EUROPEAN COMMISSION
DIRECTORATE GENERAL
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# SWEDEN: MACRO FISCAL ASSESSMENT

## AN ANALYSIS OF THE DECEMBER 2008 UPDATE OF THE CONVERGENCE PROGRAMME

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

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

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

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 18 February 2009. The ECOFIN Council is expected to adopt its opinion on the programme on 10 March 2009.

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

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

## 1. INTRODUCTION

This document assesses the December 2008 update of Sweden's convergence programme. It takes into account all currently available information, notably the Commission services' January 2009 interim forecast and the short-term fiscal stimulus measures adopted by the Swedish authorities in response to the economic downturn. The programme, which was submitted on 1 December 2008, covers the period 2008-2011 and builds on the 2009 budget proposal and the 2009-2011 central government spending limits decision. It is based on the Government Budget Bill for 2009, which was presented to the Swedish parliament on 22 September 2008. The Standing Committee on Finance of the Swedish parliament was informed about the programme on 18 November 2008. Additional information has been made available, notably concerning the budgetary impact of the additional fiscal package announced on 5 December 2008.

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

After many years of relatively strong economic growth, the Swedish economy decelerated significantly in 2008 as a result of the global slowdown dampening external demand. Domestic demand kept up rather well until the summer, but since then business and consumer confidence along with stock market indices have fallen sharply. In the last months of 2008, the situation in the labour market deteriorated quickly, with a rapid increase in the number of announced redundancies. After peaking at above 4% in September 2008, inflation had almost halved by the end of the year. The housing market, which had experienced a number of years of rapidly rising prices, has cooled off.

It therefore seems likely that the Swedish economy will be in bad times for the whole of 2009 and 2010. As shown in Figure 1 of Annex 2, all relevant indicators point to a rapid shift from good times to bad times over the 2008-09 period. According to the Commission January 2009 interim forecast, the output gap is expected to go from slightly positive in 2008 to around minus 2 percent of potential GDP in 2009 and remain at that level in 2010. This picture is confirmed by a similar shift in most domestic demand, labour market and price indicators.

Partly thanks to a generally sound macroeconomic framework, Swedish public finances entered the downturn in a relatively strong position and should therefore be able to weather the downturn without jeopardising long-term fiscal sustainability. At its peak, the fiscal surplus reached 3.6% of GDP in 2007, but has since started to narrow. It is estimated to have reached 2.3% in 2008. As Swedish public finances have historically been relatively sensitive to the cycle and labour market developments, the main challenge in the coming years will be to ensure a return to full employment so that the expected rapid rise in unemployment does not have a permanent negative impact on public finances. While some structural reforms have been undertaken in recent years that could improve the incentives to return to employment after a spell of unemployment, such as the lowering of the replacement rate in the unemployment insurance system, their effects are not yet certain and given the magnitude of the current shock, unemployment looks set to rise sharply.

In line with the EERP agreed in December by the European Council, Sweden adopted a number of fiscal stimulus and structural reform measures. The fiscal stimulus packages for 2009 adopted by Sweden are an adequate response to the economic downturn. The 2009 Budget Bill contained tax cuts and increased spending of about SEK 32 billion. Taking into account previously decided measures and the additional fiscal package of around SEK 8 billion announced in December 2008 and presented to parliament in the form of a

Supplementary Bill in January 2009, the total stimulus in 2009 amounts to almost SEK 45 billion, or 1.4% of GDP. The tax cuts contained in the Budget Bill focused on reductions in taxes on earned income, notably by introducing a third step in the so called "in-work tax credit" scheme and raising the threshold from which state income tax kicks in[1], a reduction in the corporate income tax rate and a general reduction by 1 percentage point of social contributions. On the spending side, the Bill foresees increased expenditures on education, research and infrastructure. The measures are related to the Lisbon structural reform agenda for Sweden as reviewed by the Commission on 28 January 2009. The supplementary package focused on various measures to assist unemployed back to work, mainly through better matching and increased training opportunities. It also contained further support to the construction sector by additional infrastructure expenditures and the introduction of a tax deductibility scheme for home improvement services. In December 2008, the government also announced a package in support of the automotive industry, consisting mainly of credit guarantees and rescue loans (SEK 20 and 5 billion, respectively), but also the creation of a state-owned research and development company with a capital of SEK 3 billion.

**Measures to help stabilise the financial system**

With a view to stabilising the financial sector, the Swedish authorities have adopted a range of measures, including a doubling of the ceiling of the depositors' guarantee (to SEK 500.000 per account), a system of credit guarantees for banks' medium–term borrowing (maximum amount of SEK 1500 billion or almost 50% of GDP) and a scheme to facilitate the recapitalisation of solvent banks (maximum amount of SEK 50 billion or about 1½% of GDP).

## 3. MACROECONOMIC SCENARIO

The main macroeconomic scenario presented in the updated Convergence Programme (henceforth referred to as "the reference scenario") is the one used as base scenario in the 2009 Budget Bill presented in September 2008. According to this scenario, GDP growth is expected to continue to soften in 2008 and 2009. After growing by 2.5% in 2007, GDP is expected to increase by only 1.5% and 1.3% in 2008 and 2009, respectively. Continued turbulence on the global financial markets and the slowing of employment growth is expected to hold back private consumption growth in 2008 and 2009. According to the programme this should be counteracted in 2009 by fiscal stimulus measures strengthening households' disposable income. Export growth is expected to fall in both 2008 and 2009 as a result of slower global growth. Combined with tighter credit conditions, the programme foresees that this should have a dampening effect on investment, which is foreseen to contract slightly in 2009. In 2010, an export-led recovery is expected to pull the economy out of the downturn and bring GDP growth up to 3.1%, followed by 3.5% growth in 2011. While the scenario of an export- and investment-led downturn leading to rising unemployment, which in turn dampens household consumption, is similar to the Commission services' January interim

[1] See Annex 1 for a more in-depth discussion on recent earned income tax reforms in Sweden.

forecast, the reference scenario describes a shorter and markedly shallower downturn. According to the programme, the output gap as recalculated by Commission services based on the information in the programme, following the commonly agreed methodology, is expected to bottom out already in 2009, while the Commission services' interim forecast projects it to widen further in 2010. Altogether, the programme's macroeconomic outlook is based on markedly favourable growth assumptions.

Given the substantial short-term downside risks to the reference scenario related to a deeper and possibly more protracted financial crisis, the updated programme also presents two alternative, but less developed, scenarios, implying a significantly worse macroeconomic performance in 2009 and 2010[2]. Moreover, on 22 January 2009, the government presented an updated macroeconomic forecast in a Supplementary Bill to parliament together with the additional budget stimulus package announced in December. It is based on somewhat more favourable growth assumptions than the Commission services' January interim forecast. It foresees GDP growth of -0.8% and 1.5% in 2009 and 2010, respectively, compared to -1.4% and 1.2%, respectively, in the Commission forecast. Other key indicators, such as employment growth, unemployment and general government net lending reflect this difference in the growth forecast, which is mainly due to the Commission services' forecast being based on less favourable assumptions concerning the evolution of world trade. Neither of the two alternative scenarios in the updated Convergence Programme is, however, sufficiently detailed to be considered as the reference scenario in this analysis and the Supplementary Bill was not presented early enough to be included in an addendum to the Convergence programme.

[2] Alternative scenario 2 (which is the most cautious scenario) contains a GDP growth forecast (-1.2% and +1.4% in 2009 and 2010, respectively) that is similar to the Commission services' January 2009 interim forecast, but differs somewhat more regarding other indicators.

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

| | 2008 | | 2009 | | 2010 | | 2011 |
|---|---|---|---|---|---|---|---|
| | COM | CP | COM | CP | COM | CP | CP |
| Real GDP (% change) | 0.5 | 1.5 | -1.4 | 1.3 | 1.2 | 3.1 | 3.5 |
| Private consumption (% change) | 1.1 | 1.8 | -0.2 | 2.3 | 1.4 | 3.2 | 3.2 |
| Gross fixed capital formation (% change) | 2.4 | 3.0 | -6.9 | -0.8 | -0.1 | 4.4 | 7.5 |
| Exports of goods and services (% change) | 3.0 | 4.6 | -1.6 | 3.8 | 3.1 | 7.3 | 6.5 |
| Imports of goods and services (% change) | 4.1 | 4.3 | -2.1 | 4.1 | 2.8 | 7.4 | 6.7 |
| *Contributions to real GDP growth:* | | | | | | | |
| - Final domestic demand | 1.3 | 1.5 | -1.3 | 1.2 | 0.7 | 2.3 | 2.9 |
| - Change in inventories | -0.5 | -0.5 | -0.2 | -0.1 | 0.1 | 0.2 | 0.1 |
| - Net exports | -0.3 | 0.5 | 0.1 | 0.2 | 0.4 | 0.6 | 0.5 |
| Output gap[1] | 0.7 | -0.7 | -1.9 | -1.7 | -2.0 | -1.1 | -0.3 |
| Employment (% change) | 0.7 | 1.2 | -1.9 | 0.0 | -1.3 | -0.2 | 0.9 |
| Unemployment rate (%) | 6.2 | 6.0 | 7.9 | 6.4 | 8.7 | 6.6 | 6.0 |
| Labour productivity (% change) | -0.2 | n.a. | 0.5 | n.a. | 2.5 | n.a. | n.a. |
| HICP inflation (%) | 3.3 | 3.6 | 0.7 | 1.5 | 1.0 | n.a. | n.a. |
| GDP deflator (% change) | 2.8 | 2.3 | 1.1 | 2.3 | 1.1 | 1.5 | 1.7 |
| Comp. of employees (per head, % change) | 3.5 | 2.2 | 2.1 | 3.4 | 2.6 | 3.8 | 4.0 |
| Net lending/borrowing vis-à-vis the rest of the world (% of GDP) | 6.1 | 8.2 | 6.5 | 8.2 | 6.6 | 8.3 | 8.1 |

Note:

[1]In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services.

*Source :*

*Commission services' January 2009 Interim economic forecasts (COM); Convergence programme (CP)*

## 4. BUDGETARY STRATEGY

### 4.1. Budgetary implementation in 2008

Despite the general government surplus of 2007 turning out 0.6 percentage points stronger than planned in the 2007 update of the convergence program, the government balance for 2008 developed considerably worse than expected in that programme. The Commission services' estimate that the surplus in 2008 reached 2.3% of GDP, i.e. 0.5 percentage points lower than what was planned in the 2007 update of the programme. It follows from this that different revenue and expenditure growth contributed by more than 1% of GDP to the worse-than-planned outcome. Neither revenue nor expenditure increased as much as planned, but the shortfall was more pronounced on the revenue side, which did not increase by more than 1.0% against a planned 4.4% increase. Expenditure rose by 3.3% instead of a planned 4.5%. The swing from a better-than-planned to a worse-than-planned government balance outcome between 2007 and 2008 is to a large extent explained by sharp fluctuations in the capital gains taxes of households. This is a reflection of the significant rise and fall in stock market indices over the last couple of years. From the onset of the global financial crisis in the summer of 2007 until the end of 2008, the main stock market index had fallen by about 50%.

Whereas the 2008 update of the programme maintained the forecast of the previous programme of a surplus of 2.8% of GDP in 2008, the intensified weakness of equity markets

in the final months of 2008 combined with the worse-than-expected development of economic activity towards the end of the year prompted the government in its January update of the forecast to lower its forecast for the general government balance in 2008 to 2.3% of GDP, i.e. the same level as assumed in the Commission services' forecast. Most of the deterioration in the surplus compared to the 2009 Budget Bill (and hence the reference scenario) stems from lower tax revenue from capital income and consumption.

