



Convergence Programme

Denmark
2014

Index

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1. Challenges, Goals and Strategy towards 2020

The recovery of the Danish economy has gained momentum after several years of weak growth. The improvement is closely connected to the recovery in the euro area, which accounts for about a third of Danish exports. Furthermore, private sector investments and consumption are expected to grow again after the lengthy adjustment in the wake of the global financial crisis and the unsustainable housing price increases until 2007.

The potential for growth is supported by the implementation of recent reforms, including tax reform of 2012 and the initiatives in Growth Plan DK. The reforms will contribute to raise labor supply and productivity in the coming years. Also agreements on reforms of early retirement, subsidized employment, student grants and cash benefit will contribute to growth by increasing labor market participation and structural employment. Furthermore the reform strategy aims at a continued modernization of the public sector.

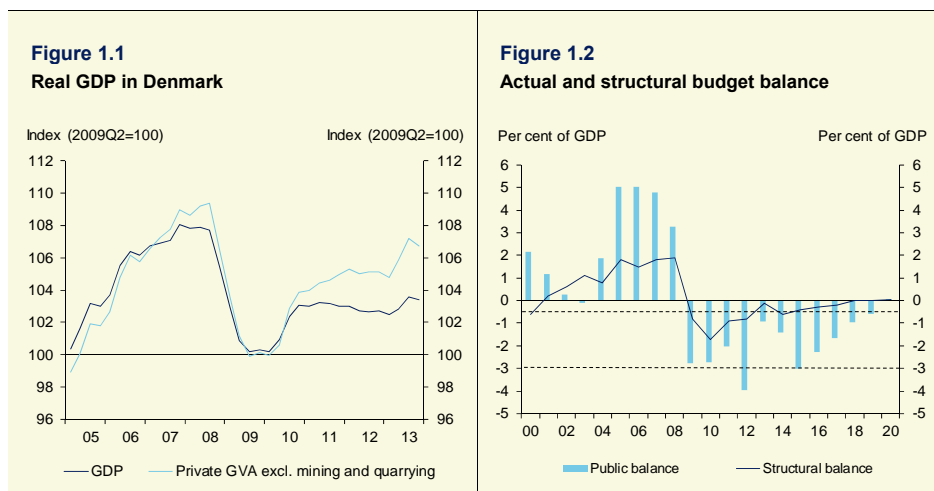
The implemented reforms contribute to a sustainable fiscal policy. Fiscal policy is planned so that public finances are kept within the required limits imposed by the budget law and the Stability and Growth Pact, and so that there is at least structural balance between government revenues and expenditures in 2020. In accordance with the EU recommendation, the actual government budget deficit has been brought below 3 percent of GDP and public finances have in structural terms been improved by 1½ percent of GDP in the period 2011-13. Based on the planned fiscal policy the structural balance is in line with the medium-term objective (MTO) for the structural balance of -0.5 percent of GDP.

1.1 The macroeconomic scenario towards 2020

Growth is returning to the Danish economy. There are several signs of improvement in the economic climate. In the course of 2013, a change in sentiment occurred among consumers and businesses, and employment and production in large parts of the Danish business sector increased during the year. Weak overall growth in GDP partly reflects that overall production is dampened by declining production in the North Sea. Thus, in the private sector excluding

mining and quarrying, the growth rate has been 1.3 percent in 2013, which is somewhat higher than the 0.4 percent for the whole economy, *cf. Figure 1.1*. This also to a large extent explains the increase in private sector employment through 2013.

The foundation for economic recovery generally has been strengthened and GDP growth is expected to amount to 1½ per cent this year and nearly 2 per cent next year. The medium-term projection for 2020 implies that GDP growth can increase to just over 2 per cent on average per year in the period 2016-20.



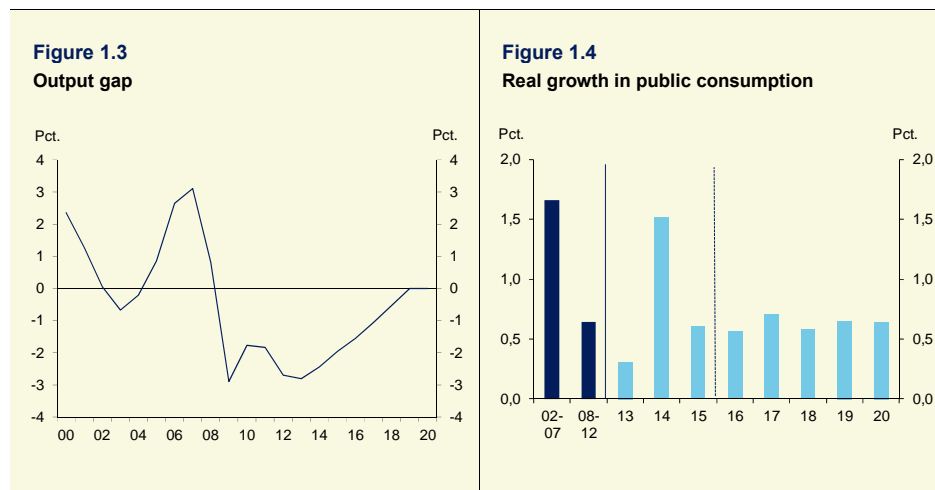
Note: Figure 1.1 shows a two-quarter moving average. The horizontal dotted lines in figure 1.2 show the budget law limit of ½ per cent of GDP for the structural deficit and the Stability and Growth Pact limit for the actual deficit of 3 per cent of GDP.

Source: Statistics Denmark and own calculations.

The possibility of a period with renewed growth is supported by recent reforms including the tax reform of 2012 and the initiatives in Growth Plan DK. Common to the many initiatives is the aim to create growth and jobs while maintaining credibility in economic policy. Sound public finances and confidence in economic policy are essential for Denmark in order to maintain low interest rates, which help to support growth in the Danish economy. Economic policy is planned within the framework of the Budget Law and adheres to common EU rules, including the 3 per cent of GDP-limit for actual deficits in the Stability and Growth Pact, *cf. Figure 1.2*.

The 2020 scenario is based on the presumption that the recovery period – from when the global crisis began in the fall of 2008 to a normalization of the business cycle - can be quite long. The normalization implies a gradual recovery of the economy so that the output gap closes around 2019, *cf. Figure 1.3*. The long period of normalization of the business cycle is linked to the severe downturn in output and employment, as well as the great loss of wealth in homes, businesses and the financial sector during the crisis. Experience shows that recovery from downturns associated with financial crises are especially protracted.

In the projection, the annual real rate of growth in public consumption is assumed to amount to 0.6 per cent in the period 2015-20, *cf. Figure 1.4*. The moderate growth should be seen in light of the current high level of public consumption expenditures and contributes to ensuring that the actual deficit remains below 3 per cent of GDP throughout the period and that the structural deficit does not exceed ½ per cent of GDP. In 2020, government expenditures are projected to be in line with revenues in structural terms.



Source: Statistics Denmark and own calculations.

1.2 Goals and strategy towards 2020

Economic policy is planned on the basis of long-term fiscal sustainability and with a focus on improving private sector framework conditions to support increased productivity and private employment.

It is an overall objective for fiscal policy to be compatible with the long-term sustainability of public finances, including a stable development of public debt. The specific objectives for fiscal policy are set within the framework of the budget law and the 2020 plan, *cf. figure 1.5*.

For many years the most important long-term challenge for Danish economic policy has been to ensure that public finances were sustainable and robust towards the demographic trend of increasing life expectancy and declining North Sea production.

The steps taken to deal with the effects on public finances from increasing life expectancy - primarily the welfare reform in 2006 and the pension reform in 2011, both of which are adopted by a broad majority in parliament - are together with recent years' compliance with the EU recommendation sufficient to ensure that fiscal policy is considered to be sustainable.

Figure 5.5
Central fiscal targets and instruments

1. **Fiscal sustainability operationalised as at least structural balance in 2020**
2. **Annual structural balance \geq - ½ percent of GDP**
3. **Expenditure ceilings that are supported by sanctions and monitoring by the Danish Economic Council**

In addition, a tax reform and reforms of early retirement, subsidized employment, cash benefits and student grants have been implemented in recent years, which strengthen the supply of labor and increase the growth potential. The positive contribution to public finances from the implemented reforms have, i.a., been allocated to increased public investment, education expenditure and lower taxes on labor and business, also contributing to increasing employment.

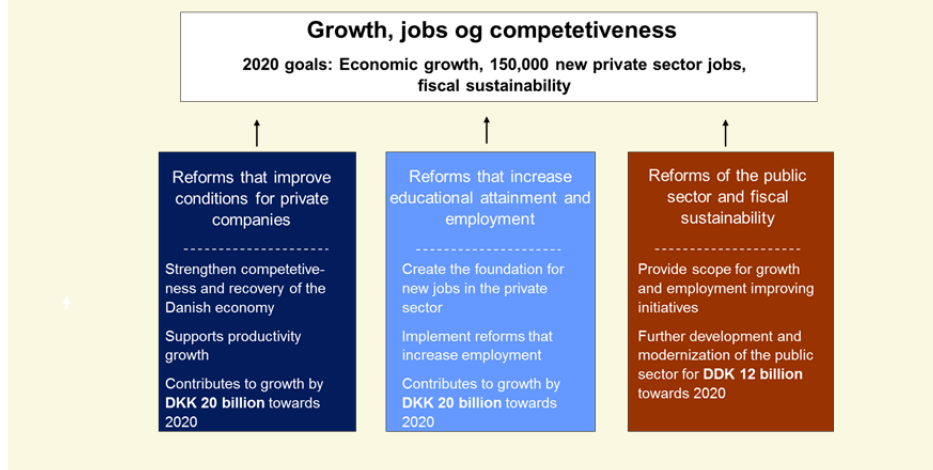
The implemented reforms contribute to a sustainable fiscal policy. The reforms also help to increase long-term employment and growth.

The growth potential in Denmark is still challenged by low productivity growth. Since 1995, productivity in Denmark has grown significantly less than in the past and slower than in many comparable countries. Productivity growth has been particularly low in the domestic-oriented sectors that are not particularly exposed to international competition. Low productivity growth in the domestic-oriented sectors contributes to high prices in Denmark, lower real wages and lower wealth than otherwise might have been possible.

The reform efforts of the government are mainly directed towards improving the framework conditions for the private sector and private job creation, including through increased educational attainment. The efforts include three overall reform tracks, *cf. figure 1.6*. It is a key objective to increase growth towards 2020 by DKK 40 billion corresponding to 2 per cent of GDP through policy initiatives.

The growth target is to be fulfilled through initiatives in the first two reform tracks. Reform track 1 includes measures to improve the business environment and thereby enhance competitiveness and boost productivity. The aim is to increase productivity through concrete initiatives corresponding to an overall increase in economic growth of DKK 20 billion by 2020. Reform track 2 includes initiatives to enhance education attainment and new reforms aimed at increasing structural employment. The aim for the second reform track is to provide the remaining contribution of DKK 20 billion in order to fulfill the growth target.

Figure 1.6
The three reform tracks of the Danish government



The government is with the already implemented reforms well on its way to meet the growth target and will continue the reform effort in the coming years. The government will, i.a., in spring 2014 propose new initiatives for enhancing productivity and growth as a follow up on the work and recommendations of the Productivity Commission.

The contribution from reform 1 currently amounts to approx. DKK 6 billion out of the total target of DKK 20 billion based on the initiatives in Growth Plan DK. Thus, contributions of DDK 14 billion remain to achieve the target.

Currently, the implemented reforms in reform track 2 contribute to GDP with a total of approx. DKK 16 ½ billion. This includes reforms of student grants and cash benefits in connection with the Growth Plan DK and reforms of tax, retirement and subsidized employment scheme from 2012. In order to achieve the targeted contribution from reform track 2 a further reform contribution to GDP of DKK 3 ½ billion is needed, corresponding to an increase in employment further by approx. 6,000 full-time jobs up to 2020. This contributes to an increase in total employment of about 165,000 persons from 2013 to 2020, including a rise in private employment of approx. 150,000 full-time persons. Furthermore, reforms to increase the level of education will have beneficial effects on economic growth in the long term.

Finally, with reform track 3 the government aims to ensure fiscal sustainability and a strengthen modernization agenda for the public sector. The aim of the third track is through modernization of the public sector to free DKK 12 billion to other prioritized areas in the welfare sector.

2. The Macroeconomic Scenario Towards 2020

The recovery of the Danish economy has gained momentum. Over the past year production and employment has increased throughout large parts of the Danish corporate sector. The foundation for economic recovery generally has been strengthened and GDP growth is expected to amount to 1½ per cent this year and nearly 2 per cent in 2015. The medium-term projection for 2020 implies that GDP growth can increase to just over 2 percent on average per year in the period 2016-20. The possibility of a period with renewed growth is supported by recent reforms including the initiatives in Growth Plan DK. Common to the many initiatives is the aim to create growth and jobs while maintaining credibility in economic policy.

2.1 Introduction

The economic scenario up to 2015 is based on the forecast in the Economic Survey, December 2013. New information since December does not give rise to a change in the assessment of the growth prospects for 2014 and 2015. Growth estimates are therefore maintained, but technical adjustments of levels on account of the national accounts for 2013 have been incorporated. Against this background, technical adjustments of estimates for public finances in both 2014 and 2015 based on a new historical year and the impact of Statistic Denmark's budget statistics for 2014 and been incorporated.

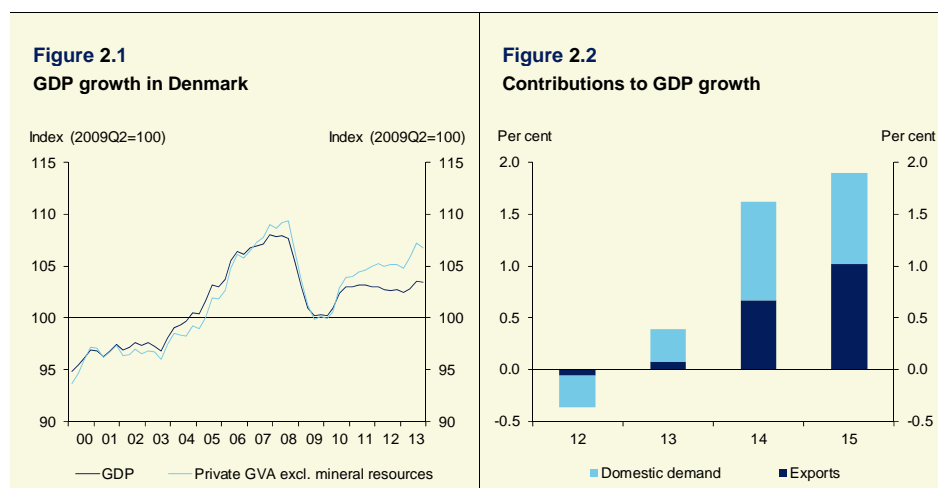
In the period 2015-20, the medium-term scenario is based on a technical projection with a gradual normalization of cyclical conditions, reaching a full normalization in 2019. The normalization of the business cycle is closely linked to the recovery of international growth, particularly in the euro area. Furthermore, it is supported by the assumed economic policy, including the effects of the agreements in relation to Growth Plan DK, and the extraordinarily low interest rates that form the basis of the assessment.

2.2 The outlook for Danish economy in 2014 and 2015

Following three years of stagnation, there are signs of improvement in the Danish economy. In the course of 2013 there has been a change of sentiment among consumers and busi-

nesses and both employment and production has increased in large parts of the Danish business sector throughout the year, *cf. figure 2.1*. The basis for growth has been strengthened and GDP is expected to grow about 1½ percent in 2014 and nearly 2 percent in 2015. The recovery of the Danish economy should be viewed in light of the general recovery in the euro area, where confidence is returning, and in light of the generally broad-based recovery of the global economy. The Danish economy is highly influenced by developments abroad. This is especially true in the case of the euro area, as they are the recipients of about a third of Danish exports. Exports are expected to be a major driver of growth in Denmark in 2014, *cf. figure 2.2*. A subdued wage growth in recent years supports the Danish businesses, but Danish wage competitiveness is still affected by the fact that wage growth for the main part of the last decade has exceeded wage growth abroad.

The increase in exports is further supported by *Growth Plan DK* – including bringing forward a number of tax reliefs in accordance with the Budget Bill for 2014 – which will strengthen the Danish competitiveness. Expectations are rising, and a large surplus of private corporate savings enables opportunities for new investments, as production capacity is fully utilized. A recovery for businesses is also reflected in a declining number of bankruptcies since the beginning of 2012.



