OECD Economic Surveys
DENMARK

MAY 2016

OECD

OECD Economic Surveys: Denmark 2016

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Please cite this publication as:
OECD (2016), *OECD Economic Surveys: Denmark 2016*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/eco_surveys-dnk-2016-en

ISBN 978-92-64-25610-1 (print)
ISBN 978-92-64-25611-8 (PDF)
ISBN 978-92-64-25616-3 (epub)

Series: OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

OECD Economic Surveys: Denmark
ISSN 1995-3151 (print)
ISSN 1999-0219 (online)

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This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Denmark were reviewed by the Committee on 21 March 2016. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 14 April 2016.

The Secretariat's draft report was prepared for the Committee by Ms. Zuzana Smidova, Ms. Caroline Klein and Ms. Louise Aggerstrøm Hansen who was seconded from the Danish Ministry of Finance, under the supervision of Mr. Andreas Wörgötter. Research assistance was provided by Ms. Lutécia Daniel. Ms. Heloise Wickramanayake formatted and produced the layout. The previous Survey of Denmark was issued in January 2014.

Information about the latest as well as previous Survey *and more information about how* Surveys *are prepared is available at* www.oecd.org/eco/surveys.

BASIC STATISTICS OF DENMARK, 2014

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	5.6		Population density per km²	129.9	(34.9)
Under 15 (%)	17.4	(18.1)	Life expectancy (years, 2013)	80.4	(80.5)
Over 65 (%)	18.2	(16.0)	Men	78.3	(77.8)
Foreign-born (%, 2013)	8.5		Women	82.4	(83.1)
Latest 5-year average growth (%)	0.3	(0.6)	Latest general election	June	2015
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	346		Primary sector	1.1	(2.5)
In current prices (billion DKK)	1943		Industry including construction	23.3	(26.4)
Latest 5-year average real growth (%)	0.7	(1.9)	Services	75.6	(71.1)
Per capita (000 USD PPP)	46.4	(40.2)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure	56.0	(42.3)	Gross financial debt	60.0	(115.5)
Revenue	57.4	(38.5)	Gross financial debt (Maastricht definition)	44.8	
			Net financial debt	4.9	(71.7)
EXTERNAL ACCOUNTS					
Exchange rate (DKK per USD)	5.6		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	7.5		Machinery and transport equipment	26.4	
In per cent of GDP			Food and live animals	16.7	
Exports of goods and services	53.4	(53.8)	Miscellaneous manufactured articles	14.6	
Imports of goods and services	47.3	(49.8)	Main imports (% of total merchandise imports)		
Current account balance	7.7	(0.01)	Machinery and transport equipment	31.2	
Net international investment position	43.1		Miscellaneous manufactured articles	15.9	
			Manufactured goods	13.4	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate for 15-64 year-olds (%)	72.8	(65.7)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	6.6	(7.3)
Men	75.8	(73.6)	Youth (age 15-24, %)	12.6	(15.1)
Women	69.8	(57.9)	Long-term unemployed (1 year and over, %)	1.7	(2.5)
Participation rate for 15-64 year-olds (%)	78.1	(72.7)	Tertiary educational attainment 25-64 year-olds (%)	35.8	(33.5)
Average hours worked per year	1 436	(1 770)	Gross domestic expenditure on R&D (% of GDP)	3.1	(2.4)
ENVIRONMENT					
Total primary energy supply per capita (toe)	2.9	(4.1)	CO^2 emissions from fuel combustion per capita (tonnes, 2013)	6.9	(9.6)
Renewables (% of TPES)	27.8	(9.1)	Water abstractions per capita (1 000 m^3)	0.1	
Fine particulate matter concentration (PM2.5, µg/m^3, 2013)	11.4	(13.8)	Municipal waste per capita (tonnes)	0.8	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2012)	0.249	(0.308)	Education outcomes (PISA score, 2012)		
Relative poverty rate (%, 2012)	5.4	(10.9)	Reading	496	(496)
Median equivalised household income (000 USD PPP, 2012)	27.3	(22.1)	Mathematics	500	(494)
Public and private spending (% of GDP)			Science	498	(501)
Health care, current expenditure (2013)	10.4	(8.9)	Share of women in parliament (%, December 2015)	37.4	(27.7)
Pensions (2011)	8.5	(8.7)	Net official development assistance (% of GNI)	0.85	(0.37)
Education (primary, secondary, post sec. non tertiary, 2012)	4.7	(3.7)			

Better life index: *www.oecdbetterlifeindex.org*

* Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union.

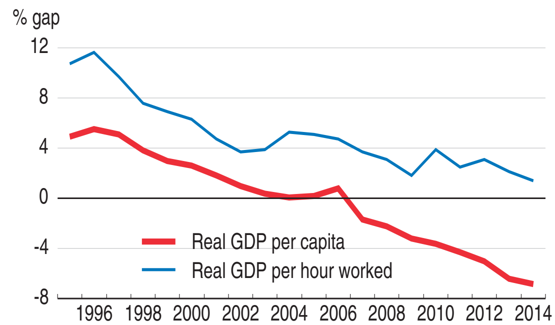
Executive summary

- *High living standards but slow growth*
- *New structural reforms to improve the balance between inclusiveness and work incentives needed*
- *Current monetary conditions call for more action in prudential policy*

High living standards but slow growth

Productivity and economic growth lag behind OECD best performers

Gap to the performance of upper half of OECD countries



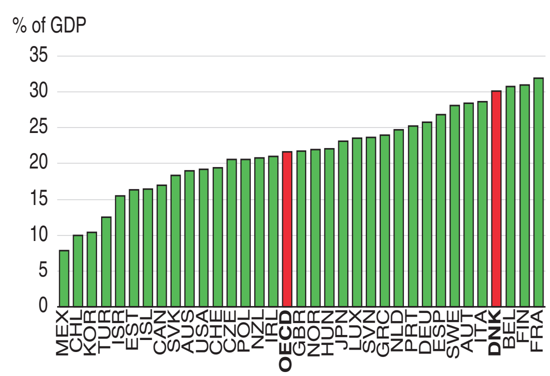
Source: OECD, Going for Growth database.

StatLink http://dx.doi.org/10.1787/888933352714

Danes enjoy high living standards and well-being, not the least because of the reform willingness of their governments. Yet, the economic recovery has been fragile and GDP per capita is still below its pre-crisis levels, although Gross National Income has received a boost from favourable term of trade developments. Investment has been subdued and North-Sea oil production has been a drag on growth. Sluggish productivity growth continues to be a challenge, undermining long-term growth prospects of an economy with an ageing population. In many areas such as domestic services and retail more competitive pressure and innovation would be a boon to growth. A number of reforms have been launched, but more can be done, for instance boosting competition in retail and pharmacies.

New structural reforms to improve the balance between inclusiveness and work incentives needed

Social spending is high



Source: OECD Social Expenditure database.

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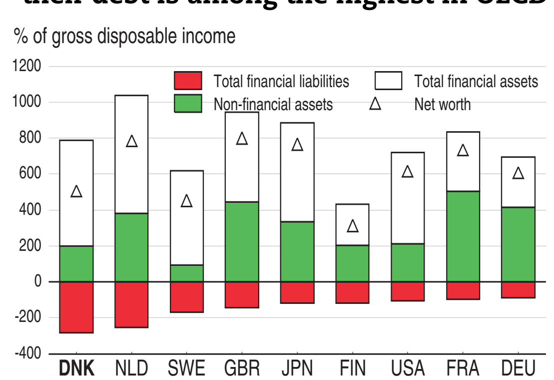
To enhance inclusive growth, barriers to work for some groups at the margin of the labour market need to be removed. The agreed extension of work lives will need to be accompanied by appropriate measures. The welfare system, though costly, provides generous support for those in need. Public finances are sustainable as long as labour force participation and work incentives remain high and the cost of welfare institutions can be held in check. To this end, generous benefits should be provided in a way which does not reduce work incentives and the effectiveness of integration measures for marginalised groups needs to be improved. On the expenditure side, cost pressures can be contained by further integration of welfare services and opening them to private suppliers.

Current monetary conditions call for more action in prudential policy

Households hold large balance sheets and their debt is among the highest in OECD



Source: OECD Analytical database.

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The current expansionary monetary conditions may lead to rising internal imbalances. Negative interest rates are contributing to the risk of building-up a new bubble in the housing market and may be encouraging excessive risk-taking by households and the financial sector. However, credit growth remains subdued. To mitigate future risks, macro-prudential tools should be extended across the whole country and tax policy of the property market needs to play its counter-cyclical role. Also, the debt-bias in favour of housing and credit should be lowered, in order to limit the vulnerability of households to rising interest rates.

MAIN FINDINGS	KEY RECOMMENDATIONS
Ensuring macroeconomic stability	
Monetary conditions are very accommodative and automatic stabilisers in the housing market cannot work fully.	Reform property taxation, including by decreasing mortgage interest rate deductibility and regularly updating valuations in order to establish neutrality across different asset classes.
High household debt poses vulnerabilities.	Encourage mortgage institutions to strengthen the use of debt-service-to-income ratios. Give consideration to extending some of the locally targeted "Best practices" introduced by the regulator for granting a mortgage in hotspot areas to the whole country.
Private rental market is underdeveloped.	Support a bigger private rental housing market by easing rent regulation while striking a balance between landlord and tenant protection.
Maintaining inclusive growth and sustaining the coverage and generosity of social institutions	
Inactivity and the number of social benefit recipients have increased. For some groups incentives to return to work or prolonging careers at older ages are low.	Reduce the effective taxation of returning to work by reforming benefits in order to make work pay. Allocate a permanent disability pension only to those with permanent incapacity to work regardless of age. Reduce disincentives and barriers to work at older ages originating from public and occupational pension design. Improve the quality and implementation of integration programmes for migrants. Monitor work requirements for social assistance recipients.
Social institutions are costly. In order to stay sustainable they need to become more efficient.	Use autonomy of local governments better for drawing lessons from the diversity of approaches in providing social services, which should also strengthen accountability for outcomes. Integrate welfare, prevention and rehabilitation services to improve provision of public services. Make general practitioners more responsible for the continuity of care. Encourage the private supply of welfare services to offer more choice while at the same time reaping efficiency gains.
Productivity growth has been slow.	The government should reintroduce overall quantitative targets for the effects of productivity measures on GDP. Further analysis of productivity enhancing measures should be carried out in some areas, while in others reforms could go further, notably in non-export oriented services and retail.

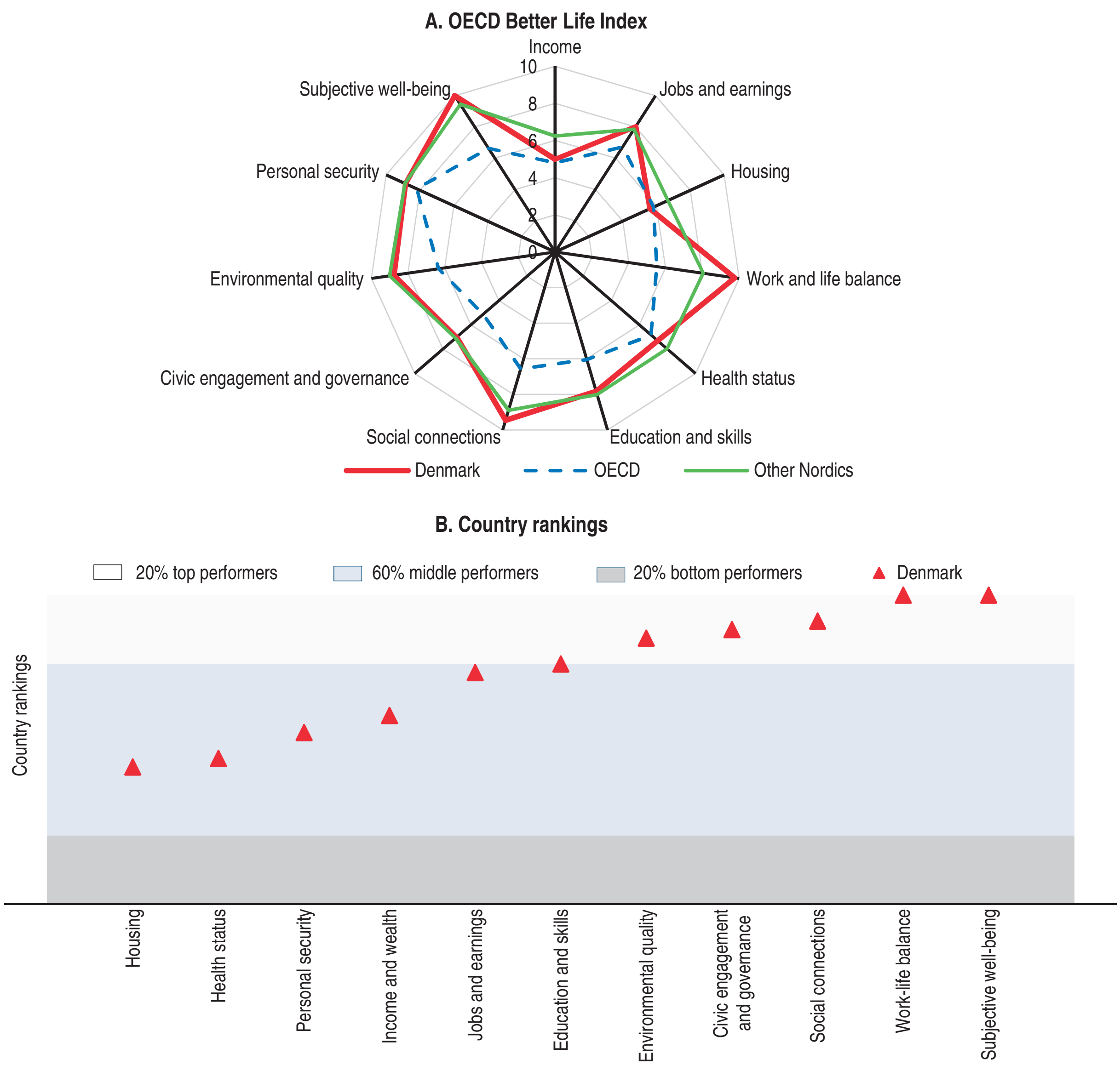
Assessment and recommendations

- *Economic prospects have improved recently*
- *Monetary conditions are very accommodative*
- *Fiscal policy is sustainable but could let automatic stabilisers work more freely*
- *Balancing inclusiveness, work incentives and sustainability in an ageing society*
- *Cost effective policies to manage environmental pressures*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Denmark's population enjoys high material living standards, extensive social welfare, and scores highly on a number of dimensions of well-being (Figure 1). The economy is finally set to recover from a protracted recession, and households are enjoying private sector jobs growth and rising real incomes. Unemployment is low and the "Nordic Model", combining efficiency enhancing market forces, high quality public services, and an encompassing social net, is still working well.

Figure 1. **Denmark scores well in OECD's Better Life Index**

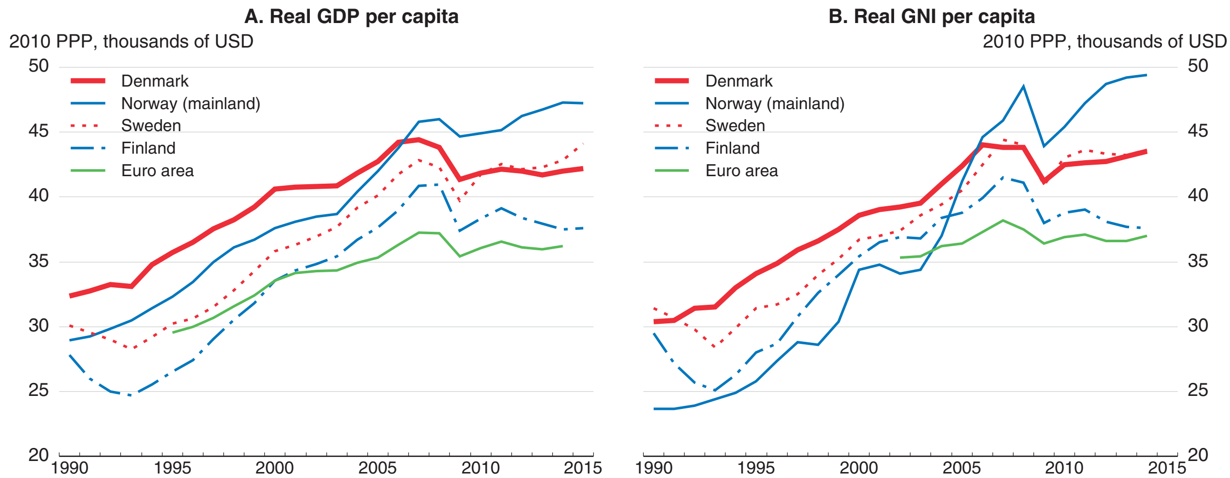


Source: OECD, Better Life Index 2015.

StatLink http://dx.doi.org/10.1787/888933352227

Yet, during the global recession the economy lost ground to other OECD countries, in particular its regional peers, measured by GDP per capita. By other measures, such as GNI that take into account income from abroad, it has done better (Figure 2). Furthermore persistent terms-of-trade gains also add to domestic incomes. Weak productivity growth, a major challenge prior to the recent downturn, continues to weigh on longer-term economic prospects, and current expansive monetary conditions contribute to the risk of internal imbalances building up, particularly via the housing market.

Figure 2. **GDP growth has been weak though other measures paint a better picture**



Source: OECD, National Accounts database.

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Against this backdrop, the main messages of this *Survey* are:

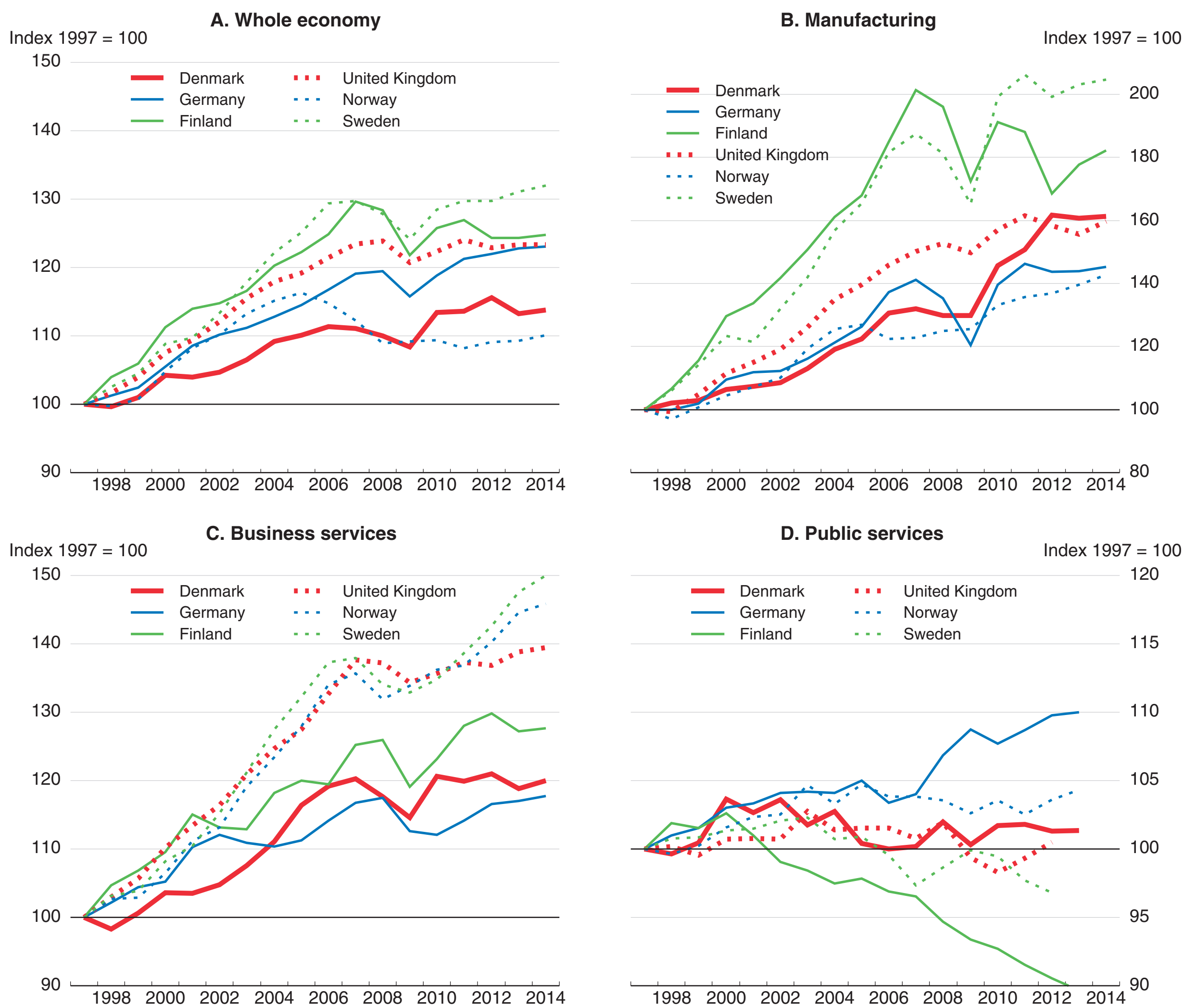
- *Mitigating risks of building-up internal imbalances*. Now that the economy has recovered further from a property price crash, and before imbalances reappear, it is time to put policies in place to bolster financial stability and stabilise the housing market. A prolonged period of low, and recently negative, interest rates has the potential to trigger another boom-bust cycle in an unchanged policy environment.
- *Safeguarding social welfare*. Social protection is high, but expensive. Removing obstacles to employment for all benefit recipients with some capacity for work would make growth more inclusive and improve long-term sustainability of the welfare system.

Despite a strong business environment, the Danish economy, and specifically business services, has suffered from weak labour productivity since the second half of the 1990s (Figure 3). The housing boom of the late 2000s contributed to a misallocation of resources in the economy, and it is likely that some of that misallocation continues given the large size of the financial sector and its wage premiums. The economy is not as well connected to global value chains as some comparable smaller open economies, and a relatively high level of investment in knowledge-based capital does not bring expected outcomes (OECD, 2014a). Denmark's potential growth was oscillating between 1-2% during the last economic upswing of the 2000s, and the financial crisis has in all likelihood weakened it. An estimate of the permanent medium-term loss to output is 2.6% in 2014 for Denmark (Ollivaud and Turner, 2014).

Continued increases in living standards and well-being hinge on reviving productivity and maintaining high employment. A number of measures to improve labour force participation have already been implemented with good results, particularly for older workers. Nevertheless, because of long lags involved, close monitoring and timely action are warranted.

Figure 3. **Lagging productivity growth**

Indices, different scales



Source: OECD, National Accounts database.

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Productivity has been on the policy agenda for some time. Following recommendations of a temporary productivity commission established in 2012, a series of "growth plans and packages" have been launched. These measures included a lowering of the corporate income tax; harmonisation with international standards; strengthening the independence of the Competition Council and Consumer Protection Authority; streamlining construction permit procedures and opening up the construction industry to more competition; removing entry barriers in various services such as real estate and maritime pilots. The most recent package, *Growth and Development Across Denmark*, launched in late 2015, contains over a hundred detailed measures. A key initiative is to lift some strict retail sector regulations, in particular rules concerning shop size and location contained in the Planning Act. The package also mandates an estimation of cost for business and impact on competition for all legislative proposals from now on.

Such measures are welcome and many of these have been identified in previous *Surveys* that looked at productivity issues in great length (Box 1). As planned, implementation and regular reporting on progress made on reform initiatives needs to continue. The previous government presented an overall quantitative target of how much productivity enhancing initiatives where to contribute to GDP growth towards 2020. The current government should reintroduce the use of overall quantitative targets for the effects of productivity measures on GDP. In some areas, further analysis has been agreed on and should be carried out (e.g. in network industries), while in others, reforms could go further (for instance in retail, liberal services, and pharmacies). A recent OECD review lists many specific recommendations to improve competition law (OECD, 2015a). Existing legislation could be screened with a focus on barriers to competition, for instance using *OECD's Competition Assessment Toolkit*.

Continued development of skills is key in ensuring future productivity growth. A reform of public primary and lower secondary education (*Folkeskole*) is being implemented, focusing on a longer and varied school day, including more and improved teaching; better professional development of teachers, pedagogical staff and school principals, and the simplification of rules and regulations. Also, a new unit analysing productivity issues and coordinating productivity and growth enhancing policy initiatives has been established at the Ministry of Finance, which is welcome.

Box 1. **Areas for reviving productivity growth**

Productivity issues have been analysed in great detail in previous Surveys (OECD, 2014a; 2009; 2006; 2005). These have identified a need to:

Reduce entry barriers in the economy notably for pharmacies, taxis and public transportation (OECD, 2005; 2009), by easing regulations on the size and placement of new suppliers (OECD, 2005; 2009).

Strengthen policies to promote innovation, for instance by moving towards a more balanced mix of project and institutional funding, by making sure that public funding is accessible to young and dynamic firms and by regular evaluation of effectiveness of public programmes in place (e.g. loan guarantee scheme, recent merger of innovation funding programmes) (OECD, 2014a).

Improve business angel investor training networks and enhance an entrepreneurial culture, including among women, via media and the educational system (OECD, 2014a).

Make a better use of skills, by strengthening the assessment framework of primary and secondary education, by including teacher and principal appraisal, making vocational education and training more attractive to students, raising the performance of adult learning programmes and the efficiency of active labour market policies (OECD, 2014a).

Economic prospects have improved recently

GDP growth has been weak in recent years (Table 1), and declining North Sea oil production continues to be a drag. Broad based job creation in the private sector and a decline in the unemployment rate since 2011, in spite of a meagre headline GDP performance, are helped by the overall supportive environment (Figure 4). Private consumption continues to be aided by a strong labour market, ultra-supportive monetary conditions, recovering housing wealth and low energy prices. Exports, which led the recovery in earlier years, have lost momentum during 2015, in part because of a slowdown in Europe and Asia. Nevertheless, the current account surplus as a share of GDP is one of the largest in the OECD.

Table 1. **Macroeconomic indicators and projection**

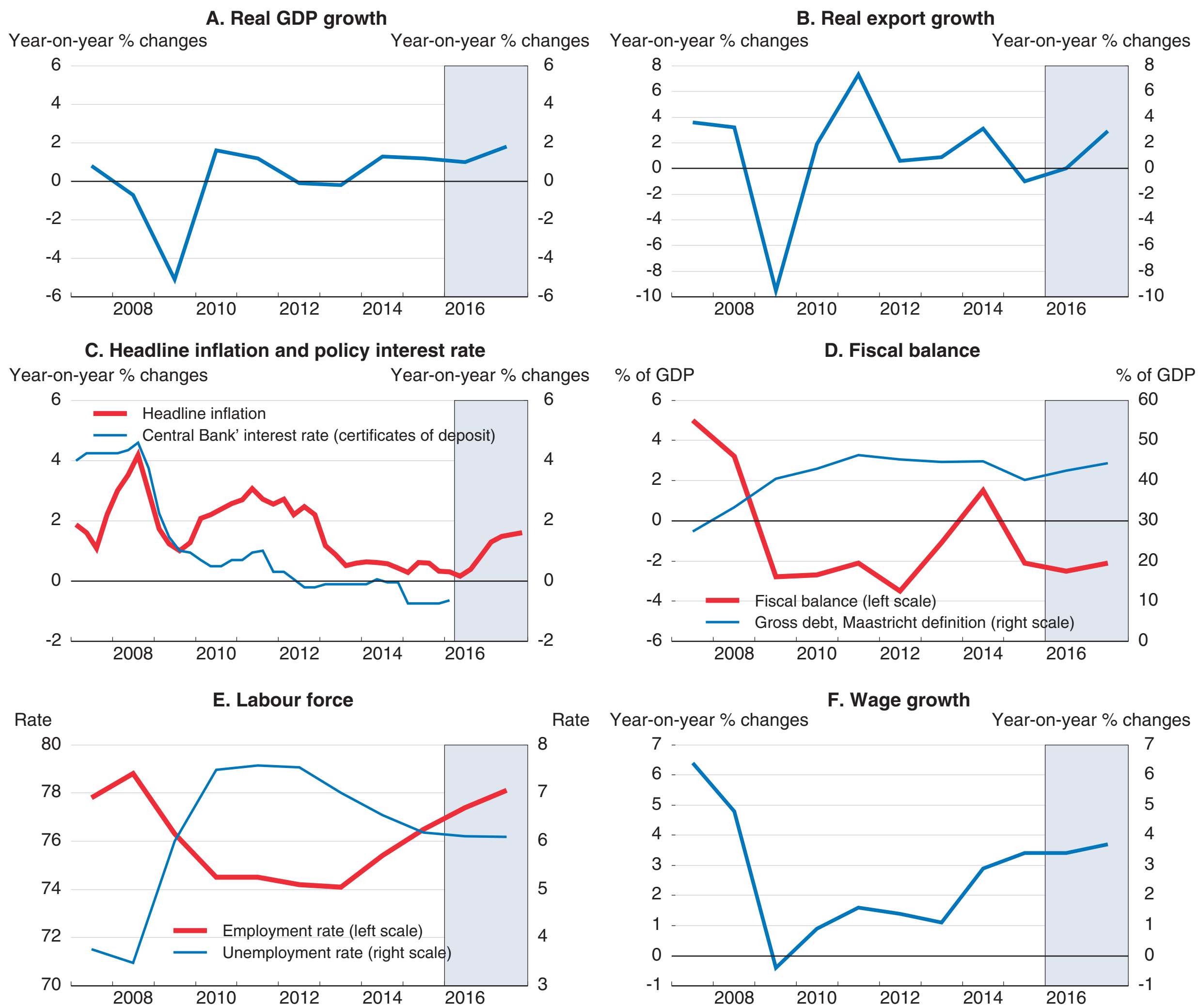
Annual percentage change unless specified otherwise, volumes at 2010 prices

	2012 billion DKK Current prices	2013	2014	2015	2016	2017
GDP	1 883	-0.2	1.3	1.2	1.0	1.8
Private consumption	909	-0.1	0.5	2.1	1.8	1.9
Government consumption	502	-0.7	0.2	0.6	0.3	0.6
Gross fixed capital formation	357	1.1	3.4	1.2	1.4	2.8
Of which: Housing	77	-1.1	3.1	-0.5	0.4	4.0
Business	210	2.4	2.1	2.6	2.3	3.4
Government	70	-0.4	7.4	-1.0	-0.1	-0.1
Final domestic demand	1 767	0.0	1.0	1.5	1.3	1.7
Stockbuilding[1]	13	-0.2	0.2	-0.3	0.2	0.0
Total domestic demand	1 780	-0.2	1.3	1.2	1.4	1.7
Exports of goods and services	1 009	0.9	3.1	-1.0	0.0	2.9
Imports of goods and services	906	1.1	3.3	-1.4	0.7	2.8
Net exports[1]	102	-0.1	0.1	0.1	-0.3	0.2
Other indicators (growth rates, unless specified):						
Potential GDP		0.6	0.7	0.8	0.8	0.8
Output gap[2]		-2.7	-2.1	-1.7	-1.5	-0.5
Employment		-0.0	1.0	1.4	1.2	0.9
Unemployment rate[3]		7.0	6.5	6.2	6.1	6.1
GDP deflator		1.4	0.8	1.0	1.1	1.6
Consumer price index		0.8	0.6	0.5	0.4	1.5
Core consumer price index (excluding food and energy)		1.2	0.9	1.3	1.0	1.4
Household saving ratio, gross[4]		1.2	-2.8	6.8	8.1	7.8
Current account balance[5]		7.1	7.7	7.0	7.1	7.2
General government fiscal balance[5]		-1.1	1.5	-2.1	-2.5	-2.1
General government gross debt[5] (Maastricht)		44.7	44.8	40.2	42.4	44.3
General government net debt[5]		4.0	4.9	5.5	7.8	9.6
Three-month money market rate, average		0.3	0.3	-0.1	-0.1	-0.1
Ten-year government bond yield, average		1.7	1.3	0.7	0.7	0.8

1. Contributions to changes in real GDP.
2. As a percentage of potential GDP.
3. As percentage of the labour force.
4. As a percentage of household disposable income.
5. As a percentage of GDP.

