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DENMARK: 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 Lotte Taylor (Lotte.Taylor@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/sqp/main_en.htm

1. INTRODUCTION

The following is an assessment of the December 2008 update of Denmark's convergence programme. It is based on all currently available information, notably the Commission services' January 2009 interim forecast. The programme, which covers the 2008-2015 period, was submitted by the Danish Government on 8 December 2008 and transmitted to the Danish Parliament for information¹. The update of the convergence programme also serves to update and track fiscal policy developments within the macroeconomic and fiscal policy framework of the so-called "2015-plan", presented by the Danish government in August 2007. Although no additional measures were adopted in December, an addendum to the programme was submitted on 19 December further elaborating upon the reported fiscal stance.

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

When the global financial crisis set in, the Danish economy had already started to slow down, following the cooling of its housing market. Since the previous update, policy focus has consequently shifted from capacity constraints, labour shortages and accelerating wage inflation to concerns of rapidly weakening external demand, tighter financing conditions and their impact on the downward correction of house prices. In 2008, the slow-down in economic activity has been rapid and pronounced, most likely leading to a contraction of GDP. Domestic demand began to decline right from the start of the year, with increasing inflation and deteriorating confidence setting consumption and investment, most notably in construction, off on a downward trend. Net exports acted as a drag on activity due to strong growth in imports. Although starting to diminish towards the end of 2008, employment remained at a high level. Consequently, productivity weakened significantly and unit labour costs increased markedly. Inflation followed international trends, peaking in August 2008 and subsequently declining rapidly, albeit less rapidly than in the euro area.

Growth prospects will remain weak through 2010 as both domestic and external demand levels are curtailed. In 2008, unemployment remained low in a historical perspective, reflecting both a particularly lagged reaction in the labour market, likely due to hoarding effects following distinct labour shortages and a declining labour force. Meanwhile, output gap estimates calculated by Commission services following the commonly agreed methodology and a wider range of indicators (cf. Figure 1 of Annex 2) indicate that the Danish economy is experiencing bad times.

The global economic and financial crisis challenges the Danish economy both through the financial markets and through the trade channel. Financial stability is important for macroeconomic stability, particularly in view of the strong commitment to the fixed exchange rate policy. In the fourth quarter of 2008, the financial turmoil resulted in pressure on the Danish krone, necessitating a widening of the policy interest rate spread up to 1.75% to stem

¹ The update contains all necessary information towards 2015 as reflected in Annex 3. Meanwhile, this assessment focuses on the period until 2012, which is generally the last year covered in the most recent stability and convergence programmes. The reported data for the full period until 2015 have been used in the (re-)calculation of output gaps (and dependent concepts such as cyclically-adjusted and structural balances) and the long-term sustainability calculations.

capital outflows. Having replenished foreign currency reserves, the spread currently stands at 1.00%. Lower interest rates and well-functioning credit markets are also key to ensuring an orderly unwinding in the housing market. Weakened external demand will further exacerbate the down-turn, leading to a more rapid deterioration of cyclical conditions than previously foreseen. Inflation is forecast to decrease substantially in 2009 to 1.3%, and subsequently projected to fluctuate around a level just below 2% over the rest of the programme period. The cause of the fluctuations is unclear but the projected development in the GDP deflator appears realistic.

In the short- and medium-term, the downturn and anticipated development in asset and energy prices have significant implications for public finances. Strong automatic stabilisers are at play, and transitory revenue, e.g. stemming from the gas and oil extraction activities in the North Sea, is declining. Simultaneously, demography starts to affect the labour force negatively while ageing-related expenditure increases.

Following a period of successful fiscal consolidation, Denmark's gross debt is relatively low and sustainability indicators point to a relatively low risk compared with other EU Member States. Moreover, external balances appear relatively resilient. In terms of available fiscal space, Denmark is thus overall in an advantageous position compared with the euro area and "old" non-euro Member States. Meanwhile, maintaining a sound fiscal position is considered necessary to support the strong commitment to the fixed exchange rate policy.

As an expansionary fiscal stance was already planned, Denmark's policy response to the economic downturn has mainly entailed measures to reinforce financial stability. The wide range of measures includes a government-backed guarantee for unsecured creditors, which is unlimited until 30 September 2010, and capped at DKK 750,000 (EUR 100,000) thereafter. In addition, agreement was reached on 18 January 2009 to make available up to DKK 100 billion (5.5% of GDP) to banks and mortgage credit institutions as tier 1 hybrid capital at interest rates averaging 10%.

3. MACROECONOMIC SCENARIO

The update projects weak real GDP growth towards 2010, as illustrated in Table I below, primarily due to sharply declining investments and a slow-down in private consumption. Meanwhile, based on all current information and in light of continuously deteriorating external conditions, the programme now appears to be based on favourable growth assumptions for 2008 and 2009. From 2011 onwards, the programme is based on technical assumptions of output and unemployment gaps closing in 2012 as calculated by the Danish authorities using national methodologies. The resulting growth projections appear markedly favourable vis-à-vis the Commission services' estimated potential real GDP growth. Caution is recommended, however, when interpreting potential growth estimates given the uncertainty and volatility prevailing at the current juncture. In the outer years, 2013-2015, the update projects real GDP growth at its potential rate as estimated using the national methodology. Potential growth is foreseen to be entirely driven by (hourly) productivity, marginally muted by demographic developments. Mirroring the requirements in the 2015-plan, the projections rely on the assumption that reforms are implemented to increase non-subsidised employment by 20,000 persons towards 2015 and to counter the otherwise foreseen declining trend in average working hours. For the outer years, net external demand contributes positively albeit marginally to real GDP growth.

The output gap estimates, as recalculated by Commission services, based on the information in the programme and following the commonly agreed methodology, show a significant

worsening of cyclical conditions, particularly in 2009. Meanwhile, the widening of the output gap is even more pronounced in the Commission services' January 2009 interim forecast.²

The downside risks to the programme relate to the risks of persistent financial instability and a protracted international downturn. In a short-term perspective, should a credit squeeze emerge, despite the recent policy response, a stronger housing market correction could be expected with aggravating implications for domestic demand. In the medium-term, failure to deliver on the structural reform requirements underpinning the programme would reduce potential growth by around ¼ percentage point towards 2015 according to the update.

Table I: Comparison of macroeconomic developments and forecasts

	2008		2009		2010		2011	2012	2015
	COM	CP	COM	CP	COM	CP	CP	CP	CP
Real GDP (% change)	-0.6	0.2	-1.0	-0.2	0.6	0.7	1.9	1.7	1.6
Private consumption (% change)	0.7	0.9	-0.4	0.7	1.1	1.1	1.7	1.8	1.8
Gross fixed capital formation (% change)	-1.9	-0.9	-4.7	-4.2	-2.3	-2.5	1.0	0.9	2.6
Exports of goods and services (% change)	3.3	3.3	-0.9	-0.1	1.8	2.3	4.4	3.1	2.8
Imports of goods and services (% change)	5.4	4.8	-0.8	-0.1	1.5	1.5	3.6	2.6	2.9
<i>Contributions to real GDP growth:</i>									
- Final domestic demand	0.2	0.7	-0.9	-0.2	0.4	0.3	1.4	1.3	1.5
- Change in inventories	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Net exports	-1.0	-0.7	-0.1	0.0	0.2	0.4	0.5	0.5	0.1
Output gap ¹	-0.1	0.0	-2.1	-1.4	-2.4	-1.8	-1.2	-0.8	-0.5
Employment (% change)	0.2	0.3	-1.7	-1.3	-1.8	-1.7	0.1	0.2	-0.1
Unemployment rate (%)	3.5	3.2	4.5	3.5	5.6	4.0	4.2	4.0	4.0
Labour productivity (% change)	-0.8	-0.2	0.7	1.1	2.4	2.5	1.8	1.5	1.7
HICP inflation (%)	3.6	3.6	1.6	1.3	1.9	2.1	1.4	1.8	1.8
GDP deflator (% change)	4.0	3.9	2.8	2.8	2.1	2.1	2.0	2.5	2.2
Comp. of employees (per head, % change)	4.1	3.9	3.9	4.2	3.3	3.7	3.9	3.8	3.8
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	1.7	1.7	1.5	1.8	1.5	2.3	2.6	2.6	1.8
<i>Note:</i>									
¹ In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services.									
<i>Source:</i>									
Commission services' January 2009 interim forecasts (COM); Convergence programme (CP)									

4. BUDGETARY STRATEGY

4.1. Budgetary implementation in 2008

The update indicates that the budgetary implementation in 2008 is in line with the previous update, as reported in Table I in Annex 2. The underlying developments were different from plans, however, particularly as 2007 came out with a significantly higher surplus due to higher-than-expected revenue from income and corporate taxes, reflecting more positive

² Applying the national methodology yields significantly different results, as reported in the update. Sources of divergences are outlined in Box 2 of the assessment of the previous December 2007 update, cf. http://ec.europa.eu/economy_finance/publications/publication_summary12217_en.htm

cyclical conditions than anticipated. In 2008, a longer-than-expected lag in the reaction of the labour market to the slowdown in activity is part of the explanation behind the higher revenue from income taxes and lower social expenditure. In spite of sharply dropping oil prices in the second half of 2008, the extraction of oil and gas in the North Sea generated revenue, which is estimated to be higher than in 2007, and significantly above what the authorities estimate as the structural level. Meanwhile, intermediate consumption expenditure has been slightly higher than anticipated. Finally, a one-off capital transfer to households amounting to 0.5% of GDP was agreed as part of a reform of the pension yield tax, leaving the surplus roughly unchanged vis-à-vis the previous update. The financial crisis is expected to have affected in particular the revenue from the pension yield tax and corporate taxes, and its impact on pension wealth will reduce revenue throughout the programme period. Apart from the impact on corporate tax revenue from the financial sector, financial stability measures have had no direct budgetary impact in 2008.

4.2. Near-term budgetary strategy

Following the normal procedure, the 2009 draft budget bill presented in August 2008 was finally adopted in December 2008. The main amendment to the draft – in view of the deteriorating growth prospects – was the continued suspension of the compulsory special pension contribution, which leads to lower savings of around ½% of GDP, increasing households' net disposable income by ¼% of GDP and income tax revenue by ¼% of GDP, as contributions would be tax deductible. As part of the political agreement reached on 29 January 2009 regarding a "green transport policy", a further fiscal stimulus is foreseen through additional infrastructure investments totalling ¼% of GDP spread over 2009-2010. Overall, the planned discretionary fiscal expansion is expected to lead to a decline in the general government surplus of 1 percentage point of GDP. Automatic stabilisers, lower asset and energy prices, and declining extraction of oil and gas in the North Sea are likely to have a further negative effect on the general government balance of around 2 percentage points of GDP in 2009. In sum, the headline balance is projected to decline to 0 in 2009.

The main measures for 2009, outlined in Table II, predominantly reflect prior agreements in terms of tax cuts agreed in 2007 and investments in research and development implementing the 2006 Globalisation Agreement. These measures are related to the Lisbon medium-term reform agenda as reviewed by the Commission on 28 January 2009. Substantial public sector wage increases agreed on the back of large-scale public sector strikes in the spring 2008 weigh on the expenditure side.

The cyclically-adjusted balance, as recalculated by the Commission services on the basis of the information in the programme according to the commonly agreed methodology, is foreseen to deteriorate by 2 percentage points of GDP. Differences in the definition of one-offs and temporary measures (outlined in Box 5 of the assessment of the December 2007 update³) imply that estimates for the structural balance, i.e. the recalculated cyclically-adjusted balance net of one-off and other temporary measures, are not readily comparable with the Commission services' projections. For ease of cross-country comparison, estimates for the structural balance based on the recalculated cyclically-adjusted balance net of one-offs and other temporary measures using the definition applied by the Commission is indicated in a footnote in Table III below and Table 2 in Annex 2. These estimates point to a structural

³ See http://ec.europa.eu/economy_finance/publications/publication_summary12217_en.htm

surplus reduction of 2½ percentage points of GDP in 2009, indicating a markedly expansionary fiscal stance in 2009. Significant revenue shortfalls are expected due to the impact of lower oil prices on revenues from the extraction of oil and gas in the North Sea, the effect of declining asset prices on pension yields, and low corporate profits, including the costs for financial institutions of the October 2008 Financial Stability Act, weighing on corporate tax revenue.