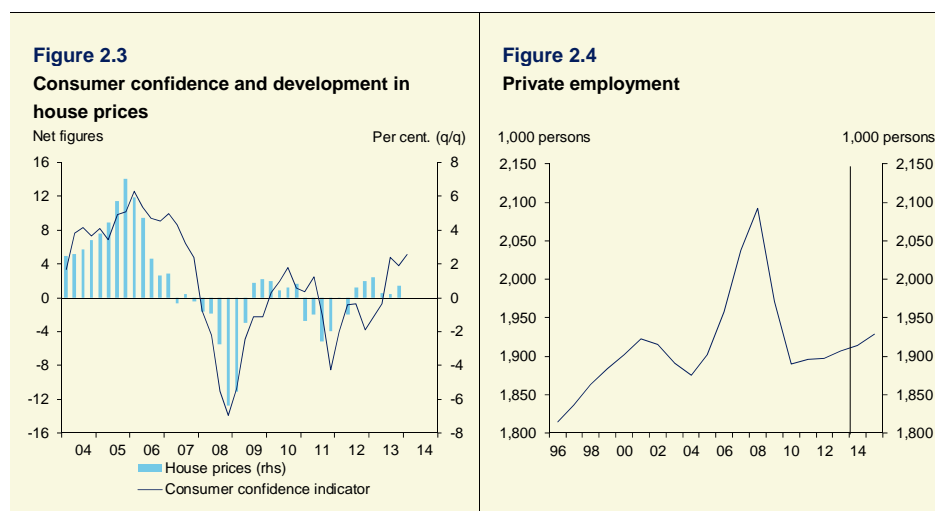
Note: Figure 2.1 shows two quarter moving average. Figure 2.2 is adjusted for the import content of exports and domestic demand.

Source: Statistics Denmark and own calculations.

Private consumption has been weak since 2010. This is partly due to income developments, but also reflects the need of consolidation following the housing price bubble and the general uncertainty regarding the economic development, which has held back consumption causing a weak domestic demand. However since 2007, consumption and income has gradually aligned. This allows for a growth in the consumption as income rises in the coming years. This potential for growth is reflected in consumer confidence which has risen to a relatively high level, *cf. figure 2.3*.

An important sign of the elongated adjustment following the housing bubble and the increase in debt-financed consumption through 2007 being well under way is that the housing market is shown signs of progress, despite large regional differences. The recovery in the housing market is also reflected by the downward trend in the number of foreclosures, from an already low level and significantly below the level seen in the early 1990s when the market was also influenced by an elongated adjustment following the overheating in the mid-1980s.

The labour market has proved adaptable, and unemployment has not risen to the same extent as in previous crises. Despite several years of weak growth, the number of job openings has remained relatively high, and this has kept down long-term unemployment. Private-sector employment rose through 2013. At the end of 2013, the number of private-sector jobs was 18,000 higher than at the end of 2012, cf. figure 2.4. The increase is linked with progress in the labor-intensive part of the private sector, which grew by 1.3 per cent in 2013 and thus faster than the overall economy.



Source: Statistics Denmark and own calculations.

The rise in employment has contributed to the unemployment rate falling to its lowest level in more than four years. However, unemployment has also been influenced by reforms of the cash benefit system. Unemployment is expected to decline further. By the end of 2015 gross unemployment is estimated to be 135,000 persons, which roughly corresponds to the level in 2006.

The potential for real economic improvement is supported by a number of reforms implemented in recent years, contributing to growth in the labour force and productivity. Among these is the tax reform from 2012 and several initiatives in *Growth Plan DK*, cf. section 2.5. The Danish economy is still expected to be supported by very low interest rates in the coming years. These reflect a very expansionary monetary policy in the euro area but are also conditional upon credibility towards the economic development and the public finances in Denmark, which is reflected by the AAA rating.

Fundamentally, public finances are sound and fiscal policy is based on long-term sustainability. Actual public finances depend largely on the business cycle, though one-off measures can also have a large impact the public balance. The public balance is extraordinarily affected by temporary revenue from the restructuring of the taxation of existing capital pensions in both 2013 and 2014.

The economic outlook is still characterised by uncertainty, however the risks are considerably lower than a year ago. The present risks are primarily related to development in the euro area, where growth is still fragile. If considerable doubt is raised on the implementation of the reforms strengthening the structures in the economy and the public finances in vulnerable countries, it might put the current economic development at risk. The recovery of domestic demand is uncertain as well. The uncertainty is mostly related to private consumption, which despite growing optimism continues to evolve subdued.

A new forecast for the Danish economy is prepared in Economic Survey, May 2014.

2.3 Assumptions on international economy and financial conditions

Assumptions on the developments in the international economy and financial conditions in 2014 and 2015 are largely in line with the European Commission's winter forecast. From 2016 to 2020 the assumptions for growth abroad are made on the basis of OECD's medium-term projections from *Economic Outlook*, No. 94, adjusted to the lower growth in 2013 and 14, in line with the assumptions in the Economic Survey, December 2013. This implies that most countries will have closed the output and employment gaps around 2019.

There has been an improvement in the economic situation in the euro area. By the end of 2013, the majority of the countries in the euro area experienced growth, and the current outlook points towards higher growth in the coming years. The world economy is also expected to grow. This reflects a strong recovery in the US, as the outlook for the emerging economies is considerably more mixed. This implies that trade-weighted GDP growth abroad rises from 1 percent in 2013 to about 2½ percent in 2015. This suggests that the export market growth for Danish industrial products is increased from 2.5 percent to about 6 per cent. This magnitude of growth is consistent with the fact that trade in industrial products has now for several decades grown twice as fast as GDP growth, mostly caused by the increased division of labour. Market growth, which includes the major developing economies, will therefore be considerably higher than the potential growth in the Danish economy. Similarly greater international labour division will result in a continued increase in Danish import quotas.

The recovery is reflected in the fact that the uncertainty in the financial markets has generally declined. The risk premium in the unsecured money market rates is close to the level before the financial crisis. This improvement should be viewed in light of the ongoing effort to stem the crisis and the extraordinarily expansionary monetary policy. In the US the extraordinary monetary measures are now in the process of being phased out. Towards 2020 a gradual normalization of the monetary policy in both the US and the euro area is expected. It is as-

sumed that this normalization will not interfere with the growth that is slowly picking up in the international economy.

Less turmoil in financial markets also imply that the extraordinarily interest rate advantages that Denmark has experienced by virtue of being a “safe haven” have begun to abate. Interest rate advantages are, however, still significant. 10 year Danish government bond rates are expected to increase to 4¾ per cent, and the interest rate spread against Germany is still expected to be small. The growth-corrected real interest rate is expected at 1¾ per cent in the long term.

Table 2.1
Assumptions on international economic growth, interest rates and oil prices

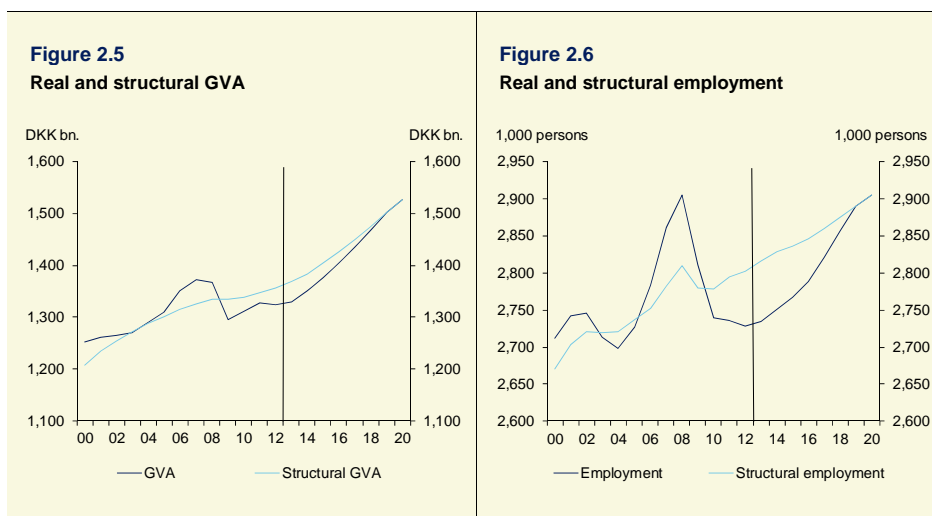
	2012	2013	2014	2015	2016-19	2020
Annual growth, per cent						
Real GDP, OECD countries	1,0	0,8	2,0	2,4	2,6	2,4
Real GDP, main trading partners ¹	1,0	1,0	2,2	2,6	2,9	2,6
Oil price (Brent), USD per barrel, 2010 prices	112	108	108	113	127	139
Dollar exchange rate, DKK per USD	5,8	5,6	5,5	5,5	5,5	5,5
Interest rate 10-year Danish treasury bonds, per cent	1,4	1,8	2,1	2,6	3,9	4,8

1) Covers the OECD countries and the emerging economies Brasil, Russia, India, China, South Africa, Turkey, Indonesia and Mexico.

Source: Statistics Denmark, OECD, *Economic Survey*, december 2013, Finansredøgørelse 2014 and own calculations.

2.4 Growth and employment towards 2020

The economic outlook in the period 2016-20 involves a gradual recovery of the Danish economy, whereby the output and employment gaps are closed around 2019, *cf. figure 2.5 and 2.6*. In 2020 and beyond, GDP is assumed to follow to the structural growth rate. The assumptions are outlined in *box 2.2*.



Note: The difference between actual GVA (gross value added) and estimated structural GVA indicates the output gap. Structural employment is a calculated estimate of the level of employment in a normal cyclical situation.

Source: Statistics Denmark and own calculations.

Box 2.2**Assumptions in the medium-term projection up to 2020**

Assumptions about economic policy:

- The projections follow a principle of caution. This implies that only reforms backed by a majority in the parliament are included.
- The Budget bill for 2014, *Growth Plan DK*, the reform of anticipatory pension scheme, flexi-job scheme, the cash benefit scheme, the sickness benefit scheme, the student's grant reform and the tax reform of 2012 are all incorporated in the projection.
- The governments education targets are assumed to be gradually met by 2020, see also the National Reform Program for Denmark 2014.
- Fiscal policy is planned within the framework of the budget law and the Stability and Growth Pact, such that the actual deficit is kept below the threshold of 3 per cent of GDP and the structural balance is estimated not to exceed Denmark's medium-term objective for public finances (MTO) – ½ per cent of GDP.
- Within the framework of the budget law and the government's target of structural balance in the public finances in 2020 along with fiscal sustainability the medium-term projection allows for an average real annual in public consumption of 0.6 per cent in 2015-20.

Selected technical assumptions behind the projection:

- The output and employment gap is gradually closed towards 2019.
- Productivity growth in the private non-agricultural sector of 1¼ percent (structurally) and for the whole economy close to 1¼ percent per year in 2016-20. Potential GVA growth until 2020 is just over 1½ per cent per year. Including the business cycle normalization GDP growth is around 2 per cent on average annually towards 2020.
- A higher level of education and fulfilment of the education targets set forth by the government will contribute to the structural productivity growth. However, the contribution will primarily take place after 2020.
- The structural gross unemployment is estimated at around 3½ per cent of the labour force towards 2020.

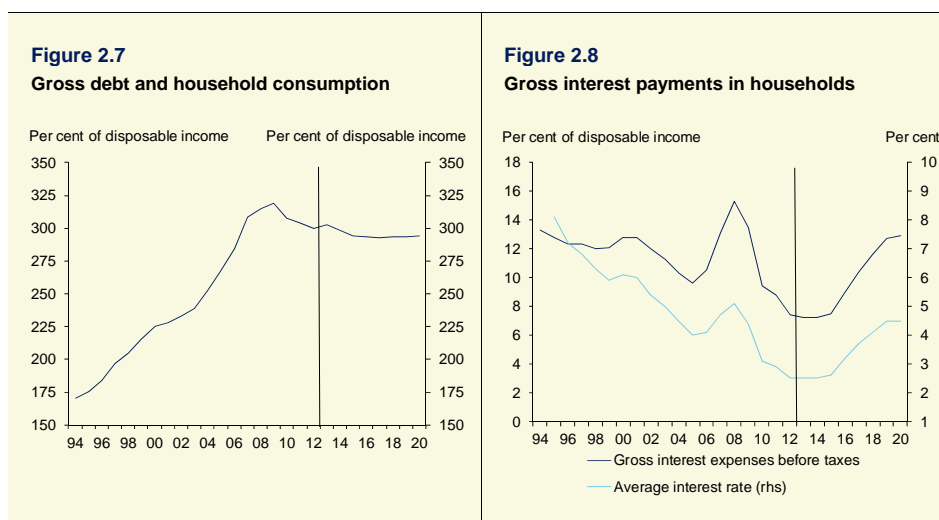
Average GDP growth of about 2 percent is expected in the period 2016-20, *cf. table 2.2*. This growth reflects an average growth of potential output (as measured by GVA) of almost 1¼ per cent in the period. This is an increase compared with the trend since 2007, since production potential almost stood still in 2008-09, following the financial crisis and the subsequent low investment level. This increase in potential output reflects a growth in the structural hourly productivity following very low productivity growth in the 90's and 00's which is estimated at about 1 percent. In addition the development of the structural employment, which is projected to grow about 0.5 percent annually, contributes because of an increase in the structural labour force. Furthermore an estimated 0.4 per cent per year of cyclical growth is estimated, reflecting the closure of the output gap towards 2019.

The current recovery following the global downturn is estimated to take 9-10 years. The current period of adjustment is similar to the adjustment following the overheating of the Danish economy in the mid-1980s. After a prior period of rising consumption, lax credit giving and a

housing boom a long-term setback followed, continuing until the early 1990s, where especially consumption was weak.

The recovery has so far – like the recovery in the 1980s – been subdued by weak developments in private consumption, which has been largely unchanged since 2008. This development is linked with the large need for consolidation which has been underway since 2008, and caused a noticeable decrease in the consumption ratio, *cf. figure 2.7*. Meanwhile a weak real growth in income and uncertainty about the economic outlook in the euro area in 2011 and 2012 has further dampened consumption.

The adjustment since 2008 means that consumer spending is expected to grow with the rising income towards 2020. In the projection it is assumed that household consumption will increase with a growth rate of about 2 percent per year in the years 2015-20 corresponding to the growth in real disposable income. The growth in income follows rising employment and rising pension payments.

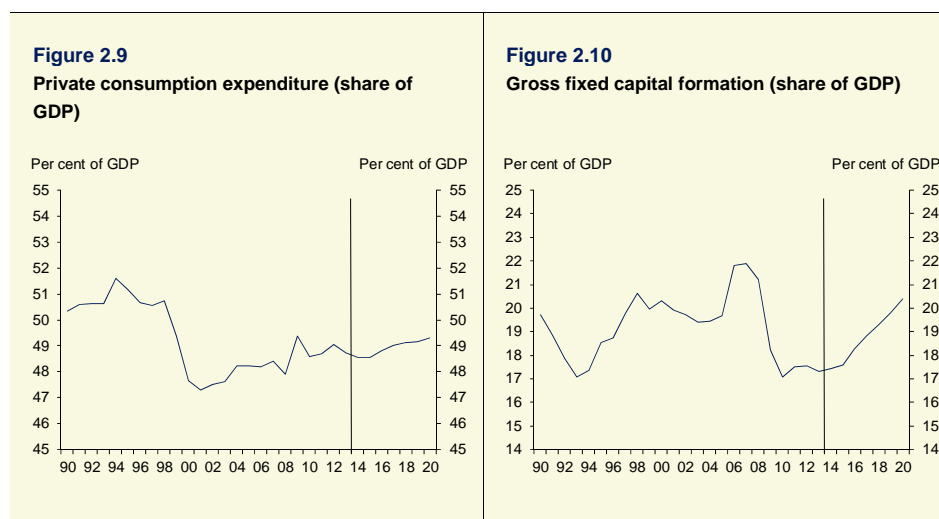


Source: Statistics Denmark and own calculations.

Households are projected to reduce their gross debt ratio slightly towards 2020, when the debt ratio is about 25 percentage points lower than at its peak in 2009, *cf. figure 2.7*. A normalization of the interest rates, from the currently very low levels, is also expected as business cycles are restored, which will only be partly offset by the decrease in gross debt. This will increase households' gross interest expenditure to the same level as in the beginning of the 2000s, *cf. figure 2.8*.

The normalization of household consumption behavior is a significant contribution to the recovery of the business cycle, *cf. figure 2.9*. At the same time the cyclical normalization also implies a significant potential for business investments to contribute towards increased demand. This is supported by companies having strengthened their financial resilience in recent years. In addition, investments are encouraged by economic policies, including a gradual re-

duction in the corporate tax rate. Towards 2020 it is thus assumed that investments will increase from about 10½ per cent of GDP in 2013 to 14 per cent of GDP in 2020, corresponding to the historical average. This will contribute towards restoring the current shortfall in investments (including residential investments) which occurred in the wake of the crisis, cf. figure 2.10. Businesses are expected to maintain their net savings and further reduce debt or further build financial assets by 2020.



Source: Statistics Denmark and own calculations.

Based on the assumptions of the international economic trends and the development in the Danish market share, etc. it is estimated that total exports of goods and services will increase by 5¾ per cent per year on average in the 2016-20. This increased demand is expected to lead to a slightly higher import growth of around 6½ per cent per year. The balance of payments is therefore expected to fall, but remain positive throughout the period.

With the reforms already adopted, employment is expected to rise by about 160,000 persons from 2013 to 2020. Demographic trends will decrease the size of the labour force in the period but the implemented reforms of tax, the anticipatory pension scheme, the flexi-job scheme, the cash benefit reforms and the reform of the student's grant are all expected to offset this decrease and increase labour supply and structural employment, which is expected to grow by approximately 90,000. In addition, the expected cyclical normalization is expected to increase employment by equivalently 80,000 persons by 2020.