Source: OECD STEP 99 database.

Figure 4. **Recent macroeconomic developments**



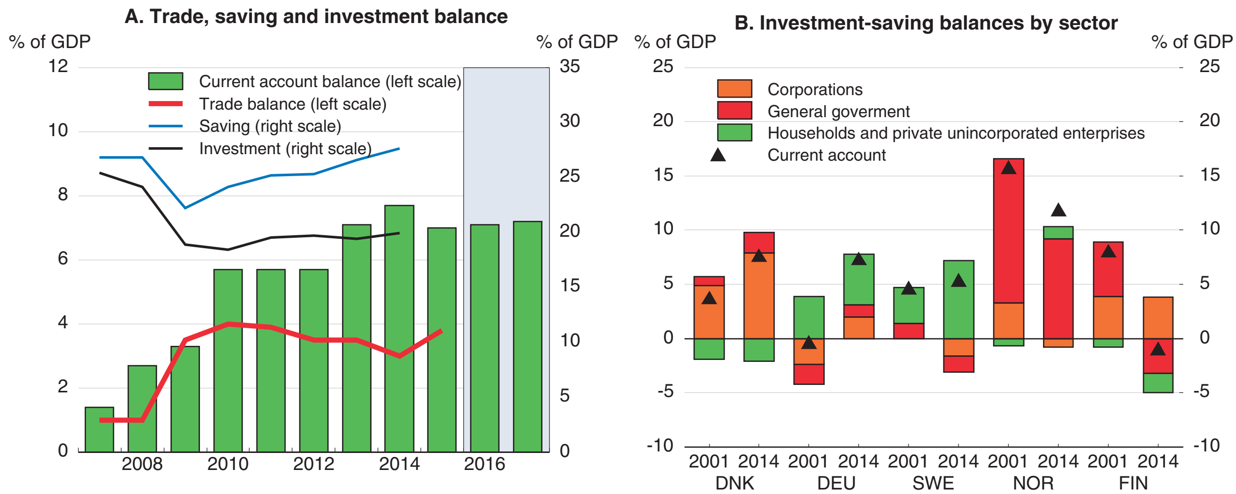
Source: OECD STEP 99 database; Danmarks Nationalbank.

StatLink http://dx.doi.org/10.1787/888933352252

Economic growth is projected to be 1% in 2016 rising to just under 2% in 2017, when the economy will be close to full employment. Activity will be supported by a rise in investments and stronger world trade. Consumption is projected to pick up, but will be held back by the need for a further reduction in household debt. Given fiscal consolidation needs – of reducing the existing structural deficit to the target of at least balance by 2020 – growth of both public investment and consumption will be weak. Inflation is well below 1%, driven by falling energy prices and continued moderate wage growth. Nevertheless, core inflation started to edge up this year, albeit from a low level, and stood at 1% in 2015. The pick-up came from higher import prices, given the weak currency (Danmarks Nationalbank, 2015a). Inflation is projected to rise slightly towards the end of the projection period as the effects of falling oil prices fade and the labour market gradually tightens further.

The current account is hovering around an all-time high of 7-8% of GDP, with the balance for goods, services, and returns on investments contributing to the surplus (Figure 5). While to

Figure 5. **Current account at a historical high**



Source: OECD STEP 99 database; OECD National Accounts database.

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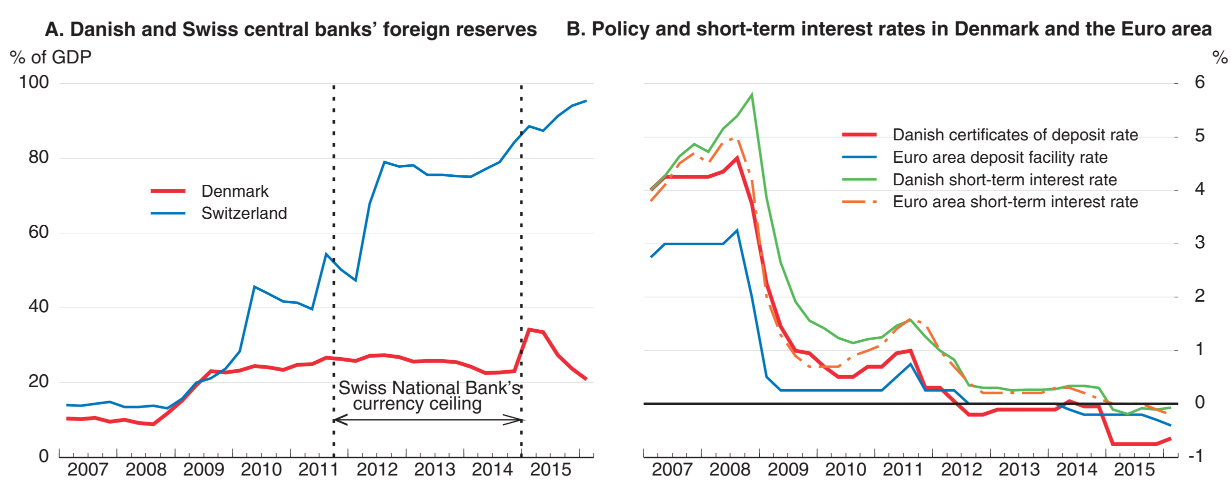
some extent this is a result of the cyclical position (due to low investment and consumption ratios), the underlying drivers are primarily linked to high gross private sector savings (largely in second pillar pensions) and positive returns on foreign assets. National estimates of the structural current account, i.e. when the output gap closes and consumption and investment normalise, is around 4-5% of GDP (Danmarks Nationalbank, 2015a).

Continued trade weakness linked to a slowdown in emerging markets, in particular in China, or disappointing growth in the euro area pose the main downside risks to exports. Financial market turbulence, be it global or regional, can have spill-over effects into the Danish economy, given the size and openness of the financial sector. Due to the safe haven status of the *krone*, there can be potentially substantial capital inflows, as experienced in early 2015, when the size of the central bank balance sheet exceeded 30% of GDP (Figure 6). On the

Figure 6. **Danish and Swiss central banks' foreign reserves**



Source: Danmarks Nationalbank; Swiss National Bank; European Central Bank.

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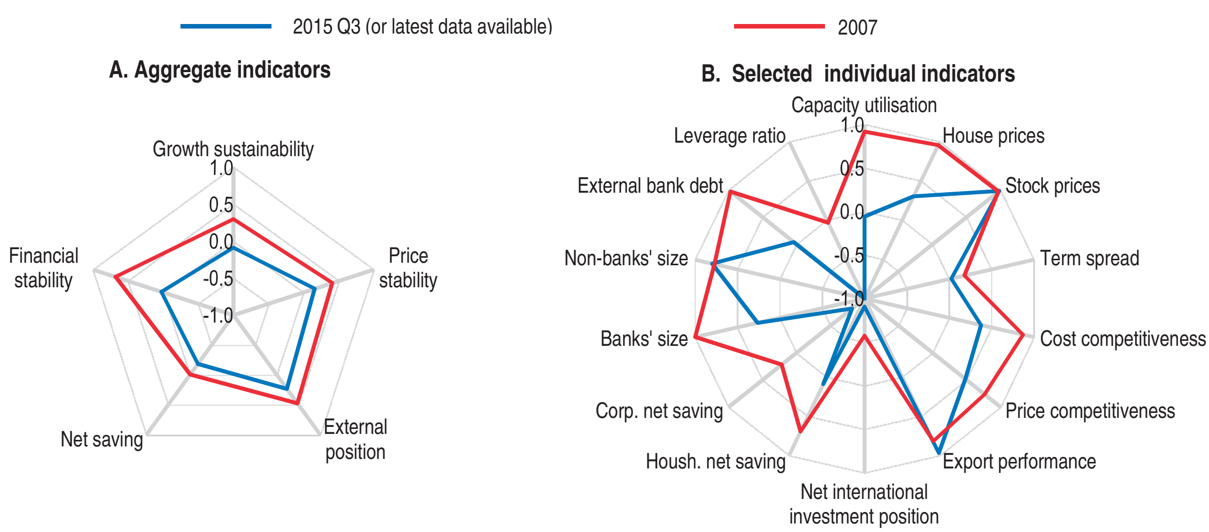
domestic side, stronger debt reduction among Danish households would weaken domestic demand in the short term, but would provide room for stronger consumption and investment later on. The very supportive monetary policy stance, and rising property prices, could boost domestic demand, but may also lead to another housing boom-bust cycle (Box 2). Indicators of macro-financial vulnerabilities have improved considerably since 2007 (Figure 7).

Box 2. **Shocks that might affect economic performance**

Vulnerability	Possible outcome
Decline of free movement of goods and labour in the EU	Denmark is a trading nation, and the EU is a destination for a large share of its exports, with Germany, the USA, the United Kingdom and Sweden being the most important trading partners. The imposition of any trade barriers would therefore have an impact. The reintroduction of identity checks at Schengen borders is already imposing an additional cost on cross-border activities.
Household indebtedness	Households are among the most indebted in the OECD, though they also hold very large pension assets. Most mortgages have variable interest rates, and interest-only periods are also common. Household exposure to rising interest rates, house-price fluctuations and losses in income are therefore of concern. A repeat of the 2005-08 housing cycle would again damage the economy.

Figure 7. **Potential macro-financial vulnerabilities have diminished**

Deviations of indicators from their real time long-term averages (0), with the highest deviations representing the greatest potential vulnerability (+1), and the lowest deviations representing the smallest potential vulnerability (-1)



Note: Each aggregate macro-financial vulnerability indicator is calculated by aggregating (simple average) normalised individual indicators. Growth sustainability includes: capacity utilisation of the manufacturing sector, total hours worked as a proportion of the working-age population (hours worked), difference between GDP growth and productivity growth (productivity gap), and an indicator combining the length and strength of expansion from the previous trough (growth duration). Price stability includes: the average of overall inflation and core inflation (consumer prices), the average of house prices-to-rent ratio and house prices-to-income ratio (house prices), stock market index for all Danish shares adjusted by nominal GDP (stock prices), and the difference between long-term and short-term government bond interest rates (term spread). External position includes: the average of unit labour cost (ULC) based real effective exchange rate (REER), and consumer price (CPI) based REER (cost competitiveness), relative prices of exported goods and services (price competitiveness), export performance and net international investment position (NIIP). Net saving includes: government, household and corporate net saving. Financial stability includes: banks' size as a percentage of GDP, non-banks' size as a percentage of GDP, external bank debt as percentage of GDP, and capital and reserves as a proportion of total liabilities (leverage ratio).

Source: OECD calculations based on OECD (2015), OECD Economic Outlook: Statistics and Projections (database), December and Thomson Reuters.

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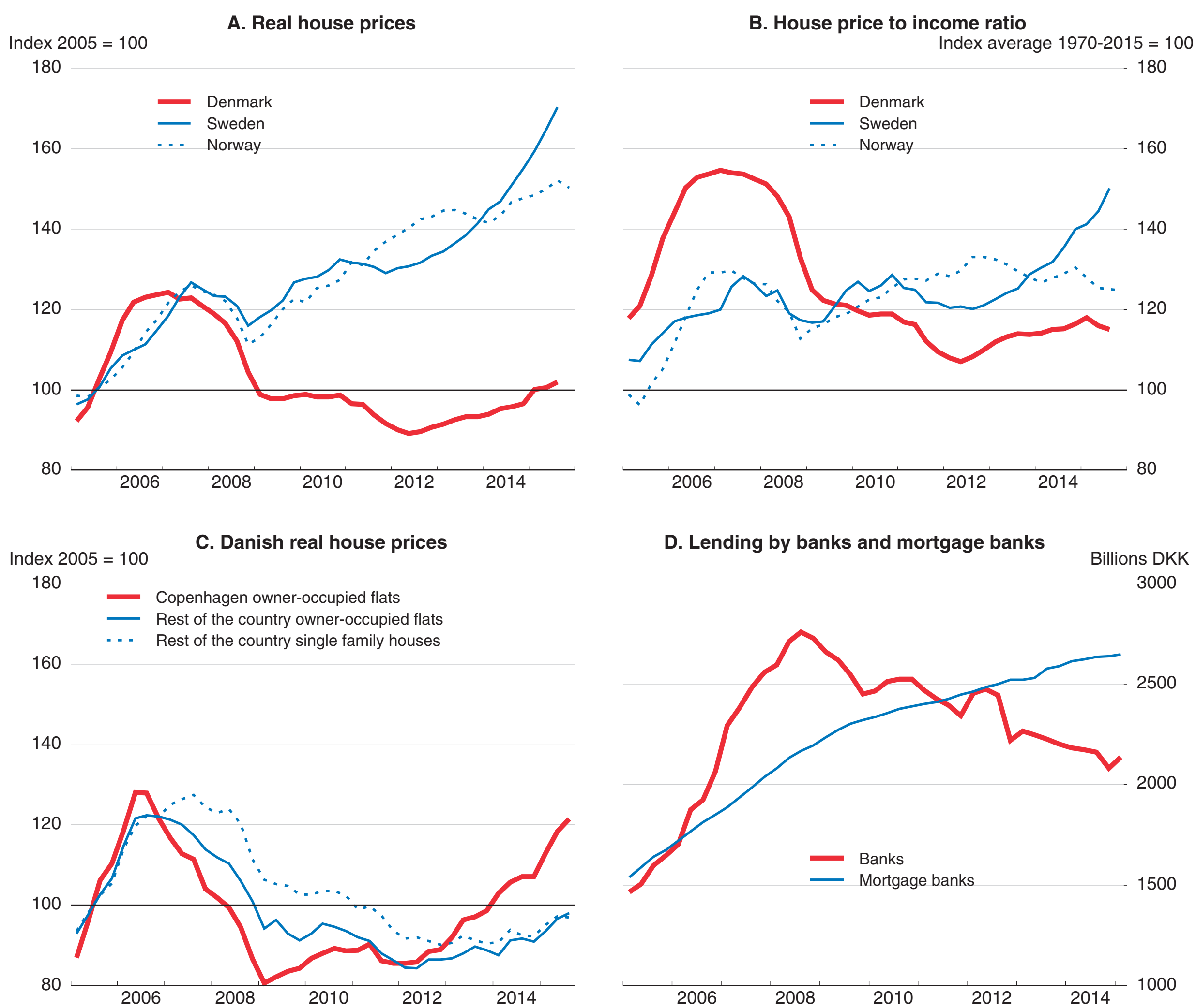
Monetary conditions are very accommodative

By and large, the monetary policy stance depends heavily on ECB's decisions and expectations of future developments of the euro area, since the Danish *krone* is pegged to the euro. Danish official interest rates have fallen below ECB rates to contain surges in demand for the *krone*. Supportive monetary policy in the euro area is expected to continue into 2017 and this may become too loose for the Danish economy, given the already currently small degree of slack in the labour market. Should monetary conditions become out of line with the Danish business cycle, other policies such as fiscal and macroprudential need to be stepped up. The economy is emerging from a housing boom-bust episode, during which the national average house prices fell by around 30% peak to trough, which amplified the effects of the global financial crisis (Danmarks Nationalbank, 2014). The housing market has now recovered, notwithstanding significant regional differences (Danmarks Nationalbank, 2015b). Indeed, owner-occupied flat and single family house prices in Copenhagen have been rising by around 10% a year since 2012 (Figure 8). As a result, while on aggregate house prices are

Figure 8. **Housing market is volatile and poses a risk**



Source: OECD Housing database; Statistics Denmark.

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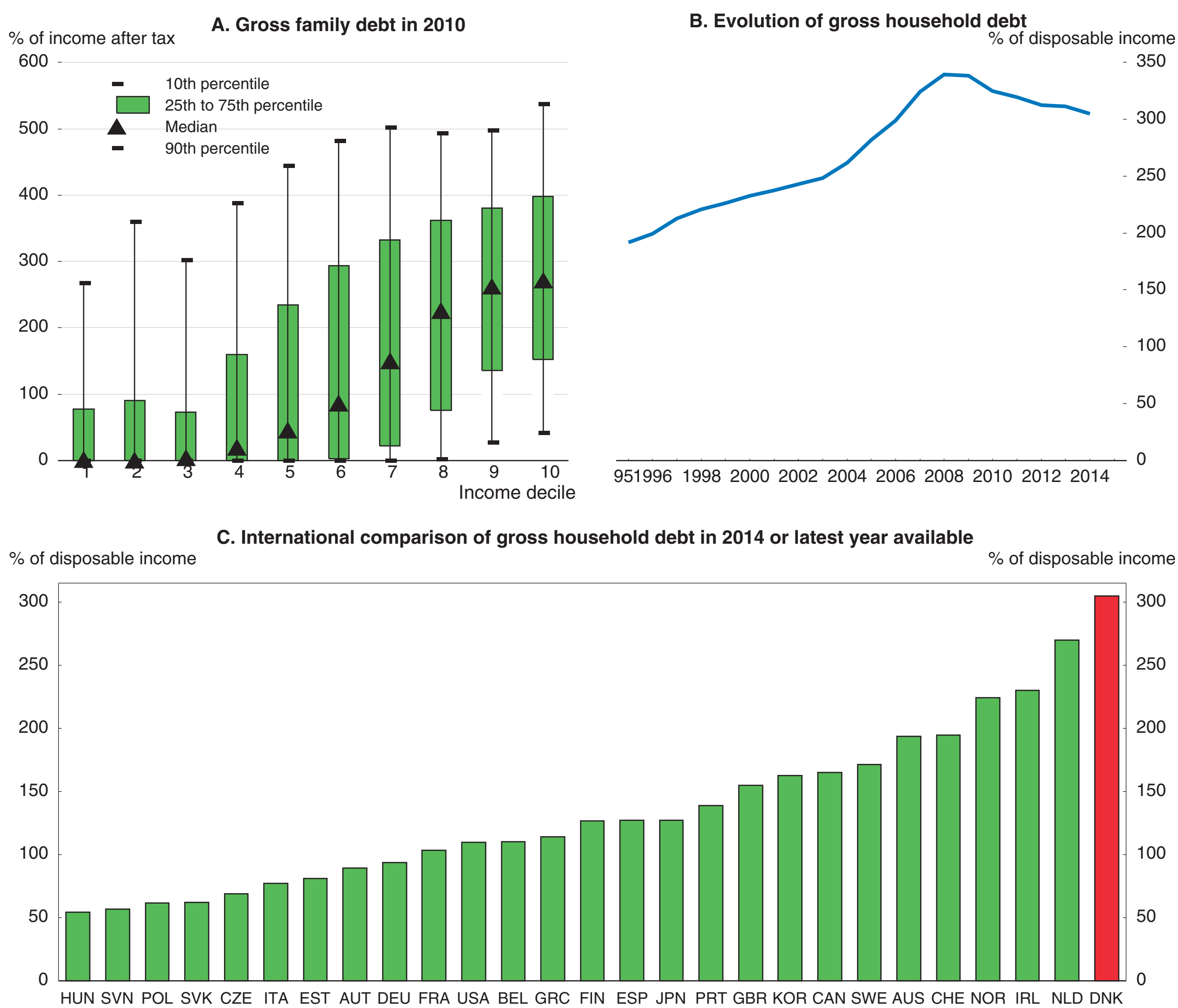
still well off their unsustainable peak, they seem set to continue to rise. The fact that the state of the housing market is currently robust means that now is an opportune time to put in place further measures to avoid a repeat of past boom and bust episodes.

Lending by mortgage credit institutions is strong, to a large extent replacing bank lending (see Figure 8, Panel D). Aggregate household debt stands at three times disposable income, one of the highest in the OECD, or 127% of GDP and the majority of it is in mortgages (Figure 9, Panel C). André (2016) shows that gross household debt rose markedly in most OECD countries since the mid-1990s and Denmark has been no exception. Danish households hold substantial assets too, notably in form of pension savings, but these are illiquid. A large share of debt is held by high-income households (Figure 9, Panel A), nevertheless, the most marked rise in debt over the past decade was among low-income households and the elderly (Andersen et al., 2012) exposing them to rate of return and interest rate risks. The mortgage debt structure has responded to these risks. While in the

Figure 9. **Household indebtedness is high and decreasing only marginally**



Source: Danmarks Nationalbank; OECD Analytical database.

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past, households traditionally held fixed-rate debt, at the end of 2014, two thirds of the outstanding loans had a variable rate, over a half a period of interest-only payments, and over 40% a combination of both (Kuchler, 2015). More recently mortgage holders have been gradually moving into less variable contract forms. However, the sensitivity of households to interest rate increases and house price developments remains substantial.

Some 5% of families with at least one mortgage had a total debt-service-to-income ratio (DSTIR) of 40% or more (Ministry of Business and Growth, 2016). As interest rates rise, households will experience rising debt servicing costs. Estimates of Andersen et al. (2015) and Danmarks Nationalbank (2015a) show that indebtedness of households would not pose a threat to the stability of the financial sector in a scenario of increased interest rates. However, there will be consequences for household consumption and wider macroeconomic prospects, if mortgage holders' incomes and purchasing power get squeezed.

The Systemic Risk Council (a body tasked with macro-prudential oversight, chaired by the central bank governor and reporting to the Minister of Business and Growth) sees possible risks from the current low interest rate environment, but does not at present judge it to be necessary to employ the counter-cyclical buffer, which is set at 0%, since the credit volume is low relative to GDP, and credit growth is below its long term trend (Systemic Risk Council, 2015). Sweden and Norway have raised their counter-cyclical buffers to between 1-2% and are scheduled to raise them further next year, but property prices in these countries are rising significantly faster than in Denmark.

Differentiated loan-to-value (LTV) ratios have been applied for some time (80% for residential properties, 70% for agricultural land, 60% for commercial properties and secondary residences and 40% for plots of land). However, although mortgage issuing banks respect the ratios, usually a regular bank loan covers part of the down-payment. A requirement for a down-payment of at least 5% of the house value has been in place since November 2015, as part of consumer protection legislation, though it can be disregarded in justified individual cases. The financial industry has been using a DSTIR check by ensuring that clients can afford an equivalent amortised mortgage with a 30-year fixed rate. Moreover, by regulation a mortgage bank's high LTV and deferred amortisation mortgages are now limited to 10% of its mortgage portfolio and credit policy regulations, such as requiring actual positive liquidity of commercial borrowers, have been tightened somewhat.

The Financial Supervision Authority has at the beginning of the year introduced "*7 best practices*" for granting owner-occupied mortgages in Copenhagen and Aarhus, which have seen the largest house price increases. These include for instance a recommendation that borrowers with high debt-to-income ratios above 5 should have positive net wealth even if property prices were to fall by 25%, and verifying that borrowers with two mortgaged properties can service the debt on both for a minimum of one year. Such sound practices for hotspot areas should be extended nationwide and modified where appropriate. Moreover, to protect households from taking on excessive leverage, in particular were house prices to boom again, the application of a DSTIR should be further strengthened and consideration should be given to impose specific limits. Also, general interest rate deductibility should be further curbed in order to ensure tax neutrality across different asset classes.

A number of policies exacerbate housing market volatility. Firstly, the property tax is fixed in nominal terms, which means that its effective rate is inversely related to house prices and to that extent fails to dampen house price fluctuations (see below and Figure 11). Secondly, the rental market is strictly regulated, notably in Copenhagen.

Historically, mortgage interest rate deductibility was significant, although it will fall – from currently 33% to 25% of interest expenses – in 2019 (for annual interest rate expenditures above EUR 6 700).

Some 20% of the housing stock is for private rent (Salvi Del Pero et al., 2016, *forthcoming*), but as noted in previous *Surveys,* rent increases are heavily regulated (OECD, 2006). There is flexibility for rent increases for dwellings built after 1991, but these represent only around a fifth of the private rental market. Rent flexibility could be increased for instance by allowing more scope for comparisons of flats when determining similar rents and lowering an investment threshold that the landlord needs to spend on upgrading the property to justify a rent rise.

Easing rent regulation, while striking a balance between landlord and tenant protection, would raise rents in the short term but stimulate more supply of rental dwellings. Experience from other countries confirms that development of a bigger private rental market needs a comprehensive reform package which includes rent regulation, tenant protection and fiscal neutrality (de Boer and Bitetti, 2014), while social concerns are best addressed via means-tested benefits. A large social housing sector is already available (about 20% of the housing stock) albeit with long waiting lists. A rental market commission should be set up, to look into the incentives for developing a bigger private rental market.

The financial sector is large

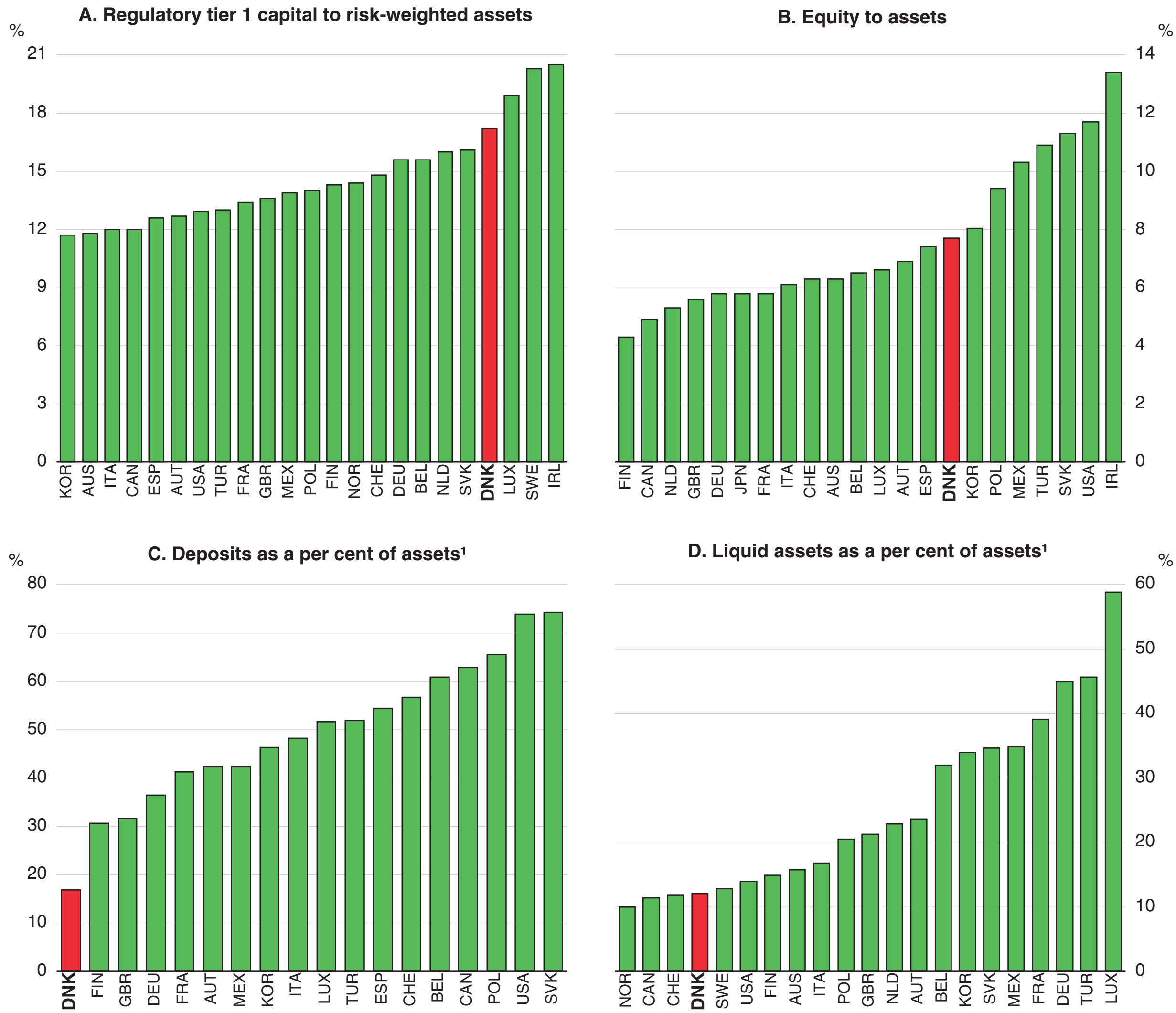
The Danish financial sector holds assets of over 500% of GDP and is highly interconnected. Two thirds of the assets are in the banking sector (Figure 10). Most of the sector has recovered from the global financial crisis and is well prepared for upcoming tightening of capital requirements, such as Basel III/ CRD IV (Danmarks Nationalbank, 2015b). There are six systemically important groups and the central bank carries out regular stress testing of the banking sector. The most recent vintage of these tests (Summer 2015) shows that all SIFIs have a considerable excess of capital adequacy in all test scenarios, while some non-systemic banks would have a small capital shortfall (0.3% of total risk weighted exposure) in the most severe scenario. Capitalisation of smaller banks is improving, though they continue to have elevated non-performing loans to agriculture. Nevertheless they should be able to fulfil tighter regulatory requirements (Danmarks Nationalbank, 2015b).

