EUROPEAN COMMISSION
DIRECTORATE GENERAL
ECONOMIC AND FINANCIAL AFFAIRS

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# ECONOMIC ASSESSMENT
# OF THE CONVERGENCE PROGRAMME OF BULGARIA
# (JANUARY 2007)

The Stability and Growth Pact requires each EU Member State to present an annual update of its medium-term fiscal programme, called "stability programme" for countries that have adopted the euro as their currency and "convergence programme" for those that have not. Bulgaria's first convergence programme was submitted on 5 January 2007.

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs of the European Commission, was finalised on 2/3/2007. Comments should be sent to Norbert Wunner (Norbert.Wunner@ec.europa.eu). The main aim of the technical analysis is to assess the realism of the budgetary strategy presented in the programme as well as its compliance with the requirements of the Stability and Growth Pact. However, the analysis also looks at the overall macro-economic performance of the country and highlights relevant policy challenges.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 7 March 2007. The ECOFIN Council is expected to adopt its opinion on the programme on 27 March 2007.

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

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

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## SUMMARY AND CONCLUSIONS[1]

As part of the preventive arm of the Stability and Growth Pact, each Member State that does not use the single currency, such as Bulgaria, has to submit a convergence programme and annual updates thereof. Bulgaria joined the European Union on 1 January 2007 and submitted its first convergence programme, covering the period 2006-2009, on 5 January 2007.

Bulgaria has achieved a high degree of macroeconomic stability supported by sound public finances. Economic growth has been strong and stable, increasing to around 5½% in recent years, but the GDP per capita (in PPS) remains low at 33% of the EU-25 average in 2005. Therefore, the scope for catching up remains ample and represents Bulgaria's overriding challenge for the medium- and long-term. Employment has risen steadily, but while unemployment rates have been reduced considerably, employment rates increase only gradually and remain below the EU average. Skills and geographical mismatches hamper labour market flexibility and there are increasing shortages especially in high-skilled segments of the labour market. Emigration and a drop in fertility rates have contributed to a rapid shrinking and ageing of the population. Average growth of labour productivity was fairly low over the period 1996-2005, but increased to close to 4% recently on the back of growing foreign and domestic investment. After the introduction of the currency board in 1997, inflation was reduced to single-digit figures by 1999, but the disinflation process has stalled in recent years. Very high credit growth and increasing external deficits – although related to very high inflows of FDI – have been a cause of concern for macroeconomic stability. A considerable degree of fiscal consolidation has been accomplished by running a general government budget close to balance or in surplus since 1998. The debt-to-GDP ratio has been reduced from over 100% to below 30%. Moreover, some steps have been taken to meet the challenges of demographic change for the pension system.

Against this background, the following challenges in the area of public finances can be identified. First, as Bulgaria is a small open economy operating under a currency board, fiscal policy has to play a key role in safeguarding macroeconomic stability and adapting to external shocks. Restraining domestic demand growth and thus preventing a further increase in the external deficit remains a key challenge for public finances. Maintaining a tight fiscal policy stance would also preserve the room of manoeuvre for budgetary stabilisation in the case of external shocks and support efforts for further disinflation. Second, demographic pressures have led to a substantial increase in expenditures on pensions and health. Some measures have already been taken to improve the long-term sustainability of the pension system. However, controlling the growth of pension and health care expenditures while improving the quality of services remains a challenge in view of a rapidly ageing and declining population. Third, sustaining the convergence process in Bulgaria relies increasingly on raising total factor productivity, also in order to remain attractive for FDI. Improving the quality and efficiency of public spending with a view to promoting investments in human capital, public infrastructure and innovation, would therefore be important for strengthening Bulgaria's growth potential. Increasing

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

employment rates and tackling mismatches in the labour market are also crucial to maintain high growth. In this respect, further reform of the tax-benefit system would enhance incentives for job creation and labour market participation.

The macroeconomic scenario underlying the convergence programme envisages that real GDP growth will remain at a high level, increasing slightly to just above 6% on average over the rest of the programme period, mainly driven by robust private consumption and particularly high investment growth. Unemployment is projected to decrease further and inflation to come down to below 4% in the absence of major increases in administered prices or indirect taxes. The external deficit would, however, remain high and the negative contribution of net exports to growth would decline only slightly over the programme period. Assessed against currently available information, this scenario appears to be based on plausible growth assumptions. The programme's projections for inflation also appear realistic. However, high external imbalances continue to be a risk factor in the medium term, in particular as the external deficit in 2006 turned out at 16% of GDP, although its financing has been fully ensured through FDI inflows.

When cyclical conditions are considered, Commission services' calculations show a small negative output gap as from 2007. But given the relatively short time series and pervasive structural breaks, these estimations are subject to considerable uncertainty. Economic growth has been close to potential in recent years and is projected to increase noticeably over the programme period, going hand in hand with a very high and persistent external deficit, a further reduction in unemployment and strong credit growth. Consequently, the macroeconomic outlook would qualify as economic good times.

For 2006, the Commission services' autumn forecast estimated the general government surplus at 3.3% of GDP, against a target of a balanced budget set in the December 2005 pre-accession economic programme (PEP) and a projected surplus of 3.2% of GDP in the convergence programme. The substantially better budgetary outcome is mainly the result of higher than projected revenues due to conservative revenue forecasts in the PEP, higher output growth, and improved revenue collection. Compared to the PEP projections, expenditure restraint has implied lower current expenditures of around 1% of GDP.

The medium-term budgetary strategy laid down in the convergence programme aims at maintaining a general government surplus in the range of 0.8-1.5% of GDP over the programme period in order to safeguard macroeconomic stability and sustainability of public finances. A strong fiscal loosening is projected in 2007, with the budgetary surplus attaining 0.8% of GDP, down from 3.2% of GDP in 2006. In 2008 and 2009, the general government surplus would rise again and stabilise at 1.5% of GDP. The fiscal loosening in 2007 would be almost exclusively expenditure-driven. Expenditures are projected to increase by 2¾% of GDP, with only part of this increase, about ¾% of GDP, being reversed in 2008. This increase in expenditures in 2007 would come mainly from 'other expenditures' (+2½% of GDP) and subsidies (+½% of GDP). The increase in 'other expenditures' partially reflects Bulgaria's contribution to the EU (1¼% of GDP). Planned reductions in corporate and personal income taxes in 2007 are projected to be almost fully compensated by improved compliance and tax collection rates. Consequently, total revenues would remain almost constant (as a percent of GDP) over the programme period. The programme also indicates that although the budget for 2007 envisages a general government surplus of 0.8% of GDP, a higher surplus of 2% of GDP would actually be targeted during budget execution. This would be done on the basis of provisions in the Budget Law, which allow the spending of 10% of the budgeted current primary expenditures only in case that the external deficit does not widen further. Budgetary targets have been revised considerably upwards compared to the 2005 pre-accession economic programme, reflecting substantial revenue over-performance in 2006 with carry-over effects in subsequent years and a slightly more favourable outlook for output growth. Government gross debt is planned to decline from 25¼% of GDP in 2006 to around 21% by the end of the programme period.

The structural balance (i.e. the cyclically-adjusted balance net of one-off and other temporary measures) is planned to decrease from around 3¼% of GDP in 2006 to 1% in 2007 and then to increase again to around 2% of GDP in 2008 and 2009. If a higher nominal surplus of 2% of GDP is achieved in 2007 during the budget execution, the adjustment path would be smoother, in particular with a smaller fiscal easing in 2007. The medium-term objective (MTO) for the budgetary position presented in the programme is a balanced budget in structural terms, which is in line with the requirements of the Pact.

The budgetary outcome in 2007 could be better than projected in the programme, while in 2008 and 2009 the risks to the budgetary projections appear broadly balanced. In view of the good track record with respect to the achievement of budgetary targets and provisions in the 2007 Budget Law for limiting expenditures during budget execution, a higher surplus for 2007 appears to be realistic even though revenue projections for 2007 could entail certain downside risks as revenue shortfalls from tax reductions may not be fully compensated by improved compliance and collection rates.

In view of this risk assessment, the budgetary stance in the programme implies that the MTO is maintained by a large margin throughout the programme period. The fiscal policy stance is expansionary in 2007 which could turn out to be pro-cyclical in good times. This would not be fully in line with the Stability and Growth Pact. In particular, good times are expected to occur in 2007, when the structural balance is planned to decline by around 2¼% of GDP according to the programme and by 1½% according to the Commission services' autumn 2006 forecast. Moreover, the fiscal expansion in 2007 risks aggravating existing macroeconomic imbalances and in particular the already high external deficit.

In the absence of the long-term projections of age-related expenditures based on the common macroeconomic assumptions as carried out by the EPC/Commission, it is not possible to assess the impact of population ageing in Bulgaria on a comparable and robust basis as it is currently done for the other Member States, for which the projections on this basis are available. However, as mentioned above, a significant impact of ageing on expenditures cannot be excluded given the current demographic structure. The initial budgetary position, with a large structural surplus, contributes significantly to stabilise debt before considering the long-term budgetary impact of ageing. Maintaining high primary surpluses over the medium-term would contribute to containing risks to the sustainability of public finances.

The overall conclusion is that the medium-term budgetary position is sound and the budgetary strategy provides an example of fiscal policies conducted in compliance with the Stability and Growth Pact. However, the planned reduction in the budget surplus during economic good times in 2007 could turn out to imply a pro-cyclical fiscal stance and could add to existing external imbalances.

## Comparison of key macroeconomic and budgetary projections[1]

| | | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| Real GDP (% change) | **CP Jan 2007** | **5.5** | **5.9** | **5.9** | **6.2** | **6.1** |
| | COM Nov 2006 | 5.5 | 6.0 | 6.0 | 6.2 | n.a. |
| | *PEP Dec 2005* | *5.7* | *5.7* | *5.9* | *5.9* | *n.a.* |
| HICP inflation (%) | **CP Jan 2007** | **5.0** | **7.4** | **4.0** | **3.0** | **3.0** |
| | COM Nov 2006 | 5.0 | 7.0 | 3.5 | 3.8 | n.a. |
| | *PEP Dec 2005* | *4.9* | *6.7* | *3.1* | *2.8* | *n.a.* |
| Output gap (% of potential GDP) | **CP Jan 2007[2]** | **0.5** | **0.1** | **-0.4** | **-0.8** | **-1.0** |
| | COM Nov 2006[6] | 0.5 | 0.3 | -0.1 | -0.5 | n.a. |
| | *PEP Dec 2005* | *n.a.* | *n.a.* | *n.a.* | *n.a.* | *n.a.* |
| General government balance (% of GDP) | **CP Jan 2007** | **2.4** | **3.2** | **0.8** | **1.5** | **1.5** |
| | COM Nov 2006 | 2.4 | 3.3 | 1.8 | 1.7 | n.a. |
| | *PEP Dec 2005* | *1.8* | *0.0* | *-0.2* | *-0.7* | *n.a.* |
| Primary balance (% of GDP) | **CP Jan 2007** | **3.9** | **4.6** | **2.2** | **2.8** | **2.7** |
| | COM Nov 2006 | 3.9 | 4.7 | 2.9 | 2.7 | n.a. |
| | *PEP Dec 2005* | *3.4* | *1.5* | *1.2* | *0.5* | *n.a.* |
| Cyclically-adjusted balance (% of GDP) | **CP Jan 2007[2]** | **2.1** | **3.2** | **1.0** | **1.9** | **2.0** |
| | COM Nov 2006 | 2.1 | 3.2 | 1.8 | 1.9 | n.a. |
| | *PEP Dec 2005* | *n.a.* | *n.a.* | *n.a.* | *n.a.* | *n.a.* |
| Structural balance[3] (% of GDP) | **CP Jan 2007[4]** | **2.1** | **3.2** | **1.0** | **1.9** | **2.0** |
| | COM Nov 2006[5] | 2.1 | 3.2 | 1.8 | 1.9 | n.a. |
| | *PEP Dec 2005* | *n.a.* | *n.a.* | *n.a.* | *n.a.* | *n.a.* |
| Government gross debt (% of GDP) | **CP Jan 2007** | **29.8** | **25.3** | **22.7** | **22.3** | **21.1** |
| | COM Nov 2006 | 29.8 | 25.8 | 21.8 | 17.9 | n.a. |
| | *PEP Dec 2005* | *31.3* | *26.3* | *23.9* | *22.7* | *n.a.* |

Notes:

[1]The government accounts of Bulgaria have not yet been officially subject to a complete quality assessment by Eurostat. Eurostat will publish and validate government balance and debt figures shortly after the data notification of 1 April 2007.

[2]Commission services calculations on the basis of the information in the programme.

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

[4]There are no one-off and other temporary measures in the programme.

[5]There are no one-off and other temporary measures in the Commission services' autumn 2006 forecast.

[6]Based on estimated potential growth of 5.8%, 6.3%, 6.4% and 6.7% respectively in the period 2005-2008.

*Source:*

*Convergence programme (CP); Pre-accession economic programme (PEP); Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations*

# 1. INTRODUCTION

Bulgaria's first convergence programme covering the period 2006-09 was submitted to the European Commission on 5 January 2007 in line with the general principles agreed for integrating new Member States into Community procedures for economic policy coordination and budgetary surveillance. The programme was adopted by the Council of Ministers on 14 December 2006 and is in line with the 2007 budget, which was adopted by Parliament on 19 December 2006.

The programme broadly follows the model structure and data provision requirements for stability and convergence programmes specified in the code of conduct. It provides almost all compulsory and most of the optional data prescribed by the code of conduct. Regarding compulsory data, some data on basic assumptions (long-term interest rates and world import volumes) are missing. Regarding optional data, in Table 1c) labour market data (employment, productivity) on hours worked are not provided. In Table 4, there is no break-down of the stock-flow adjustment into differences between cash and accruals and net accumulation of assets, and there is no information on liquid financial assets and net financial debt. Finally, in Table 7 on long-term sustainability data on age-related expenditures, other pensions, occupational pensions and disaggregated data on old-age and social security pensions is missing. The data provided is largely consistent with ESA95. However, the government accounts of Bulgaria have not yet been officially subject to a complete quality assessment by Eurostat. Eurostat will publish and validate government balance and debt figures shortly after the data notification of 1 April 2007. Annex 3 provides a detailed overview of all aspects of compliance with the code of conduct.

# 2. ECONOMIC TRENDS AND POLICY CHALLENGES

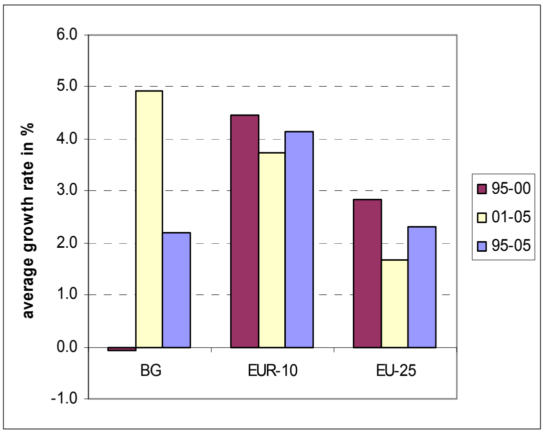
This section is in five parts. The first provides a brief overview of the macroeconomic performance in terms of growth and other major macro-variables. The second part presents the results of a growth accounting exercise and tries to identify the main reasons for Bulgaria's average annual economic growth performance vis-à-vis the reference aggregate (EU10). The third one looks at the volatility of growth and other key macroeconomic variables and the stabilising or destabilising role of macro-policies. The fourth part focuses on trends in public finances. The fifth part then identifies major economic challenges with implications for public finances.

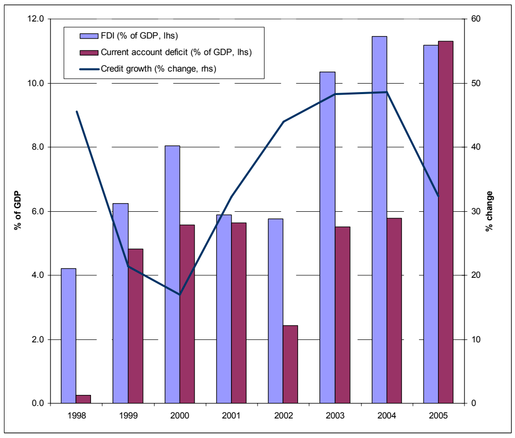
## 2.1. Economic performance

Real GDP growth in Bulgaria was around 4½% per year on average in the period 1998-2005, which is almost 1 percentage point higher than in the EU10 (see Figure 1). GDP per capita in purchasing power standards increased from 25½% of the EU25 average in 1997 to 33% in 2005, which is still the lowest level among Member States. Bulgaria's macroeconomic performance over the last ten years has been marked by two contrasting periods, with the financial crisis of 1996-97 representing a turning point. During the economic crisis, real GDP dropped by almost 15% within just two years. In contrast, since the introduction of a currency board arrangement in 1997 Bulgaria has achieved relatively high and stable real GDP growth.

**Figure 1: Average GDP growth: Bulgaria vs. EU25 and EU10**

**Figure 2: Credit growth, net FDI and external deficit**




_Source_:
*Commission services*

_Source_:
*Bulgarian National Bank and Commission services*

The main driver of growth since 1997 has been domestic demand, in particular private consumption, which expanded rapidly as a result of higher real incomes, employment growth and strong credit growth. More recently, investment has also become increasingly important with gross fixed capital formation growing by 19% in 2005. In contrast, the contribution from net exports has been strongly negative for most of the period since 1998, mainly on the back of rapidly growing imports.