Employment trends in the projections is based on the theoretically and empirically sound assumption that reforms increasing labour supply lead to a corresponding increase in employment. Calculations show that the adjustment of demand following an increase in labour supply can take place fairly rapidly, i.e. within 4-5 years, cf. *Finansredøgørelse 2014*. The expectation of a short-term increase in employment towards 2020 should be viewed in light of the fact that there are no signs that the recession has left a permanent mark on the labour market. This is furthermore in context with the very flexible Danish labour market, which is char-

acterized by a flexible wage-setting, a high job turnover and a relatively well functioning “match” between vacancies and job seekers.

In connection with the normalization of the business cycle, it is estimated that the gross unemployment drops to approx. 3½ percent of the labour force.

Table 2.2
Contribution to growth in the potential production and in actual GVA (real terms)

Average annual growth, per cent	1991-07	2008-09	2010-13	2014-2015	2016-20
Potential production (GVA)	1.9	0.2	0.6	1.3	1.7
<i>Of this, contributions from</i>					
- Hourly productivity (structural)	1.3	0.4	0.5	0.8	1.2
- Structural unemployment	0.4	0.0	0.1	0.1	0.0
- Structural work force	0.1	0.0	0.2	0.3	0.5
- Working hours (structural)	0.1	-0.2	-0.2	0.1	0.0
Cyclical contribution	0.2	-3.0	0.0	0.4	0.4
Real GVA	2.1	-2.8	0.6	1.7	2.1
- Net taxes	0.1	-0.5	0.0	0.0	0.1
Real GDP	2.2	-3.3	0.6	1.7	2.2

Source: Statistics Denmark and own calculations.

2.5 Macroeconomic balances

The significant decrease in private domestic demand has contributed towards increasing the private sectors financial savings considerably following the economic and financial crisis, and the level is now well above the historical average. As investments and consumption rise from 2015 and onwards, an approach to the historical level and thereby a gradual normalization of the private sector savings is therefore expected, *cf. table 2.3*.

This reduction in the private sectors saving surplus is partly offset by the decreasing public deficit towards achieving balanced budgets in 2020. Throughout the period the actual government deficit is expected to be below the threshold of 3 pct. of GDP set forth by the Stability and Growth Pact.

As the private sector savings surplus is reduced, the current account surplus is assumed to decline towards 2020. The decrease primarily reflects a reduction in the surplus of the goods and services balances, from 5¼ per cent of GDP in 2015 to 3½ per cent of GDP in 2020.

The large current sector surplus reflects two conditions. First, a relatively weak domestic demand compared to abroad has caused an increase in the goods and services balance, since 2007. An improvement in the terms of trade by 10 percent since 1995 has further contributed to a positive trade balance. Secondly, net investment income increased significantly from 2009 to 2012. This reflects both rising net assets and the composition of assets and liabilities held. A large proportion of Denmark's assets are thus placed in direct investments, which has traditionally provided a higher return than bonds and other loans, which account for about 75 per cent of Denmark's liabilities, *cf. Economic Survey, December 2013.*

Table 2.3
Savings, investments, current account and net asset position

	1990- 2009	2010	2011	2012	2013	2014	2015	2016	2017	2020
Per cent of GDP										
Investment ratio, private sector	18.2	14.8	15.5	15.0	15.1	15.3	15.7	16.6	17.3	19.1
Savings ratio, private sector	28.9	32.1	32.2	32.0	32.2	32.9	34.9	34.2	33.4	31.4
Private financial savings	2.0	8.6	8.3	9.9	8.2	8.7	10.6	9.1	7.4	3.6
General government budget balance	0.1	-2.7	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	-1.7	0.1
Current account	2.0	5.8	5.9	6.0	7.3	7.2	7.5	6.8	5.8	3.6
Net asset position	-17.5	14.0	28.5	37.5	39.2	45.4	51.4	56.4	59.9	65.1

Source: Statistics Denmark and own calculations.

Appendix 1. Key figures for the Danish economy 2010-2020

Tabel 2.a
Key figures for the Danish economy 2010-2020

	Short-term forecast ¹⁾				Medium-term scenario	
	2012	2013	2014	2015	Recovery 2016-2019 ²⁾	Potential growth 2020 ³⁾
Output gap and real growth rates (per cent)						
Output gap (per cent of GVA)	-2.7	-2.9	-2.4	-2.0	-0.8 ⁴⁾	0.0
GVA	-0.2	0.4	1.6	1.8	2.3	1.7
GDP	-0.4	0.4	1.6	1.9	2.4	1.7
Demand, real growth, per cent						
Private consumption	-0.1	0.0	1.3	1.6	2.5	2.2
Public consumption	0.4	0.8	1.5	0.6	0.7	0.6
Gross fixed capital formation	0.8	0.7	2.6	3.2	5.5	5.2
Change in inventories (per cent of GDP)	-0.3	0.2	0.0	0.0	0.1	0.1
Export	0.4	1.2	3.7	4.7	5.6	4.3
Import	0.9	1.7	3.9	4.5	6.4	5.7
Labour market and productivity						
Growth in labour force (per cent)	0.1	0.2	0.5	0.3	1.1	0.5
Growth in employment (per cent)	-0.3	0.2	0.6	0.6	1.2	0.6
Structural gross unemployment (per cent of labour force)	4.2	3.8	3.6	3.4	3.5 ⁴⁾	3.6
Registered (net) unemployment	5.7	5.4	5.1	4.8	4.0 ⁴⁾	3.6
Hourly productivity, entire economy	0.2	0.7	0.9	1.1	1.5	1.0
Growth in GVA per employed	0.0	0.2	1.0	1.2	1.5	1.1

1) The forecast for 2014-15 is based on the forecast in the Economic Survey, December 2013, in which technical adjustments of levels on account of the national accounts for 2013 have been incorporated.

2) Growth in 2016-19 is including the cyclical normalization.

3) From 2020 and onwards, GDP growth is expected to follow the historical trend.

4) Average in the period.

Source: Statistics Denmark and own calculations.

3. Public balance and debt to 2020

The actual public deficit is brought below 3 per cent of GDP in 2013 and is not expected to exceed 3 per cent in 2014 and 2015. Public finances are improved by 1½ per cent of GDP in structural terms in the period 2011-2013. Denmark is thus expected to meet the requirements of the EU recommendations. Economic policy in 2014-2015 is planned within the framework of the Budget Law. Fiscal policy is in compliance with the framework of the Budget Law and the rules of the Stability and Growth Pact in the years from 2016 to 2020. Also, fiscal policy implies that Denmark's Medium Term Objective (MTO) for public finances under the Stability and Growth Pact of -0.5 per cent of GDP is fulfilled. In 2020, public revenues and expenditures are expected to balance in structural terms. The public EMU debt is projected to 38¾ per cent of GDP in 2020 ensuring a broad safety margin to the requirement of the Stability and Growth Pact.

3.1 The public balance

The preliminary accounts show a public deficit in 2013 of DKK 17.2 billion, corresponding to 0.9 per cent of GDP. On EDP-basis, the public deficit was 0.8 per cent of GDP in 2013, *cf. box 3.1.*

Thus, the public deficit in 2013 was approximately DKK 14¼ billion larger than estimated in *Economic Survey*, December 2013. This is primarily due to lower revenues from the pension yield tax, which turned out to be DKK 22 billion lower than expected, while the revenue from personal taxes was about DKK 6¾ billion higher than expected, *cf. table 3.1.* In general, the revenue from the pension yield tax fluctuates substantially from one year to the other and there are often large deviations between expected and actual revenues. The structural balance is not affected by the lower revenues from the pension yield tax.

The estimated development in public finances in 2014 and 2015 are based on *Economic Survey*, December 2013, which is technically updated based on the new national accounts for 2013 and Statistic Denmark's budget statistics for 2014 etc. The medium-term scenario towards 2020 is based on a technical projection and adopted policy, *cf. chapter 2.*

The public deficit is expected to amount to DKK 27.2 billion in 2014, corresponding to 1.4 per cent of GDP, and in 2015 the deficit is estimated to DKK 59.4 billion, corresponding to 3.0 per

cent of GDP. On EDP-basis, the public deficit is estimated to respectively 1.3 per cent of GDP in 2014 and 2.9 per cent of GDP in 2015. The actual public deficits are estimated gradually to be reduced from 2015 and towards 2020 as the business cycles normalize.

Thus, Denmark is expected to comply with the main requirement of the EU recommendation of bringing the actual public deficit sustainably below 3 per cent of GDP by 2013.

Box 3.1

Public balance and debt reporting under EDP

Denmark reports the general government deficit and the public gross debt to the European Commission under the Excessive Deficit Procedure (EDP). The public balance on EDP-basis differs from the balance based on the Danish national accounts. The public balance on EDP-basis includes net interest income from central government interest rate and currency swaps. The EDP-corrections have only marginal effects on the general government balance, *cf. table*. The corrections have historically been in the order +/- 0.1 or 0.2 per cent of GDP.

Per cent of GDP	2010	2011	2012	2013	2014	2015
Public balance (EDP-basis)	-2.5	-1.9	-3.8	-0.8	-1.3	-2.9
Public balance (National Account basis)	-2.7	-2.0	-3.9	-0.9	-1.4	-3.0

Note: The public balance in 2012 is affected by the 2012 on-off reimbursement of the early retirement contribution which is estimated to weaken the public finances with approximately 1½ per cent of GDP. In 2013-2015 the structural balance is affected by a number of temporary revenue measures, including one-off revenues in 2013 and 2014 regarding the restructuring of capital pensions.

Source: Statistics Denmark and own calculations.

The public balance in 2013 and 2014 is affected by the restructuring of capital pensions, *cf. appendix 1*. The special discount scheme attached to the restructuring of existing capital pensions implies one-off revenues of DKK 28½ billion and DKK 30 billion in respectively 2013 and 2014. Excluding the expected on-off revenues, the public deficit would be around 1.5 per cent of GDP higher in both years.

Compared to the forecast in *Economic Survey*, December 2013, a number of adjustments affect public finances in 2014 and 2015. The public deficit is increased by approximately DKK 4½ billion in 2014 and approximately DKK 1¾ billion in 2015, *cf. table 3.1*. The two primary reasons for this is a downward adjustment of the estimated revenue from the pension yield tax due to the developments in the financial markets, and a downward adjustment of the estimated VAT-revenues. Public consumption is unchanged compared to the projection in December, while public investment has been revised upwards by DKK 0.8 billion in 2014 in line with a higher level of investment in Statistic Denmark's budget statistics.

Table 3.1
Public balance 2013-2015 and changes since the December Economic Survey

DKK Billion	2013	2014	2015
Public balance in Economic Survey, December 2013	-3.0	-22.8	-57.6
- new estimate for pension yield tax	-22.0	-2.8	-2.0
- VAT	-2.8	-2.9	-3.0
- personal taxes and labour market contributions	3.3	2.0	1.9
- restructuring of capital pensions	3.5	0.0	0.0
- public investments	-0.9	-0.8	0.0
- subsidies	2.5	0.6	0.9
- income transfers	0.5	-0.7	-0.4
- other elements	1.8	0.2	0.7
Public balance in CP2014	-17.2	-27.2	-59.4
CP2014 (per cent of GDP)	-0.9	-1.4	-3.0
Economic Survey, December 2013 (per cent of GDP)	-0.2	-1.2	-2.9
Public balance (EDP-form)	-0.8	-1.3	-2.9

Source: Statistics Denmark and own calculations.

3.2 Structural budget balance and fiscal consolidation

The structural budget balance is estimated to -1.7 per cent of GDP in 2010 and -0.1 per cent of GDP in 2013. Thus, the structural balance is improved by just above 1½ per cent of GDP in 2011-13 in accordance with the requirement in the EU-recommendation, *cf. below*. Since the actual public deficits are expected to be brought sustainably below 3 per cent of GDP by 2013, Denmark is projected to meet the requirements of the EU-recommendation.

The structural budget balance is a better measure of the underlying development of public finances than the actual balance, since the structural budget balance is corrected for the impact of business cycles and other extraordinary or temporary factors affecting public finances, including developments in the financial markets and oil prices.

Fiscal policy etc. contributes to the structural improvement of the public finances by approximately 2.2 per cent of GDP in the period 2011-2013 measured by the so-called "bottom up" approach which measures the direct impact on the public revenues and expenditures from fiscal policy etc., *cf. table 3.2*. The consolidation of public finances primarily has to be seen in the context of the gradual implementation of financing elements in the *Spring Package 2.0*, the measures in the Fiscal Consolidation agreement and the Budget Bill for 2012, *cf. The National Reform Programme, chapter 3*.

Based on the direct budgetary impact, the contribution from fiscal policy in 2011-2013 is approximately 2.7 per cent of GDP (while the impact on the structural balance, however, can be reduced due to derived impacts on taxes and duties). However, several structural factors weaken public finances by approximately 0.4 per cent of GDP towards 2013, which is primarily due to a structural decline in North Sea revenues in 2011-12 and moderate underlying productivity growth. Thus, public finances are improved net by approximately 2.2 per cent of GDP from 2010 to 2013 based on the “bottom-up” approach, *cf. table 3.2*.

The “top-down”-assessment is based on the estimate for actual public balance adjusted for temporary elements, including the cyclical adjustment. According to this assessment, the structural balance improves by about 1½ per cent of GDP from 2010 to 2013, *cf. table 3.2*.

Table 3.2
Fiscal policy measures to comply with the EU-recommendation

Per cent of GDP	2011	2012	2013	2011-13
Consolidation total (direct budget impact)	1.1	0.5	1.2	2.7
- moderate public consumption growth	0.8	0.0	0.4	1.2
- public investments	-0.1	-0.1	0.1	-1.0
- income transfers (including cash benefit reform) ¹⁾	0.1	0.1	0.1	0.3
- financing measures in Spring Package 2.0	0.1	0.0	0.2	0.4
- financing measures in Fiscal Consolidation Agreement	0.3	0.1	0.1	0.5
- financing measures in Budget Bill for 2012		0.2	0.1	0.4
- other elements	-0.1	0.1	0.1	0.1
Structural factors affecting public finances	0.0	-0.4	0.0	-0.4
Underlying change in fiscal balance (bottom-up)	1.1	0.0	1.1	2.2
Change in structural balance (top-down)	0.8	0.1	0.7	1.6

Note: The calculation of the direct budgetary impact of public finances is, among other things, based on an assumption of productivity growth of 1¼ per cent per year in the non-agricultural industries in the zero-points for a neutral fiscal policy. If the structural productivity growth in 2011-2013 is used for the zero-points, the total fiscal consolidation in 2011-2013 corresponds to approximately 2 per cent of GDP. The calculation of the zero-points is based on an increase in net prices of 1.8 per cent yearly, corresponding to the assumptions in the medium-term projection. In “structural factors” is, among other things, included a structural decrease in the North Sea revenues by 0.3 per cent of GDP.

1) The budget impact from taxable income transfers is net of the derived impact on taxes.

Source: Own calculations.

In 2014, the structural deficit is estimated to 0.6 per cent of GDP, and in 2015 the deficit is expected to amount to 0.4 per cent of GDP, *cf. table 3.3*. Fiscal policy is planned within the framework of the Budget Law, including the limit for structural deficits of ½ per cent of GDP. The limit for structural deficits is aimed at the estimated structural deficit based on the budget proposal for a given fiscal year. The structural deficit in 2014 was estimated to be in line with

the framework of the Budget Law both at the time of the budget proposal for 2014 and when an agreement on the budget for 2014 was reached. The small adjustment of the estimate for 2014 on the current basis should be seen in light of the uncertainty associated with the estimation of the structural balance, and is not due to changes in fiscal policy, *cf. box 3.2*.

Box 3.2

Uncertainty associated with the estimates of the structural balance

The structural balance is an estimated measure of the underlying balance of public finances and is thus a central measure in the planning of fiscal policy. The structural balance is calculated as the actual government budget balance adjusted for the estimated cyclical impact on public finances and the impact from other temporary factors affecting public finances. Thus, while still present - the uncertainty associated with the estimates of the structural balance is considerably smaller than the uncertainty associated with estimates for the actual balance.

Table a shows the estimated structural balance after a budget agreement for the year in question has been reached and the estimated structural deficits in *Convergence Programme Denmark 2014*. The revision of the estimates reflects the uncertainty associated with the figures for the actual balance as long as accounting figures are not yet available for public expenditures and revenues for the year in question. Changes to economic policy for a given year are limited after a budget bill has been adopted.

The typical deviation of the estimated structural balance is 0.1 per cent of GDP. The revisions of the estimates have been both positive and negative from 2010-2014. In 2011 the positive revision of the estimated structural deficit is somewhat larger than the revision for the other years. This should, *i.a.*, be seen in light of public consumption expenditures in 2011 which based on accounting figures turned out to be considerably more moderate than the budgeted level. Estimates of the structural balance have the budgeted level of public expenditures as a starting point until accounting figures are available. Likewise, estimates of public revenues are associated with uncertainty.