In response to the central bank's rate cut at the beginning of 2015, market rates plunged even further into negative territory. Yet, there hasn't been any major change in the earnings and risk appetite of banks as compared to recent years of low but marginally positive rates and only a small share of total deposits earns actually a negative interest rate (Danmarks Nationalbank, 2015a). The income from fees has been on the rise, compensating the lower net interest income. In the insurance and pensions sector, the very low interest rates are more of a challenge, in particular given that a majority of products carry guaranteed average rates of return. The insurance industry itself has been pushing towards non-guaranteed products, in particular during recent years, including in existing contracts.

The financial system is interconnected through mortgage bonds and this means that ensuring liquidity and health of this market is crucial (IMF, 2014). Mortgage bonds are issued by mortgage credit institutions to finance mortgage loans and their current stock is of a size of around 100% GDP. Some 80% of these are held by domestic investors, often

Figure 10. **The financial sector is well capitalised**

2015 or latest year available



1. A significant share of the financial sector is formed by the mortgage credit institutions that by design do not take deposits. This affects the DNK ranking in Panels C and D.

Source: IMF, Financial Soundness Indicators database.

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banks, pension funds and the insurance sector, where they represent a significant asset share. On average, 40% of the assets of pension and insurance companies are invested in domestic bonds, the overwhelming majority of which are covered bonds. The Systemic Risk Council has commissioned an analysis into the issue of interconnectedness. Covered bonds are of high quality and liquidity, backed by a strong legal and regulatory framework, and earned considerable praise over the years (Campbell, 2012; IMF, 2014). Yet, the recent reliance on short-term bonds to finance floating rate loans has introduced a major maturity mismatch into the system (IMF, 2014). To reduce the risk of a failed re-financing case, legislation is now in place that automatically prolongs financing by a year in case of interest rate increases of more than 5 percentage points (OECD, 2014a). Also, banks are increasingly spreading out re-financing through the year. Still, wide-spread use of variable-rate mortgage bonds warrants close monitoring.

Fiscal policy is sustainable but could let automatic stabilisers work more freely

Fiscal policy played an important role in stabilising the economy in the downturn (see Figure 4, Panel D). With the economy picking up, it is expected to move to a more neutral stance, though the exact assessment of the cyclically adjusted fiscal position is clouded by uncertainty of estimates of the output gap since the crisis (Ollivaud and Turner, 2014). Continued very low interest rates in the euro area, and the peg of the *krone* to the euro, argue for a cautious fiscal stance.

The 2016 budget maintains a broadly expansionary fiscal stance and according to national estimates fiscal policy is projected to gradually tighten towards balance in 2020 (Ministry of Finance, 2015), in line with the projected gradual closing of the output gap. Some taxes (NO_x tax, land tax, car-purchase tax) are being lowered or capped this year and spending priorities are on healthcare for the elderly and security. Additional expenditures to cover an increased in-flow of immigrants (estimated at around DKK 2 bn., or 0.1% GDP) are being met by decreasing overseas foreign aid and cuts in R&D spending. The actual fiscal balance is expected to remain within the 3% of GDP benchmark, and is supposed to be reduced gradually in coming years. In recent years, the fiscal balance has been influenced by large one offs, particularly revenue from a change in capital pension taxation.

Reducing mortgage and overall interest rate deductibility and restoring immovable property taxation would help to establish tax neutrality at higher effective rates and improve budgetary space, act as automatic stabiliser on the housing market, and help growth as property-based taxes tend to be less distortionary than other taxation (Arnold, 2008). Taxes on immovable residential and commercial property have been effectively capped since 2001 and the valuation of properties was updated on a two year cycle. Currently, the tax is collected on the basis on 2011 valuations and a new valuation system is planned for 2018.

A medium term target of a balanced budget (both headline and structural) by 2020 should be achieved given the projected continued upturn of the economy. Recently introduced expenditure ceilings on public consumption and non-cyclical transfers should ensure that

Figure 11. **Property taxation does not fluctuate with house prices**

Recurrent taxes on business and residential immovable property and land, and house price developments

Source: Statistics Denmark.

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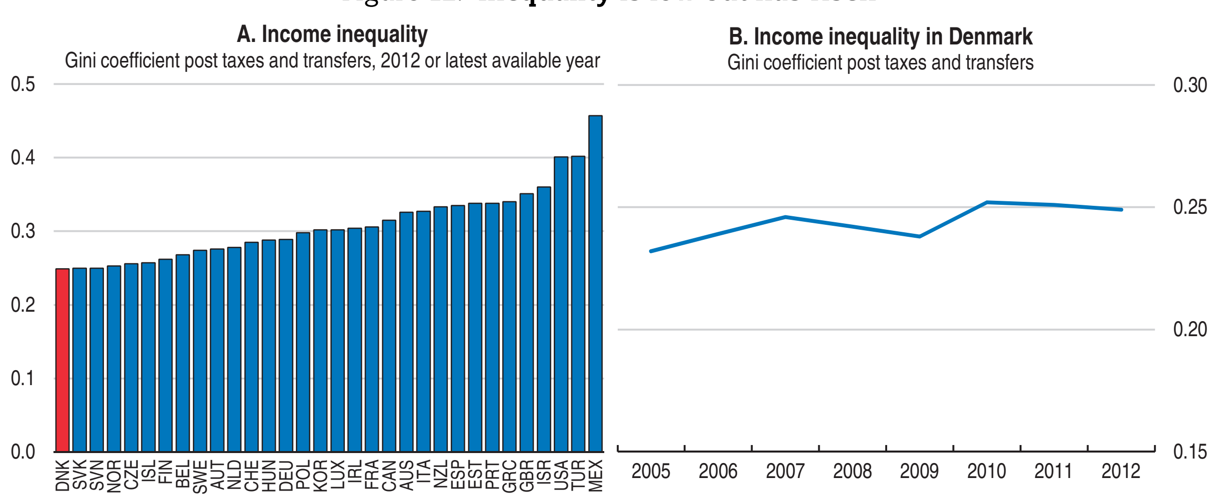
overall targets for fiscal policy are met. The ceilings are adopted by Parliament every four years and set legally binding limits for the expenditures in central government, municipalities and regions. General government debt stands at 40% of GDP, largely at the lower end of EU or OECD member countries. In the long term, public finances seem sustainable (OECD, 2014a, European Commission, 2015a). An occupational funded pensions system introduced back in the 1980s plays an important role in alleviating the fiscal burden of ageing and a number of structural reforms have been implemented to improve fiscal sustainability, such as increasing retirement age, limiting early retirement and inflows into disability benefits. Nevertheless, social spending remains elevated while the revenue base is weakening (see below). The following sections look at how to maintain growth inclusive by keeping labour force participation high and what can be done to increase the cost-effectiveness of social protection.

Balancing inclusiveness, work incentives and sustainability in an ageing society

Household income is distributed fairly equally in Denmark (Figure 12). The Gini coefficient is the lowest among OECD countries: 24.9 in 2012, well below the OECD average of 31.5. The share of population living on less than 50% of the median disposable income is only 6%, compared to the OECD average of 12%. Also, equality of opportunities, measured for instance as intergenerational social mobility, is good (Causa et al., 2009). Inclusiveness features high on the policy agenda, in part because inequality has grown in recent years. While GDP growth was shared equally across the income distribution during the period from the mid-1980s to mid-2000s, disposable incomes of the most vulnerable declined marginally in the period including the recent downturn, but continued to grow for those in the upper half of the distribution (Causa et al., 2016 *forthcoming*). This change can be attributed to a combination of: skills-biased technological change, which leads globally to wider wage dispersion (Braconier and Ruiz-Valenzuela, 2014); domestic reforms to enhance growth, which reduced the high degree of social protection somewhat; an increasing number of single-headed households (OECD, 2011) and higher capital income of the more affluent households (Ministry of Economic Affairs and the Interior, 2015).

Figure 12. **Inequality is low but has risen**

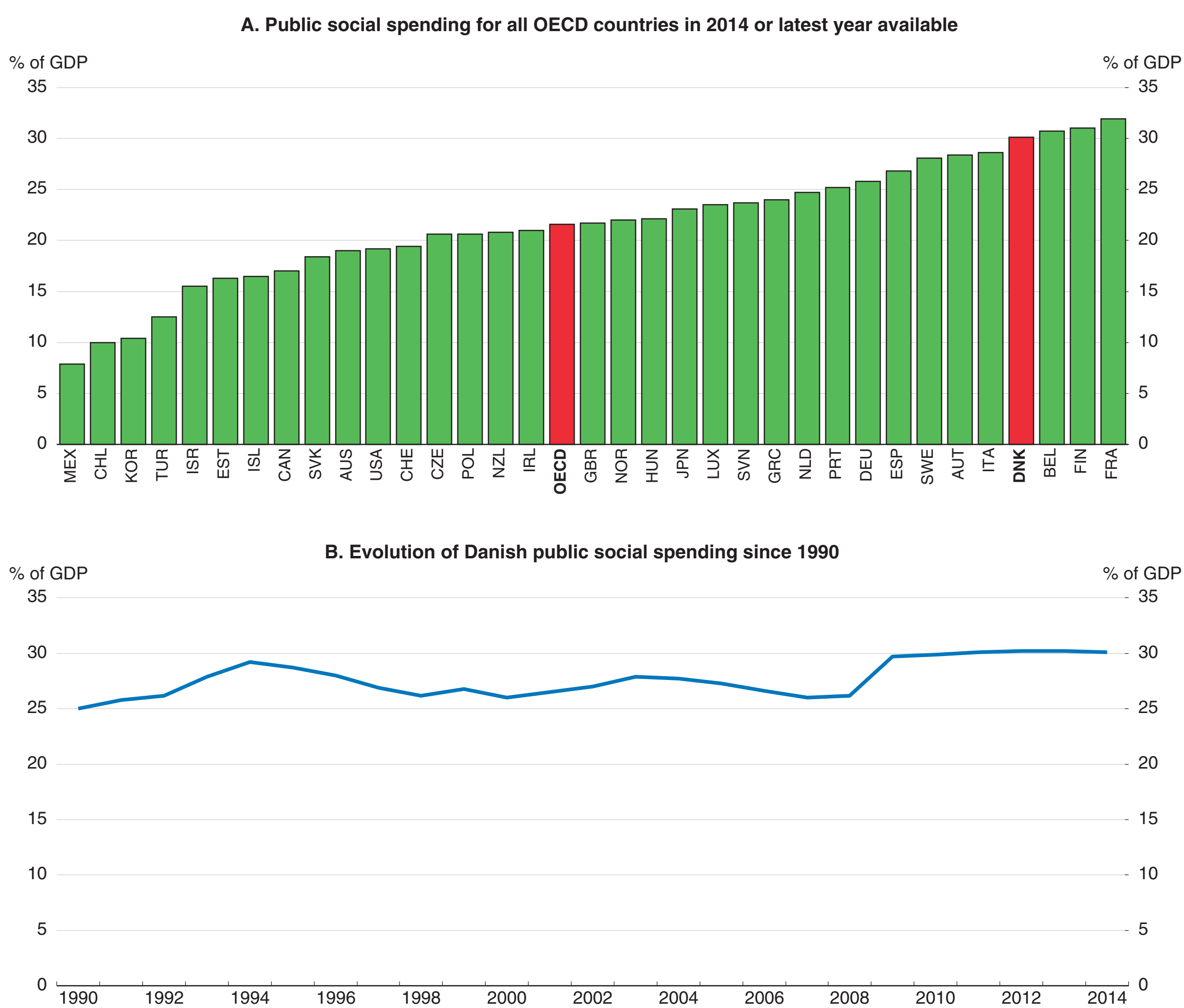


Note: The Gini coefficient is a common measure of income inequality that scores 0 when everybody has identical incomes and 1 when all the income goes to only one person. In Panel B, data prior to 2011 are based on a former income definition.
Source: OECD Income Distribution and Poverty database.

StatLink http://dx.doi.org/10.1787/888933352338

The cost of social institutions (i.e. pension, healthcare, unemployment and social assistance schemes) – among the highest in the OECD – remains elevated. Labour market participation – the core of the Danish *"flexicurity"* system (Box 3) – is high by international standards but has not risen With population ageing and a growing number of benefit recipients detached from the labour market, social institutions are coming under increasing strain (Figure 13). Furthermore, especially for vulnerable groups on the labour market well-being remains limited if based on benefits alone (Burton and Waddell, 2006). To increase economic potential and improve the sustainability of the system to support and increase the well-being of the population the authorities passed important reforms in recent years. Nevertheless, additional measures could widen the contribution base of the welfare system and improve the efficiency of public services in order to maintain the quantity and quality of services expected and requested by the population.

Figure 13. **Social spending is high and has increased**



Source: OECD Social Expenditure database.

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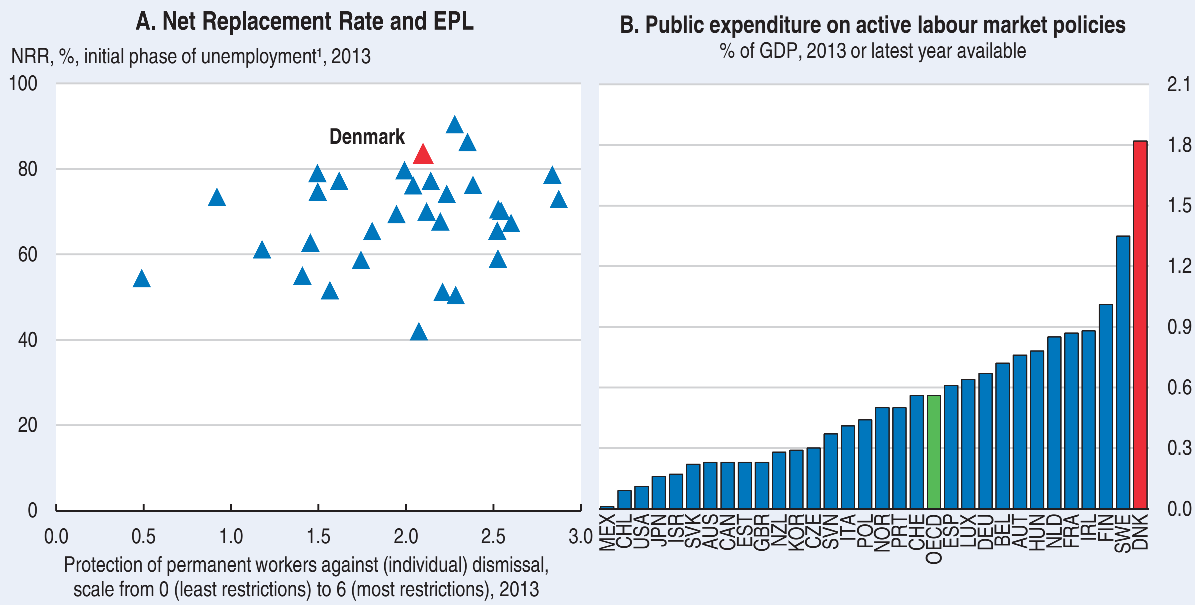
Box 3. **The *flexicurity* labour market model**

The Danish *flexicurity* model is characterised by three core elements: flexible rules for hiring and dismissals, generous replacement rates of unemployment insurance benefits (Figure 14, Panel A), and substantial spending on active labour market policies (Figure 14, Panel B). Furthermore, the labour market is largely organised by social partners, through broad based collective agreements (around 80% of the labour market is unionised). There is little national law on labour issues such as minimum wages, working hours and holidays as these are mainly covered by collective agreements. The term (*flexicurity*) was introduced in 1995 in relation to Dutch labour market reforms (Bekker and Wilthagen, 2008), but the decentralised planning of the labour market combined with a generous benefit system and flexibility in hiring and firing has a long history in Denmark.

Figure 14. **The core elements of the *flexicurity* model**



1. Simple average of the net replacement rates for the following households situations: single with no child and with two children at 67% and 100% of Average Wage (AW), one-earner married couple with no child and with two children at 67% of AW and 100% of AW. After tax and including unemployment and family benefits. Social assistance and other means-tested benefits are assumed to be available subject to relevant income conditions. Housing costs are assumed equal to 20% of AW.

Source: OECD/IAB Employment Protection database, 2013 update; OECD, Tax-Benefit Models; OECD database on Labour Market Programmes.

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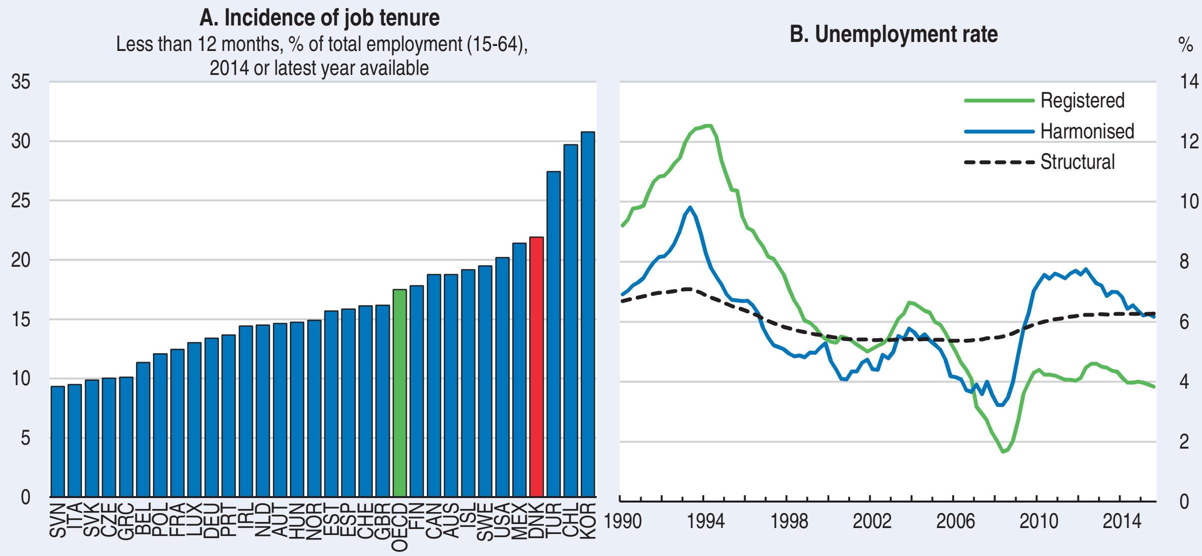
The *flexicurity* model in its current form was largely developed through the 1990s. A substantial decrease in the duration of unemployment benefits and a much stronger emphasis on active labour market policies was done to promote return to work through upskilling and to ensure that the unemployed are available to the labour market. Together with a prolonged economic boom, these adjustments are seen as a major driver of the decrease in structural, and actual unemployment since the mid-1990's, particularly in terms of register based unemployment (Figure 15, Panel B) (Unemployment Benefit Commission 2015).

The main advantage of *flexicurity* is that it limits the financial risk to both employers and employees. The high degree of flexibility allows companies to make quick adjustments to their work force in the different phases of the business cycle, and in hiring inexperienced youth. At the same time, the high unemployment replacement rate limits the risk for employees when taking up a new job, and allows for consumption smoothing in case of joblessness. This is a main driver behind the high rate of job turnover in the Danish labour market compared to other OECD countries (Figure 15, Panel A). Also, there seems to be a better matching between employers and employees, resulting in low skills mismatch.

Box 3. **The *flexicurity* labour market model** *(cont.)*

Figure 15. ***Flexicurity* supports high turnover rates and low structural unemployment**



Source: OECD Online Employment database: *www.oecd.org/employment/database*; OECD STEP 99 database; OECD Main Economic Indicators database.

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The *flexicurity* model has earned much praise, in part thanks to good performance in the two decades leading up to the global crisis. Early assessment of its performance during the downturn also points to robust outcomes (Eriksson, 2012). Unemployment rose quickly as a response to the crisis, more than doubling from mid-2008 to mid-2009, and reached almost 8% (harmonised) in 2012, and has been falling since then to the current 6% (Figure 15, Panel B). At the same time, there has been only. a small increase in structural unemployment in the wake of the downturn.

The Danish *flexicurity* system is nevertheless expensive. Both through the high replacement rate of unemployment benefits and the high level of spending on active labour market policies – the highest in the OECD.

Making growth more inclusive – eliminating barriers to work

As a result of past reforms (Box 4), incentives to work have been strengthened and the total number of benefit recipients has declined since 2010. However, the number of social assistance recipients (so-called cash benefit recipients) has increased after the duration of unemployment benefits was reduced, suggesting that a number of those no longer entitled to other benefits who were not able to find a job, fell into the social safety-net (Figure 16, Panel A). Bringing more benefit recipients back to work would improve their living standards and increase fiscal space. The recently introduced cap on cash benefits (except child allowances and housing benefits) aims at that. Like in most other OECD countries low-skilled workers, migrants and disabled persons encounter specific barriers to employment and are over-represented among long-term benefit recipients. When setting priorities, the assessment of the lifetime pattern of benefit recipients and their overall costs to the welfare system, should be formally implemented, as is done in New Zealand and published regularly (Taylor and Fry, 2013). The new reimbursement model (see Box 4) increases the municipalities' incentive to focus on the overall costs of benefit recipients.

Box 4. **Recent reforms of social institutions**

Unemployment insurance (UI) and cash benefits

- In 2016, a cap on the total amount of social benefits a household can receive has been introduced (depending on the number of children and the marital status). Furthermore, new eligibility criteria require at least seven years of within country residence in Denmark over past eight years, as well as 225 hours of work within a year. Benefit recipients that do not meet these conditions receive lower cash benefits.
- The cash benefits have been reduced to the level of the education grant for those under 30. Recipients under 30 who are not ready for education or employment can receive an activity supplement. In addition to the reduced benefits, education and employment efforts are initiated sooner; youth without qualification (40% of those receiving social assistance) has to undertake education; for those with education, activation measures, including longer vocational traineeships, are offered earlier and monitoring of job search is strengthened.
- The 2010 reform of the unemployment insurance benefit system reduced the maximum benefit duration from four to two years and increased the re-eligibility requirements for those expiring the full UI period. The 2015 revision of the reform allows an extension of the unemployment benefit from 2 years to a maximum of 3 years if the benefit recipient has worked sufficiently, which earns him/her additional eligibility (for a day of work, two days of benefit entitlements are acquired). The possibility of an extra year of benefits is largely financed by a reduction in the unemployment benefit level for graduates. Waiting days (without benefits) are introduced after periods, where the claimant has had high unemployment, but the waiting day can be avoided if the claimants meet a certain employment requirement. Temporary measures introduced in recent years for those who lost their benefits under the 2010 reform will be phased out by 2017.

Active labour market policies

- The 2014 reform of public employment strengthened screening of and individual services to job seekers. As of January 2016, a new model for the reimbursements of the municipalities from the central government covering part of municipal expenses for income transfers should give local authorities incentives to speed up return to work or education of benefit recipients. Reimbursements of municipalities will be determined by the length of the benefit period, rather than the type of benefit.

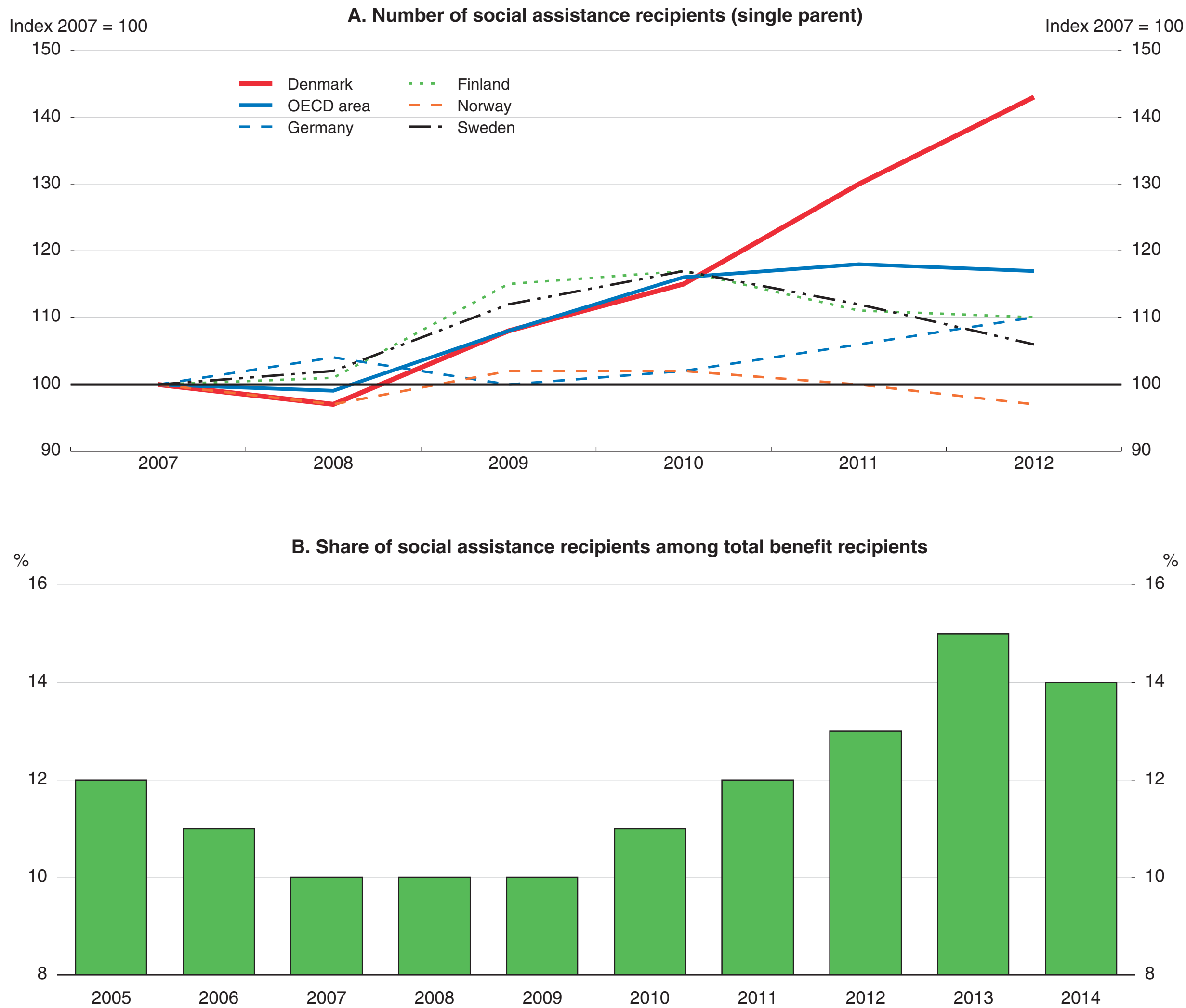
Disability and sickness benefits

- In 2013 a reform introduced a number of changes. Persons over the age of 40 must participate in at least one so called rehabilitation programme before being granted a disability benefit. The rehabilitation programme involves coordinated health, social and employment services and aims at strengthening the individual work capacity. Applicants under the age of 40 can by default not be granted disability benefit and must instead participate in one or more rehabilitation programmes. Exemptions are granted for persons with absolutely no chance of improving their work capacity. Also, 'flex jobs', i.e. subsidised jobs offered to people with reduced working capacity, have been made more targeted to those with low work capacity, more flexible in terms of time arrangement and granted for 5 years maximum (except for persons over 40, who may be allowed to have a permanent flex job).
- Since July 2014, the assessment of eligibility for a prolonged sickness leave takes place every 22 weeks (instead of 52 weeks). Depending on the assessment of work capacity and its development rehabilitation benefits (lower than sickness benefits) are allocated to those having difficulties to find a job after having exhausted their rights to the sickness benefit.

Pension

- The 2006 and 2011 pension reforms aim to gradually increase the statutory retirement age. In November 2015, the Parliament approved an increase of the statutory retirement age from currently 65 to 67 in 2022, and to 68 years in 2030. From then on, conditional on a vote of Parliament, the retirement age will be adjusted to life expectancy gains every five years (at most by one year) in order to limit the number of years in retirement to 14.5 years on average. The duration of voluntary early retirement programmes is also progressively shortened from five to three years with the minimum age being raised in line with the statutory retirement age.

Figure 16. **The number of social assistance recipients has risen since the crisis**



Source: OECD SOCR database; Danish Ministry of Finance.