The update indicates that the stimulus effect of fiscal policy on domestic demand in 2009 is estimated at around 0.4% of GDP.

In 2010, the projected general government balance is further reduced to -1¼% of GDP, driven by the cyclical deterioration and a one-off capital transfer to households estimated at ¾% of GDP as part of the reform of the pension yield tax agreed in December 2007 following a ruling by the European Court of Justice. The fiscal stance assessed by the change in structural balance is foreseen to be mildly expansionary (based on the definition of one-off and other temporary measures applied by the Commission services⁴).

Table II. Main budgetary measures for 2009

Revenue measures ¹	Expenditure measures ²
Measures in response to the downturn	
<ul style="list-style-type: none"> Continued suspension of the special pension contribution (0.3% of GDP) 	
Other measures	
<ul style="list-style-type: none"> Lower personal income tax in line with 2007 tax agreement and municipal tax developments (-0.5% of GDP) 	<ul style="list-style-type: none"> R&D investments (0.1% of GDP) Investment in new hospital structure (0.1% of GDP)
<u>Note:</u> ¹ Estimated impact on general government revenue ² Estimated impact on general government expenditure <u>Source:</u> Commission services and the Danish Ministry of Finance	

⁴ Based on the one-offs reported in the programme (using the national definition), the fiscal stance appears to be markedly expansionary. The difference reflects that the shortfalls in volatile revenues in 2009 (vis-à-vis trend levels) are expected to continue in 2010 but of a lesser magnitude.

Table III: Composition of the budgetary adjustment

(% of GDP)	2007	2008		2009		2010		2011	2012	2015	Change: 2008-2015
	COM	COM	CP	COM	CP	COM ¹	CP	CP	CP	CP	CP
Revenue⁴	55.4	54.8	53.2	52.8	51.2	53.4	51.5	52.1	51.8	51.5	-1.7
<i>of which:</i>											
- Taxes on production and imports	17.8	17.6	17.6	17.4	17.4	17.3	17.2	16.9	16.7	16.5	-1.1
- Current taxes on income, wealth, etc.	29.6	29.1	28.7	27.4	27.1	28.1	27.7	28.5	28.5	28.5	-0.2
- Social contributions	1.9	1.9	1.0	1.9	1.0	1.9	1.0	1.0	1.0	0.9	-0.1
- Other (residual)	6.2	6.2	5.9	6.1	5.7	6.2	5.6	5.7	5.6	5.6	-0.3
Expenditure⁴	50.9	51.6	50.2	53.1	51.2	54.9	52.8	51.8	51.7	51.6	1.4
<i>of which:</i>											
- Primary expenditure	49.4	50.3	48.9	51.6	49.7	53.5	51.4	50.4	50.5	50.8	1.9
<i>of which:</i>											
Compensation of employees	16.9	17.0	16.7	17.6	17.3	17.7	17.4	17.4	17.4	17.4	0.7
Intermediate consumption	8.9	9.2	9.3	9.7	9.6	10.0	9.8	9.8	9.8	9.7	0.4
Social payments	16.4	16.2	16.4	16.9	16.8	17.4	17.3	17.4	17.4	17.8	1.4
Subsidies	2.3	2.2	2.2	2.3	2.3	2.4	2.3	2.4	2.4	2.4	0.2
Gross fixed capital formation	1.7	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	0.1
Other (residual)	3.2	3.8	2.5	3.2	1.9	4.0	2.6	1.7	1.6	1.7	-0.8
- Interest expenditure	1.5	1.3	1.3	1.5	1.5	1.4	1.4	1.4	1.2	0.8	-0.5
General government balance (GGB)	4.5	3.1	3.0	-0.3	0.0	-1.5	-1.2	0.3	0.1	-0.1	-3.1
Primary balance	6.1	4.5	4.2	1.2	1.5	0.0	0.2	1.6	1.3	0.7	-3.5
One-off and other temporary measures	0.0	-0.5	-1.0	-0.1	-1.7	-0.8	-1.7	-0.2	0.0	0.0	1.0
GGB excl. one-offs	4.5	3.7	4.0	-0.2	1.7	-0.6	0.5	0.5	0.1	-0.1	-4.1
Output gap ²	1.8	-0.1	0.0	-2.1	-1.4	-2.4	-1.8	-1.2	-0.8	-0.5	-0.5
Cyclically-adjusted balance ²	3.3	3.2	3.0	1.0	0.9	0.1	0.0	1.1	0.6	0.2	-2.8
Structural balance^{3,5}	3.3	3.8	4.0	1.1	2.6	0.9	1.7	1.3	0.6	0.2	-3.8
<i>Change in structural balance</i>		0.4	0.6	-2.6	-1.4	-0.2	-0.9	-0.4	-0.6	-0.4	
Structural primary balance ³	4.9	5.1	5.3	2.6	4.1	2.4	3.1	2.7	1.8	1.0	-4.3
<i>Change in structural primary balance</i>		0.2	0.4	-2.5	-1.2	-0.3	-1.0	-0.4	-0.8	-0.8	

Notes:
¹On a no-policy-change basis.
²Output 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.
³Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.
⁴The programme data for revenue and expenditure differ from the data reported to Eurostat, following the harmonised approach (cf Commission Regulation No. 1500/2000), on which the Commission services' forecast is based. The difference relates primarily to the treatment of public sales of goods and services and of the consumption of fixed capital. The balance is, however, unaffected.
⁵Using the recalculated cyclically-adjusted balance, based on the information in the programme, and the definition of one-offs and other temporary measures applied by the Commission services, the structural balance would be 3.6% of GDP in 2008 and 1.1 in 2009, and 0.9 in 2010.
Source:
Convergence programme (CP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations

4.3. Medium-term budgetary strategy

Compared with the previous update, this update fully covers a longer time period, mirroring the Danish 2015-plan. The aim is to maintain structural surpluses within the range $\frac{3}{4}$ - $1\frac{3}{4}$ % of GDP until 2010, followed by balance as a minimum towards 2015.⁵ The MTO is derived

⁵ If the special pension contribution (a compulsory personal pension contribution suspended successively since 2005) would be reintroduced in 2010, revenue would decrease by around $\frac{1}{4}$ % of GDP because contributions are tax deductible. As deferred taxes would increase, fiscal sustainability would be roughly unaffected. The MTO for 2010 would in this case be amended to $\frac{1}{2}$ - $1\frac{1}{2}$ % of GDP. The MTO for 2011-2015 is assumed unaffected. (See also Section 4.2.1. and Box 5 in the assessment of the December 2007 update, http://ec.europa.eu/economy_finance/publications/publication_summary12217_en.htm)

from a projected path for the general government balance, taking *inter alia* major structural reforms in 2005-2006 and revised population projections into account. According to the update, given the method and assumptions applied in the long-term projection, this projected path for the general government balance implies fiscal sustainability. As mentioned in Section 3, the projections are based on structural policy requirements, implying that the targets presuppose structural reform measures to strengthen public finances permanently by 0.7% of GDP. In line with the 2015-plan, this is exemplified by unspecified measures generating a permanent upward shift in the level of non-subsidised employment by $\frac{3}{4}\%$ (20,000 persons) and keeping working hours unchanged in spite of opposite demographic pressure, corresponding to an increase of $1\frac{1}{2}\%$ relative to the baseline level.

The downward revision of the MTO in conjunction with the extension of the period covered (i.e. 2011-15) predominantly reflects projected lower “structural” income from the North Sea and growing pension expenditure. The objectives of structural surpluses or balance as a minimum are compatible with the latest estimate of the minimum benchmark requirement of a deficit around $\frac{1}{2}\%$ of GDP. Moreover, the MTO adequately reflects the debt ratio and average potential growth in the long run. The MTO therefore appears appropriate, in line with the requirements of the Stability and Growth Pact.

The MTO is accompanied by three sets of targets. Firstly, the sustainability indicator (calculated applying a national methodology) should be 0, indicating sustainable fiscal policies. Secondly, annual real growth ceilings averaging 1% apply for general government consumption expenditure. Thirdly, a reference point is set at $26\frac{1}{2}\%$ for the ratio of general government consumption expenditure to cyclically-adjusted GDP in 2015.

According to the update, the headline balance should recover in 2011 bringing about a small surplus, so that the overall deterioration towards 2012 (and beyond to 2015) amounts to 3 percentage points of GDP. Over the programme period, the adjustment is distributed evenly on lower revenue (notably due to the tax freeze nominally capping certain indirect taxes, deteriorating cyclical conditions and lower income tax rates) and higher expenditure (primarily social transfers and compensation of employees).

As mentioned in Section 4.2, differences in one-offs complicate the interpretation of the structural balance. However, a common element applies for 2010, where a one-off capital transfer to households (estimated at DKK 15 billion, 0.8% of GDP) is envisaged as part of the 2007 reform of the pension yield tax following a ruling by the European Court of Justice. In the outer years of the programme period, the recalculated structural balance approaches $\frac{1}{4}\%$ of GDP, suggesting that the MTO is achieved by a small margin.

A mildly expansionary fiscal stance is envisaged beyond 2010. The path is largely determined by the technical assumption of the output and unemployment gaps, as calculated by the Danish authorities using national methodologies, closing in 2012, and the absence of temporary variations in certain volatile types of revenue from 2012.

The update shows that the government consumption expenditure reference point of $26\frac{1}{2}\%$ is exceeded from 2009 onwards. According to the 2015-plan, exceeding the reference point implies an obligation to reconsider to ensure a correction of the path⁶. It is indicated that a correction will be decided upon when the uncertainties about cyclical conditions subside.

⁶ Part of the increase in the expenditure-to-GDP ratio (0.3 percentage point) stems from statistical revisions of GDP. As the revision affects the revenue-to-GDP ratio equally, the balance and sustainability are not affected.

4.4. Risks to the budgetary targets

The revenue projections for Denmark are particularly sensitive to external assumptions about energy prices and interest rates. The differences between the Commission services' forecast and the programme are thus partly due to different oil price and interest rate assumptions.

The outcome for 2009-2010 could be worse than targeted for several reasons. As regards the macro-economic scenario, a deeper and more protracted international and domestic downturn is likely to lead to a more rapid increase in unemployment. Although comprehensive measures have been taken to improve credit conditions, a risk remains that they are inadequate to prevent a credit squeeze, which would aggravate the slow-down in investment and the correction in the housing market. For 2011-2012 in particular, the favourable growth assumptions resulting from underlying technical assumptions could result in outcomes being worse than targeted.

Measures to meet the underlying structural policy requirement, aimed at improving public finances permanently by 0.7% of GDP, are not fleshed out in the programme, and their phase-in is not specified. Failure to deliver on the structural policy requirement would presumably weigh primarily on the latter part of the programme period. In the absence of the required reform effects, the estimated structural balance suggests that the MTO may not be achieved from 2012 onwards. Meanwhile, the reforms agreed in recent years suggest that a certain reform momentum could be maintained. In February 2009 and mid-2009, government-appointed commissions will deliver policy advice on tax and labour market reforms, upon which negotiations will be based.

As shown in Figure 2 of Annex 2, the recent track record for achieving budgetary targets is relatively good. During the upswing, forecasts have been prudent, and revenue surprises are accredited to revenue-rich GDP growth and energy price developments.

A few upside risks remain. Energy prices could be higher, depending on global developments, and interest rates lower than assumed in the programme, which would have a positive impact on the general government balance.

Overall, the risks to the budgetary projections in the programme update indicate that the outcomes could be worse than targeted, as the downside risks due to favourable growth assumptions and uncertainty about required structural reforms are not outweighed, despite the positive budgetary track record, by remaining upside risks. Nevertheless, with some reform momentum facilitating further structural reforms, it appears likely that the MTO will be achieved throughout the programme period.

The measures launched to ensure financial stability and enhance credit conditions increase the Danish government's exposure to risk. However, at the current juncture, claims related to the financial stability package of October 2008 are far from exceeding the DKK 35 billion threshold (2% of GDP), which means they are covered by the participating banks themselves. Only when claims exceed this sum, will government guarantees be called. The risk exposure implied in the January 2009 Credit Package would only be known mid-2009 (see Section 5.1 below).