Table a

Revisions of the estimates of the structural balance in 2010-2014

	2010	2011	2012	2013	2014
Per cent of GDP					
Estimate at the time of the Budget for year in question ¹⁾	-1.6	-1.3	-0.9	-0.1	-0.5
Latest estimate (Denmark's Convergence Programme 2014) ²⁾	-1.7	-0.9	-0.8	-0.1	-0.6
Revision³⁾	-0.1	0.4	0.1	0.0	-0.1

1) Represents the estimated structural balance for a given fiscal year in the first economic survey following the budget agreement. As an example does Economic Survey, *December 2009* include an estimate of the structural deficit in 2010 based on the Budget for 2010.

2) The estimated structural deficit in 2014 is contrary to the estimated deficits in 2010-2013 not yet based on accounting figures for the actual balance.

3) Positive figures indicate an improvement of the estimated balance. Negative figures indicate a weakening of the estimated balance.

Source: Economic Surveys from 2009-2013 and own calculations.

The actual public deficit is gradually reduced from 2015 and towards 2020 as the business cycle is normalized. In 2020, public finances are expected to be at balance. The projected actual deficits are larger than the calculated structural deficit throughout the period reflecting that cyclical conditions are assumed to be fully normalized around 2019, *cf. chapter 2*. The lower employment and production towards 2019 (compared to a neutral cyclical year) thus contribute to a weaker public balance compared to a neutral cyclical impact. In 2020, the projected development is structural, and the actual budget balance is equal to the structural balance, *cf. table 3.3*.

Table 3.3
Structural budget balance

Per cent of GDP	2010	2011	2012	2013	2014	2015	2016	2017	2020
1. Public balance	-2.7	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	-1.6	0.1
2. Cyclical adjustment	-1.2	-1.5	-2.0	-2.1	-1.9	-1.6	-1.2	-0.8	-
3. Special adjustments in total	0.2	0.3	-1.1	1.3	1.1	-1.0	-0.8	-0.6	-
- corporate tax	-0.3	-0.5	-0.3	0.1	0.1	0.1	0.0	0.0	-
- vehicle registration tax	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.1	-
- pension yield tax	1.1	1.1	1.3	-0.1	-0.1	-0.3	-0.3	-0.4	-
- net interest payments	-0.1	-0.1	0.0	0.2	-0.1	-0.1	0.0	0.0	-
- North Sea revenues	-0.1	0.2	0.2	-0.2	-0.3	-0.3	0.0	0.0	-
- Others	0.0	0.0	-1.9	1.7	1.7	-0.1	-0.2	-0.1	-
4. Structural balance (1.-2.-3.)	-1.7	-0.9	-0.8	-0.1	-0.6	-0.4	-0.3	-0.2	0,1
Memorandum items									
Weighted cyclical gap	-1.6	-2.0	-2.7	-2.8	-2.6	-2.2	-1.6	-1.1	0,0

Source: Statistics Denmark and own calculations.

In 2016-20 the deficit on the actual balance is lower than the 3 per cent threshold in EU's Stability and Growth Pact, and the yearly structural deficit is estimated to be between 0 and -½ per cent of GDP. The structural balance is thus expected to be approximately balanced through the period since the annual structural deficit is within the limits of Denmark's medium-term objective for public finances (MTO) on -½ per cent of GDP. The assumed fiscal policy is thus in compliance with the framework of the Budget law and the rules in the Fiscal Compact.

3.3 Public expenditures and revenues

Public expenditures and revenues will be balanced in 2020. Throughout the years towards 2020 actual public expenditures are assumed to exceed public revenues, but with the contin-

ued normalisation of the cyclical conditions public expenditures are reduced relative to the revenues.

3.3.1 Public expenditures

Public expenditures measured as a share of GDP are reduced from about 56 per cent of GDP in 2013 to about 54¾ per cent of GDP in 2015, *cf. table 3.4*. The reduction reflects a decrease in primary public expenditures by approximately 1 per cent of GDP, while public interest payments are estimated to decrease by 0.3 per cent as a result of a drop in average return on the outstanding debt. The relatively high level of public expenditure in 2012 reflects the repayment of contributions to the early retirement scheme as a part of the retirement reform.

Table 3.4
Public expenditures

Per cent of GDP	ESA	2011	2012	2013	2014	2015	2016	2017	2020
Public expenditure		56.4	58.1	56.0	55.7	54.7	53.9	53.1	51.0
- Primary expenditures		54.2	56.1	54.1	54.1	53.2	52.5	51.6	49.4
- Public consumption	P3	28.4	28.5	28.2	28.1	27.9	27.6	27.3	26.5
- Public investments		2.2	2.4	2.3	2.3	2.1	2.0	2.0	2.0
- Income transfers	D62	17.4	17.7	17.6	17.7	17.5	17.1	16.8	15.6
- Subsidies	D3	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.3
- Other primary expenditures		3.6	5.0	3.3	3.3	3.2	3.3	3.1	3.0
- Interest expenditures	D41	2.2	2.0	1.8	1.6	1.5	1.4	1.5	1.6

Note: Public expenditures in 2012 are affected by the one-off repayment of contributions to early retirement of approximately 1½ per cent of GDP.

Source: Statistics Denmark and own calculations.

Towards 2020, public expenditures are assumed to decrease to about 51 per cent of GDP in 2020. The reduction is partly due to the cyclical normalization which increases GDP and reduces unemployment transfers etc., and partly due to agreed reforms, including the early retirement reform that reduces the expenditures for early retirement and increases labour supply and GDP. Public consumption as a share of GDP is also reduced towards 2020, which reflects the cyclical normalization as well as the assumed real growth in consumption expenditures, *cf. below*.

Public income transfers

Expenditures for public income transfers are expected to gradually decrease from approximately 17½ per cent of GDP in 2013 to just above 15½ per cent of GDP in 2020. The reduction is, among other things, due to the assumed normalization of the cyclical position. The increase in age limit for early retirement and state pensions in the retirement reform as well as other reforms, including the adjusted regulation of public income transfers according to the tax agreement from 2012, also contribute to the reduction of income transfers. In addition, the reforms of disability pensions and the flexi-job scheme from June 2012 and the reforms of the

cash benefit system and the state education grant system in the agreements on *Growth Plan DK* also contribute to reduce income transfers towards 2020.

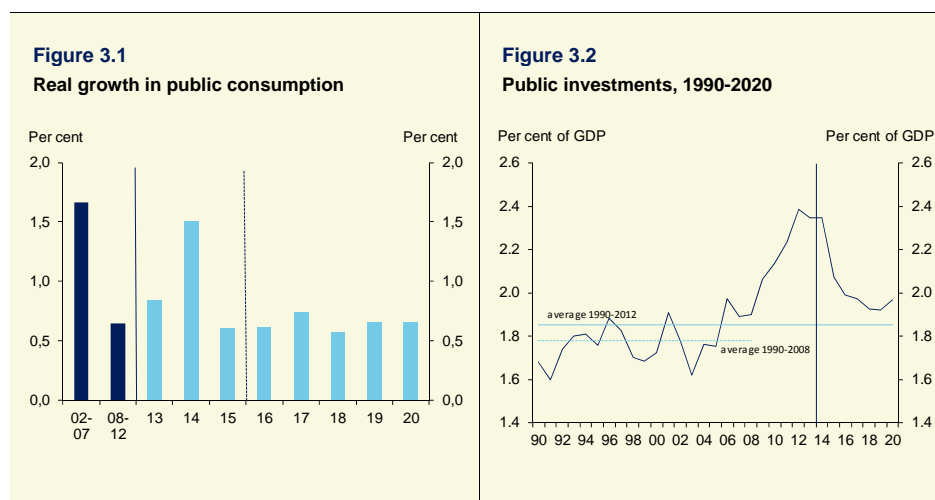
In total, the number of benefit recipients will increase towards 2020. This is a result of meeting the targets for education and the demographic development which implies more recipients of student grants and more retired persons. However, at the same time there will be less recipients of early retirement, unemployment benefits and cash assistance.

Assumptions on public consumption

Real growth in public consumption was 0.8 per cent in 2013. In 2014, the real growth in public consumption is estimated to 1.5 per cent and in 2015 to 0.6 per cent. This is based on the assumption that public consumption expenditures in 2014 equal the budgets.

Growth in public consumption is assumed to be moderate in the coming years. In the medium term projection, the annual real growth in public consumption is assumed to be 0.6 per cent per year in the period 2015-2020 and about $\frac{3}{4}$ per cent annual in 2014-2020, *cf. figure 3.1*. The average real growth rate in 2014-2020 is thus slightly higher than in CP13 (where it was 0.6 per cent annual). This reflects lower public consumption expenditures in 2013 according to the preliminary national account figures from Statistics Denmark (which increase the growth rate in 2014).

As a result, public consumption can grow with a total of DKK 19½ billion (2014-prices) from 2015 to 2020 which corresponds to about 3 billion a year.¹



Source: Statistics Denmark and own calculations.

¹ The increase in public consumption is estimated without depreciations which are a calculated figure in addition to the direct public consumption expenditures for wages, purchased goods etc.

The assumed growth in public consumption allows for real resources per user to grow with about 0.4 per cent annual during 2014-2020 since demographics draw on the public consumption by about 0.35 per cent annually. The ongoing modernization of the public sector and the efforts to make the public sector more efficient will allow for a greater improvement in the quality of public service than the real growth rate imply, *cf. chapter 6*.

The projection implies that public consumption expenditure decrease to about 26½ per cent of GDP in 2020. This corresponds to the historical average for the period 1990-2012.

Assumptions on public investments

Public investments reached a historically high level in 2012 with 2.4 per cent of GDP as a result of the moving forward and initiating of investments to support growth and employment during the economic downturn. In 2013, the investments were approximately 2.3 per cent of GDP which is also a high level by historical standards.

Following the extraordinarily high levels of public investments in share of GDP in recent years, a continued relatively high level of investment at about 2 per cent of GDP is planned from 2015 to 2020. This is a higher level than the average during the period 1990-2008 of approximately 1.8 per cent of GDP, *cf. figure 3.2*.

The medium term projection for public investments reflect among other things *Growth Plan DK* which implies an extra increase in public investments of DKK 2 billion in 2014, increasing to DKK 4 billion in 2020 compared to the previously planned level. The projection towards 2020 reflects among other things the implementation of already planned large investment projects in hospitals and infrastructure.

Besides public investment projects, considerable investments are being made in public enterprises and companies that will appear in the national account as private investments, including the Metro City ring and the Fehmarnbelt connection etc.

Composition of public expenditures by function

The functional distribution of public expenditures shows that social protection by far is the largest expenditure function with approximately 25 per cent of GDP, *cf. table 3.5*. The expenditures for social protection cover among other things the majority of income transfers (state pension, disability pension, unemployment benefit, cash assistance etc.) as well as operating expenditures for day care, social institutions and nursing homes. Composing about 8 per cent of GDP each, health care and education are the second largest expenditure functions.

Table 3.5
Distribution of public expenditures by function, 2010-2014

	2010	2011	2012	2013	2014 ¹⁾
Per cent of GDP					
General public services	7.7	8.1	9.1	7.3	6.8
Military defence	1.4	1.4	1.5	1.4	1.4
Public order and safety	1.1	1.1	1.1	1.1	1.2
Economic affairs	3.3	3.5	3.6	3.4	3.5
Environment protection	0.4	0.4	0.4	0.4	0.4
Housing and community amenities	0.4	0.3	0.4	0.4	0.4
Health	8.3	8.2	8.5	8.4	8.3
Recreation, culture and religion	1.6	1.6	1.7	1.6	1.6
Education	7.9	7.7	7.8	7.8	7.8
Social protection	25.2	25.2	25.2	25.1	24.8
Public expenditures in total²⁾	57.5	57.5	59.2	56.9	56.4

Note: As part of the expenditures for general public services is the repayment in 2012 of the contributions to early retirement. 2010-2012 reflects national account figures, 2013 is based on preliminary national account figures and 2014 reflects budgetary figures.

- 1) Statistics Denmark's budget statistics for 2014 and the government's latest estimate for GDP in 2014 in CP14.
- 2) The estimate of total public consumption as a share of GDP by Statistics Denmark differs from the statement in table 3.4 due to differences in definitions and methods used (in table 3.4. is included depreciations and sales of goods of public consumption, which is not the case in Statistics Denmark's statement).

Source: Statistics Denmark and own estimates and calculations.

The medium term projections for the Danish economy do not include a distribution of expenditures by function (COFOG). The projection includes estimated developments in real economy sub-components, i.e. public consumption expenditures, income transfers and public investments *cf. above*.

The Government's target within the areas of education and research implies that more public resources are prioritised to these areas towards 2020. The targets are described in further detail in the *National Reform Programme, chapter 4*. Meeting the education targets will furthermore reduce labour supply in the short run due to an increased number of students which will affect public finances. However, the reform of student grants reduces expenditures on education towards 2020 through an increasingly well-functioning and efficient system for student grants.

The increasing number of elderly due to the demographic development increases pressure on expenditures to health, elderly care and state pensions etc. towards 2020. As a result of fewer pupils, the expenditure pressure related to elementary schools will on the contrary decrease.

3.3.2 Public revenues

Public revenues are reduced from about 54¼ per cent of GDP in 2012 to about 51¼ per cent of GDP in 2015, *cf. table 3.6*. This primarily reflects a gradual normalisation of the revenues from the pension yield tax following the unusual high level in 2012.

The tax burden increases temporarily in 2013 and 2014 primarily due to an increase in personal taxes as a result of on-off revenues from restructuring of capital pension schemes. The decrease in the tax burden from 2014 to 2015 thus to a great extent reflects the disappearing of these on-off revenues. In addition there is lower revenue from taxes on received capital pensions afterwards, due to the restructuring of the capital pension schemes to a new retirement pension.

Table 3.6
Public revenues

Per cent of GDP	ESA	2011	2012	2013	2014	2015	2016	2017	2020
Public revenues		54.3	54.2	55.1	54.3	51.7	51.7	51.5	51.1
- Taxes and duties (tax burden)		47.9	48.4	49.6	49.3	46.8	46.9	46.6	46.3
- Personal income taxes etc. ¹⁾		20.5	20.7	23.2	23.0	21.0	21.0	20.8	20.1
- of which property value tax		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
- Labour market contributions		4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.4
- Pension yield tax		2.1	2.4	1.0	1.1	0.8	0.8	0.7	1.0
- Corporate taxes		2.8	3.0	3.3	3.2	3.0	3.0	2.9	2.9
- VAT		9.9	10.0	9.8	9.8	9.8	9.8	9.8	9.9
- Property tax (land tax etc.)		1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.6
- Excise duties etc.		5.6	5.5	5.6	5.5	5.5	5.6	5.6	5.7
- Social contributions		1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8
- Interest income	D41	1.6	1.6	1.5	1.1	1.0	1.0	1.0	1.1
- Other income		4.8	4.3	3.9	3.9	3.9	3.8	3.8	3.6

1) Personal taxes cover withholding taxes (including property value tax), motor vehicle fees paid by households, inheritance tax and other personal taxes. In 2013 and 2014 the revenue from the restructuring of the pension schemes are included.

Source: Statistics Denmark and own calculations.

Towards 2020, the total public revenues are expected to decrease further to 51.1 per cent of GDP. This is mainly due to a reduction in personal taxes as a share of GDP of approximately 1 per cent of GDP from 2015 to 2020.

The decreasing tax burden towards 2020 should among other things be seen in the context of the agreed tax measures in *Agreements on Growth Plan DK* and other implemented reforms. The reduction in revenues from corporate tax is related to the gradual decrease of corporate tax from 25 per cent in 2013 to 22 per cent in 2016. A gradual normalization of interest rates towards 2020 furthermore contributes to increased interest deduction which in

isolation reduces the tax revenues. In 2020, the tax burden is expected to be almost 46½ per cent of GDP which is approximately 2¼ percentage points below the average tax burden in the period 1990-2012.

3.4 Net lending by subsectors

The central government deficit is reduced to about 0.9 per cent of GDP in 2013, *cf. table 3.7*. The deficit is expected to grow to about 3.0 per cent of GDP in 2015 and subsequently decrease towards 2020 as reforms and the normalisation of cyclical conditions take effect. In 2020, the central government finances are assumed to be in balance with a small surplus.

Table 3.7
Public finances by sub sectors

Per cent of GDP	2011	2012	2013	2014	2015	2016	2017	2020
Central government	-2.1	-3.9	-0.9	-1.4	-3.0	-2.3	-1.6	0.1
Local government	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Social funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Statistics Denmark and own calculations.

The budget balance in municipalities and regions are technically assumed to be balanced during the entire projection period, *cf. table 3.7*. The budget balance in the municipalities should in general be balanced, but by national account measures the municipal balance may show a small surplus or deficit in individual years. The budget balance of the social funds are balanced during the entire projection as well.