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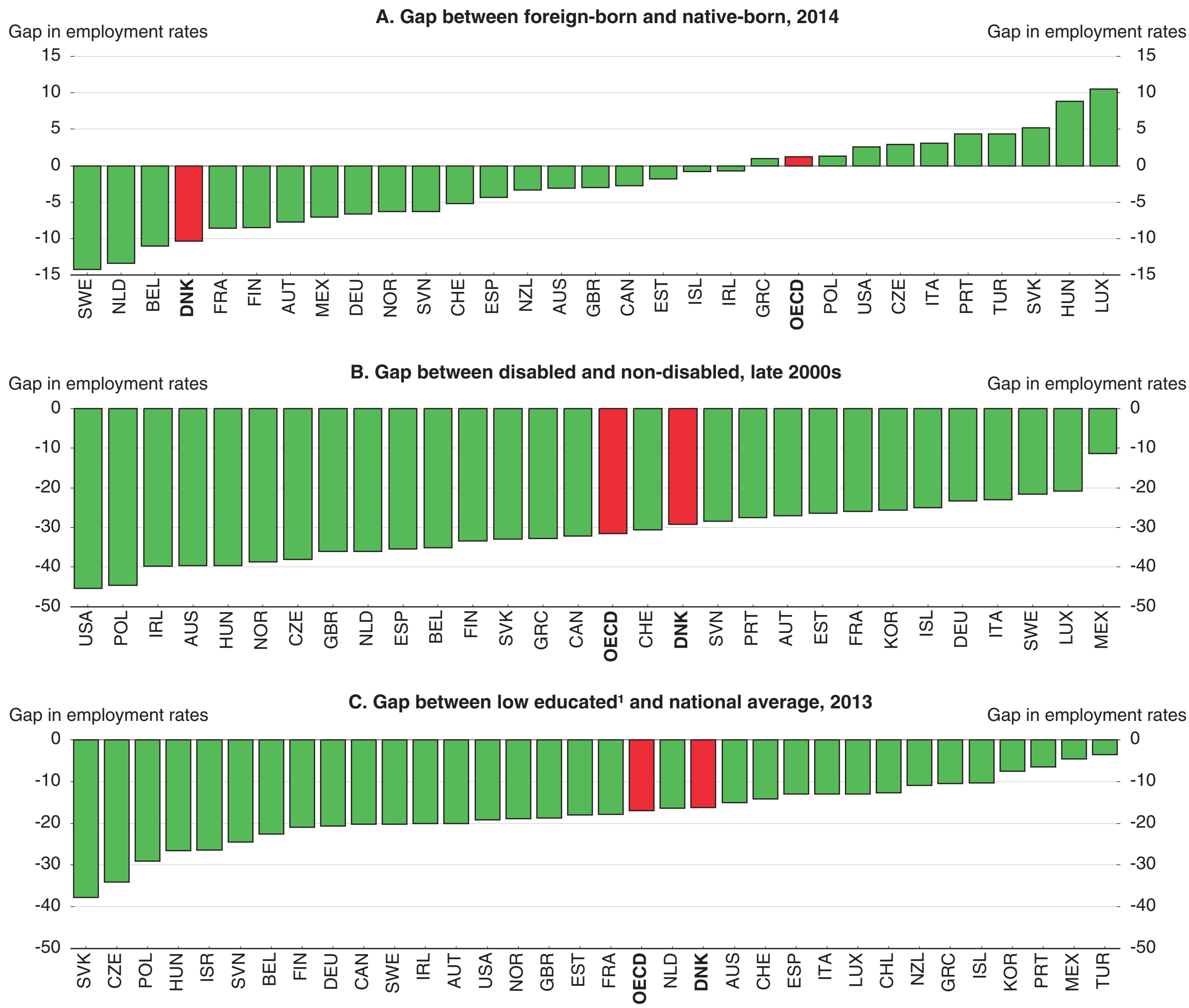
Balancing protection and work incentives for low-income earners

Finding a balance between high coverage, generosity of the welfare system and work incentives is challenging and the *flexicurity* system is a successful attempt to achieve this balance (see Box 3). Nevertheless, inactivity traps, resulting mainly from social assistance benefits and means-testing (of e.g. housing and child care subsidies), remain a major concern. The after tax income gain of taking up a low-paid or a part-time job is low. For instance, this results in marginal effective tax rate of 87% for those on social assistance and 84% average effective tax rate for a single parent when taking up a job paying 67% of the average wage that is the standard national level used, since it corresponds largely to the level of the common minimum wage. At half of the average wage the effective marginal tax rates are at around 100%.

Introducing in-work benefits targeted at low-paid workers and withdrawing benefits more gradually would make work more attractive, in particular for those who take up a

Figure 17. **Scope for increasing employment is particularly high among immigrants**

Gap in employment rate in percentage points



1. Low educated are those with less than upper secondary education.

Source: OECD *Employment Outlook 2015*; OECD (2010), Sickness, Disability and Work: Breaking the Barriers; Eurostat database; OECD (2015) *Education at a Glance.*

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low-paid job, by increasing the difference between the take-home pay and the alternative of social benefits. For instance, a plan of the previous government to introduce a monthly bonus (around EUR 225) for a restricted group of long-term unemployed would have benefited some of the most vulnerable. Reforms of in work benefits to make work pay have been introduced in recent years in Sweden and the United Kingdom. To reinforce weak incentives for job search, unemployment insurance benefits should be reduced gradually with the length of the unemployment spell (Immervoll, 2012). Reducing benefit levels can increase income inequality by disproportionately affecting those with more frequent and longer spells of unemployment (Causa et al., 2016, *forthcoming*). It can also decrease incentives for membership in the insurance scheme, which is voluntary, and thereby reduce coverage. Easing the requirements for benefit recipients to re-earn benefit rights, which was introduced in the 2015 reform, can mitigate these side effects, by making it more attractive to take up short term employment. Furthermore, the reforms have introduced recurrent days without benefits in case of unemployment for more than 4 months. The days without benefits will not take effect if the person has at least 20 days of full time employment in the preceding 4 months.

Another option is to reduce social assistance while providing top-up payments when working. This was done in Germany, where the *Hartz* reforms significantly lowered benefits, introduced top-up subsistence payments for those in low-paid jobs, and improved job placement services, (Huefner and Klein, 2012). Additional measures supporting income mobility, including upskilling programmes, would usefully supplement such reform by reducing the risk of poverty among those with low employability and avoiding that they become stuck in low-paid and precarious jobs (OECD, 2014b). Admittedly, Denmark already has one of the highest spending on active labour market policies. Past *Surveys* have pointed to the need to improve the efficiency of active labour market policies by ensuring that municipalities have the right financial incentives to motivate the unemployed to take up a job, and by increasing the quality of adult learning. The 2014 reform of public employment services and the new model for reimbursements to municipalities goes in this direction (see Box 4).

Promoting work and income security for disabled people

The share of the working age population receiving disability benefits is above the OECD average (6.5% of the working age population in 2012). Integration of the disabled into the labour market has not improved significantly since the early 2000s, and there is a substantial gap in the employment rate between people with and without disability, which is considerably higher than for instance in Sweden (see Figure 17, Panel B). Entitlement to permanent disability benefits has been restricted in order to better target recipients and to avoid inactivity traps, and new activation programmes involving multidisciplinary rehabilitation teams are being implemented (see Box 4). Inflows into the disability pension scheme have started to decrease as the reform is applied for new applicants. Scope for further adjustment includes removing the arbitrary age limit (of 40 years old) for granting a permanent disability and regularly reassessing eligibility for benefits. In addition, emphasis should be put on prevention of diseases and raising employers' awareness of disabled people's capacity to work.

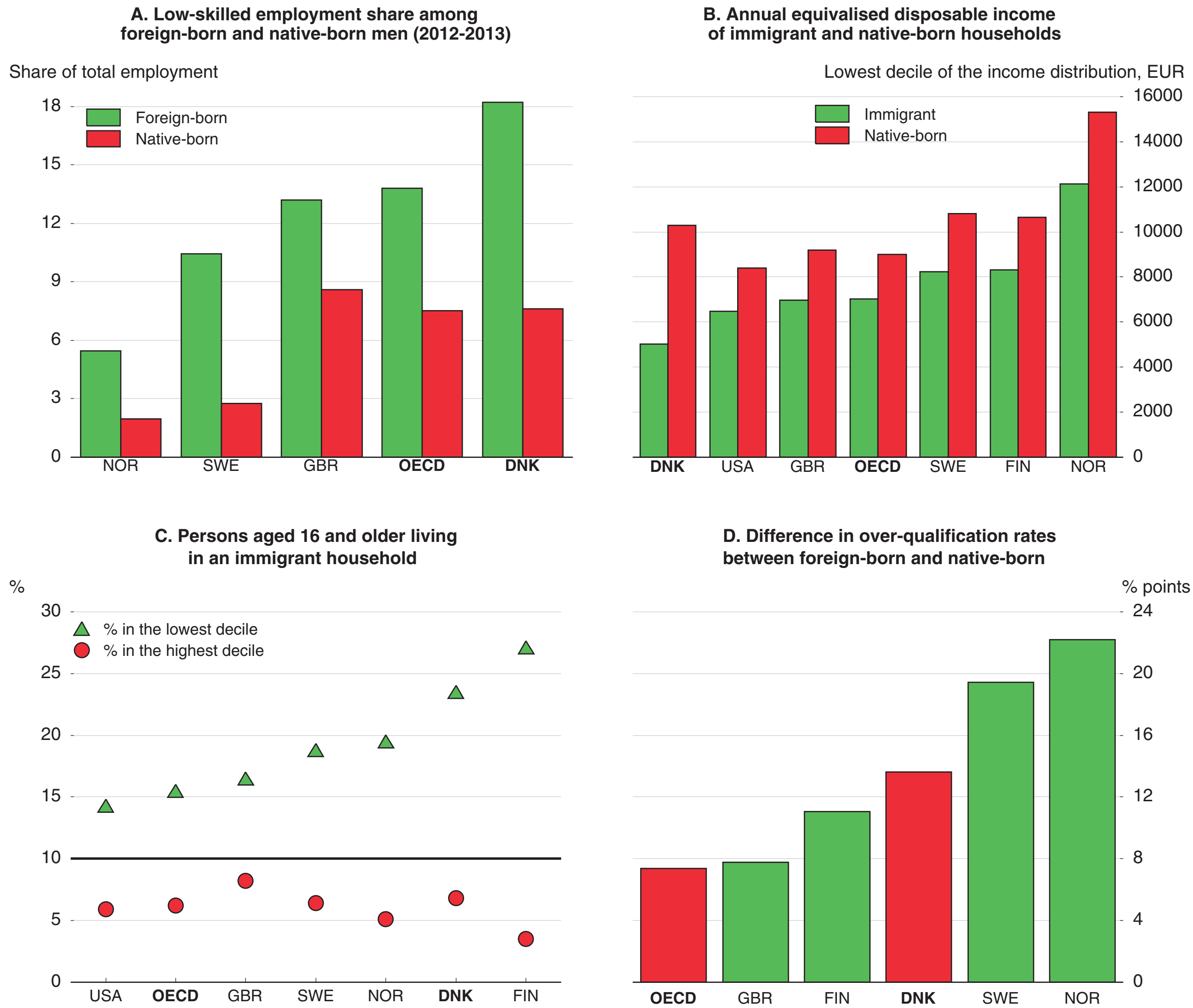
Strengthening integration of immigrants

Integration of immigrants is an issue in most OECD countries, and it is pronounced in Denmark (Figure 17 and 18). Immigrants have lower employment rates, a difference that has widened since the 2009 crisis, and income inequality between foreign born and natives is high by international standards. More worryingly, failure of integration tends to be transmitted to the next generation (Figure 19). Migrants encounter multiple barriers on the labour market. Among immigrants, refugees have greater difficulties to find employment. The total number of asylum applications roughly doubled between 2013 and 2014 and the refugee inflow has not weakened since, adding to the challenge of integration. In 2015 some 21 000 asylum seekers arrived in Denmark and some 10 900 were granted asylum – about 4 700 more than the year before.

Differences in education only partly explain differences in labour market performance (OECD, 2014c). High sectoral, collectively agreed, minimum wages can price lower-

Figure 18. **Inequality between foreign-born and native-born is high**

Selected OECD countries, 2012



Source: OECD Indicators of Immigrant Integration 2015.

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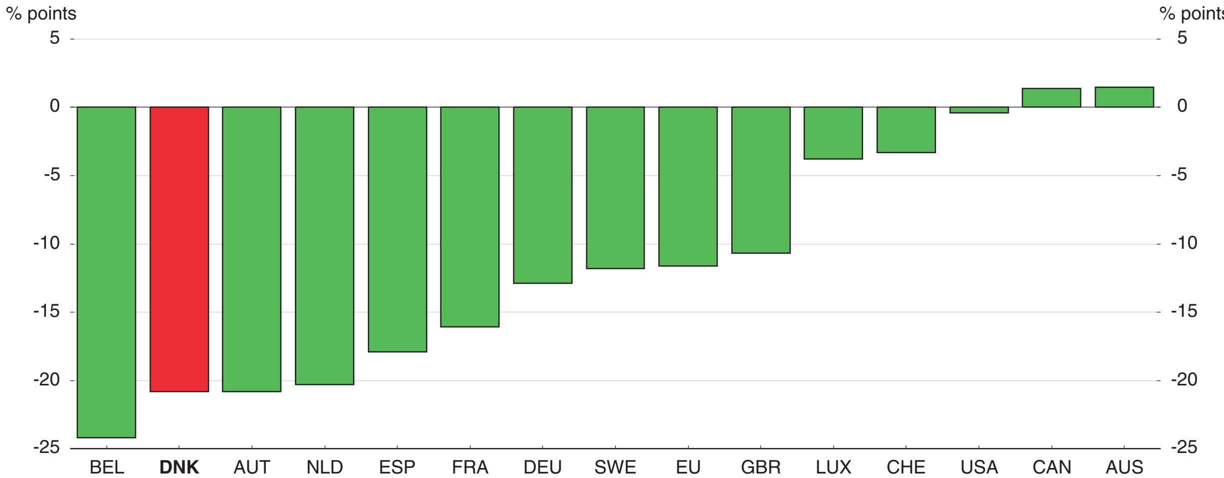
productivity immigrant workers out of formal employment. An introduction of a new two-year integration training programme focusing on upskilling and entry into the labour market seeks to counter this effect. Such a programme will allow companies to hire persons for up to two years at apprentice wages, which lies between 50 and 120 kroner per hour – significantly lower than the minimum wages determined by the social partners. The policy for spatial dispersion of migrants reduces geographical mobility and can be a barrier to employment. Furthermore, disincentives to work generated by the generous welfare system may be stronger for immigrants, as their average earnings prospects are initially much lower. Finally, differences in cultural human capital, lower access to networks, and ethnic discrimination can hamper integration.

Since the early 2000s, Denmark has implemented an array of innovative integration policies to address these complex issues, including language training, work placement and

Figure 19. **Substantial employment gap between native and foreign origin youth**

Difference in employment rates of native-born with foreign parents and native-born with native parents, 15-34 year olds not in education (2013)



Source: OECD Indicators of Immigrant Integration 2015.

StatLink http://dx.doi.org/10.1787/888933352403

wage subsidies (Liebig, 2007). Wage subsidies proved particularly effective in promoting integration as they compensated employers for the lack of country-specific human capital and poor language proficiency. Nevertheless, the implementation of the integration programmes has been incomplete and uneven across municipalities. For instance, only 45% of eligible immigrants participated in a work placement scheme and some 30% of those in language training did not pass the Danish language test (The Integration Barometer database and Expert Group on the Active Employment Effort, 2015).

Recently, social benefits for immigrants and those out of the country for seven out of the preceding eight years have been halved while maintaining other support measures, such as for housing and children (see Box 4). This measure was motivated by an aim to reduce the strain on public expenditures, increase the incentive to work among benefit recipients, and to act as a deterrent for further immigration (Ministry of Employment, 2015). A similar measure had been implemented between 2002 and 2012 (at the time called “the Start Help” programme), during which income transfers to the newly arrived refugee immigrants were decreased by about 35%. Independent evaluations showed that the likelihood of finding employment was small in the first two years, but after four and a half years the employment rate of those on the lower benefit was 12 percentage points higher, with a more pronounced impact on men, especially the young and single (Andersen et al., 2012). At the same time however, this measure increased poverty and induced local municipalities to pay supplementary allowances so that the families could make ends meet (Rosholm and Vejlin, 2010; Pedersen, 2013). The existing integration programme should focus more on labour market integration, in particular vocational traineeships, and be better monitored and implemented, including a stricter monitoring of the quality of language courses. A recent agreement by the social partners and the government aims at promoting on-the-job training, by both introducing a new integration training programme, and allowing for more flexibility in language training courses, in order to accommodate working hours and other work related circumstances.

Addressing the expenditure risks to the long-term sustainability of social institutions

The generous welfare system requires robust public finances. Around 2030, the public deficit is expected to exceed the national limit in the budget law (of structural deficit of 0.5% GDP) due to a transitory increase in public pension spending (the so-called "hammock" challenge), linked to the delayed pace of phasing-in the increases of retirement age. However, in the long run public finances seem sustainable and are in line with EU fiscal requirements (Danish Economic Council, 2015a; EC, 2012). This assessment is based on a number of assumptions, including eliminating the fiscal deficit by 2020, significantly higher labour market participation in response to structural reforms, and stable per capita public spending. Uncertainty regarding these assumptions is high, notably on future developments of labour force participation and healthcare costs.

As private pension schemes mature, public spending on pensions is projected to decline together with the share of pensioners relying on means-tested benefits (around 90% of individuals older than 65 in 2013). However, public pension spending could turn out higher than projected. Means-testing public pension reduces the effective return on savings for low wage workers, who might contribute less to the occupational pension plans than projected. Second, the tax on pension returns is higher than on returns from property investments. This can discourage pension savings among people who are not covered by collective agreements. Indeed, over the past five years, around 24% of those aged 30-59 (mainly self-employed and benefit recipients) were saving less than 5% of their income in pension schemes. As a result, their second pillar pension will be low, making them eligible for the first pillar public pension. Moreover, rates of return of defined contribution schemes are difficult to predict as they depend on market developments.

Participation in early retirement programmes, old-age unemployment, and reliance on public pensions could rise, resulting in additional costs to tax payers and a lower contribution base. The statutory retirement age is to be indexed to life expectancy gains (see Box 4). For this to happen, incentives to work longer need to be in place. Political pressures not to reduce the retirement period are likely to intensify in the future as the retirement age rises (reaching 70 by 2040), and even more so, if inequality in life expectancy continues to widen (Brønnum-Hansen and Baadsgaard, 2008). Also, work capacity of older workers might not fully adapt to longer working lives, in particular in demanding occupations.

Improving working opportunities for older workers should be a priority. Longer working lives have been promoted by earlier reforms reducing the generosity of voluntary early retirement schemes and unemployment benefits for those above fifty-five years old. These reforms have successfully translated into higher labour market participation. Recent pension reforms have already raised employment rates of older workers significantly (Figure 2.12). Other pathways to early retirement could, however, still be used (Halvorsen and Tägtström, 2013). Remaining regulatory barriers to employment of older workers should be removed and initiatives to adapt working environment to an ageing work force developed. A recent OECD (2015b) Review of *Ageing and Employment Policies in Denmark* includes a number of recommendations in this vein. In particular, offering flexible working hours and adapted work tasks, reducing seniority elements in wage setting, removing remaining mandatory retirement ages, and implementing programmes for early identification and prevention of work-related health issues are recommended.

Spending on healthcare and long-term care is difficult to project and control in many OECD countries, and Denmark is no exception. Future costs hinge widely on the health status of the elderly population, changes in relative prices of medical goods, and the capacity to achieve efficiency gains in healthcare and the provision of long-term care. The uncertainty of future healthcare spending is illustrated by a spectrum of projections in the OECD scenarios, varying from 2% to 5.9% of GDP by 2060, depending on assumptions (De la Maisonneuve and Oliveira-Martins, 2013). There is similar uncertainty about spending projections of long term care, which in the Danish case differ by a factor of five, from 0.6% of GDP in the OECD best-case scenario, to 3% in the European Commission worst-case scenario (Table 2).

Table 2. **Spending projections on health care and long term care**

Increase in percentage points of GDP by 2060

	OECD	Government	EC
Health care			
Average	-	0.0	+0.9
Best scenario	+2.0		+0.1
Worst scenario	+5.9		+3.1
Long-term care			
Average	-	+1.4	+2.0
Best scenario	+0.6		+1.9
Worst scenario	+1.0		+3.0

Source: De la Maisonneuve and Oliveira-Martins (2013), European Commission (2015), Danish Ministry of Finance.

Due to the large uncertainty that surrounds both health care and long term care projections, measures to improve efficiency are welcome. Disparities across local governments in terms of outcomes and efficiency suggest the scope for improvement is quite large (Medeiros and Schwierz, 2015; Heijink et al., 2015). Indeed, a number of welcome policy initiatives are under preparation and should be implemented:

- Stronger accountability for local government could stimulate efficiency gains in the provision of welfare and long-term care services. Improved quality monitoring in the primary and long-term care sectors would help to identify sources of local discrepancies and best practices.
- Integrating the delivery of healthcare, long-term care, and social services to allow for early identification of needs, improve information sharing between providers, avoid overlaps and duplication, and improve access to services (OECD, 2014d). To this end, mechanisms to reward the continuity of care should be developed, including publishing performance indicators for primary care, providing financial incentives and more responsibility on outcomes across the whole patient pathways to care providers. In such an approach, the GPs need to play a more active role and good performance needs to be recognised and rewarded.
- Stronger emphasis should be put on prevention activities and actions targeted to the most vulnerable. Low educated and low income earners are more exposed to unhealthy lifestyles and use less preventive services, not least because of their uneven geographical distribution (Ellins et al., 2014).

Other avenues for achieving efficiency gains could include:

- Continue limiting the use of grants to sub-national governments that are restricted to specific purposes, in order to maintain operational freedom and capacity to adjust spending priorities while making sure that appropriate output performance monitoring and minimum service delivery regulation remains in place.
- Removing barriers to competition that are likely to hamper efficiency gains in the public sector. Enforcement of competition law is limited since central or local governments can provide ad hoc exemptions from the application of the Competition Act (OECD, 2015a). Regulations of pharmacies, including restrictions on entry and ownership and controls on prices and profits, raise costs.
- Increasing co-payments from the current low level would limit overreliance on tax-financed public budget for the provision of healthcare and long-term care services. In Denmark, most health care is provided for free, except for some services such as pharmaceuticals, dental services and glasses. As a result, out-of-pocket payments (OPPs) account for around 13.7% of total health spending (vs 19.6% on average in the OECD). Extending co-payments in the healthcare sector should be considered: if kept low, they can raise revenue and limit overuse (Pisu, 2014). In the long-term care sector, municipalities have only limited freedom to charge for services delivered at home and non-health related expenses. Currently, OPPs account for 8.6% of total spending on long-term care, half of the OECD average.
- Developing tax instruments to limit health-damaging behavior should also be considered as it proves quite effective in improving health outcomes (Sassi et al., 2013). Denmark already imposes excise duties on unhealthy items such as alcohol, tobacco.

Cost effective policies to manage environmental pressures

Despite good environmental policies and many positive trends such as decoupling emissions and farm inputs from economic activity, there is scope for significant improvement in a number of environmental areas (OECD, 2007; European Environment Agency, 2015). Pressures on the environment come from manufacturing, agriculture, transport and energy. For instance, notwithstanding low private car ownership, around a fifth of the population is exposed to poor air quality, though much of the air pollution is said to originate outside the country's borders. Poor air quality is worrying given the high rate of cycling In Copenhagen, levels of PM_{10} and NO_2 exceeded the EU limit values on a number of occasions, and in 2011 air pollution caused estimated 3 200 premature deaths (WHO, 2013). Earlier plans for an introduction of a congestion tax in the capital, which is the most affected, have been replaced by a plan to decrease PM_{10} and NO_2 by other measures, which is expected to ensure compliance with EU limits. As shipping is an important industry in the Danish economy, Denmark should promote international initiatives to limit the environmental damage resulting from the lack of regulation in this area.

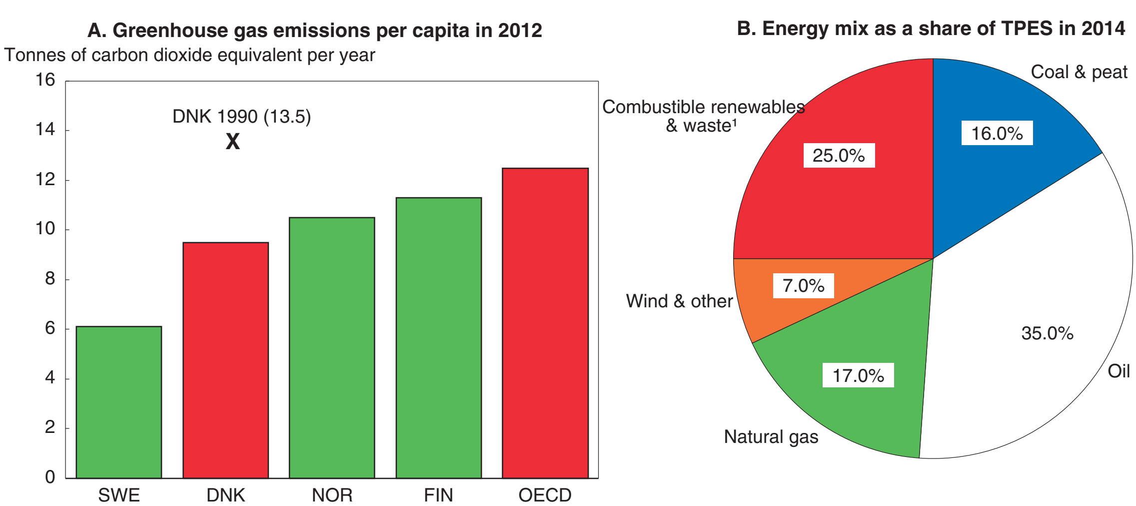
Agriculture occupies more than 60% of the land area, and pesticide use still exceeds national targets (European Environment Agency, 2015). The targets have been revised recently to decrease the pesticide load by 40% *vis-à-vis* 2011. A new differentiated pesticide tax based on the human health- and environmental properties of the pesticides was introduced in 2013 at the same time as a new indicator and target for the reduction in the pesticide-load on the environment and human health. Furthermore, an existing system of allowances for the use of nitrogen does not take into account differences in soil characteristics (Danish Economic

Council, 2015b), but a new regulation with improved targeting should be implemented from 2018 onwards together with other initiatives, such as creating of wetlands. Price increases resulted in a significant reduction in households' consumption of water; the same is not happening in agriculture. More generally, despite regulatory and monitoring measures in place, water quality in lakes and coastal areas can be an issue and only limited attention is paid to other contaminants such as heavy metals and toxic chemicals, or depleted maritime fish stock (European Environment Agency, 2015).

A generally sound, diverse, and in some cases innovative policy framework, that combines market-based instruments, regulations and subsidies is in place. Other instruments remain limited in scope, such as the full-cost recovery principle which is legally applied to municipal waste collection (OECD, 2007). Danish households produce one of the highest quantities of municipal waste per capita, but around 60% of it gets recycled (Figure 21) (European Environment Agency, 2015).

Denmark is in an ambitious transition to a fossil independent energy supply (without using nuclear power) by 2050 (Figure 20). Currently, the energy sector emits 37% of total greenhouse gas emissions. Renewables accounted for 28.5% of final energy consumption in 2014 and the current administration has pledged a commitment to the 2012 Energy Agreement that supports the development of various types on technologies leading to an expected wind energy share of 50% of electricity supply by 2020. The policy framework includes notable subsidies to specific technologies (wind, solar etc.), but also considerable taxes on energy (4% of GDP) and strict performance standards on energy efficiency and labelling in the housing sector. Based on the latest domestic projections, green-house gas emissions will be reduced by 40% vis-à-vis the 1990 levels and non-ETS greenhouse gas emissions will be reduced by 20% compared to 2005 levels (Danish Energy Agency, 2015). An Energy Commission has been established to provide input into political negotiations for a new energy agreement beyond 2020 and will report in 2017.

Figure 20. **Emissions are low and renewables play an important role**



1. Includes non-renewable municipal waste, industrial waste, electricity trade and other sources of primary energy.

Source: OECD Environment Statistics database; IEA (2015), Energy Balances of OECD Countries.

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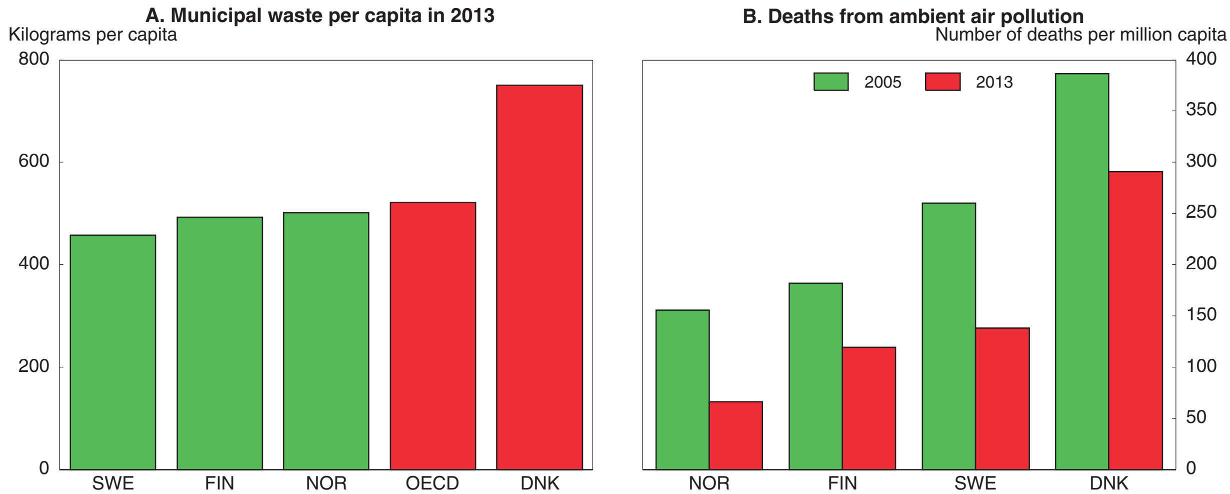
Figure 21. **Other sustainability issues remain**



Source: OECD Environment Statistics database; OECD (2014), The cost of air pollution: Health impacts of road transport.

