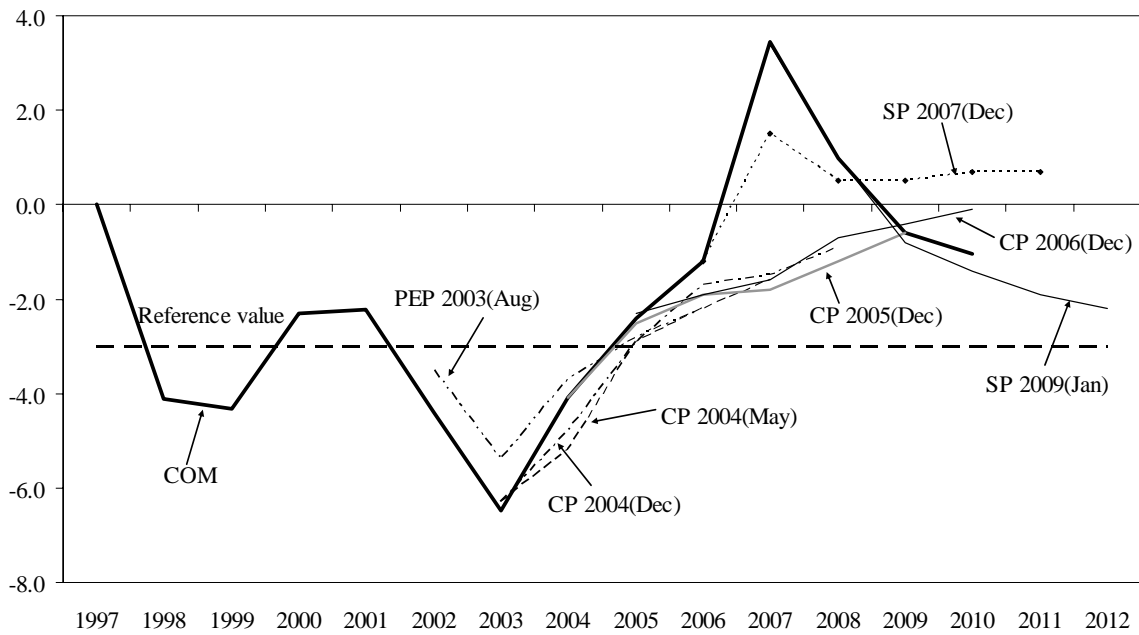
	2009			2010			2011	2012
	SP	COM	OECD <sup>3</sup>	SP	COM <sup>1</sup>	OECD <sup>3</sup>	SP	SP
Change in tax-to-GDP ratio (total taxes)	-1.0	-1.0	0.5	0.1	0.0	0.4	0.4	0.4
Difference (SP – COM) <i>of which</i> <sup>2</sup> :	-0.1		/	-0.1		/	/	/
- discretionary and elasticity component	-0.3		/	-0.3		/	/	/
- composition component	0.5		/	0.3		/	/	/
Difference (COM - OECD) <i>of which</i> <sup>2</sup> :	/	-1.4		/	-0.4		/	/
- discretionary and elasticity component	/	-2.1		/	-1.0		/	/
- composition component	/	1.1		/	1.0		/	/
p.m.: Elasticity to GDP	0.5	0.5	1.1	1.1	1.0	1.1	1.2	1.2

Notes:  
<sup>1</sup>On a no-policy change basis.  
<sup>2</sup>The composition component captures the effect of differences in the composition of aggregate demand (more tax rich or more tax poor components). The discretionary and elasticity component captures the effect of discretionary fiscal policy measures as well as variations of the yield of the tax system that may result from factors such as time lags and variations of taxable income that do not necessarily move in line with GDP, e.g. capital gains. The two components may not add up to the total difference because of a residual component, which is generally small.  
<sup>3</sup>OECD ex-ante elasticity relative to GDP.