3.5 Public debt

The EMU debt, which is the government gross public debt, has been reduced since 2011 and is expected to be just above 43 per cent of GDP in 2014, *cf. table 3.8*. The decrease in EMU debt, even though the public deficits, reflects that the deposit on the central governments account in Danmarks Nationalbank is expected to decrease with approximately DKK 80 billion in the same period. The EMU debt increases temporarily in 2015, after which it decreases considerably towards 2020 where it is assumed to be about 38¾ per cent of GDP. This ensures a broad safety margin to the requirements in the EU's Stability and Growth Pact which imply that gross debt should not exceed 60 per cent of GDP. The decrease in debt ratio towards 2020 is, however, also a result of the expected increase in nominal GDP in the same period.

Overall, EMU debt is expected to be reduced by about 7.5 per cent of GDP from 2011 to 2020, *cf. table 3.8*. The reduction is primarily due to the growth in nominal GDP which in iso-

lation reduces the EMU debt by about 13 per cent of GDP. Financial conditions etc. also contribute to the reduced debt. The continued development in the primary balance of the central government and the municipalities, however, contributes overall to an increase in the EMU debt by approximately 10,6 per cent of GDP from 2011 to 2020, whereas the net interest balance of central government and the municipalities contributes to an increase in the debt by 4,1 per cent of GDP.

Table 3.8
General government gross debt (EMU debt) and net public debt

Per cent of GDP	2011	2012	2013	2014	2015	2016	2017	2020	11-20
EMU debt (end-year-level)	46.4	45.4	44.5	43.2	44.3	43.8	43.0	38.8	-
Change in EMU debt ratio		-1.0	-0.9	-1.3	1.1	-0.5	-0.8	-0.6	-7.5
Contribution to change in EMU debt ratio:									
- Primary budget balance		3.5	0.6	0.9	2.5	1.8	1.2	-0.6	10.6
- Net interest payments		0.5	0.3	0.5	0.5	0.4	0.4	0.5	4.1
- Nominal GDP growth		-0.9	-0.8	-1.3	-1.5	-1.6	-1.8	-1.5	-13.0
- Financial contributions. ¹		-4.1	-1.0	-1.5	-0.3	-1.1	-0.7	1.0	-9.3
Net public debt ²	2.6	7.5	5.9	7.2	9.9	11.7	12.7	12.4	-
Net debt of central and local government ²	2.6	7.5	5.8	7.1	9.9	11.6	12.7	12.3	-

Note: The sum of the contributions to change in EMU debt ratio does not necessary precisely reflect the overall change in EMU debt ratio due to rounding.

- 1) Financial contributions etc. reflect e.g. the Social Pension Fund's stock of government bonds which is deducted in the EMU debt. To this is added the effect on the EMU-debt of the restructuring of government assets and liabilities (privatisation etc.), payment changes in the tax area, issuance price losses, relending to state guaranteed entities etc.
- 2) The period 2014-2020 is technically projected based on the development of the general government budget balance etc. and the development of the budget balance of central and local governments.

Source: ADAM, Statistics Denmark and own calculations.

Net public debt, which in contrast to the EMU debt includes the public sector's financial assets, is projected to increase from about 7½ per cent of GDP in 2012 to 13 per cent of GDP in 2018. This is a result of recent years' public deficit and debt accumulation. In 2020, the net debt is expected to decrease as the nominal net debt is growing at a slower pace than GDP (measured in current prices). Net public debt is expected to amount to 12.4 per cent of GDP in 2020.

It is mainly the net public debt, and not the EMU debt, which is relevant for the public sector's financial position and fiscal sustainability.

Annex 1. Discretionary on-off measures in 2013 and 2014

Discretionary on-off measures etc. are estimated to increase the public balance by DKK 28.5 billion in 2013 as a result of the restructuring of capital pension schemes, *cf. table 3.9*. In 2014 the public balance is expected to increase by DKK 30.0 billion also as a result of the restructuring of the capital pension schemes.

Table 3.9
Discretionary on-off measures in 2013 and 2014

Billion DKK	2013	2014
Public balance		
Restructuring of pension schemes	28.5	30.0

Source: Own calculations.

4. Sensitivity Analysis and Comparison with CP13

The international economy has strengthened in the past year, and the balance of risks has become more neutral. Risks regarding the Danish growth outlook especially relate to the developments in the euro area. A faster recovery of the European economy than projected in this convergence programme will lead to stronger employment and public finances. Conversely, there is also a risk that the European recovery may stall again, which would put public finances under pressure in the coming years.

The assumptions concerning the international economy and financial developments in this convergence programme are quite close to the external assumptions of the European Commission. If the assumptions of the European Commission are used in the projections, the growth in the Danish economy would be marginally higher, while public finances would be roughly unchanged. Public finances would still be within the framework set out by the Budget Law and the general rules of the Stability and Growth Pact.

4.1 Sensitivity analyses

The Danish Economy is very sensitive to foreign developments. Higher growth in the international economy will in itself increase exports, but may also influence the expectations of businesses and consumers and lead to higher growth in private investment and consumption. Below several scenarios are presented which illustrate the sensitivity of the Danish economy to altered assumptions regarding growth in the international economy and other factors, in view of the requirements laid out by the *Code of Conduct* for the Stability and Convergence Programmes of EU-member states. The sensitivity is illustrated comparing the projections in the convergence programme (CP14) with projections based on the external assumptions of the European Commission for 2014 and 2015 as well as projections based on respectively a more positive and negative scenario.

4.1.1 Scenario with the external assumptions of the European Commission

As an alternate scenario to the assumptions of CP14 a projection has been made based on the European Commissions' external assumptions from the Winter Forecast from February 2014, *cf. table 4.1*. The assumptions regarding export market growth are fully in line with the European Commission Forecast. With respect to interest rates, the sets of assumptions are

close, although the European Commission assumes a somewhat lower long-term interest rate, especially in 2015. Finally, the European Commission projects a noticeably lower price of oil in 2014 and 2015.

The alternative scenario based on the external assumptions of the European Commission leads to approximately similar projection for GDP growth in 2014 and a somewhat higher projection for GDP growth in 2015 than CP14, *cf. table. 4.2*. The higher level of Danish growth in 2015 is related to the more favorable effect on domestic demand from lower long-term interest rates and, partly, also the lower price of oil.

The lower price of oil assumed by the European, compared with CP14, would lead to lower revenues from the activities in the North Sea – which to a high degree are influenced by changes to production and oil-prices – and would in isolation lower the government budget balance. Conversely, a higher level of economic activity and higher revenues from the taxation on the returns to pension funds due to more favorable asset prices as a result of lower interest rates would pull in the other direction. Overall the government budget balance would be unchanged in the alternative scenario.

Table 4.1

External assumptions

	2013	2014		2015	
		CP14	EU	CP14	EU
Export-market growth ¹⁾	2.5	5.5	5.6	6.5	6.5
Price of crude oil, USD per barrel	109.9	108.2	104.1	113.4	99.6
Short-term interest rate, percentage points ²⁾	0.2	0.2	0.3	0.5	0.4
Long-term interest rate, percentagepoints ²⁾	1.6	2.0	1.8	2.5	2.1

Note: 1) Export-market growth for industrial goods, percentage real growth. 2) Besides the change to the European short-term and long-term interest rates, which the table refers to, the level of the corresponding Danish interest rates have been altered, so that the spread in interest rates vis-à-vis the euro area is unchanged relative to the assumptions in *Economic Survey*, December 2013. Moreover, the average Danish interest rate on bonds is recalculated with the same weights as in the December *Economic Survey*, using the revised Danish interest rates.

Source: *Economic Survey*, December 2013 and the European Commission *Winter Forecasts 2013-15*.

Table 4.2
Alternative scenarios

	2013	2014	2015
Convergence Programme 2014			
GDP growth	0.4	1.6	1.9
Unemployment, per cent of the workforce	5.4	5.1	4.8
Public balance, per cent of GDP	-0.9	-1.4	-3.0
Gross debt (EMU definition), per cent of GDP	44.5	43.2	44.3
Alternative scenario based on the external assumptions of the European Commission			
GDP growth	0.4	1.7	2.1
Unemployment, per cent of the workforce	5.4	5.1	4.7
Public balance, per cent of GDP	-0.9	-1.3	-2.7
Gross debt (EMU definition), per cent of GDP	44.5	43.0	43.8

Note: The table shows the effect on registered gross unemployment.
Source: Own calculations in ADAM.

4.1.2 A positive and negative scenario for the outlook

The assumed improvement in the Danish economy in CP14 is closely connected to the recovery in the euro area, where the return in confidence is well-underway, and the generally broad-based recovery in the global economy.

External growth may be stronger than assumed with a possibility for more positive developments in the markets for Danish exports and for business investment. Conversely, weaker than expected global growth may weaken Danish exports. The confidence of consumers and businesses would thereby be weakened and growth in domestic demand lowered. The sensitivity to the altered assumptions is illustrated in two alternative scenarios.

- *A positive scenario*, where external developments increase Danish export-market growth by 1 percentage points in 2014 and 2015 compared with CP14. At the same time, Danish private investment increases by 2 percentage points in both years in order to accommodate an expected increase in demand. This corresponds to a slightly faster recovery in the investment rate towards historical levels than seen during previous business cycle recoveries.
- *A negative scenario*, where export-market growth is assumed to be 1 percentage points lower in 2014 and 2015, e.g. due to a slower-than-expected implementation of structural reforms in the euro area, that weakens confidence and expectations of progress and leads to lower growth. Growth in Danish private consumption is assumed to be ½ percentage points lower in both years and business investment low-

er by 1 percentage points in both years, corresponding to a slower recovery in the consumption and investment rate towards historical levels.

In the positive scenario, higher external growth and increased investment increases Danish GDP growth by ¼ percentage points in both 2014 and 2015. At the same time, unemployment will be lower and experience sharper falls during both years. The public balance improves due to higher revenues and lower expenditures because of higher activity.

In the negative scenario, GDP-growth in Denmark would decrease by about ¼ percentage points in both 2014 and 2015. At the same time, unemployment will be higher and the public balance deteriorates, *cf. table 4.3*. In this situation Denmark would continue to implement fiscal policy in accordance with the requirements of the Budget Law and the Stability and Growth Pact.

Table 4.3
Alternative scenarios

	2013	2014	2015
Convergence Programme 2014			
GDP growth	0.4	1.6	1.9
Unemployment, per cent of workforce	5.4	5.1	4.8
Public balance, per cent of GDP	-0.9	-1.4	-3.0
Gross debt (EMU definition), per cent of GDP	44.5	43.2	44.3
Positive scenario			
GDP growth	0.4	1.9	2.2
Unemployment, per cent of workforce	5.4	5.0	4.5
Public balance, per cent of GDP	-0.9	-1.3	-2.7
Gross debt (EMU definition), per cent of GDP	44.5	42.9	43.6
Negative scenario			
GDP growth	0.4	1.2	1.5
Unemployment, per cent of workforce	5.4	5.3	5.2
Public balance, per cent of GDP	-0.9	-1.6	-3.4
Gross debt (EMU definition), per cent of GDP	44.5	43.5	45.1

Note: The table shows the effect on registered gross unemployment.

Source: Calculations in ADAM.

4.2 Comparison with Convergence Programme 2013

The growth outlook for 2014 and 2015 is roughly the same as expected in CP13, but the underlying basis for progress has improved. Following several years of weak growth in the Danish economy, growth is expected to increase, in step with increasing growth in the international economy. Thus growth of around 1½ per cent in 2014 and almost 2 per cent in 2015 is projected, in line with CP13.

The expected duration of the recovery of the Danish economy is also in line with the assumptions in CP13, which also projected a gradual decline in the output gap – the difference between GDP and the computed potential level of GDP – towards 2019.

The public deficit in 2013 was slightly lower than projected in CP13 and a slightly lower deficit in 2014 is also projected. This should be seen in light of the fact, that the temporary revenues stemming from the taxation of conversion of *Capital Pensions* were higher than projected in 2013 and are projected to remain higher in 2014 than seen in CP13. In addition, the lower public deficit is due to higher revenues from corporate income taxes and lower public expenditures, including lower benefits. In 2015 the temporary revenues from the current window for converting *Capital Pensions* will cease, and as in CP13 the public deficit is projected to be close to 3 per cent of GDP.

All political agreements since CP13 was prepared have been adopted within the same framework for public finances as in CP13, *cf. also section 5.2*. Consequently, it does not lead to changes in the medium-term projections towards 2020. In both CP13 and CP14 there is balance on the public balance in 2020, *cf. table 4.4*.

The change in estimated gross debt (EMU-definition) compared to the KP13 is marginal, and in 2020 the debt is estimated to remain approx. 40 percent of GDP and by a good margin to 60 percent limit in the Stability and Growth Pact.

Table 4.4
Changes compared to Convergence Programme 2013

	2010	2011	2012	2013	2014	2015	2016	2020
Annual percentage change								
Real GDP growth								
CP13	1.6	1.1	-0.5	0.7	1.6	1.8	2.4	1.7
CP14	1.4	1.1	-0.4	0.4	1.6	1.9	2.1	1.7
Change	-0.2	0.0	0.1	-0.3	0.0	0.1	-0.3	0.0
Per cent of GDP								
Output gap (per cent of GVA)								
CP13	-1.7	-1.8	-2.8	-3.0	-2.5	-2.0	-1.4	0.0
CP14	-1.7	-1.8	-2.7	-2.8	-2.5	-2.0	-1.5	0.0
Change	0.0	0.0	0.1	0.2	0.0	0.0	-0.1	0.0
Public Balance¹⁾								
CP13	-2.7	-2.0	-4.1	-1.7	-1.8	-2.9	-2.0	0.0
CP14	-2.7	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	0.1
Change	0.0	0.0	0.2	0.8	0.4	-0.1	-0.3	0.1
Public EMU-debt								
CP13	42.7	46.4	45.7	44.0	42.4	43.5	43.8	40.3
CP14	42.7	46.4	45.4	44.5	43.2	44.3	43.8	38.8
Change	0.0	0.0	-0.3	0.5	0.8	0.8	0.0	-1.5

1) Including temporary revenues of from the conversion of Capital Pensions in 2013 and 2014.

Note.: Gross Public Debt – EMU-debt – was reduced from 46.4 per cent of GDP in 2011 to 45.7 per cent of GDP in 2012 and is projected to fall further towards 2014, due to the fact that the public deficit during those years to a large extent is expected to be financed by drawing on the balance of the Government with Danmarks Nationalbank.

Source: Own calculations.

5. Long Term Projection and Fiscal Sustainability

A long-term projection of the Danish economy shows that, overall, fiscal policy complies with the central medium-term targets for fiscal policy of at least structural balance by 2020, a sustainable fiscal policy, and that the public EMU debt maintains a safety margin to the requirements in the Stability and Growth Pact.

However, some challenges remain for fiscal policy in the period after 2020. The structural deficit is projected to remain within the limit in the Budget Law of $\frac{1}{2}$ per cent of GDP in the years towards 2030, but subsequently the structural deficit is projected to increase to approx. $1\frac{3}{4}$ per cent of GDP around 2045 as a result of the current retirement rules, demographic changes and declining oil and gas production in the North Sea. In the years hereafter public finances are set to improve gradually.

Economic policy in future medium-term plans will be designed to be in compliance with the Budget Law in the planning period. Thus, the increase in public deficits to above $\frac{1}{2}$ per cent of GDP from 2030 reflects the fact that projections for the years after 2020 are based on purely technical assumptions, and should not be seen as plans for a deficit in excess of the requirement in the Budget Law.

5.1 The development after 2020

Towards 2020, the projection in this Convergence Programme incorporates adopted policies and a gradual normalisation of the business cycle. After 2020 the projection is based on technical assumptions reflecting unchanged public expenditure so that expenditures per person (at a given age) grow in line with wages. For health care expenditures, however, a lower growth rate for each age group is incorporated to reflect better health and lower mortality (healthy ageing), *cf. box 5.1*. The projection includes a gradual increase in the retirement age in line with the rules for indexing the retirement age to life expectancy as stipulated in the 2006 Welfare Agreement and the 2011 Retirement Reform. Also the tax burden is projected to be unchanged, while a gradual depletion of the Danish oil and gas resources in the North Sea is incorporated, *cf. box 5.2*.

Box 5.1**Principles for the projection of health care expenditures after 2020**

For health care expenditures a lower growth in expenditures for each age group is incorporated to reflect better health and lower mortality, also known as healthy ageing.

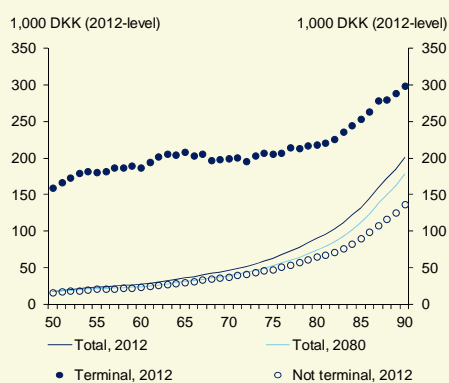
In the public health expenditure projection, the population is divided into persons in the so-called terminal phase (last 3 years of life) and persons with more than 3 life years remaining. The distinction is due to the fact that health related expenditure on persons within the last 3 years of their lives is significantly higher than expenditure on other persons, cf. figure 2. Hospital expenses on 70-79 year olds who die within a year are, for example, around 6 times higher than those for the 70-79 year olds with a remaining life of more than 3 years. A similar tendency is noticeable for other age groups and for other health related expenditures such as nursing homes, home care and reimbursements for medicine. Improved health – reflected in longer lives – for a given age group can therefore, in isolation, reduce the demographically-determined pressure on public expenditure.

