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**Assessment of the 2011 national reform programme and convergence programme for  
DENMARK**

*Accompanying the document*

**Recommendation for a**

**COUNCIL RECOMMENDATION**

**on the National Reform Programme 2011 of Denmark and delivering a Council Opinion  
on the updated convergence programme of Denmark, 2011-2015**

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## **1. INTRODUCTION**

Despite the rapid rebound in 2010, Denmark was hit hard by the crisis as it recorded a sharp contraction in output and a deterioration of public finances. The fiscal and economic crisis also exacerbated the ongoing correction of the previous over-heating and house price boom. Moreover, the negative repercussions of demographic ageing on labour supply, high levels of household debt and low productivity growth constitute medium and longer-term challenges. The government has announced a series of reforms in the National Reform Programme (NRP) and the Convergence Programme (CP) to address these challenges, building partly on the recently published national "2020 Plan". The Danish government has also decided to participate in the Euro Plus Pact and has submitted concrete commitments with the objective to improve Denmark's competitiveness.

## **2. RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK**

### **2.1. RECENT ECONOMIC DEVELOPMENTS**

Prior to the crisis, Denmark recorded a strong economic performance with improving general government budget surpluses and falling public debt levels. Denmark's so-called flexicurity model<sup>1</sup> provided the basis for the rapid expansion and high employment levels. The subsequent confidence boost and the introduction of new credit products fuelled a real-estate boom from 2004 onwards, going hand in hand with a strong expansion of credit.

Real GDP growth peaked in 2007, as an overheating Danish economy had to cope with capacity constraints and rising interest rates. In 2008, labour market bottlenecks became apparent. Wage growth, in nominal and real terms, accelerated sharply, reflecting tight labour market conditions. In an environment of weak productivity growth, this evolution caused mounting unit-labour costs. Inflation remained contained, though, also due to the tight exchange rate peg to the euro.

In spite of the apparent loss of cost competitiveness, Denmark maintained a current account surplus, on average around 3% of GDP for the period 2000-2010. With a declining merchandise trade surplus since 2003, the current account surplus was increasingly the result of oil and gas exports, buoyant service exports, and income on foreign investments.

The Danish economy started slowing down before the onset of the financial crisis amidst a correction in the real estate market. House prices started correcting in early 2007 and fell by almost 30% for one-family houses and by 50% for owner-occupied flats by early 2009, before stabilising at levels probably still above long-term averages. Since mid-2008, falling real-estate prices triggered some domestic banking problems which were amplified by rising insolvencies and unemployment as the recession took hold. Moreover, Danish banks, which are highly dependent on interbank funding, faced additional pressures in the autumn of 2008 as international wholesale markets froze. An effective bank resolution scheme (the Financial Stability Company<sup>2</sup>) and recapitalisation helped contain the impact of the financial crisis on the banking system.

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<sup>1</sup> Denmark's flexicurity model combines flexible labour market regulation with a high degree of employment and income security for employees as well as active labour market and life-long learning policies.

<sup>2</sup> Denmark has a winding up scheme by which the Financial Stability Company establishes a new subsidiary bank that acquires the assets of the distressed bank at realisation value. The new bank settles this acquisition by taking over unsubordinated debt from the distressed bank on a pro-rata basis. The scheme, which has a state aid element, was approved by DG Competition in September 2010.

Denmark's recession was severe but rather short-lived thanks to effective expansionary fiscal policies. Output contracted by 8% between end 2007 and mid 2009 as investments and exports collapsed. Moreover, private consumption fell markedly along with the rise in the unemployment rate to 7.4% in 2010. The rebound since the second half of 2009 has been strong, even though output remains below pre-crisis levels. In addition to stimulus measures and a strong inventory rebound, Denmark has benefitted from the improvement in the external economic environment and the revival of world trade.

Due to the recession and discretionary stimulus measures, public finances deteriorated rapidly. The general government balance turned from a surplus of 3.2% of GDP in 2008 into a deficit of 2.7% of GDP in 2009 and 2010, while the deficit is projected to reach 4.1 and 3.2 % of GDP in 2011 and 2012, respectively. Gross government debt reached 43.6% of GDP in 2010 compared to only 27.5% of GDP in 2007, but remains well below EU averages.

## **2.2. OUTLOOK**

Since fiscal support measures are being phased out and the government has announced a freeze in public consumption growth between 2011 and 2013 as part of its consolidation strategy, GDP growth is expected to rely increasingly on the private sector. As the latter continues to face challenges, economic growth is projected to remain moderate (1.7% this year and 1.5% in 2012). In particular, households burdened with high debt levels face risks from a still fragile real estate sector and rising borrowing costs weigh on disposable income.

Private investment as a share of GDP has fallen to its lowest level in 30 years in 2010. With the gradual recovery expected to continue, higher capacity utilisation is projected to lift investments. Private consumption will be held back by financing elements of the 2009 tax reform that will start to weigh on real disposable income this year along with higher energy prices, especially in 2011. However, gains in household wealth on the back of the strong financial market performance in 2010 and a saving rate that remains high compared to long-term averages provide for some financial buffer and contribute to a gradual increase in private consumption. A strengthening labour market should also help to boost consumer confidence, as the improving prospects for employment could bring more students and others, who left the labour force in recent years, back into the labour market. The unemployment rate is projected to decline only slowly.

Although Denmark's cost competitiveness improved in 2010 as the increase in productivity exceeded wage growth, the effect is expected to be only temporary and unit labour costs are projected to start growing again in 2011 and 2012. Recent gains in cost competitiveness are thus likely to be insufficient to break the trend of export market share losses.

## **3. MONITORING, PROCEDURAL ISSUES AND GOVERNANCE**

The Danish Convergence Programme and the National Reform Programme outline in an integrated and coherent manner the fiscal consolidation efforts on the one hand and reforms to enhance the growth potential of the economy on the other. They were submitted to the European Commission on 9 May 2011. Commitments under the Euro Plus Pact were submitted on 23 May 2011.

In its NRP, Denmark has set targets in the fields of employment, R&D, education, energy and climate change and poverty reduction. The NRP was prepared in consultation with the social partners and is developed and consulted upon in the context of a contact committee of representatives of relevant ministries and professional organisations. The Folketing (Danish

Parliament) is also regularly involved and informed about discussions concerning both Europe 2020 and the National Reform Programmes.

**Table 1: Danish Europe 2020 targets**

| Europe 2020 targets   | Current situation in Denmark <sup>3</sup>   | Danish Europe 2020 target in the NRP                 |
|---|---|--|
| R&D investment (% of GDP)   | 3.22%   | 3%   |
| Employment rate (%)   | 76.1%   | 80%  |
| Early school leaving (%)  | 10.6%   | 10%  |
| Tertiary education attainment (%)   | 48.1% <sup>4</sup>  | 40%  |
| Reduction of number of people in or at risk of poverty or exclusion                             | 950,000 at risk of poverty or social exclusion<br><br>360 000 people living in households with low work intensity | -22,000 people in households with low work intensity |
| Energy efficiency – reduction of energy consumption in MToe <sup>5</sup> .                      |   | Reduction in energy consumption: 0.83 Mtoe           |
| Reduction in greenhouse gas emissions (from sources not covered by the Emission Trading System) | -1% <sup>6</sup>  | -20% <sup>7</sup>                                    |
| Renewable energy (% of total energy use)  | 19% (2008)  | 30% of energy from renewable sources                 |

#### 4. POLICY CHALLENGES AND ASSESSMENT OF POLICY AGENDA

##### 4.1. CHALLENGES

Despite the absence of major imbalances and the rather positive short-term outlook overall, the Danish economy faces important challenges over the coming years.

First, further fiscal consolidation is required for Denmark to correct its excessive deficit by 2013. In May 2010 Parliament supported a set of additional consolidation measures to achieve the required total fiscal effort of 1.5% of GDP from 2011 to 2013 (the Fiscal Consolidation Agreement)<sup>8</sup>. However, repeated spending overruns in the past underscore the need to ensure tight budget discipline at all levels of government.

<sup>3</sup> Eurostat figures

<sup>4</sup> The Danish national targets are calculated according to a different method than the EU targets. Therefore, it is not possible to compare the Danish reporting under the 2020 targets with the reporting under the Danish national targets.

<sup>5</sup> As estimated by the Commission. Mtoe = Million tonnes of oil equivalent

<sup>6</sup> This quantity corresponds to the 2005-2008 change in emissions not covered by the EU Emissions Trading System. As the scope of the Emissions Trading System evolved between 2005 and 2008, these emissions are estimated on the basis of the main relevant UNFCCC source categories (as opposed to the difference between total emissions and EU ETS verified emissions).

<sup>7</sup> The national emissions limitation target defined in Decision 2009/406/EC (or "Effort Sharing Decision") concerns the emissions not covered by the EU Emissions Trading System. It is expressed as the minimum relative decrease (if negative) or the maximum relative increase (if positive) compared to 2005 levels

<sup>8</sup> In January 2011 the Commission Services assessed that effective action has been taken and that spending cuts at regional and local level have been undertaken.

Second, very high household indebtedness, at 158% of GDP in 2009 the highest in Europe, also linked to the recent housing boom, poses potential challenges for the financial sector and for economic growth given the increased exposure of households to interest rate hikes. Although potential risks stemming from the high household debt are mitigated by the characteristics of Denmark's sophisticated mortgage-backed bond market and high net wealth positions of the majority of households due to large savings in pension funds and real estate, the rapid growth of variable interest and instalment free loans may put the traditional system to the test.

Third, potential labour market shortages reinforced by negative near-term demographic trends call for sustained efforts to ensure the full utilisation of the economy's labour potential. In the medium term, the economic recovery could lead to a tightening of the labour market as witnessed during the boom years, with negative repercussions on unit labour costs. Raising labour supply will also raise the economy's growth potential which in the absence of policy changes is relatively low.

Fourth, measured productivity growth rates have been very low over the past decade, which seems not fully consistent with Denmark's high degree of public and private R&D spending, its generally favourable business environment and a sustained pace of company creations. In view of the projected demographic trends, boosting productivity gains is all the more important if Denmark's current degree of prosperity is to be maintained in the future.