Until 2001 employment declined as a result of the economic crisis and subsequent economic restructuring. Since then it has recovered and grown by over 2% per year on average. This has largely been due to strong private sector job creation but also some government employment programmes.[2] As a result, the employment rate increased from just below 50% in 2001 to close to 56% in 2005 and the unemployment rate declined considerably from 19.5% to 10.1% over the same period. Yet, the employment rate remains low and unemployment is still relatively high. Emigration and strong employment growth in recent years have led to increasing bottlenecks in certain segments of the labour market, especially among high-skilled workers. At the same time, significant parts of the population remain outside the workforce or employed in the informal sector. Skills and geographical mismatches also hamper the functioning of the labour market.

Following the hyperinflation in 1996-97, inflation was successfully reduced to below 10% by 2000 and remained relatively moderate since then. Average CPI inflation was 5.3% in the period 2001-05. By 2003 it had declined to 2.3%, but has since increased again to an average 5% in 2005 on the back of increases in administered prices and indirect taxes, higher oil prices, relatively volatile and rising food prices and above-average price increases of non-tradable goods and services, which appear to be at least partly linked to differences in productivity growth between the tradables and non-

[2] Part of the observed increase in employment is also due to a statistical effect reflecting successful efforts of reducing the size of the informal sector. This has in particular been the case in 2003, when rules on the registration of employment contracts were tightened and employment grew by more than 6%.

tradables sectors (Balassa-Samuelson effect). The disinflation process has thus stalled in recent years and CPI inflation is still above the EU10 average.

| Box 1: Monetary policy and exchange rate regimes of Bulgaria | |
|---|---|
| *Currency board*<br><br>*(1 July 1997)* | Following the financial crisis in 1996-97, Bulgaria introduced a currency board on 1 July 1997. The Bulgarian lev was pegged to the German mark (and later the euro) at an exchange rate of DM 1 to BGN 1 (EUR 1 to BGN 1.95583). Under the currency board arrangement, the Bulgarian National Bank's (BNB) monetary liabilities (cash, commercial bank reserves, non-government and government deposits) as well as deposits from the BNB's banking department (held to provide loans to commercial banks in case of a liquidity crisis) have to be fully covered by foreign reserves (foreign currency assets and gold). The BNB is obliged to exchange monetary liabilities and euros at the official exchange rate without any limit.<br><br>The currency board has been instrumental in achieving macroeconomic stabilisation and has been functioning smoothly since its introduction. Foreign reserves have been growing steadily and have covered well above 100% of M1.<br><br>The Bulgarian government and the Bulgarian National Bank aim at ERM II entry as soon as possible after accession and fulfilling the conditions for euro adoption as soon as possible thereafter. |

Strong economic growth has been accompanied by growing external imbalances, with a fairly high external deficit of around 5½% of GDP for most years since 1999 widening rapidly to 11.3% of GDP in 2005 (see Figure 2). Three main factors have been behind this development. Firstly, the growth of Bulgaria's output capacity has been insufficient to keep up with buoyant domestic demand, mainly driven until recently by private consumption. Secondly, very high inflows of foreign direct investments of more than 10% of GDP per year since 2003 triggered a substantial increase in capital formation. As a result, imports of investment goods surged considerably since 2003, with an annual growth rate of above 30% in 2005. Thirdly, the rapid increase in 2005 was at least partly also driven by exogenous shocks including higher oil prices and floods which caused an additional widening of the trade deficit in 2005.

The high external deficit is thus mainly a combination of very high FDI inflows and strong domestic demand triggering substantial increases in imports. It does not appear to be related to any loss in competitiveness of the Bulgarian economy. Although higher inflation rates in Bulgaria than in the euro area have implied an appreciation of the real effective exchange rate[3] by over 14% between 2000 and 2005 (see also Figure 6 below), this has apparently not undermined external competitiveness. In particular, the real appreciation has not been linked to disproportionate wage increases. Productivity has

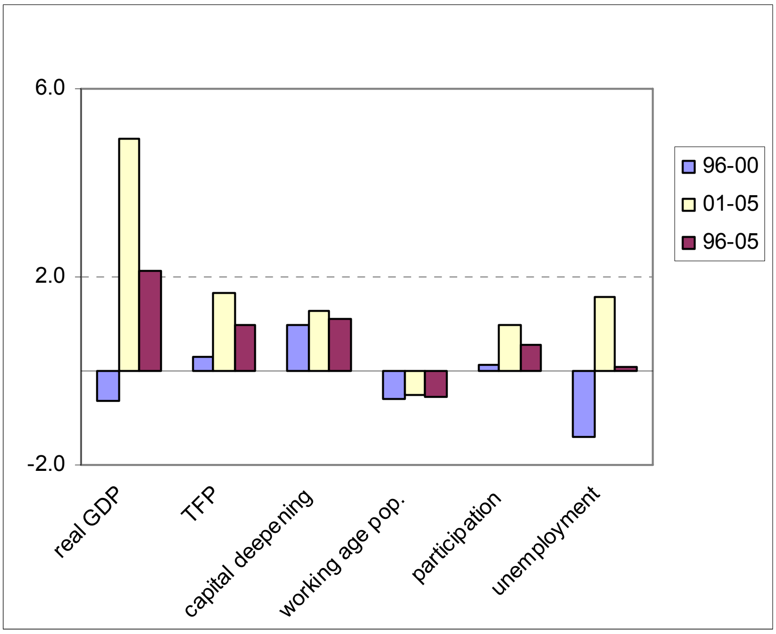
[3] Measured on the basis of unit labour costs relative to 31 industrialised countries.

been growing at a rate of close to 3% per year, comparable to real wage growth. As a result, real unit labour costs actually declined slightly between 2001 and 2005. This is also reflected in a robust growth of exports of goods and services over the last five years and a persistent gain in market shares.

### 2.2. Anatomy of medium-term growth

Within the framework of a traditional growth accounting exercise, this section dissects the sources of high or low average growth as well as differences in average economic growth vis-à-vis the EU10 in the last ten years. The results are shown in Figures 3 and 4 and highlight again the dichotomy between the period 1995-2000 largely dominated by the 1996-97 financial crisis, and the relatively strong growth performance in the period 2001-05. The economic crisis in 1996-97 caused a significant drop in employment and an associated increase in unemployment which largely explains the decline in GDP during this period. In addition, Figure 3 also underscores the secular decline in the working age population – due to massive emigration, a drop in fertility rates and a rapidly ageing society – which has had a dampening impact on economic growth in both periods. The highest contribution to growth in the period 2001-05 came from total factor productivity,

**Figure 3: Real GDP growth and its components**




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

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

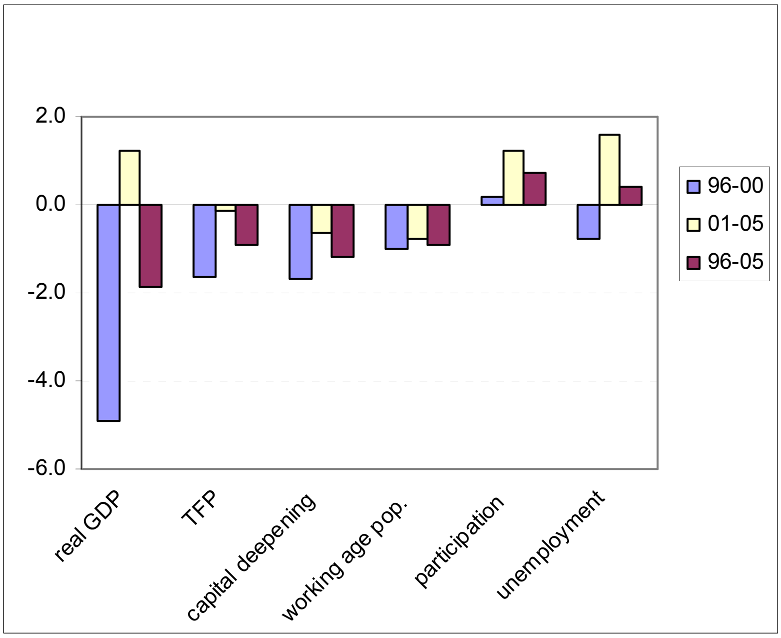
The expression $(g_K - g_L - g_H)$ is referred to as capital deepening, i.e. the increase in the capital labour ratio.
*Source:*
*Commission services*

reflecting progress in economic restructuring, improvements in the business environment and a deepening of structural reforms.

Figure 4 compares the growth composition of Bulgaria with that of EU10 countries. It shows that the above-average growth in the period 2001-05 has almost completely been due to a stronger increase in the labour input than in EU10. This is remarkable since the decline in the working-age population in Bulgaria was even stronger than in the reference group. The strong growth performance has thus been mainly driven by a stronger reduction in the unemployment rate and by a stronger increase in participation rates.

Regarding the participation rate, the observed increase reflects greater incentives to participate in the labour market in the face of improved employment opportunities, but also a considerable reduction of the informal economy (see also Footnote 2). Compared to the EU10 average, unemployment rates in Bulgaria were successfully reduced within a very short time. Within just four years, the unemployment rate was almost halved between 2001 and 2005. This has been the outcome of strong job creation in the private sector, but also of active labour market programmes. However, despite these positive developments, employment rates still remain relatively low. This reflects difficulties of integrating currently inactive groups into the labour market and disincentives in the tax-benefit system with social contribution rates remaining relatively high despite a reduction of pension contributions by 6 percentage points in 2006.

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




<u>Note</u>:
See note of Figure 3.
*<u>Source</u>:*
*Commission services*

According to Figure 4, the contribution of total factor productivity to growth in Bulgaria was below the EU10 average even in the period 2001-05. This is, however, mainly due to the one-off decline in labour productivity observed in 2003, when a significant part of employment in the informal sector was transformed into official employment. For almost all other years, total factor productivity actually contributed more to growth than in EU10, reflecting the positive impact of ongoing enterprise restructuring and – in particular – increasing foreign investment. Nevertheless, increases in labour productivity in Bulgaria have until recently been comparatively low (see Table 1). Between 1996 and 2005, labour productivity increased by just over 2% per year on average compared to over 4% in EU10, and only in 2005 labour productivity growth in Bulgaria started to outpace growth in EU10.

Due to fairly low investment rates, capital deepening contributed less positively to growth than in EU10 countries. However, structural reforms implemented in the preparations for accession and the high degree of macroeconomic stability have considerably improved the business environment for both domestic and foreign investors. This is reflected not just in a rising volume of foreign investment but also in a marked increase in the investment rate, with gross fixed capital formation increasing from below 14% of GDP on average in 1995-2000 (almost 10 percentage points lower than in EU10) to above 20% in 2001-2005, thus approaching the EU10 average. In 2005 capital deepening thus contributed – for the first time since 1995 – more strongly to economic growth in Bulgaria than in the EU10 countries.

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

Economic developments in Bulgaria since 1998 do not show a marked cyclical pattern. After the financial crisis in 1996-97, economic growth has been close to or above potential in most years. The output gap has been positive since 2000, but has been declining as potential growth has increased due to economic restructuring and rising investment rates.

Stability-oriented fiscal policy played an important role in reinforcing the stability of the currency board and providing a stable economic environment for domestic and foreign investors. Domestic demand-driven economic growth has, however, been accompanied by growing external imbalances. Tight fiscal policies with fairly high general government surpluses in recent years have therefore been important to prevent an even stronger increase in the external deficit (see also Section 2.4). Fiscal policy was clearly countercyclical in 2003 and 2004 with an increase in the cyclically adjusted primary balance and broadly neutral in 2005 with a slight fiscal expansion in cyclically-adjusted terms due to an increase in the deficit of local authorities (see Figure 5).[4]

Monetary conditions were expansionary since 1998 as witnessed by strong credit growth and real interest rates that were negative or close to zero (see Figure 6). The high credibility of the currency board has been reflected in a steady convergence of interest rates to euro area levels. By 2005, the short-term interest rate differential declined to 70 basis points. This can partly explain the very high credit growth of up to almost 50% per year which has been observed in recent years (see Figure 2). High credit growth has been a common phenomenon of financial deepening in rapidly catching-up economies. However, the speed of credit growth in Bulgaria has raised certain concerns about macroeconomic and financial sector stability. There is also a general risk that very high credit growth in combination with low or negative real interest rates might bias credit allocation to non-productive consumer and residential construction credits. Although consumer and mortgage loans have witnessed the highest growth in Bulgaria, this has

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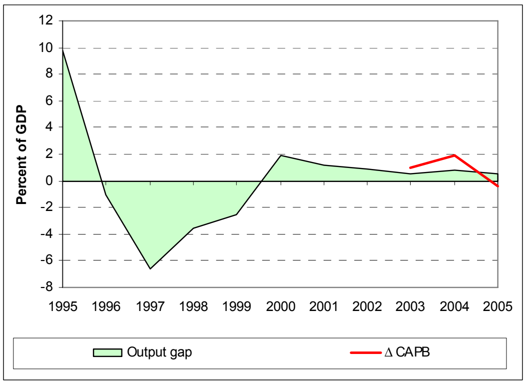
[4] Comparable data on the general government balance according to ESA95 only exists from 2002 onward.

started from a very low base. Consumer and mortgage loans thus still account for only around 20% and 15%, respectively, of overall loans, while the share of loans to non-financial private corporations has remained fairly stable at around 60%. There is therefore no clear evidence of any serious misallocation of credit. In this context, it should also be noted that interest rate spreads are relatively high and borrowers therefore actually face much higher real interest rates, which should also limit the risk of distortions.

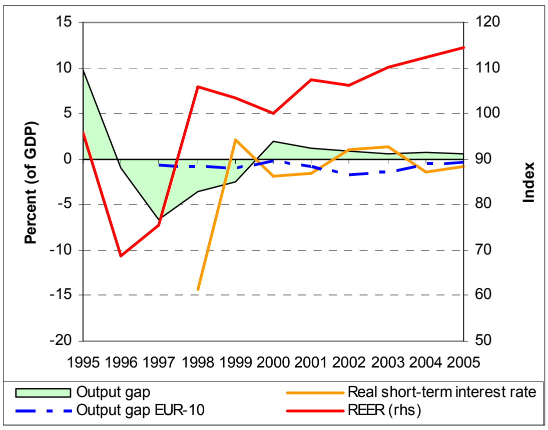
Concerns about macroeconomic and financial sector stability led the Bulgarian National Bank to adopt a number of administrative measures, including de facto credit ceilings, which have successfully curbed credit growth since 2005. However, especially companies have increasingly circumvented these measures by resorting to alternative forms of financing (e.g. leasing contracts or foreign borrowing). As a result, this policy has had some unintended and potentially problematic side effects of pushing corporate financing towards less regulated market segments and increasing short-term capital inflows, with gross external debt increasing to over 70% of GDP at the end of 2005 (up from below 65% of GDP at the end of 2004).

**Figure 5: Output gap and fiscal stance**




Note:
ΔCAPB denotes the change in the cyclically-adjusted primary budget balance
*Source:*
*Commission services*

**Figure 6: Output gap and monetary conditions**




*Source:*
*Commission services*

## 2.4. Public finances

Since the introduction of the currency board, Bulgaria followed stability-oriented fiscal policies with the general government budget close to balance until 2003 and recording relatively high surpluses of 1.7% of GDP and 3.2% of GDP in 2004 and 2005, respectively, according to national methodology.[5] According to ESA95, the surplus figures in 2004 and 2005 were 2.7% of GDP and 2.4% of GDP, respectively. In line with these budget surpluses and high nominal GDP growth, the debt-to-GDP ratio declined from over 100% in 1997 to below 30% in 2005. In addition, the government accumulated a fiscal reserve of almost 11% of GDP by the end of 2005. The expenditure-to-GDP ratio remained relatively constant at around 40% during the period 1998-2005. Interest payments declined from 4.1% of GDP to 1.6% of GDP, reflecting mainly the decrease in public debt and – to a lesser extent – a reduction in interest rates. At the same time, primary current expenditures, and in particular social expenditures, increased by almost 5 percentage points until 2003 before falling again by around 1½ percentage points until 2005. The revenue-to-GDP ratio also remained relatively constant at 40% until 2003, but increased by more than 2 percentage points until 2005.

Two main periods can be distinguished regarding public finances in Bulgaria. Between 1998 and 2003 the general government budget was close to balance with revenues and expenditures each amounting to around 40% of GDP. Interest payments declined by 2¼ percentage points over this period. But this decrease was more than offset by an increase in social expenditures of 4½ percentage points. The primary surplus thus decreased from over 5% of GDP to just above 2% in 2003. In 2004 and 2005, the exceptionally good fiscal performance was largely driven by high revenue growth and less by consolidation on the expenditure side. Especially revenues from indirect taxes have been boosted by the high growth of consumption. During this period, the expenditure-to-GDP ratio declined by around 1 percentage point, mainly reflecting a further drop in interest payments and some restructuring on the expenditure side with a slight increase of public gross fixed capital formation and a reduction of primary current expenditures by around 1½ percentage points.

Until 2003, the decline in the debt-to-GDP ratio was mainly due to relatively high nominal GDP growth and stock-flow-adjustments linked to privatisation and a fall in the value of USD-denominated foreign debt because of the depreciation of the dollar in 2002 and 2003. In contrast, in 2004 and 2005, while nominal GDP growth remained high and interest payments declined further, high primary surpluses played an increasingly important role in the further reduction of the debt-to-GDP ratio.

Regarding the revenue side, the tax burden has been shifted from direct to indirect taxes between 1998 and 2005. The corporate income tax rate has been gradually lowered to 15% as from 1 January 2005. At the same time, the personal income tax has also been gradually decreased by raising the tax exempt income threshold and by lowering marginal tax rates. Regarding indirect taxes, excise duties have been gradually increased due to the harmonisation with EU minimum rates. As a result, the share of corporate and personal income tax in overall revenues declined from 21.2% in 2001 to 12.8% in 2005. At the same time, the share of VAT and excise duties increased from 30.2% to 38.7%.