5. DEBT DEVELOPMENTS AND LONG-TERM SUSTAINABILITY

5.1. Debt developments

Following a period of successful fiscal consolidation, the general government gross debt was reduced to 26¼% of GDP in 2007. Meanwhile, taking financial assets into account, Denmark reached a net public asset position of around 4% of GDP in 2007.

In 2008, the gross debt ratio increased to 30.3% of GDP, as financial stability measures had a strong impact. The issuing of new 30-year government bonds from November 2008, primarily addressing the needs of the pension sector, implied an equivalent increase in financial assets and liabilities. As only the latter are taken into account in the gross debt ratio, this largely explains the large stock-flow adjustment of around 8% of GDP. Furthermore, the possibility granted to a state-owned fund, Den Sociale Pensionsfond, to buy mortgage bonds (supporting the liquidity of the market) implied a shift away from government bonds, increasing the gross debt ratio by around 1%.

Similar effects, yet of a smaller magnitude, are expected for 2009. However, these are foreseen to be counterbalanced by financial transactions in parallel reducing the stock of government bonds and the central government's deposit with Danmarks Nationalbank. In sum, the stock-flow-adjustment is projected to reduce the gross debt ratio by 1½% in 2009 and 2% in 2010. Over the programme period, the gross debt ratio is foreseen to decrease by some 7¾ percentage points of GDP, reaching 22½ % of GDP in 2015.

The public net asset position is less affected by the financial transactions outlined above. In the update, public net assets are estimated to have increased to around 7% of GDP in 2008 and are projected to decrease only slightly towards 2015.

However, developments will depend significantly on the implementation of the credit package announced on 18 January 2009. The maximum amount of loans granted is estimated to be DKK 100 billion (5½% of GDP), whereas the likely impact will only be known mid-2009. This element is not addressed in the programme, but constitutes the main risk for debt developments.

Table IV: Debt dynamics

(% of GDP)	average 2002-06	2007	2008		2009		2010		2011	2012	2015
			COM	CP	COM	CP	COM	CP	CP	CP	CP
Gross debt ratio¹	40.7	26.3	30.3	30.3	28.4	27.9	27.0	26.3	25.4	24.6	22.6
Change in the ratio	-3.3	-4.4	4.0	4.0	-1.9	-2.4	-1.4	-1.6	-0.9	-0.8	-0.6
<i>Contributions²:</i>											
1. Primary balance	-4.8	-6.1	-4.5	-4.2	-1.2	-1.5	0.0	-0.2	-1.6	-1.3	-0.7
2. “Snow-ball” effect	0.6	0.5	0.5	0.3	1.0	0.7	0.7	0.6	0.3	0.2	-0.1
<i>Of which:</i>											
Interest expenditure	2.3	1.5	1.3	1.3	1.5	1.5	1.4	1.4	1.3	1.2	0.8
Growth effect	-0.7	-0.5	0.2	-0.1	0.3	0.1	-0.2	-0.2	-0.5	-0.4	-0.4
Inflation effect	-0.9	-0.6	-1.0	-1.0	-0.8	-0.8	-0.6	-0.6	-0.5	-0.6	-0.5
3. Stock-flow adjustment	0.9	1.2	8.0	7.9	-1.7	-1.6	-2.1	-2.0	0.4	0.3	0.2
<i>Of which:</i>											
Cash/accruals diff.	-0.4	2.2		n.a.		n.a.		n.a.	n.a.	n.a.	n.a.
Acc. financial assets	1.2	-0.6		n.a.		n.a.		n.a.	n.a.	n.a.	n.a.
<i>Privatisation</i>	0.0	0.0		n.a.		n.a.		n.a.	n.a.	n.a.	n.a.
Val. effect & residual	-0.1	0.0		n.a.		n.a.		n.a.	n.a.	n.a.	n.a.

Notes:
¹End of period.
²The 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. Denmark has implemented a pension reform in 2006 and new projections of age-related gross expenditure have been endorsed by the EPC in January 2008.⁷

Table 3 in the Annex shows that the projected dynamics in age-related spending are below the EU average, increasing by 1.2 percentage points of GDP between 2010 and 2050. Sustainability indicators for two scenarios are presented in Table 4 in the Annex. Including the increase of age-related expenditure and assuming that the structural primary balance remained at its 2008 level, Denmark has no sustainability gap in the baseline scenario (S2 is negative, at -3.9% of GDP).⁸ The starting budgetary position would be more than sufficient to stabilise the debt ratio over the long-term.

⁷ 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.

⁸ Note that compared with last year's assessment, both the budgetary position in the starting year as well as the present value of long-term cost of ageing have improved. The improvement of the latter is due to the extension of the programme period by 5 years, since only from that point on are increases in the cost of

The "programme scenario", which is based on the end-of-programme structural primary balance, projects the budgetary situation to deteriorate, and a small sustainability gap would arise.

Based on the assumptions used for the calculation of the sustainability indicators, Figure 4 in the Annex 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 the Annex. Notably, the programme presents national projections, taking into account also non-age-related budgetary developments.

The long-term budgetary impact of ageing is lower than on average in the EU, notably thanks to the recent pension reform. Moreover, the budgetary position in 2008 as projected in the programme, with a large structural surplus, contributes to the reduction of gross debt. 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

As discussed in the assessment of the December 2007 update⁹, Denmark has benefited from a relatively strong budgetary framework and comprehensive macro-economic and fiscal strategies pursuing the twin objectives of stability in the short- and medium-term and sustainability in the long-term. Nonetheless, some weaknesses were identified, specifically concerning the failure to respect the limits for real government consumption expenditure growth. Based on the most recent national accounts data, 2008 appears to break with this pattern, most likely due to high wages and prices, but possibly also due to significant delays in public spending as a result of the public sector strike in the spring 2008. Meanwhile, the framework for the annual agreements on local government finances has been amended to enhance incentives for local governments to adhere and stay in line with the (central) government policy of a tax freeze, applied since 2002. As the amendments are to be discussed further ahead of the next round of negotiations in the spring 2009, the estimated impact could be limited. The projected general government consumption expenditure ratio exceeding the Government's target of 26½% of GDP provides a further indication that adherence to expenditure targets should be strengthened.

Following on from the previous assessment, this assessment contains in Annex 1 a discussion of the potential effects of strengthening focus on the quality, efficiency and cost-effectiveness of public finances towards curbing public expenditure growth.

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

ageing taken into account by definition of the indicators. Indeed, the cost-dampening effects of the 2006 pension reform will show only with some lag after implementation.

⁹ See http://ec.europa.eu/economy_finance/publications/publication_summary12217_en.htm

European Council conclusions on the European Economic Recovery Plan (EERP) on 16 December 2008 and the overall fiscal stance (ii) the criteria for short-term action laid down in the above mentioned Commission Communication, and (iii) the objectives of the Stability and Growth Pact.

The slowdown in the Danish economy predates the global slowdown, which has influenced fiscal policy considerations. Rather than applying a specific stimulus package at the end of 2008, a discretionary fiscal expansion of around 1% of GDP had been planned for 2009, including permanent measures that improve work incentives (tax cuts) and improve the growth potential (investment in R&D). Part of the expansion is due to large public sector wage increases, which are expected to sustain private consumption. Meanwhile, with the onset of the global economic crisis, the pressure on the labour market is currently easing rapidly, and further fiscal stimulus may need to be considered.

The programme foresees a sharp deterioration in the headline balance in towards 2010, and budgetary outcomes could be worse than predicted in view of favourable growth assumptions. The budgetary targets nevertheless aim to achieve the MTO throughout the programme period, thus maintaining a sufficient safety margin to the reference value. Following a period of high budgetary surpluses, benefiting from a relatively strong fiscal framework, general government gross debt has declined to a low level. At the current juncture, given the available fiscal space, the overall fiscal stance is considered broadly adequate in view of the relatively strong automatic stabilisers at play, expected to reduce the actual government balance by around 1 percentage point of GDP in 2009 and about ¼ percentage point further in 2010.

Based on the analysis in this assessment, Denmark's programme appears consistent with achieving its MTO throughout the programme period, thus maintaining a sufficient safety margin to the reference value. Denmark's fiscal position is hence considered fully in line with the criteria of the Stability and Growth Pact. On the back of major structural reforms, particularly in 2006, the programme update presents a new MTO of structural balance as a minimum for the period 2011-2015. The new MTO is considered appropriate in view of the latest estimate of the minimum benchmark requirement and of the debt ratio and average potential growth in the long run.

ANNEX 1. SPECIAL TOPIC: EFFICIENCY AND EFFECTIVENESS IN DANISH PUBLIC SPENDING

Danish public finances, as those of other economies with comprehensive welfare systems, are facing challenges on both the expenditure and the revenue side. While demographic shifts and improved living standards increase demand for and expectations to public services, globalisation and migration sets some limits for its financing. At the current juncture, policy makers are confronted with the question whether these pressures can be sufficiently alleviated by improving the efficiency and effectiveness of public spending. Or will more fundamental aspects of the organisation and the scope of the public sector need to be reconsidered?

It is the Danish government's ambition to contain expenditure growth and get more service for the same money or the same service for less. This is likely to become increasingly challenging in view of demographic developments and the limited scope for productivity gains in labour-intensive services (requiring physical presence). In the assessment of the December 2007 update of the Danish convergence programme it was emphasised that a strengthening of the focus on efficiency and cost-effectiveness could reinforce efforts to curb public expenditure growth in line with the ambitious targets set. This special topic extends on this earlier analysis. A comprehensive study would require analysis of revenue, expenditure, institutional aspects of national fiscal frameworks and the organisation of public administration. To limit the scope of this analysis, its focus is on the composition and efficiency of general government consumption expenditure and certain fiscal governance aspects thereof¹⁰. Special attention is given to health and education expenditure, which are at the core of the Danish welfare state.

1. KEY CHARACTERISTICS OF DANISH GENERAL GOVERNMENT EXPENDITURES

There are three distinct features of Danish general government expenditure in an EU perspective. Firstly, the total expenditure-to-GDP ratio is significantly higher than the EU-15 average (i.e. Member States before 2004), albeit with a decreasing trend, narrowing the gap to currently around 3 percentage points of GDP. Secondly, social security funds are responsible for only a very small share of Danish government expenditure (around 3% of GDP), in contrast with the other Nordic Member States. Finally, local and regional governments spend a large share hereof. These figures highlight the high degree of decentralisation of public expenditure, which is unique to Denmark with only Sweden and Finland approaching similar levels.

Looking at the composition of expenditure (according to COFOG data) it is clear that welfare state expenditure take up a larger share of GDP than the EU-15 average (Table 1). The reason lies mainly in more extensive social protection and higher education expenditure. The composition is similar in Denmark and Sweden, whereas Finland is closer to the EU-15 average, mainly due to lower education and social protection expenditure.

¹⁰ For an outline of a conceptual framework for the quality of public finances and growth, see Part III of European Commission, DG ECFIN (2008), Public Finances in EMU – 2008, *European Economy*, no 3.

Table 1. Expenditure by function, sector and type

% of GDP	DK	DK	FI	SE	EU-15
	1997	2007	2007	2006	2006
Welfare state	37.4	36.4	32.3	36.5	30.4
- Health	6.8	7.3	6.6	6.8	6.7
- Education	7.3	7.4	5.8	7.0	5.1
- Social protection	23.3	21.7	19.9	22.7	18.6
Public order and safety, defence and general public services	12.0	8.6	8.8	10.7	9.4
Other	7.0	6.2	6.2	7.0	6.8
Total expenditure	56.6	51.0	47.3	54.3	46.7
Central government	37.5	35.5	23.6	30.0	25.1
Local and regional government	31.5	32.0	19.3	24.5	11.4
Social security	4.8	3.0	14.6	6.2	14.5
Individual consumption	16.9	18.2	14.2	19.1	12.8
Collective consumption	8.1	7.7	7.2	7.2	8.0

Note: Other is expenditure for environment protection, economic affairs, housing and community amenities, recreation, culture and religion. Due to the Danish reform of local and regional government, the central, local and regional expenditure data for 2007 are not readily comparable with 1997.