Specifically, the projection assumes that expenditure profiles for persons in the terminal phase and persons not in the terminal phase correspond on average to the respective age specific expenditure today (corrected for wage increases). Under the assumption that average life expectancy will increase by around 10 years from 2012 to 2080, this reduces the share of the population in each age group with less than 3 years remaining. In 2012, for instance, approx. 16 per cent of the 80 year olds are statistically expected to die within 3 years, by 2080 that share is expected to be approx. 6 per cent, cf. figure b.

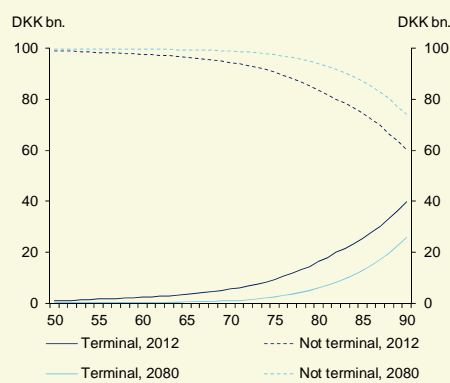
Thus total average cost per age group is reduced as life expectancy increases. This is solely due to the decline in the share of persons in a given age group with less than 3 years remaining.

Figure a

Average age related health expenditure per person, 2012 and 2080

**Figure b**

Share of population within and not within the terminal phase, 2012 and 2080



Note.: Health related expenditure in figure a covers practically all health care and home care expenditure.

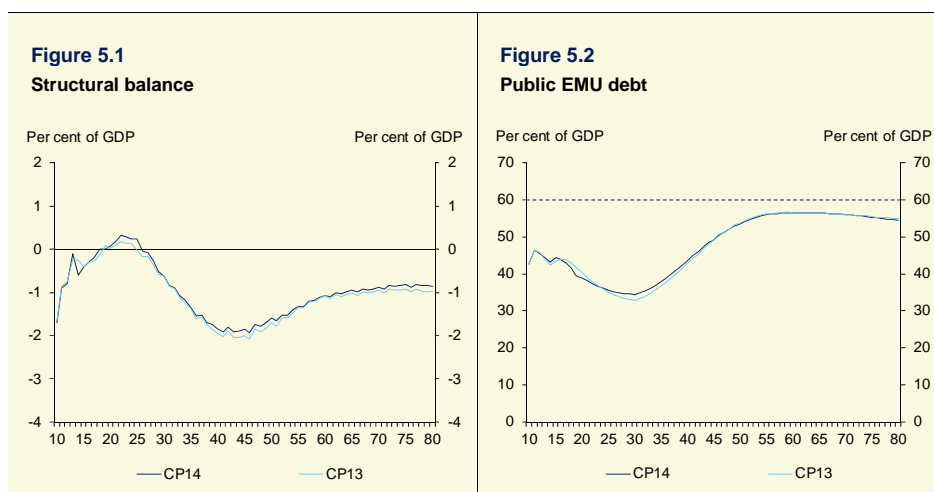
Source: Ministry of Finance calculations based on data from Statistics Denmark and data from the law model in the Ministry of Economics and the Interior.

The long term projection in *Convergence Programme Denmark, 2013 (CP13)* incorporated the agreements on Growth Plan DK and the 2013 population forecast. Subsequent political agreements – including the 2014 Budget Bill and the agreements on *Train Fund DK* and

changed taxation of North Sea oil – remain within the same overall framework for the public economy that formed the basis for CP13. The long-term challenge is therefore essentially unchanged from last year's convergence programme, and the projections for fiscal balance and debt are roughly the same, *cf. figures 5.1 and 5.2.*

Towards 2030, the structural deficit is projected to remain within the requirement in the Budget Law of $\frac{1}{2}$ per cent of GDP based on the abovementioned technical assumptions. In subsequent years, based on an assumption that expenditures per person increase in line with the overall growth rate in the economy, the deficit is set to gradually increase to around $1\frac{3}{4}$ per cent of GDP by 2045 and gradually improve thereafter.

The growing deficit of more than $\frac{1}{2}$ per cent of GDP from 2030 reflects that the projection after 2020 is based on the abovementioned technical assumptions and that the planning period for current medium-term plans does not extend beyond 2020. Consequently, it does not reflect specific plans for public deficits in excess of the requirement in the Budget Law. Economic policy in future medium-term plans will be designed to be in compliance with the Budget Law in the planning period.



Source: Statistics Denmark and own calculations.

Most of the deterioration in the fiscal balance towards 2045 can be attributed to a longer average retirement period for those who retire between 2013 and towards the middle of the century, as compared to both earlier and later generations. The context is that by 2020 the retirement age has not yet been adjusted in correspondence with the indexation to life expectancy, so that a relatively larger share of cohorts will be in retirement compared to 2050. With the 2006 Welfare Agreement it has been decided that the increasing longevity for 60 year olds should be reflected in more working years and the retirement age will therefore be increased in line with life expectancy. This principle has been retained in the 2011 Retirement Reform. However, the retirement age can be increased by at most one year every five years, and the first increase due to the indexation will take place in 2030. Thus, the adjustment of

the retirement age, through increasing the age limits for early retirement and old age pension, will only be fully phased in in the long term.

Consequently, the adjustment of the retirement age is not sufficient to keep the ratio between the number of employed and the number of not-employed constant in the period from 2020 and to the middle of the century. Therefore the pressure on the public finances will gradually increase as the ratio of retirees to the number of employed persons grows.

In addition to this, the deterioration of the structural balance towards 2045 can partly be attributed to declining production and public revenues from the North Sea oil and gas production and demographic effects arising from differences in generation sizes.

Towards 2030, the public EMU debt is projected to gradually decrease to a level of around 35 per cent of GDP. Hereafter, the EMU debt is expected to increase again, but projected to maintain a safety margin to the limit in the Stability and Growth Pact of 60 per cent of GDP throughout the projection period

Box 5.2

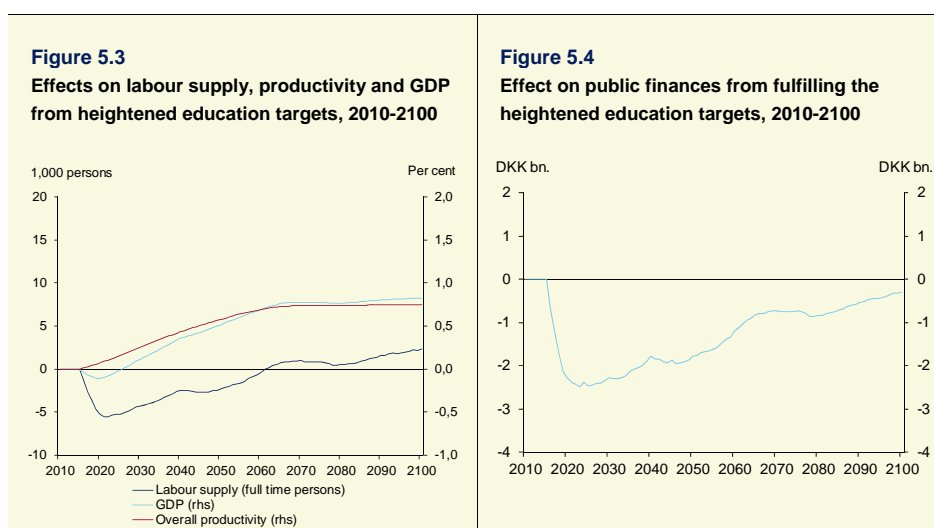
Principles for the projection after 2020

The principles used for projecting after 2020 generally reflect an extrapolation of the structures of the economy as they appear in 2020, with the addition of agreed initiatives that have an effect also after 2020.

- Nominal public consumption expenditures are projected based on an assumption that expenditures per user grow in line with wages while the number of users of public services evolves in line with the calculated impact of changing demographics. Public sector wages grow in line with private wages, and public net purchases of goods and services from the private sector make up a constant share of public consumption expenditures.
- Social benefits (income transfers) are assumed to rise in line with private sector wages so that replacement rates overall remain constant (e.g., in case of job loss or retirement).
- From the outset, labour participation rates, and the propensities at which various social benefits are received, are assumed to be constant across age, gender and origin. The ratios are adjusted, however, for the expected effects of the education targets as well as adopted reforms in particular in relation to retirement.
- The long-term projection of public investment is derived from the principle that the ratio between the gross public capital stock and public production of goods and services as a rule is constant after 2020.
- Public subsidies and net foreign transfers are constant relative to GDP.
- With the exception of adopted tax policy, the tax burden is projected to be unchanged after 2020, so tax rates in per cent remain constant, while excise duties etc. set in nominal terms are technically assumed to increase in line with price developments. Property taxes are assumed to follow the development in house prices, corresponding to a roughly unchanged share of GDP from 2020.
- The revenues from taxation of North Sea activities are based on The Danish Energy Authority's long-term projection of oil and gas production, while long-term oil price assumptions are based on the 2013-projection from the International Energy Agency (IEA).
- A gradual improvement in energy efficiency is assumed for both consumption and production. This should be seen in light of ongoing improvements in energy efficiency as well as the 2012 energy agreement.

The CP14-projection assumes – in line with the CP13-projection – that the heightened education targets are met by 2020. In this respect, 27 per cent of a youth cohort is expected to complete a higher education, which corresponds to the most recently observed educational behaviour¹, cf. *Denmark's National Reform Programme, 2014*.

Although increased investment in education is expected to have a significant social return, the fulfilment of the education targets will only contribute to enhance overall welfare after 2020, cf. *figure 5.3*. The reason is that the positive effects of education on employment and productivity only arise as younger generations gradually replace older generations on the labour market, while the negative effects on labour supply from increased educational activity occur relatively quickly.



Note: The marginal effects of the education targets are measured relative to a projection, where the 95 per cent target is assumed to be fulfilled, while 54 per cent complete further education, and 24 per cent complete higher education.

Source: Finansredegørelse 2014.

The investments in a higher level of education will, in isolation, weaken public finances towards 2020 and cannot be expected to improve fiscal sustainability, cf. *figure 5.4*. This is due to the fact that increased tax revenues from higher participation rates and employment due to more investment in education does not offset the larger operating costs for educational institutions, increased spending on student grants and reduced tax revenue from the smaller labour supply while the young people are completing their educations².

¹ The education behaviour in the latest DREAM education projection.

² Increased productivity – which results in higher wages – cannot be expected to improve public finances in the longer run. The reason is that higher tax revenue from higher wages will be offset by increased expenditure on

5.2 Fiscal sustainability

One of the central fiscal policy objectives is that the fiscal sustainability indicator should always be positive, corresponding to a debt ratio in the base year that does not exceed the discounted value of primary public surpluses measured as a percentage of GDP. Fiscal sustainability implies that planned policies up until 2020 can be sustained thereafter, while public debt stabilises as a share of GDP in the long run, given the assumptions on which the long term projections are based.

The target of structural balance between public revenues and expenditure in 2020 is, given the current outlook, equal to the fiscal sustainability requirement. The implication is that structural balance in 2020 is the necessary requirement for public service standards – measures by cost per user – to be maintained within a sustainable framework in the years after 2020, given agreed policies and technical assumptions.

The fiscal sustainability indicator is calculated at 0.0 per cent of GDP, so the development in public finances is deemed to be sustainable, *cf. table 5.1*. The sustainability indicator is unchanged compared to CP13. This reflects, among other things, that political agreements after CP13 have been kept within the framework for public finances that formed the basis of CP13. These include the agreements on changes to the North Sea taxation and *Train Fund DK* that are consistent with the precautionary principle. On the revenue side, the total increase in revenue from the taxation of North Sea activities is estimated at DKK 28¼ bn. towards 2042, while expenditures on construction are expected to amount to DKK 28½ bn. towards 2024/2026. If the revenue from the North Sea taxation exceeds or falls below the level expected when the agreement was made this will not have automatic consequences for the planned investments in Train Fund DK, but changes to the revenue will be included in the overall fiscal planning.

Since CP13, an updated economic outlook, oil price forecasts from the International Energy Agency's *World Energy Outlook*, November 2013, 2012 register-based labour force statistics (RAS), and the effect of increasing educational levels on productivity growth, unemployment and working hours have been incorporated into the projection. The 2013 population projection from Statistics Denmark and DREAM, which forms the basis of CP14, was already included in CP13.

wages to public employees and transfers, which are normally increased in line with productivity and thus wage increases in the private sector.

Table 5.1
Changes to the sustainability indicator from CP13 to CP14

	Structural balance in 2020	Sustainability indicator
	Per cent of GDP	Per cent of GDP
Convergence Programme 2013 (level)	0.05	0.0
Convergence Programme 2014 (level)	0.05	0.0

Source: Statistics Denmark and own calculations.

6. Public finances and institutional framework

The Budget Law implies that with effect from 2014 four-year binding expenditure ceilings are set for central government, municipalities and regions. The first expenditure ceilings covering 2014-17 was adopted in June 2013 based on the medium term projections in Denmark's Convergence Programme 2013 that exclusively incorporates the impact of reforms and initiatives agreed upon by a majority in the Danish Parliament. The expenditure ceilings are thus based on a precautionary principle and set in accordance with the fiscal target of annual structural deficits of no more than ½ per cent of GDP.

The adopted expenditure ceilings can be adjusted in case of for example changes in the division of costs and tasks between state, municipalities and regions. The expenditure ceilings are set in real terms, but will regularly be updated to the current fiscal year's price and wage levels. The ceilings are also subject to continuous evaluation and monitoring by both the government and the Danish Economic Council in order to ensure compliance.

6.1 Institutional framework

Together with the 2020 Plan (including the current medium-term projections), the Budget Law constitutes the overall framework for economic policy. The framework sets specific targets for public finances in the form of fiscal sustainability and approximately balance on the structural balance. The targets are supported by multi-annual expenditure ceilings. With the Budget Law it has been stated by law that the structural budget balance is the key measure in planning and managing fiscal policy.

The government has set the following key landmarks for planning public finances and fiscal policy:

- *Fiscal policy* should contribute to a stable economic development, ensure that the annual structural public deficit remains below ½ per cent of GDP, and ensure at least structural budget balance in 2020. Fiscal policy is planned in order to achieve a sustainable development in public finances in the longer term (the sustainability indicator must always be positive), and public debt must keep a wide safety margin to the requirements set out in the EU Stability and Growth pact. With the Budget Law, fiscal policy is subject to a precautionary principle, which implies that the planned development of public spending can only be built on the reforms and initiatives that have found majority in the Danish Parliament.

- *Expenditure policy* has in recent years been planned in order to adhere to the EU recommendation. The planned public expenditures in 2014 reflect the Budget Bill for 2014, which implements the adopted expenditure ceilings for 2014-17. The expenditure ceilings for central government, municipalities and regions cover approximately $\frac{3}{4}$ of total public expenditures. The projected development in public expenditure towards 2020 ensures structural balance by 2020. The Budget Law with expenditure ceilings underpins that public expenditures comply with medium term targets and priorities.
- *Tax policy* is primarily based on the tax reform from June 2012, which lowers the tax on labour with a total of approximately DKK 14 billion towards 2022, and thereby strengthens labour supply and public finances. Agreements on *Growth Plan DK* from the spring of 2013 include a reduction in a number of taxes on businesses and a gradual reduction of the corporate tax towards 2016.
- *Monetary and exchange rate policy*: The exchange rate is stable due to the fixed exchange rate against the euro. This ensures low and stable inflation expectations. The responsible and stability-oriented economic policy contributes to the credibility of the fixed exchange rate policy, which supports continued low interest rates.

6.2 Improved expenditure control

The Budget Law, adopted in June 2012, introduce expenditure ceilings for central government, municipalities and regions, with effect from 2014, cf. *Denmark's Convergence Programme 2013*. The key elements of the Budget Law are shown in box 6.1.

The balance requirement of the Fiscal compact is with the Budget Law operationalized so that the annual structural deficit must not exceed $\frac{1}{2}$ per cent of GDP, corresponding to Denmark's national MTO. The limit for structural deficits is aimed at the estimated structural deficit based on the budget proposal for a given fiscal year. Based on the considerations behind the requirements in the Budget Law, measures that will have a significant negative impact on the structural deficit of the year in question cannot be decided on in the period following the budget proposal. Temporary deviations from the medium term objectives are allowed in case of exceptional circumstances. A binding correction mechanism is initiated if there is prospect of a significant deviation (at least 0.5 per cent of GDP) from the medium term objective (i.e. a structural deficit of at least 1 per cent of GDP).