There is no major direct impact on public finances of the measures taken in support of the financial sector, as these consist of government loan guarantees or credit lines, which to our knowledge have not yet been called upon. As participation by the major Swedish banks in the government's Stability Programme so far has been limited, revenue from participation fees is correspondingly low.

### 4.2. Near-term budgetary strategy

In the updated programme, the general government surplus was foreseen to narrow to 1.1% of GDP in 2009, before widening again to 1.6% of GDP in 2010. These figures include the fiscal stimulus measures contained in the 2009 Budget Bill (amounting to about 1% of GDP), but not the additional measures announced in December 2008 (amounting to a further 0.3% of GDP). These targets are far more favourable than what is expected in the Commission services' forecast, where a government balance of -1.3% and -1.4% are foreseen for 2009 and 2010, respectively. In the forecast update of January 2009, which takes both stimulus packages into account, the government revised its forecast regarding the general government balance down to -1.1% for both 2009 and 2010. The bulk of the deterioration in the overall balance compared to the reference scenario stems from a weakening of the central government balance. Central government tax revenue, in particular from capital income, was revised down by almost 2% of GDP.

The budgetary projections in the programme are based on the 2009 Budget Bill that was announced in September 2008 and adopted by Parliament in November 2008. The supplementary package announced in December 2008 comes on top of the measures included in the 2009 Budget Bill and were presented to Parliament in the form of a Bill on 22 January 2009.

The measures enacted or announced so far are timely and reasonably well targeted. However, as they are mostly of a permanent nature, they are not fully in line with the general principles of the Commission Communication of 26 November 2008 on the European Economic Recovery Plan, which calls for fiscal stimulus measures to be temporary. While the large share of permanent measures may reflect the parallel objective of strengthening the long-term growth potential of the economy, it could impair the measures' capacity to stimulate demand in the short-term. Moreover, the timeliness – most measures have taken effect by 1 January 2009 – is, at least in part, due to fortunate coincidence. At the time of its elaboration within the government coalition in September 2008, the economic outlook was much more benign and the package of reforms was not primarily presented as a package to counteract the cyclical downturn. The objective of raising the long-term growth potential also figured prominently. This is also reflected in the choice of measures undertaken, which consist mostly of tax cuts benefiting not only low- and medium-income earners (the third step of the "in-work tax credit" scheme), but also high-income earners (such as raising the threshold for paying state tax). While tax cuts increase the disposable income of households, part of it is likely to go into increased household saving, which reduces their short-term stimulatory effects. The lowering of social contributions by one percentage point should improve the incentives to hire or retain workers, which could be beneficial also in the short term. While

most measures in the 2009 Budget Bill are permanent in nature, the additional stimulus package of December 2008 mostly contains temporary measures, expiring in 2010 or 2011. As the temporary measures are primarily related to the expected rise in unemployment (such as increased spending on labour market matching and vocational training programmes), they should be easier to terminate than popular tax cuts or benefit increases once the economy picks up.

The planned fiscal policy stance in 2009 is clearly expansionary as measured by the change in the structural balance as calculated by the Commission services' on the basis of the information in the programme according to the commonly agreed methodology. The recalculated structural balance is foreseen to decrease by around 1% of GDP in the programme. According to the Commission services' forecast, the decrease in the structural balance is expected to be significantly larger at around 2% of GDP. This partly reflects the additional fiscal stimulus measures announced in December 2008, but also the substantial shortfall of capital income taxes due to adverse asset price developments.

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

| Revenue measures[1] | Expenditure measures[2] |
|---|---|
| Measures in response to the downturn | |
| • Lower taxes on earned income (-0.5% of GDP)<br>• Lower social contributions (-0.3% of GDP)<br>• Lower corporate income tax (-0.2% of GDP)<br>• Lower taxes on pensions (-0.1% of GDP)<br>• Tax deductibility of home improvement services (-0,1% of GDP) | • Increased investment in and maintenance of infrastructure (+0.2% of GDP)<br>• Increased education and research expenditure (+0.1% of GDP)<br>• Increased coaching, activation and training of unemployed (+0.1% of GDP) |
| Other measures | |
| • Changed under-pricing rules for certain companies (+0.2% of GDP)<br>• Changed deductibility of interest costs for companies (+0.2% of GDP) | |

Note:

[1] Estimated impact on general government revenue

[2] Estimated impact on general government expenditure

Source: Commission services

As the downturn is partly due to the increased uncertainties in the financial sector, the government's stability plan for the banks aims at reducing uncertainty and allowing a more normal functioning of the financial system. The special measures in support of the automotive industry, consisting mostly of rescue loans and conditional loan guarantees, should primarily be seen as a way to dampen the impact of the fall in demand for automobiles on companies in the automobile sector, which are concentrated to the Western part of Sweden.

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

| (% of GDP) | 2007 | 2008 | | 2009 | | 2010 | | 2011 | Change: 2008-2011 |
|---|---|---|---|---|---|---|---|---|---|
| | COM | COM | CP | COM | CP | COM[1] | CP | CP | CP |
| **Revenue** | **56.4** | **55.1** | **55.4** | **53.0** | **54.1** | **52.7** | **53.8** | **53.3** | **-2.1** |
| *of which:* | | | | | | | | | |
| - Taxes on production and imports | 16.8 | 16.9 | 18.4 | 16.9 | 18.2 | 16.9 | 18.0 | 17.7 | -0.7 |
| - Current taxes on income, wealth, etc. | 19.0 | 18.0 | 17.6 | 16.1 | 17.3 | 16.0 | 17.3 | 17.4 | -0.2 |
| - Social contributions | 12.9 | 12.8 | 11.8 | 12.8 | 11.1 | 12.8 | 11.0 | 11.0 | -0.8 |
| - Other (residual) | 7.6 | 7.3 | 7.6 | 7.1 | 7.5 | 7.0 | 7.5 | 7.2 | -0.4 |
| **Expenditure** | **52.8** | **52.8** | **52.5** | **54.3** | **53.1** | **54.1** | **52.2** | **50.8** | **-1.7** |
| *of which:* | | | | | | | | | |
| - Primary expenditure | 51.0 | 51.0 | 50.7 | 52.7 | 51.5 | 52.6 | 50.8 | 49.5 | -1.2 |
| *of which:* | | | | | | | | | |
| Compensation of employees and intermediate consumption | 24.5 | 24.4 | 24.2 | 24.8 | 24.6 | 24.4 | 24.1 | 23.7 | -0.5 |
| Social payments | 18.3 | 18.1 | 18.0 | 19.1 | 18.3 | 19.3 | 18.2 | 17.8 | -0.2 |
| Subsidies | 1.5 | 1.8 | 1.4 | 1.9 | 1.4 | 1.9 | 1.3 | 1.2 | -0.2 |
| Gross fixed capital formation | 3.1 | 3.2 | 3.2 | 3.4 | 3.2 | 3.4 | 3.1 | 3.0 | -0.2 |
| Other (residual) | 3.5 | 3.5 | 3.9 | 3.6 | 3.9 | 3.6 | 4.0 | 3.8 | -0.1 |
| - Interest expenditure | 1.8 | 1.8 | 1.8 | 1.5 | 1.6 | 1.4 | 1.4 | 1.3 | -0.5 |
| **General government balance (GGB)** | **3.6** | **2.3** | **2.8** | **-1.3** | **1.1** | **-1.4** | **1.6** | **2.5** | **-0.3** |
| **Primary balance** | **5.4** | **4.1** | **4.7** | **0.2** | **2.6** | **0.1** | **3.0** | **3.8** | **-0.9** |
| One-off and other temporary measures | 0.0 | 0.3 | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | -0.2 |
| **GGB excl. one-offs** | **3.6** | **2.0** | **2.5** | **-1.4** | **1.0** | **-1.4** | **1.5** | **2.4** | **-0.1** |
| Output gap[2] | 2.5 | 0.7 | -0.7 | -1.9 | -1.7 | -2.0 | -1.1 | -0.3 | 0.4 |
| Cyclically-adjusted balance[2] | 2.1 | 1.9 | 3.2 | -0.2 | 2.1 | -0.2 | 2.2 | 2.7 | -0.5 |
| **Structural balance[3]** | **2.1** | **1.6** | **2.9** | **-0.3** | **2.0** | **-0.2** | **2.1** | **2.6** | **-0.3** |
| *Change in structural balance* | | *-0.6* | *0.8* | *-1.9* | *-0.9* | *0.1* | *0.1* | *0.4* | |
| Structural primary balance[3] | 3.9 | 3.4 | 4.7 | 1.2 | 3.6 | 1.2 | 3.5 | 3.9 | -0.8 |
| *Change in structural primary balance* | | *-0.6* | *0.7* | *-2.1* | *-1.1* | *0.0* | *-0.1* | *0.3* | |

Notes:

[1]On a no-policy-change basis.

[2]Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission services on the basis of the information in the programme.

[3]Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.

*Source:*

*Convergence programme (CP); Commission services' January 2009 Interim economic forecasts (COM); Commission services' calculations*

### 4.3. Medium-term budgetary strategy

The medium-term objective (MTO) of the programme's medium-term strategy remains to achieve a general government surplus of 1% over the cycle. To monitor the compliance with this target, three different indicators are used: the average general government balance since 2000 (the year of introduction of the target), a 7-year rolling average of the general government balance (including the three preceding years, the year in question and the three subsequent years) and a measure of the structural balance (which is different from the commonly agreed methodology). Since the 2008 economic Spring Bill, this is complemented by a 7-year rolling average of the output gap, to take into account whether the economy was mostly in good/neutral/bad times in a given 7-year period.

According to the updated programme, which is based on a much more favourable view of the headline government balance compared to the Commission services' forecast, the target is fulfilled by a wide margin in 2008 based on all three indicators. The average government balance since 2000 is 1.5% of GDP, the 7-year indicator is 2.1% of GDP and the recalculated structural balance is 2.9% of GDP. According to the programme, the structural surplus is expected to continue to exceed the target by a wide margin in 2009-11. Both the 7-year rolling average and the structural balance are, however, very sensitive to assumptions made about the output gap. While the updated programme indicates a continued over-performance during the remainder of the programme period, the Commission calculations based on the January interim forecast result in a structural balance in 2008 that is much lower at 1.6% of GDP. These calculations also show that it is expected to become slightly negative in 2009 and 2010. This would mean that Sweden would not reach its MTO in these two years.

According to the updated programme, the fiscal policy stance in 2010 and 2011 is expected to be slightly restrictive as measured by the change in the recalculated structural balance (based on a no-policy change assumption). This is based on the need for sufficient safety margins to be maintained given the uncertainty regarding both the economic outlook (and hence the future need for stimulus measures) and regarding how much of the expected worsening in the government balance is due to structural and cyclical factors, respectively.

The projections in the updated programme are based on an assumption of expenditure restraint compensating for the permanent decline in the revenue ratio. According to the programme, already implemented reforms of the social security systems, such as stricter eligibility criteria for sickness insurance and lower replacement rates in the unemployment insurance system, would tend to decrease expenditure on social security transfers over the programme period. Its share of GDP is set to decline from 18.3% of GDP in 2009 to 17.8% of GDP in 2010. Public consumption is also expected to decline by 0.9% of GDP, thanks to GDP growth outstripping increases in expenditure. Seen against more recent macroeconomic scenarios, these benign trajectories for expenditure ratios look markedly favourable.