2. INDICATOR-BASED ASSESSMENT OF OUTCOMES AND EFFICIENCY

Ideally, an assessment the quality of public finances should measure to what extent a government's budgetary policies pursue the right objectives – maximising individual well-being and social welfare – in a cost-effective manner. While the economic literature suggests that larger public sectors tend to be associated with lower real GDP growth,¹¹ the effect is likely less significant if distortions are minimised, e.g. through efficient expenditure and flexible markets. Studies furthermore show that the impact of government activity on the well-being of citizens depends positively on the effectiveness of the government sector.¹² Meanwhile such statements presuppose that efficiency and effectiveness is readily revealed in practice.

Recognising that this is not straightforward, attempts have been made to produce composite indicators summarising large amounts of information concerning general government expenditure, technical inputs, outputs and institutional features. Afonso, Schuknecht, and Tanzi (2003) constructed composite indicators of public sector performance, by which they distinguished public sector performance (PSP), defined as the outcome of public policies, from public sector efficiency (PSE), defined as the outcome in relation to the resources employed. As highlighted by the authors, the composite indicators encompass numerous dimensions, and caution should be adopted in their interpretation. In particular, serious data limitations make it difficult to ensure consistent and coherent analysis of cross-country

¹¹ For an overview, see European Commission (2008), Public Finances in the EMU – 2008, *European Economy* no. 3. Specifically for Denmark, the magnitude of the public sector is inflated by social transfers being paid gross of tax.

¹² Bjørnskov C., A. Dreher, J. Fischer (2007) "The Bigger the Better? Evidence of the Effect of Government Size on Life Satisfaction around the World". *Public Choice*, vol. 130 (2007), 267-292.

differences. Moreover, the results depend on the method applied.¹³ Based on data for the year 2000, their analysis suggests that Denmark's public sector performed above average in term of outcome, but the total public sector efficiency was only par with the EU-15 average, primarily pulled down by poor indicator scores for education and health. When translated into a ranking of input efficiency, Denmark, Sweden and Finland obtain the lowest scores around 0.60, suggesting that little more than half the current spending would be sufficient to achieve the same public sector performance.

In a study by the SCP¹⁴, performance indicators in the areas of education, health, and law and order are aggregated to report on public sector performance. Among the best-performing countries are Ireland and Finland with low expenditure. Sweden and Denmark also perform quite well, but at significantly higher expenditure levels, suggesting potential input efficiency gains.

In view of the uncertainties inherent to macro measurements estimating the efficiency of total public spending, these are best complemented by micro measurements measuring the efficiency of particular categories of public spending. There is a growing literature on both types of measurement, and work is also ongoing in DG ECFIN to refine methods and compile data with adequate consistency and coverage.

At the national level, the challenge of ensuring efficiency in public expenditure has important local and regional dimensions. Decentralised responsibilities for public services may enhance efficiency insofar as needs differ across municipalities or regions and provided resources are matched to these needs up to the point at which the marginal costs outweigh marginal benefits. On this basis, several questions arise: To what extent do needs differ? Do local and regional governments have the flexibility to adjust budgets accordingly? Is it possible to weigh marginal benefits with the marginal cost of funds? These are challenging issues to analyse, and efforts are ongoing. For the present purpose suffice it to note that differences in spending can reflect differences in needs, preferences or efficiency. Marginal benefits are complicated to assess for citizens as well as for policy-makers. Similarly, determining the marginal costs of funds is difficult due to the complex set of rules governing local and regional finances, and thus even more so for the citizens. In view of the mounting challenges to public finances, it nevertheless remains essential to improve tools and mechanisms to shed light on the cost-effectiveness of public services.

3. RECENT POLICY RESPONSE

The reform of regions and municipalities agreed in 2004 aimed to “ensure a robust decentralised public sector – which is specific to Denmark - by creating sustainable units with clear responsibilities for delivering high quality welfare services to Danish citizens”¹⁵. The reform offered an opportunity to balance the size of the organisational units and their tasks to

¹³ A number of conceptual and methodological issues are discussed in Afonso A., L. Schuknecht, V. Tanzi (2006) "Public Sector Efficiency: Evidence for New EU Member States and Emerging Markets", *ECB Working paper series* No. 581, January 2006

¹⁴ Social and Cultural Planning Office of the Netherlands (2004) *Public Sector Performance – An international comparison*, Social and Cultural Planning Office of the Netherlands, The Hague.

¹⁵ Own translation from “Aftale om strukturreform”, the agreement entered by the Government and Danish People's Party, June 2004.

be more conducive to efficient welfare service provision. Fiscal relations were reformed, primarily to take into account the amended division of tasks, but also to improve monitoring of budgetary developments. The new organisational structure entered into force on 1 January 2007.

Danish expenditure policy is conducted within the framework of the "2015-plan", presented in August 2007. It contains annual real expenditure growth ceilings as well as a "reference point" for the ratio of consumption expenditure to cyclically-adjusted GDP at 26½%. As reported in the December 2008 update of the Danish convergence programme, the "reference point" is foreseen to be exceeded from 2009. The 2015-plan prescribes an obligation to revisit expenditure plans to bring them in line with target, and the December 2008 update of the Danish convergence programme indicates that this will be done when current uncertainties subside.

Alongside the 2015-plan, the Danish Government presented its Quality Reform (QR) package in August 2007 containing 180 initiatives with the aim to improve the quality of public sector services.¹⁶ The budgetary resources allocated for this purpose consist of a "quality pool" of DKK 10 billion (0.6% of GDP) for the 2008-2011 period and a "quality fund" of DKK 50 billion (2.8% of GDP) for public investments in the health care, child care and education sectors over the 2009-2018 period, of which DKK 2.2 billion is to be spent in 2009. Implementation started with the adoption of the 2008 budget in April 2008. Quality improvements in public service has been maintained as the main theme in the 2009 Budget, in which the implementation of QR measures is continued and a further DKK 1.6 billion (0.1% of GDP) is designated to the health sector in line with the agreement between central and regional governments.

The main elements are very varied and address demand pressure as well as cost-efficiency aspects. Most measures have yet to be fleshed out, and their expected impact is therefore difficult to assess. Nevertheless, potentially cost-driving and cost-saving elements can be identified. Setting standards such as a fixed personal contact person for each public service user is likely to increase costs and labour-intensity and reduce flexibility. Such quality increases might be measurable in terms of user satisfaction, but may at the same time generate higher expectations disregarding the extra cost. Potentially cost-saving or cost-revealing elements include stronger public-private cooperation and attempts to make costs visible for the citizens.

Recognising the current and future recruitment challenges as well as the demographically determined demand increase, the Danish Government has presented initiatives to make better use of public employees' time and develop labour-saving technologies. Moreover, on the back of the reform of local and regional government and the quality reform, strategies and measures have been proposed by the central government aiming at "de-bureaucratisation" and "liberating resources for services close to the citizen". In this context, the central government has set a target for the municipalities and regions to reduce administrative expenditure, spending on procurement and energy, limiting sick leave and implementing new technology etc. to "free up" DKK 1 billion in 2009, increasing to DKK 5 billion in 2013.

¹⁶ In the context of the "Quality reform", the concept of "quality" is described as having three dimensions: The "professional quality" in comparison with high professional standards; the "quality experienced by the user" reflecting e.g. to what extent expectations are met; and the "organisational quality" reflecting e.g. efficient work processes, effective management, cf. www.fm.dk.

4. EDUCATION

4.1. Objectives, input, output and outcomes

Denmark's National Reform Programme 2008 reiterates two central objectives for outcome and output of the Danish education system: Denmark's primary school is to be of world class and ensure that the brightest pupils match the level of the best pupils in other countries, while the level of the weakest pupils must be raised. Furthermore, at least 95 per cent of a youth cohort must complete a youth education programme by 2015. An intermediate aim is to ensure that at least 85 per cent of all young people are to complete a youth education programme by 2010.

Danish education expenditure is the highest in the EU as a share of GDP. High expenditure devoted to "life-long learning" offers part of the explanation, but expenditure per student is high for all levels of education. According to OECD data¹⁷, school classes are on average among the smallest. Meanwhile, the teachers' compensation per hour taught is more generous than the OECD-average, particularly at upper-secondary level.

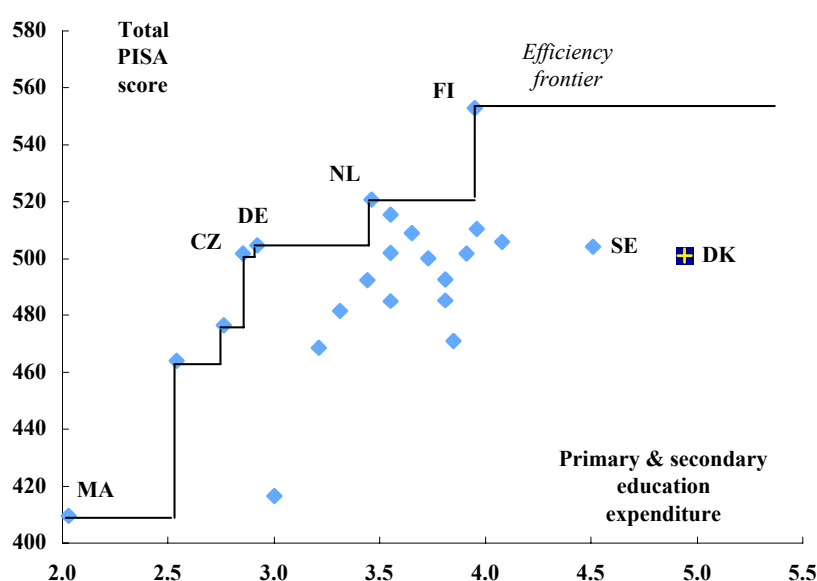
In the area of education, a range of indicators point to Denmark's performance being slightly better than the EU15-average but poorer than that of the other Nordic Member States. Output indicators suggest that more Danes aged 25-64 have completed at least secondary education compared with the EU-15 average, but they tend to do so later in life, as the share of the population aged 20-24 having attained this level is below the EU-15 average. On another output indicator, the number of early school-leavers, Denmark performs just below average. In terms of outcome indicators, Denmark's total PISA score is around the EU15 average. However, Figure 1 below shows that nine Member States obtain the same score or higher while spending significantly less. Notably the other Nordic Member States, Germany and the Netherlands achieved higher or similar scores at significantly lower expenditure levels.

¹⁷ OECD (2008) *Education at a glance 2008*, Paris

Table 2. Secondary education attainment

Secondary education attainment			
<i>Percentage of the population aged 25 to 64</i>			
CZ	90.5	UK	73.3
EE	89.1	NL	73.2
SK	89.1	CY	72.1
LT	88.9	FR	68.7
PL	86.3	BE	68.0
LV	85.0	IE	67.6
SE	84.6	LU	65.7
DE	84.4	EL	59.8
SI	81.8	IT	52.3
FI	80.5	ES	50.4
AT	80.1	PT	27.5
HU	79.2	MT	26.8
BG	77.4		
DK	75.5	EU-15	67.4
RO	75.0	EA	63.9

Figure 1. PISA score and education expenditure (% of GDP)



Note: The line is the production possibility frontier indicating the highest possible level of output/outcome for a given level of input, and the lowest level of input necessary to attain a given level of output/outcome.

Education expenditure varies significantly across municipalities, where the minimum is 75% of the average, and the maximum 143%.

4.2. Efficiency

Across a range of efficiency assessments, Denmark ranks in the least efficient quartile of EU Member States.¹⁸ OECD estimates¹⁹ of the scope to enhance efficiency in primary and secondary education suggest that 8% of teaching staff could be saved by approaching the national best practise while keeping output unchanged. Conversely, the output as measured by the PISA score could be increased by 6% while keeping input unchanged. The OECD study suggests that more qualified and relatively higher paid teachers could imply that schools can get by with fewer teachers without negatively affecting student attainment.

OECD indicators of the institutional design/quality²⁰ suggest that the Danish resource allocation is the most decentralised in the OECD. Yet, the Danish education system clearly lacks focus on outcome in its budget management. Consequently, policies ought to be

¹⁸ European Commission (2008), Public Finances in the EMU – 2008, *European Economy* no. 3.

¹⁹ Sutherland D., R. Price, I. Joumard, C. Nicq (2007), “Performance indicators for spending efficiency in primary and secondary education”, *OECD Economics Department Working Papers*, No. 546.