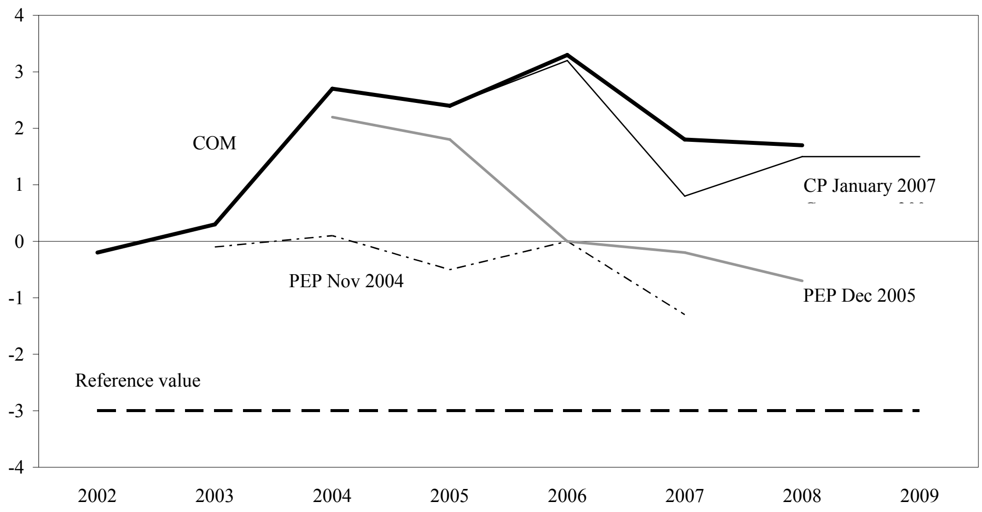
On the expenditure side, the main changes have been a substantial reduction in interest payments and a major increase in social expenditures, which currently account for

[5] The data in this section refer to government finance statistics according to national methodology. These data are available for the period since 1998. Bulgaria submitted a notification of government deficit and debt figures according to ESA95 in September 2006, covering the years 2002-2005. However, no complete set of data on government revenues and expenditures for these years according to ESA95 is available yet.

around 35% of all expenditures. This is higher than in EU10 countries, where the respective share remains below 30%. The increase in social expenditures has been mainly due to increased pension expenditures in view of a rapidly ageing society and recurrent expenditure overruns in the health sector. Capital expenditures increased slightly in recent years from around 2.5% of GDP in 2003 to just above 3% in 2005 but remain below the EU10 average.

Better-than-planned budgetary outcomes have been an important feature of Bulgaria's fiscal policy as revenues have repeatedly outperformed initial expectations (see Figure 7). This has been due to relatively conservative revenue forecasts but also to considerable progress in improving tax collection and compliance.

**Figure 7: General government balance projections in successive Pre-accession Economic Programmes (% of GDP)**




<u>Source</u>:
*Commission services and national Convergence and Pre-accession Economic Programmes*

Demographic developments with a rapidly declining and ageing population have imposed an increasing burden on government expenditures. A pension reform has been adopted in 2000 foreseeing a gradual increase in the retirement age for men to 63 by 2005 and for women to 60 until 2009, a certain tightening of eligibility criteria and the introduction of an additional, compulsory funded pension scheme for those born after 1959. Despite this reform and despite the relatively low government debt, demographic developments continue to present a non-negligible risk for the long-term sustainability of public finances.

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

Bulgaria has achieved a high degree of macroeconomic stability supported by sound public finances. Economic growth has been strong and stable, increasing to around 5½% in recent years, but the average income level remains low at 33% of the EU-25 average in 2005. Therefore, the scope for catching up remains ample and represents Bulgaria's overriding challenge for the medium- and long-term. Employment has risen steadily, but while unemployment rates have been reduced considerably, employment rates remain below the EU average. Skills and geographical mismatches hamper labour market flexibility and there are increasing shortages especially in high-skilled segments of the labour market. Emigration and a drop in fertility rates have contributed to a rapid shrinking and ageing of the population. Average growth of labour productivity was fairly low over the period 1996-2005, but increased to close to 4% recently on the back of growing foreign and domestic investment. After the introduction of the currency board in 1997, inflation was reduced to single-digit figures by 1999, but the disinflation process has stalled in recent years. Very high credit growth and increasing external deficits – although related to very high inflows of FDI – have been a cause of concern for macroeconomic stability. A considerable degree of fiscal consolidation has been accomplished by running a general government budget close to balance or in surplus since 1998. The debt-to-GDP ratio has been reduced from over 100% to below 30%. Moreover, some steps have been taken to meet the challenges of demographic change for the pension system.

In view of this framework, Bulgaria is facing the following challenges:

*Stabilisation*

Bulgaria is a small open economy operating under a currency board. Fiscal policy therefore has to play a key role in safeguarding macroeconomic stability and adapting to external shocks. Restraining domestic demand growth and thus preventing a further increase in the external deficit remains a key challenge for public finances. Maintaining a tight fiscal policy stance would also preserve the room of manoeuvre for budgetary stabilisation in the case of external shocks and support efforts for further disinflation.

*Sustainability*

Demographic pressures have led to a substantial increase in expenditures on pensions and health. Some measures have already been taken to improve the long-term sustainability of the pension system. However, controlling the growth of pension and health care expenditures while improving the quality of services remains a challenge in view of a rapidly ageing and declining population.

*Efficiency*

Sustaining the convergence process in Bulgaria relies increasingly on raising total factor productivity, also in order to remain attractive for FDI. Improving the quality and efficiency of public spending with a view to promoting investments in human capital, public infrastructure and innovation, would therefore be important for strengthening Bulgaria's growth potential. Increasing employment rates and tackling mismatches in the labour market are also crucial to maintain high growth. In this respect, further reform of the tax-benefit system would enhance incentives for job creation and labour market participation.

**Table 1: Key economic indicators**

| | Bulgaria | | | | | | EU-10 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Averages | | | 2003 | 2004 | 2005 | Averages | | | 2003 | 2004 | 2005 |
| | '96 - '05 | '96 - '00 | '01 - '05 | | | | '96 - '05 | '96 - '00 | '01 - '05 | | | |
| **Economic activity** | | | | | | | | | | | | |
| Real GDP (% change) | 2.1 | -0.7 | 4.9 | 4.5 | 5.7 | 5.5 | 4.0 | 4.3 | 3.7 | 4.0 | 5.1 | 4.6 |
| Contributions to real GDP growth: | | | | | | | | | | | | |
| *Domestic demand* | 4.7 | 1.4 | 8.0 | 9.3 | 7.7 | 11.3 | 4.3 | 5.3 | 3.4 | 4.1 | 5.6 | 3.0 |
| *Net exports* | -2.5 | -2.0 | -3.0 | -4.9 | -1.9 | -5.7 | -0.3 | -1.0 | 0.4 | 0.0 | -0.5 | 1.6 |
| **Prices, costs and labour market** | | | | | | | | | | | | |
| HICP inflation (% change) | n.a. | n.a. | 5.3 | 2.3 | 6.1 | 5.0 | n.a. | n.a. | 3.3 | 1.9 | 4.1 | 2.5 |
| Labour productivity (% change) | 2.1 | 1.3 | 2.9 | -1.7 | 3.4 | 3.9 | 4.2 | 4.6 | 3.7 | 4.3 | 4.5 | 2.9 |
| Real unit labour costs (% change) | -1.3 | -2.2 | -0.5 | 0.4 | -1.7 | 1.5 | -0.8 | -0.6 | -1.0 | -0.7 | -2.5 | -1.8 |
| Employment (% change) | 0.1 | -1.9 | 2.0 | 6.3 | 2.2 | 1.5 | -0.1 | -0.3 | 0.0 | -0.2 | 0.6 | 1.7 |
| Unemployment rate (% of labour force) | 13.4 | 12.2 | 14.7 | 13.7 | 12.0 | 10.1 | 12.8 | 11.3 | 14.2 | 14.3 | 14.2 | 13.4 |
| **Competitiveness and external position** | | | | | | | | | | | | |
| Real effective exchange rate (% change) (1) | 1.8 | 0.9 | 2.7 | 3.6 | 2.0 | 1.8 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Export performance (% change) (2) | 1.2 | -2.6 | 4.9 | 1.7 | 3.1 | 1.4 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| External balance (% of GDP) | n.a. | n.a. | n.a. | n.a. | -5.6 | -11.3 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Public finances** | | | | | | | | | | | | |
| General government balance (% of GDP) | n.a. | n.a. | n.a. | 0.3 | 2.7 | 2.4 | n.a. | n.a. | -4.2 | -5.1 | -3.7 | -3.3 |
| General government debt (% of GDP) | n.a. | n.a. | n.a. | 46.0 | 38.4 | 29.8 | 38.0 | 35.8 | 40.1 | 39.9 | 43.4 | 41.3 |
| Structural budget balance (% of GDP) (3) | n.a. | n.a. | n.a. | 0.0 | 2.3 | 2.1 | n.a. | n.a. | n.a. | -4.5 | -3.4 | -3.0 |
| **Financial indicators (4)** | | | | | | | | | | | | |
| Long term real interest rate (%) (5) | n.a. | n.a. | n.a. | 4.0 | 0.4 | 0.0 | n.a. | n.a. | n.a. | 3.5 | 2.2 | 2.2 |
| Household debt (% of GDP) (6) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Corporate sector debt (% of GDP) (7) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Notes:

More detailed tables summarising the economic performance of the country are included in Annex 4.

(1) Unit labour costs relative to rest of a group of industrialised countries (USD): EU24 (=EU25 excl. LU), BG, RO, TR, CH, NR, US, CA, JP, AU, MX and NZ.

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

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

(4) Data available up to 2004.

(5) Using GDP deflator.

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

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

*Source* :

*Commission services*

## 3. MACROECONOMIC OUTLOOK

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

### 3.1. External assumptions

The external assumptions underlying the macroeconomic scenario of the programme are broadly in line with the Commission services' autumn 2006 forecast. However, world GDP growth is expected to reach around 3% on average in 2006-2009, which is significantly lower than the growth rate of above 5% assumed in the Commission services' forecast. In line with Commission services' projections, EU GDP growth is expected to reach 2.8% in 2006 and to drop to 2.4% from 2007 onward. Short-term interest rates are projected to increase gradually from around 3% in 2006 to close to 4% in 2009. Oil prices are expected to increase from around 65 USD/barrel in 2006 to around 69 USD/barrel from 2007, which is slightly above the Commission services' assumptions.

### 3.2. Economic activity

Real GDP growth is projected to increase slightly from 5.9% in 2006 to 6.1% on average over the rest of the programme period. Real GDP growth would thus remain close to but still below potential, which is projected to increase significantly mainly as a result of very strong capital accumulation in recent years.

The programme foresees that as in previous years economic growth would be mainly driven by domestic demand. Private consumption growth would increase from around 6% per year in 2006 to 7% in 2008 and then decrease slightly to around 6½% in 2009. Gross fixed capital formation would continue to show robust growth and remain an increasingly important driver of economic activity, only gradually decelerating from over 18% in 2006 to close to 10% in 2009. Exports of goods and services are projected to grow at around 11% throughout the programme period, whereas the growth of imports would decrease gradually from 12½% in 2006 to 11½% in 2009. Consequently, the negative contribution of net exports to growth would decline by around one percentage point over the programme period.

Following very high rates of credit growth, close to 50% in 2003 and 2004, the Bulgarian National Bank introduced quantitative restrictions on the growth of credit portfolios of commercial banks with additional minimum reserve requirements being imposed if these limits were not respected. As a result, credit growth slowed to around 24½% year-on-year until the end of 2006. However, in view of the increasing ineffectiveness of these measures, the Bulgarian National Bank decided in October 2006 to lift these restrictions as from 1 January 2007, which could imply a certain re-acceleration of credit growth.

The growth scenario in the programme appears plausible. Projections for 2006-08 are close to the Commission services' autumn forecast. Beyond 2008, the projected real GDP growth would remain in line with potential growth as calculated according to the commonly agreed methodology. Regarding GDP components, the programme projects somewhat stronger growth of private consumption and investment in 2007 than the Commission services' autumn forecast. This would also be reflected in stronger import growth and a more negative contribution of net exports to GDP growth in 2007. For 2008, the programme foresees a certain deceleration of investment with an associated decrease in the growth of imports, whereas the Commission services' forecast expects a stronger persistence of investment and import growth reflecting a more gradual absorption of EU Structural Funds.

Cyclical conditions as measured by the output gap recalculated on the basis of the data provided in the programme using the commonly agreed method show a steady decline in the output gap, which would turn slightly negative in 2007 and decrease to -1% of potential GDP by 2009.[6] This is only slightly below the output gaps implied by the Commission services' forecast, which projects slightly higher real GDP growth and slightly lower potential growth in 2007. The decline in the output gap is the result of a strong increase in potential growth because of very strong capital accumulation in recent years. Real GDP growth would also increase but less than potential growth as the negative contribution from net exports would remain high.

**Table 2: Comparison of macroeconomic developments and forecasts**

| | 2006 | | 2007 | | 2008 | | 2009 |
|---|---|---|---|---|---|---|---|
| | COM | CP | COM | CP | COM | CP | CP |
| Real GDP (% change) | 6.0 | 5.9 | 6.0 | 5.9 | 6.2 | 6.2 | 6.1 |
| Private consumption (% change) | 6.0 | 6.2 | 6.5 | 6.9 | 7.0 | 7.1 | 6.6 |
| Gross fixed capital formation (% change) | 17.5 | 18.3 | 14.0 | 16.8 | 14.0 | 12.7 | 10.2 |
| Exports of goods and services (% change) | 12.6 | 10.2 | 11.2 | 11.7 | 11.0 | 10.8 | 10.9 |
| Imports of goods and services (% change) | 13.5 | 12.5 | 11.6 | 12.7 | 11.8 | 11.9 | 11.5 |
| *Contributions:* | | | | | | | |
| - Final domestic demand | 8.8 | 9.0 | 8.8 | 10.2 | 9.3 | 9.7 | 8.7 |
| - Change in inventories | 0.5 | 0.3 | 0.1 | -1.1 | 0.1 | -0.6 | 0.0 |
| - External balance on g&s | -2.8 | -3.5 | -2.4 | -3.1 | -2.7 | -3.0 | -2.6 |
| Output gap[1] | 0.3 | 0.1 | -0.1 | -0.4 | -0.5 | -0.8 | -1.0 |
| Employment (% change) | 1.2 | 2.6 | 1.0 | 0.8 | 0.8 | 0.6 | 0.2 |
| Unemployment rate (%) | 8.9 | 9.0 | 7.7 | 8.6 | 7.0 | 8.3 | 8.0 |
| Labour productivity growth (%) | 4.7 | 3.2 | 4.9 | 5.1 | 5.4 | 5.5 | 5.9 |
| HICP inflation (%) | 7.0 | 7.4 | 3.5 | 4.0 | 3.8 | 3.0 | 3.0 |
| GDP deflator (% change) | 6.7 | 6.6 | 3.5 | 3.8 | 4.4 | 2.8 | 2.9 |
| Comp. of employees (% change) | 11.5 | 10.6 | 10.9 | 9.5 | 11.2 | 8.7 | 9.0 |
| Real unit labour costs (% change) | -1.4 | -2.3 | 1.1 | -0.4 | 0.3 | -0.4 | -0.2 |
| External balance (% of GDP) | -13.9 | -14.1 | -13.5 | -13.6 | -12.4 | -12.8 | -12.4 |

Note:

[1]In percent of potential GDP, with potential GDP growth as reported in Table 3 below.

Source :

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

### 3.3. Potential growth and its determinants

Potential GDP growth, as recalculated by the Commission services according to the commonly agreed methodology based on information in the programme, and its

[6] Given the very short time series and the various structural breaks in the Bulgarian economy over the last ten years, these calculations have to be interpreted, though, with a considerable degree of caution.

decomposition into different sources of potential output growth are almost identical to the Commission services' autumn 2006 forecast (see Table 3). It is clearly above the average GDP growth and also average potential growth in recent years.

The increase in potential output growth is almost exclusively driven by a higher contribution from capital accumulation, which would rise by almost 1 percentage point between 2005 and 2009. This continues the trend observed for some time, with very strong gross fixed investment boosting potential output especially since 2005. The contribution from labour input would decrease slightly until 2008 and then drop significantly in 2009. This reflects a significant decline in employment growth as the secular decrease in the labour force is less and less compensated by increases in the participation rate. The contribution of TFP would increase slightly reflecting further efficiency gains from ongoing enterprise restructuring.

**Table 3: Sources of potential output growth**

| | 2006 | | 2007 | | 2008 | | 2009 |
|---|---|---|---|---|---|---|---|
| | COM | CP[2] | COM | CP[2] | COM | CP[2] | CP[2] |
| Potential GDP growth[1] | 6.3 | 6.3 | 6.4 | 6.5 | 6.7 | 6.6 | 6.3 |
| *Contributions:* | | | | | | | |
| - Labour | 1.1 | 1.2 | 0.9 | 0.9 | 1.0 | 0.9 | 0.5 |
| - Capital accumulation | 2.9 | 2.9 | 3.1 | 3.3 | 3.3 | 3.4 | 3.4 |
| - TFP | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 |

Notes:
[1]Based on the production function method for calculating potential output growth
[2]Commission services' calculations on the basis of the information in the programme
*Source* :
*Commission services' autumn 2006 economic forecasts (COM); Commission services' calculations*

### 3.4. Labour market developments

Employment growth is projected in the programme to reach slightly above 1% on average, but the growth rate declines considerably to just ¼% in 2009. Projections until 2008 are largely in line with the Commission services' autumn forecast and reflect a steady decline in the labour force which is, however, more than compensated by an increase in participation rates and a reduction in unemployment. The labour content of GDP growth would decline considerably over the programme period, while labour productivity growth would increase significantly to close to 6% in 2009 in line with ongoing capital accumulation and economic restructuring. The widening negative output gap implied by Commission services' calculations applying the commonly agreed method is not expected to be accompanied by an increase in the unemployment rate. The programme projects that unemployment would fall further, although at a decreasing rate. The expected reduction in the unemployment rate is lower than in the Commission services' forecast, reflecting somewhat more optimistic assumptions on the increase in participation rates by national authorities.