Source:  
*Commission services' January 2009 interim forecasts (COM); Stability programme (SP); Commission services' calculations; OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434).*

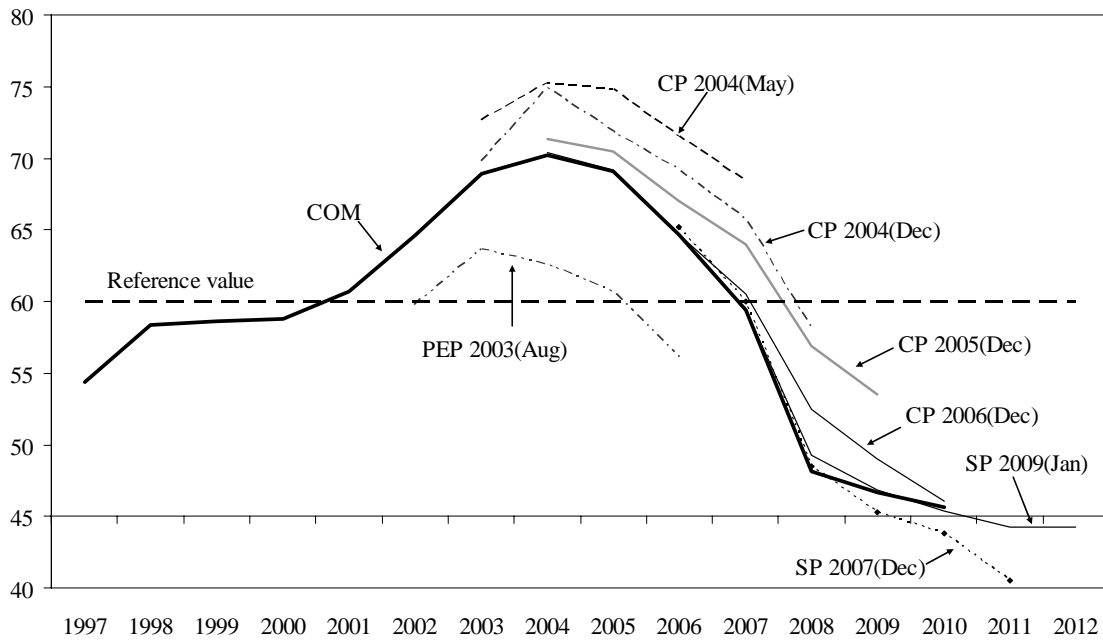


**Figure 2: Government balance projections in successive programmes (% of GDP)**



Source: Commission services' January 2009 interim forecast (COM) and successive convergence and stability programmes

**Figure 3: Debt projections in successive programmes (% of GDP)**



Source: Commission services' January 2009 interim forecast (COM) and successive convergence and stability programmes

**Table 4: Long-term age-related expenditure: main projections**

(% of GDP)	2004	2010	2020	2030	2040	2050	Change 2010- 50
<b>Total age-related spending</b>	16.4	16.5	17.6	20.5	23.4	28.2	11.7
- Pensions	6.9	8.0	9.9	12.2	15.0	19.8	11.8
- Healthcare	2.9	3.1	3.4	3.6	3.9	4.0	0.9
- Long-term care	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
- Education	6.3	5.1	4.0	4.3	4.2	4.0	-1.1
- Unemployment benefits	0.4	0.4	0.4	0.4	0.4	0.4	0.0
<b>Property income received</b>	1.0	0.8	0.7	0.6	0.6	0.6	-0.2