²⁰ OECD (2008) *Economic Policy Reforms: Going for Growth*, Paris.

rebalanced to ensure coherence between output-orientated objectives and managerial autonomy.

4.3. Policy response

As outlined in the National Reform Programme, a number of measures have been launched, but their effects have yet to be detected. Funding has been dedicated as part of the Globalisation Strategy. Mediocre results in the 2000 PISA Study led to a shift in education policy focus towards test results and grade point averages, which are made publicly accessible. Work has been carried out to estimate “school effects”, i.e. a measurement of how well schools educate pupils to achieve better test results than could be expected given their social background.²¹ Correcting for social background (immigrant, one or two parents, highest education of parent(s), and parents’ income) reduces the variability of grade point averages by about half. Subsequently, most schools show average performance, but at the same time there remains a significant difference between best and worst performers. Although, no mechanic link can be inferred, these results could provide useful input to enhance focus on outcome in budget management.

5. HEALTH

5.1. Objectives, input, output and outcomes

The Danish Government has announced general and specific health objectives, referring to “health care accessible for all”, “offering personal service of world class”, and “increasing average life expectancy by three years over the next decade”.

Danish health care expenditure constitutes a relatively high share of GDP, which has been relatively stable since 1975, unlike the trend in other comparable EU countries. Over the past decade, however, the health-expenditure-to-GDP-ratio has increased in line with the EU15 and euro area averages. Health care is offered within a universal public health insurance, predominantly provided publicly and tax financed, with private health insurance playing only a small role. However, favourable tax treatment has recently increased take-up of employer-paid private health insurance. Long-term care costs are significantly higher than elsewhere reflecting a wide coverage of e.g. housekeeping help. The responsibility for running the public health service is decentralised and thus divided between regions and municipalities, whereas the state is in charge of legislation, national guidelines, supervision, monitoring, general planning and the overall framework of the health economy.

Compared with the EU-15 average, Denmark performs poorly on a number of standard outcome indicators, i.e. a higher mortality rate, lower life expectancy and slightly higher infant mortality rate. Indicators from OECD Health Data²² point to a high level of Potential Years of Life Lost with regard to cancers and diseases of the digestive system compared with the OECD average in general and the other Nordics (Finland, Iceland, Norway and Sweden) in particular.

²¹ Rangvid, B.S. (2008) "Skolegennemsnit af karakterer ved folkeskolens afgangsprøver: Korrektion for social baggrund", *AKF Working Paper* 2008(1), February 2008

²² As reported in OECD (2008) *Economic Surveys: Denmark*, Volume 2008/2, OECD, Paris

Some indicators suffer from differences in definitions and similar data problems. For instance, in the Nordic countries, very premature babies with relatively low odds of survival are registered as live births, which increases mortality rates compared with other countries that do not register them as live births. Other indicators illustrate the significance of a clearly specified objective, for instance health-adjusted life expectancy. Eurostat's indicator of Healthy Life Years (HLY) measures the number of remaining years that a person of a specific age is still expected to live in a healthy condition, defined by the absence of limitations in functioning/disability. The HLY indicator is calculated at two ages: At birth and at 65. As shown in Figure 2a, Denmark is among those countries that – for a given level of health expenditure - offer the best prospects, particularly for 65-year-olds. (HALE gives a different impression). The health-adjusted life expectancy (HALE) indicator calculated by WHO gives a different impression. HALE is the average number of years that a person can expect to live in full health, calculated by subtracting from the life expectancy the average number of years in ill-health weighted for severity of the health problem. According to this indicator Denmark ranks considerably lower. Consequently, the choice of indicator depends on whether a healthy life is considered completely free of disability or whether the severity of disabilities should be taken into account. HALE is more closely correlated with raw life expectancy data than HLY.

Figure 2a. Healthy Life Years (Eurostat)

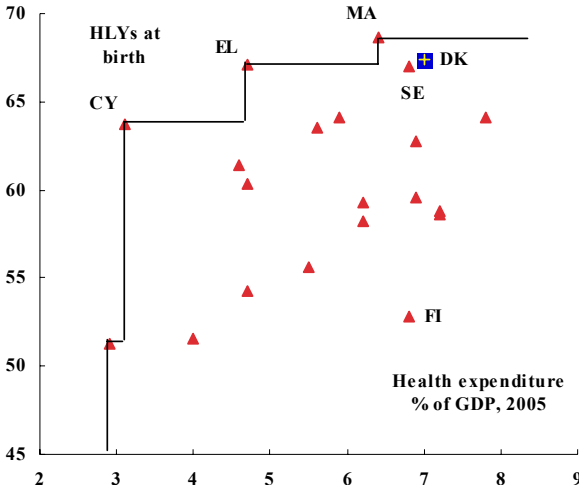
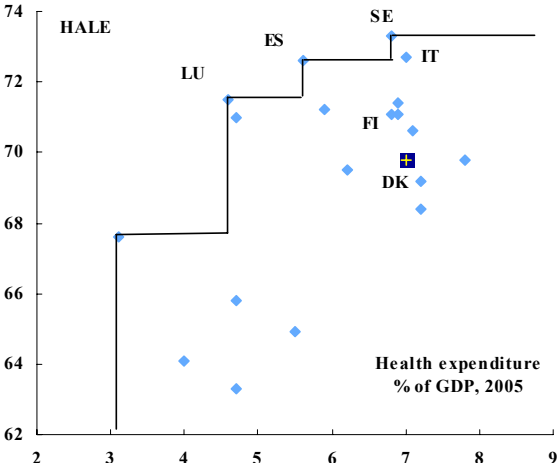


Figure 2b. Health-adjusted life expectancy (HALE) (WHO)



Note: The line is the production possibility frontier indicating the highest possible level of output/outcome for a given level of input, and the lowest level of input necessary to attain a given level of output/outcome.

Source: Eurostat, WHO

Surveys reporting on public satisfaction could be considered a complementary, although indirect indicator for assessing the performance of the health system. While noting that cross-country comparability is limited, it a large share (around 75%) of the Danish population express their satisfaction with the system, similar to Benelux, France, Austria and Finland, where HALE is significantly higher.²³

²³ Joumard I., C. André, C. Nicq, O. Chatal (2008) *Health Status Determinants: Lifestyle, Environment, Health Care Resources and Efficiency*, OECD Economics Department Working Papers, No. 35, August 2008

5.2. Efficiency

The few available efficiency studies have been much debated, and give a mixed impression of the efficiency of Danish health care expenditure. Afonso and St. Aubyn²⁴ initially find that Denmark is the quite far from the efficiency frontier, but then proceeds to find that the inefficiency detected can be fully explained by "environmental variables" which go beyond the remits of health policy decision-makers in the short to medium run. The high level of GDP per capita and educational background are found to enhance efficiency, whereas obesity and smoking habits increase the distance to the efficiency frontier. Taking only GDP per capita and lifestyle into account brings Denmark closer to efficiency, but some distance remains, resulting in a ranking in the lower half of the 19 OECD countries in the study.

Following a more disaggregated approach, Erlandsen²⁵ assesses cost-effectiveness of hospitals across seven diagnosis-related groups encompassing typical individual clinical interventions. Among the ten OECD countries covered by the study, Denmark is reported to have the lowest potential reduction in unit costs, which is reported consistent with another study contrasting the high cost-efficiency indicator score of Denmark and Finland with that of Sweden and Norway.

These studies could suggest that the origins of differences in outcomes should be sought elsewhere, e.g. in lifestyle issues such as alcohol consumption, obesity, and smoking.

5.3. Policy response

In its most recent Economic Survey of Denmark, the OECD showed how health expenditure poses a major fiscal challenge.²⁶ The importance for long-term sustainability is also clearly reflected in the 2015-plan, noting that higher expenditure than foreseen will require expenditure cuts elsewhere or revenue increases.

The ongoing modernisation of the health care sector contains a strong focus on productivity and economic incentives as reflected in the recent reform of the regions, their financing and the introduction of "free choice"²⁷. Meanwhile, there is a strong commitment to increasing standards (e.g. through the "treatment guarantee", which allows patients to obtain certain treatments in the private sector or abroad if not provided in due time in the national system) and accommodating increasing demand, but limited willingness to consider increased co-payment and similar forms of financing making costs visible to the user.

²⁴ Afonso A. and M. St. Aubyn (2006)

²⁵ Erlandsen, E. (2007), "Improving the Efficiency of Health Care Spending: Selected Evidence on Hospital Performance", OECD Economics Department Working Paper, No 555, June 2007.

²⁶ OECD (2008) Economic survey of Denmark

²⁷ Since 1 January 1993, citizens who are in need of hospital treatment have the possibility (within certain limits) of choosing freely which hospital they wish to be treated in. As of 1 July 2002, citizens may choose among private hospitals or clinics in Denmark or abroad if the waiting time for treatment exceeds two months and the chosen hospital has an agreement with the regions' association regarding the offer for treatment. From 1 October 2007 this waiting time was reduced to one month, but the public sector strikes in the spring 2008 led to a temporary suspension of the free choice of hospitals from 7 November 2008 to 30 June 2009.

Regions have been hesitant in estimating potential efficiency gains of reorganising hospital care.²⁸ Nevertheless, the recently announced hospital infrastructure plan requires that each appropriation is conditioned by a savings target. For 2007, in accordance with the agreement between the government and Danish Regions concerning the economy of the regions, 50% of the hospital budgets will depend on activity-related contribution. Meanwhile, it remains to be seen whether the financial arrangements are adequate to cap health expenditure growth going forward.

The Danish Government launched a national quality assessment and accreditation programme in 2006. Denmark is one of the few Member States making use of quality indicators in practice. The National Indicator Project (NIP) measures the quality of care provided by hospitals for groups of patients with specific medical conditions. For six frequently occurring conditions²⁹, information is collected from the patients' medical records about treatment, severity of the illness and outcomes (NIP 2006). Moreover, the possibilities for and barriers to productivity and efficiency analyses of general practitioners are being examined.³⁰

A government-appointed Prevention Commission has been tasked with assessing existing policy measures, identifying which challenges should be given priority, and proposing well documented, cost-effective preventive measures. A final report is due early 2009.

6. CONCLUSION

While it remains difficult to assess efficiency of public expenditure, it becomes increasingly important to support decision-making in the prioritisation of resources. So far, the general conclusion of the literature on efficiency and usefulness of public sector activities is that public spending could be much smaller and more efficient than today, but it would require governments adopting better institutions and transferring many non-core activities to the private sector.³¹ Various efficiency studies suggest that Denmark does not appear to be an exception in this regard. Furthermore, the high level of taxation in Denmark mirrors the high costs of any inefficiency in public service provision.

The recent policy response reflects that the Danish Government is ready to address many challenges linked to the quality of public finances, both at the general level through comprehensive reforms and strategies, and through specific measures. Given the budgetary conditions set out in the 2015-plan, it remains important, however, to ensure a balance in the policy focus between accommodating increasing demand for public services and improving productivity and efficiency.