### 3.5. Costs and price developments

Average HICP inflation increased to 7¼% in 2006. This was mainly due to higher oil prices in the first half of the year and a substantial increase in excise duties on alcohol and tobacco as part of the harmonisation with EU minimum tax rates. With much lower increases in indirect taxes and administered prices foreseen in the coming years, HICP inflation is projected in the programme to decrease to 4.0% in 2007 and 3.0% in 2008 and 2009. These projections are higher in 2007 and lower in 2008 than in the Commission services' autumn forecast. This difference can partly be explained by a slight increase in certain excise duties in 2007 instead of 2008, which was decided after the cut-off date of the autumn forecast.

Nominal wages are projected in the programme to increase by around 9½% on average in 2006-2009. With productivity gains of around 5% on average over the programme period, nominal unit labour costs would thus increase by around 4½%. This is roughly in line with the projected inflation and real unit labour costs would thus remain more or less constant.

## 3.6. Sectoral balances

The programme projects the external deficit (net borrowing vis-à-vis the rest of the world) to increase to 14% of GDP, up from 11¼% in 2005. This increase is expected to be due to a further increase in the trade deficit (up by around 1% of GDP), a decrease in the surplus of the services balance by around 1% of GDP, and lower net incomes abroad of close to 1% of GDP. The decline in net incomes from abroad is mainly linked to increasing dividend payments as a result of very high FDI inflows in recent years. Although the growth of merchandise exports has outpaced imports in 2006, this was insufficient to close the gap in the trade balance and the programme actually projects a further increase in the trade deficit compared to 2005. The actual outcome for the external deficit in 2006 has been an increase to 16% of GDP, due to a higher than expected increase in the trade deficit (up by 2% of GDP instead of 1% of GDP) and a reduction of current transfers of 1% of GDP. The widening of the external deficit in 2006 has occurred despite a further increase in the general government surplus, indicating that domestic savings remain insufficient to finance rapidly accelerating investments. Similar to previous years, the financing of the external deficit has been fully ensured through FDI inflows.

As from 2007, the programme projects a slow but steady decrease in the external deficit to 12½% of GDP in 2009, mainly as a result of increased transfers from the EU, while the general government surplus would actually decline and investments would remain strong. These projections are broadly in line with the Commission services' autumn 2006 forecast, but may be too optimistic in view of the actual outcome for 2006.

## 3.7. Assessment

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

### *3.7.1. Plausibility of the macroeconomic scenario*

The programme's economic outlook is broadly in line with the Commission services' autumn 2006 forecast and – beyond 2008 – with the Commission services' estimate of potential GDP growth. There are only minor differences regarding the composition of growth and the macroeconomic assumptions are plausible.

According to the programme, real GDP growth will remain strong and actually increase further over the programme period, boosted by robust private consumption and particularly high investment growth. Unemployment is projected to decrease further and inflation to come down to below 4% in the absence of major increases in administered prices or indirect taxes. The external deficit would, however, remain high and the negative contribution of net exports to growth would decline only slightly over the programme period. In view of the actual outcome in 2006, the external deficit is likely to remain higher than projected throughout the programme period.

#### *3.7.2. Economic good vs. bad times*

Commission services' calculations show a small negative output gap as from 2007, mainly as a result of very strong growth of gross fixed capital formation with an associated increase in potential growth. The relatively short time series and pervasive structural breaks in Bulgaria's recent economic history call, however, for considerable caution in interpreting these results. Economic growth has been fairly stable and close to potential between 4½% and 5½% since 2001 and is projected to increase noticeably over the programme period, going hand in hand with a very high and persistent external deficit. Unemployment has been reduced significantly and is expected to drop further. Credit growth has been very high, with a recent deceleration linked primarily to the imposition of de-facto credit ceilings which have, however, been lifted again in 2007. Consequently, the macroeconomic outlook would qualify as economic good times throughout the programme period.

## 4. GENERAL GOVERNMENT BALANCE

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

### 4.1. Budgetary implementation in 2006

For 2006, the programme projects a general government surplus of 3.2% of GDP, which is substantially higher than the balanced budget position envisaged in the December 2005 Pre-accession Economic Programme (PEP) but in line with the Commission services' autumn forecast. Compared to the initial projections, expenditures are expected to be lower by 1% of GDP, reflecting mainly lower primary current expenditures.[7] The larger part of the budget over-performance (2¼% of GDP) results, however, from higher than projected revenues, which is due to very conservative initial revenue forecasts, higher than expected output growth, and improved revenue compliance and collection.

Compared to the 2005 fiscal outcome, the general government surplus is projected to increase in 2006 by over ¾% of GDP in nominal terms and just over 1% of GDP in

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[7] The differences in the historical revenue- and expenditure-to-GDP ratios between the programme and the Commission services' autumn forecast reflect the fact that Bulgaria has not yet transmitted a complete set of consistent government expenditure and revenue data according to ESA95 to Eurostat. Moreover, the Commission services' autumn forecast takes into account that only part of Bulgaria's contribution to the EU is booked as government expenditures and that part of the VAT revenues actually accrue to the EU. This is not the case in the programme, which partly explains (from 2006 onward) that both expenditure- and revenue-to-GDP ratios are higher than in the Commission services' forecast.

cyclically-adjusted terms (see Table 6 below). This would be due to a reduction in expenditures by close to 2% of GDP, with primary current expenditures cut by 2½% of GDP (more than half of which is due to lower subsidies and a reduction in the public sector wage bill), interest payments declining by almost ¼% of GDP and capital spending going up by almost 1% of GDP. In contrast, revenues are projected to decline by around 1% of GDP, reflecting reductions in pension contributions and in the personal income tax.

**Table 4: Evolution of budgetary targets in successive programmes**

| | | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| General government balance (% of GDP) | **CP Jan 2007** | **2.4** | **3.2** | **0.8** | **1.5** | **1.5** |
| | PEP Dec 2005 | 1.8 | 0 | -0.2 | -0.7 | n.a. |
| | COM Nov 2006 | 2.4 | 3.3 | 1.8 | 1.7 | n.a. |
| General government expenditure (% of GDP) | **CP Jan 2007** | **40.1** | **38.2** | **41** | **40.2** | **40.2** |
| | PEP Dec 2005 | 40.7 | 39.2 | 40.4 | 40.6 | n.a. |
| | COM Nov 2006 | 38.7 | 37.3 | 38.0 | 37.8 | n.a. |
| General government revenues (% of GDP) | **CP Jan 2007** | **42.4** | **41.5** | **41.8** | **41.8** | **41.7** |
| | PEP Dec 2005 | 42.5 | 39.2 | 40.1 | 39.9 | n.a. |
| | COM Nov 2006 | 41.1 | 40.6 | 39.7 | 39.5 | n.a. |
| Real GDP (% change) | **CP Jan 2007** | **5.5** | **5.9** | **5.9** | **6.2** | **6.1** |
| | PEP Dec 2005 | 5.7 | 5.7 | 5.9 | 5.9 | n.a. |
| | COM Nov 2006 | 5.5 | 6.0 | 6.0 | 6.2 | n.a. |

*Source:*
*Convergence programme (CP) Pre-accession economic programme (PEP), Commission services' autumn 2006 forecast (COM)*

### 4.2. The programme's medium-term budgetary strategy

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

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

The fiscal policy strategy as outlined in the programme aims at maintaining a general government surplus in the range of 0.8% of GDP in 2007 to 1.5% of GDP by the end of the programme period in order to safeguard macroeconomic stability and sustainability of public finances while providing flexibility for reacting to potential exogenous shocks, containing external imbalances and creating the pre-conditions for economic growth and competitiveness.

After a fiscal tightening of close to 1% of GDP in 2006, with the general government surplus increasing from 2.4% of GDP in 2005 to 3.2% of GDP in 2006, a strong fiscal expansion is envisaged in 2007. The general government surplus would attain 0.8% of GDP in 2007 and is then projected to rise again and stabilise at 1.5% of GDP in 2008 and 2009. The programme also emphasises, however, that in 2007 a higher surplus of about 2.0% of GDP would be targeted during the budget execution. This commitment to achieve a higher surplus than originally budgeted has also been underlined in an additional explanatory note provided by the Bulgarian authorities. Achieving such a higher surplus would rely mainly on provisions in the 2007 Budget Law making 10% of primary expenditures of most budget units contingent on an improvement in the current account deficit. This provision would be binding until a general government budget surplus of 2.0% of GDP is achieved.

With interest expenditures declining by around ¼% of GDP over the programme period, the decline in the primary balance between 2006 and 2009 would be more pronounced than the decline in the total budget balance. The primary surplus is thus projected to decline from 4½% of GDP in 2006 to 2¼% of GDP in 2007 before reverting to slightly higher values of around 2¾% of GDP in 2008 and 2009.

**Table 5: Composition of the budgetary adjustment**

| (% of GDP) | 2005 | 2006 | 2007 | 2008 | 2009 | Change: 2009-2006 |
|---|---|---|---|---|---|---|
| **Revenues** | 42.4 | 41.5 | 41.8 | 41.8 | 41.7 | **0.2** |
| *of which:* | | | | | | |
| - Taxes & social contributions | 35.9 | 34.0 | 34.3 | 34.1 | 33.7 | **-0.3** |
| - Other (residual) | 6.5 | 7.5 | 7.5 | 7.7 | 8.0 | **0.5** |
| **Expenditure** | 40.1 | 38.2 | 41.0 | 40.2 | 40.2 | **2.0** |
| *of which:* | | | | | | |
| - Primary expenditure | 38.5 | 36.8 | 39.6 | 38.9 | 39.0 | **2.2** |
| *of which:* | | | | | | |
| Consumption | 18.6 | 17.8 | 17.7 | 17.9 | 18.1 | **0.3** |
| Transfers other than in kind & subsidies | 14.0 | 13.1 | 13.3 | 13.8 | 13.7 | **0.6** |
| Gross fixed capital formation | 3.1 | 4.0 | 4.1 | 4.3 | 4.2 | **0.2** |
| Other (residual) | 2.8 | 1.9 | 4.5 | 2.9 | 3.0 | **1.1** |
| - Interest expenditure | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 | **-0.2** |
| **General government balance (GGB)** | **2.4** | **3.2** | **0.8** | **1.5** | **1.5** | **-1.7** |
| **Primary balance** | **4.0** | **4.6** | **2.2** | **2.8** | **2.7** | **-1.9** |
| One-offs[1] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **GGB excl. one-offs** | **2.4** | **3.2** | **0.8** | **1.5** | **1.5** | **-1.7** |

Note:
[1]One-off and other temporary measures.
Source :
*Convergence programme; Commission services' calculations*

Budgetary targets have been revised considerably upwards compared to the 2005 Pre-accession Economic Programme (PEP), partly reflecting a slightly more favourable macroeconomic scenario in 2006 and 2008. As mentioned above, the upward revision for 2006 is mainly due to substantially higher-than-expected revenues in view of very cautious initial revenue projections. For 2007, the programme now expects a much larger expansion than foreseen in the PEP, largely because of a much higher expected increase in expenditures (2¾% of GDP instead of 1¼% of GDP in the 2005 PEP). This would even be the case if the higher surplus of 2% of GDP mentioned above were achieved. For 2008, the expansion of ½% of GDP envisaged in the 2005 PEP would, however, be identical to the reduction from the higher surplus target of 2% of GDP in 2007 to the 1½% of GDP surplus target in 2008.

### *4.2.2. The composition of the budgetary adjustment*

The fiscal expansion over the programme period of around 1¾% of GDP would be almost exclusively expenditure-driven, and specifically by current primary expenditures. Total expenditures are projected to increase by 2% of GDP between 2006 and 2009, while total revenues would increase marginally by less than ¼% of GDP. Interest expenditures are projected to decline gradually by around ¼% of GDP over the programme period in line with the foreseen debt reduction. At the same time, capital expenditures would increase by an equivalent amount.

The expansion would occur exclusively in 2007, with expenditures budgeted to increase by 2¾% of GDP. In 2008, the expansion would be partly reversed with expenditures expected to fall again by ¾% of GDP. Budget measures for 2007 are explained in detail in the programme and the foreseen increase in expenditures is to a large extent linked to accession-related changes. The projected increase in expenditures in 2007 would come mainly from ‘other expenditures’ (+2½% of GDP) and subsidies (+½% of GDP). The increase in ‘other expenditures’ in 2007 reflects Bulgaria’s contribution to the EU (1¼% of GDP), higher ‘other current expenditures’ (1% of GDP), and an increase in expenditures of the ‘National Fund’ (¼ % of GDP). This fund is responsible for the financing of projects under the EU Structural Funds. Its expenditures would therefore have to be considered mainly as capital expenditures and would be fully covered by additional revenue from EU grants. According to the programme, the increase in subsidies over the programme period reflects increasing payments to the agricultural sector, partly because of national top-up payments to farmers under the common agricultural policy (CAP) and partly because of increased spending on rural development programmes.

On the revenue side, a number of tax cuts are envisaged in 2007, which according to the programme would, however, be fully compensated by improved tax compliance, a slight increase in some excise duties, and – to some extent – higher EU grants. The revenue-to-GDP ratio would therefore not be affected and actually increase slightly in 2007.

No new policy measures are envisaged in the programme for 2008 and 2009, except for some further minor increases in excise duties linked to the ongoing harmonisation with EU rates. The reduction of expenditures in 2008 is therefore not sufficiently explained by policy measures in the programme. In an additional explanatory note, the Bulgarian authorities underline, however, that if a higher surplus of 2% of GDP is achieved in 2007 as a result of lower-than-budgeted expenditures, the further decrease of the general government surplus by ½% of GDP in 2008 would be due to higher capital expenditures linked to an increased absorption of EU funds and an associated increase in co-financing expenditures. This increase could be limited, if investment projects financed under the EU Structural Funds were fully aligned with national priorities for infrastructure investments.

No policy measures are envisaged in 2009 and accordingly no significant changes in expenditures or revenues are foreseen that year.

**Box 2: The budget for 2007**

The 2007 budget was adopted by Parliament on 19 December 2006. It targets a general government surplus of 0.8% of GDP, but makes 10% of primary current expenditures of the major spending units contingent on an improvement in the current account deficit.

On the revenue side, the budget envisages a reduction of the corporate income tax rate from 15% to 10%, an increase in the tax-free income under the personal income tax, and an increase in certain excise duties. A reduction in pension contributions by 3 percentage points is envisaged as an option from 1 July, provided that this does not affect the achievement of the surplus target in the budget.

On the expenditure side, pension increases are indexed at 8.5% from 1 July, which would remain below nominal GDP growth, while public sector wages are budgeted to increase by 10% on 1 July in line with nominal GDP growth.

| Table: Main measures in the budget for 2007 | |
|---|---|
| **Revenue measures*** | **Expenditure measures**** |
| ○ Reduction of corporate income tax rate from 15% to 10% (- ½% of GDP)<br>○ Increase in the tax-free income under the personal income tax (- ¼% of GDP)<br>○ Increase in excise rates on certain fuels and introduction of excise duties on coke, coal and electricity (+ ¼% of GDP) | ○ Indexation of pensions by 8.5% from 1 July 2007 |

* Estimated impact on general government revenues.
** Estimated impact on general government expenditure.
*Sources*: Commission services, January 2007 Convergence Programme.

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

The programme defines the medium-term objective (MTO) as a balanced cyclically-adjusted budget, which in the absence of one-off measures is equivalent to a balanced budget in structural terms. The MTO would be maintained by a large margin throughout the programme period.

The MTO is at an appropriate level as it provides a safety margin with respect to the 3% of GDP deficit limit. The minimum benchmark (which is the estimated budgetary position in cyclically-adjusted terms that provides a sufficient safety margin for automatic stabilisers to operate freely during normal economic downturns without breaching the 3% of GDP deficit reference value) has been estimated as a cyclically-adjusted deficit of 1¼% of GDP for Bulgaria. The MTO is more demanding than implied by the debt ratio and average potential growth in the long run.

**Box 3: The medium-term objective (MTO) for the budgetary position**

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

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

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

**Table 6: Output gaps and cyclically-adjusted and structural balances**

| % of GDP | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | Change: 2009-2006 |
|---|---|---|---|---|---|---|---|---|---|---|
| | COM | CP[1] | COM | CP[1] | COM | CP[1] | COM | CP[1] | CP[1] | CP[1] |
| Gen. gov't balance | 2.4 | 2.4 | 3.3 | 3.2 | 1.8 | 0.8 | 1.7 | 1.5 | 1.5 | -1.7 |
| One-offs[2] | - | - | - | - | - | - | - | - | - | - |
| Output gap[3] | 0.5 | 0.5 | 0.3 | 0.1 | -0.1 | -0.4 | -0.5 | -0.8 | -1.0 | -1.1 |
| CAB[4] | 2.1 | 2.1 | 3.2 | 3.2 | 1.8 | 1.0 | 1.9 | 1.9 | 2.0 | -1.2 |
| *change in CAB* | : | : | 1.1 | 1.1 | -1.4 | -2.2 | 0.1 | 0.9 | 0.1 | : |
| CAPB[4] | 3.7 | 3.7 | 4.6 | 4.6 | 3.0 | 2.4 | 2.9 | 3.2 | 3.2 | -1.4 |
| Structural balance[5] | 2.1 | 2.1 | 3.2 | 3.2 | 1.8 | 1.0 | 1.9 | 1.9 | 2.0 | -1.2 |
| *change in struct. bal.* | : | : | 1.1 | 1.1 | -1.4 | -2.2 | 0.1 | 0.9 | 0.1 | : |
| Struct. prim. bal.[6] | 3.7 | 3.7 | 3.2 | 4.6 | 3.0 | 2.4 | 2.9 | 3.2 | 3.2 | -1.4 |

Notes:

[1]Output gaps and cyclical adjustment according to the convergence programme (CP) as recalculated by Commission
[2]One-off and other temporary measures. See Table 5 above.
[3]In percent of potential GDP. See Table 2 above.
[4]CAB = cyclically-adjusted balance; CAPB = cyclically-adjusted primary balance.
[5]CAB excluding one-off and other temporary measures
[6]Structural primary balance = CAPB excluding one-off and other temporary measures

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

The structural balance, based on a recalculation of the output gap by the Commission services on the basis of the programme according to the commonly agreed methodology, is projected to decrease by 1¼% of GDP over the programme period from a surplus of 3¼% of GDP in 2006 to a surplus of 2% of GDP in 2009. According to the plans presented in the programme, the structural balance would show some marked fluctuation, with a strong decrease of 2¼% in 2007 and an increase of around 1% of GDP in 2008, remaining more or less unchanged in 2009. If a higher nominal surplus of 2% of GDP is achieved in 2007 during the budget execution, as outlined as a target in the programme, the adjustment path would be much smoother and more in line with the projections in the Commission services' autumn forecast. In this case, the decrease in the structural surplus in 2007 would be limited to around 1% of GDP, with a further decrease of around ¼% of GDP in 2008. In both scenarios, the fiscal stance would be strongly expansionary in 2007. However, while in the first scenario it would be restrictive in 2008 and neutral in 2009, in the second it would be broadly neutral in both years.