#### **Box 1: Commitments and actions taken by Denmark under the Euro plus pact of 25 March 2011**

##### ***Commitments to foster competitiveness***

- *Competition Package with concrete initiatives targeted primarily towards the construction and service sectors.*

##### ***Commitments to foster employment***

- *Agreement to postpone retirement thereby increasing employment by 65.000 persons corresponding to 2.3 % of the workforce and strengthening the structural government balance by 1 % of GDP in 2020. Long run sustainability will improve by 0.5 % of GDP according to government estimates.*
- *Agreement on measures to ensure that students finalise studies faster.*
- *Agreement on targeting of the "flex-job" scheme.*

These commitments also serve the purpose of enhancing the sustainability of public finances.

##### ***Commitments to enhance the sustainability of public finances***

- *An agreement has been reached to strengthen sanction legislation with regard to spending control at the local level. In addition, in autumn 2011 the government will submit a proposal on a law on spending ceilings.*

##### ***Commitments to enhance the stability of the financial sector***

- *The government has submitted a proposal on a dowry scheme to facilitate private resolutions to handle distressed banks*

Some of the initiatives in the Competition Package have already been implemented, with the remainder expected to be implemented within the next couple of years. The agreements that serve both the purpose of fostering employment as well as enhancing the sustainability of

public finances will not be submitted to parliament until after the election, in November this year at the latest. The commitment to strengthen sanction legislation at local level is also expected to be implemented this year. The Danish commitments contribute to achieving the overall objectives of the Euro Plus Pact and largely reflect the reform agenda presented in the NRP but measures do not go beyond the NRP.

## 4.2. ASSESSMENT OF THE POLICY AGENDA

### 4.2.1. Macroeconomic policies

#### 4.2.1.1. Public finances

Denmark's updated Convergence Programme (CP) projects real GDP growth to remain relatively stable at around 1¾% to 2% in the period 2011-2014 and to accelerate to around 2½% in 2015. Domestic demand is expected to remain the main growth driver. Private consumption is projected to grow at around 2½% per annum over the period 2011-2015, on the back of a declining unemployment rate and accelerating wage growth. The growth outlook in the programme is fully in line with the Commission services' spring forecast for 2011 and slightly more favourable in 2012<sup>9</sup>. For the latter years of the programme period, real GDP growth is projected to be higher than potential growth under the reference scenario. The growth profile for private consumption is significantly higher than in the spring forecast. While the outlook for wage growth is in line with the Commission projections, inflation is projected to remain somewhat lower.

On the whole, the **macroeconomic scenario** of the CP is based on broadly plausible growth assumptions, albeit being somewhat more favourable than the Commission services' spring forecast for 2012. Risks related to the housing market and high household debt also imply certain downside risks to the growth outlook.

The output gap, as recalculated by the Commission services based on the information in the programme and following the commonly agreed methodology, is strongly negative in 2011 and is closing only gradually by 2015.<sup>10</sup>

Compared to the previous CP, the **budgetary outcome** in 2010 turned out significantly better than planned, with the general government deficit reaching 2.7% of GDP instead of a prior estimate of 5.3% of GDP. This difference can be attributed mainly to a substantial boost in revenues (4% of GDP) to which taxes on income and wealth contributed 2.2 percentage points. In particular the better-than-expected performance of financial markets lead to extraordinary windfall gains in pension yield taxation. In addition, revenue from social contributions exceeded the target by 1% of GDP. At the same time, expenditure in 2010 as a share of GDP was slightly higher than planned in the 2009 programme, mainly because of base effects. In 2010 itself, expenditure growth was significantly lower than projected (4.9% instead of 5.9%). Regarding budgetary projections for 2011, the previous convergence programme and the Commissions services' spring forecast are broadly in line, projecting the budget deficit to reach 4.1% of GDP. This deterioration compared to 2010 reflects mainly the expected normalisation of pension yield taxation income.

<sup>9</sup> The slightly more favourable growth outlook in the Convergence Programme stems from including the payback of VERP contributions which the Commission Services spring forecast does not take into account.

<sup>10</sup> Differences between potential growth estimates based on the commonly agreed methodology and the national methodology are wide. Whereas the CP projects annual potential output growth to remain rather stable around on 1.5% for 2010-2015, recalculated growth rates using the commonly agreed methodology reach on average 1.1% over the same horizon with an accelerating pattern.

The CPs **medium-term budgetary strategy** aims at bringing the general government deficit below the 3% reference value by 2013, in line with the deadline set by the Council, and achieving the revised Medium Term Objective (MTO) of a structural budget deficit not bigger than 0.5% of GDP in 2015 and at least a structurally balanced budget by 2020. This new MTO is weaker compared to the previous CP (structural balance in 2015) but in line with the minimum requirement under the pact.

Main policy measures projected in the CP are congruent with the 2020 plan and consist of bringing forward the 2006 retirement reform and phasing-out the voluntary early retirement pension (VERP), the student-grant reform and the reform of subsidised employment ("flex job") and disability pension. Moreover, the government intends to reduce public consumption, to better control expenditure and avoid overruns, and to raise potential growth with positive repercussions for public finances. On the assumption that measures will be adopted as proposed in the CP, general government finances are projected to be in balance by 2020.<sup>11</sup>

The CP expects the headline deficit to decline from 3.8% of GDP in 2011 to 0.5% of GDP in 2015, except for 2012. For 2012, the deficit target has been revised upwards by almost 1.5% of GDP compared to the previous CP, and 1.3 percentage points higher than in the Commission services' spring forecast. This difference is due to the assumption that the planned retirement reform, including the phasing out of the VERP, will be adopted by parliament in time to reimburse contributions to persons no longer eligible to the scheme in 2012.<sup>12</sup> This reimbursement would qualify as a one-off measure reaching around 1½% of GDP according to government estimates. The primary balance is projected to be in surplus already in 2013 thus deviating from the projected evolution of the headline balance due to the programme assumption of rising long-term interest rates and higher public debt.

The **consolidation strategy** is largely expenditure-based. The expenditure-to-GDP ratio is planned to decrease by 4.7% of GDP over the period 2010-2015. The CP projects social expenditure to decrease thanks to the continued economic recovery and the government's tighter control of budgetary execution. Moreover, compensation of public sector employees is to be reduced by 1.5 % of GDP between 2010 and 2015. Revenues as a percentage of GDP are forecasted to decline by 2.6% over the programme period due to lower returns from income and wealth taxes, in line with the 2010 tax reform, and lower social contributions following the phasing out of the VERP from 2012 onwards.

The budgetary outlook is subject to certain risks, given the somewhat favourable macroeconomic outlook especially from 2012 onward..

In order to achieve the correction of the excessive deficit by 2013, the government secured parliamentary support for consolidation measures in May 2010. Using a bottom-up approach, these measures – focussing on expenditure reduction as well as revenue increases – account

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<sup>11</sup> After the submission of the NRP and CP, the government and a majority in Parliament reached agreements on the basis of the 2020 reform package proposals. The agreements entail bringing forward the 2006 retirement reform by 5 years, and shortening the benefit period of the VERP from 5 to 3 years (although not phased out as originally proposed by the Government). The pension age will increase from 65 to 67 years in the period 2019-2022. The VERP age will increase from 60 to 62 years in the period 2014-2017, and the shortening of the VERP benefit period from 5 to 3 years will be phased in during 2018-2023. The May 2011 agreements and the May 2010 Fiscal Consolidation Agreement will thus ensure a structurally balanced fiscal position in 2020. The effect of the agreed retirement reform on the long term sustainability indicator (0.5 % of GDP) is slightly lower than of the reform originally proposed by the government (0.7 % of GDP). The multi-party agreement still needs to be submitted for vote to Parliament. The Commission services' spring forecast does not take policy measures into account until their legal adoption.

<sup>12</sup> Based on latest available information, the one-off effect in 2012 is likely to be smaller, implying a smaller deficit in 2012 than projected in the programme.

for a total budgetary improvement of 3% of GDP over the period 2011-2013. Adjusting for other factors, e.g. lower oil revenues and higher pension expenditure due to demographic effects, the programme estimates the cumulative contribution of the May 2010 consolidation agreement measures to be 2.1% of GDP over three years.

Despite these policy measures, the recalculated structural balance is set to worsen by 0.9% of GDP in 2011 and to deteriorate further in 2012, before improving by 0.6% of GDP in 2013. However, the recalculated structural balance is affected by sizeable one-off measures reported in the CP. The national definition of these one-off measures does not correspond to the Commission services' one. This distorts the interpretation of the structural balance, rendering the evolution of the recalculated structural balance less meaningful.

The recalculated cyclically-adjusted balance is projected to improve gradually from -1.9% of GDP in 2011 to -0.5% of GDP by 2015 (with the exception of a deterioration in 2012). The increase in the recalculated cyclically adjusted deficit in 2012 is only due to the one-off reimbursement of VERP contributions. Taking this into account, the recalculated cyclically adjusted balance improves over the entire horizon 2011-2015 corresponding to a fiscal tightening in 2011, 2012 and 2013<sup>13</sup>.

When assessed against the projected rate of medium term potential output growth and taking into account discretionary measures, expenditure projections seem to ensure an appropriate adjustment path towards the MTO. The deterioration in 2012 is explained by the one-off reimbursement of VERP contributions.

#### **Box 2. Main measures**

The CP does not specify new measures up to 2013 in addition to those introduced by the consolidation package adopted in May 2010. These include a real-term freeze in public consumption, better control of budgetary execution at the local level, a reduction in the unemployment benefit period and tax measures. Over the period 2011-2013, these consolidation measures would represent an annual fiscal effort of around 1% of GDP. Net of other factors affecting public finances, the government projects the cumulative improvement of the general budget balance to be 2.1% of GDP.