### 4.4. Risks to the budgetary targets

The main risk to the programme's budgetary projections stems from the macro-economic scenario. In recognition of this risk, the programme contained two alternative scenarios, both with less favourable growth assumptions based on the international financial crisis proving deeper and more protracted. As noted in footnote 2, alternative scenario 2 contains growth assumptions that are fairly similar to those in the Commission services' January forecast. It seems, however, that this scenario might underestimate the impact on general government finances of an economic downturn of the stipulated magnitude. Despite an assumption that the

unemployment rate would increase to 9.2% of the workforce in 2010 in this scenario, the general government finances are assumed to show a deficit of only 0.6% of GDP that year. In the Commission services' forecast, which is based on the unemployment rate reaching 8.7% of the workforce in 2010, the deficit is assumed to have reached 1.4% of GDP that year. Only a minor part of the difference can be attributed to the effects of the additional fiscal stimulus package of slightly less than 0.3% of GDP announced in December. In the January update of the forecast, the government foresees the general government deficit to reach 1.1% in 2010, based on somewhat more favourable growth assumptions than the Commission services' forecast and the unemployment rate reaching 8.5% in 2010.

This confirms that there is substantial uncertainty as to the degree of sensitivity of the government balance to changes in economic activity and the output gap at the current juncture. While the uncertainty concerns both the revenue and the expenditure side, it is probably larger on the revenue side, given the recent volatility of some of the revenue components, notably revenues from capital income taxes. Moreover, expenditure is restrained by the expenditure ceilings, which could favour revenue-decreasing measures in case further discretionary stimulus measures are implemented. The government has invested political capital in strengthening the role of the expenditure ceilings and has announced an explicit ambition to gradually lower the tax burden on the economy. The 2009 Budget Bill also contained more tax cuts than expenditure increases.

The less favourable macroeconomic scenario of the Commission services' interim forecast points to a significant risk that expenditure might rise more rapidly than foreseen in the updated programme as unemployment increases. It might also remain at an elevated level for a longer time, if the positive effects of the social insurance reforms do not materialise to the same degree as hoped for by the government. Linked to this, there is a risk that the temporary measures contained in the Supplementary Bill, which are mostly focused on helping unemployed back to work, will not be terminated as stipulated, if unemployment turns out to be more persistent than foreseen.

The overall risks to the government balance are clearly tilted to the downside due to the heightened uncertainty with regard to the macroeconomic outlook and the effects, at least in the short term, of the reforms of the social insurance systems.

A further risk to the general government balance is the uncertainties in the financial sector. While Swedish banks generally are considered to be stable with ample capital cushions to withstand a deterioration in their loan portfolios, the current crisis has raised risk premia and made banks more reluctant to extend credit to companies and households, all of which hampers economic activity. To instil confidence and facilitate a return to more normal market conditions, the government has taken a number of measures to strengthen the stability of the Swedish financial system, including introducing a facility to guarantee the medium-term borrowing of banks. Regardless of the degree of participation in this scheme, the fact that the Swedish banking sector is dominated by four big banks, each of which are systemically important, the risk always remains that the government would have to step in with financial support.

## 5. DEBT DEVELOPMENTS AND LONG-TERM SUSTAINABILITY

### 5.1. Debt developments

In 2007, the gross debt ratio amounted to 40.6% of GDP. In 2008, it fell to around 38% of GDP, both as a result of a continued strong primary balance and significant revenue from

divestments of state shareholdings. According to the updated programme, the gross debt ratio is expected to continue to fall over the programme period, reaching 24% of GDP in 2011. That would amount to a 17-percentage-point decline in the ratio compared to 2007, about a third of which explained by actual and planned privatisation receipts. In the Commission services' forecast, in contrast, the decline in the gross debt ratio observed in recent years is expected to come to a halt, with the ratio reaching about 36% of GDP in 2010. The more benign scenario of the updated programme stems from the assumptions about the primary balance, GDP growth and a stock-flow adjustment being significantly more favourable than in the Commission services' January forecast. The 2009 Budget Bill, on which the reference scenario in the updated programme is based, includes continued privatisations proceeds in the order of 1.5% of GDP each year over the 2009-11 period. Given the ongoing financial crisis, this target seems unrealistic and the Commission services' forecast assumes zero privatisation proceeds in 2009 and proceeds of less than 1% of GDP in 2010. Even that could prove optimistic. In the Supplementary Bill of January 2009, the government foresees the gross debt ratio to come down at a much slower pace, falling to 35% in 2011. The expected debt ratio in 2011 is thus expected to be 11 percentage points higher in the 2009 Supplementary Bill than in the 2009 Budget Bill.

As the Swedish government has large financial assets, notably held in the buffer funds of the pension system, gross and net debt differ markedly. In 2007, the general government had a net asset position of 20.9% of GDP according to the updated programme. The net asset position is projected to increase further to 26.2% of GDP by 2011. In the Supplementary Bill, net assets are assumed to remain at about 20% of GDP in 2011.

While there are risks stemming in particular from adverse developments of the primary balance, the level of debt is comfortably low and well below the 60% of GDP benchmark. There is ample room to withstand even a substantial increase in debt due to any possible rescue operation in the financial sector.

## Table IV: Debt dynamics

| (% of GDP) | average 2002-06 | 2007 | 2008 | | 2009 | | 2010 | | 2011 |
|---|---|---|---|---|---|---|---|---|---|
| | | | COM | CP | COM | CP | COM | CP | CP |
| **Gross debt ratio**[1] | **50.6** | **40.6** | **34.8** | **35.5** | **36.2** | **32.2** | **36.0** | **28.3** | **23.8** |
| Change in the ratio | -1.7 | -5.3 | -5.8 | -5.1 | 1.4 | -3.3 | -0.2 | -3.9 | -4.5 |
| *Contributions*[2]*:* | | | | | | | | | |
| **1. Primary balance** | **-2.6** | **-5.4** | **-4.1** | **-4.7** | **-0.2** | **-2.6** | **-0.1** | **-3.0** | **-3.8** |
| **2. "Snow-ball" effect** | **-0.3** | **-0.6** | **0.5** | **0.4** | **1.6** | **0.3** | **0.6** | **0.0** | **-0.1** |
| *Of which:* | | | | | | | | | |
| Interest expenditure | 2.0 | 1.8 | 1.8 | 1.9 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 |
| Growth effect | -1.6 | -1.1 | -0.2 | -0.6 | 0.5 | -0.4 | -0.4 | -1.0 | -0.9 |
| Inflation effect | -0.6 | -1.3 | -1.1 | -0.9 | -0.4 | -0.8 | -0.4 | -0.5 | -0.5 |
| **3. Stock-flow adjustment** | **1.2** | **0.7** | **-2.2** | **-0.8** | **0.0** | **-1.0** | **-0.7** | **-0.9** | **-0.6** |
| *Of which:* | | | | | | | | | |
| Cash/accruals diff. | -0.7 | -1.0 | | 0.0 | | 0.2 | | 0.1 | 0.3 |
| Acc. financial assets | 2.1 | 1.3 | | -2.6 | | -1.5 | | -1.4 | -1.4 |
| *Privatisation* | 0.0 | -0.6 | | n.a | | n.a | | n.a | n.a |
| Val. effect & residual | 0.0 | 0.3 | | 1.9 | | 0.3 | | 0.5 | 0.4 |

Notes:

[1]End of period.

[2]The snow-ball effect captures the impact of interest expenditure on accumulated debt, as well as the impact of real GDP growth and inflation on the debt ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

*Source:*

*Convergence programme (CP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations*

### 5.2. Long-term sustainability

This section presents sustainability indicators based on the long-term age-related government spending as projected by the Member States and the EPC in 2006 according to an agreed methodology.[3]

Table 3 in Annex 2 shows that age-related spending is projected to rise by 2.3 percentage points between 2010 and 2050, which is below the EU average. Sustainability indicators for two scenarios are presented in Table 4 in Annex 2. Including the increase of age-related expenditure and assuming that the structural primary balance remained at its 2008 level,

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

Sweden has no sustainability gap in the baseline scenario (S2 is -1.9% of GDP).[4] The starting budgetary position is more than sufficient to stabilize the debt ratio over the long-term and to offset the long-term budgetary impact of ageing. However, if the 2009 budgetary position of the Commission services January 2009 forecast was taken as the starting point, a sustainability gap would arise, amounting to 1.7% of GDP.

The "programme scenario", which is based on the end-of-programme structural primary balance, projects the budgetary situation to deteriorate, although no sustainability gap would arise, either.

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

For an overall assessment of the sustainability of public finances, other relevant factors are taken into account, as shown in Table 5 in Annex 2. Note that the programme discusses sustainability starting from a primary surplus that is assumed to be lower than that underlying the above calculations.

The long-term budgetary impact of ageing is lower than the EU average. The budgetary position in 2008 as estimated in the programme with a high primary surplus contributes to the reduction of gross debt and the large assets accumulated by the public pension schemes will help finance part of the increase in pension expenditure. However, if the 2009 budgetary position as projected by the Commission services' interim forecast was taken as the starting point, a small sustainability gap would arise. Maintaining high primary surpluses over the medium term would contribute to limiting the risks to the sustainability of public finances, which are currently at a low level.

## 6. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

The Swedish budgetary framework, which evolved in the second half of the 1990s in reaction to the significant worsening of public finances during the deep recession of the early 1990s, is strong and is generally perceived to have contributed to the significant debt reduction observed since its introduction. The framework benefits from broad political support across the political spectrum, which has raised its credibility. The rules of the framework are also fairly simple (a surplus target of 1% of GDP for the general government to be achieved over the business cycle, a multi-year nominal expenditure ceiling for central government and a balanced-budget rule for local governments). To increase transparency, the government has in recent years taken a number of steps to refine the framework. It has more clearly defined the length of the business cycle by introducing a rolling 7-year average indicator for the general government fiscal balance, stated its intention to discontinue the use of tax expenditures, reintroduced a three-year horizon for the expenditure ceilings (after several years of only a two-year horizon) and created a Fiscal Council with the task of evaluating how well the government has implemented its stated fiscal policy objectives.

The government is continuing its work on reviewing the fiscal policy framework. As the demographic situation changes towards a higher share of elderly people in the population, the

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

government considers that an adjustment of the 1% surplus target would be warranted at some point, provided that a target for the general government budget balance continues to guide fiscal policy. In the context of the ongoing review, it would be useful to further clarify how the framework could be adapted to reduce the risk of pro-cyclical fiscal policies. In times of large budget surpluses, when the surplus target is not restraining public finances, the government can respect the target while at the same time implementing rather expansive fiscal policies. Moreover, the implicit commitment by the central government to provide support to local authorities in case of financial distress may also provide incentives for expansionary policies in good times, leaving no buffer to cope with a worsening of the economic situation. In the current context, it risks leading to budgetary cut-backs or tax hikes at a time of falling output. Tax increases at the local level would interfere with the central government's policy of lowering taxes and increasing incentives to work[5]. Moreover, considering that the level of taxation is among the highest in the EU, the scope for adjusting the budget on the revenue side is limited and emphasises the need for reducing public expenditure as a share of GDP over time.

While the tax reform of the early 1990s implied a significant simplification of the tax system by lowering tax rates and broadening tax bases, over the years a large number of changes to the tax system have made it less transparent. This could pose a medium-term problem if it were to undermine popular understanding of and support for the tax system and could lead to less efficient resource allocation.

## 7. ASSESSMENT

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

The size of the discretionary fiscal stimulus in 2009 is adequate given the severity of the downturn. While the room for further expansionary measures is not exhausted, caution needs to be exerted in view of the uncertainties regarding both the economic outlook (and hence the need for further fiscal measures) and the effect of the downturn on the government balance. Potential liabilities following from the guarantees issued in favour of the banking and automotive sectors also pose a risk.