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A number of initiatives addressing environmental issues are underway. A comprehensive strategy for energy savings was published in 2014. Measures to implement current EU minimum targets for waste management are in place (European Commission, 2015b). Furthermore, the strategy "Denmark without waste II" was introduced by the previous administration and is still applied.

The current government puts a strong emphasis on cost-effectiveness of measures to manage the environment sustainably. While in principle this is welcome, it remains to be seen how these issues will be addressed in practice. For instance, a decrease of the NO_x tax and a gradual phasing out of the break on the car purchase tax for electric vehicles from 2016 May generate adverse environmental consequences. Denmark has a very high car purchase tax of 150% (reduced from 180% in the 2016 budget bill). Deductions are given for energy efficiency, but should take the overall environmental performance into account. Introducing dynamically priced congestion charge in the most affected cities would reduce pollution, as well as make for a better use of infrastructure.

Other recent measures, such as retroactive tax deductions for improving energy efficiency of housing (the so-called *Housing Jobs scheme*), should be limited to credit-constrained households and not include other house-work such as cleaning and gardening services. Recent OECD evidence illustrates that home-owners and high-income households are more likely to invest in energy efficiency improvements anyway (Ameli and Brandt, 2014).

Bibliography

Ameli, N. and N. Brandt (2014), "Determinants of Households' Investment in Energy Efficiency and Renewables: Evidence from the OECD Survey on Household Environmental Behaviour and Attitudes", *OECD Economics Department Working Papers*, No. 1165, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jxwtlchggzn-en*.

Andersen, A., A. Christen and C. Duus (2012), Danish Families' Financial Robustness, variable Rates and Deferred Amortisation, *Monetary Review 4th Quarter*, Danmarks Nationalbank, Copenhagen.

Andersen, L., H. Hansen and M. Schultz-Nielsen (2012), “Starthjælpens betydning for flygtninges levevilkår og beskæftigelse”, *Working paper* No. 25, The Rockwool Foundation Research Unit.

André, C. (2016), “Household Debt in OECD Countries: Stylised Facts and Policy Issues”, *OECD Economics Department Working Papers*, No. 1277, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jm3xgtkk1f2-en*.

Arnold, J. (2008), “Do Tax Structures Affect Aggregate Economic Growth?: Empirical Evidence from a Panel of OECD Countries”, *OECD Economics Department Working Papers*, No. 643, OECD Publishing, Paris, *http://dx.doi.org/10.1787/236001777843*.

Bekker, S. and T. Wilthagen (2008), “Europe’s Pathways to Flexicurity: Lessons Presented from and to the Netherlands”, *Intereconomics*, March, Vol. 43, *Issue 2*, pp. 68-111.

Blom-Hansen J., K. Houlberg and S. Serritzlew (2016), “Elusive Scale Effects: Jurisdiction Size and the Costs of Providing Public Services”, *forthcoming*.

Bloomberg News (2015), Denmark’s Biggest Bank Warns Against “Emergency” Rate, December 10, 2015, *http://neurope.eu/article/denmarks-biggest-bank-warns-against-emergency-rate/*.

Braconier, H. and J. Ruiz-Valenzuela (2014), “Gross Earning Inequalities in OECD Countries and Major Non-member Economies: Determinants and Future Scenarios”, *OECD Economics Department Working Papers*, No. 1139, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz123k7s8bv-en*.

Brønnum-Hansen H. and M. Baadsgaard (2008), “Increase in Social inequality in Health Expectancy in Denmark”, *Scandinavian Journal of Public Health*, No. 36, pp. 44-51.

Burton, K. and G. Waddell (2006), “Is Work Good for your Health and Well-being?”, Department of Work and Pensions, London.

Campbell, J. (2012), “Mortgage Market Design”, *Review of Finance*, European Finance Association, Vol. 17(1), pp. 1-33.

Causa O. et al. (2016), “Inequality in Denmark Through the Looking Glass”, *OECD Economics Department Working Papers*, *forthcoming*.

Causa, O., S. Dantan and Å. Johansson (2009), “Intergenerational Social Mobility in European OECD Countries”, *OECD Economics Department Working Papers*, No. 709, OECD Publishing, Paris, *http://dx.doi.org/10.1787/223043801483*.

Dam, N. et al. (2011), “The housing Bubble that Burst – Can House Prices be Explained? And Can their Fluctuation be Dampened?”, *Monetary Review 1st Quarter 2011*, Danmarks Nationalbank, Copenhagen.

Danish Economic Council, (2015a), “Dansk Økonomi, efterår 2015”, *English Summary*.

Danish Economic Council, (2015b), “Economy and Environment 2015”, *English summary*.

Danish Energy Agency (2015), “Baseline Projection 2015, Denmark’s Greenhouse Gasses Reduced by 40% in 2020”, Press Release, *www.ens.dk/en/info/news-danish-energy-agency/baseline-projection-2015-denmarks-greenhouse-gasses-reduced-40-2020*.

Danmarks Nationalbank (2015a), *Monetary Review 3rd Quarter 2015*, Danmarks Nationalbank, Copenhagen.

Danmarks Nationalbank (2015b), *Financial Stability 1st Half 2015*, Danmarks Nationalbank, Copenhagen.

Danmarks Nationalbank (2014), *Monetary Review 1st Quarter 2014*, Danmarks Nationalbank, Copenhagen.

de Boer, R. and R. Bitetti (2014), “A Revival of the Private Rental Sector of the Housing Market?: Lessons from Germany, Finland, the Czech Republic and the Netherlands”, *OECD Economics Department Working Papers*, No. 1170, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jxv9f32j0zp-en*.

De la Maisonneuve, C. and J. Oliveira-Martins (2013), “A Projection Method for Public Health and Long-Term Care Expenditures”, *OECD Economics Department Working Papers*, No. 1048, *http://dx.doi.org/10.1787/5k44v53w5w47-en*.

European Commission (2015a), “The 2015 Ageing Report”, European Commission, 2015, Brussels.

European Commission (2015b), “Country Report Denmark 2015”, European Commission, 2015, Brussels.

European Environment Agency (2015), “State of the Environment Report – Denmark 2014”, European Environment Agency, *www.eea.europa.eu/soer*.

Eriksson,T. (2012), "Flexicurity and the Economic Crisis 2008-2009: Evidence from Denmark", *OECD Social, Employment and Migration Working Papers*, No. 139, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k8x7gw8btq6-en*.

Ellins, J., et al. (2014), "International Responses to Austerity", *Evidence Scan* No. 22, Health Foundation, Birmingham.

Expert Group on the Active Employment Effort (2015), "Delrapportering: Integrationsindsatsen for nyankomne flygtninge og familiesammenførte udlændinge", January 2015, Copenhagen.

Halvorsen, B. and J. Tägtström, (2013), "Det dreier seg om helse og arbeidsglede: Om seniorer, arbeid og pensjonering i Norden", Nordic Council of Ministers, Copenhagen.

Heijink R. et al. (2015), "Comparative Efficiency of Health systems, Corrected for Selected Lifestyle Factors", funded by the European Commission and carried out by the Dutch National Institute for Public Health and the Environment (RIVM).

Holstein M. A. (2014), "Regionernes udbud Af Mr-Scanninger", CEPOS.

Hostenkamp, G. (2012), "The Market for Hospital Medicine in Denmark", *Nordic Journal of Health Economics*, Vol. 1(1), pp. 57-71.

Huefner F. and C. Klein (2012), "The German Labour Market: Preparing for the Future", *OECD Economics Department Working Papers*, No. 983, OECD Publishing, *http://dx.doi.org/10.1787/5k92sn01tzzv-en*.

IMF (2014), "Denmark – Financial Sector Assessment Program", Washington.

Immervoll, H. (2012), "Reforming the Benefit System to 'Make Work Pay': Options and Priorities in a Weak Labour Market", *IZA Policy Paper*, No. 50.

Kuchler, A. (2015), "Loan Types, Leverage, and Savings Behaviour of Danish Households", *Working paper* No 97, September 2015, Danmarks Nationalbank, Copenhagen.

Liebig, T. (2007), "The Labour Market Integration of Immigrants in Denmark", *OECD Social, Employment and Migration Working Papers*, No. 50, *http://dx.doi.org/10.1787/233783261534*.

Medeiros J. and C. Schwierz (2015), "Efficiency Estimates of Health Care systems", European Commission, *Economic Papers,* No. 549, June 2015.

Ministry of Business and Growth (2016), Follow-Up on the OECD Visit to the Ministry of Business and Growth January 8, Copenhagen.

Ministry of Employment (2015), "Factsheet on Integration Benefit", Copenhagen.

Ministry of Economics and the Interior (2015), *Familiernes økonomi: fordeling, fattigdom og incitamenter 2015* (*Household Finances: Distribution, Poverty and Incentives 2015*), Copenhagen.

Ministry of Finance (2015), Public Finances –December, Copenhagen.

National Audit Office (2015), *Report on the Integration Effort*, English Summary, Rigsrevisionen.

OECD (2009), *OECD Economic Surveys: Denmark 2009,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk-2009-en*.

OECD (2007), *OECD Environmental Performance Reviews: Denmark,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264039582-en*.

OECD (2006), *OECD Economic Surveys: Denmark 2006*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk-2006-en*.

OECD (2005), *OECD Economic Surveys: Denmark 2005*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk-2005-en*.

OECD (2014a), *OECD Economic Surveys: Denmark 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk-2013-en*.

OECD (2014b), *OECD Economic Surveys: Germany 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-deu-2014-en*.

OECD (2014c), "Labour Market Integration of Immigrants and their Children: Developing, Activating and using skills", *International Migration Outlook 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/migr_outlook-2014-5-en*.

OECD (2014d), *Integrating the Delivery of Social Services for Vulnerable Groups, Bridging Sectors for Better Service Delivery*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264233775-en*.

OECD (2013), *OECD Reviews on Health Care Quality: Denmark*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264191136-en*.

OECD (2011), *Divided We Stand: Why Inequality Keeps Rising*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264119536-en*.

Olejaz M. et al. (2012), "Denmark: Health System Review", *Health Systems in Transition,* Vol. 14(2), p.–192.

Ollivaud, P. and D. Turner (2014), "The Effect of the Global Financial Crisis on OECD Potential Output", *OECD Economics Department Working Papers*, No. 1166, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jxwtl8h75bw-en*.

Pedersen, P. (2013), "Immigration and Welfare State Cash Benefits: The Danish Case", *International Journal of Manpower*, Vol. 34, No. 2, pp. 113-125.

Petersen, O. and U. Hjelmar (2014), "Marketization of Welfare Services in Scandinavia:A review of Swedish and Danish experiences", *Scandinavian Journal of Public Administration*, Vol. 17(4), p.3-20.

Pisu, M. (2014), "Overcoming Vulnerability of Health care systems", *OECD Economics Department Working Papers*, No. 1132, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz159228n6j-en*.

Productivity Commission (2013a), "Danish Productivity, Where are the Problems?", April, Copenhagen (in Danish).

Productivity Commission (2013b), "Competition, Globalisation and Regulation", May, Copenhagen (in Danish).

Rohde, L., (2015), Speech by the Governor Lars Rohde at the Annual Meeting of the Association of Danish Mortgage Banks, October, Copenhagen.

Rohde, L., (2015), M. Rosholm, and R. Vejlin (2010), "Reducing Income Transfers to Refugee Immigrants: Does Start-Help Help You Start?", *Labour Economics*, No. 17, pp. 258-275.

Salvi Del Pero, A., et al. (2016), "Policies to Promote Access to Good-Quality Affordable Housing in OECD countries", *OECD Social, Employment and Migration Working Papers*, No. 176, OECD Publishing, Paris, *forthcoming*.

Sassi, F., A. Belloni and C. Capobianco (2013), "The Role of Fiscal Policies in Health Promotion", *OECD Health Working Papers*, No. 66, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3twr94kvzx-en*.

Sørensen P., (2015), "Reforming Public Service Provision: What have we Learned?", *EPRU Working Paper Series*, No. 2015-01.

Sow, M., and I. Razafimahefa (2015), "Fiscal Decentralization and the Efficiency of Public Service Delivery", *Working paper*, No. 15/59, International Monetary Fund.

Systemic Risk Council (2015), Press Release following 11th meeting, September 2015, Copenhagen.

Taylor Fry (2013), "MSD Actuarial Valuation of the Benefit System for Working-age adults", Ministry of Social Development and the Treasury, New Zealand.

Unemployment Benefit Commission (2015), "Dagpengekommissionens samlede anbefalinger", October, Copenhagen.

WHO(2013), Global Burden of Disease Study, World Health Organization.

ANNEX

Progress in structural reforms

This annex summarises recommendations made in previous Surveys and actions taken since the OECD Economic Survey on Denmark published in January 2014.

Fiscal policy

Recommendations	Action taken since January 2014
Closely implement the new fiscal framework and monitor its impact on municipalities' outlays.	The Budget Law is fully implemented for the central government, regions and municipalities.
In case of a weaker or postponed recovery, allow the automatic stabilisers to work. In the event of a faster recovery than the euro area one and a renewal of capital inflows, tighten the fiscal stance more than projected.	Fiscal policy, is primarily based on the structural balance and thus automatic stabilisers are as a rule allowed to work. In line with the projected gradual closing of the output gap the authorities envisage that fiscal policy will be gradually tightened in order to achieve the medium-term target of structural balance by 2020.
Further reduce marginal taxes on higher incomes.	No new measures taken. The budget bill for 2014 brought forward the increase in the employment tax allowance. The threshold for the higher marginal tax rate is gradually being increased as part of Tax Reform 2012.
Raise taxes on property once the recovery of the housing market is well under way.	No action taken.
Improve the structure of environmental taxes to raise their efficiency.	The registration tax on vehicles has been lowered (the highest tax rate for passenger cars and motorcycles decreased from 180 to 150%) in 2015. The tax on nitrogen oxides has been reduced from 2016 onwards.

Financial system

Recommendations	Action taken since January 2014
Create a new supervisory tool for mortgage banks, similar to the framework for banks which includes thresholds on the share of deferred-amortisation loans and refinancing needs.	*The supervisory diamond* will come into force in 2018/2020 and tighten the loan provision for deferred loans, high LTV ratios and refinancing needs.
Make sure that all banks, especially the largest ones, maintain a prudent leverage ratio, as a backstop to risk-weighted capital ratios.	A minimum leverage-ratio requirement taking into account particularly safe business models, like the mortgage credit institutions has been recommended by an expert group.
Encourage households with loan-to-value ratios above 80% and facing the beginning of amortisation payments for loans granted 10 years ago to start now to amortise their loans.	The authorities urged households to use the currently very low interest rates for higher amortisation.
Monitor the effectiveness of allocating the power to implement macroprudential policies to the government and if this set-up turns out to be ineffective, consider allocating it to the Financial Supervisory Authority or the Systemic Risk Council.	The Systemic Risk Board, established in 2013, will be evaluated in 2016.

Labour market

Recommendations	Action taken since January 2014
Closely monitor the implementation of the shortening of the unemployment insurance period and implement a quicker phasing-in if the labour market recovers rapidly.	An Unemployment Insurance Commission (*Dagpengekommissionen*) was in operation from June 2014 to October 2015. The government has largely followed the recommendations of the Commission. An evaluation of the shorter two-year unemployment period found it to have a positive impact on employment. Nevertheless, and despite strong labour market performance, an extension to three years of benefits will be introduced by 2017 under certain conditions.
Consider gradually reducing the unemployment benefit replacement rate over the benefit entitlement period.	Not recommended by the Unemployment Insurance Commission. A short waiting period has been introduced if benefit claimants fail to meet an employment requirement.
When implementing the reform of flexjob and disability programmes, make sure that the special disability scheme for older workers does not become a new pathway to early retirement.	Since January 1st 2014 only a total of 366 citizens have been granted a senior disability pension, due to tighter access criteria.
Move to regular entitlement assessment of disability pensions and limit the granting of permanent pensions for those above 40.	No action taken.
To better align funding with municipalities' responsibilities for labour market programmes, municipalities should receive proportionally less reimbursement for the costs of public benefits the longer a person is receiving benefits.	From the 1st of January 2016 municipalities' reimbursement for public benefits depend on the length of the benefit period alone: The first 4 weeks the municipality receives 80% reimbursement, from week 5 to 26, 40%, from week 27 to 52, 30%, and after 52 weeks the reimbursement is 20%.

Recommendations	Action taken since January 2014
Improve the efficiency of ALMPs, including by ensuring that municipalities face the right financial incentives to help the unemployed find a job.	See above. The reimbursement reform ensures incentives for municipalities to choose effective ALMPs.
More closely link wages to individual performance in the public sector	In 2015 a new collective agreement signed between the Ministry of Finance and its staff organization. The agreement introduces an asymmetric response to differences in private and public sector pay increases. Furthermore, the ministry is collecting and spreading examples of different systematic approaches to people performance management at the institutional level.
Assess the use and impact of non-compete clauses.	A political consensus was reached in the *Agreement on a growth package*, June 2014, to adjust the existing rules on employment clauses (non-competition clauses) in order to limit the use of clauses. Furthermore, a bill entering into force on 1 January 2016, introduces new rules for all employment clauses. Non-solicitation clauses are completely banned with a few exceptions. Also, the new rules on costumer or competition clauses limit the duration of these clauses. *Study of the use of employment clauses (non-competition clauses)* indicates that, among the selected sectors, 22% of companies use non-competition clauses, and 24% of the businesses use non-solicitation clauses. In total, the study indicates that about 1/3 of the companies use some kind of employment clause.

Integration of migrants

Recommendations	Action taken since January 2014
Maintain the spending on efficient programmes for the integration of immigrants. Continue efforts to raise the quality of Danish courses for immigrants.	An agreement between the social partners was reached in March 2016 on reforming the integration programme, focusing mainly on better labour market integration of refugees and immigrants.
Strengthen efforts needed to streamline immigration processing further to ensure that high-skilled workers can quickly and easily migrate to Denmark.	A new scheme to make it easier for companies and universities in Denmark to attract highly qualified labour from countries outside the EU/EEA has been in force from 2015 and will be evaluated in the first quarter of 2017.
Assess the Green Card programme to better understand its pros and cons and see how to make it evolve.	The Green Card scheme was tightened in 2015 with increased focus on educational levels in order to better support enterprises' need for highly qualified labour. The changes will be evaluated in the first quarter of 2017.
A broad strategy is needed to better integrate immigrants and the second generation in the education system, starting at compulsory level.	No specific action taken, though receiving increased policy focus.
Encourage private institutions to establish more international schools to cater for children of foreign workers living temporarily in Denmark.	No action taken.

Education and skills

Recommendations	Action taken since January 2014
Since pre-school class has been made compulsory, further strengthen its educational content to make it effectively the first year of primary education.	The teaching in the pre-school class is organised to ensure that the children gain competences within 6 proficiency areas and three compulsory themes
Introduce accreditation of teachers and introduce more wage flexibility.	No action taken.
Closely monitor the implementation and impact of the reform of compulsory education. Consider the introduction of university-based initial teacher-training programmes to enhance their attractiveness and improve career paths for teachers.	No action taken.
In the implementation of the reform, strengthen the assessment framework of primary and secondary education by including teacher and school principal appraisal. Give financial incentives, in the form of adjusted grants, to municipalities to achieve good outcomes.	No action taken.

Recommendations	Action taken since January 2014
When implementing the reform of vocational education and training (VET), make sure that VET becomes more attractive to students and more selective without increasing school failures among those who cannot enter VET. Develop VET programmes that offer pathways to tertiary education.	The reform should be fully implemented in 2016. The fulfilment of the specific objectives of the reform will be followed closely through ongoing monitoring, measurement, and evaluation of progress and results. Teaching of Danish is improved, and the students are ensured a minimum of 26 hours of teaching per week in the basic course from 2016, corresponding to almost 35 lessons per week. Furthermore, a new two-year combined youth education is established targeting persons under 25, who do not possess the qualifications for completing a vocational or general upper secondary education. In addition, further training for teachers is prioritised, and more measures are planned.
Raise the incentives to choose the right tertiary education programme by gradually introducing tuition fees.	Central regulation of student admission within select programmes with notable unemployment has been introduced, and increased transparency with comparable data about higher education programmes established.
Develop and publish indicators of the quality and performance of university programmes. Give the evaluation agency well identified tools to get tertiary institutions to improve.	As a part of the *Growth Package 2014*, indicators are published systemically, including regarding unemployment, income, entrepreneurship and completion rates and time. Further qualitative and quantitative data are being developed during in 2016.
Raise the performance of the adult learning system by continuing efforts to give educational institutions greater incentives to recognise prior learning and by increasing the quality control of courses.	With *Growth Plan DK* of 2013, the government allocated DKK 1 bn. in the period 2014-20 for more and better adult education and continuing training for unskilled and skilled labour. The goal is to upgrade the qualifications of semi-skilled workers, and to improve the level of education of skilled workers. As part of the VET-reform that came into force by August 2015, a new adult vocational training programme has been put in place, introducing as a starting point an assessment of adult's prior learning and work experience as a basis for a VET-programme. At the same time, the goal is to strengthen quality and flexibility in adult education and training.

Competition

Recommendations	Action taken since January 2014
Assess the impact of the regulations of professions and remove those that hamper competition and are not fully justified by other objectives.	In 2014, an inter-ministerial task force assessed the regulated professions in Denmark. As a result of this work, the public appointing schemes for translators and interpreters, among others, were abolished. In 2014, limited authorisations for the electricity, plumbing and sewage area were introduced, easing access to the market.
Increase competition for pharmacies, taxis, and public transportation.	No action taken.
Harmonise national standards that hinder foreign firm entry with international ones.	The use of international standards increased already in some areas for instance in the high voltage area and reviewed in other areas, like building and road construction.
Simplify the legislation on public procurement and increase the use of e-procurement to lower transaction costs and make the process more uniform.	The European Public Procurement Directive was implemented in 2016 in Danish law and e-procurement is expected to be mandatory in 2018.
Continue to open network industries, especially the rail passenger system, to competition.	No action taken.
Relax ownership regulations and zoning and size regulations for stores.	The government has recently presented plans to liberalise the current regulation of the retail sector easing restrictions on the size and location of grocery shops as well as shops selling durable goods (see Assessment and Recommendations).
Streamline the institutional set-up of the authorities in charge of competition.	Oversight by the Competition Board has been strengthened. The Board has been reduced in size from 18 members to 7 members. Furthermore, an advisory committee has been formed. The committee will advise the Competition Board on various competition-related areas.

Entrepreneurship and innovation

Recommendations	Action taken since January 2014
Entrepreneurship education programmes need to be designed in a way that incorporates practical work experience as an employee in order to improve students' understanding of running a business.	No action taken.
Evaluate the recent merger of different innovation funding programmes and if needed, consider further streamlining innovation policy instruments and funding programmes after a thorough evaluation of the system.	The recent reform of the innovation system will be evaluated no later than 2018. The government has initiated a review of the business development system, including the innovation system
To support young and dynamic firms, further extend carry-over provisions and cash refunds in R&D tax credit programmes or increase direct support.	No action taken.
Evaluate the effectiveness of the government loan guarantee schemes for SMEs in a unified and transparent manner and gradually withdraw those that are not economically efficient.	All schemes under the Danish Growth Fund are systematically evaluated every third year. The last evaluation was published in 2014. The relevance of different schemes is evaluated continuously.
Move towards a more balanced mix of project and institutional based research funding with the objective to increase the links between universities and industry.	In 2016 new compulsory targets will be added to the development contracts of the educational institutions. The target is added to improve stronger links between institutions and industry.
In the design of demand-side innovation policies, ensure sufficient competition and facilitate SME participation. Carefully evaluate these policies.	The new InnoBooster-programme is designed to facilitate innovation in SME's. The programme is run by the Danish Innovation Fund. The Danish strategy for intelligent public procurement, which was published in 2013 by the Ministry of Finance, has innovation and quality as one of the objectives.
Improve angel investor networks to increase the opportunities for early-stage financing of firms by continuing efforts to foster a more entrepreneurial culture and improving angel investor training networks.	A Business Angel Matching Facility under the Danish Growth Fund established in 2015 in order to match investment in Danish Businesses from Danish and foreign business angels.
Streamline the services provided by Business Development Centres and monitor closely their long-term effects.	In summer 2015 a new framework agreement for the Business Development Centres came into effect. The services provided by Business Development are further monitored in the yearly contracts with the Ministry for Business and Growth.
Further enhance the entrepreneurship culture, including amongst women, through the use of the media and the education system.	No action taken.
Consider developing an explicit internationalisation strategy for SMEs. Ensure that the new cluster strategy policies are tailored to the needs of different industries.	In 2016 a new cluster strategy will be presented. One focus of the strategy is the international involvement of the clusters in order to strengthen Danish SMEs' access to global knowledge networks and the EU's Horizon 2020 programme. The Ministry of Business and Growth will launch business strategies with industry representatives from areas where the Danish business sector has an international stronghold and competitiveness in 2016.

Climate change

Recommendations	Action taken since January 2014
Regularly reassess national targets in the light of international and technology developments. Adjust accordingly the share of GHG emission cuts to be achieved domestically by financing GHG emission cuts outside Denmark.	According to the latest projections from December 2015, the target to reduce non-ETS emissions by 20% in 2020 will be met domestically.
Ensure that policies towards renewable energy support least-cost abatement options and avoid supporting one technology in particular. Work at the EU level towards the introduction of a common strategy to help meet EU renewable targets at least cost.	Negotiations on a new energy agreement, going beyond 2020, will be initiated before the end of 2018. At the EU level, new Renewable Energy targets for 2030 were adopted in 2014. A governance system for the implementation of these goals is expected to be established from 2017 on.
Rationalise the Danish energy tax system to harmonise the implicit carbon price. In particular, raise tax rates on coal and diesel to reduce the gap with the implicit carbon price on petrol.	The Danish CO_2-tax is already partly harmonised based on the CO_2-content in the fuel. The total tax on fuels also includes an energy tax which is harmonised based on the energy content.
At the EU level, push for the adoption of a common policy to limit non-CO_2 emissions from agriculture.	Denmark pushes for the adoption of a Land-sector pillar (AFOLU-pillar) under which agriculture and LULUCF would receive a common reduction target from 2021.

Thematic chapters

Chapter 1

Macroeconomic and financial risks

The Danish financial sector is big and there is a high degree of inter-connectedness between banks, mortgage institutions and pension funds. At the same time, Danish households have large balance sheets and high levels of gross debt. Even though the high debt levels are matched by large assets, notably in form of pension savings, there are feedback loops with the housing market and households' balance sheets contributing to macroeconomic volatility. At the same time, the very low interest rate environment may contribute to the building up of risks, notably in the housing market. Given the on-going recovery of the housing market, it is an opportune time to eliminate the debt-bias in taxation, which would strengthen the automatic stabilisers of the fiscal system. In addition, further liberalising the private rental market would help create a more dynamic housing market overall and reduce the need to meet housing needs primarily with the owner occupancy segment.

Denmark has a substantial, inter-connected financial sector and households with large balance sheets. The recent Great Recession, coupled with the bursting of a domestic housing bubble, had significant repercussions in the Danish economy: growth remained subdued for 5 years and the country has not yet reached its pre-crisis level in terms of output although gross national income per capita taking into account terms-of-trade improvements is developing somewhat better. Current low interest rates are contributing to a potential build-up of internal imbalances over time, notably in the housing market, and may be encouraging excessive risk-taking by households and the financial sector, leading to the misallocation of resources.

In the medium-term households are vulnerable to rising interest rates and housing market developments. A considerable amount of their wealth is in housing, and on aggregate, they are the most indebted in the OECD, with mortgages with variable interest rates accounting for a substantial share of this indebtedness. This makes households vulnerable to interest rate rises and more generally to housing market developments, increasing the volatility of private consumption. At the same time, they hold large pension savings, with over a third of these invested in covered bonds that finance the households' mortgages. Aside from circularity, asset price developments in the long term are uncertain, including those of housing. A number of empirical studies show that house prices will face substantial headwinds as the population ages, even if more recent estimates (e.g. Takats, 2012, Saita et al., 2013) fall short of earlier projected asset price falls (Mankiw and Weil, 1989). All these factors result in macroeconomic vulnerability, putting household wealth and pensions, and thereby sustainable ageing in Denmark, at risk.