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<sup>13</sup> The deterioration in 2011 is due to the large windfall gains in 2010 related to the pension yield tax.



| Main budgetary measures   |  |
|---|--|
| Revenue   | Expenditure  |
| <b>2011</b>   |  |
| <ul style="list-style-type: none"> <li>• Financing elements of 2009 Spring package (0.1% of GDP)</li> <li>• Tax elements of 2010 consolidation agreement (0.3% of GDP)</li> </ul> | <ul style="list-style-type: none"> <li>• Lower public consumption (0.6% of GDP)</li> <li>• Higher public investments (-0.1% of GDP)</li> <li>• Savings due to unemployment benefit reform (0.1% of GDP)</li> </ul> |
| <b>2012</b>   |  |
| <ul style="list-style-type: none"> <li>• Tax elements of 2010 consolidation agreement (0.1% of GDP)</li> </ul>  | <ul style="list-style-type: none"> <li>• Lower public consumption (0.1% of GDP)</li> <li>• Lower public investments (0.2% of GDP)</li> <li>• Savings due to unemployment benefit reform (0.3% of GDP)</li> </ul>   |
| <b>2013</b>   |  |
| <ul style="list-style-type: none"> <li>• Financing elements of 2009 Spring package (0.4% of GDP)</li> <li>• Tax elements of 2010 consolidation agreement (0.1% of GDP)</li> </ul> | <ul style="list-style-type: none"> <li>• Lower public consumption (0.3% of GDP)</li> <li>• Lower public investments (0.2% of GDP)</li> <li>• Savings due to unemployment benefit reform (0.1% of GDP)</li> </ul>   |

Denmark's **debt ratio** rose during the recession to 43.6% of GDP in 2010. The CP assumes a further increase to 48% of GDP until 2013. The one-off effects related to the phasing-out of the VERP account for the projected increase in the debt ratio in 2012. Denmark's gross debt ratio remains, however, well below the EU average and is expected to fall again from 2014 onward.

Denmark is at low risk with regard to the **long-term sustainability** of public finances. The long-term cost of ageing is below the EU average. However, the current budgetary position compounds the cost of ageing. Based on the current fiscal position, debt would fall to 26% of GDP by 2020 but considering the full implementation of the CP a smaller reduction to 34.6% of GDP would take place by 2020. Ensuring high primary surpluses over the medium term would contribute to reducing the risks to the sustainability of public finances.

The CP puts forward **fiscal-structural** plans designed to respond to continuously spending overruns in the past. The government has already taken some measures to address this issue and is planning to introduce a new spending control scheme. This scheme is supposed to set out binding spending ceilings for local, regional and central government which respect the overall medium-term general budget target. According to the CP, spending ceilings underpinned by sanctions will be voted by Parliament for a multiannual period (currently planned 4 years) and be controlled by the Danish Economic Council.<sup>14</sup>

#### 4.2.1.2 Financial sector

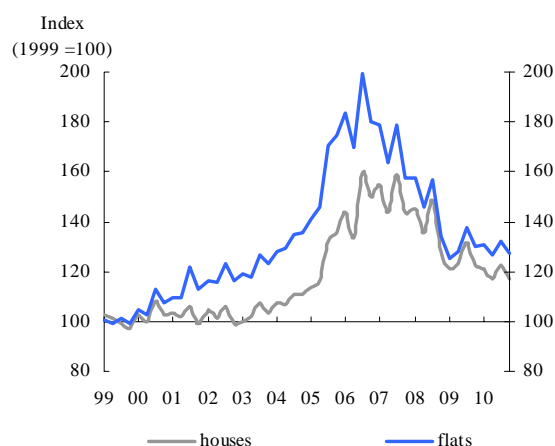
Denmark experienced a housing bubble with cumulative price increases of around 50% between 2004 and mid-2007. The correction of real estate prices since 2007 was sharp and caused some domestic banking problems. Several small and medium-sized banks had to seek government support, especially as the global financial crisis exacerbated problems due to

<sup>14</sup> The government's legislative proposal has not yet been submitted to parliament.

reliance on money-market funding. Although systemic problems to financial stability were avoided, Danish authorities were obliged to introduce a set of support measures (deposit guarantee, capital injections, winding-up scheme).

Research shows that past house prices increases were driven to a large extent by fundamentals such as declining unemployment, rising wages, and low interest rates. Yet, the freeze on property taxes since 2002 and the introduction of instalment-free mortgage loans starting in 2003 have contributed to the emergence of the real estate bubble<sup>15</sup>. Despite the bursting of this bubble, both practices continue and only limited measures to dampen renewed excessive pro-cyclical price fluctuations have been introduced. Borrowers' take-up of adjustable rate and instalment free mortgages remains unabated. End 2010, more than half of all mortgage credit institute's (MCI) outstanding mortgage loans were instalment free and two thirds were adjustable rate mortgages. Concerns regarding high household debt levels are linked to problems that might arise in terms of debt service and debt repayment, especially in an environment of rising interest rates.

**Graph 1: Property price to disposable income ratio**



*Source: Statistics Denmark, Commission services*

The Central Bank's 2010 Financial Stability Review indicates that only 3.2% of total household debt is concentrated among financially vulnerable households (mainly young people with low income levels living in rented property), thus implying that potential risks from high household debt are still limited. In general, households' net wealth positions due to large savings in pension funds and real estate remain high. The Ministry of Economic and Business Affairs estimates the number of home owners with negative net wealth positions at between 4% and 11% depending on the inclusion of pension fund deposits. The share of total households indicating that housing-related costs represent a financial burden has increased only slightly between 2007 and 2009.

However, forced sales have more than tripled between 2007 and 2010 for one-family houses and increased almost five-fold for owner-occupied flats (even though in absolute numbers forced sales remained limited). Long-term price averages and price to income ratios also suggest that prices might still be overvalued despite the correction. High household debt, which is strongly linked to real estate investments, therefore continues to pose potential risks to the economy, in particular in an environment of rising interest rates. While median

<sup>15</sup> Dam, N.A. et al., "Udviklingen på ejerboligmarkedet i de senere år – Kan boligpriserne forklares?" in Danmarks Nationalbank Monetary Review, 1<sup>st</sup> quarter 2011 part II.

household spending on interest as a share of real disposable income is not very sensitive to interest rate rises, the risk related to house owners' debt levels can be distributed unevenly. The government intends to map the demographic and socioeconomic distribution of risks and to set up a task force on mortgage-backed bonds and supplementary collateral, which will examine the effects of the continuous compliance with the loan-to-value limit of 80%. However, the government does not put forward new policy measures to curb pro-cyclical fluctuations in the housing market. The Central Bank has proposed considering a gradual phasing-out of the property-tax freeze and instalment free mortgages. Despite the changes introduced by the 2009 tax reform<sup>16</sup>, interest payments continue to be tax deductible and provide incentives for the accumulation of debt.

#### **4.2.2. Labour Market Policies**

As a result of the economic crisis, employment shrunk by around 5%. From 2010 it has stabilised and the current employment rate (20-64 year olds) is 76.1%. Unemployment more than doubled from a record low of 3.3% in 2008 to 7.4% in 2010. This is still well below the EU average. Long term and youth unemployment (15-24 year olds) have also increased during the crisis but both remain among the lowest in the EU.

#### **Labour supply**

Denmark faces a considerable challenge from demographic ageing. According to Eurostat projections, Denmark's working-age population (15-64 years) will shrink by around 1.5% between 2010 and 2025 and by close to 5% by 2040. Thus in the medium term the economic recovery could lead to a tightening of the labour market as witnessed during the boom years with negative repercussions on unit labour costs. Furthermore, a skewed age distribution in the public sector implies that a large share of public employees will retire in the coming decade. Increasing labour supply is therefore a key priority in order to ensure future welfare and fiscal sustainability. Despite a high and stable labour participation rate, there remains scope for further improvement in five particular areas:

Firstly, voluntary early retirement is widespread amongst 60 to 64 year olds, reflected in an employment rate for this group of only 39.6 per cent in 2010.

Secondly, in 2008 around 7.2% of the Danish labour force received disability benefits (higher than the EU average) and the number of people below 40 years of age on a disability pension has risen significantly. 300,000 people, or 10% of the working age population, are either on disability benefits or in subsidised employment ("flex-job")<sup>17</sup>. This group of inactive adults has a significant potential to increase the overall labour supply.

Thirdly, although the overall participation rate is rather high, part-time work is more common in Denmark than in the EU (26.5 % compared to 19.2 %), reducing the average hours worked per employee significantly and contributing to the fact that total labour supply is only at the EU average.

Fourthly, Danish students start higher education relatively late and spend a comparatively longer time studying. Hence the average graduation age is high, reducing society's return on education and the overall supply of highly educated labour. The latter feature might be underpinned by a generous student grant system. The Labour Market Commission estimates

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<sup>16</sup> The 2009 reform will gradually reduce the deductible amount from 33.5% to 25.5% between 2012 and 2019 and introduced a cap of DKK 100,000 per household per year (DKK 50,000 for single people).

<sup>17</sup> A flex job is an offer for people with a significantly reduced ability to work. Wages are fixed in accordance with collective and other arrangements. The employer receives a public subsidy corresponding to ½ or 2/3 of the collectively bargained wage depending on the work ability of the person in the flex job.

that a fall in the average study period by half a year could increase employment by 8,000 people.

Finally, the employment rate of non-EU nationals (56.7% in 2010) is considerably below the overall employment rate of 76.1% which in particular concerns female immigrants.

A comprehensive tax reform in 2009 intended to increase labour supply by reducing marginal tax rates especially amongst upper income brackets from 63% to 56.1%. Moreover, the threshold for the upper marginal tax will be raised in 2014 (postponed by 3 years from 2011 in the Fiscal Consolidation Agreement) implying that 350.000 citizens are expected to no longer pay the top tax rate. The Danish Government estimates that this reform will increase labour supply in the medium to longer-term by 18.000 full-time workers (0.5% of 2009 working-age population) primarily by raising the number of hours worked. Denmark has also shortened the possible duration of unemployment benefits from four to two years and increased obligations for job seekers, improving incentives for a rapid return to activity.

While proposals still have to be submitted to Parliament, the government expects that recent pension system reform plans detailed in the NRP and CP will increase employment by 70,000 by 2020, thereby keeping labour supply broadly constant relative to the total population despite negative demographics. The full implementation of these proposals would therefore have a significant impact on labour supply<sup>18</sup>. The indexation of age thresholds for statutory pensions to life expectancy – also a pillar of the reform plan – falls short of a truly automatic adjustment mechanism. Parliament votes every five years on raising the legal retirement age by up to one year in line with the increase in life-expectancy.