According to the information in the updated programme, the recalculated structural surplus is about 1% of GDP smaller in 2009 than in 2008, implying that fiscal policy is expansionary. The headline deficit falls by 1.7 percentage points to 1.1% of GDP, reflecting an impact of automatic stabilisers of 0.6% of GDP. These figures are sensitive not only to the assumptions about the macroeconomic scenario, but also to the estimation of potential growth and hence the attribution of a given change in headline deficit to cyclical and structural factors. According to the Commission January forecast, the overall fiscal balance shifts from a surplus of 2.3% in 2008 to a deficit of 1.3% in 2009, with 1.5 percentage points explained by the cyclical slowdown and 1.9 percentage points by structural factors (the remaining 0.2 pp. due

[5] The weighted average municipal tax rate increased from 31.44% to 31.52% in 2009.

to the change in one-offs). The change in the structural balance mostly reflects the fiscal stimulus measures of 1.4% of GDP, but also captures the decline in some revenues that are not explained by the change in the calculated output gap, e.g. capital income taxes due to falling asset prices.

The measures enacted or announced so far are timely and well targeted. However, as they are mostly of a permanent nature, they are not fully in line with the general principles of the Commission Communication of 26 November 2008 on the European Economic Recovery Plan, which calls for fiscal stimulus measures to be temporary. While the large share of permanent measures reflect the parallel objective of strengthening the long-term growth potential of the economy (they are related to the Lisbon structural reform agenda) it could impair the measures' capacity to stimulate demand in the short-term. The additional stimulus package of December 2008 mostly contains temporary measures, expiring in 2010 or 2011. As these measures are primarily related to the expected rise in unemployment (such as increased spending on labour market matching and vocational training programmes), they should be easier to terminate than popular tax cuts or benefit increases once the economy picks up.

According to Commission calculations, Sweden achieved its MTO of a 1% general government surplus over the cycle in 2008 with some margin, but is expected to fall significantly below the target in both 2009 and 2010, when the structural balance is likely to be slightly negative. Sweden maintains a safety margin to the reference value, but risks to the government balance have increased. The uncertainty concerns both the revenue and the expenditure side, but is probably larger on the revenue side, given the recent volatility of some of the revenue components, notably revenues from capital income taxes. There is also uncertainty about the impact of recent reforms of the sickness and unemployment insurance systems on government expenditure. Part of the updated programme's expected decline in the government expenditure ratio is based on GDP growth outpacing the increase in social transfers over the programme period.

A temporary deviation from the relatively ambitious MTO is acceptable given the severity of the current downturn and the relatively low level of government debt, but there is a need to strengthen the fiscal framework to ensure that the government balance improves once the economy picks up again.

## ANNEX 1. SPECIAL TOPIC: RECENT CHANGES TO INCOME TAXATION

### 1. INTRODUCTION

To address the perceived challenge that current demographic and economic trends pose for public finances, the Swedish authorities have taken a number of initiatives over the last decade. In the 1990s, a comprehensive pension reform was undertaken that improved the long-term sustainability of the pension system by introducing a stronger link between economic growth and the level of pensions and by improving the incentives to stay longer in the work force. Measures have also been taken in recent years to reverse the trend in the number of people on sickness and incapacity leave. In addition, over the last decade, fiscal policy is geared towards achieving a fiscal surplus of 1% of GDP over the cycle, in an attempt to allow tax smoothing in the face of expected increased spending pressures in the future.

In a similar vein, the current government, which took office in 2006, has focused on increasing the labour supply by improving the incentives to go from inactivity or unemployment to work and to increase the number of hours worked per employee[6]. The main instruments used have been general tax cuts on earned income, selective subsidization of the wage costs for certain groups with low employment rates, as well as lower benefit levels and tougher eligibility criteria in the unemployment and sickness insurance systems.

This chapter will focus on recent changes in earned income taxation and is organised as follows. The following section briefly presents the main earned income tax measures that have been introduced or announced since the current government took office. The next section presents estimates of their expected effects, notably with regard to labour supply and fiscal impact. Thereafter, some alternative tax measures are discussed in order to assess the possibilities to further increase labour supply by additional reforms in the income taxation area. Finally, the conclusions are drawn that, while the initial steps of the so called "in-work" tax credit scheme are likely to have increased incentives to join the work force, there may be diminishing returns in expanding that system and more scope for efficiency gains by cutting the state tax. Distributional aspects is however likely to prevent any radical reforms.

### 2. RECENT CHANGES TO INCOME TAXATION

The changes to earned income taxation have mainly taken the form of a so called **"in-work tax credit"** (*jobbskatteavdrag*), which is a tax reduction applying to all income derived from work[7]. It has been introduced in several steps. The first two steps were introduced in 2007 and 2008, respectively. In the Budget Bill for 2009, which was presented in September, the government announced its intention to introduce a third step as from 2009. The design of the in-work tax credit scheme implies a lowering of marginal and average tax rates for most low and medium income earners. It is calculated according to a fairly complicated formula and

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[6] The government's objective has not only been to expand total labour supply, but to increase social cohesion by reducing inactivity or unemployment levels for certain groups with low employment levels, such as people with a migrant background, young people, long-term unemployed or people returning from long spells of sickness.

[7] The in-work tax credit does not apply to transfers, such as pensions. Capital income is taxed separately from earned income.

comes on top of an already existing basic deduction (*grundavdrag*)[8]. Whereas the latter reduces taxable income, the former reduces taxes paid[9]. The scheme is a way to reduce taxes also for income earners only paying municipal income taxes, which are decided at the local level.

In the Budget Bill for 2009, it was also announced that, as from 2009, the threshold for paying **state tax** will be pushed further up the income scale from currently €2700[10] per month to €2840 per month. For incomes above that level, a state income tax rate of 20% applies. For incomes above €4700, that rate increases to 25%.

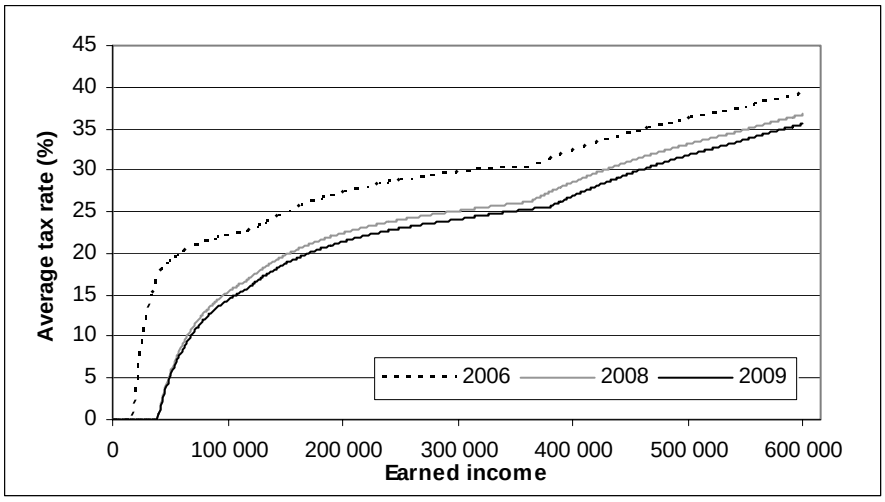
The effects of these reforms on **marginal and average tax rates** are shown in Figures 1a and 1b below. The dotted line depicts the profile before the reforms of the current government, the bold grey line the profile after the first two steps of the in-work tax credit scheme and the thin line the profile after the additional reforms announced in the latest Budget Bill. It is clear that recent reforms have significantly lowered the average tax rate for people with relatively low incomes. Incomes below €300 per month are tax free and for monthly incomes of €1310, the average tax rate is less than 20%. The reduction in the average tax rate declines with rising income. As to the effect on marginal tax rates, the in-work tax credit smoothes the profile over the income spectrum, doing away with the humps resulting from the phasing out of the basic deduction. While the measures announced in the 2009 Budget Bill imply a significant lowering of the marginal tax rate by 20 percentage points for incomes in the €2700-2840 per month bracket, incomes above that level face the same relatively high marginal tax rate as before the reforms.

[8] The basic deduction was introduced in 1991 as part of a comprehensive tax reform, which broadened tax bases and lowered tax rates. As compensation for a substantial lowering of the top marginal rates, which was seen as benefiting high-income earners, the basic deduction was introduced. The deductible amount rises to a peak of about €3100 for annual incomes in the €11000-12500 bracket, before gradually declining to a minimum level of €1180 for incomes above €31800.

[9] To calculate the effect of the in-work tax credit on an individual's income tax, the following six steps should be followed: 1) Calculate earned income for tax purposes (i.e. earned income less deductions for work-related expenses and contributions to private retirement plans); 2) Calculate the basic deduction; 3) Calculate taxable income as earned income for tax purposes less basic deduction; 4) Based on taxable income, calculate local and, if applicable, state income tax, 5) Calculate the in-work tax credit according to a special formula; 6) Total taxes consist of the sum of local and state tax plus other taxes less the in-work tax credit.

[10] An exchange rate of SEK10.8 per € is used throughout this Annex.

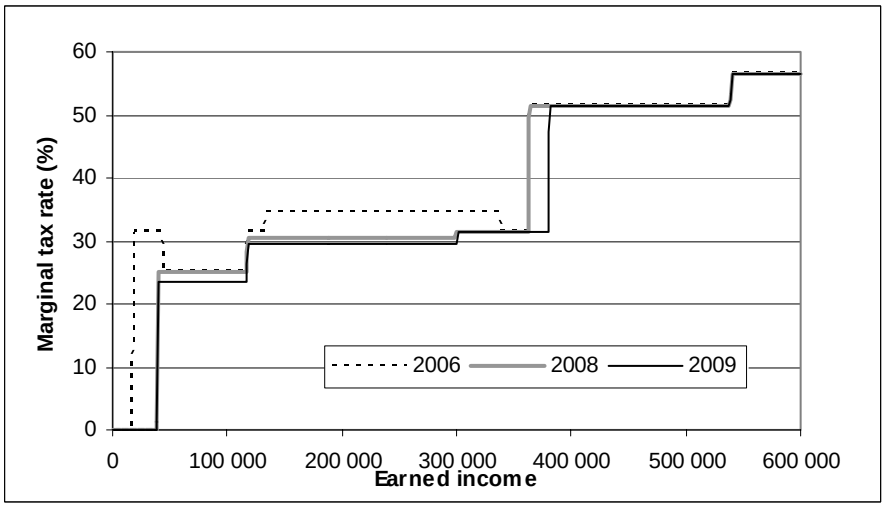
**Figure 1a. Lowering of average tax rate on earned income**




NB: Expressed in SEK. Profile based on an average local tax rate of 31.55%.

Source: Budget Bill 2009

**Figure 1b. Lowering of marginal tax rates on earned income**




NB: Expressed in SEK. Profile based on an average local tax rate of 31.55%.

Source: Budget Bill 2009

## 3. IMPACT ASSESSMENT OF RECENT REFORMS

It is still too early to make an empirical evaluation of the actual effects that the reforms described in the previous section have had on labour supply and participation rates. There is also very little knowledge on the effects of this type of reforms, as in-work tax credits have never existed in Sweden before. Instead, this section looks at simulations that have been made

to assess the likely impact of recent reforms[11]. Most simulations refer to the reforms undertaken until 2008 and do not yet include the additional changes to the tax system that were announced in the 2009 Budget Bill.