### 4.3. Risk assessment

This section discusses the plausibility of the programme's budgetary projections by analysing various risk factors. For the period until 2008, Table 7 compares the detailed revenue and expenditure projections in the Commission services' autumn 2006 forecast, which are derived under a no-policy change scenario, with those in the programme.

**Table 7: Comparison of budgetary developments and projections**

| (% of GDP) | 2005 | 2006 | | 2007 | | 2008 | | 2009 |
|---|---|---|---|---|---|---|---|---|
| | | COM | CP | COM | CP | COM[1] | CP | CP |
| **Revenues** | 41.1 | 40.6 | 41.5 | 39.7 | 41.8 | 39.5 | 41.8 | 41.7 |
| *of which:* | | | | | | | | |
| - Taxes & social contributions | 35.9 | 35.4 | 34.0 | 34.7 | 34.3 | 34.7 | 34.1 | 33.7 |
| - Other (residual) | 5.1 | 5.1 | 7.5 | 5.0 | 7.5 | 4.8 | 7.7 | 8.0 |
| **Expenditure** | 38.7 | 37.3 | 38.2 | 38.0 | 41.0 | 37.8 | 40.2 | 40.2 |
| *of which:* | | | | | | | | |
| - Primary expenditure | 37.1 | 35.9 | 36.8 | 36.8 | 39.6 | 36.8 | 38.9 | 39.0 |
| *of which:* | | | | | | | | |
| Consumption | 19.1 | 18.3 | 17.8 | 17.9 | 17.7 | 17.5 | 17.9 | 18.1 |
| Transfers other than in kind & subsidies | 13.2 | 12.4 | 13.1 | 12.2 | 13.3 | 12.0 | 13.8 | 13.7 |
| Gross fixed capital formation | 3.1 | 3.8 | 4.0 | 4.5 | 4.1 | 5.2 | 4.3 | 4.2 |
| Other (residual) | 1.7 | 1.4 | 1.9 | 2.2 | 4.5 | 2.1 | 2.9 | 3.0 |
| - Interest expenditure | 1.6 | 1.4 | 1.4 | 1.2 | 1.4 | 1.0 | 1.3 | 1.2 |
| **GGB[2]** | 2.4 | 3.3 | 3.2 | 1.8 | 0.8 | 1.7 | 1.5 | 1.5 |
| **Primary balance** | 3.9 | 4.7 | 4.6 | 2.9 | 2.2 | 2.7 | 2.8 | 2.7 |
| One-offs | - | - | - | - | - | - | - | - |
| **GGB[2] excl. one-offs** | 2.4 | 3.3 | 3.2 | 1.8 | 0.8 | 1.7 | 1.5 | 1.5 |

Notes:
[1]On a no-policy change basis.
[2]General government balance
Source :
*Commission services' autumn 2006 economic forecast (COM); Convergence programme (CP); Commission services' calculations*

The macroeconomic scenario underlying the programme appears plausible and is in line with recent trends as well as the Commission services' autumn forecast (see Section 3). Macroeconomic risks for budgetary developments should therefore be limited.

The programme provides sufficient and adequate information on the measures foreseen in 2007. No new policy measures are envisaged for 2008 and 2009. The reduction in expenditures in 2008, assumed in the programme to fall entirely on "other expenditures", is thus insufficiently explained. If, however, the 2% of GDP surplus target for 2007 is realised, a reduction of the surplus in 2008 would be consistent with a further increase in spending on Structural Fund projects and subsidies on agriculture.

The programme does not rely on any one-off measures to achieve the budgetary targets. Regarding tax projections, the programme is more optimistic for 2007 than the Commission services' autumn 2006 forecast (see Table 8), while it is broadly consistent with Commission services' projections for 2008. The differences in 2007 are almost exclusively due to different assumptions about the impact of discretionary measures, while assumptions about the composition of growth and the tax-richness of growth are very similar (see also Table Annex 5 for details). Specifically, the programme assumes that the tax cuts on corporate income tax and personal income tax in 2007 would have hardly any effect on tax revenue and that the tax-to-GDP ratio of these two taxes would actually increase. In the programme, this is explained by better tax compliance and collection resulting from a further reduction of the informal sector and from more efficient tax administration as the National Revenue Agency which was established only in 2006 would operate more smoothly. Judging from the experience with the reduction in pension contributions in 2006, improved tax compliance does indeed mitigate the effects of tax cuts, but is unlikely to fully off-set them. Regarding VAT, the programme acknowledges that changes to the collection of VAT on imports from EU Member States after accession could lead to a substantial revenue shortfall of close to 1% of GDP. The programme also highlights that the risk of tax evasion on VAT could increase with accession, although this effect is not quantified. Moreover, the adoption of the common customs tariff of the EU would imply a further reduction in revenues which is quantified in the programme at more than ¼% of GDP. This combined shortfall on indirect taxes would be partly compensated by higher excise duties and possibly by improved tax collection rates. But this will probably not be sufficient to generate an increase in the tax-to-GDP ratio on taxes on production and imports as anticipated by the programme. Therefore, the assumptions in the programme on tax revenues in 2007 have to be considered to be on the optimistic side and could entail certain risks for budgetary outcomes in 2007. For 2008 and 2009, tax revenue projections appear plausible.

Regarding the expenditure side, the projections in the programme for 2007 appear to be on the high side. The anticipated increase in expenditures in 2007 of 2¾% of GDP is far above the increase of ¾% of GDP projected in the Commission services' autumn forecast. This reflects in particular i) lower projections on Bulgaria's contribution to the EU (which would partly consist not of expenditures but in a re-allocation of VAT revenues to the EU), and ii) lower projections on consumption expenditures, other current expenditures and subsidies. As outlined in the programme, the 2007 Budget Law foresees that 10% of the budgeted primary current expenditures in 2007 are contingent on a reduction in the current account deficit. A similar rule had been applied in 2006 and was fully implemented, resulting in a much better budgetary outcome than originally foreseen in the budget. Therefore, the aim of achieving a higher surplus in the budget execution phase does not appear unrealistic, implying a clear upward risk to the budgetary outcome.

As highlighted in Figure 7 and Table 4 above, better-than-planned budgetary outcomes have been a recurrent pattern in Bulgaria, reflecting traditionally very conservative revenue projections during the budget preparation phase and the inclusion of special clauses in the Budget Law providing additional buffers on the expenditure side (including usually a special reserve in the budget to deal with unforeseen expenditures and provisions that make part of the overall expenditures contingent on meeting certain performance targets). While revenue projections for 2007 appear to be less conservative than has been the case in the past, buffers foreseen in the 2007 Budget Law on the expenditure side suggest that the pattern of budget over-performance will continue at least in 2007.

Summing up, the programme envisages a strong fiscal expansion in 2007 linked to a considerable increase in expenditures, which would partly be reversed in 2008. In view of the good track record with respect to the achievement of budgetary targets and also in view of provisions in the 2007 Budget Law for limiting expenditures during budget execution, a higher surplus for 2007 appears to be realistic even if revenue projections for 2007 could entail certain downside risks. Although no details are given on the adjustment strategy from 2008 onwards, the budgetary targets until the end of the programme period appear to be broadly plausible, provided that a better than currently projected budgetary outcome in 2007 is realised.

**Table 8: Assessment of tax projections**

| | 2007 | | | 2008 | | | 2009 |
|---|---|---|---|---|---|---|---|
| | **CP** | **COM** | **OECD**[3] | **CP** | **COM**[1] | **OECD**[3] | **CP** |
| Change in tax-to-GDP ratio (total taxes) | 0.3 | -0.8 | 1.1 | -0.2 | -0.1 | 0.9 | -0.4 |
| *Difference (CP – COM)* | 1.1 | | / | -0.1 | | / | / |
| *of which*[2] *:* | | | | | | | |
| *- discretionary and elasticity component* | 1.3 | | / | -0.2 | | / | / |
| *- composition component* | -0.1 | | / | 0.1 | | / | / |
| *Difference (COM - OECD)* | / | -1.9 | | / | -1.0 | | / |
| *of which*[2] *:* | | | | | | | |
| *- discretionary and elasticity component* | / | -2.2 | | / | -1.5 | | / |
| *- composition component* | / | 1.2 | | / | 1.0 | | / |
| p.m.: Elasticity to GDP | 1.1 | 0.8 | 1.4 | 0.9 | 1.0 | 1.4 | 0.9 |

Notes:

[1]On a no-policy change basis.

[2]The decomposition is explained in Annex 5.

[3]OECD ex-ante elasticity relative to GDP.

*Source* :

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

### 4.4. Assessment of the fiscal stance and budgetary strategy

The table below offers a summary assessment of the country's position relative to the budgetary requirements laid down in the Stability and Growth Pact. In order to highlight the role of the preceding analysis of the risks that are attached to the budgetary targets presented in the programme, this assessment is done in two stages: first, a preliminary assessment on the basis of the targets taken at face value is made (middle column) and, second, the final assessment that also takes into account risks (final column).

**Table 9: Overview of compliance with the Stability and Growth Pact**

| | **Based on programme**[3] (with targets taken at face value) | **Assessment** (taking into account risks to targets) |
|---|---|---|
| a. Safety margin against breaching 3% of GDP deficit limit[1] | throughout programme period | throughout programme period |
| b. Achievement of the MTO | throughout programme period | throughout programme period |
| c. Fiscal stance in line with Pact[2]? | not fully in line in 2007 | not fully in line in 2007 |

Notes:

[1]The risk of breaching the 3% of GDP deficit threshold with normal cyclical fluctuations, i.e. the existence of a safety margin, is assessed by comparing the cyclically-adjusted balance with the above mentioned minimum benchmark (estimated as a deficit of around 1¼% of GDP for Bulgaria). These benchmarks represent estimates and as such need to be interpreted with caution.

[2]According to the Stability and Growth Pact, countries which have already achieved their MTO should avoid pro-cyclical fiscal policies in "good times".

[3]Targets in structural terms as recalculated by Commission services on the basis of the information in the programme.

*Source*:

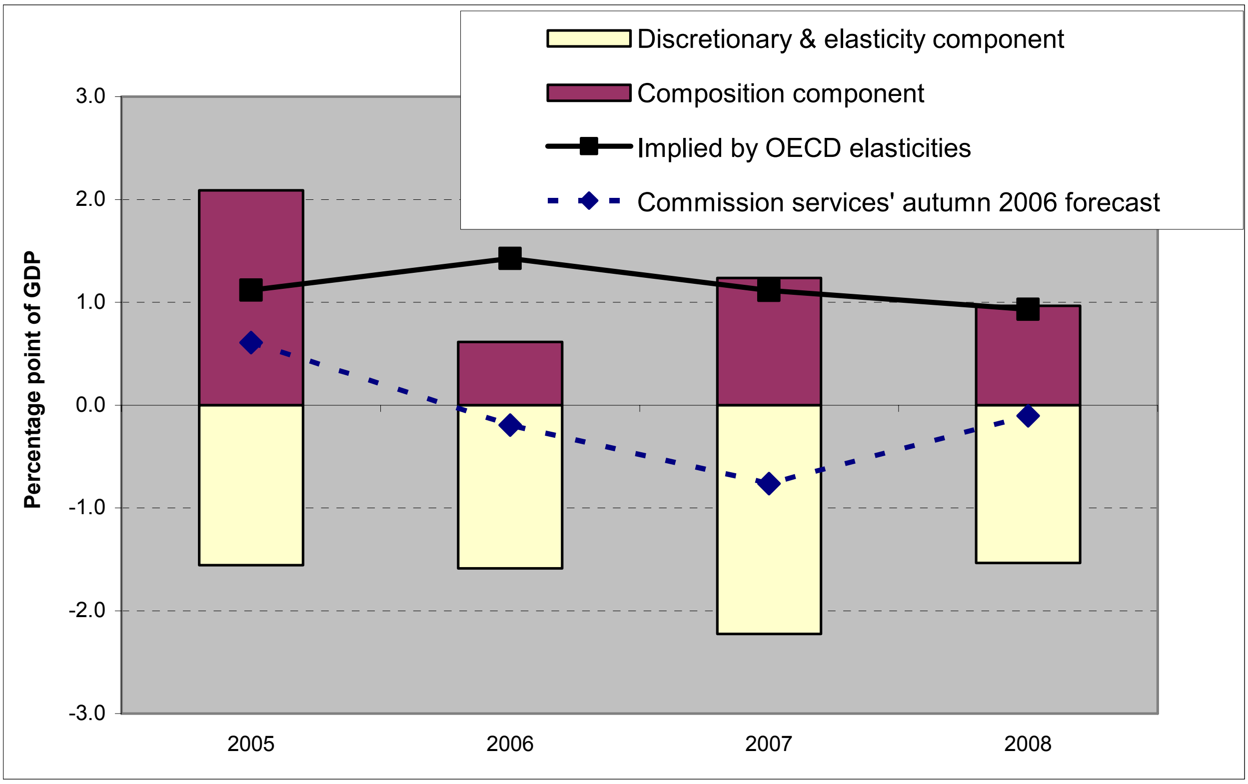
*Commission services*

Taking into account the assessment of risks, the budgetary stance in the programme implies that the MTO (a balanced budget in structural terms) is maintained by a large margin throughout the programme period.

In addition, the budgetary strategy provides a sufficient safety margin against breaching the 3% of GDP deficit threshold with normal macroeconomic fluctuations throughout the programme period. Taking into account the assessment of risks, the general government budget shows a structural surplus of above 1% of GDP over the whole programme period, which is well above the value of the minimum benchmark (a structural deficit of 1¼% of GDP).

The fiscal policy stance implied by the programme (taking into account the assessment of risks above) could turn out to be pro-cyclical in good times in 2007. This would not be fully in line with the Stability and Growth Pact. The analysis of economic good vs. bad times above (see Section 3.7.2) concluded that the macroeconomic outlook qualifies for economic good times throughout the programme period. This assessment is broadly confirmed by the analysis of tax elasticities. As shown in Figure 8, the reduction in the tax-to-GDP ratio projected in the Commission services' autumn forecast (in contrast to the increase that would be expected when applying the ex-ante OECD tax elasticities) is almost exclusively due to discretionary measures, in particular the tax cuts in 2007, and not to an unfavourable composition of growth, which remains relatively tax rich throughout the programme period. The planned loosening of fiscal policy in 2007 (by 2¼% of GDP according to the convergence programme and by 1½% according to the Commission services' autumn 2006 forecast – see Section 4.2.3) would thus constitute a pro-cyclical stance in good times. Moreover, the analysis of the fiscal stance above does not fully take into consideration the additional impact of the expected increase in net inflows from the EU on aggregate demand in 2007. The fiscal expansion in 2007 also clearly risks adding to existing macroeconomic imbalances and in particular to the already high external deficit.

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




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

*Source*:
*Commission services*

## 5. GOVERNMENT DEBT AND LONG-TERM SUSTAINABILITY

Government debt is the result of the financing needs of government over the years. It corresponds primarily to an accumulation of deficits, although the build-up of financial assets and other adjustments may also play a role.[8] The reform of the Stability and Growth Pact has raised attention to the crucial importance of government debt and of sustainability in fiscal surveillance.

This section is in two parts: a first part describes recent developments and the medium-term prospects for government gross debt; it describes the convergence programme's targets, compares them with the Commission services' forecasts and assesses the

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

associated risks. A second part looks into the government debt from a longer-term perspective with the aim of assessing the long-term sustainability of public finances.