The Danish Government has also proposed a reform of the disability pension and "flex-job" system.<sup>19</sup> This reform, which still needs to be submitted to Parliament, would provide labour market reintegration training for persons on disability pension younger than 40 instead of placing them on permanent disability pension. The flex-job arrangements would also be adapted to become a more temporary employment offer to only the weakest groups. The Government estimates that this reform could increase employment by 4,000-7,000. To be effective the reform will need to include sufficient incentives for people on incapacity benefits to return to the labour market. This implies that they should not lose their rights acquired under the incapacity scheme. Furthermore, preventive measures and continued efforts to improve the receptiveness of the work places would strengthen the reform.

Finally the government suggests limits to the duration of student grants linked to study times, alongside further incentives to complete studies faster. With this reform the government estimates that employment will increase by 4,000 in 2020.

Despite a setback between 2009 and 2010, integration and labour market reforms together with favourable cyclical conditions have already raised the employment rate of non-EU nationals by 10 percentage points from 2001 to 2010. Social partners, municipalities and the government agreed in October 2010 to accelerate efforts to make employment-focused integration more efficient. Fundamental elements of the package are Danish language training, company apprenticeships as well as employment subsidies. Increasing the participation rate of immigrants by 3 additional percentage points is part of the government's assumptions underlying the fiscal adjustment towards 2020.

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<sup>18</sup> The May 2011 agreements will increase employment by at least 65,000 persons by 2020 according to government estimates.

<sup>19</sup> On 16 May 2011, the government coalition, Dansk Folkeparti and Kristendemokraterne reached an agreement on the "flex-job" and the student grant. This agreement still needs to be adopted by Parliament.

To attain the targets of the planned reforms and to achieve the full utilisation of Denmark's labour potential it will be important to maintain the stability and completeness of the well-developed flexicurity model. Recently, the low level of employment protection has come under pressure during collective bargaining rounds, due to a drop in the effective compensation rate of unemployment benefits. Active labour market policies have experienced challenges, both due to the job-centres being decentralised, and because of the impact of the economic crisis, creating a large increase in the inflow of unemployed and the need for additional measures. The life-long learning element of the flexicurity model has also undergone adjustments, which have affected the support for adult education with possible effects on the level of employment and job security.

### **Poverty and Social Exclusion**

The at-risk of poverty or exclusion levels in Denmark are clearly below the EU average (in 2009 the total rate was 17.4% compared to 23.1 % in the EU). However, immigrants and descendants of immigrants are in general more heavily affected by poverty than others (the at-risk of poverty or exclusion rate for non-EU nationals was 41.3 % in 2009). The NRP sets the national target regarding poverty as reducing the number of people living in households with low work intensity by 22,000 by 2020. According to the NRP estimations 347,000 persons lived in households with low work intensity in 2008. Around 60% of these people were students, recipients of anticipatory pension or children. Denmark indicates in the NRP that a firm connection to the labour market is the best safeguard against poverty and social exclusion.

Some initiatives have been taken to fight poverty among the groups most affected, such as the "Ghetto Plan"(launched in October 2010), which is targeted towards specific areas defined as ghettos and the 'Children's Reform' (which into force in January 2011) which aims to improve the general conditions for socially disadvantaged children and young people.

### **Education**

Despite Denmark's generous spending on its education system, educational outcomes are only average in several key areas. Denmark has the fourth lowest youth education attainment level in the EU-27. In 2009, only 70 % of 20-24 year olds had completed at least upper secondary education. Early drop-out rates from vocational youth education (almost 50%) are rather high<sup>20</sup>. Addressing these challenges should also be seen in the context of future skills needs and possible labour shortages. A rise in overall education levels and educational quality could positively impact on labour supply and productivity growth.

The Danish government has taken a wide range of initiatives to address educational performance issues. To increase the attractiveness of vocational youth education and to reduce dropouts, efforts include measures to upgrade the qualifications and competences of staff and the provision of more practical training placements in companies and the public sector, allowing for shorter and more practical sequences for students with a practical orientation.

In addition, the government has thoroughly reformed compulsory education focusing efforts on teacher education, national testing, and more lessons in specific subjects. Recent initiatives, still not adopted by parliament, are targeted at the quality of compulsory education and should be seen in the light of the government's goal of 95% of young people getting an

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<sup>20</sup> On the other hand, adult participation in lifelong learning is the highest in the EU and more than three times as high as the EU average. And as regards tertiary attainment, Denmark has second highest share in the EU and progress since 2000 has been strong.

upper secondary education in 2015. The creation of more apprenticeships for vocational education and training also plays an important role since the lack of apprenticeships impacts vocational education attainment levels negatively. In this context it should be noted that the government (in November 2010) has reached an agreement with an overall budget of DKK 2.4 billion to ensure 8,900 apprenticeships for vocational youth education in 2011.

#### **4.2.3. Growth enhancing structural measures**

Danish private sector productivity growth has been on a declining trend since 1995, reaching on average around 1½% per year over the period 1995-2006, and turned negative from 2006 until mid-2009, driven partly by firms holding on to labour during the boom years. The recent rebound in productivity growth is considered to be mainly cyclical, linked to the shedding of labour during the recession, and productivity is still below the 1995 to 2006 trend level. Low productivity growth may seem counterintuitive with an overall sound business environment. While it is difficult to find a single explanation, relatively weak performance levels in compulsory deductions, a low degree of competition in certain sectors and a low degree of business innovation have been identified as possible causes.

#### **Competition**

Productivity growth is particularly low in the construction and services sectors (local services, retail and wholesale trade and personal services). Recent studies<sup>21</sup> suggest this may be due to a weak degree of competition, high market entry barriers, and hence a sub-optimal allocation of resources. In addition, zoning laws are strict, meaning few of the large international retail firms have a sizable presence in Denmark, and limiting possibilities for productivity enhancing economies of scale in the retail sector.

In order to address the weak degree of competition in some sectors, the government reformed the competition law in 2010, strengthening merger control and increasing the control of public tenders. Shop opening hours have been liberalised to create more flexibility and the book market will be fully liberalised this year. The government has also been screening regulations that hamper competition, and will propose recommendations to address this. According to the NRP, the government is committed to work for more competition, especially in services.

The recently adopted "Konkurrencepakke" ("Competition Package"), agreed among the government and its supporting parties mainly targets the construction, retail and health sectors, including notably measures to facilitate the use of imported construction goods. This initiative is important since imports of construction goods are relatively low and prices among the highest in the EU. A relaxing of ownership conditions of clinics for dentists and general physicians by those outside the profession should also have a positive impact on the degree of competition in services. The "Konkurrencepakke" does not, however, sufficiently address the liberalisation of pharmacies and retail trade and liberalisation of other sectors such as taxis, public transportation and health care has been postponed awaiting further analysis.

The government has launched a strategy aimed at increasing competition within public services by gradually increasing public procurement in municipalities and regions, and set a new target for municipalities that 31.5% of all procurement should be public by 2015. This has not yet been translated into regional targets, although negotiations with the regions will take place aimed at increasing public procurement.

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<sup>21</sup> Danish Economic Councils, "Dansk Økonomi" Chapter II, Autumn 2010, and McKinsey, "Creating economic growth in Denmark through competition", November 2010

## **Research and innovation**

Denmark set a preliminary national R&D target of 3% of GDP for 2020, a figure that it already achieved back in 2009<sup>22</sup>. Over the past decade Denmark's R&D intensity has consistently increased thanks to one of the highest growth rates in the EU. Building upon this, if the country wishes to maintain its position among the world's R&I leaders, there seems considerable scope for a more ambitious R&D target.

Denmark has a successful and balanced R&I system, well integrated into the European Research Area, and characterised by a strong scientific production which builds on a high level of public funding, human resources and international scientific cooperation. The weaker points in the Danish innovation system (in relative terms) are patent intensity and the share of new doctoral graduates. Danish firms also appear to be less innovative than their leading competitors (as the NRP acknowledges).

Some initiatives have been introduced to increase private R&I investment, for example the establishment of a Business Innovation Fund of DKK 760 million for 2010-2012 that has the aim of supporting innovation and market maturity within the green and welfare sectors of the economy. Framework conditions for business R&I have been strengthened by measures like the “Styrket innovation i virksomheder” (Strengthened innovation in business) proposal with 37 concrete initiatives to improve innovation in businesses. Improving the linkages between SMEs and universities, dedicated measures to further improve framework conditions for private R&I and increasing the supply of highly skilled specialists are issues that may merit further consideration. Given the dominance of the service sector, and its relatively poor productivity performance, an increased focus on R&D and innovation tailored for the demands of the services sector may also be merited.

## **Climate change and energy**

In spite of the influence of the economic crisis, the recent trend in greenhouse gas emissions does not appear in line with the 2020 national target defined at the European level (-20% compared to 2005 levels). This means that additional emissions reduction measures and/or the use of flexibility mechanisms may be necessary. However the Danish government has presented a very ambitious Energy Strategy for 2050 which argues for the feasibility of a transition to a fossil fuels-independent society in Denmark and sets out a programme of action. Achieving full independence from fossil fuels by 2050 would significantly reduce greenhouse gas emissions to some 75% below 1990 levels, putting Denmark on track for the 80-95% reduction agreed at EU level. Denmark has set a national energy efficiency target of an absolute reduction in gross energy consumption of 4% by 2020 relative to 2006 levels. This corresponds to primary energy saving in the amount of 0.83 Mtoe, leading to a targeted consumption of 19.52 Mtoe for 2020. The target formulation is clear, but its impact on the primary energy consumption in the baseline needs still to be clarified. At measure level, a renewal of the 2008 energy agreement will be a key step to progress towards reaching the target.

A close monitoring of progress towards these targets will be beneficial, especially in the road transportation and agriculture sectors given their weight in the national emissions and current trend. Particular attention to ensure intelligent demand solutions and investments in electricity grids as Denmark would help achieve the aim of having more than 50% renewable electricity by 2020.