²⁸ Mandag morgen (2008) "Her er fremtidens sygehusvæsen", Ugebrevet Mandagmorgen MM32 22 September 2008

²⁹ Lung cancer, schizophrenia, heart failure, hip fracture, stroke and acute surgery for gastrointestinal bleeding

³⁰ Rose Olsen, K., T. Højbark Sørensen, D. Gyrd-Hansen (2008) "Produktivitets- og efficiensanalyser i Almen Praksis: Analyser af muligheder, barrierer og indledende resultater", *Dansk Sundhedsinstitut DSI rapport* 2008.05

³¹ Afonso A., L. Schuknecht, V.Tanzi (2003) "Public Sector Efficiency: An International Comparison", *ECB Working Paper* No. 242, July 2003

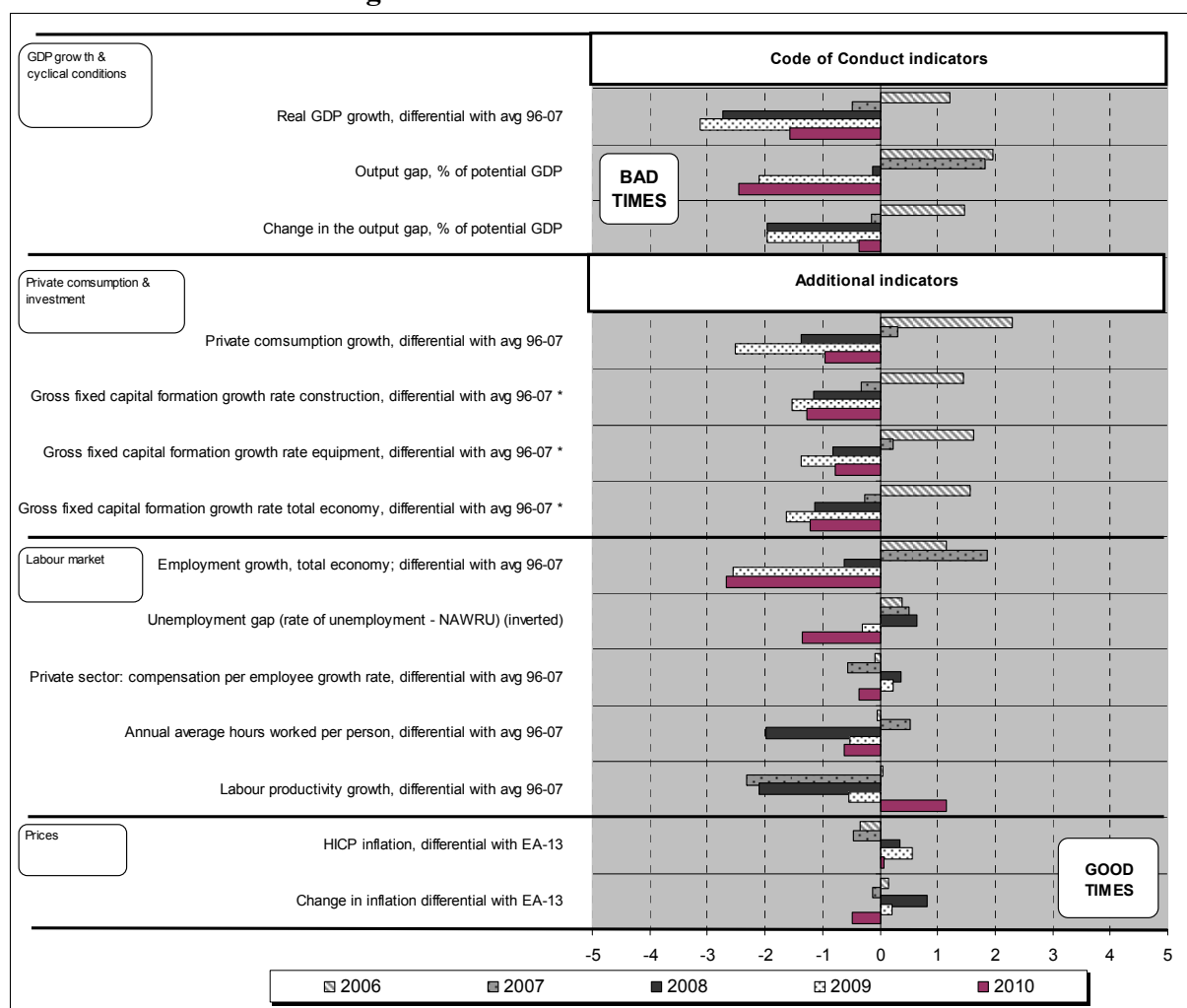
The high level of education expenditure and the ambitious policy targets set may lead to a policy dilemma as teacher recruitment prospects deteriorate. Studies point to a potential improvement in cost-effectiveness through improved organisation. In view of the multitude of measures launched, it will be particularly important to review what works and what does not. More insight is needed in how spending can contribute to reaching the targets.

Denmark is also actively addressing cost-efficiency and modernisation of the health sector. User satisfaction is quite high, possibly because citizens have rather wide possibilities to choose where to be treated, and patients are granted rights to treatment depending on waiting times. Outcomes are sensitive to the choice of indicators, and but it is apparent that addressing lifestyle issues will be key to improving life expectancy as well as to contain cost. The focus on cost-effectiveness should be maintained in the on-going modernisation of the health sector.

The decentralised provision of public services in Denmark makes it challenging to shape policy at central government level. In the coming years, the capability of the different levels of government to deliver efficiency gains is likely to become decisive for whether the current division of tasks – between the different levels of government and the private sector - is sustainable or whether tasks will need to be shifted to meet public service objectives while ensuring that expenditure growth is contained.

ANNEX 2. ADDITIONAL TABLES AND FIGURES

Figure 1: Good and bad economic times



Source: Commission services' January 2009 forecast (COM)

Table 1: Budgetary implementation in 2008

	2007		2008	
	Planned	Outcome	Planned	Outcome
	CP Dec 2007	CP Dec 2008	CP Dec 2007	CP Dec 2008
Government balance (% of GDP)	3.8	4.5	3.0	3.0
Difference compared to target	0.7		0.0	
<i>Of which</i> : due to a different starting position end 2007			0.8	
due to different revenue / expenditure growth in 2008			-0.9	
p.m. Denominator effect and residual ^{2,3}			0.0	
<i>p.m. Nominal GDP growth (planned and outcome)</i>			4.0	4.1
Revenue (% of GDP)	53.4	54.5	52.9	53.2
Revenue surprise compared to target ¹	1.1		0.3	
<i>Of which</i> : due to a different starting position end 2007			1.1	
due to different revenue growth in 2008			-0.7	
p.m. Denominator effect ²			-0.1	
p.m. Residual ³			0.0	
<i>p.m. Revenue growth rate (planned and outcome)</i>			3.0	1.6
Expenditure (% of GDP)	49.6	49.9	49.8	50.2
Expenditure surprise compared to target ¹	-0.3		-0.4	
<i>Of which</i> : due to different starting position end 2007			-0.3	
due to different expenditure growth rate in 2008			-0.1	
p.m. Denominator effect ²			0.0	
p.m. Residual ³			0.0	
<i>p.m. Expenditure growth rate (planned and outcome)</i>			4.4	4.7
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.				
<i>Source: Commission services</i>				

Table 2: Evolution of budgetary targets in successive programmes

		2007	2008	2009	2010	2011	2012
General government balance (% of GDP)	CP Dec 2008	4.5	3.0	0.0	-1.2	0.3	0.1
	<i>CP Dec 2007</i>	3.8	3.0	2.0	1.2	n.a.	n.a.
	COM Jan 2009	4.5	3.1	-0.3	-1.5	n.a.	n.a.
General government expenditure (% of GDP)	CP Dec 2008	49.9	50.2	51.2	52.8	51.8	51.7
	<i>CP Dec 2007</i>	49.6	49.8	50.0	50.5	n.a.	n.a.
	COM Jan 2009	50.9	51.6	53.1	54.9	n.a.	n.a.
General government revenue (% of GDP)	CP Dec 2008	54.5	53.2	51.2	51.5	52.1	51.8
	<i>CP Dec 2007</i>	53.4	52.9	52.0	51.7	n.a.	n.a.
	COM Jan 2009	55.4	54.8	52.8	53.4	n.a.	n.a.
Structural balance ¹ (% of GDP)	CP Dec 2008	3.8	4.1	2.7	1.8	1.5	0.9
	<i>CP Dec 2007</i>	3.5	3.4	2.5	2.5	n.a.	n.a.
	COM Jan 2009	3.3	3.8	1.1	0.9	n.a.	n.a.
Real GDP (% change)	CP Dec 2008	1.6	0.2	-0.2	0.7	1.9	1.7
	<i>CP Dec 2007</i>	2.0	1.3	1.1	0.5	n.a.	n.a.
	COM Jan 2009	1.6	-0.6	-1.0	0.6	n.a.	n.a.

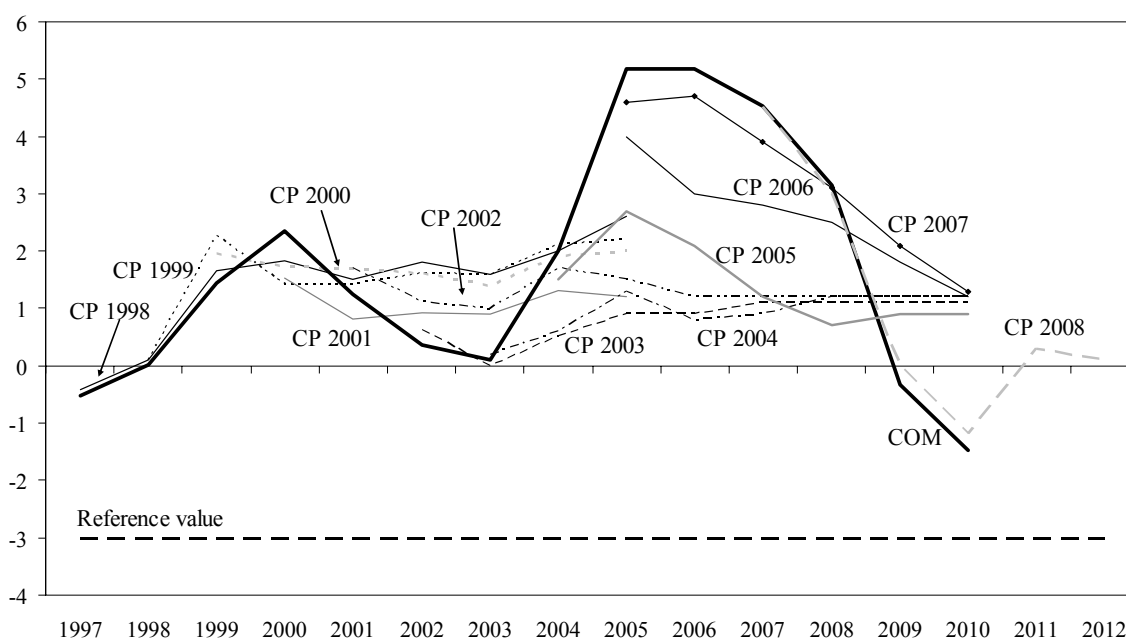
Note:

¹Cyclically-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 -1.0% of GDP in 2008, -1.7% in 2009 and 2010, and -0.2% in 2011, all deficit-reducing/surplus-increasing, according to the most recent programme, and -0.5% of GDP in 2008, -0.2% in 2009 and -0.8% in 2010, all deficit-reducing/surplus-increasing, according to the Commission services' January 2009 Interim economic forecast.

Source:

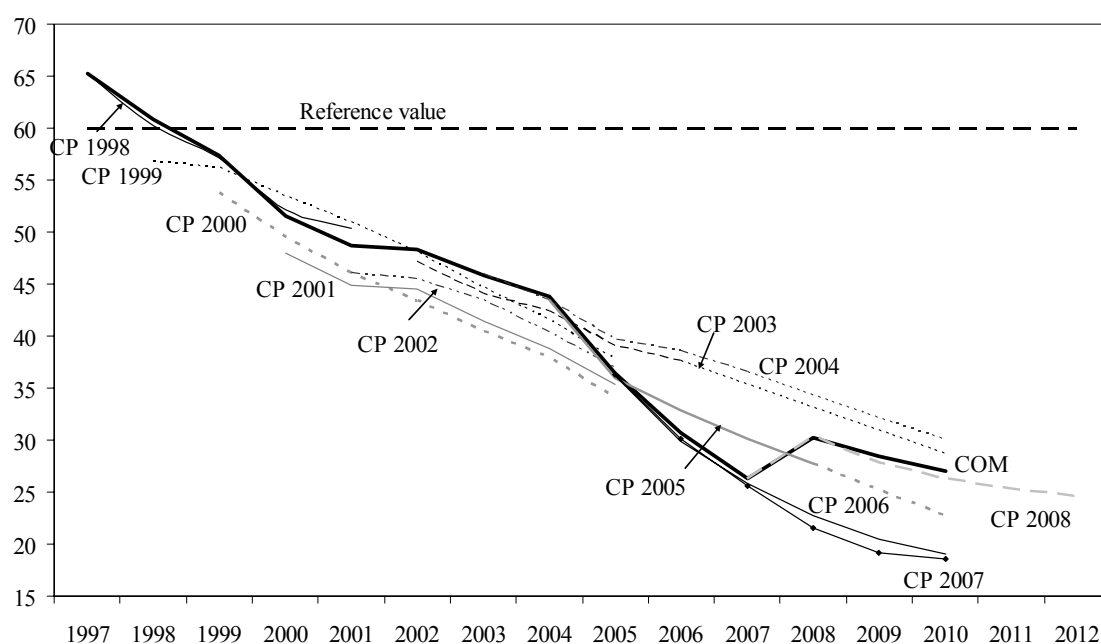
Convergence programmes (CP); Commission services' January 2009 interim forecasts (COM)