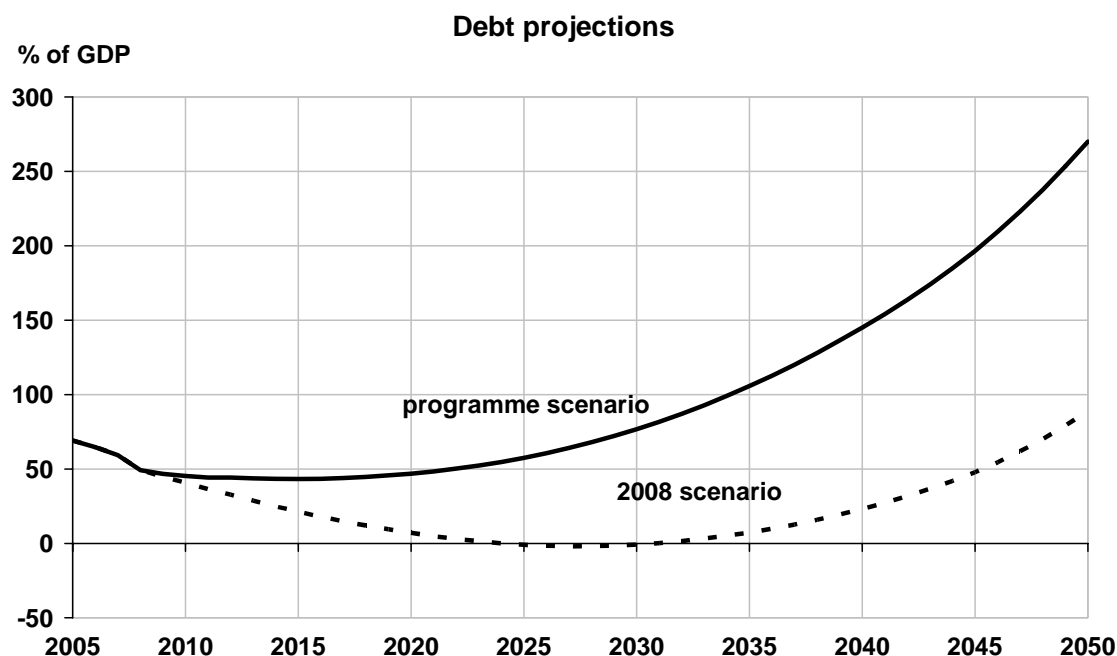
*Source: Economic Policy Committee and Commission services.*

**Table 5: Sustainability indicators and the required primary balance**

Value	2008 scenario			Programme scenario		
	S1	S2	RPB	S1	S2	RPB
Value	0.6	5.6	8.8	4.7	9.4	9.0
<i>of which:</i>						
Initial budgetary position (IBP)	-3.3	-3.0	-	0.5	0.9	-
Debt requirement in 2050 (DR)	-0.6	-	-	-0.4	-	-
Long-term change in the primary balance (LTC)	4.6	8.6	-	4.6	8.6	-

*Source: Commission services.*

**Figure 4: Long-term projections for the government debt ratio**



*Note:* Being a mechanical, partial-equilibrium analysis, the long-term debt projections are bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be seen as a forecast similar to the Commission services' short-term forecasts, but as an indication of the risks faced by Member States.

*Source:* Commission services.

**Table 6: Additional factors**

	<b>Impact on risk</b>
Debt and pension assets	na
Decline in structural balance until 2010 in COM January 2009 forecast	-
Significant revenues from pension taxation	na
Alternative projection of cost of ageing	na
Strong decline in benefit ratio	na
High tax burden	na
Non-age related budgetary measures with intertemporal effect	na

*Note:* '-': factor tends to increase the risk to sustainability, '+': factor tends to decrease the risk to sustainability.  
'na': not applicable.  
Alternative projections are often presented in the programmes, whose assumptions often diverge from the common method. Projections currently discussed in the Economic Policy Committee but not yet published, are for the time being also considered "unofficial".  
An explanation on these factors can be found in chapter IV of: European Commission (2006), *The long-term sustainability of public finances in the European Union*, European Economy No. 4/2006.  
Source: Commission services.

### ANNEX 3. COMPLIANCE WITH THE CODE OF CONDUCT AND TABLES FROM THE PROGRAMME

The programme adheres to the code of conduct for stability and convergence programmes as far as its table of contents is concerned, notably follows the model structure in Annex 1 of the code of conduct.

As regards the data requirements specified in the code of conduct for stability and convergence programmes, the programme provides all required and almost all optional data.<sup>15</sup>

The tables on the following pages show the data presented in the February 2009 update of stability programme, following the structure of the tables in Annex 2 of the code of conduct. Compulsory data are in bold, missing data are indicated with grey-shading.