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<sup>22</sup>The high figure in 2009 is, however, also a result of the fall in Denmark's GDP due to the economic crisis.

## 5. SUMMARY

The combination of the Convergence Programme and Denmark's National Reform Programme sets out a short and medium term reform agenda to push forward the Danish economy.

The Convergence Programme sets out a plausible path towards correction of the excessive deficit by 2013 and achieving the Medium Term Objective by 2015. The CP reaffirms the commitment to consolidation measures adopted in May 2010 which are designed to achieve an annual fiscal effort of around 1% of GDP over the period 2011-2013. These measures focusing predominantly on the expenditure side should be sufficient to ensure that the general government headline balance falls below 3% of GDP in 2013. However, it is important to maintain strict budgetary discipline in particular at regional and local levels. Proposals to introduce binding fiscal rules as put forward in the programme are thus an important step towards achieving this aim also beyond the short term. Whilst there is scope for more ambitious consolidations efforts during periods of strong economic growth, the rapid adoption of structural measures as projected in the programme will help to improve public finances in a sustainable manner. Together with the May 2010 Fiscal Consolidation Agreement, the May 2011 agreements ensure a structurally balanced fiscal position in 2020 although the effect on the long term sustainability indicator is slightly lower than that of the reforms set out of in the CP. Household debt in terms of GDP is among the highest in the EU creating potential risks to the economy and to financial stability. The situation warrants action, especially as only limited measures to dampen pro-cyclical fluctuations of house prices have been introduced in the aftermath of the house price correction and incentives for to accumulate debt remain in place.

Facing a demographic shift, the main labour market challenge is to further raise labour supply. To this end, the implementation of proposed reforms as outlined in the national reform programme, especially the planned phasing-out of the VERP, the reform of the disability pension and "flex-job" system, and active labour market support for non-EU nationals are important. The May 2011 agreements should help deliver a substantial increase in labour supply, although scope remains for further increases, especially with regard to the disability pension system.

By increasing the labour supply, reforms will help boost the economy's underlying growth which is otherwise low due to subdued productivity. Continued reforms to increase competition are important in this respect, particularly in the retail and construction sectors, and in local services. In the medium to longer term, productivity may also be affected by the relatively weak performance of compulsory education in Denmark.



Statistical annex

**Table I. Macro economic indicators**

|  | 1995-<br>1999 | 2000-<br>2004 | 2005-<br>2008 | 2009         | 2010        | 2011        | 2012        |
|--|---------------|---------------|---------------|--------------|-------------|-------------|-------------|
| <b>Core indicators</b>   |               |               |               |              |             |             |             |
| GDP growth rate  | 2.8           | 1.5           | 1.6           | -5.2         | 2.1         | 1.7         | 1.5         |
| Output gap <sup>1</sup>  | 0.4           | 0.6           | 2.0           | -5.6         | -4.1        | -3.0        | -2.1        |
| HICP (annual % change)   | 1.9           | 2.1           | 2.2           | 1.1          | 2.2         | 2.5         | 1.8         |
| Domestic demand (annual % change) <sup>2</sup>   | 2.9           | 1.9           | 2.4           | -6.5         | 1.7         | 1.7         | 1.6         |
| Unemployment rate (% of labour force) <sup>3</sup>   | 5.7           | 4.9           | 4.0           | 6.0          | 7.4         | 7.1         | 6.7         |
| Gross fixed capital formation (% of GDP)   | 19.4          | 19.6          | 20.9          | 18.2         | 16.3        | 16.4        | 16.5        |
| Gross national saving (% of GDP)   | 21.0          | 23.1          | 25.0          | 20.7         | 21.6        | 21.5        | 21.5        |
| <b>General Government (% of GDP)</b>   |               |               |               |              |             |             |             |
| Net lending (+) or net borrowing (-)   | <b>-0.9</b>   | <b>1.3</b>    | <b>4.6</b>    | <b>-2.7</b>  | <b>-2.7</b> | <b>-4.1</b> | <b>-3.2</b> |
| Gross debt   | <b>65.4</b>   | <b>48.8</b>   | <b>33.0</b>   | <b>41.8</b>  | <b>43.6</b> | <b>45.3</b> | <b>47.1</b> |
| Net financial assets   | <b>-32.5</b>  | <b>-18.9</b>  | <b>-0.5</b>   | <b>4.2</b>   | <b>n.a</b>  | <b>n.a</b>  | <b>n.a</b>  |
| Total revenue  | 56.5          | 55.5          | 56.3          | 55.6         | 55.3        | 53.4        | 53.6        |
| Total expenditure  | 57.3          | 54.3          | 51.7          | 58.3         | 58.0        | 57.5        | 56.8        |
| <i>of which: Interest</i>  | 5.0           | 3.0           | 1.6           | 1.8          | 1.8         | 1.9         | 2.0         |
| <b>Corporations (% of GDP)</b>   |               |               |               |              |             |             |             |
| Net lending (+) or net borrowing (-)   | <b>3.6</b>    | <b>2.8</b>    | <b>2.4</b>    | <b>7.6</b>   | <b>10.3</b> | <b>9.7</b>  | <b>9.0</b>  |
| Net financial assets; non-financial corporations   | <b>-60.3</b>  | <b>-61.6</b>  | <b>-83.4</b>  | <b>-81.5</b> | <b>n.a</b>  | <b>n.a</b>  | <b>n.a</b>  |
| Net financial assets; financial corporations   | <b>-2.9</b>   | <b>-6.1</b>   | <b>-12.5</b>  | <b>3.4</b>   | <b>n.a</b>  | <b>n.a</b>  | <b>n.a</b>  |
| Gross capital formation  | 13.5          | 13.5          | 13.8          | 9.7          | 9.1         | 9.4         | 10.0        |
| Gross operating surplus  | 20.1          | 20.6          | 20.3          | 17.4         | 20.3        | 20.8        | 21.0        |
| <b>Households and NPISH (% of GDP)</b>   |               |               |               |              |             |             |             |
| Net lending (+) or net borrowing (-)   | <b>-1.8</b>   | <b>-1.1</b>   | <b>-4.0</b>   | <b>-1.2</b>  | <b>-2.3</b> | <b>-0.5</b> | <b>-0.8</b> |
| Net financial assets   | <b>73.3</b>   | <b>73.2</b>   | <b>93.8</b>   | <b>78.4</b>  | <b>n.a</b>  | <b>n.a</b>  | <b>n.a</b>  |
| Gross wages and salaries   | 49.5          | 49.6          | 49.2          | 52.6         | 49.8        | 49.0        | 48.6        |
| Net property income  | 1.6           | 1.2           | 1.5           | -0.3         | 0.2         | 0.2         | 0.2         |
| Current transfers received   | 22.0          | 21.3          | 20.7          | 22.9         | 22.8        | 23.2        | 23.1        |
| Gross saving   | 3.2           | 4.1           | 2.3           | 4.1          | 2.6         | 4.3         | 3.8         |
| <b>Rest of the world (% of GDP)</b>  |               |               |               |              |             |             |             |
| Net lending (+) or net borrowing (-)   | <b>0.9</b>    | <b>2.7</b>    | <b>2.9</b>    | <b>3.5</b>   | <b>5.5</b>  | <b>4.9</b>  | <b>4.8</b>  |
| Net financial assets   | <b>22.9</b>   | <b>13.9</b>   | <b>3.1</b>    | <b>-3.0</b>  | <b>n.a</b>  | <b>n.a</b>  | <b>n.a</b>  |
| Net exports of goods and services  | 4.0           | 5.9           | 3.4           | 3.8          | 5.6         | 5.7         | 5.7         |
| Net primary income from the rest of the world  | -1.1          | -1.0          | 1.4           | 1.8          | 1.9         | 1.9         | 1.9         |
| Net capital transactions   | 0.1           | 0.0           | 0.1           | 0.0          | 0.0         | -0.3        | -0.3        |
| Tradable sector  | 39.3          | 38.1          | 36.7          | 32.5         | 34.1        | n.a         | n.a         |
| Non tradable sector  | 46.3          | 47.6          | 48.1          | 53.5         | 51.9        | n.a         | n.a         |
| <i>of which: Building and construction sector</i>  | 4.3           | 4.5           | 4.7           | 4.2          | 3.7         | n.a         | n.a         |
| Real effective exchange rate (index, 2000=100)   | 106.3         | 107.0         | 118.6         | 129.5        | 123.2       | 122.0       | 122.3       |
| Terms of trade goods and services (index, 2000=100)  | 98.7          | 101.4         | 105.5         | 105.6        | 108.5       | 108.4       | 108.6       |
| Market performance of exports (index, 2000=100)  | 99.8          | 100.5         | 95.4          | 97.8         | 91.8        | 90.7        | 89.6        |
| <b>Notes:</b>  |               |               |               |              |             |             |             |
| <sup>1</sup> The output gap constitutes the gap between the actual and potential gross domestic product at 2000 market prices.   |               |               |               |              |             |             |             |
| <sup>2</sup> The indicator on domestic demand includes stocks.   |               |               |               |              |             |             |             |
| <sup>3</sup> Unemployed persons are all persons who were not employed, had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. The unemployment rate covers the age group 15-74. |               |               |               |              |             |             |             |
| <i>Source:</i>   |               |               |               |              |             |             |             |
| <i>Commission services' spring 2011 forecast</i>   |               |               |               |              |             |             |             |