By its design, the in-work tax credit is expected to improve the incentives to go from inactivity or unemployment to work. This is because the replacement rate, i.e. the ratio between a household's income from non-work and the income from work, falls as a consequence of the tax credit scheme. The lowering of benefit levels and tightening of eligibility criteria in the unemployment insurance system that have taken place in parallel to the changes to the tax system go in the same direction. The largest contribution to the reduction in the replacement rate, however, comes from the in-work tax credit. Based on reforms enacted by 2008, it is estimated that the in-work tax credit decreases the replacement rate for the unemployed by about six percentage points, whereas the changes to the unemployment insurance system only contributes about 1 percentage point (Lundgren 2008).

For certain low-income households, the positive effect from the in-work tax credit on household income is cancelled out by the withdrawal of income-dependent benefits, such as housing assistance and social security benefits. These households do not make up a large share of the population but are often the ones with a very low participation rate. Moving up the income scale, the likelihood of receiving income-dependent benefits decreases and the impact of recent reforms on the household budget therefore increases. To what extent the incentives to work are affected will to a large extent depend on the relative importance of income and substitution effects. Most households will enjoy a positive income effect from lower taxes. This tends to reduce labour supply. On the other hand, lower taxes on earned income raises the price of leisure, which tends to increase labour supply.

Micro simulations yield a number of interesting results as to the possible responses to the tax reforms on employment and hours worked of various categories of households (Table 1). The overall employment rate increases marginally and the number of hours worked increases by a relatively modest 1.8%, but with significant differences across different income categories. Among low income households, the employment rate rises from 0.34 to 0.38 as a result of significantly improved incentives to work. The total number of hours worked increases by about 16%. This strong increase is mainly explained by more people taking up employment rather than those who had work before the reforms now working longer hours[12]. In the middle-income category, the effects on participation and hours worked are more limited, reflecting the increasing relative importance of income effects. For high-income earners, the income effect dominates the substitution effect and labour supply actually falls slightly. Another feature of the reforms (not shown in table 1) is that it has a relatively large effect on single women with or without children, for which the number of hours worked increases by 2.7% and 2.9%, respectively.

[11] Unless otherwise indicated, simulation results refer to Lundgren, S. (red.); "Vägar till full sysselsättning", SNS Konjunkturråd; January 2008).

[12] It is possible that the number understates the real effect, as retirees, students and people on parental leave are assumed not to alter their status as a result of the reforms. In reality, some people in these groups, which often fall into the low income category, could very well join the work force.

**Table 1. The effects on employment and hours worked of recent reforms**

| Income category | Employment rate | | Average number of hours worked per year | | Percentage change in number of hours worked |
|---|---|---|---|---|---|
| | 2006 | 2008 | 2006 | 2008 | |
| Total | 0,74 | 0,75 | 1435 | 1461 | 1.8 |
| Low income | 0,34 | 0,38 | 489 | 568 | 16.2 |
| Middle income | 0,83 | 0,84 | 1609 | 1622 | 0.8 |
| High income | 0,95 | 0,95 | 2035 | 2031 | -0.2 |

Source: Lundgren (2008)

In the 2009 Budget Bill, the government presents the results of its own simulation regarding the combined effects of the first two steps of the in-work tax credit already enacted and the third step of the in-work tax credit and the increase in the threshold for paying state tax. It foresees an increase of the number of hours worked of 2.4% in the long run. These results seem to be well in line with the simulations described above referring to only the first two steps.

For this new labour supply to materialise in actual increases in employment may actually take some time. Unless there is a simultaneous effort to increase labour demand for any given wage level, for instance by an upgrading of the labour force's skill level, increased labour supply could exert downward pressure on wages. This requires a period of real wage adjustment. Sweden ranks among those countries exhibiting a fairly high degree of real wage flexibility. However, the current cyclical position with weakening labour demand combined with the fact that the current three-year collective wage contracts signed in the boom year of 2007 are expiring only in mid-2010 could complicate the transition somewhat.

There is a lot of uncertainty as to the effects of the reforms on the equilibrium unemployment rate. Estimates regarding the first two steps of the in-work tax credit vary from a reduction of 0.4 percentage point[13] to 1.0 percentage point[14]. The latter also includes the effects of the reforms of the unemployment insurance system.

[13] Forslund, A.; "*Den svenska jämviktsarbetslösheten: en översikt*", Report to the Fiscal Council. IFAU, 2008

[14] Westermark, A.; "*Lönebildningen i Sverige1966-2009*", Report to the Fiscal Council, (2008).

## 4. SOME ALTERNATIVE EARNED INCOME TAXATION REFORMS

While there is fairly broad agreement on the usefulness of the first two steps of the in-work tax credit scheme in raising employment rates in the low-income segment, the third step has been questioned on the grounds that there is probably decreasing returns on pursuing this type of reform[15]. Those groups that were likely to be induced to join the work force as a result of improved incentives have probably already done so. As the in-work tax credit is a relatively costly reform for the budget[16] other reforms than a third step of the in-work tax credit may imply lower costs per additional hour worked. Table 2 lists some actual and potential tax reforms, indicating for each reform the degree of self-financing, i.e. how much of the initial budgetary cost that ultimately is recouped via dynamic effects on hours worked, and the budgetary cost per additional hour worked. It shows that pushing the threshold for state income tax higher up the income scale has by far the lowest cost per additional hour worked and also has the highest degree of self-financing, topping even the first two steps of the in-work tax credit. The current proposal to do just that would therefore seem well-founded. Reducing the top state tax rate of 25% to 20%[17] is ranked lower, but the result is very sensitive to the assumption about the elasticity of participation. Other studies[18] indicate that such a lowering of the top rate could be more or less self-financing. An in-work tax credit scheme where the tax credit is gradually phased out yields the least attractive results, as the resulting increase in the effective marginal tax rate for medium and high-income earners more than offsets the budgetary savings from limiting the tax credit to low-income earners.

[15] Scepticism has been expressed by the Fiscal Council, the NIER, SNS and LO.

[16] The 2009 Budget Bill puts the direct budget impact of the three steps of the in-work tax credit and the raising of the state tax threshold to about € 6.6 billion or 2.1% of GDP.

[17] Introduced as a temporary tax in the mid-90s under the name "*värnskatt*" to support the ongoing fiscal consolidation, it was subsequently abolished and replaced by another permanent tax of a similar magnitude.

[18] Holmlund, B. and Söderström, M; "*Hur påverkas inkomsterna av skatteförändringar?*", IFAU, 2008

**Table 2 Degree of self-financing and budgetary cost per additional hour worked for a number of tax refoms**

| Type of reform | Degree of self-financing | | Cost (SEK/hour worked) | |
|---|---|---|---|---|
| | Falling elasticity of partici-pation | Constant elasticity of partici-pation | Falling elasticity of partici-pation | Constant elasticity of partici-pation |
| "In-work" tax credit I | 0,71 | 0,87 | 106 | 51 |
| "In-work" tax credit II | 0.69 | 0.86 | 118 | 64 |
| "In-work" tax credit I with phasing-out | 0,40 | 0,20 | 348 | 3416 |
| Lowering of top state tax rate | 0.56 | 1.30 | 285 | 0 |
| Higher threshold for state tax | 0.80 | 1.39 | 54 | 0 |

Source: Fiscal Council (2008)

In a study of Swedish taxes[19], the OECD goes as far as recommending the abolition of the state tax altogether. For a limited direct cost to the budget (1.5% of GDP)[20], marginal tax rates would come down in a significant way for high income earners. Once the dynamic effects on labour supply are taken into account, the budgetary cost of this reform is much lower. Reducing or abolishing the state tax would narrow the large gap that has arisen between Sweden and many other countries regarding the top tax rate and so would make it easier to attract highly-educated foreigners and to retain highly-qualified people. It would also sharpen the incentives to build human capital.

## 5. CONCLUSIONS

Recent earned income tax reforms have improved incentives to join the work force for low income households. In that regard, the reforms are likely to contribute to increasing the participation rate. However, there is great uncertainty as to these expected effects and the current cyclical downturn complicates the evaluation process. The complicated structure of the "in-work" tax credit may also cause the learning process to take time. This concern is

[19] OECD, 2008 Economic Review – Sweden; December 2008

[20] I.e. less than the cost of the three stages of the "in-work" tax credit introduced so far.

supported by a recent opinion poll, showing very low basic knowledge among Swedish citizens about how the tax system works. Notably, three out of four do not know at what income level state tax kicks in and one out of two is not aware of the "in-work" tax credit scheme. Even more worrying, of those who are aware of it, almost all claim that it has not affected how much they work.[21]

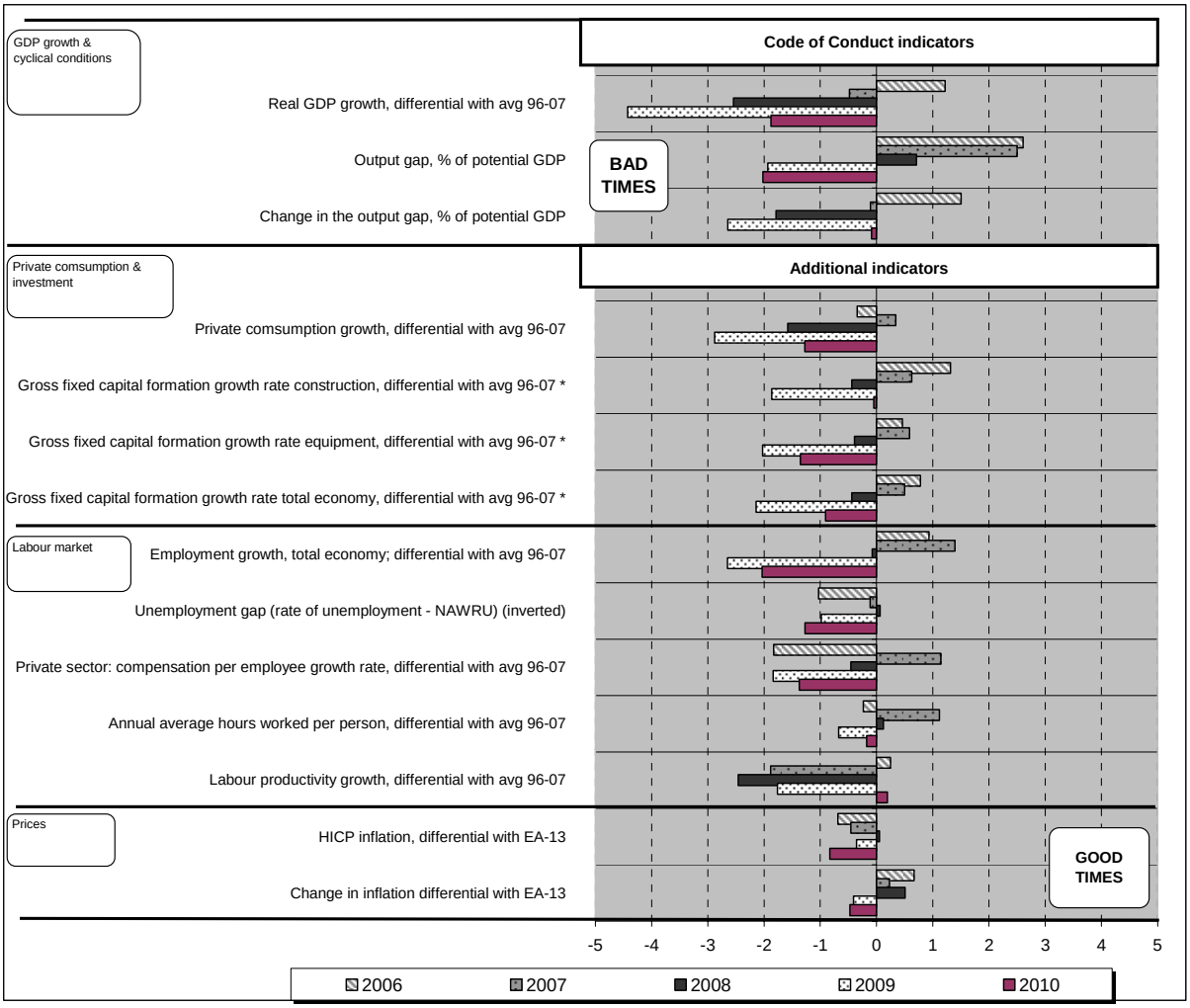
Given that the total tax wedge remains high by an international comparison, there seems to be scope for additional tax reforms, notably with regard to the state tax. The government has taken some steps in that direction in the 2009 Budget Bill, but they also chose to expand the in-work tax credit, despite doubts expressed about declining returns.