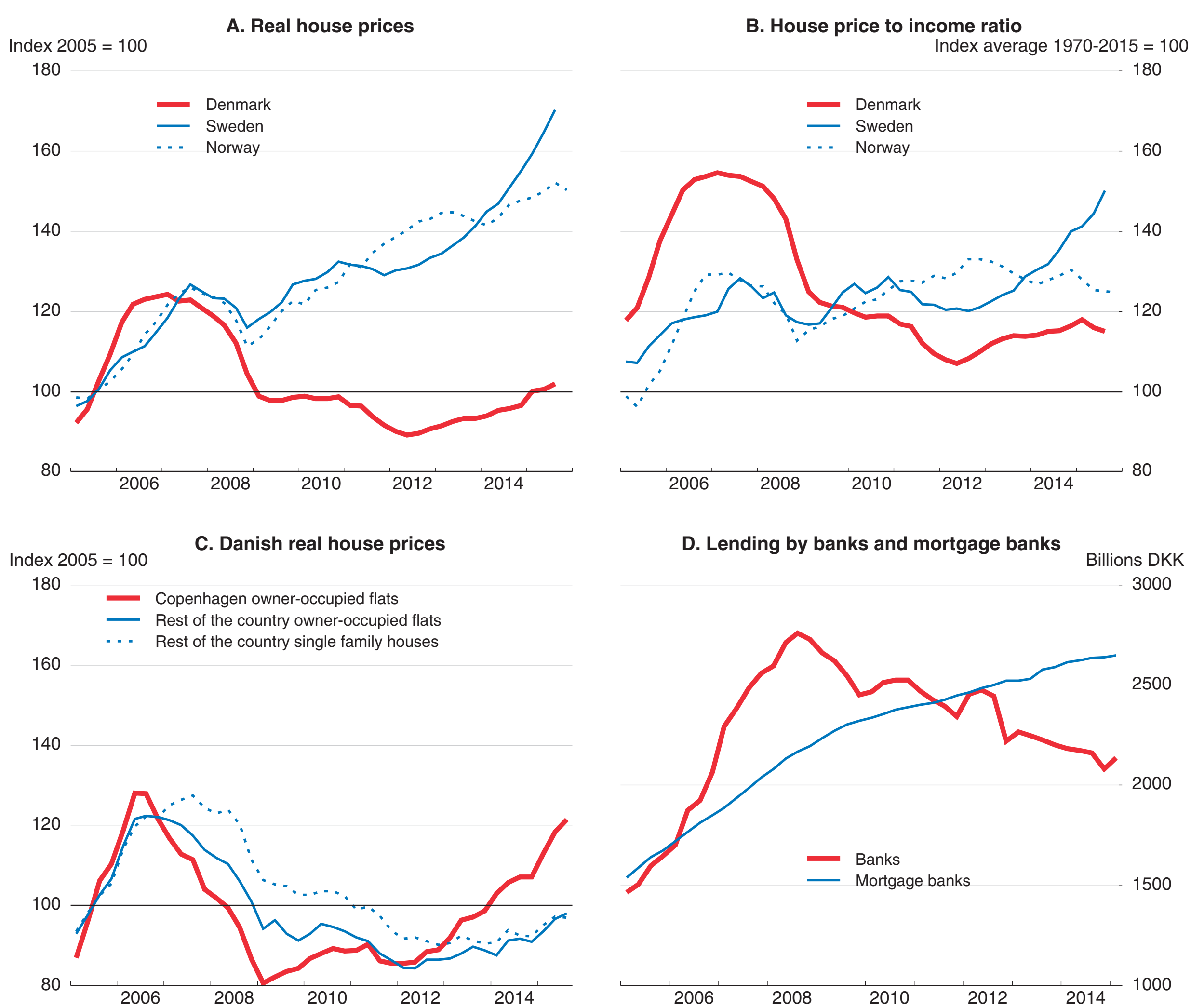
This chapter examines the macroeconomic and financial risks to the Danish economy, including the pivotal role of the housing market. It starts by reviewing risks stemming from the housing market and large households' balance sheets, which relate to the housing debt bias in the economy. It then looks at challenges posed by the current very low interest rate environment and examines risks present in the financial sector. The chapter concludes with a discussion of such a specific set-up on efficient resource allocation and inclusive growth.

Eliminating debt bias towards housing requires policy change

Housing represents the most valuable asset of household wealth across OECD countries. On one hand, there are general benefits to home ownership. It often serves as collateral for credit, allowing house-owners to smooth their consumption profile. In some countries it is a form of old-age saving; and it can have social and distributional implications as adequate housing enhances children's opportunities for educational achievement and their future employment thus impacting social mobility. Well-functioning housing markets allow people to move in search of employment, contributing to efficient reallocation of resources in the economy. On the other hand, the housing market has been an important source of financial and real volatility and can exacerbate distributional as well as regional inequalities (Andrews et al., 2011).

The global financial crisis coincided with a sharp correction of the Danish housing market. In real terms, house prices rose by 71% from 2000 to the peak in 2007 and then bottomed out in the second quarter of 2009. Average price per square meter for houses dropped by 20% from peak-to-trough, prices for flats were even more volatile. This is comparable to the large house price cycles experienced simultaneously in the Netherlands, Ireland and Spain, also in terms of impact on consumption and housing investment (IMF, 2015). The housing market has recovered by now and property prices are growing again, the situation however differs markedly across the country (Figure 1.1). Prices of flats have been growing by close to 10% over the last couple of years in the capital, with the market turnover twice as high as in the rest of the country, while house prices have been flatter over the same period (Danmarks Nationalbanken, 2015a).

Figure 1.1. **Housing market is volatile and poses a risk**



Source: OECD Housing database; Statistics Denmark.

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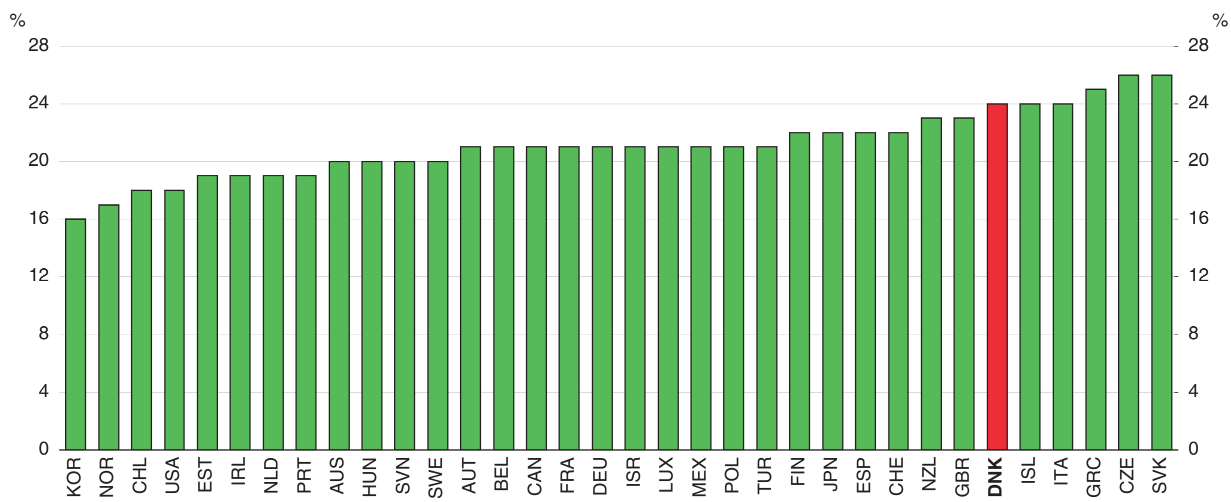
Danish households spend almost 25% of their income on housing services, one of the highest shares in the OECD (Figure 1.2). The housing stock is relatively old –more than one third was built before 1945 – but overall, it is adequate in terms of equipment. Half of the housing stock is owner-occupied, and another 7% comprises of co-operative tenure (Salvi del Pero et al., 2016). Owner-occupancy has traditionally been seen as the top end of the housing ladder in Denmark and social housing plays an important role, with 22% of the dwelling stock run by housing associations under the responsibility of local municipalities. The private rental market is limited since rents are regulated for housing built before 1991; this concerns a large majority of the private rentals even though a number of new flats were built during the recent housing boom (OECD, 2006).

Figure 1.2. **Housing expenditures[1] in OECD countries**

Percentage of household gross disposable income (2012 or latest year available)



1. Housing expenditures include actual and imputed rents, expenditure on maintenance and repair of the dwelling, on water supply, electricity, gas and other fuels, furniture, furnishings and household equipment, goods and services for routine maintenance of the house. Gross of depreciation but after taxes and transfers as well as social transfers in kind such as education and health care.

Source: OECD calculations based on OECD Better Life Index (2015), OECD National Accounts.

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Earlier estimates put overall public spending on housing at around 3% of GDP, including foregone revenues from various tax expenditures (OECD, 2006). Most forms of ownership enjoy public subsidies. Mortgage interest rates are tax deductible; there has been a freeze on recurrent tax on immovable property since 2002, and flats purchased before July 1998 and pensioners benefit from special tax reductions. Share-owners of housing cooperatives do not pay the immovable property tax. There are also subsidies for social housing as the central government and municipalities are responsible for a significant share of its construction costs. This comes on top of housing benefits that cover about a fifth of households, both in private and social housing, that amount to 0.7% GDP (OECD, 2006).

Both policy and the real economy feed housing bubbles

Policy tends to exacerbate house price fluctuations. During the 2004-07 boom, a combination of financial innovation, initial household income growth, expansionary monetary and fiscal policy, and the immovable property tax freeze fed into the price increases that soon turned into a self-fulfilling bubble, in particular in high density areas in and around Copenhagen (Pedersen and Sørensen, 2009, Dam et al., 2011, Heeboll, 2014). The following section looks at policy and the real economy drivers of the Danish housing market.

Interest rate flexibility led to increased competition in the mortgage market worldwide. OECD estimates showed that financial deregulation increased real house prices as much as 30% in the average OECD country over recent decades (Andrews et al., 2011). Nevertheless, in Denmark, financial innovation went somewhat further. Deferred amortisation mortgages – i.e. mortgages where for an initial period of 10 years only the interest is paid -were introduced in 2003 and peaked at 57% of all mortgages in 2013. Dam et al., (2011) estimate that the new types of loan – deferred amortisation and adjustable rate mortgages – explain around half of the increase in real house prices over the 1999-2007 period.

The residential housing price growth was – and continues to be – driven by prices of flats in urban areas. Owner-occupied flats, though accounting only for 11.5% of overall owner-occupied residencies, are highly concentrated in the cities and their prices are the most volatile. Just under a half of these flats is located in the capital and its surroundings (the Greater Copenhagen area). Prices of owner-occupied flats doubled in real terms between 2000 and the peak in 2007, while house prices increased only by about 60% across the country (Dam et al., 2014). Urban areas have also experienced the most dramatic declines in the downturn, but then started to grow again as early as June 2012. The urban price developments spilled into the rural areas but rural property prices are now taking longer to recover.

Demographic trends

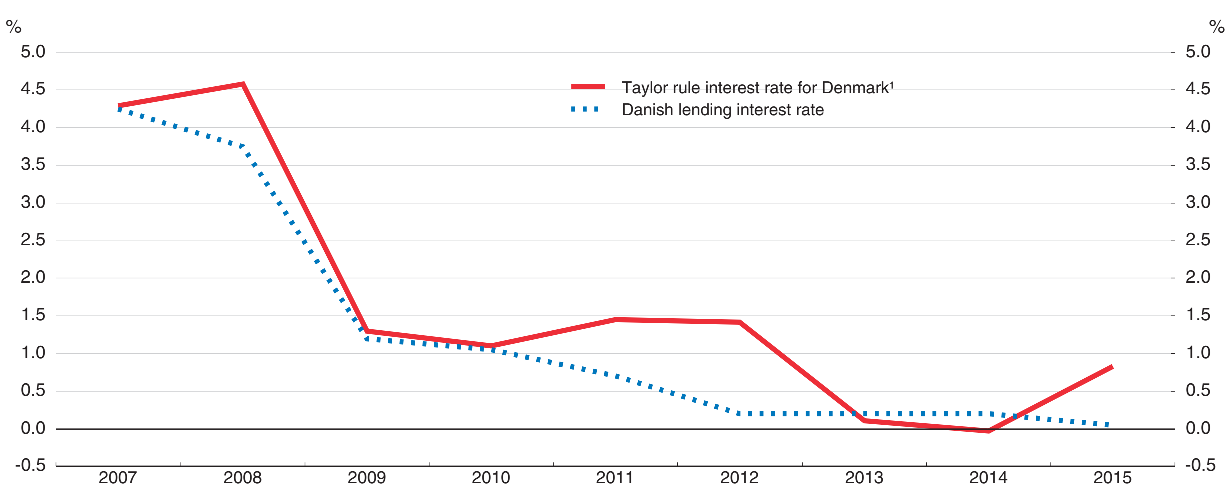
A combination of increasing home ownership, urban sprawl and demographic trends such as a higher divorce rate drive housing market developments in many OECD countries and Denmark is no exception. The divorce rate has been largely stable since 1970s in Denmark and fluctuates around 2.4-3 per 1 000 inhabitants. It reached 3.4 in 2013, one of the highest among EU and OECD countries. While the rate of urbanisation has plateaued in the 1980s, urban sprawl in so-called hotspots plays a role, as households migrate to the urban fringe. The population of Copenhagen and Frederiksberg grew throughout the 2000s, and increased further by 10% since 2009 while remote rural areas in the country saw a decline in population (Dam et al., 2014). With over a half of the population growth in the capital areas accounted for by those under 30, many of which are students with tighter budget constraints, the pressure on the rental market has increased. For instance, due to the limited availability of privately rented apartments and long waiting lists for social housing, many parents are buying the flats for their student or adult children, thereby boosting even further the owner-occupied demand for housing (Dam et al., 2014). Such trends are expected to continue, since population growth in the urban areas is set to continue at the expense of rural ones, potentially resulting in a challenge in terms of regional disparities.

Estimates of housing demand trends in an ageing society are mixed. Some studies find that human capital (proxied by health and education) can be a key driver for housing demand since younger cohorts are better educated, healthier and wealthier, and on aggregate level an ageing society is likely to demand more housing (Eichnoltz and Lindenthal, 2014). Indeed, educational attainment has increased in Denmark, as in many OECD countries. The share of today's 25-34 year olds that have at least upper secondary education is above 80%, ten percentage points higher than for the cohort of 55-64 year olds (OECD, 2014a). However, the demand for housing can differ significantly across the country. Regional housing markets with unattractive economic and living prospects face a double challenge. Firstly, the total number of households declines due to ageing and secondly, those with higher educational levels and thus better income prospects, are more likely to move away to prosperous regions, since their willingness to pay premium prices is higher (Eichnoltz and Lindenthal, 2014). Meanwhile, Takáts (2012) found a significant link between population growth and house prices, and that an increase in the share of elderly is associated with lower house price growth.

"Imported" monetary policy

Monetary policy is strongly influenced by the ECB since Denmark maintains a currency peg to the euro. The peg has been a cornerstone of Danish economic policy for over 30 years, reducing uncertainty arising from exchange rate volatility and adding credibility to the overall policy framework. It enjoys broad political support in Denmark and is generally perceived to have served Denmark well. However, ECB monetary policy does not always fully correspond to the Danish economic cycle (Figure 1.3). Jorda et al. (2014) show that loose monetary policy conditions can be a cause for mortgage and house price booms, and that exchange rate pegs can provide a source of exogenous variation in monetary conditions. Should monetary conditions become out of line with the Danish business cycle, other policies such as fiscal and macro-prudential must be stepped up. Denmark has had a negative policy interest rate for most of the period since July 2012 and given the euro area outlook the ECB rates will remain low for some time. Both the Systemic Risk Council and the central bank issue regular warnings about excessive risk-taking and relaxation of lending standards resulting from increased competition in the banking and mortgage sector (Danmarks Nationalbank, 2014a, Systemic Risk Council, 2015). However, the Systemic Risk Council has not yet issued such warning about a bubble in house prices or valuation of financial assets.

Figure 1.3. **Taylor rule estimated interest rates**



1. The Taylor rule rate interest rate is calculated as: i = annual real potential GDP growth + core inflation + 0.5 * output gap + 0.5*(core inflation – 1.9).

Source: Danmarks Nationalbank; OECD Analytical database.

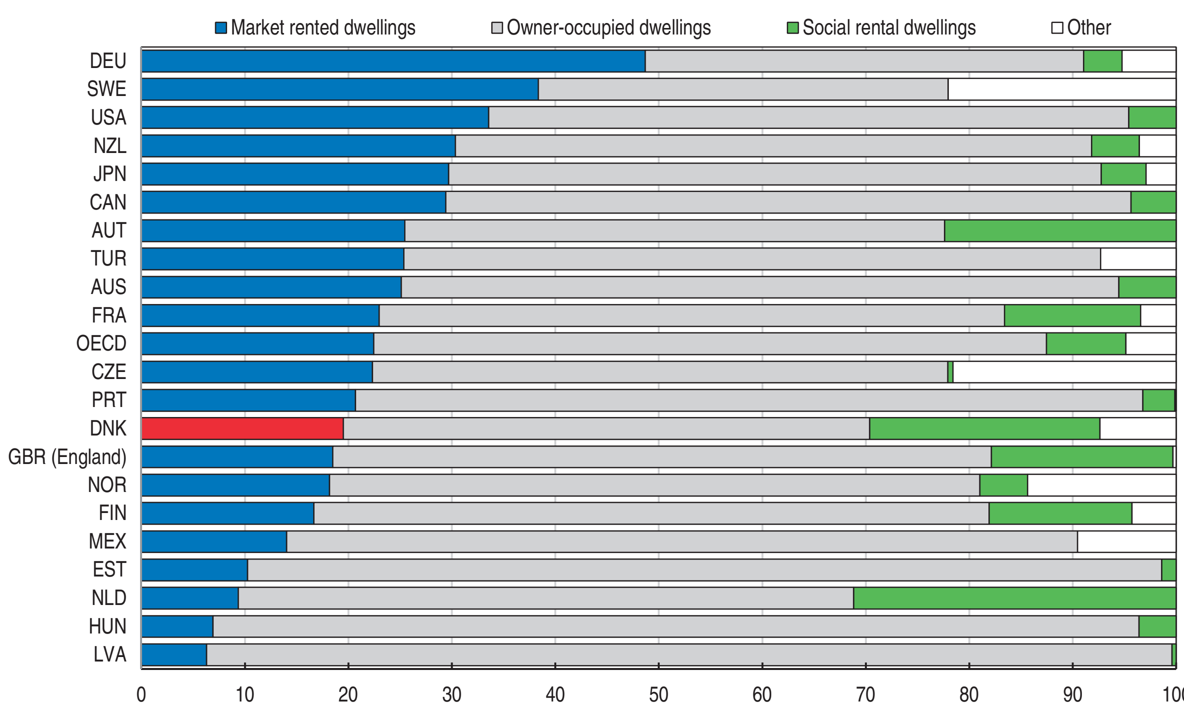
StatLink http://dx.doi.org/10.1787/888933352446

Limited rental opportunities

Some 20% of the housing stock consists of private rental housing, which is close to the OECD average though at the low end when compared to a number of high-income OECD countries (Salvi del Pero et al., 2016) (Figure 1.4). However, the social housing sector is large, reducing the demand for private rental dwellings. As already mentioned, a considerable share of it falls under rent regulation since around 80% of the private rental market units were built before 1991, though during the recent housing boom new housing units for private rent have been built (OECD, 2006). Developing a well-functioning rental market could help ease off pressures on the owner occupied segment of the housing market notably in urban areas. Cuerpo Caballero et al. (2015) conclude that rent controls have a significant destabilising impact on the aggregate housing market by increasing house price volatility under various shocks (e.g. shift in population, disposable income, long-term interest rates). Experience from other countries confirms that the development of a bigger private rental market needs a comprehensive reform package which includes rent regulation, tenant protection and fiscal neutrality (de Boer and Bitetti, 2014). Rent flexibility could be increased for instance by allowing more scope for comparisons of flats when determining similar rents and lowering an investment threshold that the landlord needs to spend on upgrading the property to justify a rent rise. Any changes to the regulation need to strike a balance between landlord and tenant protection. A rental market commission should be set up, to look into the incentives for developing a bigger private rental market.

Figure 1.4. **Private rental market across OECD countries**

Dwellings in each tenure as percentage of the total housing stock, 2013 or latest year available.



Source: Salvi et al. (2016), Policies to Promote Access to Good-Quality Affordable Housing in OECD Countries", *OECD Social, Employment and Migration Working Paper, no. 176.*

StatLink http://dx.doi.org/10.1787/888933352458

Social and affordability concerns are already addressed by the large social housing sector and housing benefits, weakening the rationale for continuing rent regulation in the private rental market. Social housing consists of 22% of the housing stock and in order to promote a social mix, in principle, all households are eligible to receive social housing. There are however criteria for prioritising. Large disparities between rents of similar dwellings, depending on the date of construction exists in the segment of social housing. Also, there are long waiting lists. Once given social housing, no regular review of whether the need persists over time is carried out. Consideration should be given to the introduction of affordable co-payment for the cost advantage of living in social housing.

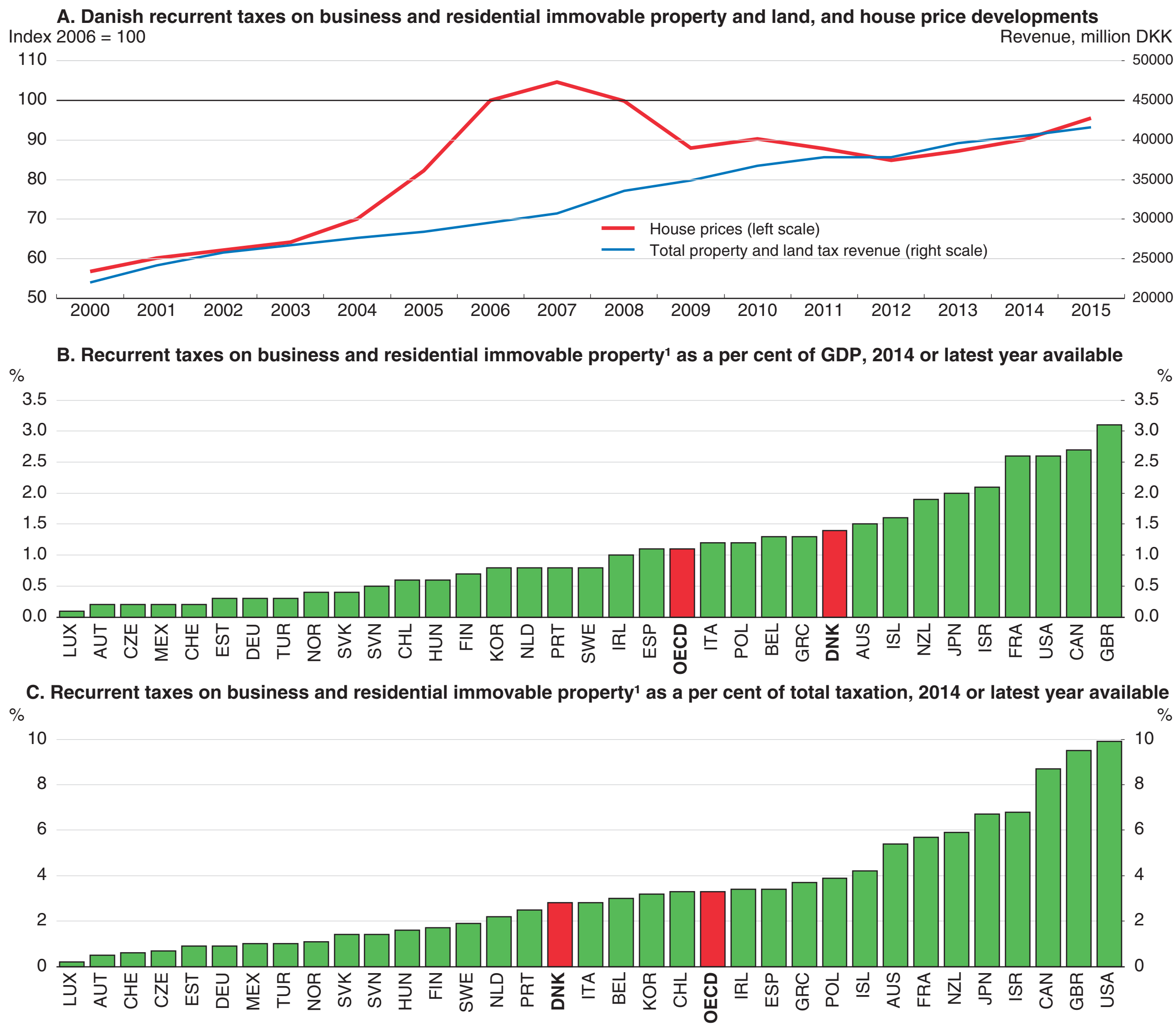
Housing taxes distort the market

The existing taxes on immovable property fail to dampen house-price fluctuations, and do not help to stabilise the economic and financial cycles (Danmarks Nationalbanken, 2015b). A land tax, commercial building tax and a residential property tax is in place. Introduced as a part of a general tax freeze in 2002, immovable residential and commercial property taxes are fixed at their nominal level of the time. This means that when house prices rise, effective property tax rate falls and vice-versa, that was the case particularly in mid-2000's, when house prices rose much faster than property taxation (Figure 1.5, Panel A). Dam et al. (2011) illustrate how this nominal freeze in combination with the tax deduction for mortgage interest rates contributed to the housing market boom up to 2008. Moreover, Dam et al. (2011) also show the uneven regional distribution of the tax freeze; the largest average "tax savings" per household were in Greater Copenhagen, where the prices increase was the steepest during the upswing. In Northern Jutland, such tax saving was one fifth of that in the capital. The tax rates are set at a rate of 1% for value under DKK 3 040 000 (EUR 407 376) and 3% for properties above that value. Overall, the authorities collect around 2.1% GDP in immovable property taxes in total (Figure 1.5, Panel B and C shows only a land tax for Denmark, and does not include so-called property tax collected by the central government due differing classification of the tax on owner occupied property).

Some argue that the land tax (with rates varying between 1.6 and 3.4%) compensates in part for the property tax freeze. Nevertheless, increases of the municipal land tax have been subject to a ceiling of 7% per year and therefore no longer reflect the full appreciation of the local hotspots. Also, the land tax is collected with a considerable lag relative to developments in actual land prices, and has thus only a limited stabilisation role (Danmarks Nationalbank, 2015a). Moreover, it has been frozen altogether in the 2016 public budget. An update of the immovable residential property (and land) values is long overdue. Though usually done on a two-year cycle and generally well-regarded (Almy, 2014), the valuation process has been under a review for past three years, further weakening counter-cyclical fiscal tools. Currently, the tax is collected based on 2011 valuation and an update is scheduled for 2018.

Favourable tax treatment of owner-occupied housing contributes to distorting demand for housing services. Owner occupiers are exempt from capital gains taxation and as in many OECD countries, they are allowed to deduct interest rate expenditures on debt financing of home-ownership from the PIT tax base. The deduction has already come down significantly from 46% in 1994 to 32.7% currently. Moreover, for interest payments above DKK 50 000 (EUR 7 370) per year, the value of the deduction is reduced by one percentage point per year until it reaches 25% of the interest rate costs in 2019. Some countries that

Figure 1.5. **Property taxation does not fluctuate with house prices**



1. In Panel B and C, the data for Denmark includes only the land tax, not the property tax.

Source: Statistics Denmark; OECD Revenue Statistics database.

StatLink http://dx.doi.org/10.1787/888933352329

have been through a similar housing boom-bust have gone further in tightening the favourable tax treatment of owner-occupied housing. For instance, in Ireland, all mortgage tax relief expires by 2017, mortgage interest payments for property purchased after 2013 are no longer deductible from personal income tax in Spain, and the Netherlands will allow full deductibility only for new amortising loans (OECD, 2014b, OECD, 2014c, IMF, 2015). The Danish authorities should lower the interest rate expenditure deductibility for all mortgages to the level which achieves neutrality across different asset types. Now is an opportune time, since the housing market seems stabilised and such measure can help restraining overshooting house prices.

Recurrent taxes on immovable property are considered to be one of the least distorting taxes for economic growth (Arnold, 2008). Yet, increasing them is one of the least popular measures and can have distribution implications since it is not directly linked to ability to pay. In principle, property taxes have a stabilising effect on house prices. Although recent empirical analysis shows a relatively limited effect on dampening the price volatility (Blöchliger et al., 2015), eliminating the pro-cyclicality of the housing and debt related taxation is an important complement to macroprudential policy tools to restrain the overshooting of the housing market.

Land planning and zoning

Due to short term inelasticity of housing supply, land zoning and planning processes have also an impact on the housing market (Andrews et al., 2011). By some measures the Danish system is not particularly restrictive and housing supply tends to be responsive. Nevertheless, a tension between the national and regional views on urban development can contribute to an upward pressure on single family house prices, in particular in sought-after urban areas (Lauridsen, et al., 2013). Land regulation is delegated to municipalities, but the Ministry of Environment has an important say on urban development too. In case of development in and around Copenhagen, the central authorities seem to favour higher density in the urban areas, close to the existing transportation lines, while local municipalities tend to be more responsive to development of new single-family housing, which is often the voters' preference, but can require new infrastructure investment (Lauridsen et al., 2013). Tight municipal budgets can restrict urban development as it would require financing of new public infrastructure, slowing the responsiveness of new housing supply and thereby contributing to price increases.