**Table II. Macro economic scenario for the budgetary projections**

|  | 2010 |      | 2011 |      | 2012 |      | 2013 | 2014 | 2015 |
|--|------|------|------|------|------|------|------|------|------|
|  | COM  | CP   | COM  | CP   | COM  | CP   | CP   | CP   | CP   |
| Real GDP (% change)  | 2.1  | 2.1  | 1.7  | 1.8  | 1.5  | 1.8  | 2.1  | 1.8  | 2.4  |
| Private consumption (% change)   | 2.2  | 2.2  | 2.0  | 2.2  | 1.9  | 2.5  | 2.5  | 2.4  | 2.7  |
| Gross fixed capital formation (% change)   | -4.0 | -4.0 | 3.7  | 4.4  | 3.0  | 2.7  | 5.3  | 4.2  | 3.8  |
| Exports of goods and services (% change)   | 3.6  | 3.6  | 4.7  | 3.8  | 4.3  | 3.9  | 4.4  | 4.0  | 5.0  |
| Imports of goods and services (% change)   | 2.9  | 2.9  | 5.0  | 4.4  | 4.9  | 4.5  | 4.9  | 5.2  | 5.2  |
| <i>Contributions to real GDP growth:</i>   |      |      |      |      |      |      |      |      |      |
| - Final domestic demand  | 0.7  | 0.7  | 1.5  | 1.7  | 1.5  | 1.8  | 2.1  | 2.1  | 2.3  |
| - Change in inventories  | 0.9  | 0.9  | 0.1  | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| - Net exports  | 0.5  | 0.5  | 0.1  | -0.1 | -0.1 | -0.1 | 0.0  | -0.4 | 0.1  |
| Output gap <sup>1</sup>  | -4.1 | -4.0 | -3.0 | -2.9 | -2.1 | -2.0 | -1.1 | -0.8 | 0.1  |
| Employment (% change)  | -2.1 | -2.1 | 0.2  | 0.1  | 0.4  | 0.3  | 0.5  | 1.0  | 0.7  |
| Unemployment rate (%)  | 7.4  | 7.4  | 7.1  | 7.0  | 6.7  | 6.6  | 6.3  | 5.9  | 5.5  |
| Labour productivity (% change)   | 4.2  | 4.3  | 1.6  | 1.6  | 1.0  | 1.5  | 1.6  | 0.8  | 1.7  |
| HICP inflation (%)   | 2.2  | 2.2  | 2.5  | 2.6  | 1.8  | 1.4  | 2.5  | 2.2  | 2.4  |
| GDP deflator (% change)  | 3.3  | 3.3  | 1.7  | 1.5  | 2.0  | 1.7  | 2.0  | 2.0  | 2.5  |
| Comp. of employees (per head, % change)  | 2.7  | 2.8  | 1.7  | 1.7  | 2.4  | 2.4  | 2.8  | 2.9  | 3.2  |
| Net lending/borrowing vis-à-vis the rest of the world (% of GDP)   | 5.5  | 5.5  | 4.9  | 4.2  | 4.8  | 4.1  | 3.9  | 3.5  | 3.7  |
| <b>Note:</b>   |      |      |      |      |      |      |      |      |      |
| <sup>1</sup> In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services. |      |      |      |      |      |      |      |      |      |
| <b>Source :</b>  |      |      |      |      |      |      |      |      |      |
| Commission services' spring 2011 forecasts (COM); Convergence programme (CP).  |      |      |      |      |      |      |      |      |      |

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

| (% of GDP)  | 2010        | 2011        |             | 2012        |             | 2013        | 2014        | 2015        | Change:<br>2010-2015 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|
|   | COM         | COM         | CP          | COM         | CP          | CP          | CP          | CP          | CP                   |
| <b>Revenue</b>  | <b>55.3</b> | <b>53.4</b> | <b>52.0</b> | <b>53.6</b> | <b>52.1</b> | <b>52.6</b> | <b>53.0</b> | <b>52.7</b> | <b>-2.6</b>          |
| <i>of which:</i>  |             |             |             |             |             |             |             |             |                      |
| - Taxes on production and imports   | 16.8        | 17.0        | 17.1        | 16.9        | 17.1        | 17.3        | 17.5        | 17.5        | 0.7                  |
| - Current taxes on income, wealth, etc.   | 30.0        | 28.1        | 28.0        | 28.5        | 28.8        | 28.9        | 29.1        | 29.0        | -1.0                 |
| - Social contributions  | 1.9         | 1.9         | 1.0         | 1.9         | 0.7         | 0.6         | 0.6         | 0.6         | -1.3                 |
| - Other (residual)  | 6.6         | 6.5         | 5.9         | 6.4         | 5.5         | 5.8         | 5.8         | 5.6         | -1.0                 |
| <b>Expenditure</b>  | <b>58.0</b> | <b>57.5</b> | <b>55.8</b> | <b>56.8</b> | <b>56.6</b> | <b>54.2</b> | <b>54.1</b> | <b>53.3</b> | <b>-4.7</b>          |
| <i>of which:</i>  |             |             |             |             |             |             |             |             |                      |
| - Primary expenditure   | 56.3        | 55.7        | 54.1        | 54.8        | 54.8        | 52.1        | 51.8        | 51.0        | -5.3                 |
| <i>of which:</i>  |             |             |             |             |             |             |             |             |                      |
| Compensation of employees   | 19.1        | 18.6        | 18.6        | 18.3        | 18.3        | 18.0        | 17.9        | 17.6        | -1.5                 |
| Intermediate consumption  | 10.0        | 9.7         | 9.9         | 9.6         | 9.8         | 9.5         | 9.5         | 9.4         | -0.6                 |
| Social payments   | 18.5        | 18.7        | 18.9        | 18.5        | 18.5        | 18.4        | 18.2        | 17.9        | -0.6                 |
| Subsidies   | 2.6         | 2.6         | 2.5         | 2.6         | 2.5         | 2.4         | 2.4         | 2.4         | -0.2                 |
| Gross fixed capital formation   | 2.2         | 2.3         | 2.3         | 2.1         | 2.1         | 1.9         | 1.8         | 1.8         | -0.4                 |
| Other (residual)  | 3.7         | 3.7         | 2.0         | 3.7         | 3.6         | 2.0         | 2.0         | 1.9         | -1.8                 |
| - Interest expenditure  | 1.8         | 1.9         | 1.7         | 2.0         | 1.8         | 2.1         | 2.3         | 2.3         | 0.5                  |
| <b>General government balance (GGB)</b>   | <b>-2.7</b> | <b>-4.1</b> | <b>-3.8</b> | <b>-3.2</b> | <b>-4.5</b> | <b>-1.7</b> | <b>-1.1</b> | <b>-0.5</b> | <b>2.2</b>           |
| <b>Primary balance</b>  | <b>-1.0</b> | <b>-2.2</b> | <b>-2.1</b> | <b>-1.2</b> | <b>-2.7</b> | <b>0.4</b>  | <b>1.2</b>  | <b>1.8</b>  | <b>2.8</b>           |
| One-off and other temporary measures  | -0.2        | 0.0         | -1.2        | 0.0         | -2.2        | -0.5        | -0.3        | 0.0         | 0.2                  |
| <b>GGB excl. one-offs</b>   | <b>-2.5</b> | <b>-4.1</b> | <b>-2.6</b> | <b>-3.2</b> | <b>-2.3</b> | <b>-1.2</b> | <b>-0.8</b> | <b>-0.5</b> | <b>2.0</b>           |
| Output gap <sup>2</sup>   | -4.1        | -3.0        | -2.9        | -2.1        | -2.0        | -1.1        | -0.8        | 0.1         | 4.2                  |
| Cyclically-adjusted balance <sup>2</sup>  | 0.0         | -2.2        | -1.9        | -1.8        | -3.2        | -1.0        | -0.6        | -0.5        | -0.5                 |
| <b>Structural balance<sup>3</sup></b>   | <b>0.2</b>  | <b>-2.2</b> | <b>-0.7</b> | <b>-1.8</b> | <b>-1.0</b> | <b>-0.5</b> | <b>-0.3</b> | <b>-0.5</b> | <b>-0.7</b>          |
| <i>Change in structural balance</i>   |             | -2.4        | -0.9        | 0.4         | -0.3        | 0.5         | 0.2         | -0.2        |                      |
| Structural primary balance <sup>3</sup>   | 2.0         | -0.3        | 1.0         | 0.2         | 0.8         | 1.6         | 2.0         | 1.8         | -0.2                 |
| <i>Change in structural primary balance</i>   |             | -2.3        | -0.9        | 0.5         | -0.2        | 0.8         | 0.4         | -0.2        |                      |
| <b>Notes:</b>   |             |             |             |             |             |             |             |             |                      |
| <sup>1</sup> On a no-policy-change basis.   |             |             |             |             |             |             |             |             |                      |
| <sup>2</sup> Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission services on the basis of the information in the programme. |             |             |             |             |             |             |             |             |                      |
| <sup>3</sup> Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.   |             |             |             |             |             |             |             |             |                      |
| <b>Source :</b>   |             |             |             |             |             |             |             |             |                      |
| Convergence programme (CP); Commission services' spring 2011 forecasts (COM); Commission services' calculations   |             |             |             |             |             |             |             |             |                      |

**Table IV. Debt dynamics**

| (% of GDP)                          | average<br>2005-09 | 2010        | 2011        |             | 2012        |             | 2013        | 2014        | 2015        |
|-------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                     |                    |             | COM         | CP          | COM         | CP          | CP          | CP          | CP          |
| <b>Gross debt ratio<sup>1</sup></b> | <b>34.7</b>        | <b>43.6</b> | <b>45.3</b> | <b>43.0</b> | <b>47.1</b> | <b>47.4</b> | <b>48.0</b> | <b>46.4</b> | <b>46.1</b> |
| Change in the ratio                 | -0.7               | 1.8         | 1.7         | -0.6        | 1.8         | 4.4         | 0.6         | -1.6        | -0.3        |
| <i>Contributions<sup>2</sup>:</i>   |                    |             |             |             |             |             |             |             |             |
| <b>1. Primary balance</b>           | <b>-4.8</b>        | <b>1.0</b>  | <b>2.2</b>  | <b>2.1</b>  | <b>1.2</b>  | <b>2.7</b>  | <b>-0.4</b> | <b>-1.2</b> | <b>-1.8</b> |
| <b>2. “Snow-ball” effect</b>        | <b>0.8</b>         | <b>-0.4</b> | <b>0.4</b>  | <b>0.3</b>  | <b>0.5</b>  | <b>0.4</b>  | <b>0.3</b>  | <b>0.6</b>  | <b>0.1</b>  |
| <i>Of which:</i>                    |                    |             |             |             |             |             |             |             |             |
| Interest expenditure                | 1.7                | 1.8         | 1.9         | 1.7         | 2.0         | 1.8         | 2.1         | 2.3         | 2.3         |
| Growth effect                       | -0.1               | -0.8        | -0.7        | -0.8        | -0.7        | -0.7        | -1.0        | -0.8        | -1.1        |
| Inflation effect                    | -0.8               | -1.3        | -0.7        | -0.6        | -0.9        | -0.7        | -0.9        | -0.9        | -1.1        |
| <b>3. Stock-flow adjustment</b>     | <b>3.4</b>         | <b>1.2</b>  | <b>-0.9</b> | <b>-3.0</b> | <b>0.2</b>  | <b>1.4</b>  | <b>0.8</b>  | <b>-0.9</b> | <b>1.4</b>  |
| <i>Of which:</i>                    |                    |             |             |             |             |             |             |             |             |
| Cash/accruals diff.                 | -0.2               | 0.9         |             |             |             |             |             |             |             |
| Acc. financial assets               | 3.6                | -0.1        |             |             |             |             |             |             |             |
| <i>Privatisation</i>                | -0.1               | 0.0         |             |             |             |             |             |             |             |
| Val. effect & residual              | -0.1               | 0.4         |             |             |             |             |             |             |             |

Notes:

<sup>1</sup>End of period.