The tax debate in Sweden often concerns the distributional aspects of proposed reforms. This may explain the propensity to expand the tax credit scheme rather than choosing other more efficient tax reforms. The situation is complicated by the fact that a lot of distributional political capital has been spent on other reforms, such as the abolition of the wealth tax and the substantial curtailment of the property tax.

[21] Braunerhjelm, P. and von Greiff, C.; "*Varannan svensk okunnig om jobbskatteavdraget*", DN Debatt, 24 December 2008

## ANNEX 2. ADDITIONAL TABLES AND FIGURES

### Figure 1: Good and bad economic times




* These variables have been divided by their standard deviation over the period 2003-2010, with a view to reducing their variability relative to other variables in the graph.

Source: Commission services' January 2009 interim forecast (COM)

## Table 1: Budgetary implementation in 2008

| | 2007 | | 2008 | |
|---|---|---|---|---|
| | **Planned CP Nov 2007** | **Outcome COM** | **Planned CP Nov 2007** | **Outcome COM** |
| Government balance (% of GDP) | 3.0 | 3.6 | 2.8 | 2.3 |
| **Difference compared to target** | **0.6** | | **-0.5** | |
| *Of which :* due to a different starting position end 2007 | | | 0.6 | |
| due to different revenue / expenditure growth in 2008 | | | -1.2 | |
| p.m. Denominator effect and residual [2,3] | | | 0.0 | |
| *p.m. Nominal GDP growth (planned and outcome)* | | | 5.9 | 3.3 |
| Revenue (% of GDP) | 56.3 | 56.4 | 55.5 | 55.1 |
| **Revenue surprise compared to target [1]** | **0.1** | | **-0.4** | |
| *Of which :* due to a different starting position end 2007 | | | 0.1 | |
| due to different revenue growth in 2008 | | | -1.8 | |
| p.m. Denominator effect [2] | | | 1.3 | |
| p.m. Residual [3] | | | 0.0 | |
| *p.m. Revenue growth rate (planned and outcome)* | | | 4.4 | 1.0 |
| Expenditure (% of GDP) | 53.3 | 52.8 | 52.6 | 52.8 |
| **Expenditure surprise compared to target [1]** | **0.5** | | **-0.2** | |
| *Of which :* due to different starting position end 2007 | | | 0.5 | |
| due to different expenditure growth rate in 2008 | | | 0.6 | |
| p.m. Denominator effect [2] | | | -1.3 | |
| p.m. Residual [3] | | | 0.0 | |
| *p.m. Expenditure growth rate (planned and outcome)* | | | 4.5 | 3.3 |

Notes:

[1] A positive number implies that the outcome was better (in terms of government balance) than planned.

[2] The denominator effect captures the mechanical effect that, if GDP turns out higher than planned, the ratio of revenue or expenditure to GDP will fall because of a higher denominator. Although the denominator effect can be very significant for revenue

[3] The decomposition leaves a small residual that cannot be assigned to the previous components. The residual is generally small, except in some cases where planned and actual growth rates of revenue, expenditure and GDP differ significantly.

*Source : Commission services*

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

| | | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| General government balance (% of GDP) | **CP Dec 2008** | **3.6** | **2.8** | **1.1** | **1.6** | **2.5** |
| | *CP Nov 2007* | *3.0* | *2.8* | *3.1* | *3.6* | *n.a.* |
| | COM Jan 2009 | 3.6 | 2.3 | -1.3 | -1.4 | n.a. |
| General government expenditure (% of GDP) | **CP Dec 2008** | **52.6** | **52.5** | **53.1** | **52.2** | **50.8** |
| | *CP Nov 2007* | *53.3* | *52.6* | *51.8* | *51.1* | *n.a.* |
| | COM Jan 2009 | 52.8 | 52.8 | 54.3 | 54.1 | n.a. |
| General government revenue (% of GDP) | **CP Dec 2008** | **56.2** | **55.4** | **54.1** | **53.8** | **53.3** |
| | *CP Nov 2007* | *56.3* | *55.5* | *54.9* | *54.6* | *n.a.* |
| | COM Jan 2009 | 56.4 | 55.1 | 53.0 | 52.7 | n.a. |
| Structural balance[1] (% of GDP) | **CP Dec 2008** | **2.2** | **2.8** | **1.9** | **2.1** | **2.5** |
| | *CP Nov 2007* | *2.3* | *2.0* | *2.8* | *3.6* | *n.a.* |
| | COM Jan 2009 | 2.1 | 1.6 | -0.3 | -0.2 | n.a. |
| Real GDP (% change) | **CP Dec 2008** | **2.7** | **1.5** | **1.3** | **3.1** | **3.5** |
| | *CP Nov 2007* | *3.2* | *3.2* | *2.5* | *2.2* | *n.a.* |
| | COM Jan 2009 | 2.5 | 0.5 | -1.4 | 1.2 | n.a. |

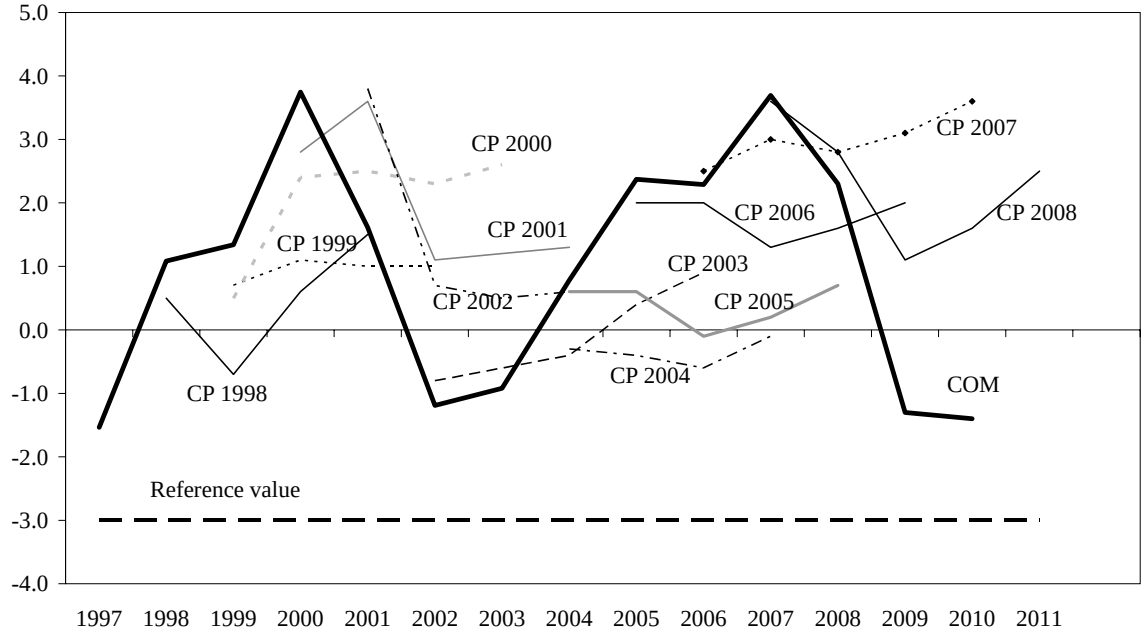
Note:

[1]Cyclically-adjusted balance excluding one-off and other temporary measures. Cyclically-adjusted balances according to the programmes as recalculated by the Commission services on the basis of the information in the programmes. One-off and other temporary measures are 0.3% of GDP in 2008 and 0.1% of GDP in 2009-11, all deficit-reducing, according to the most recent programme and 0.3% of GDP in 2008 and 0.1% of GDP in 2009, all deficit-reducing, according to the Commission services' January interim forecast.

*Source:*

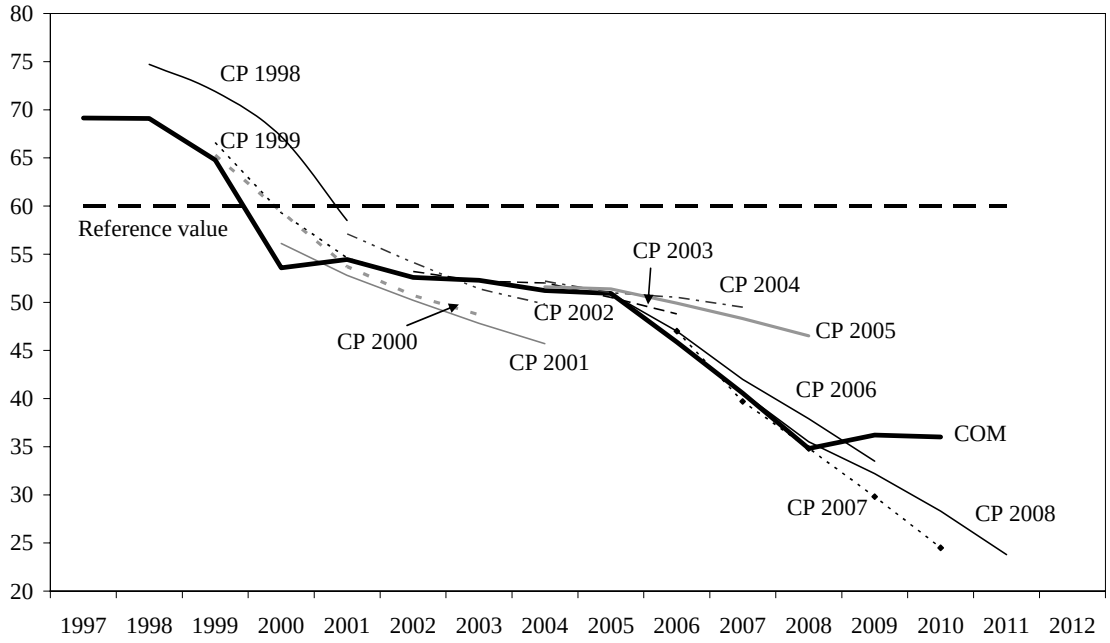
*Convergence programmes (CP); Commission services' January 2009 interim forecasts (COM)*