## 5.1. Recent debt developments and medium-term prospects

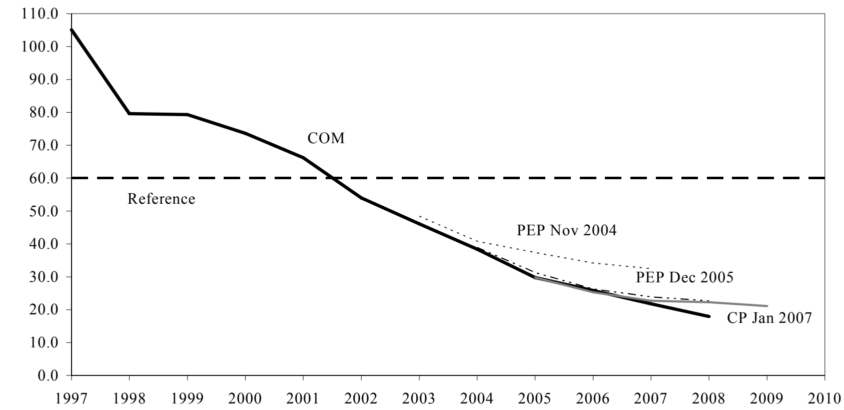
### *5.1.1. Debt projections in the programme*

Between 1997 and 2005, the debt-to-GDP ratio was reduced from over 100% to below 30%, in line with high primary surpluses, strong nominal GDP growth, increasing privatisation revenues and a revaluation of USD-denominated debt (see also Section 2.4). Besides the substantial reduction in the gross debt ratio, the Bulgarian government has accumulated a large stock of liquidities (in the form of a deposit with the central bank) since 1997. This so-called Fiscal Reserve Account serves as an additional safety net for the currency board, and ensures the service of foreign debt (principal to be reimbursed and interest) for at least one year. At the end of 2006, the Fiscal Reserve Account amounted to close to 11% of GDP. This ratio has remained relatively stable over recent years, as accumulated reserves have repeatedly been used for early debt redemption to international financial institutions.

The programme projects a further decline in the debt-to-GDP ratio over the programme period from 25.8% in 2006 to 21.1% in 2009. For 2006-2008, the projections are slightly lower than those in the 2005 pre-accession economic programme (PEP). Projections are broadly in line with the Commission services' autumn 2006 forecast.

A relatively large primary surplus and nominal GDP growth exceeding the interest rate will be the main factors driving the further debt reduction in 2006-2009. Positive stock flow-adjustments reflecting an accumulation of financial assets, which is not fully explained in the programme, are, however, projected to slow down the reduction in the debt-to-GDP ratio over the programme period. This stands in contrast to the period until 2005, when stock-flow adjustments made a major contribution to debt reduction by 2.2% of GDP in 2005 and 4.0% of GDP on average in the previous three years. These stock-flow adjustments in the past were mainly linked to privatisation and – prior to 2005 – to a reduction in the value of foreign debt due to the depreciation of the US dollar, with USD-denominated debt amounting to over 40% of the total debt at the end of 2003. Since then, the share of USD-denominated debt has steadily decreased to 25% at the end of 2005.

## Figure 9: Debt projections in pre-accession economic programmes and in the convergence programme (% of GDP)




Note: PEP = pre-accession economic programme.
*Source : Commission services' autumn 2006 forecast (COM) and successive pre-accession and convergence programmes*

## Table 10: Debt dynamics

| (% of GDP) | average 2002-04 | 2005 | 2006 | | 2007 | | 2008 | | 2009 |
|---|---|---|---|---|---|---|---|---|---|
| | | | **COM** | **CP** | **COM** | **CP** | **COM** | **CP** | **CP** |
| **Gross debt ratio[1]** | **38.4** | **29.8** | **25.8** | **25.3** | **21.8** | **22.7** | **17.9** | **22.3** | **21.1** |
| Change in the ratio | -9.1 | -8.7 | -3.9 | -4.5 | -4.0 | -2.6 | -3.8 | -0.4 | -1.2 |
| *Contributions [2] :* | | | | | | | | | |
| Primary balance | -2.8 | -4.7 | -4.7 | -4.6 | -2.9 | -2.2 | -2.7 | -2.8 | -2.7 |
| "Snow-ball" effect | -2.4 | -1.8 | -2.1 | -2.0 | -1.1 | -0.9 | -1.2 | -0.6 | -0.7 |
| *Of which:* | | | | | | | | | |
| Interest expenditure | 2.1 | 1.6 | 1.4 | 1.4 | 1.2 | 1.4 | 1.0 | 1.3 | 1.2 |
| *Growth effect* | -2.5 | -1.9 | -1.6 | -1.6 | -1.4 | -1.4 | -1.2 | -1.3 | -1.3 |
| *Inflation* | -1.9 | -1.4 | -1.9 | -1.8 | -0.9 | -0.9 | -0.9 | -0.6 | -0.6 |
| Stock-flow adjustment | -4.0 | -2.2 | 2.8 | 2.2 | 0.0 | 0.5 | 0.0 | 3.0 | 2.2 |
| *Of which:* | | | | | | | | | |
| Cash/accruals diff. | 0.2 | 0.0 | - | - | - | - | - | - | - |
| Acc. financial assets | -0.5 | -3.8 | - | - | - | - | - | - | - |
| *Privatisation* | -1.7 | -3.4 | - | -1.3 | - | -0.4 | - | -0.2 | 0.0 |
| Val. effect & residual | -3.7 | 1.7 | - | -0.1 | - | -0.3 | - | -0.1 | -0.1 |

Notes:

[1]End of period.

[2]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 (in the table, the latter is decomposed into the growth effect, capturing real GDP growth, and the inflation effect, measured by the GDP deflator). The term in parentheses represents the "snow-ball" effect. The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

*Source :*

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

### 5.1.2. *Assessment*

The projections for the debt-to-GDP ratio in the programme appear plausible. As elaborated above, a higher surplus for 2007 could even allow the debt ratio to fall faster than planned. The Commission services 2006 autumn forecast projects a stronger decrease in the debt-to-GDP ratio in 2007 and in particular in 2008. These differences are explained by higher projections for the primary surplus, the reduction in interest expenditure, and for nominal GDP growth.

Regarding the structure of debt, the share of fixed-rate debt has increased from around 60% of total government debt (around 18% of GDP) at the end of 2005 to around 66% of total debt (around 16½% of GDP) at the end of 2006. The share of debt denominated in Bulgarian lev has increased slightly to 17.7% (4 ½ % of GDP) at the end of 2006, up from 16% (5% of GDP) at the end of 2005, while the share of euro-denominated debt increased from around 47% to almost 53%. Just above 20% of the debt is held in USD, and around 8% in other currencies. The average residual maturity of outstanding domestic debt increased from 6 years and 11 months at the end of 2005 to 7 years and 2 months at the end of 2006, while the average residual maturity of foreign debt decreased slightly from 8 years and 11 months to 8 years and 9 months.

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

The issue of long-term sustainability is a multi-faceted one. It involves avoiding imposing an excessive burden on future generations and ensuring the country's capacity to appropriately adjust budgetary policy in the medium and long run.[9]

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

The approach adopted by the Commission services and the Ageing Working Group of the Economic Policy Committee (EPC) is to project the debt, and to calculate the associated sustainability indicators (See box 4), on the basis of two different scenarios. The first scenario assumes that the structural primary balance will remain unchanged from 2006 through 2010, the final year of the stability programme; it is called the “2006 scenario”. The second scenario assumes that the macroeconomic and budgetary plans until 2010 provided in the stability programme will be fully respected. This is the “programme scenario”. In addition to this quantitative analysis, other relevant factors are taken into account which allows to better qualify the assessment with regard to where the main risks are likely to stem from and to reach an overall assessment.

### 5.2.1. *Sustainability indicators and long-term debt projections*

In the absence of the long-term projections of age-related expenditures, based on the common macroeconomic assumptions as carried out by the EPC/Commission, it is not

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

possible to assess the impact of population ageing in Bulgaria on a comparable and robust basis as it is currently done for the 25 Member States, for which the projections on this basis are available.[10]

**Table 11: Long-term age-related expenditure: main projections**

| (% of GDP) | 2005 | 2010 | 2020 | 2030 | 2050 | changes |
|---|---|---|---|---|---|---|
| **Total age-related spending** | 18.2 | 19.0 | 17.6 | 17.4 | 18.6 | 0.4 |
| Pensions | 9.1 | 9.4 | 7.8 | 7.3 | 7.9 | -1.2 |
| Healthcare | 4.8 | 5.2 | 5.5 | 5.8 | 6.4 | 1.6 |
| Long-term care | 0.04 | 0.04 | 0.04 | 0.03 | 0.04 | 0.0 |
| Education | 4.3 | 4.4 | 4.3 | 4.3 | 4.3 | 0.0 |
| Unemployment benefits | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Source: Republic of Bulgaria, Convergence programme 2006-2009, January 2007.

The convergence programme projections, based on relatively optimistic long-term economic growth assumptions, show a very modest increase of 0.4% points of GDP from 2005 up to 2050. The increase in expenditure on health-care is projected to be 1.6% points of GDP from 2004 up to 2050, close to the EU average, while pension expenditures are expected to decline significantly. Long-term care expenditures are projected to remain at the current very low levels throughout the projection period.

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

**Table 12: Sustainability indicators**

| | 2006 scenario | | | Programme scenario | | |
|---|---|---|---|---|---|---|
| | **S1** | **S2** | **RPB** | **S1** | **S2** | **RPB** |
| Value | -6.5 | -5.2 | -0.2 | -4.6 | -3.5 | -0.1 |
| *of which:* | | | | | | |
| Initial budgetary position | -4,7 | -4,6 | - | -2.9 | -2.9 | - |
| Debt requirement in 2050 | -0.9 | - | - | -0.7 | - | - |
| Future changes in budgetary position | -1.0 | -0.6 | - | -1.0 | -0.6 | - |

*Source: Commission services.*

Table 12 shows that the current initial budgetary position is sufficient to stabilise debt throughout the projection period ("2006 scenario"). The budgetary plans in the programme imply that the structural balance is weakened between 2006 and 2009. While the projected budgetary impact of ageing is very modest, the estimated reduction in the structural primary balance over the programme period has a negative impact on the sustainability gap (“programme scenario”) showing the importance of maintaining a strong structural budgetary position to contain risks to the sustainability of public finances.

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

**Box 4 – Sustainability indicators***

- The **sustainability gap S1** shows the permanent budgetary adjustment (often presented as an increase in the tax burden**) required to reach a debt ratio in 2050 of 60% of GDP.
- The **sustainability gap S2**, shows the permanent budgetary adjustment that guarantees the respect of the intertemporal budget constraint of the government. In order to estimate S2, the revenue and expenditure ratios (age-related and non age-related) after 2050 are assumed to remain constant at the 2050 level.
- The sustainability indicators can be decomposed into the***: (i) **Initial Budgetary Position (IBP)**; and, (ii) **Long-Term Change in the budgetary position (LTC)**;
- In addition, the **required primary balance (RPB)** can be derived from the S2 indicator. It measures the average primary balance over the first five years after the programme horizon (i.e. 2010-2014) that results from a permanent budgetary adjustment carried out to comply fully with the S2 indicator.

**Summarizing the sustainability indicators**

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

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

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

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

### *5.2.2. Additional factors*

The programme presents national long-term macroeconomic assumptions on the basis of which a number of the expenditure items are projected (pension, health-care, long-term care and education expenditure). Comparing the macroeconomic assumptions with the EU-10 average derived from the EPC/Commission common projection exercise, the real growth of GDP and labour productivity growth for the entire projection period in the programme are significantly more optimistic than those agreed by the EPC.[11] As a consequence, the expected decline in the total long-term age-related expenditures (of 0.4% of GDP over 2010-2050) may be tilted towards the optimistic side.

Moreover, it is important to note that the 2000 pension reform, which includes increase in the retirement age, tightening of eligibility criteria and links better the contributions with benefits, is being implemented. Nevertheless, as recognised by the authorities,

[11] The long-term economic growth projections in the convergence programme indicate growth rate in 2010 to be 5.3% (against the EU10 average of 4.6%), in 2020 4.5% (2.9%), in 2030 3.7% (2.1%) and in 2050 2.0% (0.6%).

additional measures will be required to ensure the stability of the pension system aiming at improving the contribution compliance and collection, introducing incentives for longer working lives as well as increasing further the retirement age. The programme is however silent on the time schedule of the implementation of the planned reform measures. Moreover, current pension arrangements might come under pressure at some point if the projected decrease in the public benefit ratio were to fully materialise. A successful implementation of the private pillars would according to the programme contribute to offset the projected significant decrease in the replacement rates in the public pension scheme in the future.

### *5.2.3. Assessment*

In the absence of the long-term projections of age-related expenditures, based on the common macroeconomic assumptions as carried out by the EPC/Commission, it is not possible to assess the impact of population ageing in Bulgaria on a comparable and robust basis as it is currently done for the 25 Member States, for which the projections on this basis are available.

The initial budgetary position, with a large structural surplus, contributes significantly to stabilise debt before considering the long-term budgetary impact of ageing. Maintaining high primary surpluses over the medium-term would contribute to containing risks to the sustainability of public finances.

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

The programme includes a detailed description of institutional arrangements and budgetary procedures. Medium-term financial planning is pursued essentially through a three-year medium-term financial framework which is updated annually and which comprises a macroeconomic scenario and a three-year budgetary forecast. On this basis, three-year expenditure ceilings for Ministries and other spending units are fixed by the Council of Ministers which are binding for the first year and indicative for the following two years. Annual budget planning is mainly determined by the definition of a target value for the budget balance (as percent of GDP) and the objective of limiting primary expenditures to 40% of GDP. In order to ensure budget implementation in line with budgetary targets, the annual budget usually foresees a safety margin with a certain share of overall expenditures (10% in 2007) being blocked in the first three quarters of the year and their release in the fourth quarter being contingent on the achievement of the overall budgetary target for the year.

Ongoing reforms of the budgetary process aim at improving the efficiency of public spending by linking the allocation of financial resources more to policy priorities and policy results. To this end, programme budgeting has been introduced as a pilot project in a number of ministries since 2003, but has not yet been rolled out to all ministries and to all steps of the budget process. While the share of capital expenditures in overall spending has gradually increased recently, it remains below the EU10 average.

On the revenue side, a National Revenue Agency was established in 2006 which centralises the collection of taxes and social security contributions previously spread over several institutions. Judging from initial experience, this appears to have substantially increased the efficiency of revenue collection.

Fiscal decentralisation has started recently with a law of November 2006 giving municipalities greater powers in setting local taxes and fees and managing their own budgets. Further implementing legislation will be necessary to make this fully operational.

The programme also presents ongoing structural reforms in the areas of pension, health and education. Regarding the pension system, a reform has been implemented since 2000 aiming to improve the long-term sustainability of the system (see also Sections 2.4 and 5.2.2). In 2006, pension contributions were lowered by 6 percentage points to reduce payroll taxes and create incentives for job creation in the formal sector. A further reduction of pension contributions by 3 percentage points is envisaged from 1 July 2007 provided that better-than-projected budget execution would allow this. In July 2006, the government also decided to raise minimum and social pensions a second time in 2006, following the general pension increase in January in line with the indexation formula in place.[12] The larger than originally foreseen increase in pensions and the reduction of pension contributions in 2006 – despite boosting employment creation in the formal sector – aggravated the financial situation of the pension system. The deficit of the pension system thus had to be covered by a transfer from the central government budget of around 3% of GDP. Further reforms of the pension system are envisaged, including in particular the establishment of a demographic reserve fund, but the programme provides no details on the timetable. According to calculations of the National Social Security Institute, measures to raise contributions by increasing the number of socially insured workers and improving revenue collection would, however be insufficient to reduce the deficit of the pension system in the near future, which is expected to widen to above 3½% of GDP until 2009.

Regarding healthcare, demographic developments are expected to create significant expenditure pressures in the future, with health expenditures projected in the programme to increase from around 4½% of GDP at the moment to close to 5¼% of GDP by 2010 and 6½% of GDP in 2050. Moreover, while health expenditures (as a share of GDP) in Bulgaria are at about the average of the EU10, the programme acknowledges widespread problems in the quality of the services provided, in the access to healthcare, and in the monitoring and control of expenditures. A reform of hospital financing was implemented in 2006, with the financing of hospitals being centralised at the National Health Insurance Fund. This has, however, so far not had the desired effect of substantially improving financial discipline in the hospital sector. The accumulation of arrears in the hospital sector, which has been a recurrent phenomenon in recent years, continued in 2006 and similar to previous years these arrears had to be covered by additional transfers from the central government budget of around 0.3% of GDP at the end of the year. The shortcomings in the health sector are clearly identified in the programme, but hardly any concrete reform measures are presented. A comprehensive health reform strategy was due to be adopted in the first half of 2006 but is still pending.

Regarding education, a comprehensive reform of school education is programmed to start being implemented as from 2007 with the aim of improving the quality of school education as well as the efficiency of spending, for example by optimising the school network to take into account the reduced number of pupils in the system. Reforming the financing model for schools is a key element of this reform, and a new financing system

[12] According to this formula, the increase in pensions is a weighted average of inflation and the increase in the so-called average insurable income.

linking financial allocations more directly to the number of pupils will be introduced from 2007.

## 7. 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, which are included in the integrated guidelines for the period 2005-2008. The assessment of guideline 1 corresponds to the evaluation in Section 4.4 above, whereas that of the pace of debt reduction in guideline 2 (relevant for high-debt countries only) is covered in Section 5.1.2 above. Information on the different elements covered by the remaining guidelines in the table can be found in Sections 5.2 and 6.

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

**Table 13: Consistency with the broad economic policy guidelines**

| Broad economic policy guidelines | Yes | Steps in right direction | No | Not applicable |
|---|---|---|---|---|
| ***1. To secure economic stability*** | | | | |
| – Member States should respect their medium-term budgetary objectives. As long as this objective has not yet been achieved, they should take all the necessary corrective measures to achieve it[1]. | X | | | |
| – Member States should avoid pro-cyclical fiscal policies[2]. | | | X | |
| – Member States in excessive deficit should take effective action in order to ensure a prompt correction of excessive deficits[3]. | | | | X |
| – Member States posting current account deficits that risk being unsustainable should work towards (…), where appropriate, contributing to their correction via fiscal policies. | | | X | |
| ***2. To safeguard economic and fiscal sustainability*** In view of the projected costs of ageing populations, | | | | |
| – Member States should undertake a satisfactory pace of government debt reduction to strengthen public finances. | | | | X |
| – Member States should reform and re-enforce pension, social insurance and health care systems to ensure that they are financially viable, socially adequate and accessible (…) | | X | | |
| ***3. To promote a growth- and employment-orientated and efficient allocation of resources*** | | | | |
| Member States should, without prejudice to guidelines on economic stability and sustainability, re-direct the composition of public expenditure towards growth-enhancing categories in line with the Lisbon strategy, adapt tax structures to strengthen growth potential, ensure that mechanisms are in place to assess the relationship between public spending and the achievement of policy objectives and ensure the overall coherence of reform packages. | | X | | |

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

*Source:*
*Commission services*

* * *

## Annex 1: Glossary

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

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

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

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

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

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

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

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

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

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

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

**EDP notification** See *notification of deficit and debt*.

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

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

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

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

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

**Government debt** See *public debt*.

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

**Government net lending/borrowing** See *budget balance*.

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

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

**Intertemporal budget constraint** A basic condition imposing that current total liabilities of the government, i.e. the current public debt and the discounted value of future expenditure including the budgetary impact of ageing populations, be covered by the discounted value of future government revenue.