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

Source:

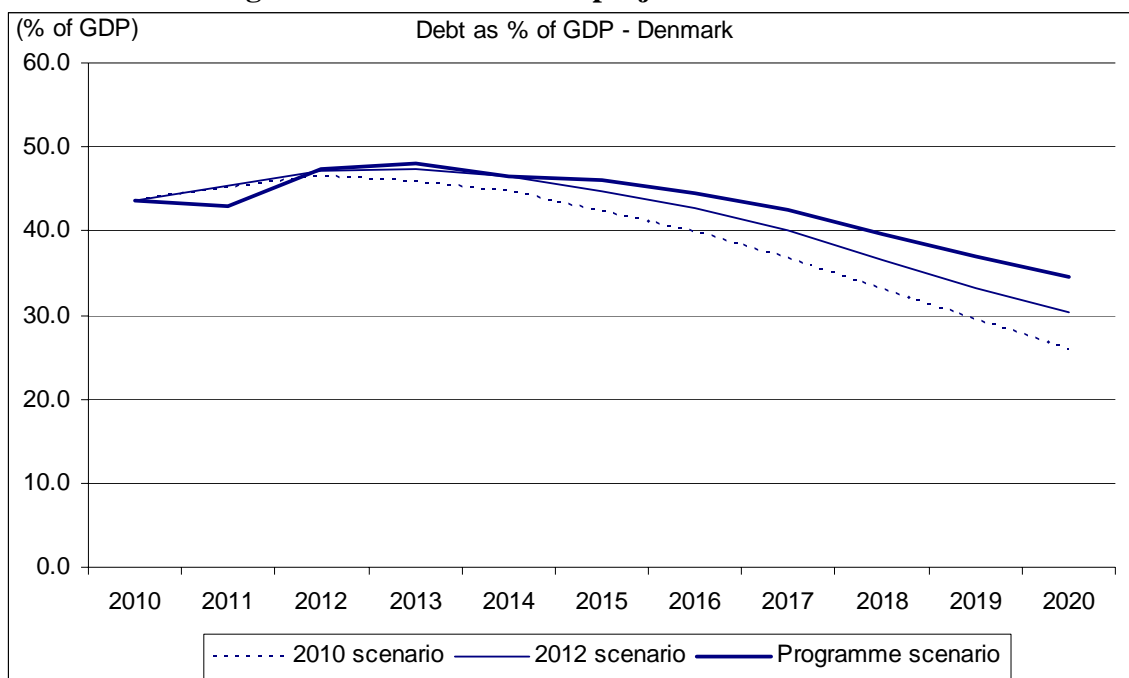
*Convergence programme (CP); Commission services' spring 2011 forecasts (COM); Commission services' calculations.*

**Table V. Long-term sustainability indicators**

| Denmark                                       | Baseline scenario (2010) |      |      | Programme scenario |      |      |
|---|--------------------------|------|------|--------------------|------|------|
|   | S1                       | S2   |      | S1                 | S2   |      |
| Value   | 0.9                      | 1.2  |      | 0.5                | 0.7  |      |
| of which:                                     |                          |      |      |                    |      |      |
| Initial budgetary position (IBP)              | 0.3                      | 0.8  |      | -0.2               | 0.3  |      |
| Debt requirement in 2060 (DR)                 | -0.3                     | -    |      | -0.2               | -    |      |
| Long-term change in the primary balance (LTC) | 0.9                      | 0.4  |      | 0.9                | 0.4  |      |
|   | 2010                     | 2015 | 2020 | 2010               | 2015 | 2020 |
| Debt as % of GDP                              | 43.6                     | 42.2 | 26.0 | 43.6               | 46.1 | 34.6 |

*Note:* The 'baseline' scenario (2010) depicts the sustainability gap under the assumption that the 2010 budgetary position remains unchanged over the medium-term (until the end of the period covered by the programme). The 'programme' scenario depicts the sustainability gap under the assumption that the budgetary plans of the programme are fully implemented.

**Figure: Medium term debt projections for Denmark**



*Source: Commission services*

**Table VI. Financial market indicators**

|   | 2006  | 2007  | 2008  | 2009  | 2010  |
|---|-------|-------|-------|-------|-------|
| Total assets of the banking sector (% of GDP)   | 326,9 | 365,2 | 418,1 | 462,5 | 454,0 |
| Share of assets of the five largest banks (% of total assets)                                   | 64,7  | 64,2  | 66,0  | 64,0  | ...   |
| Foreign ownership of banking system (% of total assets)   | 20,2  | 19,4  | 17,7  | 19,9  | ...   |
| Financial soundness indicators:   |       |       |       |       |       |
| - non-performing loans (% of total loans)   | ...   | 0,6   | 1,2   | 3,3   | ...   |
| - capital adequacy ratio (%) <sup>1)</sup>  | ...   | 10,6  | 12,4  | 16,1  | ...   |
| - profitability - return on equity (%) <sup>2)</sup>  | ...   | 16,1  | 7,0   | -3,2  | ...   |
| Private credit growth (annual % change)   | 14,2  | 13,4  | 12,2  | 4,4   | 0,1   |
| Residential property prices (y-o-y % change) <sup>3)</sup>                                      | 21,6  | 4,6   | -4,5  | -12,0 | 2,7   |
| Exposure to countries receiving/repaying official financial assistance (% of GDP) <sup>4)</sup> | 5,1   | 7,2   | 8,4   | 6,6   | 5,7   |
| Private debt (% of GDP)   | 190,0 | 204,3 | 219,9 | 227,9 | 219,1 |
| Gross external debt (% of GDP)  |       |       |       |       |       |
| - Public  | 11,4  | 10,9  | 14,7  | 15,6  | 15,9  |
| - Private   | 40,9  | 38,0  | 44,5  | 45,8  | 46,5  |
| Long term interest rates spread versus Bund (basis points)*                                     | 4,9   | 7,0   | 30,2  | 36,5  | 18,4  |
| Credit default swap spreads for sovereign securities (5-year)*                                  | ...   | ...   | 116,3 | 58,1  | 29,0  |

**Notes:**

<sup>1)</sup> The capital adequacy ratio is defined as total capital divided by risk weighted assets.

<sup>2)</sup> Net income to equity ratio. Tier 1 capital.

<sup>3)</sup> Latest available in 2010Q2.

<sup>4)</sup> Covered countries are IE, EL, PT, RO, LV and HU.

\* Measured in basis points.

**Source:**

Bank for International Settlements and Eurostat (exposure to macro-financially vulnerable countries), IMF (financial soundness indicators), Commission services (long-term interest rates), World Bank (gross external debt), Eurostat (residential property prices) and ECB (all other indicators).

**Table VII. Labour market and social indicators**

| <b>Labour market indicators</b>  | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Employment rate<br>(% of population aged 20 - 64)  | 78,0        | 79,4        | 79,2        | 79,8        | 77,8        | 76,1        |
| Employment growth<br>(% change from previous year)   | 1,0         | 2,1         | 2,8         | 1,9         | -3,1        | -2,1        |
| Employment rate of women<br>(% of female population aged 20 - 64)  | 73,7        | 74,8        | 74,8        | 75,4        | 74,8        | 73,1        |
| Employment rate of men<br>(% of male population aged 20 - 64)  | 82,3        | 83,8        | 83,5        | 84,2        | 80,8        | 79,0        |
| Employment rate of older workers<br>(% of population aged 55 - 64)   | 59,5        | 60,7        | 58,6        | 57,3        | 57,5        | 57,6        |
| Part-time employment (% of total employment)   | 22,1        | 23,6        | 24,1        | 24,6        | 26,0        | 26,5        |
| Fixed term employment<br>(% of employees with a fixed term contract)   | 9,8         | 8,9         | 8,7         | 8,4         | 8,9         | 8,6         |
| Unemployment rate <sup>1</sup> (% of labour force)   | 4,8         | 3,9         | 3,8         | 3,3         | 6,0         | 7,4         |
| Long-term unemployment <sup>2</sup> (% of labour force)  | 1,1         | 0,8         | 0,6         | 0,4         | 0,5         | 1,4         |
| Youth unemployment rate<br>(% of youth labour force aged 15-24)  | 8,6         | 7,7         | 7,9         | 7,6         | 11,2        | 13,8        |
| Youth NEET <sup>3</sup> rate (% of population aged 15-24)  | 4,3         | 3,6         | 4,3         | 4,2         | 5,2         | :           |
| Early leavers from education and training (% of pop. 18-24 with at most lower sec. educ. and not in further education or training) | 8,7         | 9,1         | 12,5        | 11,5        | 10,6        | :           |
| Tertiary educational attainment (% of population 30-34 having successfully completed tertiary education)                           | 43,1        | 43,0        | 42,5        | 45,4        | 48,1        | :           |
| Labour productivity per person employed (annual % change )   | 1,4         | 1,3         | -1,1        | -2,9        | -2,2        | 4,2         |
| Hours worked per person employed (annual % change)   | 0,0         | 0,4         | -1,0        | -0,1        | -0,5        | 0,1         |
| Labour productivity per hour worked (annual % change; constant prices)   | 1,4         | 0,9         | -0,2        | -2,8        | -1,7        | 4,2         |
| Compensation per employee (annual % change; constant prices)   | 0,7         | 1,4         | 1,3         | -0,2        | 2,0         | -0,5        |
| Nominal unit labour cost growth (annual % change)  | 2,2         | 2,2         | 4,8         | 6,8         | 4,7         | -1,4        |
| Real unit labour cost growth (annual % change)   | -0,7        | 0,1         | 2,4         | 2,8         | 4,3         | -4,6        |
| <b>Notes:</b>  |             |             |             |             |             |             |
| <sup>1</sup> According to ILO definition, age group 15-74)   |             |             |             |             |             |             |
| <sup>2</sup> Share of persons in the labour force who have been unemployed for at least 12 months.                                 |             |             |             |             |             |             |
| <sup>3</sup> NEET are persons that are neither in employment nor in any education or training.                                     |             |             |             |             |             |             |
| <b>Sources:</b>  |             |             |             |             |             |             |
| Commission services (EU Labour Force Survey and European National Accounts)  |             |             |             |             |             |             |