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	26.8	27.0	28.1	28.5	29.1	28.2	1.2
- Pensions	9.5	10.1	10.9	11.0	11.1	10.2	0.1
- Healthcare	6.9	7.0	7.4	7.7	7.8	7.9	0.9
- Long-term care	1.1	1.1	1.2	1.6	1.9	2.1	1.0
- Education	7.8	7.5	7.4	6.9	7.1	6.9	-0.6
- Unemployment benefits	1.5	1.2	1.2	1.2	1.2	1.2	0.0
Property income received	2.2	1.9	1.7	1.4	1.1	0.9	-1.0

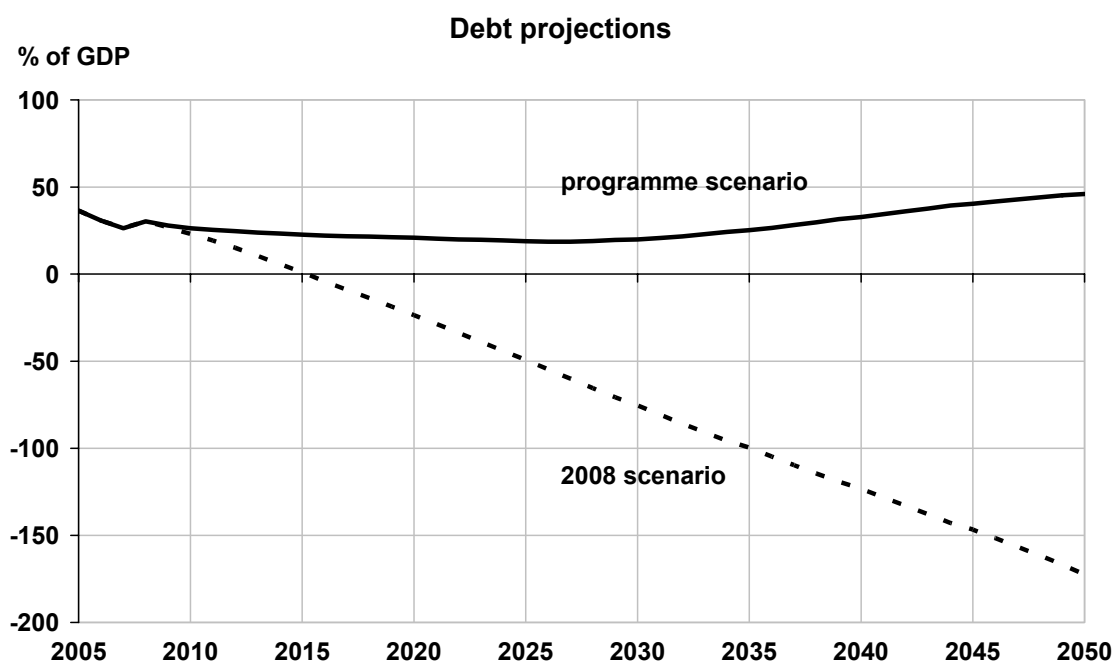
Source: Economic Policy Committee and Commission services.

Table 4: Sustainability indicators and the required primary balance

Value	2008 scenario			Programme scenario		
	S1	S2	RPB	S1	S2	RPB
Value	-5.3	-3.9	0.9	-0.3	0.6	1.1
of which:						
Initial budgetary position (IBP)	-4.7	-4.4	-	-0.2	0.1	-
Debt requirement in 2050 (DR)	-1.4	-	-	-0.9	-	-
Long-term change in the primary balance (LTC)	0.7	0.5	-	0.7	0.5	-

Source: Commission services.

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



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

Source: Commission services.

Table 5: Additional factors

	Impact on risk
Debt and pension assets	na
Decline in structural balance until 2010 in COM January 2009 interim forecast	-
Significant revenues from pension taxation	+
Alternative projection of cost of ageing	+
Strong decline in benefit ratio	na
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 structure and content of the update is well in line with the model structure of the code of conduct. All compulsory data is provided. However, there are discrepancies between the convergence programme and the Commission services in the definition of one-off and temporary measures (Tables 2 and 5), as outlined in Box 5 of the assessment of the December 2007 update³².

The following optional data are missing: General government expenditure by function, year $x+3$ (Table 3); Specifications of the stock-flow adjustment (Table 4); Cyclically-adjusted balance/primary balance (Table 5).

Furthermore, the data reported for Total expenditure and Total revenue (Table 2) does not correspond to the harmonised definition. Differences are detected in the subcomponents social contributions and "other".

Finally, for items 6 and 7 in Table 4 the figures reported do not correspond to the variable requested in the code of conduct.

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.

³² See http://ec.europa.eu/economy_finance/publications/publication_summary12217_en.htm

Table 1a. Macroeconomic prospects

	ESA Code	2007	2007	2008	2009	2010	2011	2012	2013	2014	2015
		Level ¹	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	1446.7	1.6	0.2	-0.2	0.7	1.9	1.7	1.6	1.6	1.6
2. Nominal GDP	B1*g	1687.9	3.6	4.1	2.6	2.9	3.9	4.2	4.0	3.9	3.9
Components of real GDP											
3. Private consumption expenditure	P.3	735.6	2.4	0.9	0.7	1.1	1.7	1.8	1.8	1.8	1.8
4. Government consumption expenditure	P.3	364	1.3	1.6	1.2	1.0	1.0	1.0	0.8	0.8	0.7
5. Gross fixed capital formation	P.51	329.6	3.1	-0.9	-4.2	-2.5	1.0	0.9	2.4	2.6	2.6
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	7.5	-0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. Exports of goods and services	P.6	793.2	2.2	3.3	-0.1	2.3	4.4	3.1	2.5	2.5	2.8
8. Imports of goods and services	P.7	790.9	2.8	4.8	-0.1	1.5	3.6	2.6	2.5	2.6	2.9
Contributions to real GDP growth											
9. Final domestic demand		-	2.2	0.7	-0.2	0.3	1.4	1.3	1.5	1.4	1.5
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	-0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. External balance of goods and services	B.11	-	-0.2	-0.7	0.0	0.4	0.5	0.5	0.1	0.2	0.1

¹ Real GDP and components based on chained 2000-prices. Growth rates are also based on chain indices.

Table 1b. Price developments

	ESA Code	2007	2007	2008	2009	2010	2011	2012	2013	2014	2015
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		116.7	2.0	3.9	2.8	2.1	2.0	2.5	2.3	2.3	2.2
2. Private consumption deflator		112.4	1.8	3.1	1.7	2.2	1.5	1.8	1.9	1.9	1.9
3. HICP		103.5	1.7	3.6	1.3	2.1	1.4	1.8	1.9	1.9	1.8
4. Public consumption deflator		120.6	2.6	3.2	4.3	2.9	2.9	3.0	3.0	3.0	3.0
5. Investment deflator		114.8	4.4	3.3	3.2	0.9	1.4	3.0	2.2	2.0	1.8
6. Export price deflator (goods and services)		111.3	2.1	3.4	-0.2	1.1	1.8	1.8	1.7	1.7	1.7
7. Import price deflator (goods and services)		107	3.3	2.1	-0.4	1.0	1.5	1.7	1.6	1.6	1.6

Note: For all price indices 2000=100

Table 1c. Labour market developments

	ESA Code	2007	2007	2008	2009	2010	2011	2012	2013	2014	2015
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons¹		2856.9	2.7	0.3	-1.3	-1.7	0.1	0.2	-0.1	-0.1	-0.1
2. Employment, hours worked ²		4569.2	3.7	-0.3	-1.8	-1.9	0.3	0.2	-0.1	-0.1	-0.1
3. Unemployment rate (%)³		3.8	3.8	3.2	3.5	4.0	4.2	4.0	4.0	4.0	4.0
4. Labour productivity, persons⁴		506.4	-1.0	-0.2	1.1	2.5	1.8	1.5	1.7	1.8	1.7
5. Labour productivity, hours worked ⁵		316.6	-1.9	0.5	1.6	2.7	1.6	1.5	1.7	1.8	1.7
6. Compensation of employees⁶	D.1	922.3	5.8	4.2	3.0	2.0	4.1	4.1	3.8	3.7	3.8
7. Compensation per employee⁷		344.4	3.1	3.9	4.2	3.7	3.9	3.8	3.8	3.8	3.8

¹Occupied population, domestic concept national accounts definition.

²National accounts definition.

³The EU-harmonised unemployment in per cent of the labour force. The (structural) unemployment is 3 1/2% from 2012 based on the national unemployment definition. In the last years, the uncertainty with regard to the relation between the national and the harmonised unemployment definition has increased.

⁴Real GDP per person employed, where GDP is based on chained 2000-prices.

⁵Real GDP per hour worked, where GDP is based on chained 2000-prices.

⁶Based on current prices, i.e. growth rates are in nominal terms.

⁷Calculated as compensation per employed wage earner.

Table 1d. Sectoral balances

% of GDP	ESA Code	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	0.7	1.7	1.8	2.3	2.6	2.6	2.4	2.1	1.8
<i>of which :</i>										
- Balance on goods and services		2.1	2.1	2.2	2.6	3.2	3.6	3.6	3.6	3.7
- Balance of primary incomes and transfers		-1.4	-0.4	-0.4	-0.3	-0.6	-0.9	-1.2	-1.5	-1.8
- Capital account		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. Net lending/borrowing of the private sector	B.9	-3.7	-1.2	1.8	3.6	2.3	2.5	2.3	2.1	1.9
3. Net lending/borrowing of general government	EDP B.9	4.5	3.0	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
4. Statistical discrepancy		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 2. General government budgetary prospects

	ESA Code	2007	2007	2008	2009	2010	2011	2012	2013	2014	2015
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
Net lending (EDP B.9) by sub-sector											
1. General government	S.13	76.5	4.5	3.0	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
2. Central government	S.1311	79.9	4.7	3.0	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
3. State government	S.1312	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4. Local government	S.1313	-3.4	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Social security funds	S.1314	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General government (S13)											
6. Total revenue	TR ¹	919.4	54.5	53.2	51.2	51.5	52.1	51.8	51.7	51.6	51.5
7. Total expenditure	TE ²	842.9	49.9	50.2	51.2	52.8	51.8	51.7	51.6	51.6	51.6
8. Net lending/borrowing	EDP B.9	76.5	4.5	2.9	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
9. Interest expenditure	EDP D.41	26.1	1.5	1.3	1.5	1.4	1.4	1.2	1.1	0.9	0.8
10. Primary balance³		102.5	6.1	4.2	1.5	0.2	1.6	1.3	1.2	0.9	0.7
11. One-off and other temporary measures⁴		n.a.	-0.1	-1.0	-1.7	-1.7	-0.2	0.0	0.0	0.0	0.0
Selected components of revenue											
12. Total taxes (12=12a+12b+12c)		807.1	47.8	46.6	44.7	45.1	45.7	45.4	45.4	45.4	45.3
12a. Taxes on production and imports	D.2	304.4	18.0	17.6	17.4	17.2	16.9	16.7	16.7	16.6	16.5
12b. Current taxes on income, wealth, etc	D.5	498.8	29.6	28.7	27.1	27.7	28.5	28.5	28.5	28.5	28.5
12c. Capital taxes	D.91	3.9	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13. Social contributions	D.61	16.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
14. Property income	D.4	32.9	1.9	2.0	1.8	1.8	1.8	1.8	1.7	1.7	1.7
15. Other⁵		62.6	3.7	3.6	3.6	3.6	3.7	3.7	3.6	3.6	3.6
16=6. Total revenue	TR ¹	919.4	54.5	53.2	51.2	51.5	52.1	51.8	51.7	51.6	51.5
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)⁶			48.8	47.6	45.7	46.1	46.6	46.4	46.4	46.3	46.2
Selected components of expenditure											
17. Compensation of employees + intermediate consumption	D.1+P.2	435.4	25.8	26.0	26.9	27.2	27.2	27.2	27.2	27.1	27.1
17a. Compensation of employees	D.1	284.6	16.9	16.7	17.3	17.4	17.4	17.4	17.4	17.4	17.4
17b. Intermediate consumption	P.2	150.7	8.9	9.3	9.6	9.8	9.8	9.8	9.7	9.7	9.7
18. Social payments (18=18a+18b)		282	16.7	16.4	16.8	17.3	17.3	17.4	17.6	17.7	17.8
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	24.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18b. Social transfers other than in kind	D.62	257.7	15.3	15.0	15.3	15.8	15.8	15.9	16.1	16.2	16.3
19=9. Interest expenditure	EDP D.41	26.1	1.5	1.3	1.5	1.4	1.4	1.2	1.1	0.9	0.8
20. Subsidies	D.3	38.3	2.3	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4
21. Gross fixed capital formation	P.51	30	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9
22. Other^{5,7}		31.2	1.9	2.5	1.9	2.6	1.7	1.6	1.6	1.7	1.7
23=7. Total expenditure	TE ²	842.9	49.9	50.2	51.2	52.8	51.8	51.7	51.6	51.6	51.6
p.m.: Government consumption (nominal)	P.3	438.8	26.0	26.2	27.0	27.2	27.3	27.2	27.2	27.2	27.1

¹ Excluding central government revenue from sale of UMTS licences.