**Table 1a. Macroeconomic prospects**

	ESA Code	2007	2007	2008	2009	2010	2011	2012
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
<b>1. Real GDP</b>	B1*g	<i>12598.3</i>	4.4	3.8	2.1	2.4	3.0	3.2
<b>2. Nominal GDP</b>	B1*g	<i>15596.3</i>	8.0	8.2	4.8	4.5	5.2	5.4
<b>Components of real GDP</b>								
<b>3. Private consumption expenditure</b>	P.3	<i>8637.9</i>	8.2	7.2	3.8	3.3	3.3	3.3
<b>4. Government consumption expenditure</b>	P.3	<i>2088.3</i>	0.1	4.0	5.6	4.9	4.9	4.7
<b>5. Gross fixed capital formation</b>	P.51	<i>2588.0</i>	7.6	2.8	-2.8	2.1	3.9	3.9
<b>6. Changes in inventories and net acquisition of valuables (% of GDP)</b>	P.52 + P.53	<i>107.8</i>	0.9	0.8	0.8	0.7	0.7	0.6
<b>7. Exports of goods and services</b>	P.6	<i>6719.3</i>	7.2	6.1	1.4	1.4	3.1	3.7
<b>8. Imports of goods and services</b>	P.7	<i>7543.0</i>	12.5	9.6	2.4	3.1	4.1	4.1
<b>Contributions to real GDP growth</b>								
<b>9. Final domestic demand</b>		-	6.7	5.8	2.8	3.3	3.7	3.6
<b>10. Changes in inventories and net acquisition of valuables</b>	P.52 + P.53	-	0.7	-0.1	0.0	0.0	0.0	0.0
<b>11. External balance of goods and services</b>	B.11	-	-3.1	-2.4	-0.7	-1.2	-0.9	-0.7

**Table 1b. Price developments**

	ESA Code	2007	2007	2008	2009	2010	2011	2012
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
<b>1. GDP deflator</b>		<i>123.8</i>	3.5	4.2	2.7	2.1	2.1	2.1
<b>2. Private consumption deflator</b>		<i>119.6</i>	2.7	5.0	2.3	2.0	2.0	2.0
<b>3. HICP<sup>1</sup></b>		<i>104.5</i>	2.2	4.4	2.0	2.5	2.5	2.5
4. Public consumption deflator		<i>132.4</i>	2.9	4.7	2.3	2.0	2.0	2.0
5. Investment deflator		<i>129.2</i>	4.5	4.3	-5.6	-1.4	0.5	0.5
<b>6. Export price deflator (goods and services)</b>		<i>113.3</i>	2.5	3.0	3.0	3.0	2.9	2.5
<b>7. Import price deflator (goods and services)</b>		<i>114.0</i>	2.3	4.8	-1.9	2.4	1.8	1.8

<sup>1</sup> Optional for stability programmes.

<sup>15</sup> In particular, the data on the balance of primary incomes and transfers are not provided.

**Table 1c. Labour market developments**

	ESA Code	2007	2007	2008	2009	2010	2011	2012
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
<b>1. Employment, persons<sup>1</sup></b>		370.0	3.1	1.9	1.1	1.3	1.8	1.9
2. Employment, hours worked <sup>2</sup>		715.1	2.9	1.9	1.1	1.3	1.8	1.9
<b>3. Unemployment rate (%)<sup>3</sup></b>		3.9	3.9	4.0	4.5	5.0	5.3	5.5
<b>4. Labour productivity, persons<sup>4</sup></b>		34049.4	1.3	1.9	1.0	1.1	1.2	1.3
5. Labour productivity, hours worked <sup>5</sup>		17.6	1.5	1.9	1.0	1.1	1.2	1.3
<b>6. Compensation of employees</b>	D.1	6924.1	7.4	9.0	6.5	6.1	6.7	6.8
<b>7. Compensation per employee</b>		18713.8	4.2	7.0	5.3	4.8	4.8	4.8

<sup>1</sup>Occupied population, domestic concept national accounts definition.

<sup>2</sup>National accounts definition.

<sup>3</sup>Harmonised definition, Eurostat; levels.

<sup>4</sup>Real GDP per person employed.

<sup>5</sup>Real GDP per hour worked.

**Table 1d. Sectoral balances**

% of GDP	ESA Code	2007	2008	2009	2010	2011	2012
<b>1. Net lending/borrowing vis-à-vis the rest of the world</b>	B.9	-11.7	-12.4	-12.1	-11.5	-10.9	-10.2
<i>of which :</i>							
- Balance on goods and services		-6.7	-9.4	-9.1	-8.5	-8.0	-7.5
- Balance of primary incomes and transfers		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
- Capital account		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Net lending/borrowing of the private sector	B.9	-15.1	-13.4	-12.5	-11.5	-10.4	-9.3
3. Net lending/borrowing of general government	EDP B.9	3.4	1.0	0.4	0.0	-0.5	-0.9
<b>4. Statistical discrepancy</b>		0.0	-0.2	0.0	0.1	0.1	0.2