**Table VII. Labour market and social indicators - continued**

| <b>Expenditure on social protection benefits (% of GDP)</b>   | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> |
|---|-------------|-------------|-------------|-------------|-------------|
| Sickness/Health care  | 6,14        | 6,09        | 6,14        | 6,46        | 6,73        |
| Invalidity  | 4,14        | 4,24        | 4,24        | 4,21        | 4,39        |
| Old age and survivors   | 11,10       | 11,03       | 10,78       | 10,70       | 11,10       |
| Family/Children   | 3,89        | 3,80        | 3,74        | 3,67        | 3,81        |
| Unemployment  | 2,82        | 2,52        | 2,05        | 1,58        | 1,40        |
| Housing and Social exclusion n.e.c.   | 1,74        | 1,71        | 1,50        | 1,43        | 1,47        |
| <b>Total</b>  | <b>29,8</b> | <b>29,4</b> | <b>28,5</b> | <b>28,1</b> | <b>28,9</b> |
| of which: Means tested benefits   | 0,91        | 0,90        | 0,85        | 0,89        | 0,92        |
| <b>Social inclusion indicators</b>  | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> |
| Risk-of-poverty or exclusion <sup>1</sup> (% of total population)   | 17,2        | 16,7        | 16,8        | 16,3        | 17,4        |
| Risk-of-poverty or exclusion of children (% of people aged 0-17)  | 15,6        | 14,5        | 14,2        | 12,7        | 13,9        |
| Risk-of-poverty or exclusion of elderly (% of people aged 65+)  | 17,8        | 18,3        | 18,3        | 18,6        | 20,0        |
| At-Risk-of-Poverty rate <sup>2</sup> (% of total population)  | 11,8        | 11,7        | 11,7        | 11,8        | 13,1        |
| Value of relative poverty threshold (single HH per year) - in PPS   | 9516        | 9684        | 10116       | 10560       | 10716       |
| Severe Material Deprivation <sup>3</sup> (% of total population)  | 3,2         | 3,1         | 3,3         | 2,0         | 2,3         |
| Share of people living in low work intensity households <sup>4</sup> (% of people aged 0-59 not student)  | 9,9         | 9,3         | 9,9         | 8,3         | 8,5         |
| In-work at-risk-of poverty rate (% of persons employed)   | 4,8         | 4,5         | 4,2         | 5,0         | 5,9         |
| <b>Notes:</b>   |             |             |             |             |             |
| <sup>1</sup> People at-risk-of poverty or social exclusion (AROPE): individuals who are at-risk-of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in household with zero or very low work intensity (LWI).  |             |             |             |             |             |
| <sup>2</sup> At-risk-of poverty rate: share of people with an equivalised disposable income below 60% of the national equivalised median income.  |             |             |             |             |             |
| <sup>3</sup> Share of people who experience at least 4 out of 9 deprivations: people cannot afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish, or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour tv, or ix) have a telephone |             |             |             |             |             |
| <sup>4</sup> People living in households with very low work intensity: Share of people aged 0-59 living in households where the adults work less than 20% of their total work-time potential during the previous 12 months.   |             |             |             |             |             |
| <b>Sources:</b>   |             |             |             |             |             |
| For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.   |             |             |             |             |             |



**Table VIII. Product market performance and policy indicators**

| <b>Performance indicators</b>   | <b>2001-2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
|---|------------------|-------------|-------------|-------------|-------------|-------------|
| Labour productivity <sup>1</sup> total economy (annual growth in %)   | 0.8              | 1.1         | -1.1        | -2.5        | -1.6        | 4.0         |
| Labour productivity <sup>1</sup> in manufacturing (annual growth in %)  | 2.1              | 5.3         | 0.8         | 2.4         | -2.7        | 11.9        |
| Labour productivity <sup>1</sup> in electricity, gas, water (annual growth in %)                                    | 3.8              | -9.6        | -3.4        | 1.9         | -10.0       | n.a.        |
| Labour productivity <sup>1</sup> in the construction sector (annual growth in %)                                    | -0.9             | -0.9        | -6.5        | -7.0        | -3.8        | -2.5        |
| Patent intensity in manufacturing <sup>2</sup> (patents of the EPO divided by gross value added of the sector)      | 5.2              | 3.4         | 1.1         | n.a.        | n.a.        | n.a.        |
| <b>Policy indicators</b>  | <b>2001-2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
| Enforcing contracts <sup>3</sup> (days)   | n.a.             | 380         | 380         | 380         | 380         | 410         |
| Time to start a business <sup>3</sup> (days)  | n.a.             | 6           | 6           | 6           | 6           | 6           |
| R&D expenditure (% of GDP)  | 2.5              | 2.5         | 2.6         | 2.9         | 3.0         | n.a.        |
| Tertiary educational attainment (% of 30-34 years old population)   | 38.0             | 43.0        | 42.5        | 45.4        | 48.1        | n.a.        |
| Total public expenditure on education (% of GDP)  | 8.4              | 8.0         | 7.8         | n.a.        | n.a.        | n.a.        |
|   | <b>2003</b>      | <b>2005</b> | <b>2006</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
| Product market regulation <sup>4</sup> , Overall (Index; 0=not regulated; 6=most regulated)                         | 1.2              | n.a.        | n.a.        | 1.1         | n.a.        | n.a.        |
| Product market regulation <sup>4</sup> , Retail (Index; 0=not regulated; 6=most regulated)                          | 2.6              | n.a.        | n.a.        | 2.9         | n.a.        | n.a.        |
| Product market regulation <sup>4</sup> , Network Industries <sup>6</sup> (Index; 0=not regulated; 6=most regulated) | 1.6              | 1.2         | 1.2         | 1.2*        | n.a.        | n.a.        |

**Notes:**

<sup>1</sup>Labour productivity is defined as gross value added (in constant prices) divided by the number of persons employed.

<sup>2</sup>Patent data refer to applications designated to the European Patent Office (EPO). They are counted according to the year in which they were filed at the EPO. They are broken down according to the inventor's place of residence, using fractional counting if multiple inventors or IPC classes are provided to avoid double counting.

<sup>3</sup>The methodologies, including the assumptions, of this indicator is presented in detail at the website <http://www.doingbusiness.org/methodology>.

<sup>4</sup>The methodologies of the Product market regulation indicators are presented in detail at the website [http://www.oecd.org/document/1/0,3746,en\\_2649\\_34323\\_2367297\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/1/0,3746,en_2649_34323_2367297_1_1_1_1,00.html). The latest available product market regulation indicators refer to 2003 and 2008, except for Network Industries.

<sup>6</sup>Aggregate ETCR.

\*figure for 2007.

**Source:**

Commission services, World Bank Doing Business (for enforcing contracts and time to start a business) and OECD (for the product market regulation indicators).

### The Danish mortgage market

Denmark's traditional mortgage bond model has been in operation for more than 200 years and the Danish mortgage bond market is today the world's largest in terms of GDP. Traditionally, only MCIs were allowed to grant loans against mortgages on real estate under tight legal conditions, e.g. a loan-to-value ratio for owner-occupied dwellings of 80%. MCIs finance their loans by issuing bonds only and do not rely on deposits or interbank-funding. The bonds issued correspond in terms of maturity

and coupon exactly to the loan conditions that borrowers sign with the MCI. This "match-funding principle" prevents MCI losses on outstanding mortgage bonds in case of changes in bond market conditions and allows for transparency as regards loan costs and prices. An efficient and rapid court-based recourse mechanism, i.e. foreclosure proceedings in case of non-payment of interest or principal by a borrower, and borrowers' personal liability limit the risk of long legal proceedings.

#### *Innovation and latest developments*

The Danish mortgage model underwent a major change on 1 July 2007 when rules regarding covered bonds were implemented to comply with the Capital Requirements Directive. New bond types were introduced allowing issuance also by commercial banks. The new legislation also removed the requirement to apply the match-funding principle, although the MCIs association has stated that it intends to maintain this principle on a voluntary basis for all covered bonds issued by MCIs.

As the new bond types comply with EU-wide covered bond legislation, they benefit from a more lenient capital requirement regulation. Between January 2008<sup>23</sup> and January 2011, their share in total issuance of covered bonds has risen from 14% to 62%; while the share of traditional bonds has decreased from 86% to 38%.

#### *Key figures and challenges*

- The amount of outstanding mortgage credit bonds averaged DKK 2.6 trillion (EUR 344 billion, 150% of GDP) in 2010. Mortgage credit bonds were held up to 89% domestically.
- Up to one quarter of mortgage-credit bonds is held by pension funds and life insurers, while Danish commercial banks, MCIs and investment funds hold half of mortgage-credit bonds. Life-insurance companies and cross-sector pension funds, together accounting for around 70% of pension savings in 2009, held 30% of their assets in mortgage-credit bonds.
- At the end of 2010, 54% of all outstanding mortgage loans were instalment free, of which 85% were ARM loans.

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<sup>23</sup> ROs issued prior to 1 January 2008 also benefit from lenient capital requirements.