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




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

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




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

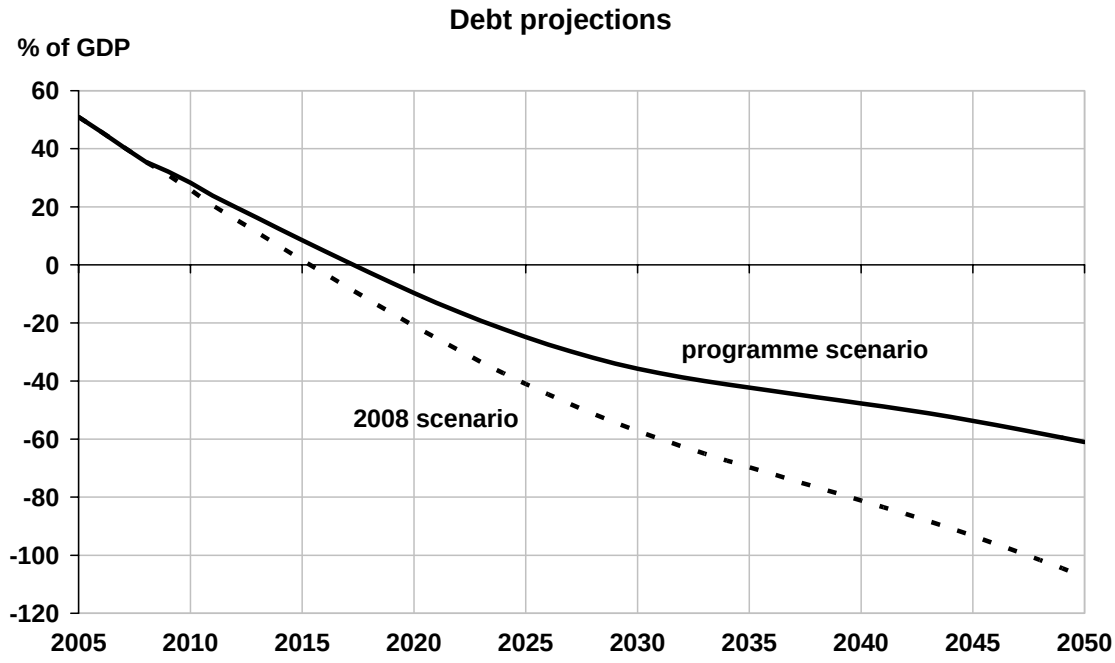
**TABLE 3: LONG-TERM AGE-RELATED EXPENDITURE: MAIN PROJECTIONS**

| (% of GDP) | 2004 | 2010 | 2020 | 2030 | 2040 | 2050 | Change 2010-50 |
|---|---|---|---|---|---|---|---|
| **Total age-related spending** | 29.6 | 28.2 | 28.4 | 30.3 | 30.9 | 30.5 | 2.3 |
| - Pensions * | 10.6 | 10.1 | 10.2 | 10.5 | 10.6 | 9.9 | -0.2 |
| - Healthcare | 6.7 | 6.8 | 7.2 | 7.5 | 7.7 | 7.7 | 0.9 |
| - Long-term care | 3.8 | 3.7 | 3.7 | 4.9 | 5.2 | 5.5 | 1.8 |
| - Education | 7.3 | 6.7 | 6.4 | 6.6 | 6.6 | 6.4 | -0.3 |
| - Unemployment benefits | 1.1 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.0 |
| **Property income received** | 2.4 | 2.2 | 2.0 | 1.8 | 1.6 | 1.5 | -0.7 |

*Source: Economic Policy Committee and Commission services.*

**The figures in this table exclude the part of pensions that is paid by the funded defined-contribution scheme (PPM), which is classified outside general government as of spring 2007. In the Ageing Report (2006), this scheme was included in the projections for public pensions.*

**FIGURE 4: LONG-TERM PROJECTIONS FOR THE GOVERNMENT DEBT RATIO**




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

**TABLE 4: SUSTAINABILITY INDICATORS AND THE REQUIRED PRIMARY BALANCE**

| | 2008 scenario | | | Programme scenario | | |
|---|---|---|---|---|---|---|
| | **S1** | **S2** | **RPB** | **S1** | **S2** | **RPB** |
| Value | -3.8 | -1.9 | 2.8 | -2.9 | -1.0 | 2.9 |
| *of which:* | | | | | | |
| Initial budgetary position (IBP) | -4.2 | -4.0 | - | -3.3 | -3.1 | - |
| Debt requirement in 2050 (DR) | -1.2 | - | - | -1.1 | - | - |
| Long-term change in the primary balance (LTC) | 1.5 | 2.1 | - | 1.5 | 2.1 | - |

*Source:* Commission services.

## TABLE 5: ADDITIONAL FACTORS

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

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

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

The update adheres to the code of conduct as far as its table of contents is concerned and broadly follows the model structure in Annex 1 of the code of conduct.

The update only partly adheres to the code of conduct as far as data requirements are concerned. Not all compulsory or optional data are provided as specified in the standard tables in Annex 2 of the code of conduct as amended by the September 2007 EFC.

Gaps in optional data pertain to:

• Nominal GDP, private consumption deflator and (for 2010 and 2011) HICP (Table 1a)

• Labour productivity, persons (Table 1c)

• GDP growth (world excluding EU, EU, relevant foreign markets) and world import volumes, excluding EU (Table 8)

Gaps in optional data pertain to:

• Public consumption deflator and investment deflator (Table 1b)

• Employment (hours worked) (Table 1c)

• Net lending of the private sector (Table 1d)

• General government expenditure by function % of GDP 2011 (Table 3)

• Privatisation proceeds, liquid financial assets and net financial debt % of GDP (Table 4)

• Potential GDP growth and contributions from labour, capital and TFP (Table 5)

• Cyclical budgetary component, cyclically-adjusted balance and cyclically-adjusted primary balance (Table 5)

• Participation rate males (aged 20-64), participation rate females (aged 20-64), total participation rate 2005(aged 20-64), unemployment rate 2005 (Table 5)

The tables on the following pages show the data presented in the December 2008 update of convergence programme, following the structure of the tables in Annex 2 of the code of conduct. Compulsory data are in bold, missing data are indicated with grey-shading.

**Table 1a. Macroeconomic prospects**

| | ESA Code | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Real GDP** | B1*g | *n.a.* | 2.7 | 1.5 | 1.3 | 3.1 | 3.5 |
| **2. Nominal GDP** | B1*g | *3071* | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Components of real GDP** | | | | | | | |
| **3. Private consumption expenditure** | P.3 | *1434* | 3.0 | 1.8 | 2.3 | 3.2 | 3.2 |
| **4. Government consumption expenditure** | P.3 | *797* | 1.1 | 0.4 | 0.9 | 0.0 | 0.0 |
| **5. Gross fixed capital formation** | P.51 | *582* | 8.0 | 3.0 | -0.8 | 4.4 | 7.5 |
| **6. Changes in inventories and net acquisition of valuables (% of GDP)** | P.52 + P.53 | *24* | 0.7 | -0.5 | -0.1 | 0.2 | 0.1 |
| **7. Exports of goods and services** | P.6 | *1609* | 6.0 | 4.6 | 3.8 | 7.3 | 6.5 |
| **8. Imports of goods and services** | P.7 | *1375* | 9.6 | 4.3 | 4.1 | 7.4 | 6.7 |
| **Contributions to real GDP growth** | | | | | | | |
| **9. Final domestic demand** | | - | 3.2 | 1.5 | 1.2 | 2.3 | 2.9 |
| **10. Changes in inventories and net acquisition of valuables** | P.52 + P.53 | - | 0.7 | -0.5 | -0.1 | 0.2 | 0.1 |
| **11. External balance of goods and services** | B.11 | - | -1.1 | 0.5 | 0.2 | 0.6 | 0.5 |

**Table 1b. Price developments**

| | ESA Code | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. GDP deflator** | | *n.a.* | 3.1 | 2.3 | 2.3 | 1.5 | 1.7 |
| **2. Private consumption deflator** | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| **3. HICP[1]** | | *n.a.* | 2.5 | 3.6 | 1.5 | n.a. | n.a. |
| 4. Public consumption deflator | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| 5. Investment deflator | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| **6. Export price deflator (goods and services)** | | *n.a.* | 1.9 | 2.3 | -0.4 | 0.9 | 1.8 |
| **7. Import price deflator (goods and services)** | | *n.a.* | 0.1 | 3.8 | -0.4 | 1.3 | 2.5 |

[1] Optional for stability programmes.

**Table 1c. Labour market developments**

| | ESA Code | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Employment, persons[1]** | | *n.a.* | 2.4 | 1.2 | 0.0 | -0.2 | 0.9 |
| 2. Employment, hours worked[2] | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| **3. Unemployment rate (%)[3]** | | n.a. | 6.2 | 6.0 | 6.4 | 6.6 | 6.0 |
| **4. Labour productivity, persons[4]** | | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| 5. Labour productivity, hours worked[5] | | *n.a.* | -0.5 | -0.5 | 1.9 | 2.9 | 2.5 |
| **6. Compensation of employees** | D.1 | *n.a.* | 7.5 | 3.5 | 3.4 | 3.6 | 4.9 |
| **7. Compensation per employee** | | *370400* | 5.1 | 2.2 | 3.4 | 3.8 | 4.0 |

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

[2]National accounts definition.

[3]Harmonised definition, Eurostat; levels.

[4]Real GDP per person employed.

[5]Real GDP per hour worked.

**Table 1d. Sectoral balances**

| % of GDP | ESA Code | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **1. Net lending/borrowing vis-à-vis the rest of the world** | B.9 | 8.4 | 8.2 | 8.2 | 8.3 | 8.1 |
| *of which* : | | | | | | |
| - Balance on goods and services | | n.a. | n.a. | n.a. | n.a. | n.a. |
| - Balance of primary incomes and transfers | | n.a. | n.a. | n.a. | n.a. | n.a. |
| - Capital account | | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2. Net lending/borrowing of the private sector | B.9 | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3. Net lending/borrowing of general government | EDP B.9 | 3.5 | 2.8 | 1.1 | 1.6 | 2.5 |
| **4. Statistical discrepancy** | | n.a. | optional | optional | optional | optional |