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

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

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

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

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

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

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

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

**Output gap** The difference between actual GDP and potential GDP in any given year, usually expressed as a percent of potential GDP. Potential GDP is an unobserved variable and needs to be estimated from actual data. It is the level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build; if output falls below potential, then resources are lying idle and inflationary pressures abate. See also *production function method*.

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

**Pre-accession Economic Programme (PEP)** Annual programme to be submitted by candidate countries.. The PEP sets the framework for economic policies and consists of a review of recent economic developments, a detailed macroeconomic framework, a discussion of public finance issues and an outline of the structural reform agenda.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Annex 2: Summary tables from the programme update

The tables below present the information provided in the programme in the format prescribed by the code of conduct (Annex 2 thereof).

**Table 1a. Macroeconomic prospects**

| | ESA Code | 2005 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Real GDP** | B1*g | 20654 | 5.5 | 5.9 | 5.9 | 6.2 | 6.1 |
| **2. Nominal GDP** | B1*g | 21448 | 9.6 | 12.9 | 9.9 | 9.1 | 9.2 |
| **Components of real GDP** | | | | | | | |
| **3. Private consumption expenditure** | P.3 | 14354 | 7.6 | 6.2 | 6.9 | 7.1 | 6.6 |
| **4. Government consumption expenditure** | P.3 | 3780 | 3.8 | 1.9 | 4.4 | 6.4 | 6.5 |
| **5. Gross fixed capital formation** | P.51 | 4849 | 19.0 | 18.3 | 16.8 | 12.7 | 10.2 |
| **6. Changes in inventories and net acquisition of valuables (% of GDP)** | P.52 + P.53 | 3.91 | 1.1 | 0.4 | -1.3 | -0.7 | -0.1 |
| **7. Exports of goods and services** | P.6 | 12168 | 7.2 | 10.2 | 11.7 | 10.8 | 10.9 |
| **8. Imports of goods and services** | P.7 | -15295 | 14.6 | 12.5 | 12.7 | 11.9 | 11.5 |
| **Contributions to real GDP growth** | | | | | | | |
| **9. Final domestic demand** | | - | 9.8 | 9.0 | 10.2 | 9.7 | 8.7 |
| **10. Changes in inventories and net acquisition of valuables** | P.52 + P.53 | - | 1.5 | 0.3 | -1.1 | -0.6 | 0.0 |
| **11. External balance of goods and services** | B.11 | - | -5.7 | -3.5 | -3.1 | -3.0 | -2.6 |

**Table 1b. Price developments**

| | ESA Code | 2005 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. GDP deflator** | | 3.8 | -0.9 | 6.6 | 3.8 | 2.8 | 2.9 |
| 2. Private consumption deflator | | 4.6 | 0.5 | 5.9 | 3.3 | 2.5 | 2.0 |
| **3. HICP**[1] | | 5.0 | -1.1 | 7.4 | 4.0 | 3.0 | 3.0 |
| 4. Public consumption deflator | | 5.3 | 0.6 | 5.9 | 4.9 | 3.9 | 3.9 |
| 5. Investment deflator | | 6.2 | 2.0 | 9.3 | -1.3 | -1.5 | -0.5 |
| **6. Export price deflator (goods and services)** | | 7.2 | 1.0 | 11.6 | -0.8 | -1.4 | 0.2 |
| **7. Import price deflator (goods and services)** | | 8.5 | 3.4 | 10.7 | -1.8 | -1.9 | -0.9 |

[1] Optional for stability programmes.

**Table 1c. Labour market developments**

| | ESA Code | 2005 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Employment, persons**[1] | | 3276.1 | 1.5 | 2.6 | 0.8 | 0.6 | 0.2 |
| 2. Employment, hours worked[2] | | - | - | - | - | - | - |
| **3. Unemployment rate (%)**[3] | | 10.1 | -1.9 | 9.0 | 8.6 | 8.3 | 8.0 |
| **4. Labour productivity, persons**[4] | | 6304.23 | 3.9 | 3.2 | 5.1 | 5.5 | 5.9 |
| 5. Labour productivity, hours worked[5] | | - | - | - | - | - | - |
| **6. Compensation of employees** | D.1 | 7390.11 | 11.4 | 10.6 | 9.5 | 8.7 | 9.0 |

**Table 1d. Sectoral balances**

| % of GDP | ESA Code | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| **1. Net lending/borrowing vis-à-vis rest of the world** | B.9 | -11.3 | -14.1 | -13.6 | -12.8 | -12.4 |
| *of which* : | | | | | | |
| - Balance on goods and services | | -17.1 | -19.2 | -19.3 | -19.6 | -19.5 |
| - Balance of primary incomes and transfers | | 5.8 | 5.1 | 5.7 | 6.9 | 7.1 |
| - Capital account | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2. Net lending/borrowing of the private sector | B.9 | -13.7 | -17.3 | -13.6 | -14.4 | -13.9 |
| 3. Net lending/borrowing of general government | EDP B.9 | 2.4 | 3.2 | 0.8 | 1.6 | 1.5 |
| **4. Statistical discrepancy** | | 0.0 | 0.0 | 0.0 | 0.0 | - |

**Table 2. General government budgetary prospects**

| | ESA code | 2005 Level | 2005 % of GDP | 2006 % of GDP | 2007 % of GDP | 2008 % of GDP | 2009 % of GDP |
|---|---|---|---|---|---|---|---|
| **Net lending (EDP B.9) by sub-sector** | | | | | | | |
| **1. General government** | S.13 | 990 | 2.4 | 3.2 | 0.8 | 1.5 | 1.5 |
| **2. Central government** | S.1311 | 1213 | 2.9 | 3.8 | 0.8 | 1.5 | 1.5 |
| **3. State government** | S.1312 | - | - | - | - | - | - |
| **4. Local government** | S.1313 | -217 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 |
| **5. Social security funds** | S.1314 | -7 | 0.0 | -0.5 | 0.0 | 0.0 | 0.0 |
| **General government (S13)** | | | | | | | |
| **6. Total revenue** | TR | 17803 | 42.4 | 41.5 | 41.8 | 41.8 | 41.7 |
| **7. Total expenditure** | TE[1] | 16814 | 40.1 | 38.2 | 41.0 | 40.2 | 40.2 |
| **8. Net lending/borrowing** | EDP B.9 | 990 | 2.4 | 3.2 | 0.8 | 1.5 | 1.5 |
| **9. Interest expenditure (incl. FISIM)** | EDP D.41 incl. FISIM | 665 | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 |
| **p.m.: 9a. FISIM** | | - | - | - | - | - | - |
| **10. Primary balance** | [2] | 1654 | 3.9 | 4.6 | 2.2 | 2.8 | 2.7 |
| **Selected components of revenue** | | | | | | | |
| **11. Total taxes** (11=11a+11b+11c) | | 10655 | 25.4 | 25.0 | 25.4 | 25.2 | 24.8 |
| **11a. Taxes on production and imports** | D.2 | 7943 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 |
| **11b. Current taxes on income, wealth, etc** | D.5 | 2582 | 6.2 | 5.8 | 6.0 | 5.8 | 5.5 |
| **11c. Capital taxes** | D.91 | 130 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| **12. Social contributions** | D.61 | 4413 | 10.5 | 9.0 | 8.9 | 8.9 | 8.9 |
| **13. Property income** | D.4 | 549 | 1.3 | 1.2 | 1.1 | 1.1 | 1.1 |
| **14. Other** (14=15-(11+12+13)) | | 2187 | 5.2 | 6.2 | 6.3 | 6.2 | 6.5 |
| **15=6. Total revenue** | TR | 17803 | 42.4 | 41.5 | 41.8 | 41.8 | 41.7 |
| **p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[3]** | | 14610 | 34.8 | 33.0 | 33.2 | 33.0 | 32.6 |
| **Selected components of expenditure** | | | | | | | |
| **16. Collective consumption** | P.32 | 4097 | 9.8 | 9.1 | 9.0 | 9.1 | 9.2 |
| **17. Total social transfers** | D.62+D.63 | 8679 | 20.7 | 20.5 | 20.2 | 20.3 | 20.0 |
| 17a. Social transfers in kind | P.31=D.63 | 3692 | 8.8 | 8.7 | 8.7 | 8.8 | 8.9 |
| 17b. Social transfers other than in kind | D.62 | 4988 | 11.9 | 11.8 | 11.5 | 11.4 | 11.1 |
| **18.=9. Interest expenditure (incl. FISIM)** | EDP D.41 incl. FISIM | 665 | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 |
| **19. Subsidies** | D.3 | 876 | 2.1 | 1.3 | 1.8 | 2.4 | 2.6 |
| **20. Gross fixed capital formation** | P.51 | 1299 | 3.1 | 4.0 | 4.1 | 4.3 | 4.2 |
| **21. Other** (21=22-(16+17+18+19+20)) | | 1198 | 2.9 | 2.0 | 3.3 | 2.9 | 2.9 |
| **22=7. Total expenditure** | TE[1] | 16814 | 40.1 | 38.2 | 41.0 | 40.2 | 40.2 |
| p.m.: Compensation of employees | D.1 | 2690 | 6.4 | 5.8 | 6.0 | 6.0 | 5.9 |

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

| % of GDP | COFOG Code | 2004 | 2009 |
|---|---|---|---|
| 1. General public services | 1 | 2.9 | 3.4 |
| 2. Defence | 2 | 2.3 | 2.2 |
| 3. Public order and safety | 3 | 2.8 | 2.9 |
| 4. Economic affairs | 4 | 4.9 | 5.8 |
| 5. Environmental protection | 5 | 1.0 | 1.3 |
| 6. Housing and community amenities | 6 | 0.5 | 0.8 |
| 7. Health | 7 | 4.6 | 4.3 |
| 8. Recreation, culture and religion | 8 | 0.8 | 0.7 |
| 9. Education | 9 | 4.3 | 4.2 |
| 10. Social protection | 10 | 13.7 | 12.3 |
| 11. Total expenditure (=item 7=26 in Table 2) | TE[1] | **39.7** | **40.2** |

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

**Table 4. General government debt developments**

| % of GDP | | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| **1. Gross debt[1]** | | 29.8 | 25.3 | 22.7 | 22.3 | 21.1 |
| **2. Change in gross debt ratio** | | -10.9 | -4.5 | -2.6 | -0.4 | -1.2 |
| **Contributions to changes in gross debt** | | | | | | |
| **3. Primary balance[2]** | | 3.9 | 4.6 | 2.2 | 2.8 | 2.7 |
| **4. Interest expenditure (incl. FISIM)[3]** | | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 |
| **5. Stock-flow adjustment** | | 3.4 | 1.2 | 0.1 | 0.1 | -0.1 |
| *of which:* | | | | | | |
| - Differences between cash and accruals[4] | | - | - | - | - | - |
| - Net accumulation of financial assets[5] | | - | - | - | - | - |
| *of which:* | | | | | | |
| *- privatisation proceeds* | | 3.5 | 1.3 | 0.4 | 0.2 | 0.0 |
| - Valuation effects and other[6] | | 0.0 | -0.1 | -0.3 | -0.1 | -0.1 |
| **p.m.: implicit interest rate on debt[7]** | | 5.4 | 5.5 | 6.2 | 5.8 | 5.7 |
| **Other relevant variables** | | | | | | |
| 6. Liquid financial assets[8] | | - | - | - | - | - |
| 7. Net financial debt (7=1-6) | | - | - | - | - | - |

**Table 5. Cyclical developments**

| % of GDP | ESA Code | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| **1. Real GDP growth (%)** | | 5.5 | 5.9 | 5.9 | 6.2 | 6.1 |
| **2. Net lending of general government** | EDP B.9 | 2.4 | 3.2 | 0.8 | 1.5 | 1.5 |
| **3. Interest expenditure (incl. FISIM recorded as consumption)** | EDPD.41 incl. FISIM | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 |
| 4. Potential GDP growth (%) | | 4.8 | 5.1 | 5.6 | 6.0 | 6.5 |
| contributions: | | | | | | |
| - labour | | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| - capital | | 2.1 | 2.6 | 3.2 | 3.5 | 3.6 |
| - total factor productivity | | 2.0 | 1.7 | 1.7 | 1.9 | 2.2 |
| 5. Output gap | | -0.1 | 0.7 | 1.0 | 1.2 | 0.9 |
| 6. Cyclical budgetary component | | 0.0 | 0.3 | 0.4 | 0.5 | 0.4 |
| 7. Cyclically-adjusted balance (2-6) | | 2.4 | 2.9 | 0.4 | 1.1 | 1.1 |
| 8. Cyclically-adjusted primary balance (7-3) | | 4.0 | 4.3 | 1.8 | 1.4 | 1.3 |

**Table 6. Divergence from previous update**

| | ESA Code | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| **Real GDP growth (%)** | | | | | | |
| **Previous update** | | 5.7 | 5.7 | 5.9 | 5.9 | |
| **Current update** | | 5.5 | 5.9 | 5.9 | 6.2 | 6.1 |
| **Difference** | | -0.2 | 0.2 | 0 | 0.3 | |
| **General government net lending (% of GDP)** | EDP B.9 | | | | | |
| **Previous update** | | 2.2 | 0.0 | -0.2 | -0.7 | |
| **Current update** | | 2.4 | 3.2 | 0.8 | 1.5 | 1.5 |
| **Difference** | | 0.2 | 3.2 | 1.0 | 2.3 | |
| **General government gross debt (% of GDP)** | | | | | | |
| **Previous update** | | 31.3 | 26.3 | 23.9 | 22.7 | |
| **Current update** | | 29.8 | 25.3 | 22.7 | 22.3 | 21.1 |
| **Difference** | | -1.5 | -1.0 | -1.2 | -0.4 | |

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

| % of GDP | 2000 | 2005 | 2010 | 2020 | 2030 | 2050 |
|---|---|---|---|---|---|---|
| Total expenditure | **42.5** | **40.1** | **38.1** | **36** | **35** | **35** |
| Of which: age-related expenditures | | | | | | |
| Pension expenditure | 9.2 | 9.1 | 9.4 | 7.8 | 7.3 | 7.9 |
| Social security pension | | | | | | |
| Old-age and early pensions | 8.2 | 8.3 | 8.2 | 6.8 | 8.5 | 7 |
| Other pensions (disability, survivors) | | | | | | |
| Occupational pensions (if in general government) | | | | | | |
| Health care | 3.3 | 4.8 | 5.2 | 5.5 | 5.8 | 6.4 |
| Long-term care *(this was earlier included in health care)* | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 |
| Education expenditure | 4.2 | 4.3 | 4.4 | 4.3 | 4.3 | 4.3 |
| Other age-related expenditures | | | | | | |
| Interest expenditure | 4 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 |
| Total revenue | **42.1** | **42.4** | **38.6** | **36** | **35** | **35** |
| Of which: property income | 1.7 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| *of which* : from pensions contributions (or social contributions if appropriate) | 9.0 | 8.3 | 4.3 | 4.2 | 4.2 | 4.2 |
| Pension reserve fund assets | | | | | | |
| Of which: consolidated public pension fund assets (assets other than government liabilities) | | | | | | |
| **Assumptions** | | | | | | |
| Labour productivity growth | 9.2 | 3.9 | 5.2 | 4.9 | 4.1 | 2.0 |
| Real GDP growth | 5.4 | 5.5 | 5.3 | 4.5 | 3.7 | 2.0 |
| Participation rate males (aged 20-64) | 71.7 | 74.2 | 77.8 | 82.7 | 86.5 | 86.5 |
| Participation rates females (aged 20-64) | 60.3 | 63.1 | 67.3 | 71.8 | 74.2 | 74.2 |
| Total participation rates (aged 20-64) | 65.9 | 68.6 | 72.5 | 77.2 | 80.3 | 80.3 |
| Unemployment rate | 16.8 | 10.1 | 7.9 | 5.9 | 5.0 | 5.0 |
| Population aged 65+ over total population | 16.3 | 17.1 | 17.3 | 19.2 | 20.4 | 24.7 |

**Table 8. Basic assumptions**

| | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| **Short-term interest rate[1] (annual average)** | 2.2 | 3.1 | 3.7 | 3.8 | 3.9 |
| **Long-term interest rate (annual average)** | - | - | - | - | - |
| ***for countries in euro area or ERM II:*** **USD/€ exchange rate (annual average)** | 1.25 | 1.25 | 1.28 | 1.28 | 1.28 |
| **Nominal effective exchange rate** | 100.6 | 100.8 | 96.6 | 98.9 | 99.5 |
| ***for countries not in euro area or ERM II:*** **exchange rate vis-à-vis the € (annual average)** | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| **World excluding EU, GDP growth** | 3.5 | 3.6 | 2.6 | 2.9 | 2.9 |
| **EU GDP growth** | 1.8 | 2.8 | 2.4 | 2.4 | 2.4 |
| **Growth of relevant foreign markets** | 2.5 | 3.1 | 2.5 | 2.6 | 2.6 |
| **World import volumes, excluding EU** | - | - | - | - | - |
| **Oil prices (Brent, USD/barrel)** | 53.4 | 65.6 | 69.1 | 69.1 | 69.1 |