**Table 2. General government budgetary prospects**

	ESA Code	2007	2007	2008	2009	2010	2011	2012
		Level	% of GDP	% 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	537.4	3.4	1.0	-0.8	-1.4	-1.9	-2.2
<b>2. Central government</b>	S.1311	69.2	0.4	-1.7	-3.2	-3.6	-3.8	-3.8
<b>3. State government</b>	S.1312	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>4. Local government</b>	S.1313	-9.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
<b>5. Social security funds</b>	S.1314	477.3	3.1	2.8	2.5	2.2	1.9	1.6
<b>General government (S13)</b>								
<b>6. Total revenue</b>	TR	7231.0	46.4	45.3	43.8	44.0	44.4	44.8
<b>7. Total expenditure</b>	TE <sup>1</sup>	6693.6	42.9	44.3	44.6	45.5	46.3	47.1
<b>8. Net lending/borrowing</b>	EDP B.9	537.4	3.4	1.0	-0.8	-1.4	-1.9	-2.2
<b>9. Interest expenditure</b>	EDP D.41	479.7	3.1	2.9	2.4	2.2	2.1	2.1
<b>10. Primary balance<sup>2</sup></b>		1017.1	6.5	3.9	1.5	0.8	0.2	-0.2
<b>11. One-off and other temporary measures<sup>3</sup></b>		0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Selected components of revenue</b>								
<b>12. Total taxes (12=12a+12b+12c)</b>		5260.4	33.7	32.6	31.4	31.6	31.8	32.2
<b>12a. Taxes on production and imports</b>	D.2	3076.3	19.7	19.7	19.6	19.5	19.6	19.8
<b>12b. Current taxes on income, wealth, etc</b>	D.5	2180.7	14.0	12.9	11.9	12.0	12.2	12.4
<b>12c. Capital taxes</b>	D.91	3.4	0.0	0.0	0.0	0.0	0.0	0.0
<b>13. Social contributions</b>	D.61	1194.7	7.7	7.9	8.0	8.1	8.2	8.2
<b>14. Property income</b>	D.4	110.6	0.7	0.9	0.4	0.4	0.4	0.4
<b>15. Other<sup>4</sup></b>		665.3	4.3	3.9	3.9	3.9	4.0	4.1
<b>16=6. Total revenue</b>	TR	7231.0	46.4	45.3	43.8	44.0	44.4	44.8
<b>p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)<sup>5</sup></b>			41.4	40.5	39.5	39.7	40.0	40.4
<b>Selected components of expenditure</b>								
<b>17. Compensation of employees + intermediate consumption</b>	D.1+P.2	3058.6	19.6	19.7	20.2	20.5	20.7	20.9
17a. Compensation of employees	D.1	2258.8	14.5	14.6	14.9	15.1	15.2	15.3
17b. Intermediate consumption	P.2	799.8	5.1	5.2	5.3	5.4	5.5	5.6
<b>18. Social payments (18=18a+18b)</b>		1827.0	11.7	12.1	12.6	13.1	13.6	14.1
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	22.0	0.1	0.2	0.2	0.2	0.2	0.2
18b. Social transfers other than in kind	D.62	1805.0	11.6	12.0	12.5	12.9	13.4	13.9
<b>19=9. Interest expenditure</b>	EDP D.41	479.7	3.1	2.9	2.4	2.2	2.1	2.1
<b>20. Subsidies</b>	D.3	65.4	0.4	1.0	0.5	0.4	0.4	0.4
<b>21. Gross fixed capital formation</b>	P.51	451.9	2.9	2.9	3.0	3.0	3.0	3.1
<b>22. Other<sup>6</sup></b>		811.0	5.2	5.6	6.0	6.2	6.4	6.6
<b>23=7. Total expenditure</b>	TE <sup>1</sup>	6693.6	42.9	44.3	44.6	45.5	46.3	47.1
<b>p.m.: Government consumption (nominal)</b>	P.3	2764.5	17.7	17.8	18.3	18.6	18.7	18.9

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

<sup>2</sup>The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

<sup>3</sup>A plus sign means deficit-reducing one-off measures.