**Table 2. General government budgetary prospects**

| | ESA Code | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| | | Level | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP |
| **Net lending (EDP B.9) by sub-sector** | | | | | | | |
| **1. General government** | S.13 | *109* | 3.6 | 2.8 | 1.1 | 1.6 | 2.5 |
| **2. Central government** | S.1311 | *67* | 2.2 | 1.7 | 0.5 | 1.3 | 2.4 |
| **3. State government** | S.1312 | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |
| **4. Local government** | S.1313 | *9* | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 |
| **5. Social security funds** | S.1314 | *34* | 1.1 | 0.8 | 0.4 | 0.2 | 0.1 |
| **General government (S13)** | | | | | | | |
| **6. Total revenue** | TR | *1724* | 56.2 | 55.4 | 54.1 | 53.8 | 53.3 |
| **7. Total expenditure** | TE[1] | *1615* | 52.6 | 52.5 | 53.1 | 52.2 | 50.8 |
| **8. Net lending/borrowing** | EDP B.9 | *109* | 3.6 | 2.8 | 1.1 | 1.6 | 2.5 |
| **9. Interest expenditure** | EDP D.41 | *56* | 1.8 | 1.8 | 1.6 | 1.4 | 1.3 |
| **10. Primary balance[2]** | | *166* | 5.4 | 4.7 | 2.6 | 3.0 | 3.8 |
| **11. One-off and other temporary measures[3]** | | *24* | 0.8 | 0.3 | 0.1 | 0.1 | 0.1 |
| **Selected components of revenue** | | | | | | | |
| **12. Total taxes** (12=12a+12b+12c) | | - | - | - | - | - | - |
| **12a. Taxes on production and imports** | D.2 | *516* | 16.8 | 18.4 | 18.2 | 18.0 | 17.7 |
| **12b. Current taxes on income, wealth, etc** | D.5 | *583* | 19.0 | 17.6 | 17.3 | 17.3 | 17.4 |
| **12c. Capital taxes** | D.91 | *0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **13. Social contributions** | D.61 | *395* | 12.9 | 11.8 | 11.1 | 11.0 | 11.0 |
| **14. Property income** | D.4 | *73* | 2.4 | 2.4 | 2.4 | 2.3 | 2.1 |
| **15. Other[4]** | | *158* | 5.2 | 5.2 | 5.2 | 5.1 | 5.1 |
| **16=6. Total revenue** | TR | *1724* | 56.2 | 55.4 | 54.1 | 53.8 | 53.3 |
| **p.m.: Tax burden** (D.2+D.5+D.61+D.91-D.995)[5] | | | 48.2 | 47.4 | 46.3 | 46.1 | 45.8 |
| **Selected components of expenditure** | | | | | | | |
| **17. Compensation of employees + intermediate consumption** | D.1+P.2 | *751* | 24.5 | 24.2 | 24.6 | 24.1 | 23.7 |
| 17a. Compensation of employees | D.1 | *457* | 14.9 | 14.6 | 15.0 | 14.8 | 14.6 |
| 17b. Intermediate consumption | P.2 | *293* | 9.6 | 9.5 | 9.6 | 9.3 | 9.1 |
| **18. Social payments** (18=18a+18b) | | *560* | 18.3 | 18.0 | 18.3 | 18.2 | 17.8 |
| 18a. Social transfers in kind supplied via market producers | D.6311, D.63121, D.63131 | *91* | 3.0 | 3.0 | 3.1 | 3.0 | 3.0 |
| 18b. Social transfers other than in kind | D.62 | *470* | 15.3 | 15.0 | 15.3 | 15.1 | 14.8 |
| **19=9. Interest expenditure** | EDP D.41 | *56* | 1.8 | 1.8 | 1.6 | 1.4 | 1.3 |
| **20. Subsidies** | D.3 | *45* | 1.5 | 1.4 | 1.4 | 1.3 | 1.2 |
| **21. Gross fixed capital formation** | P.51 | *96* | 3.1 | 3.2 | 3.2 | 3.1 | 3.0 |
| **22. Other[6]** | | *107* | 3.5 | 3.9 | 3.9 | 4.0 | 3.8 |
| **23=7. Total expenditure** | TE[1] | *1615* | 52.6 | 52.5 | 53.1 | 52.2 | 50.8 |
| p.m.: Government consumption (nominal) | P.3 | *n.a.* | n.a. | n.a. | n.a. | n.a. | n.a. |

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

[2]The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

[3]A plus sign means deficit-reducing one-off measures.

[4] P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

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

[6] D.29+D4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

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

| % of GDP | COFOG Code | 2005 | 2011 |
|---|---|---|---|
| 1. General public services | 1 | 7.7 | n.a. |
| 2. Defence | 2 | 1.7 | n.a. |
| 3. Public order and safety | 3 | 1.3 | n.a. |
| 4. Economic affairs | 4 | 5.1 | n.a. |
| 5. Environmental protection | 5 | 0.4 | n.a. |
| 6. Housing and community amenities | 6 | 0.9 | n.a. |
| 7. Health | 7 | 7.0 | n.a. |
| 8. Recreation, culture and religion | 8 | 1.1 | n.a. |
| 9. Education | 9 | 7.3 | n.a. |
| 10. Social protection | 10 | 23.8 | n.a. |
| 11. Total expenditure (=item 7=23 in Table 2) | TE[1] | 56.4 | 50.8 |

[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 | ESA Code | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **1. Gross debt[1]** | | 40.6 | 35.5 | 32.2 | 28.3 | 23.8 |
| **2. Change in gross debt ratio** | | -5.3 | -5.1 | -3.3 | -3.8 | -4.6 |
| **Contributions to changes in gross debt** | | | | | | |
| **3. Primary balance[2]** | | -5.4 | -4.7 | -2.6 | -3.0 | -3.8 |
| **4. Interest expenditure[3]** | EDP D.41 | 1.8 | 1.8 | 1.6 | 1.4 | 1.3 |
| **5. Stock-flow adjustment** | | 0.8 | -0.8 | -1.0 | -0.8 | -0.6 |
| *of which:* | | | | | | |
| - Differences between cash and accruals[4] | | 0.3 | 0.0 | 0.2 | 0.1 | 0.3 |
| - Net accumulation of financial assets[5] | | -1.1 | -2.6 | -1.5 | -1.4 | -1.4 |
| *of which:* | | | | | | |
| *- privatisation proceeds* | | n.a | n.a | n.a | n.a | n.a |
| - Valuation effects and other[6] | | 1.6 | 1.9 | 0.3 | 0.5 | 0.4 |
| **p.m.: Implicit interest rate on debt[7]** | | 4.2 | 4.7 | 4.6 | 4.6 | 4.7 |
| **Other relevant variables** | | | | | | |
| 6. Liquid financial assets[8] | | n.a | n.a | n.a | n.a | n.a |
| 7. Net financial debt (7=1-6) | | n.a | n.a | n.a | n.a | n.a |

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

[2]Cf. item 10 in Table 2.

[3]Cf. item 9 in Table 2.

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

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

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

[7]Proxied by interest expenditure divided by the debt level of the previous year.

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

**Table 5. Cyclical developments**

| % of GDP | ESA Code | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **1. Real GDP growth (%)** | | 2.7 | 1.5 | 1.3 | 3.1 | 3.5 |
| **2. Net lending of general government** | EDP B.9 | 3.6 | 2.8 | 1.1 | 1.6 | 2.5 |
| **3. Interest expenditure** | EDP D.41 | 1.8 | 1.8 | 1.6 | 1.4 | 1.3 |
| **4. One-off and other temporary measures[1]** | | 0.8 | 0.3 | 0.1 | 0.1 | 0.1 |
| 5. Potential GDP growth (%) | | n.a. | n.a. | n.a. | n.a. | n.a. |
| contributions: | | | | | | |
| - labour | | n.a. | n.a. | n.a. | n.a. | n.a. |
| - capital | | n.a. | n.a. | n.a. | n.a. | n.a. |
| - total factor productivity | | n.a. | n.a. | n.a. | n.a. | n.a. |
| 6. Output gap | | 1.2 | -0.7 | -1.7 | -1.4 | -0.5 |
| 7. Cyclical budgetary component | | n.a. | n.a. | n.a. | n.a. | n.a. |
| 8. Cyclically-adjusted balance (2 - 7) | | n.a. | n.a. | n.a. | n.a. | n.a. |
| 9. Cyclically-adjusted primary balance (8 + 3) | | n.a. | n.a. | n.a. | n.a. | n.a. |
| 10. Structural balance (8 - 4) | | 2.1 | 2.9 | 1.9 | 2.2 | 2.7 |

[1]A plus sign means deficit-reducing one-off measures.

**Table 6. Divergence from previous update**

| | ESA Code | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **Real GDP growth (%)** | | | | | | |
| **Previous update** | | 3.2 | 3.2 | 2.5 | 2.2 | n.a. |
| **Current update** | | 2.7 | 1.5 | 1.3 | 3.1 | 3.5 |
| **Difference** | | -0.5 | -1.7 | -1.2 | 0.9 | n.a. |
| **General government net lending (% of GDP)** | EDP B.9 | | | | | |
| **Previous update** | | 2.9 | 2.8 | 3.1 | 3.6 | n.a. |
| **Current update** | | 3.5 | 2.8 | 1.1 | 1.6 | 2.5 |
| **Difference** | | 0.6 | 0.0 | -2.0 | -2.0 | n.a. |
| **General government gross debt (% of GDP)** | | | | | | |
| **Previous update** | | 39.7 | 34.8 | 29.8 | 24.5 | n.a. |
| **Current update** | | 40.6 | 35.5 | 32.2 | 28.3 | 23.8 |
| **Difference** | | 0.9 | 0.7 | 2.4 | 3.8 | n.a. |

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

| % of GDP | 2000 | 2005 | 2010 | 2020 | 2030 | 2050 |
|---|---|---|---|---|---|---|
| Total expenditure | 53.0 | 52.5 | 49.5 | 50.3 | 52.2 | 51.2 |
| Of which: age-related expenditures | 29.0 | 29.0 | 27.8 | 27.3 | 29.2 | 28.3 |
| Pension expenditure | 10.0 | 10.7 | 10.3 | 10.0 | 10.2 | 9.2 |
| Social security pension | 0.5 | 0.8 | 0.5 | 0.5 | 0.5 | 0.5 |
| Old-age and early pensions | 6.2 | 6.2 | 6.7 | 6.7 | 6.8 | 6.1 |
| Other pensions (disability, survivors) | 2.8 | 3.1 | 2.4 | 2.2 | 2.2 | 2.0 |
| Occupational pensions (if in general government) | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Health care | 6.1 | 6.0 | 5.9 | 6.0 | 6.4 | 6.3 |
| Long-term care *(this was earlier included in the health care)* | 3.8 | 4.0 | 4.1 | 4.3 | 5.6 | 6.2 |
| Education expenditure | 6.0 | 5.6 | 5.3 | 4.8 | 4.9 | 4.5 |
| Other age-related expenditures | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Interest expenditure | 3.5 | 1.9 | 1.4 | 0.6 | 0.6 | 1.3 |
| Total revenue | 56.8 | 54.4 | 51.1 | 51.2 | 51.2 | 50.0 |
| Of which: property income | 2.4 | 2.1 | 2.3 | 1.8 | 1.5 | 1.0 |
| *Of which* : from pensions contributions (or social contributions if appropriate) | 1.4 | 0.8 | 0.8 | 0.8 | 0.5 | 0.3 |
| Pension reserve fund assets | 32.5 | 28.1 | 27.6 | 20.5 | 15.0 | 7.7 |
| *Of which* : consolidated public pension fund assets (assets other than government liabilities) | 20.0 | 24.5 | 24.5 | 18.6 | 13.8 | 7.2 |
| **Assumptions** | | | | | | |
| Labour productivity growth | 3.7 | 2.7 | 2.7 | 1.8 | 1.7 | 1.9 |
| Real GDP growth | 4.4 | 3.3 | 3.1 | 1.8 | 1.6 | 2.0 |
| Participation rate males (aged 20-64) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Participation rates females (aged 20-64) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Total participation rates (aged 16-64)[1] | 79.0 | n.a. | 79.3 | 80.8 | 79.8 | 80.2 |
| Unemployment rate | 6.8 | n.a. | 6.6 | 5.7 | 5.9 | 5.8 |
| Population aged 65+ over total population | 17.2 | 17.3 | 18.5 | 21.1 | 22.9 | 23.5 |

1 Old definition, i.e. full-time students who have looked for work are not included.

**Table 8. Basic assumptions**

| | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| **Short-term interest rate[1] (annual average)** | 3.6 | 4.1 | 3.5 | 3.4 | 4.0 |
| **Long-term interest rate (annual average)** | 4.2 | 4.2 | 4.4 | 4.5 | 4.6 |
| **USD/€ exchange rate (annual average) (euro area and ERM II countries)** | - | - | - | - | - |
| **Nominal effective exchange rate** | 126 | 125 | 124 | 124 | 124 |
| **(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)** | 9.4 | 9.4 | 9.3 | 9.1 | 9.1 |
| **World excluding EU, GDP growth** | n.a. | n.a. | n.a. | n.a. | n.a. |
| **EU GDP growth** | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Growth of relevant foreign markets** | n.a. | n.a. | n.a. | n.a. | n.a. |
| **World import volumes, excluding EU** | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Oil prices (Brent, USD/barrel)** | 91 | 115 | 95 | 100 | 100 |

[1]If necessary, purely technical assumptions.

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