Household indebtedness increases consumption volatility

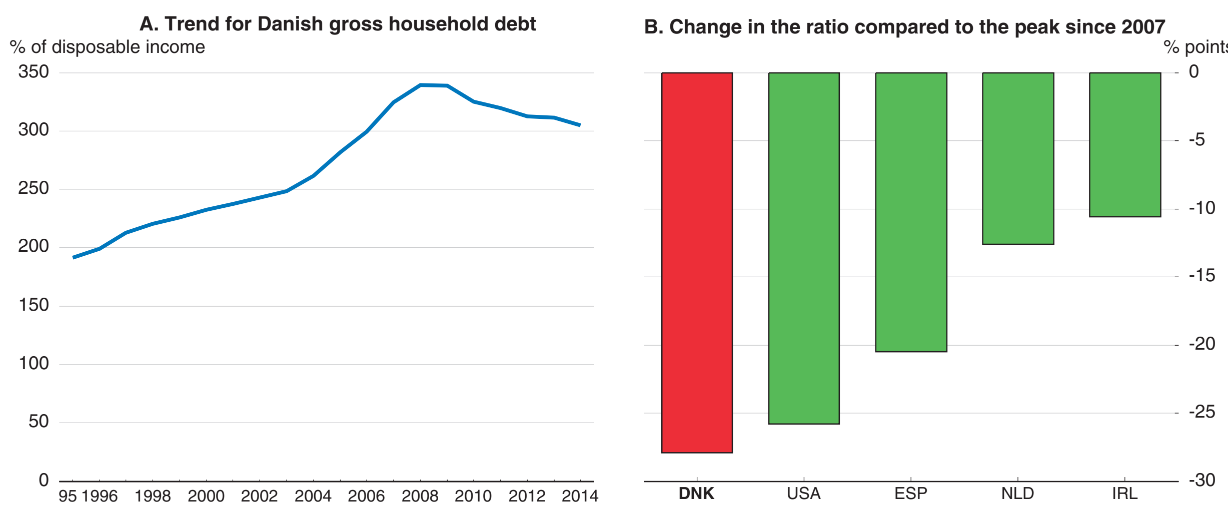
Debt financing can result in costs that are not borne by those involved in the debt contract: non-performing loans may lead to fire sales of assets below market prices which can have a widespread impact and massive aggregate demand shocks linked to de-leveraging weigh on the economy as a whole. Taking a full business cycle perspective, Isaksen et al. (2011) illustrated that Denmark – with the highest gross debt ratio among the OECD countries – experienced the second highest private consumption volatility during 1995-2010. Andersen et al. (2014) established a strong negative correlation between the pre-crisis leverage and the change in consumption during the downturn. They showed that highly leveraged households reduced their consumption between 2007 and 2011 more than those less-leveraged, with non-linear effect for loan-to-value ratios above 40%. Such consumption reduction is a result of unsustainable levels of consumption prior to the downturn, rather than differing dynamics during the recession. In other words, the more leveraged households had to unwind the unsustainable consumption levels that they had prior to the downturn.

These results are in line with the existing empirical literature on how high levels of debt amplify macroeconomic volatility. A growing number of studies show that recessions preceded by large increases in household debt tend to be more severe and protracted (Jorda et al., 2013). For the United States, Dynan (2012) shows that, after controlling for factors such as income and wealth, those with higher loan-to-value ratios prior to the crisis experienced larger declines in spending. Mian et al. (2013) show that the decline in consumption following the crisis was greater in areas with high pre-crisis outstanding loan-to-value ratios. Similar conclusions are reached by Bunn (2014) for the UK. Exploring the links between debt and macroeconomic stability, Sutherland and Hoeller (2012) find that when private sector debt levels rise above trend (for households in particular) recessions tend to be more severe.

Household debt has decreased, but remains high

The pace of mortgage credit to households has not really paused (Rohde, 2015), to a large extent replacing bank lending. However, the overall household debt to income ratio has decreased, reflecting a shift from bank lending to mortgage credit, and moderate deleveraging since the crisis (Figure 1.6, Panel B). Aggregate indebtedness has come down modestly (Figure 1.6, Panel A). Given past trends, the authorities do not expect much debt reduction to take place, arguing that part of the explanation for the indebtedness is increasing pension assets of the households. Some supply side measures to limit credit growth are already in place, e.g. loan-to-value ratios (LTV): 80% for residential properties, 70% for agriculture, 60% for commercial properties and secondary residences and 40% for plots. This is welcome since such instruments are effective (Tressel and Zhang, 2016). Nevertheless, the current practice is that while the mortgage credit bank respects the LTV ratio, a bank loan is usually arranged to cover the remaining house value. As of November 2015, best practice guidelines issued by the regulator recommend a down-payment of at least 5% of the property value, which is welcome.

Figure 1.6. **Gross household debt to income ratio**



Source: OECD, Analytical database.

StatLink http://dx.doi.org/10.1787/888933352460

Seven best practices for granting an owner-occupied mortgage were introduced earlier this year by the supervisor for areas with large price increases (i.e. Copenhagen and the city of Aarhus), in addition to the general rule that borrowers should be able to afford the mortgage with 30 year fixed rate of at least 4% and/or one percentage point above the market rate. These practices require for instance that borrowers with debt-to-income ratios above 5 should have positive net wealth even if property prices fall by 25%, and borrowers with two mortgaged properties should be able to service the debt on both for at least one year. Other practices are aimed at commercial and housing cooperative borrowers. Such principles are sound and considerations should be given to extend some of them nation-wide, with modifications where necessary to account for regional differences. Given that the housing market is currently gradually recovering across the country, it is a good time to implement these measures.

The most recent housing market correction resulted in only limited arrears and forced sales, in particular when compared to the aftermath of the house-price correction of late 1980s (Andersen et al., 2014). Currently, the arrears (calculated as a percentage of payments more than three and a half months after the due date) stand at around 0.5%, while in the 1980s housing market correction they peaked at around 2.5% (Association of Danish Mortgage Banks, 2016). A similar picture emerges from statistics on forced sales too. Flexible interest rate setting and the current ultra-loose monetary policy act as a temporary buffer. Nevertheless, the loan impairment charge ratio for owner-occupied homes is higher for high LTV ratios (Systemic Risk Council, 2015).

Measures such as the best practices mentioned above are primarily aimed at safeguarding the balance sheets of the financial sector. However, there is a macroeconomic risk of households taking on too much debt, in particular during boom years, when credit standards tend to be relaxed and not all households make sound financial decisions. Looking at the most recent boom-bust housing cycle, Andersen et al. (2012) show that the highest median debt-to-income ratio was among those with loans with variable-rate with deferred amortisation. Meanwhile, debt-to-income ratios of families with fixed-rate mortgages with amortisation was half of that. More than half of families with mortgages had a variable rate and/or deferred amortisation type of loan and those with deferred amortisation tended to take out higher debt, while at the same time have lower savings than those with amortising loans. A study of the Ministry of Business and Growth showed that among the families with at least one mortgage, around 5% had debt service to income ratio of 40% and more

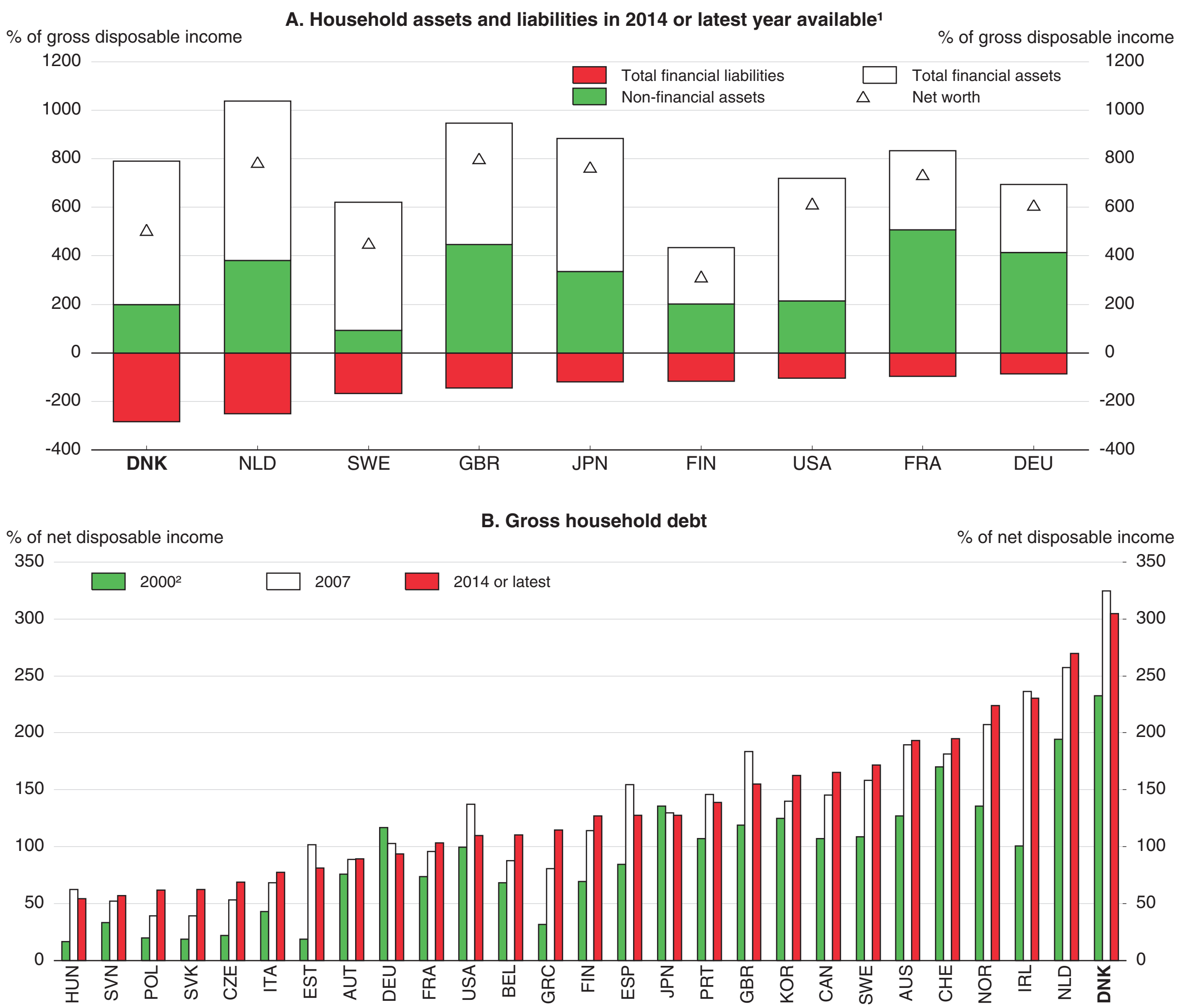
Further demand-side measures should be also considered. The lending limits do not contain debt in relation to incomes, especially when house values are rising faster than incomes. Furthermore, households can use unsecured, secondary loans to come up with the down payment for the mortgage. In the Danish case there is a tax incentive as interest rate cost on other credit is also deductible from personal income tax. In order to protect households from excessive leverage, it would be worth combining existing LTV ratios with binding debt service-to-income ratio limits (DSTI). The financial industry best practices has been to use of a debt-service-to-income check, requiring that the borrower is able to afford the mortgage assuming a 30-year fixed rate (and a stricter version of this for so-called hotspot areas, as mentioned above), though in the current low-interest environment this can have a limited effect, not to mention that as a "best practice", it is a soft tool. The use of this debt-service-to-income ratio should be further strengthened and consideration should be given to imposing specific limit. Such tools are in place in a number of countries, such as the United States, the Netherlands or Canada, and can help to curb excessive demand for mortgage credit and address circumvention of LTV ratios caps through secondary loans.

Debt is high, but affordable

Low interest rates are a boon to indebted households

Current low interest rates help households to lower their debt-service obligations. Household debt – at 130% GDP – is of the highest among OECD countries also in terms of disposable income, albeit they also hold large assets, most of which are illiquid (Figure 1.7). Significant indebtedness has been the case since 1970s and although the debt has come down somewhat following a housing market correction of the late 1980s, Denmark has ranked the highest in the region in terms of household indebtedness. Some three quarters of total lending to households has a variable interest rate, which means that as interest rates plunged, debt-servicing obligations also fall (Figure 1.8). As André (2016) points out, household debt stands at a historically high level in most OECD countries. Aggregate household debt alone does not indicate serious risks, but rapid increases in debt, often associated with housing booms, can suggest upcoming adverse economic and financial developments, as experienced recently with the build-up to and during the global financial crisis. Even in the absence of a direct impact of adverse shocks – such as falls in housing prices, drops in household income or increases in interest rates – on the financial system, high household debt can amplify the business cycle, as households adjust consumption to cope with their financial obligations (André, 2016).

Figure 1.7. **Household assets and liabilities**



1. This decomposition is only available for these countries.
2. 2001 for Ireland and Slovenia, 2002 for Korea.

Source: OECD, Analytical database.

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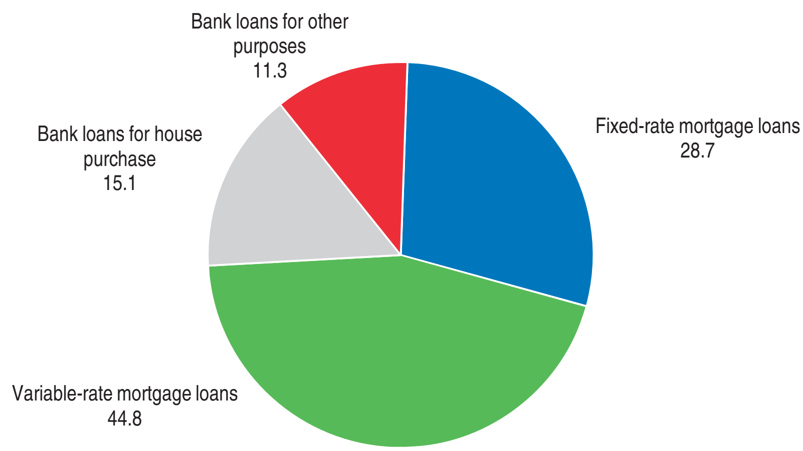
Figure 1.8. **Lending to households by type of loans**

October 2015, %



Source: Danmarks Nationalbank, Financial Stability, 2nd half 2015.

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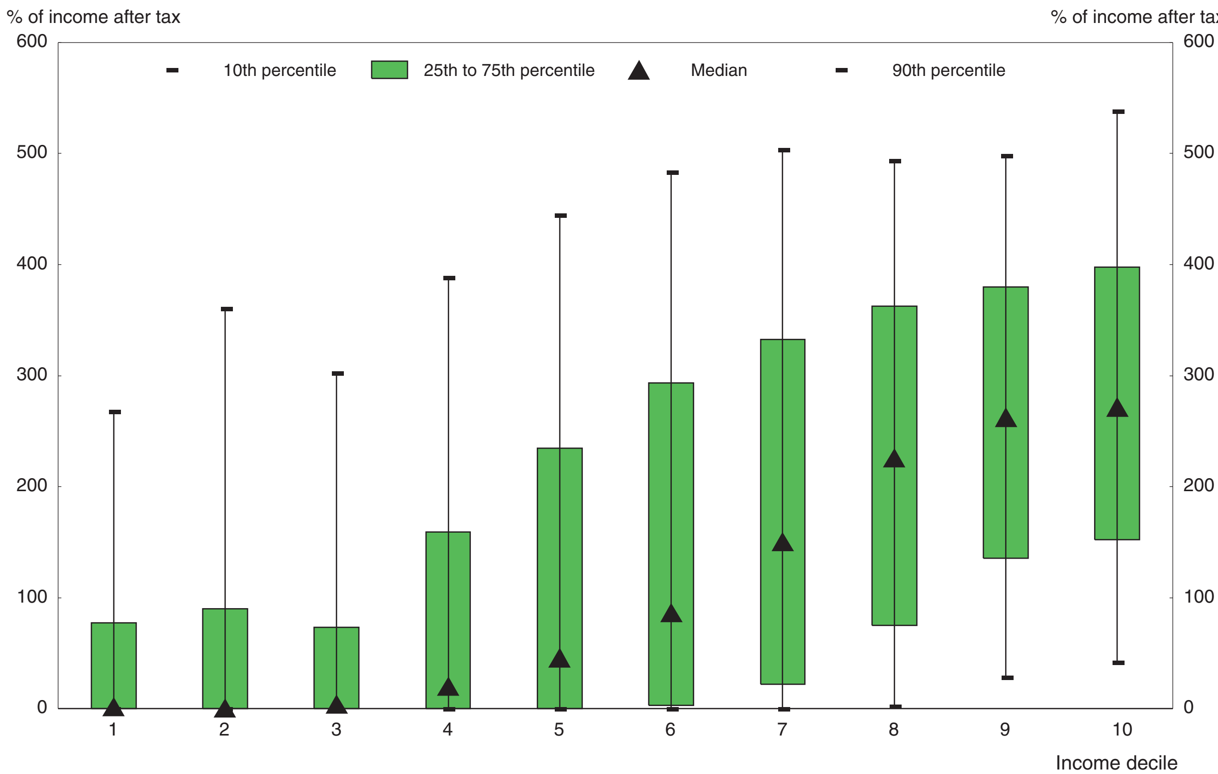
A large share of household debt is concentrated among high-income households (Figure 1.9). Andersen et al. (2012) show that the top three income deciles account for 70% of the debt stock. At the lower part of the income distribution, i.e. in the bottom three income deciles, the median family has no debt at all. Nevertheless, around a quarter of households in each of these deciles hold debt exceeding 80% of their net income. This is a significant increase compared to the situation in 2002 and the most pronounced increases were among the low-income: in the first four income deciles the debt stock increased by almost 100%. Furthermore, the debt stock has more than doubled among the elderly, i.e. households in which the oldest member is 60 years old and over. From a life-cycle perspective it may be reasonable for households take on debt while young, paying it off gradually over the life-time to smooth consumption inter-temporally, however, it is more difficult for older households to react to shocks.

While it is difficult to state when households become over-indebted, some authors put such threshold at three times the annual income, assuming that if one third of the income is saved, such a debt can be repaid within 12 years based on prevailing interest rates (OECD, 2015b). By this measure, some 23% of households in Denmark qualify as over-indebted. For the 18 OECD countries for which similar data are available, on average 11% of households are over-indebted, with Norway and the Netherlands having similarly high shares as Denmark (OECD, 2015b). Lunde (2016) illustrates that net-debt-to-housing-wealth ratios have been fairly stable over time, because the general increase in house prices was matched by increase in indebtedness. By this measure, around 20-25% of home owners have been "technically insolvent" at some point over the past 25 years, as first-time home buyers purchase their homes with nearly no down-payment. While during the housing market downturn of 1986-93, the number of foreclosures increased significantly, this time round the possibility to reduce interest rates helped to cushion the fall in their housing value (Lunde, 2016). Andersen et al. (2012) simulate a number of stressful situations for the households: an interest rate shock (i.e. a temporary jump in interest rates by 5 and 9 percentage points), temporary loss of income (3 and 6 months of unemployment) and an end of deferred amortisation period. None of these would result in an increase of default

Figure 1.9. **Distribution of the gross debt across income deciles**

Percentage of income after tax, 2010



Note: A sample of households covers about 90% of families and 70% of the debt stock. It excludes self-employed and those with no or negative income tax.

Source: Danmarks Nationalbank.

StatLink http://dx.doi.org/10.1787/888933352494

rates that would pose a threat to the financial stability. A more recent update of the simulations confirms such conclusion (Danmarks Nationalbank, 2015b).

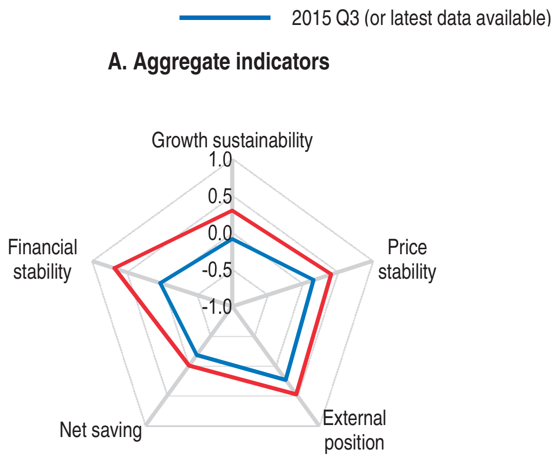
Risks in the financial sector should be addressed now

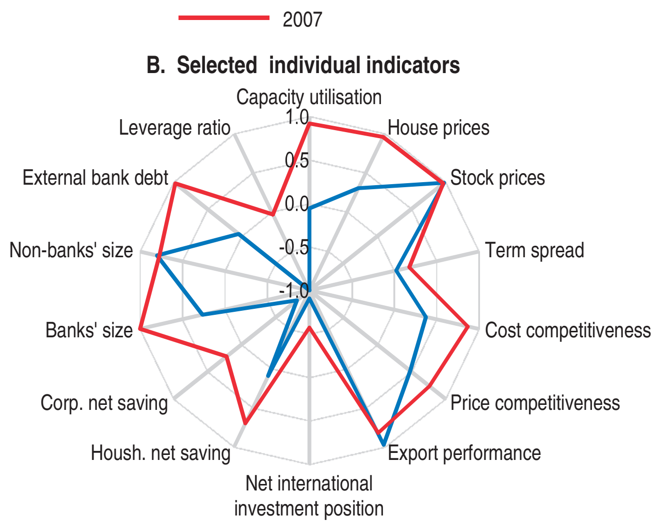
The Danish financial sector holds assets of over 500% of GDP, and is one of the most concentrated in Europe (Danmarks Nationalbank, 2014a) (Figure 1.11). It is highly developed and thus appropriately suited for intermediating income and wealth across time, an essential function in an ageing economy. As noted already, on the savings side, the Danish population has one of the largest savings in funded quasi-mandatory occupational pension schemes among OECD countries (140% GDP). On the other side of the households balance sheet, a well-established mortgage market allows households to borrow at competitive interest rates. Some ¾ of households have debt, and in aggregate their debt is one of the largest in the OECD (at 130% of GDP). While such a set up bodes well in terms of consumption smoothing, savings diversification and access to credit, there are also risks involved.

- Financial vulnerabilities have receded since 2007 (Figure 1.10), nevertheless international reach, interconnectedness, and reliance on short-term financing exposes the Danish financial institutions to developments in external financial markets. Size and

Figure 1.10. **Potential macro-financial vulnerabilities have diminished**

Deviations of indicators from their real time long-term averages (0), with the highest deviations representing the greatest potential vulnerability (+1), and the lowest deviations representing the smallest potential vulnerability (-1)





Note: Each aggregate macro-financial vulnerability indicator is calculated by aggregating (simple average) normalised individual indicators. Growth sustainability includes: capacity utilisation of the manufacturing sector, total hours worked as a proportion of the working-age population (hours worked), difference between GDP growth and productivity growth (productivity gap), and an indicator combining the length and strength of expansion from the previous trough (growth duration). Price stability includes: the average of overall inflation and core inflation (consumer prices), the average of house prices-to-rent ratio and house prices-to-income ratio (house prices), stock market index for all Danish shares adjusted by nominal GDP (stock prices), and the difference between long-term and short-term government bond interest rates (term spread). External position includes: the average of unit labour cost (ULC) based real effective exchange rate (REER), and consumer price (CPI) based REER (cost competitiveness), relative prices of exported goods and services (price competitiveness), export performance and net international investment position (NIIP). Net saving includes: government, household and corporate net saving. Financial stability includes: banks' size as a percentage of GDP, non-banks' size as a percentage of GDP, external bank debt as percentage of GDP, and capital and reserves as a proportion of total liabilities (leverage ratio).

Source: OECD calculations based on OECD (2015), OECD Economic Outlook: Statistics and Projections (database), December and Thomson Reuters.

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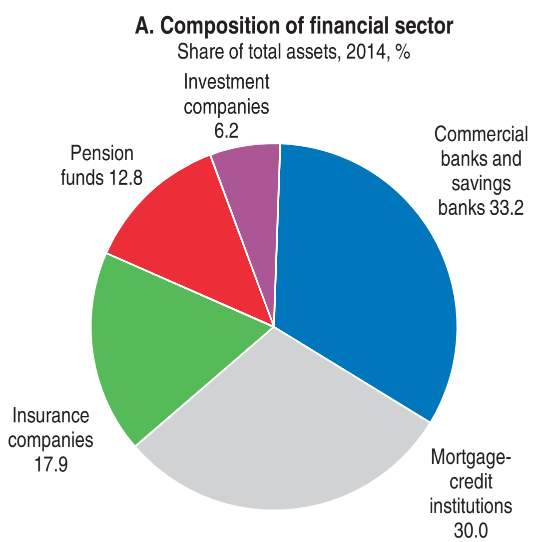
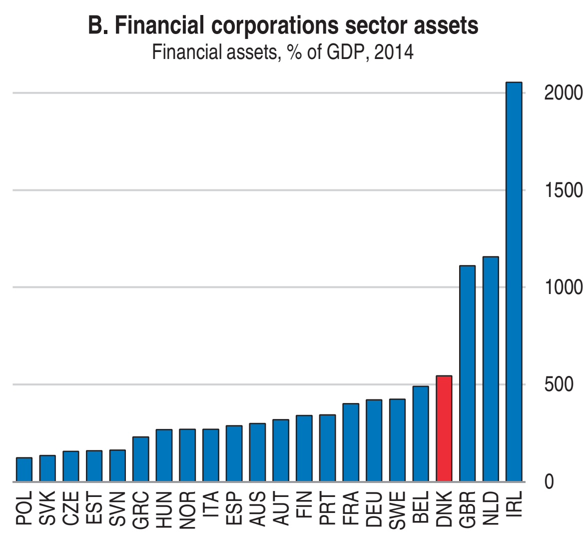
Figure 1.11. **Financial sector assets as a % of GDP**





Source: DFSA, OECD National Accounts Statistics.

StatLink http://dx.doi.org/10.1787/888933352503

interconnectedness represent a systemic risk that needs to be managed by rigorous oversight and regulation.

- Large balance sheets make Danish households sensitive to interest rate and housing market developments. Currently, this does not seem to pose a financial stability threat, but vulnerabilities could rise. Given the on-going current recovery of the housing market, this is an opportune time to eliminate a pro-housing bias in taxation and lending practices that generate pro-cyclical distortions of the policy setting.

Following the Great Recession, the size of the financial sector has come to fore of the general economic debate. While a big financial sector had been previously seen as a sign of high and effective financial intermediation contributing to the efficient allocation of resources, the crisis led to a more critical view on the role of the sector. A question of "too big" and beyond a certain threshold actually harmful impact on economic growth has been raised (Cournede et al., 2015). Some authors point to the infinite capacity of banks to create new credit, money and purchasing power that is used for the purchase of finite and scarce supply of urban land thereby leads to self-reinforcing credit and asset- price-cycles of boom and bust (Turner, 2015). Others (Jones, 2015) claim that a rapidly growing asset management industry tends to contribute to pro-cyclicality and financial instability. This is due to inherent institutional features of the principal-agent relationship between the owners and asset managers that are strongly linked to remuneration incentives in the industry. As a result of these incentives, assets management firms lend themselves towards herding and "rational bubble-riding". Such debates are of particular relevance for Denmark, given the size and depth of the financial sector, and the recent global downturn serves as a reminder that the financial sector can act also as a propagator of shocks, rather than an absorber, undermining robust growth.

Size and interconnectedness create significant implicit liabilities

The sheer size and interconnectedness of the financial sector pose a systemic risk. Two thirds of the assets are held by the banks and so-called mortgage credit banks. The life insurance sector also plays an important role since it provides many occupational pension plans (IMF, 2014). A significant share of the pension savings (on average around 40% over past 10 years) is invested in domestic bonds, majority of which are covered mortgage bonds that account for around half of total lending in the economy. Thereby, there is a considerable interconnectedness within the financial sector, i.e. between the mortgage banks and pensions and insurance sectors. All in all, Danish investors hold over 80% of the covered mortgage bonds (Box 1.1) and while historically, the mortgage business model was conservative, recent financial innovation altered some of its basic features, adding new important risks (see below).

Resolution and crisis management

The large size of the financial sector creates important implicit liabilities for the public sector, highlighting the role of regulatory oversight and resolution mechanism. Following the global financial crisis, a number of new supervisory measures have been put in place (Box 1.2). Recent experience points to stable and strong foundations that helped to weather the recent downturn. The authorities acted decisively when the market liquidity became difficult, and the sector has gradually increased its capitalisation (Figure 1.12). The profitability of the banking sector has recovered among the big players, even if smaller

Box 1.1. **Covered bonds at the heart of the Danish financial system**

The Danish mortgage market has earned much praise both before and during the recent crisis (Campbell, 2012, Gyntelberg et al., 2012). It links borrowers directly to the issued bond and allows for early repayment with no penalties attached. Also, it is backed by a strong bankruptcy regime that is both fast and efficient, with personal liability for remaining outstanding credit.

To finance mortgage loans mortgage credit institutions (MCIs) issue callable covered bonds. They do not take deposits and have no access to money markets, but are exposed to credit risk, which has generally desirable incentive effects, while the interest rate risk is passed on to investors who buy these bonds. There is a large nationally diversified mortgage pool that is relatively liquid. Homeowners can pass on the mortgage when selling the property, or pre-pay it earlier by buying the bond in the same value with no penalty. The ability of home-owners to buy the mortgage bond can provide a source of liquidity in a crisis, when investors dump the bonds (Campbell, 2012).

The outstanding stock of the bonds represents DKK 360 bn, i.e. 150% GDP (in 2013), four times bigger than the government debt market. The product has a long and successful track record: it originated in the great fire of Copenhagen in the late 18th century and there has never been a default of an issuer in fact. Borrowers' difficulties are dealt with in an efficient and fast repossession. For life-insurance companies they represent some 43% of assets, for non-life insurers 65%.

The issuers of covered bonds have to adhere to a specific "balance principle". According to this principle a number of tests have to be passed at all times by the issuing institution otherwise the supervisory authority has to be notified. These effectively regulate interest rate risk, exchange rate risk, option risk and liquidity risk of the entity. Maximum loan-to-value (LTV) ratios are set, varying according to sector. There are also limits on maximum duration of the repayment period, including those of interest-only loans and a 30% portfolio limit on the share of high LTV loans will come to force in the future (see below).