## Annex 3: Compliance with the code of conduct

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

| Guidelines in the code of conduct | Yes | No | Comments |
|---|---|---|---|
| **1. Submission of the programme** | | | |
| Programme was submitted not earlier than mid-October and not later than 1 December[1]. | | | Not applicable |
| **2. Model structure** | | | |
| The model structure for the programmes in Annex 1 of the code of conduct has been followed. | X | | |
| **3. Model tables (so-called data requirements)** | | | |
| The quantitative information is presented following the standardised set of tables (Annex 2 of the code of conduct). | X | | |
| The programme provides all compulsory information in these tables. | | X | |
| The programme provides all optional information in these tables. | | X | |
| The concepts used are in line with the European system of accounts (ESA). | | | The government accounts of Bulgaria have not yet been officially subject to a complete quality assessment by Eurostat. |
| **4. Other information requirements** | | | |
| *a. Involvement of parliament* | | | |
| The programme mentions its status vis-à-vis the national parliament. | | X | |
| The programme indicates whether the Council opinion on the previous programme has been presented to the national parliament. | | X | |
| *b. Economic outlook* | | | |
| Euro area and ERM II Member States uses the "common external assumptions" on the main extra-EU variables. | | | Not applicable |
| Significant divergences between the national and the Commission services' economic forecasts are explained[2]. | | | Not applicable |
| The possible upside and downside risks to the economic outlook are brought out. | X | | |
| The outlook for sectoral balances and, especially for countries with a high external deficit, the external balance is analysed. | X | | |
| *c. Monetary/exchange rate policy* | | | |
| The convergence programme presents the medium-term monetary policy objectives and their relationship to price and exchange rate stability. | X | | |
| *d. Budgetary strategy* | | | |
| The programme presents budgetary targets for the general government balance in relation to the MTO, and the projected path for the debt ratio. | X | | |
| In case a new government has taken office, the programme shows continuity with respect to the budgetary targets endorsed by the Council. | | | Not applicable |
| When applicable, the programme explains the reasons for possible deviations from previous targets and, in case of substantial deviations, whether measures are taken to rectify the situation, and provide information on them. | X | | |

| Guidelines in the code of conduct | Yes | No | Comments |
|---|---|---|---|
| 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. | X | | |
| If for a country that uses the transition period for the classification of second-pillar funded pension schemes, the programme presents information on the impact on the public finances. | | | Not applicable |
| *e. "Major structural reforms"* | | | |
| If the MTO is not yet reached or a temporary deviation is planned from the achieved MTO, the programme includes comprehensive information on the economic and budgetary effects of possible 'major structural reforms' over time. | | | Not applicable |
| The programme includes a quantitative cost-benefit analysis of the short-term costs and long-term benefits of such reforms. | | | Not applicable |
| *f. Sensitivity analysis* | | | |
| The programme includes comprehensive sensitivity analyses and/or develops alternative scenarios showing the effect on the budgetary and debt position of:<br>a) changes in the main economic assumptions<br>b) different interest rate assumptions<br>c) for non-participating Member States, different exchange rate assumptions<br>d) if the common external assumptions are not used, changes in assumptions for the main extra-EU variables. | X | | |
| In case of "major structural reforms", the programme provides an analysis of how changes in the assumptions would affect the effects on the budget and potential growth. | | | Not applicable |
| *g. Broad economic policy guidelines* | | | |
| The programme provides information on the consistency with the broad economic policy guidelines of the budgetary objectives and the measures to achieve them. | X | | |
| *h. Quality of public finances* | | | |
| The programme describes measures aimed at improving the quality of public finances on both the revenue and expenditure side (e.g. tax reform, value-for-money initiatives, measures to improve tax collection efficiency and expenditure control). | X | | |
| *i. Long-term sustainability* | | | |
| The programme outlines the country's strategies to ensure the sustainability of public finances, especially in light of the economic and budgetary impact of ageing populations. | X | | |
| Common budgetary projections by the AWG are included in the programme. The programme includes all the necessary additional information. (…) To this end, information included in programmes should focus on new relevant information that is not fully reflected in the latest common EPC projections. | | | Not applicable |
| *j. Other information (optional)* | | | |
| The programme includes information on the implementation of existing national budgetary rules (expenditure rules, etc.), as well as on other institutional features of the public finances, in particular budgetary procedures and public finance statistical governance. | X | | |
| Notes:<br>[1]The code of conduct allows for the following exceptions: (i) Ireland should be regarded as complying with the deadline in case of submission on "budget day", i.e. traditionally the first Wednesday of December, (ii) the UK should submit as close as possible to its autumn pre-budget report; and (iii) Austria and Portugal cannot comply with the deadline but will submit no later than 15 December.<br>[2]To the extent possible, bearing in mind the typically short time period between the publication of the Commission services' autumn forecast and the submission of the programme. | | | |

| Guidelines in the code of conduct | Yes | No | Comments |
|---|---|---|---|
| *Source:*<br>*Commission services* | | | |

## Annex 4: Key economic indicators of past economic performance

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

**Bulgaria - Key economic indicators**

| | Averages | | | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| | 1996 – 2005 | 1996 – 2000 | 2001 - 2005 | | | |
| **Economic activity** | | | | | | |
| Real GDP (% change) | 2.1 | -0.7 | 4.9 | 4.5 | 5.7 | 5.5 |
| Private consumption % change | 3.0 | 0.4 | 5.5 | 6.4 | 4.7 | 7.7 |
| Government consumption % change | 2.0 | -0.5 | 4.6 | 7.6 | 6.5 | 3.5 |
| Investment % change | 10.8 | 5.9 | 15.6 | 13.9 | 13.5 | 19.0 |
| Exports % change | 7.7 | 6.3 | 9.0 | 8.0 | 13.0 | 7.2 |
| Imports % change | 11.3 | 9.8 | 12.7 | 15.3 | 14.1 | 14.6 |
| Contributions to real GDP growth | | | | | | |
| Demand | | | | | | |
| *Domestic demand* | 4.7 | 1.4 | 8.0 | 9.3 | 7.7 | 11.3 |
| *Net exports* | -2.5 | -2.0 | -3.0 | -4.9 | -1.9 | -5.7 |
| Output gap | -0.8 | -2.4 | 0.8 | 0.5 | 0.8 | 0.5 |
| **Prices and costs** | | | | | | |
| HICP inflation % change | n.a. | n.a. | 5.3 | 2.3 | 6.1 | 5.0 |
| Unit labour costs % change | 102.3 | 200.9 | 3.8 | 2.7 | 3.0 | 5.4 |
| Labour productivity % change | 2.1 | 1.3 | 2.9 | -1.7 | 3.4 | 3.9 |
| Real unit labour costs % change | -1.3 | -2.2 | -0.5 | 0.4 | -1.7 | 1.5 |
| Comparative price levels (EUR25=100) | 31.3 | 27.5 | 35.1 | 35.0 | 36.3 | 36.8 |
| **Labour market** | | | | | | |
| Employment % change | 0.1 | -1.9 | 2.0 | 6.3 | 2.2 | 1.5 |
| Employment % of pop work age | 57.2 | 56.2 | 58.3 | 59.0 | 60.4 | 61.6 |
| Unemployment rate in % | 13.4 | 12.2 | 14.7 | 13.7 | 12.0 | 10.1 |
| NAIRU in % | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Participation rate in % | 65.5 | 63.6 | 67.5 | 67.4 | 67.8 | 67.8 |
| Working age population % change | -0.5 | -0.6 | -0.5 | -0.1 | -0.1 | -0.4 |
| **Competitiveness and external position** | | | | | | |
| Real effective exchange rate % change (1) | 1.8 | 0.9 | 2.7 | 3.6 | 2.0 | 1.8 |
| Export performance % change (2) | 1.2 | -2.6 | 4.9 | 1.7 | 3.1 | 1.4 |
| External balance of g & s | -5.1 | -0.2 | -10.1 | -9.5 | -10.2 | -16.6 |
| Net borrowing v-à-v RoW | n.a. | n.a. | n.a. | n.a. | -5.8 | -11.3 |
| FDI | n.a. | n.a. | 7.8 | 10.5 | 11.6 | 11.2 |
| **Public finances** | | | | | | |
| Total expenditure % of GDP | n.a. | n.a. | n.a. | 38.5 | 38.0 | 38.7 |
| Total revenue % of GDP | n.a. | n.a. | n.a. | 38.9 | 40.7 | 41.1 |
| General government balance % of GDP | n.a. | n.a. | n.a. | 0.3 | 2.7 | 2.4 |
| General government debt % of GDP | n.a. | n.a. | n.a. | 46.0 | 38.4 | 29.8 |
| Structural budget balance % of GDP | n.a. | n.a. | n.a. | 0.0 | 2.3 | 2.1 |
| **Fin.a.ncial indicators (3)** | | | | | | |
| Short term real interest rate (4) | n.a. | n.a. | -0.3 | 1.3 | -1.4 | -0.9 |
| Long term real interest rate (4) | n.a. | n.a. | n.a. | 4.0 | 0.4 | 0.0 |
| Household credit % change | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Corporate sector credit % change (5) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Household debt in % of GDP | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Corporate sector debt in % of GDP | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Notes:

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

(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).

(3) Data available up to 2004

(4) Using GDP deflator

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

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

## EU10 - Key economic indicators

| | Averages 1996 – 2005 | 1996 – 2000 | 2001 - 2005 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| **Economic activity** | | | | | | |
| Real GDP (% change) | 4.0 | 4.3 | 3.7 | 4.0 | 5.1 | 4.6 |
| Private consumption % change | 4.2 | 4.7 | 3.8 | 3.9 | 4.1 | 3.7 |
| Government consumption % change | 2.5 | 1.9 | 3.1 | 5.0 | 1.8 | 2.0 |
| Investment % change | 5.6 | 8.4 | 2.9 | 1.7 | 7.2 | 6.2 |
| Exports % change | 10.0 | 11.0 | 9.0 | 9.1 | 14.5 | 10.3 |
| Imports % change | 10.2 | 12.7 | 7.8 | 8.5 | 14.6 | 6.9 |
| Contributions to real GDP growth | | | | | | |
| Demand | | | | | | |
| *Domestic demand* | 4.3 | 5.3 | 3.4 | 4.1 | 5.6 | 3.0 |
| *Net exports* | -0.3 | -1.0 | 0.4 | 0.0 | -0.5 | 1.6 |
| Output gap | n.a. | n.a. | -1.0 | -1.4 | -0.5 | -0.4 |
| **Prices and costs** | | | | | | |
| HICP inflation % change | n.a. | n.a. | 3.3 | 1.9 | 4.1 | 2.5 |
| Unit labour costs % change | 5.7 | 9.2 | 2.3 | 1.3 | 1.4 | 0.7 |
| Labour productivity % change | 4.2 | 4.6 | 3.7 | 4.3 | 4.5 | 2.9 |
| Real unit labour costs % change | -0.8 | -0.6 | -1.0 | -0.7 | -2.5 | -1.8 |
| Comparative price levels (EUR25=100) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Labour market** | | | | | | |
| Employment % change | -0.1 | -0.3 | 0.0 | -0.2 | 0.6 | 1.7 |
| Employment % of pop work age | 58.0 | 59.4 | 56.6 | 56.1 | 56.2 | 57.0 |
| Unemployment rate in % | 12.8 | 11.3 | 14.2 | 14.3 | 14.2 | 13.4 |
| NAIRU in % | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Participation rate in % | 66.4 | 66.7 | 66.1 | 65.7 | 65.6 | 65.8 |
| Working age population % change | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 |
| **Competitiveness and external position** | | | | | | |
| Real effective exchange rate % change (1) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Export performance % change (2) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| External balance of g & s | -3.4 | -4.2 | -2.6 | -3.0 | -2.6 | -1.2 |
| Net borrowing v-à-v RoW | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| FDI | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Public finances** | | | | | | |
| Total expenditure % of GDP | n.a. | n.a. | 44.2 | 44.9 | 43.4 | 43.6 |
| Total revenue % of GDP | n.a. | n.a. | 40.0 | 39.9 | 39.6 | 40.3 |
| General government balance % of GDP | n.a. | n.a. | -4.2 | -5.1 | -3.7 | -3.3 |
| General government debt % of GDP | 38.0 | 35.8 | 40.1 | 39.9 | 43.4 | 41.3 |
| Structural budget balance % of GDP | n.a. | n.a. | n.a. | -4.5 | -3.4 | -3.0 |
| **Fin.a.ncial indicators (3)** | | | | | | |
| Short term real interest rate (4) | n.a. | n.a. | 3.5 | 3.3 | 1.8 | 1.8 |
| Long term real interest rate (4) | n.a. | n.a. | n.a. | 3.5 | 2.2 | 2.2 |
| Household credit % change | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Corporate sector credit % change (5) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Household debt in % of GDP | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Corporate sector debt in % of GDP | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Notes:

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

(2) Market performance of exports of goods and services on export weighted imports of goods and services of 35 industrial markets (2000=100).

(3) Data available up to 2004

(4) Using GDP deflator

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

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

## Annex 5: Assessment of tax projections

Table in the main text compares the tax projections of the programme with those of the Commission services' autumn 2006 forecast and those obtained by using standard ex-ante elasticities, as estimated by the OECD. It summarises the results for the total tax-to-GDP ratio. The underlying analysis exploits information for the four major tax categories, i.e. indirect taxes, corporate and private income taxes and social contributions (see results in the table below)[13].

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[14]. 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:

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

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

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

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

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

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

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

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

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

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

## Assessment of tax projections by major tax category

| | 2007 | | | 2008 | | | 2009 |
|---|---|---|---|---|---|---|---|
| | SP/CP | COM | OECD1 | SP/CP | COM[2] | OECD[1] | SP/CP |
| **Taxes on production and imports:** | | | | | | | |
| Change in tax-to-GDP ratio | 0.2 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| *Difference SP/CP – COM* | 0.6 | | | 0.0 | | | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | 0.5 | | | -0.2 | | | / |
| *- composition component* | 0.0 | | | 0.1 | | | / |
| *Difference COM – OECD[1]* | / | -0.3 | | / | 0.0 | | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | / | -0.3 | | / | 0.1 | | / |
| *- composition component* | / | 0.0 | | / | 0.0 | | / |
| p.m.: Elasticity | | | | | | | |
| - of taxes to tax base[4] | 1.1 | 0.8 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 |
| - of tax base[4] to GDP | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 0.9 |
| **Social contributions:** | | | | | | | |
| Change in tax-to-GDP ratio | -0.1 | 0.0 | -0.3 | 0.0 | 0.0 | -0.3 | 0.0 |
| *Difference SP/CP – COM* | -0.1 | | / | 0.0 | | / | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | 0.0 | | / | 0.1 | | / | / |
| *- composition component* | -0.1 | | / | -0.1 | | / | / |
| *Difference COM – OECD[1]* | / | 0.3 | | / | 0.3 | | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | / | -0.1 | | / | 0.0 | | / |
| *- composition component* | / | 0.4 | | / | 0.3 | | / |
| p.m.: Elasticity | | | | | | | |
| - of taxes to tax base[5] | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| - of tax base[5] to GDP | 1.0 | 1.1 | 0.7 | 1.0 | 1.0 | 0.7 | 1.0 |
| **Personal income tax[6]:** | | | | | | | |
| Change in tax-to-GDP ratio | 0.1 | -0.3 | 1.3 | -0.1 | -0.1 | 1.1 | -0.2 |
| *Difference SP/CP – COM* | 0.4 | | / | 0.0 | | / | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | 0.5 | | / | 0.0 | | / | / |
| *- composition component* | 0.0 | | / | 0.0 | | / | / |
| *Difference COM – OECD[1]* | / | -1.5 | | / | -1.2 | | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | / | -1.5 | | / | -1.5 | | / |
| *- composition component* | / | 1.0 | | / | 0.8 | | / |
| p.m.: Elasticity | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| - of taxes to tax base[5] | 1.4 | 0.2 | 7.1 | 0.6 | 0.8 | 7.1 | 0.4 |
| - of tax base[5] to GDP | 1.0 | 1.1 | 0.7 | 1.0 | 1.0 | 0.7 | 1.0 |
| **Corporate income tax[6]:** | | | | | | | |
| Change in tax-to-GDP ratio | 0.1 | -0.2 | 0.1 | -0.1 | -0.1 | 0.1 | -0.1 |
| *Difference SP/CP – COM* | 0.3 | | / | 0.0 | | / | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | 0.3 | | / | -0.1 | | / | / |
| *- composition component* | 0.0 | | / | 0.0 | | / | / |
| *Difference COM – OECD[1]* | / | 0.3 | | / | 0.3 | | / |
| *of which[3]:* | | | | | | | |
| *- discretionary & elasticity component* | / | -0.1 | | / | 0.0 | | / |
| *- composition component* | / | 0.4 | | / | 0.3 | | / |
| p.m.: Elasticity | | | | | | | |
| -of taxes to tax base[7] | 1.4 | 0.2 | 1.0 | 0.6 | 0.8 | 1.0 | 0.4 |
| -of tax base[7] to GDP | 1.0 | 0.9 | 0.7 | 1.0 | 1.0 | 0.7 | 1.0 |

Notes:

[1]Based on OECD ex-ante elasticities

[2]On a no-policy change basis

[3]The decomposition is explained in the text above

[4]Tax base = private consumption expenditure

[5]Tax base = compensation of employees

[6]Taxes on income and wealth are split into private and corporate income tax using the average tax share over the past ten years, i.e. the share is assumed to be constant over the programme period

[7]Tax base = gross operating surplus

*Source:*

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