Box 6.1**Key elements in the Budget Law**

- Within the framework of a sustainable fiscal policy a budget balance requirement for public finances is introduced. The structural balance must not exceed a deficit of ½ per cent of GDP at the time of budget proposal for a given year, unless exceptional circumstances are present. An automatic correction mechanism is activated in case of a significant deviation from the balance requirement.
- The expenditure ceilings underpin that the overall targets for fiscal policy are reached. The ceilings set legally binding limits for expenditures in central government, municipalities and regions. The expenditure ceilings are to be adopted in the Danish Parliament and cover a continuous period of 4 years. Measures to improve financial management and economic sanctions support compliance with the ceilings.
- The Economic Council is to continually (annually) assess whether economic policy adhere to the target for the structural budget balance, complies with the expenditure ceilings and whether the adopted expenditure ceilings comply with the medium term fiscal projections for public finances.

The Budget Law is based on a precautionary principle which implies that the planned development in public expenditures can solely be based on concrete reforms and initiatives agreed upon by a parliamentary majority. The concrete decisions must ensure the necessary ongoing funding so that the annual structural deficit does not exceed ½ per cent of GDP and fiscal sustainability is maintained.

6.2.1 Determination of expenditure ceilings for 2014-17

In June 2013, Parliament adopted the first actual expenditure ceilings for central government, municipalities and regions, covering the period 2014-17.¹ The expenditure ceilings for 2014-17 was determined based on the medium term projections for the Danish economy, which provided the foundation for Denmark's Convergence Programme 2013.

The expenditure ceilings for 2014-17 are thus set in accordance with the fiscal target in the Budget Law of an annual structural deficit of no more than ½ per cent of GDP and are based on the precautionary principle. Hence there is a link between public consumption growth, which is planned and financed in the medium term scenario, and expenditure policies given by the actual expenditure ceilings.

As a starting point, the expenditure ceilings are fixed for the four-year period. If further reforms or initiatives are decided the consequences can be incorporated in the medium term projections and thus allow for modifications of the specific ceilings. Similarly, discretionary tax

¹ Link to the bill on expenditure ceilings for central government, municipalities and regions for the period 2014-2017: http://www.folketingstidende.dk/RIpdf/samling/20121/lovforslag/1.230/20121_1.230_som_vedtaget.pdf

changes can lead to adjustments in the expenditure ceilings. In those cases adjustments in the ceilings requires an amendment to the applicable bill on ceilings for 2014-2017.

The specific ceilings for central government, municipalities and regions for the years 2014-17 are shown in *table 6.1*. The adopted expenditure ceilings can be adjusted in case of for example changes in the division of costs and tasks between central government, municipalities and regions. The expenditure ceilings are set in real terms as they will regularly be updated to the estimated price and wage levels in the current fiscal year.

Table 6.1
Expenditure ceilings for central government, municipalities and regions for the period 2014-17

DKK bn. (2014-prices)	2014	2015	2016	2017
Governmental sub-ceiling for operating expenses	185.8 (185.8)	188.5	192.0	195.1
Governmental sub-ceiling for income transfers	252.7 (250.4)	254.5	255.5	256.0
Municipal expenditure ceiling	230.1 (230.0)	230.1	230.1	230.1
Regional sub-ceiling for health expenses	102.6 (102.6)	102.6	102.6	102.6
Regional sub-ceiling for development	2.9 (2.9)	2.9	2.9	2.9

Note: 2014-figures in parenthesis are expenditures as budgeted in the 2014 Budget Bill and in the preliminary 2014-budgets for municipalities and regions.

Source: The Ministry of Finance: Budget Outlook 2014, January 2014, and Budget Outlook 3, December 2013.

The expenditure ceiling for central government covers two sub-ceilings for operating expenses and income transfers respectively, *cf. table 6.1*. The central government sub-ceiling for operating expenses is budgeted up to the ceiling in 2014. Any additional costs must therefore be offset by reduced expenses or via the contingency reserve allocated in the Budget Bill for 2014. The budgeted expenditure for income transfers is lower than the ceiling. This should, i.a. be seen in light of a designated fluctuation buffer of DKK 1 billion.

The budgeted service expenses of the municipalities and the regions' budgeted expenditure on health and regional development respectively in 2014 are in line with the agreed expenditure ceilings, *cf. table 6.1*. The municipal and regional expenditure ceilings for 2015-17 are set at the same level as in 2014. This reflects the fact that growth in operating expenses in the period 2015-17 as starting point is placed under the sub-ceiling for central government. In connection with the annual economic negotiations it is possible to allocate resources to municipalities and regions via cost-neutral reallocations within the established ceilings, *cf. the Budget Law*.

Determining the ceiling is subject to projection uncertainty, particularly activity fluctuations and timing shifts in spending. If public finances show a weaker development than expected, measures of fiscal tightening are in general to be implemented in order to ensure compliance with the fiscal targets. It will depend on a specific political decision whether fiscal tightening

will happen through lower costs, higher taxes or new reforms. If the structural balance is better than expected, it allows for a relaxation of fiscal policy in the future.

The annual budget laws and financial agreements with municipalities and regions must stay within the established ceilings. Moreover, accounted expenses covered by the expenditure ceilings for central government, municipalities and regions must not exceed the agreed ceilings. In case of non-compliance with the expenditure ceilings, sanctions can be set in motion with effect on both central government, municipalities and regions, *cf. box 6.2*.

Box 6.2

Sanction mechanisms associated with the expenditure ceilings

The sanction mechanism for central government is associated with the follow-up on expenditure during the year and the subsequent expenditure control for the fiscal year. If the expenditure ceiling for central government is exceeded in a given year, the expenditure ceiling for the following year is as a starting point reduced correspondingly.

The state sub-ceiling for income transfers contains a reserve to cover temporary additional expenditures (of DKK 1 billion annually in 2014-17). Permanent additional expenditures under the state sub-ceiling for income transfers must be redressed in the future.

The sanction mechanism for municipalities and regions is related to compliance with both the agreement and the budget. Part of the agreed block grant (DKK 3 billion for municipalities and DKK 1 billion for regions) is conditioned upon municipalities and regions collectively budgeting within the framework of the agreement on their economies. Any reduction in the block grant will be made collectively with the possibility of individual sanctions.

If the collective service costs of the municipalities exceed the budget, the block grant will be correspondingly reduced the following year as a combination of individual and collective reductions. In specific cases the accounts may be assessed in relation to the agreed expenditures rather than the budgets. Similar sanction mechanisms apply to the accounts on net operating expenses for the regions.

The first concrete expenditure ceilings for central government, municipalities and regions, covering the period 2014-17, was passed by the Danish Parliament in June 2013. The ceilings will be subject to continuing adjustments of a more technical nature, just like the ceilings will continually be assessed and monitored by both the government and the Economic Council to ensure compliance, *cf. box 6.3*. The box also briefly describes the process of determining the expenditure ceilings for 2018.

Box 6.3**Process for determination of expenditure ceilings**

In June 2013, the Danish Parliament adopted the first actual expenditure ceilings for central government, municipalities and regions for the years 2014-17, which was the basis for the budgeting of the government's budget proposal for 2014 (FFL14) and the framework for the agreements on the municipalities' and regions' economy for 2014.

The expenditure ceilings can continuously be adjusted, for example due to changes in the division of expenditure or tasks, price and wage developments and other technical corrections. The ceilings can also be changed in relation to the distribution between the central government, municipalities and regions, for example in connection with the annual block grant. Finally, the ceilings may be adjusted due to discretionary changes in expenditures that are not covered by the ceiling, such as changes in tax expenditure and expenditure related to unemployment. These adjustments will in practice be incorporated in the appropriation acts (the budget bill, amendments to the budget bill and the supplementary appropriations act).

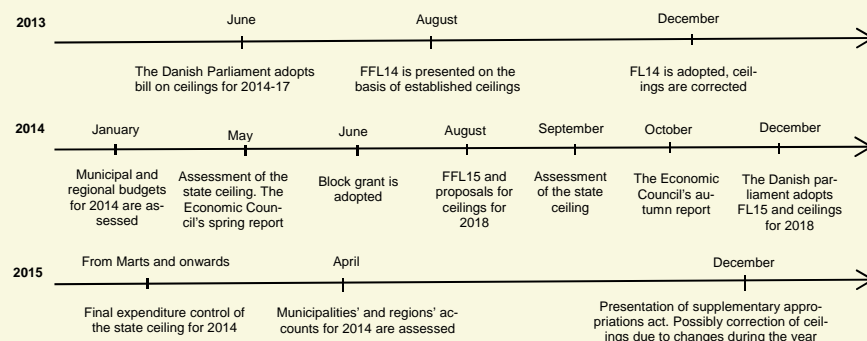
The adopted Budget for 2014 (FL14) is established in accordance with the expenditure ceilings for the fiscal year 2014 and the budget estimates in 2015-17.

The Minister of Finance will in May and September assess whether the expenditure ceilings for central government in the current fiscal year are expected to be met. If the ceilings are estimated to be exceeded, the Minister must conduct corrective measures. After the end of the fiscal year, a subsequent expenditure control will be conducted on the basis of the government accounts, presented in March. Similarly, the government estimates in January whether the municipal and regional budgets for the relevant fiscal year remain below the ceilings. In May of the following year, an assessment is made as to whether the municipal and the regional accounts for the relevant year are in compliance with the agreed expenditure ceilings.

The Economic Council is tasked with evaluating annually whether the expenditure ceilings are aligned with the medium term projection, and whether the ceilings are respected. In the autumn 2013, the Council assessed that the first agreed expenditure ceilings are determined in accordance with the medium term fiscal objectives and that the proposed ceiling-controlled expenses are within the ceilings established in 2014.

The government's proposals for specific expenditure ceilings for 2018 will be presented in connection with the Budget proposal for 2015 (FFL15) in August 2014, with subsequent adoption in the Danish Parliament in association with the adoption of the Budget Bill for 2015 (FL15).

Below are some of the key elements in the process of defining and assessing the expenditure ceilings for the period 2014-17 together with the initial determination of expenditure ceilings for 2018.



6.3 Efficiency Improvements and Modernization of the Public Sector

Modernization of the public sector is one of the three reform tracks in the government's *Growth Plan DK*. The reform track is intended to ensure effective use of resources and a continued high quality of public welfare services.

The planned expenditure growth towards 2020 thus only forms part of the foundation for continued quality and development in the public sector. In addition there is great potential for developing the public service through continuous modernization and streamlining of the public sector. The goal is to free up DKK 12 billion towards 2020.

The government is well underway with modernizing the public sector. The work includes a wide range of initiatives, including digitization and the use of welfare technology, greater focus on effects and results, working time regulations, public-private cooperation and better regulation, etc. Many of the initiatives are currently being implemented.

Individual initiatives are described more closely in chapter 5 of *the National Reform Programme 2014*.

Annex tables according to the EU's "Code of Conduct"

Table 1a
Macroeconomic prospects

	2013	2011	2012	2013	2014	2015	2016	2017	2020
	DKK bn.	Rate of change, per cent							
Real GDP	1,557.2 ¹⁾	1.1	-0.4	0.4	1.6	1.9	2.1	2.2	1.7
Nominal GDP	1,858.0	1.8	1.9	1.8	3.0	3.4	3.7	4.1	3.9
Components of real GDP									
Private consumption	768.0 ¹⁾	-0.7	-0.1	0.0	1.3	1.6	2.3	2.5	2.2
Government consumption	436.4 ¹⁾	-1.4	0.4	0.8	1.5	0.6	0.6	0.7	0.7
Gross fixed capital formation	288.4 ¹⁾	3.3	0.8	0.7	2.6	3.2	6.6	5.8	5.2
Changes in inventories ²⁾		0.4	-0.3	0.2	0.0	0.0	0.1	0.1	0.1
Export of goods and services	887.8 ¹⁾	7.0	0.4	1.2	3.7	4.7	5.6	5.6	4.2
Import of goods and services	821.7 ¹⁾	5.9	0.9	1.7	3.9	4.5	7.2	6.9	5.7
Contributions to real GDP growth									
		Percentage points							
Final domestic demand		-0.2	0.2	0.4	1.5	1.5	2.5	2.5	2.3
Changes in inventories ²⁾		0.4	-0.3	0.2	0.0	0.0	0.1	0.1	0.1
External balance of goods and services		0.9	-0.2	-0.2	0.1	0.4	-0.5	-0.5	-0.7

1) Based on chained 2005-prices. Growth rates are also based on chained indices.

2) Contribution of change in stock to GDP growth

Source: Statistics Denmark and own calculations

Table 1b
Price developments

	2013	2011	2012	2013	2014	2015	2016	2017	2020
	Level	Rate of change, per cent							
GDP-deflator	119.3	0.7	2.3	1.4	1.3	1.5	1.6	1.9	2.2
Private consumption deflator	117.9	2.7	2.8	1.0	1.3	1.8	1.9	2.0	2.0
Consumer price index	129.9	2.8	2.4	0.8	1.2	1.8	1.9	2.0	2.0
HICP	128.3	2.7	2.4	0.5	1.1	1.8	1.8	1.9	1.9
Net price index	131.3	2.6	1.9	0.9	1.4	1.8	1.7	1.8	1.9
Public consumption deflator	120.2	1.2	1.8	0.1	1.0	1.9	2.1	2.3	2.5
Investment deflator	111.6	0.9	1.3	-0.1	1.5	1.2	1.1	1.4	1.6
Export price deflator	115.0	1.2	3.6	0.8	0.9	1.3	1.3	1.6	1.9
Import price deflator	111.5	3.7	3.7	-0.8	0.7	1.7	1.6	1.7	1.7

Note: For all price indices 2005=100

Source: Statistics Denmark and own calculations.

Table 1c
Labour market development

	2013	2011	2012	2013	2014	2015	2016	2017	2020
	Level	Rate of change, per cent							
Employment, 1,000 persons	2,734.3	-0.2	-0.3	0.2	0.6	0.6	0.8	1.2	0.6
Employment. hours worked (mill. hours)	3,947.4	0.9	-0.5	-0.3	0.7	0.7	0.7	1.1	0.7
Unemployment rate (per cent) ¹⁾ , harmonized EU-definition		7.7	7.7	7.1	6.9	6.6	6.2	5.7	4.9
Labour productivity. persons (1.000 DKK) ²⁾	569.5	1.2	-0.1	0.2	1.0	1.3	1.3	1.0	1.1
Labour productivity. hours worked (DKK) ³⁾	394.5	0.2	0.1	0.7	0.9	1.2	1.4	1.1	1.0
Compensation of employees (DKK bn.) ⁴⁾	1,023.5	1.1	1.1	1.6	2.4	2.8	3.0	3.8	3.7
Compensation per employee ⁵⁾	398.0	1.2	1.4	1.3	1.8	2.2	2.2	2.6	3.2

- 1) The number corresponds to the EU-harmonized unemployment in per cent of the labour force. The data is based on Statistics Denmark's Labour Force Survey (AKU). The structural unemployment is nearly 3½ per cent in 2015 based on the national unemployment definition. There is uncertainty with respect to the relation between the national and the harmonized unemployment definition.
- 2) Calculated as real GDP per person employed, where GDP is based on chained 2005-prices.
- 3) Calculated as real GDP per hour worked, where GDP is based on chained 2005-prices.
- 4) Based on current prices, i.e. growth rates are in nominal terms.
- 5) Calculated as compensation per employed wage earner.

Source: Statistics Denmark and own calculations.

Table 1d
Sectoral balances

	2011	2012	2013	2014	2015	2016	2017	2020
	Per cent of GDP							
Net lending/borrowing vis-a-vis the rest of the world	5.9	6.0	7.3	7.2	7.5	6.7	5.7	3.5
<i>Of which:</i>								
- Balance of goods and services	5.2	5.1	5.7	5.7	5.8	5.0	4.4	3.1
- Balance of primary incomes and transfers	0.4	0.9	1.6	1.5	1.7	1.6	1.2	0.4
- Capital account	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net lending of the private sector	8.0	9.9	8.2	8.7	10.5	9.0	7.3	3.5
Net lending of general government ¹⁾	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	-1.6	0.1
Statistical discrepancy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1) Public balance (net lending) is based on national accounts. In 2012 the general government deficit is extraordinary high due to the repayment of early retirement contributions, which amounts to approx.. 1 per cent of GDP.