² Adjusted for the net flow of swap-related flows and net spending on infrastructure investments.

³ The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

⁴ Based on the calculation of the structural budget balance according to the national methodology and includes temporary variations in revenue from pension yield taxation, North Sea activities, net interest, corporate taxes and other special items. The structural budget balance is not calculated on EDP-basis. The calculations of the structural budget balance are based on public finances according to national accounts principles.

⁵ Statistics Denmark does not publish figures for all the subgroups (P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91), D.6311, D.63121, D.63131, D.29+D.4 (other than D.41)+D.5+D.7+D.9+P.52+P.53+K.2+D.8, and no estimates are available for these individual components in the projections.

⁶ Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

⁷ D.29+D.4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

Table 3. General government expenditure by function

% of GDP	COFOG Code	2006	2007
1. General public services	1	6.3	6.3
2. Defence	2	1.6	1.6
3. Public order and safety	3	1.0	1.0
4. Economic affairs	4	3.5	3.3
5. Environmental protection	5	0.5	0.6
6. Housing and community amenities	6	0.6	0.6
7. Health	7	6.9	7.2
8. Recreation, culture and religion	8	1.6	1.6
9. Education	9	7.6	7.2
10. Social protection	10	20.9	20.6
11. Total expenditure (=item 7=23 in Table 2)	TE ¹	50.5	49.9

¹Adjusted for the net flow of swap-related flows and net spending on infrastructure investments.

Note: Data is provided for 2007 rather than for X+3 (2011) as specified in the code of conduct.

Table 4. General government debt developments

% of GDP	ESA Code	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Gross debt¹		26.3	30.3	27.9	26.3	25.4	24.6	23.8	23.2	22.6
2. Change in gross debt ratio²		-4.4	4.0	-2.4	-1.6	-0.9	-0.8	-0.8	-0.7	-0.5
Contributions to changes in gross debt										
3. Primary balance³		-6.1	-4.2	-1.5	-0.2	-1.6	-1.3	-1.2	-0.9	-0.7
4. Interest expenditure⁴	EDP D.41	1.5	1.3	1.5	1.4	1.4	1.2	1.1	0.9	0.8
5. Stock-flow adjustment		1.2	8.0	-1.6	-2.1	0.4	0.3	0.2	0.2	0.2
<i>of which:</i>										
- Differences between cash and accruals ⁵		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
- Net accumulation of financial assets ⁶		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>of which:</i>		-	-	-	-	-	-	-	-	-
- privatisation proceeds		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
- Valuation effects and other ⁷		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
p.m.: Implicit interest rate on debt⁸		5.2	5.0	5.1	5.3	5.4	5.0	4.4	3.9	3.4
Other relevant variables										
6. Liquid financial assets ⁹		-5.2	-12.8	-9.2	-6.6	n.a.	n.a.	n.a.	n.a.	n.a.
7. Net financial debt ¹⁰ (7=1-6)		-4.1	-6.9	-6.7	-5.3	-5.6	-5.9	-6.2	-6.3	-6.4

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

²Defined as $D_t/GDP_t - D_{t-1}/GDP_{t-1}$, where D is public debt measured in nominal terms.

³Cf. item 10 in Table 2.

⁴Cf. item 9 in Table 2.

⁵The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.

⁶Liquid assets, assets on third countries, government controlled enterprises and the difference between quoted and non-quoted assets could be distinguished when relevant.

⁷Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.

⁸Proxied by interest expenditure divided by the debt level of the previous year.

⁹Reported as the Central Government deposit account in Danmarks Nationalbank rather than AF1, AF2, AF3 (consolidated at market value), AF5 (if quoted in stock exchange; including mutual fund shares) as specified in the code of conduct. Consequently, item 7 cannot be derived residually.

¹⁰Reported as "public net debt". In the specification of public net debt the central government liquid assets in Danmarks Nationalbank as well as other assets are subtracted.

Table 5. Cyclical developments

% of GDP	ESA Code	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Real GDP growth (%)		1.6	0.2	-0.2	0.7	1.9	1.7	1.6	1.6	1.6
2. Net lending of general government	EDP B.9	4.5	3.0	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
3. Interest expenditure	EDP D.41	1.5	1.3	1.5	1.4	1.4	1.2	1.1	0.9	0.8
4. One-off and other temporary measures¹		-0.1	-1.0	-1.7	-1.7	-0.2	0.0	0.0	0.0	0.0
5. Potential GDP growth (%)		0.5	1.1	1.1	2.1	1.3	1.6	1.6	1.6	1.6
contributions:										
- labour		1.1	0.1	-0.1	-0.2	0.2	0.0	-0.1	-0.1	-0.1
- capital		0.5	1.5	1.3	1.2	0.8	0.9	1.0	0.9	0.9
- total factor productivity		0.0	-0.1	0.1	0.4	0.5	0.6	0.7	0.8	0.8
6. Output gap²		2.5	1.9	0.6	-0.7	-0.1	0.0	0.0	0.0	0.0
7. Cyclical budgetary component		2.2	1.7	0.6	-0.5	-0.2	0.0	0.0	0.0	0.0
8. Cyclically-adjusted balance (2 - 7)		n.a.	n.a.	n.a.	n.a.	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.	n.a.	n.a.	n.a.	n.a.
10. Structural balance³ (8 - 4)		2.4	2.3	1.1	0.9	0.6	0.1	0.1	0.0	-0.1

¹A plus sign means deficit-reducing one-off measures. Cf. item 11 in Table 2

²Technically it is assumed that the negative output gap in 2010 is closed gradually towards 2012.

³The structural balance is not calculated on EDP basis. The calculations are based on public finances according to national accounts principles.

Table 6. Divergence from previous update

	ESA Code	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP growth (%)										
Previous update		2.0	1.3	1.1	0.5	1.1	1.4	1.6	1.8	1.7
Current update		1.6	0.2	-0.2	0.7	1.9	1.7	1.6	1.6	1.6
Difference		-0.3	-1.1	-1.2	0.2	0.8	0.3	0.1	-0.1	-0.1
General government net lending (% of GDP)	EDP B.9									
Previous update		3.8	3.0	2.0	1.2	0.8	0.7	0.4	0.5	0.3
Current update¹		4.5	3.0	0.0	-1.2	0.3	0.1	0.1	0.0	-0.1
Difference		0.7	0.0	-2.0	-2.4	-0.5	-0.6	-0.3	-0.5	-0.4
General government gross debt (% of GDP)										
Previous update		25.6	21.6	19.2	18.6	18.0	17.3	16.7	16.1	15.5
Current update		26.3	30.3	27.9	26.3	25.4	24.6	23.8	23.2	22.6
Difference		0.7	8.6	8.7	7.7	7.4	7.3	7.1	7.0	7.1

¹For 2007, Statistics Denmark's latest EDP reporting in October 2008 (based on the *Economic Survey, August 2008*, from the Ministry of Finance) showed a surplus of 4.9% of GDP on EDP-basis.

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050	2060	2070
Total expenditure	53.0	51.9	52.8	51.8	52.5	53.4	52.4	50.7
Of which: age-related expenditures	27.1	28.4	29.5	30.6	30.7	30.6	29.3	27.9
Pension expenditure	9.4	9.4	9.6	10.4	10.0	9.3	8.4	7.7
Social security pension	9.4	9.4	9.6	10.4	10.0	9.3	8.4	7.7
Old-age and early pensions	7.0	7.3	7.6	8.5	7.9	7.2	6.3	5.4
Other pensions (disability, survivors)	2.4	2.2	2.0	1.9	2.1	2.1	2.1	2.3
Occupational pensions (if in general government)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health care	6.0	6.4	6.8	7.1	7.6	7.9	7.8	7.5
Long-term care (<i>this was earlier included in the</i>	1.1	1.1	1.2	1.3	1.6	1.8	1.9	1.8
Education expenditure	6.2	6.6	6.9	6.8	6.6	6.7	6.6	6.6
Other age-related expenditures	4.4	4.8	5.0	4.9	5.0	4.9	4.6	4.3
Interest expenditure	4.3	2.6	1.9	1.0	1.3	2.3	3.0	2.8
Total revenue	55.3	56.9	51.5	50.7	49.6	50.0	49.3	49.2
Of which: property income ¹	1.9	1.5	1.7	1.2	0.7	0.5	0.3	0.2
<i>Of which</i> : from pensions contributions (or social contributions if appropriate)	-0.7	-1.1	-0.8	-1.1	-1.1	-0.1	0.1	0.6
Pension reserve fund assets	115.9	138.9	125.8	152.9	181.6	201.8	203.6	197.5
<i>Of which</i> : consolidated public pension fund assets (assets other than government liabilities) ²	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Assumptions								
Labour productivity growth	3.7	0.4	2.6	1.5	1.3	1.5	1.7	1.6
Real GDP growth ³	3.5	2.4	0.7	1.8	2.5	2.4	2.5	2.2
Participation rate males (aged 20-64)	84.1	84.8	84.9	85.9	88.6	89.4	89.4	89.4
Participation rates females (aged 20-64)	75.3	76.1	75.6	77.3	80.3	81.7	82.0	82.1
Total participation rates (aged 20-64)	79.8	80.5	80.3	81.6	84.5	85.5	85.7	85.8
Unemployment rate	4.8	4.9	3.6	3.5	3.5	3.5	3.5	3.5
Population aged 65+ over total population	791.0	818.0	916.0	1136.0	1312.0	1430.0	1390.0	1499.0

¹Includes public revenues from interest income and dividends.

²Public funds assets is adjusted downward by almost DKK 300 billion in 2005 due to the re-classification of the ATP (pension) fund in the revision of national accounts standards.

³In some years after 2025 GDP growth is affected by the indexation in line with longevity of age-thresholds for early retirement and old age pensioners.

Table 8. Basic assumptions

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Short-term interest rate (annual average)	4.4	5.3	3.5	3.3	3.7	4.2	4.7	5.2	5.8
Long-term interest rate (annual average)	4.3	4.4	4.2	4.4	4.7	4.9	5.2	5.5	5.8
USD/€ exchange rate (annual average) (euro area and ERM II countries)	136.80	145.80	128.20	128.20	128.20	128.20	128.20	128.20	128.20
Nominal effective exchange rate	103.2	105.5	104.1	104.1	104.1	104.1	104.1	104.1	104.1
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
World excluding EU, GDP growth	5.6	4.3	2.9	3.8	5.0	5.0	4.5	4.5	4.5
EU GDP growth	2.9	1.4	0.2	1.1	2.9	2.9	2.4	2.4	2.4
Growth of relevant foreign markets	7.7	3.7	-0.3	3.1	4.2	4.2	4.2	4.0	4.0
World import volumes, excluding EU	7.2	6.0	3.1	4.7	7.5	7.5	7.0	7.0	7.0
Oil prices (Brent, USD/barrel)	72.8	98.2	55.0	55.0	57.6	61.9	66.2	70.5	74.8

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