<sup>4</sup>P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

<sup>5</sup>Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

<sup>6</sup>D.29+D4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

**Table 3. General government expenditure by function**

% of GDP	COFOG Code	2006	2011
1. General public services	1	9.9	9.7
2. Defence	2	2.3	1.8
3. Public order and safety	3	2.2	2.2
4. Economic affairs	4	4.4	4.6
5. Environmental protection	5	0.3	0.4
6. Housing and community amenities	6	2.5	3.5
7. Health	7	3.1	3.3
8. Recreation, culture and religion	8	1.2	1.3
9. Education	9	7.2	7.8
10. Social protection	10	10.5	11.7
11. Total expenditure (=item 7=23 in Table 2)	TE <sup>1</sup>	43.6	46.3

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

**Table 4. General government debt developments**

% of GDP	ESA Code	2007	2008	2009	2010	2011	2012
<b>1. Gross debt<sup>1</sup></b>		59.4	49.3	46.8	45.4	44.2	44.2
<b>2. Change in gross debt ratio</b>		-5.3	-10.0	-2.6	-1.4	-1.2	0.0
<b>Contributions to changes in gross debt</b>							
<b>3. Primary balance<sup>2</sup></b>		6.5	3.9	1.5	0.8	0.2	-0.2
<b>4. Interest expenditure<sup>3</sup></b>	EDP D.41	3.1	2.9	2.4	2.2	2.1	2.1
<b>5. Stock-flow adjustment</b>		3.2	-4.3	-1.0	-0.7	-0.8	0.1
<i>of which:</i>							
- Differences between cash and accruals <sup>4</sup>		-0.3	0.0	0.0	0.0	0.0	0.0
- Net accumulation of financial assets <sup>5</sup>		3.4	-4.3	-1.0	-0.7	-0.8	0.1
<i>of which:</i>							
- privatisation proceeds		n.a.	0.3	n.a.	n.a.	n.a.	n.a.
- Valuation effects and other <sup>6</sup>		0.1	0.0	0.0	0.0	0.0	0.0
<b>p.m.: Implicit interest rate on debt<sup>7</sup></b>		4.8	4.9	4.8	4.7	4.7	4.7
<b>Other relevant variables</b>							
<b>6. Liquid financial assets<sup>8</sup></b>		7.3	3.0	2.0	1.3	0.6	0.7
<b>7. Net financial debt (7=1-6)</b>		52.1	46.3	44.8	44.1	43.6	43.5

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

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

<sup>3</sup>Cf. item 9 in Table 2.

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

<sup>5</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>6</sup>Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.

<sup>7</sup>Proxied by interest expenditure divided by the debt level of the previous year.

<sup>8</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	2007	2008	2009	2010	2011	2012
<b>1. Real GDP growth (%)</b>		4.4	3.8	2.1	2.4	3.0	3.2
<b>2. Net lending of general government</b>	EDP B.9	3.4	1.0	-0.8	-1.4	-1.9	-2.2
<b>3. Interest expenditure</b>	EDP D.41	3.1	2.9	2.4	2.2	2.1	2.1
<b>4. One-off and other temporary measures<sup>1</sup></b>		1.5	0.0	0.0	0.0	0.0	0.0
5. Potential GDP growth (%)		3.7	3.7	3.7	3.7	3.7	3.7
contributions:							
- labour		0.7	0.7	0.7	0.7	0.7	0.7
- capital		1.6	1.6	1.6	1.6	1.6	1.6
- total factor productivity		1.4	1.4	1.4	1.4	1.4	1.4
6. Output gap		-0.8	-0.6	-2.0	-3.2	-3.8	-4.2
7. Cyclical budgetary component		-0.3	-0.2	-0.8	-1.4	-1.7	-1.9
8. Cyclically-adjusted balance (2 - 7)		3.8	1.2	0.1	0.0	-0.3	-0.4
9. Cyclically-adjusted primary balance (8 + 3)		6.8	4.1	2.4	2.2	1.9	1.7
10. Structural balance (8 - 4)		2.3	1.2	0.1	0.0	-0.3	-0.4

<sup>1</sup>A plus sign means deficit-reducing one-off measures.