Source: Statistics Denmark and own calculations

Table 2a
General government budgetary prospects (EDP-basis)

	2013	2011	2012	2013	2014	2015	2016	2017	2020
	DKK bn.	Per cent of GDP							
Net lending (EDO B.9) by sub-sector									
General government (EDP-form)	-15.1	-1.9	-3.8	-0.8	-1.3	-2.9	-2.2	-1.6	0.1
Central government	-14.4	-2.0	-3.7	-0.8	-1.3	-2.9	-2.2	-1.6	0.1
Local government	-0.4	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Social security funds	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General government (S13)									
Total revenue ¹⁾	1,022.7	54.3	54.1	55.0	54.2	51.7	51.7	51.5	51.1
Total expenditure ²⁾	1,037.9	56.3	57.9	55.9	55.6	54.6	53.9	53.1	51.0
Net lending	-15.1	-1.9	-3.8	-0.8	-1.3	-2.9	-2.2	-1.6	0.1
Interest expenditures	31.9	2.0	1.8	1.7	1.5	1.4	1.3	1.4	1.6
Primary balance ³⁾	16.7	0.1	-2.0	0.9	0.2	-1.5	-0.9	-0.2	1.7
One-off effects ⁴⁾		0.3	-1.1	1.3	1.1	-1.0	-0.8	-0.6	0.0
Selected components of revenue									
Total taxes ⁵⁾	907.2	46.9	47.4	48.8	48.4	46.0	46.1	45.9	45.6
Taxes on production and imports	312.4	17.0	16.9	16.8	16.7	16.7	16.9	17.0	17.2
Current taxes on income and wealth etc.	590.9	29.7	30.4	31.8	31.4	29.1	29.0	28.6	28.1
Capital taxes	3.9	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Social contributions ⁶⁾	14.7	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Property taxes ⁷⁾	28.0	2.1	1.8	1.5	1.1	1.0	1.0	1.1	1.2
Other (residual) ⁸⁾	72.9	4.3	4.0	3.9	3.9	3.9	3.8	3.7	3.6
Total revenue ²⁾	1,022.8	54.3	54.1	55.0	54.2	51.7	51.7	51.5	51.1
p.m.: Tax burden ⁹⁾	921.9	47.9	48.4	49.6	49.3	46.8	46.9	46.6	46.3

Table 2a (continued)**General government budgetary prospects (EDP-basis)**

	2013	2011	2012	2013	2014	2015	2016	2017	2020
	DKK bn.	Per cent of GDP							
Selected components of expenditure									
Compensation of employees and intermediate consumption	519.8	28.2	28.3	28.0	27.8	27.6	27.4	27.2	26.4
- compensation of employees	338.1	18.5	18.3	18.2	18.1	17.9	17.7	17.5	16.9
- intermediate consumption	181.7	9.8	10.0	9.8	9.8	9.7	9.7	9.7	9.5
Total social transfers	355.2	19.0	19.2	19.1	19.1	18.9	18.5	18.1	17.0
- social transfers in kind ⁸⁾	27.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3
- other than in kind	327.8	17.4	17.7	17.6	17.7	17.5	17.1	16.8	15.6
Interest expenditures	31.9	2.0	1.8	1.7	1.5	1.4	1.3	1.4	1.6
Subsidies	48.4	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.3
Gross fixed capital formation	43.1	2.2	2.6	2.3	2.3	2.1	2.0	2.0	2.0
Capital transfers	11.5	1.2	2.2	0.6	0.8	0.7	0.8	0.7	0.6
Other (residual) ⁸⁾	27.9	1.1	1.3	1.5	1.4	1.3	1.3	1.2	1.1
Total expenditure ²⁾	1.037.9	56.3	57.9	55.9	55.6	54.6	53.9	53.1	51.0
p.m.: Public consumption	524.5	28.4	28.5	28.2	28.1	27.9	27.6	27.3	26.5

Note: Public balance figures are on EDP-basis. In 2012 the general government deficit is extraordinary high due to the repayment of early retirement contributions, which amounts to approx. 1 per cent of GDP.

- 1) Excl. central government revenues from sale of UMTS-licenses.
- 2) Adjusted for swap-related flows and spending on infrastructure investments.
- 3) Defined as the EDP-definition the net lending plus EDP-definition of the interest expenditures.
- 4) Based on the calculation of the structural budget balance and includes temporary variations in revenues from pension yield taxation. North Sea activities, net interest, corporate taxes and other special items. The structural budget balance is not calculated on EDP-basis. The calculations of the structural budget balance are based on public finances according to national account principles.
- 5) Defined as the sum of taxes on production and imports, current taxes on income, wealth, etc., and capital taxes. Does not include compulsory social contributions, which are traditionally included in the tax burden.
- 6) Does not include voluntary and imputed social contributions, since these are not included in the tax burden.
- 7) Incl. interest income and dividends and land rent etc.
- 8) Statistic Denmark does not publish figures for all the subgroups (P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91), D.6311, D.63121, D.63131, D.29+D.4 (other than D.41) +D.5+D.7+D.9+P.52+P.53+K.2+D.8), and no estimates are available for these individual components in the projections.
- 9) Defined as the sum of taxes on production and imports (incl. those collected by the EU), current taxes on income, wealth etc., and capital taxes and compulsory social contributions.

Source: Statistics Denmark and own calculations.

Table 2b
No-policy change projections

	2013	2013	2014	2015	2016	2017
	DKK bn.	Per cent of GDP				
Total revenue at unchanged policies	1013.8	54.6	54.0	51.3	51.4	51.1
Total expenditure at unchanged policies	1040.2	56.0	55.3	54.7	54.1	53.3

Table 2c
Amounts to be excluded from the expenditure benchmark

	2013	2013	2014	2015	2016	2017
	DKK bn.	Per cent of GDP				
Expenditure on EU programmes fully matched by EU funds revenue	0	0	0	0	0	0
Cyclical unemployment benefit expenditure ¹⁾	21.6	1.2	1.1	1.0	0.9	0.9
Effect of discretionary revenue measures	9.2	0.5	-0.3	0.2	-0.1	0.0
Revenue increases mandated by law	0.0	0.0	0.0	0.0	0.0	0.0

1) The cyclical unemployment benefit expenditure consists of the cost of unemployment benefits and social assistance for unemployed.

Source: Statistics Denmark and own calculations.

Table 3
General government expenditure by function

	COFOG	2012	2013
		Per cent of GDP	
General public service	1	8.9	7.2
Defence	2	1.5	1.4
Public order and safety	3	1.1	1.1
Economic affairs	4	3.6	3.4
Environmental protection	5	0.4	0.4
Housing and community amenities	6	0.4	0.4
Health	7	8.5	8.4
Recreation, culture and religion	8	1.7	1.6
Education	9	7.8	7.8
Social protection	10	25.2	25.1
Total expenditures ¹⁾	TE	59.0	56.8

Note: Short-term and longer-term projections do not include general government expenditures by function. The focus of both short-term and longer-term projections is public expenditures by type of transaction.

1) Adjusted for swap-related flows. The estimate for the total expenditure-to-GDP ratio in Statistics Denmark's calculation deviates from the estimate in table 2a due to definitional differences in the approach of calculation (table 2a includes depreciations in public consumption, which is not the case in Statistics Denmark's approach).

Source: Statistics Denmark and own calculations.

Table 4
General government debt developments

	2011	2012	2013	2014	2015	2016	2017	2020
	Per cent of GDP							
Gross debt	46.4	45.4	44.5	43.2	44.3	43.8	43.0	38.8
Change in gross debt ratio ¹⁾	3.6	-1.0	-0.9	-1.3	1.1	-0.5	-0.8	-0.6
Change in gross debt ²⁾	4.4	-0.2	-0.1	-0.1	2.6	1.1	0.9	0.9
Contributions to change in gross debt								
Primary balance ³⁾	0.1	-2.0	0.9	0.2	-1.5	-0.9	-0.2	1.7
Interest expenditure ⁴⁾	2.0	1.8	1.7	1.5	1.4	1.3	1.4	1.6
Stock-flow adjustment ⁵⁾	2.3	0.0	-2.7	-1.7	2.6	0.6	-0.3	-2.4
p.m. implicit interest rate on debt ⁶⁾	5.1	4.4	4.1	3.7	3.6	3.3	3.5	4.3
Other relevant variables								
Central government account in Danmarks Nationalbank	12.5	8.9	8.7	7.5	6.6	-	-	-
Public net debt ⁷⁾	2.6	7.5	5.9	7.2	9.9	11.7	12.7	12.4
Net debt in central and local governments ⁷⁾	2.6	7.5	5.8	7.1	9.9	11.6	12.7	12.3

Note: In 2012 the general government deficit is extraordinary high due to the repayment of early retirement contributions, which amounts to approx. 1 per cent of GDP.

- 1) Change in gross debt ratio is defined as $D_t/GDP_t - D_{t-1}/GDP_{t-1}$, where D is public debt measured in nominal terms (DKK).
- 2) Change in gross debt is defined as $D_t/GDP_t - D_{t-1}/GDP_t$, where D is public debt measured in nominal terms (DKK).
- 3) As defined in table 2a.
- 4) As defined in table 2a.
- 5) At present information is not available to split stock-flow adjustment into subgroups.
- 6) Proxied by interest expenditures divided by the debt level of the previous year.
- 7) In the specification of public net debt and net debt in central and local governments the central government liquid assets in Danmarks Nationalbank as well as other assets are subtracted.

Source: Statistics Denmark and own calculations.

Table 5
Cyclical developments

	2011	2012	2013	2014	2015	2016	2017	2020
Per cent								
Real GDP growth	1.1	-0.4	0.4	1.6	1.9	2.1	2.2	1.7
Per cent of GDP								
General government balance	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	-1.6	0.1
Interest expenditure ¹⁾	2.0	1.8	1.7	1.5	1.4	1.3	1.4	1.6
One-off effects ²⁾	0.3	-1.1	1.3	1.1	-1.0	-0.8	-0.6	0.0
Per cent								
Potential GDP growth ³⁾	1.1	0.5	0.6	1.2	1.4	1.7	1.6	1.7
Percentage points								
Of which, contribution from:								
- Labour	0.4	0.2	0.3	0.3	0.2	0.2	0.3	0.4
- Of which labour force	0.2	0.3	0.4	0.2	0.1	0.2	0.3	0.4
- Capital	0.0	0.0	0.1	0.2	0.2	0.7	0.7	0.9
- Total factor productivity	0.7	0.3	0.2	0.7	1.0	0.8	0.6	0.5
Per cent of GDP								
Output gap	-1.8	-2.7	-2.8	-2.5	-2.0	-1.5	-1.0	0.0
Cyclical component ⁴⁾	-1.5	-2.0	-2.1	-1.9	-1.6	-1.2	-0.8	0.0
Structural budget balance ⁵⁾	-0.9	-0.8	-0.1	-0.6	-0.4	-0.3	-0.2	0.1
Primary structural budget balance ⁵⁾	-0.5	-0.3	0.4	-0.1	0.1	0.2	0.3	0.6

Note: In 2012 the general government deficit is extraordinary high due to the repayment of early retirement contributions., which amounts to approx.. 1 per cent of GDP.

- 1) As defined in table 2.
- 2) Based on the calculation of the structural budget balance and includes temporary variations in revenues from pension yield taxation. North Sea activities, net interest, corporate taxes and other special items.
- 3) Including a contribution from indirect taxes (in real terms).
- 4) The calculation of the cyclical component is based on the output gap.
- 5) The structural budget balance is not calculated on EDP-basis. The calculations of structural budget balance are based on public finances according to national account principles. The primary structural budget balance is based on an actual primary balance defined via net interest expenditures and not gross interest expenditures.

Source: Statistics Denmark and own calculations.

Table 6
Divergence from previous update

	2011	2012	2013	2014	2015	2016	2017	2020
Rate of change, per cent								
Real GDP growth								
- Previous update	1.1	-0.5	0.7	1.6	1.7	2.4	2.2	1.7
- Current update	1.1	-0.4	0.4	1.6	1.9	2.1	2.2	1.7
- Difference	0.0	0.1	-0.3	0.0	0.1	-0.3	0.0	0.0
Per cent of GDP								
Output gap (per cent of GVA)								
- Previous update	-1.8	-2.8	-3.0	-2.5	-2.0	-1.4	-0.8	0.0
- Current update	-1.8	-2.7	-2.8	-2.5	-2.0	-1.5	-1.0	0.0
- Difference	0.0	0.1	0.2	0.0	0.0	-0.1	-0.2	0.0
Actual budget balance¹⁾								
- Previous update	-2.0	-4.1	-1.7	-1.8	-2.9	-2.1	-1.6	0.0
- Current update	-2.0	-3.9	-0.9	-1.4	-3.0	-2.3	-1.6	0.1
- Difference	-0.1	0.2	0.7	0.4	-0.1	-0.2	0.0	0.0
Gross debt level								
- Previous update	46.4	45.7	44.0	42.4	43.5	43.8	43.9	40.3
- Current update	46.4	45.4	44.5	43.2	44.3	43.8	43.0	38.8
- Difference	0.0	-0.4	0.5	0.8	0.8	0.1	-0.9	-1.4

Note: In 2012 the general government deficit is extraordinary high due to the repayment of early retirement contributions, which amounts to approx.. 1 per cent of GDP.

Source: Own calculations.

Table 7
Long-term sustainability of public finances

	2000	2005	2010	2020	2030	2050	2060	2070
	Per cent of GDP							
Total expenditure	53.1	51.9	56.3	51.0	51.8	52.5	51.4	51.2
<i>Of which:</i>								
- Age-related expenditure	27.2	28.3	31.8	29.3	29.8	29.6	28.5	28.4
- Pension expenditure								
- Social security pension	9.4	9.4	10.2	9.5	9.2	8.1	7.5	7.5
- Old-age and early pensions	7.0	7.3	7.9	7.5	7.2	5.9	5.2	5.1
- Other pensions	2.4	2.2	2.3	1.9	2.0	2.2	2.3	2.4
- Occupational pensions	-	-	-	-	-	-	-	-
- Health care ¹⁾	4.8	5.3	6.3	6.0	6.3	6.3	6.1	6.1
- Long-term care ¹⁾	1.9	2.0	2.3	2.3	2.8	3.6	3.6	3.5
- Education expenditure	6.0	6.1	6.7	6.1	5.8	6.0	5.7	5.8
- Other age-related expenditures	5.1	5.4	6.4	5.5	5.7	5.6	5.5	5.5
- Interest expenditure	4.3	2.6	2.1	1.6	1.9	2.6	2.7	2.7
Total Revenue	55.3	56.9	53.6	51.1	51.2	50.9	50.3	50.3
<i>Of which:</i>								
- Property income ²⁾	2.2	2.2	2.1	1.2	1.3	1.3	1.3	1.3
- Revenue from pension payouts net	-0.6	-1.1	-0.8	0.4	0.3	0.8	0.6	0.6
Pension reserve fund assets	105.2	128.8	143.3	158.1	163.7	167.4	165.7	168.7
<i>Of which:</i>								
- Public pension fund assets	1.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.1

Table 7 (continued)**Long-term sustainability of public finances**

	2000	2005	2010	2020	2030	2050	2060	2070
	Per cent							
Assumptions								
Labour productivity growth	3.7	0.4	3.8	1.1	1.3	1.2	1.0	0.9
Real GDP growth ³⁾	3.5	2.4	1.4	1.7	1.6	1.9	1.5	1.4
Participation rate males (aged 20-64)	83.5	83.0	80.1	82.8	83.4	83.8	84.0	84.1
Participation rate females (aged 20-64)	73.3	73.8	73.0	76.7	77.4	78.0	78.0	78.3
Total participation rate (aged 20-64)	78.5	78.5	76.6	79.7	80.4	80.9	81.0	81.2
Unemployment rate ⁴⁾	7.1	6.6	6.0	3.8	3.7	3.7	3.8	3.8
Structural unemployment	5.9	4.6	3.3	3.2	3.2	3.2	3.2	3.2
Population aged 65+, 1,000 persons	791.1	817.8	918.3	1165	1371	1506	1543	1634

Note: Figures are based on national account principles. i.e. not on EDP-basis.

- 1) The cost of nursing homes is included in long-term care.
- 2) Includes public revenues from interest income and dividends.
- 3) In some years after 2025 GDP growth is effected by the regulation of early- and old age person ages in line with longevity.
- 4) Registered gross unemployment (including people in activation programmes).

Source: Statistics Denmark and own calculations.

Table 7a
Contingent liabilities

	2012	2013
Per cent of GDP		
Public guarantees	12.9	-
- of which: linked to the financial sector	0.5	-

Note: Does not include deposit guarantees. Public guarantees consists of "statsforskrivninger", guarantees concerning loans and other guarantees. Guarantees linked to the financial sector consists of the Financial Stability Company.

Source: Government accounts for the fiscal year 2012.

Table 8
Basic assumptions

	2010	2011	2012	2013	2014	2015	2016	2020
Short term interest rate (annual average)	1.4	0.6	0.3	0.3	0.6	1.3	2.1	3.8
Long term interest rate (annual average)	2.7	1.4	1.8	2.1	2.6	3.1	3.7	4.8
Exchange rate USD/EUR (annual average)	139	129	133	134	134	136	136	137
Nominal effective exchange rate (1980=100)	104	101	102	103	103	103	103	103
World excluding EU, GDP growth ¹⁾	2.9	3.2	2.3	3.0	3.8	3.7	3.5	3.1
EU, GDP growth ¹⁾	2.4	0.1	0.3	1.9	2.3	2.7	2.6	2.3
Growth of relevant foreign markets ²⁾	7.0	-2.1	-2.0	5.5	6.5	12.1	11.2	3.2
World import volumes, excluding EU	5.5	6.1	4.3	5.8	7.4	7.1	6.8	6.0
Oil prices	109.8	111.7	110	108	113	119	124	139

1) GDP growth weighted by trade

2) Includes OECD countries and emerging economies, i.e. Brazil, Russia, India, China, South Africa, Turkey, Indonesia and Mexico.

Source: Statistics Denmark, OECD and own calculations.

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In tables numbers do not necessarily
sum to totals due to rounding

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