**Table 6. Divergence from previous update**

	ESA Code	2007	2008	2009	2010	2011	2012
<b>Real GDP growth (%)</b>							
<b>Previous update</b>		4.2	4.1	4.0	4.0	4.0	n.a.
<b>Current update</b>		4.4	3.8	2.1	2.4	3.0	3.2
<b>Difference</b>		0.2	-0.3	-1.9	-1.6	-1.0	n.a.
<b>General government net lending (% of GDP)</b>	EDP B.9						
<b>Previous update</b>		1.5	0.5	0.5	0.7	0.7	n.a.
<b>Current update</b>		3.4	1.0	-0.8	-1.4	-1.9	-2.2
<b>Difference</b>		1.9	0.5	-1.3	-2.1	-2.6	n.a.
<b>General government gross debt (% of GDP)</b>							
<b>Previous update</b>		60.0	48.5	45.3	43.8	40.5	n.a.
<b>Current update</b>		59.4	49.3	46.8	45.4	44.2	44.2
<b>Difference</b>		-0.6	0.9	1.4	1.6	3.7	n.a.



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

% of GDP	2007 <sup>1</sup>	2020	2030	2040	2050	2060
Total expenditure	42.9	44.8	46.5	49.7	54.8	61.3
Of which: age-related expenditures	17.0	19.2	20.9	22.9	25.0	27.0
Pension expenditure	6.8	8.9	10.8	13.0	15.1	17.1
Social security pension	4.7	6.8	8.7	10.4	12.7	14.7
Old-age and early pensions	3.4	5.0	6.6	8.0	10.1	11.8
Other pensions (disability, survivors)	1.3	1.7	2.1	2.3	2.6	2.8
Occupational pensions (if in general government)	2.1	2.1	2.1	2.6	2.4	2.4
Health care	2.7	3.9	3.1	3.2	3.4	3.6
Long-term care ( <i>this was earlier included in the</i>	0.0	0.0	0.0	0.0	0.0	0.0
Education expenditure	6.7	6.5	6.1	5.7	5.5	5.3
Other age-related expenditures	0.8	0.9	0.9	1.0	1.0	1.0
Interest expenditure	3.1	2.1	2.1	3.4	6.3	10.8
Total revenue	46.4	46.2	46.6	46.6	46.7	46.8
Of which: property income	0.7	0.4	0.4	-1.4	-4.4	-9.1
<i>Of which</i> : from pensions contributions (or social contributions if appropriate)	5.7	5.8	5.9	6.0	6.1	6.1
Pension reserve fund assets	36.8	30.9	9.9	-27.2	-88.0	-182.1
<i>Of which</i> : consolidated public pension fund assets (assets other than government liabilities)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Assumptions</b>						
Labour productivity growth	1.7	2.8	1.8	1.7	1.7	1.7
Real GDP growth	3.6	3.9	2.6	2.3	1.8	1.8
Participation rate males (aged 20-64)	81.2	84.1	83.3	82.8	82.8	82.7
Participation rates females (aged 20-64)	64.7	72.9	73.4	73.1	73.0	73.2
Total participation rates (aged 20-64)	72.9	78.5	78.4	78.0	78.0	78.0
Unemployment rate	4.4	3.4	3.4	3.4	3.4	3.4
Population aged 65+ over total population	12.5	15.0	17.9	20.0	23.2	26.2

<sup>1</sup>Data provided in the SP are for years 2007, 2020, 2030, 2040, 2050, 2060 instead of the years 2000, 2005, 2010, 2020, 2030, 2050.

**Table 8. Basic assumptions**

	2007	2008	2009	2010	2011	2012
Short-term interest rate <sup>1</sup> (annual average)	3.6	4.6	3.5	4.1	4.2	4.2
Long-term interest rate (annual average)	4.5	4.1	4.0	4.1	4.3	4.5
USD/€ exchange rate (annual average) (euro area and ERM II countries)	1.37	1.48	1.36	1.36	1.36	1.36
Nominal effective exchange rate	0.7	4.3	-2.5	0.0	0.0	0.0
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
World excluding EU, GDP growth	5.5	4.3	2.9	3.8	4.2	4.5
EU GDP growth	2.9	1.4	0.2	1.1	1.6	2.0
Growth of relevant foreign markets	6.9	5.7	3.0	4.3	4.8	5.0
World import volumes, excluding EU	7.2	6.0	3.1	4.7	5.3	5.7
Oil prices (Brent, USD/barrel)	72.4	96.9	50.0	53.0	55.0	55.0

<sup>1</sup>If necessary, purely technical assumptions.

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