Supervision is carried out by regular monitoring and publishing of a number of indicators, including a so-called supervisory diamond, that is being introduced also for mortgage credit institutions and contains a number of financial variables, such as lending growth, large exposures, loans with short term funding, lending to home-owners with deferred amortisation and interest rate risk of the borrower. These indicators will be in force as of 2018, except for the one on deferred amortisation and short-term funding, which will come into force in 2020.

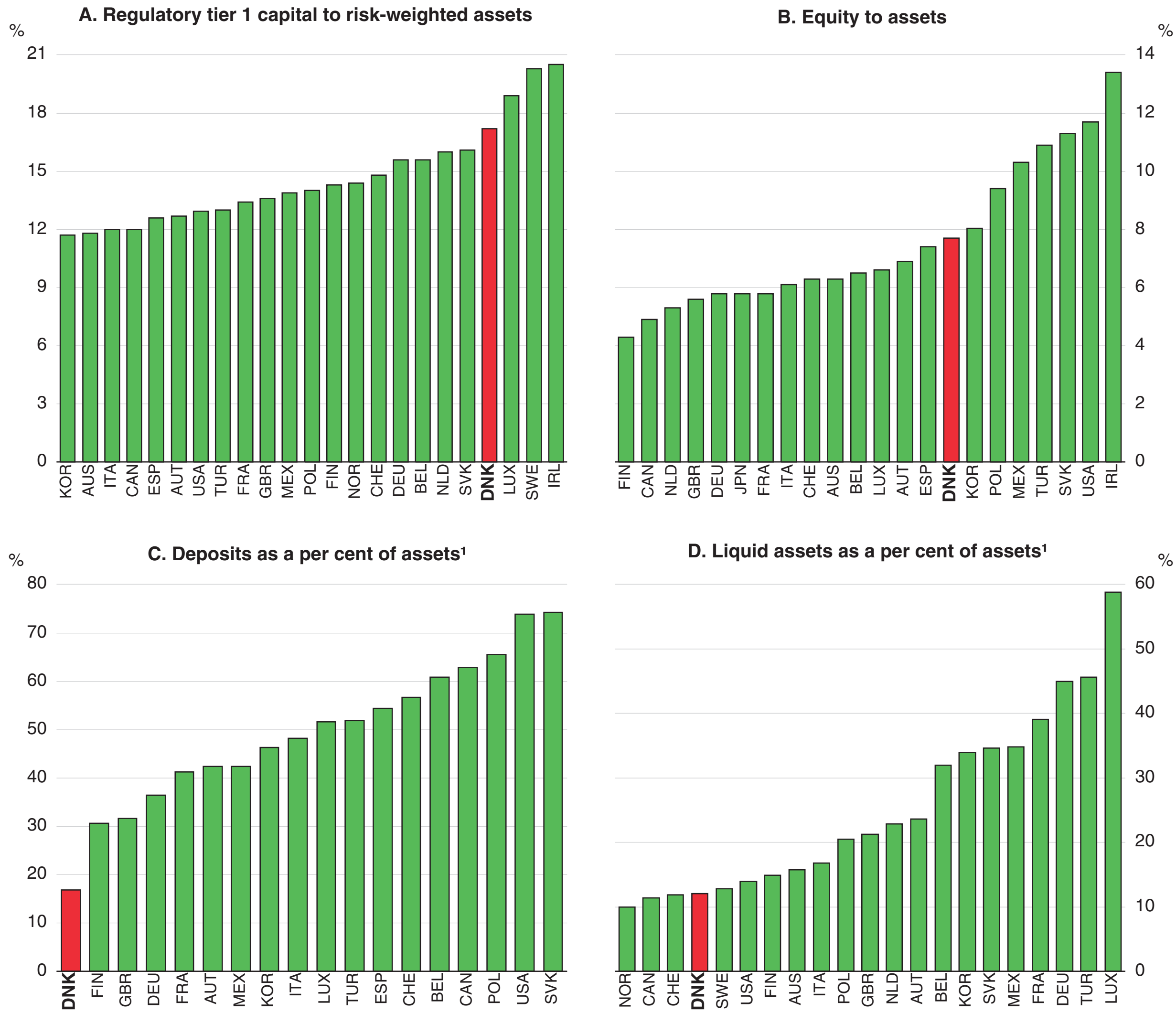
Source: IMF, 2014, Danish Financial Supervisory Authority.

banks continue to feel the weight of non-performing loans in the agriculture industry (Danmarks Nationalbank, 2015a).

The crisis resolution consisted of several rounds of measures for strengthening financial stability during the downturn 2008-13, including so-called banking packages, comprising of a 2-year general government guarantee for deposits, public funding, a new resolution regime with important bail-in features and more stringent solvency requirements for distressed systemic institutions (IMF, 2014). All in all, 12 financial institutions were resolved over that period, with most of the cost falling on the banking sector.

Figure 1.12. **The financial sector is well capitalised**

2015 or latest year available



1. A significant share of the financial sector is formed by the mortgage credit institutions that by design do not take deposits. This affects the DNK ranking in Panels C and D.

Source: IMF, Financial Soundness Indicators database.

StatLink http://dx.doi.org/10.1787/888933352338

Although the institutional setup of crisis management and resolution is complex (Box 1.2), it worked well during the financial crisis. Concerns have been raised about the clarity of the roles of the various agencies participating in the process and the need for formalisation of their interaction (IMF, 2014). For instance, the Financial Stability Company assesses, together with the Financial Supervisory Authority, whether the structure of a financial institution allows for orderly resolution. Such shared competencies may lead to fragmented accountability and a risk of deploying insufficient measures (Danmarks Nationalbank, 2014b).

Box 1.2. Scope for improving the crisis management and resolution regime

The **Danish Coordination Group** is a strategic and leading body for crisis management and inter-agency discussion forum established in 2005. Though it has no executive or legislative powers, it is at the heart of crisis management, as illustrated in the recent downturn. The group consists of representatives from: the central bank, Financial Supervisory Authority, Deposit Guarantee Scheme company, the Financial Stability Company (established in 2008 to wind-down failing banks and to become the ultimate resolution authority) and the government – Ministry of Business and Growth, Ministry of Finance, Ministry of Economy.

Resolution issues are dealt with indirectly by the **Danish Financial Supervisory Authority** (DFSA) that enforces minimum capital requirements. In effect, the DFSA deals with institutions that are "not failing or not likely to fail". When minimum capital requirements are not observed, the distressed institutions' management decides either on liquidation, sale or a transfer to the Financial Stability Company. There is no one designated resolution authority with operational independence, robust governance structure and well-defined accountability that would have powers to effect forced mergers and recapitalisation, implement bail-ins and appoint special administrators to restore the firm, considered good international practices (IMF, 2014). The central bank acts as a lender of last resort, providing emergency liquidity assistance, and gets consulted on resolutions plans of SIFIs.

The **Deposit Guarantee Company** is funded ex-ante by the financial industry, with an annual contribution of 0.25% of net covered deposits. As in other EU countries, the coverage is provided up to EUR 100 000. It is run by a board of directors, whose members are appointed by the Ministry of Business and Growth, with a half of the members representing the financial industry. The IMF points to a potential for improvements such as removing financial industry representatives from the board, introducing risk-based premiums and explicit funding backstop by the government, a depositor preference scheme and limiting overdue financial obligations, as established by the international best practices.

The **Resolution Fund** must be built-up to 1% of all institutions' covered deposits (currently around DKK 7 bn) and funded on an on-going basis by the financial industry. The funds role is to guarantee assets and liabilities of those under resolution, grant loans and buy assets to provide capital to so-called bridging institutions. After a bail-in has been applied, the fund can also be used to a limited extent for recapitalisation and loss absorption.

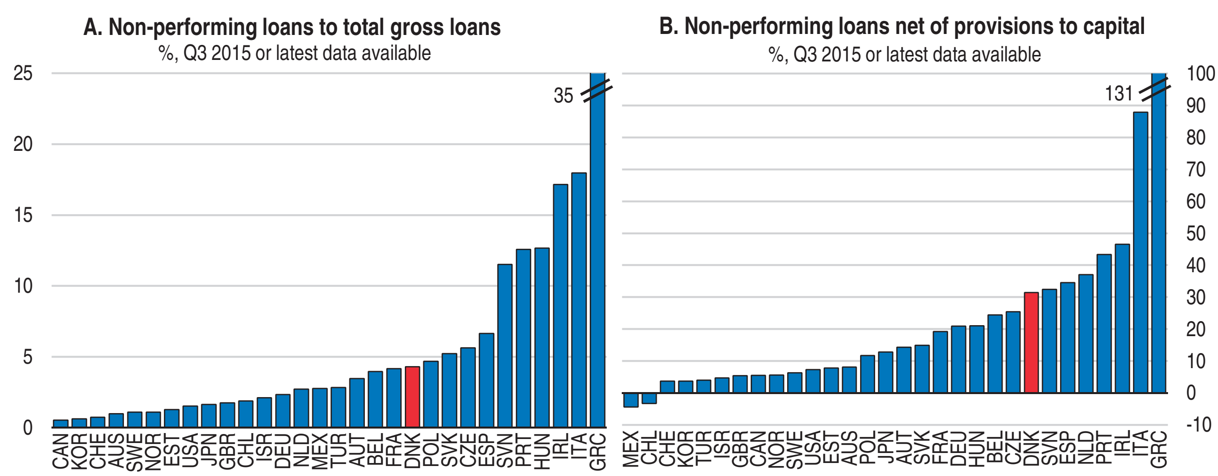
Source: Denmark – Financial System Stability Assessment, IMF, 2014. Danmarks Nationalbank (2015).

Supervision and oversight

Financial sector stability is a shared responsibility of the Danish Supervisory Authority (DFSA) and the central bank. Supervision is carried out by the DFSA that oversees both the banking and insurance sectors, while responsibility for the payments system is with the central bank. The DFSA is part of the Ministry of Business and Growth and is accountable to the minister, who appoints its seven board members. Nevertheless, the DFSA also acts as a secretariat to other inter-agency bodies, such as the Financial Business Council, Money and Pensions Panel and Danish Securities Council, established by the Parliament, which determine a considerable share of its work. A Systemic Risk Council was established in 2013 and tasked with monitoring, identifying and contributing to limiting of systemic risks and the central bank acts as a secretariat for the council's work. The council has 10 members, mainly from the administration but it also includes three independent experts. The council issues observations, warnings and recommendations to the DFSA and the government, who then have to "comply or explain" and most of the decisions and explanations are published, while voting rules ensure that the representatives of the government do not vote when warnings and recommendations are directed at the government. A review of the functioning of the Systemic Risk Council is planned for 2016.

There are six systemically important banking and mortgage credit groups (SIFIs), the biggest of which (*Danske Bank*) holds assets of 180% of GDP. They face additional capital requirements that are gradually phased in during 2015-19, notably the so-called SIFI buffer. Regular stress-testing carried out by the central bank shows all the SIFIs have substantial excess capital relative to the current minimum requirements, and five of them vis-à-vis the regulatory requirements in place until 2017, i.e. the horizon of the most recent stress-testing exercise. A number of smaller banks continue to be affected by high impairment charges in the agricultural sector, though stress tests show that even in case of severe recession and deterioration of the banks' capitalisation, they do not pose any threat to financial stability (Danmarks Nationalbank, 2015a).

Figure 1.13. **Non-performing loans**



Source: IMF, Financial Soundness Indicators database.

StatLink http://dx.doi.org/10.1787/888933352512

EU's recent legislation (Bank Recovery and Resolution directive – BRRD and CRD IV) that came into force in 2015 introduced new tools for management of the SIFIs. This includes up-to-date and extensive recovery and resolution plans that have been submitted to the regulator in 2015 (for SIFIs) and early 2016 (for the rest of the sector). At the moment, the Financial Supervisory Authority can for instance impose limitations on dividend payments if a SIFI does not fulfil certain thresholds (i.e. total capital requirement consisting of the minimum, pillar II add-on and capital buffer). The main objective of much of the new legislation after the Great Recession, in the EU and elsewhere, is to limit the implicit liability of public finances to the financial sector. Bail-in clauses, industry-funded resolution funds and higher capital requirements should go a long way in decreasing the potential implicit liabilities, although the effectiveness of the new regulatory framework will only show in a crisis situation. The new bail-in rules however do not apply to the mortgage credit institutions. Since they do not have to comply with the requirement to hold eligible liabilities, the authorities do not have the same tools for handling a failing institution. Instead, a requirement to hold a "debt buffer" corresponding to 2% of their lending will be introduced.

Cross-border reach is always challenging to regulate

Danish banks also have an important presence abroad, mainly in the Nordic and Baltic region but also in the United Kingdom. *Danske Bank*'s lending and deposit market shares are between 5-10% in the region. The second largest domestic bank, *Nordea*, is based in Sweden and is also one of the global systematically important banks. In practice, this means that it has to comply with higher loss absorbency requirement as of January and is a subject to group-wide resolution planning and resolvability assessments, which have to be reviewed annually by the Financial Stability Board. The high interconnectedness of the Nordic financial sector makes Denmark vulnerable to developments elsewhere. A network spill-over analysis shows that extreme credit and funding shocks to banks in Norway, Sweden and Finland would have a large impact on baking sector stability in Denmark, and vice-versa (IMF, 2014).

Cross-border activities can pose a risk, notably in case of regulatory arbitrage. Lending of Danish banks to Sweden's and Norway's housing markets is of a considerable size, some DKK 370 billion (Danmarks Nationalbank, 2015a). Cross-border cooperation among the Nordic countries has been exemplary so far and Denmark is a member of the European Systemic Risk Board. Nevertheless, there is a scope for further improvement such as further harmonisation of the bail-in requirements, establishment of firm and institution specific crisis management groups and ensuring that foreign resolution mechanism work (IMF, 2014).

Denmark is contemplating membership of the emerging euro area banking union, but Sweden and Norway are not, so scope for regulatory arbitrage and differential treatment could persist. The main attractions of the banking union membership are stronger supervision of the largest financial players and a reduction of risk of political interference. Moreover, the broader scope of the single supervision can enable it to track trends across many large credit institutions, allowing for an early identification of build-up of risks (Danmarks Nationalbank, 2014c). Regulatory treatment of the covered bonds, the cornerstone of the Danish financial system, is currently under discussion, both at the global and European level. The outcome of these negotiations is likely to tilt the balance for or against the EU banking union membership.

Innovation and tightening of regulation can be pro-cyclical

Financial innovation of recent decades resulted into a maturity mismatch between funding and borrowing poses another risk (IMF, 2014). The financing model of the mortgage credit banks has evolved from historical practice: short maturity funding increased in importance to fund long-term loans and is currently the norm. During the crisis, the central bank had to intervene to ensure adequate funding of mortgage lenders (Campbell, 2012). Also, an industry agreement between the government and the pensions sector was reached to prevent fire-sales of mortgage bonds (Lunde, 2016). More recently, the authorities introduced a new supervisory tool (the supervisory diamond – see Box 1.1) for mortgage institutions and refinancing is increasingly spread to several occasions throughout the year (as opposed to one annual issuance of all mortgage credit institutions in the past). To reduce the risk of a failed re-financing case, legislation is now in place that automatically prolongs the financing by a year in case of interest rate increases of more than 5 percentage points (OECD, 2014a). This is welcome, given the importance of the covered bonds within the financial sector, as failed mortgage bond refinancing would have serious repercussions (OECD, 2014a).

New regulation, coming into force gradually, will also impact demand for holding mortgage bonds. For instance, wider use of leverage ratio (a ratio of unweighted exposures) means that mortgage bonds that typically have low risk-weights require more capital. Also, the liquidity coverage ratio stipulates how much and what kind of series of the mortgage bonds can be held by the financial institutions which can have an impact on certain bond issuances. Spreading out refinancing (mentioned above) helps to alleviate the pressure on market liquidity. Nevertheless, due to the ECB's asset purchase programme, shrinking liquidity is currently affecting European covered bond markets more generally (Bloomberg, 2016). It remains to be seen whether this is a temporary issue that will be resolved with normalisation of European monetary policy.

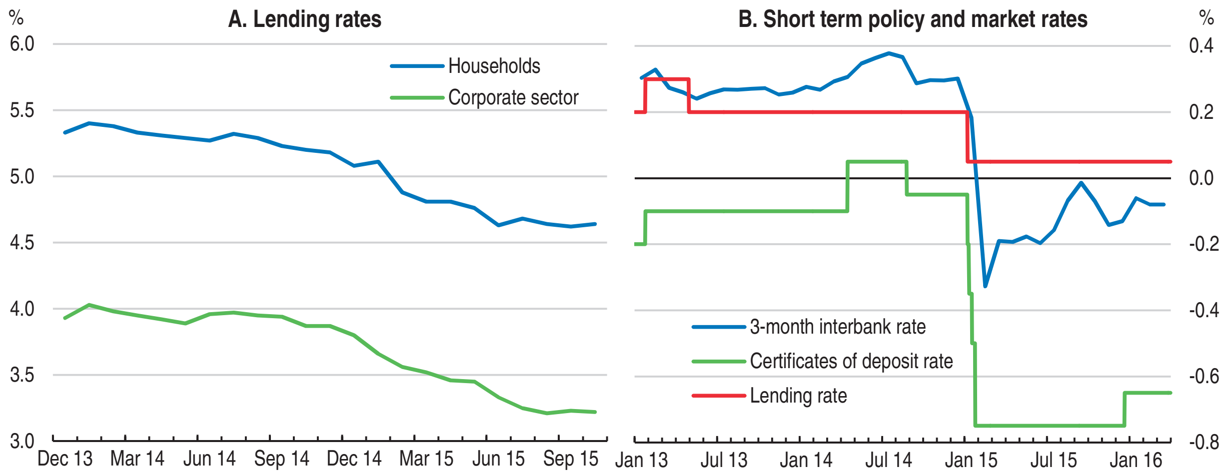
The current very low interest rate environment is both a challenge and a boon to financial stability. On one hand it puts the traditional banking model under strain by increasing pressure on banks' earnings. Also, it contributes to the volatility of asset prices, in the Danish case in particular to the property market (see below). One the other hand, it helps households lower their debt-service obligations, because a large share of the debt they hold has variable interest rates. The following section looks at the impact of the low interest rates in more detail.

No major change in earnings and risk appetite but challenging environment nevertheless

In response to the central bank's rate cut at the beginning of 2015, market rates plunged even further into negative territory and on average the short-term interest rate was -0.12 during 2015. The central bank hiked the policy rate marginally at the beginning of this year, and it currently stands at -0.65 (Figure 1.14). At the same time as the central bank cut its rate further into the negative territory, it increased the current account limits that each bank (depending on the size) can deposit at the central bank. Total bank deposits rose to around 10% of GDP in early 2015, as a result of the rapid inflows into Danish *krone* assets despite negative rates (Goldman Sachs, 2016). With the foreign exchange pressures receding and the recent interest rate hike, the limits have been lowered again.

A recent banking survey showed no signs of increased cash holding by the financial sector and that the share of deposits with negative rate was small and slightly smaller than those with positive rate. The Danish banking sector is highly competitive and the corporate lending has been high prior to the downturn. Such an environment, in combination with the low interest rates, can lead to relaxation of standards in order to maintain and increase the customer base. Indeed, in the recent banking survey some medium-sized banks reported easing of credit standards, such as easing requirements for guarantees. At the same time, the authorities conclude that there is no major change in the earnings and risk appetite of the banks as compared to recent years of low but marginally positive rates. Banks' income from fees has been on the rise since the financial institutions increased charges for mortgage and loan intermediation, compensating to some extent the fallout from net interest income (Danmarks Nationalbank, 2015b).

Figure 1.14. **Short-term policy and lending rates**



Source: Danmarks Nationalbank.

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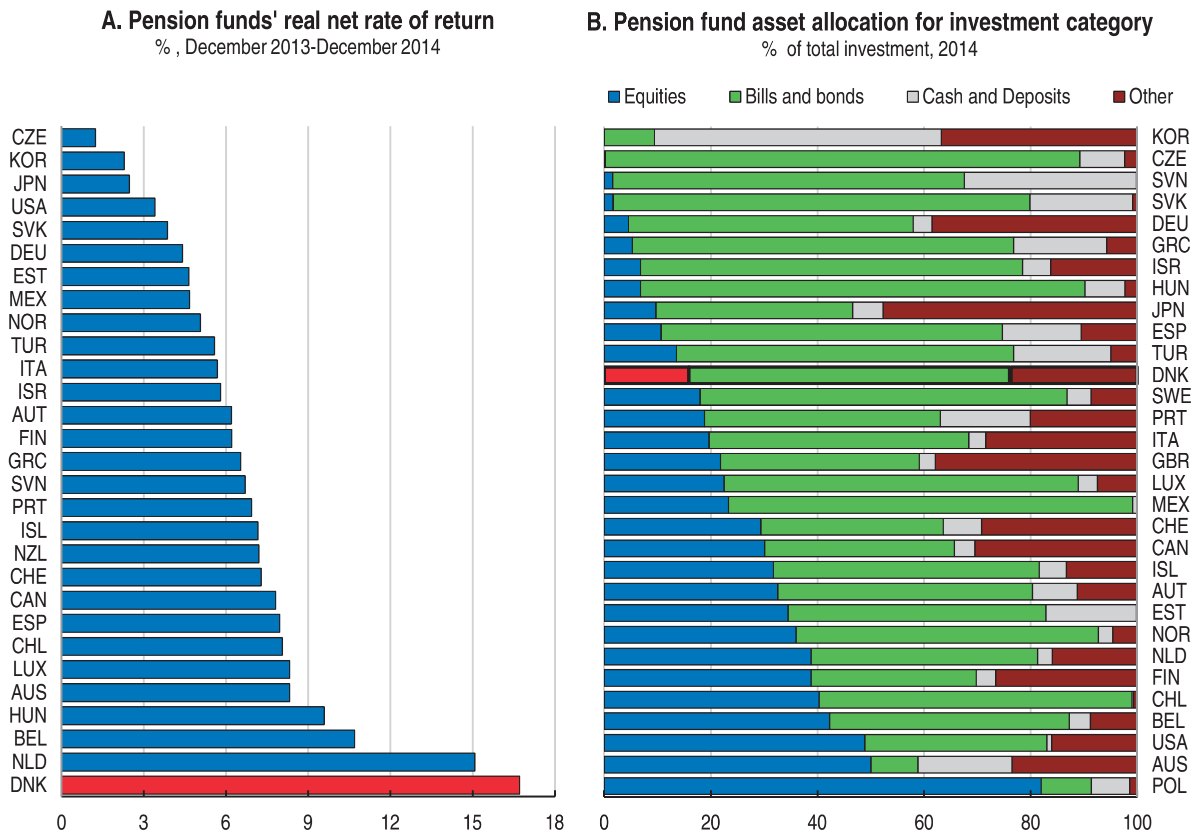
Ongoing structural shifts in the pensions and insurance sector

Low interest rates are more of a challenge in the insurance and pensions sector. The Danish population holds substantial pension assets of 140% of GDP, one of the highest in the OECD. Contributions are in the range of 12-18% of the salary shared equally between the employee and the employer, negotiated and set by collective agreements that cover large majority of the working age population. Low and declining interest rates can affect the adequacy of the retirement income by reducing the amount of assets accumulated and increasing annuity prices (OECD, 2015a). Provisioning of the second pillar pension schemes, where traditional life annuities with a guaranteed interest rate are the major product, is ensured by pension funds and life insurance companies.

The insurance industry itself has been moving towards non-guaranteed products, in particular during recent years, including in existing contracts. Both solvency ratios and return on equity were hit during the downturn, reaching their lows in 2011, but have been recovering since. The downturn provided the industry an opportunity for a structural shift away from the guaranteed products. By 2012, in terms of premiums (i.e. contributions) the guaranteed and unit-linked products had both equal shares. Nevertheless, in terms of liabilities, around 80% is tied to guaranteed plans, with the average guaranteed interest rate of the four biggest life insurers at 2.7% in 2014 (IMF, 2014).

Overall, the Danish pension funds perform well. Despite the financial crisis, real returns of autonomous pension funds (that represent around 50% of GDP, i.e. excluding pension insurance contracts) were close to 5% over the past ten years (OECD, 2015a). Search for yield does lead some of the pension funds into alternative investments such as real estate, infrastructure, and direct and indirect lending to companies. For instance, in 2015, three of the largest pension funds created a new subordinate loan fund for Danish SMEs. In fact, this is a part of a longer-term trend in the financial industry (OECD, 2015a). Over the past ten years considerable share of pension investments have moved away from bills and bonds as well as equities in Denmark into so-called alternative asset classes, such as loans, land and buildings, other mutual funds, unallocated insurance contracts, hedge funds etc. Nevertheless, the share invested in bond and bills in the autonomous pension funds stood still at 60% in 2014 (Figure 1.15). Given the size and interconnectedness of the sector to the rest of the financial system, the IMF recommended that the insurance and pensions institutions are included in the authorities' financial stability analyses, in particular in the macro-prudential stress testing.

Figure 1.15. **Pension funds returns and assets allocation**



Note: The data refers to autonomous pension funds, which include all pension plan types managed by pension funds (occupational, personal, defined benefit and defined contribution plans) but excludes pension insurance contracts, which represent most of the private pension assets in some countries, such as Denmark and France.

Source: OECD Pension Markets in Focus No.12, 2015.

StatLink http://dx.doi.org/10.1787/888933352538

Resource misallocation and increasing inequalities undermine inclusive growth

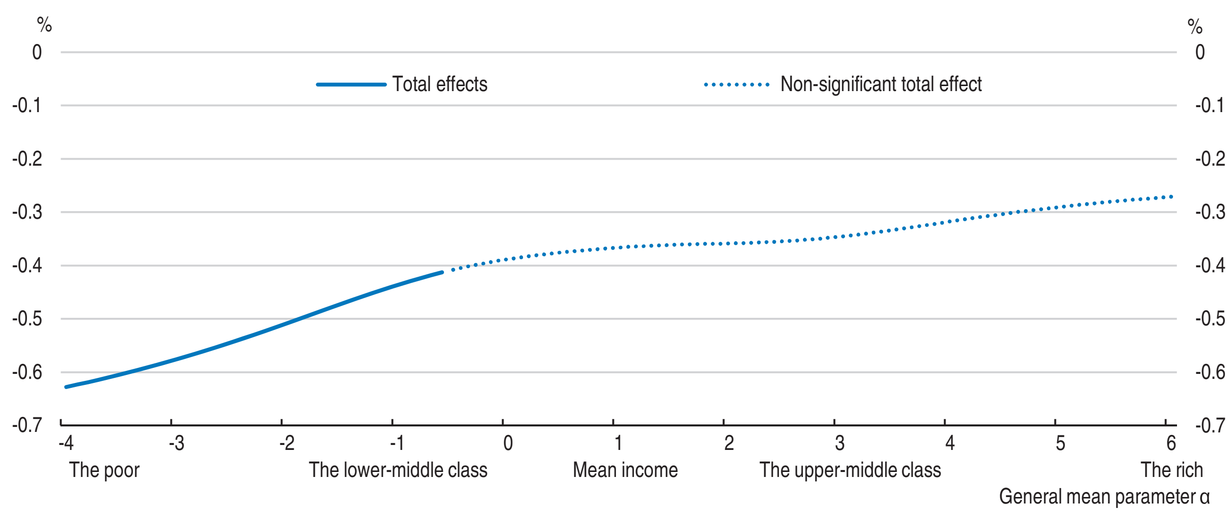
A large financial sector can have wider implications, in particular in terms of resource allocation and income distribution. On average, financial sector workers receive a substantial wage premium, or earnings in excess of their profile. Denk (2015) shows that the European wage premium was on average 23% in 2013 and while Denmark was not part of the study, other estimates put wage premium between 10 and 20% (Abildgren et al., 2013), comparable to the levels estimated for other Nordic countries. A sector specific payroll tax was introduced in 1988 and currently stands at 10.9%. Cournede and Denk (2015) find a negative relationship between finance and income equality and also that credit is a stronger drag on long-term growth when it goes to households rather than business. Previous *Surveys* pointed to SME access to credit and low venture capital as an issue (OECD, 2012).

Inequality receives a lot of attention in Denmark. It has one of the lowest Gini coefficients in the OECD and it is possible that the current housing market policies and size of the financial sector contributed to the recent increase in inequalities. Based on the assumption that changes in intermediated credit are proportional to changes in financial sector employment and using the above mentioned wage premiums, Cournede and Denk (2015) estimate that increase in intermediated credit by 10% of GDP is associated with the increase in the Gini coefficient 0.13 points. Given such a channel, the income inequality has increased with the increasing number of people working in the Danish financial sector and collecting wage premia, despite the sector-specific payroll tax.

Causa et al. (2016, *forthcoming*) find a similar, inequality increasing impact of growing financial sector size in general. Approximated by value added of finance in the economy they find that it is associated with higher inequality (Figure 1.16). Moreover, various tax exemptions on owner-occupied housing and increases in house prices in general would have contributed to income growth of the better off, since home-ownership is more frequent for this part of the income distribution. Some studies attribute much of the rise on inequality to capital income (Figure 1.17) (Ministry of Economic Affairs and the Interior, 2015). Though in part this may be an issue of accounting for imputed rents, the sharp rise in house prices would have benefitted house-owners, particularly those in sought-after areas (Causa et al., 2016, *forthcoming*).

Figure 1.16. **Simulated effect of a larger financial sector on household disposable income**

Effects of an increase in value added of finance on household disposable income



How to read this figure: An increase in value added for the financial sector (in per cent of GDP) by 1% is estimated to decrease household disposable income by 0.4-0.6% on average among the lower-middle class and the poor. This total effect can be decomposed along a direct and indirect effects through labour productivity, however in this case it is estimated to be insignificant. Non-significant estimates (at the 10% level) are indicated by dots on general mean curves.

Source: Causa et al., 2016, forthcoming.

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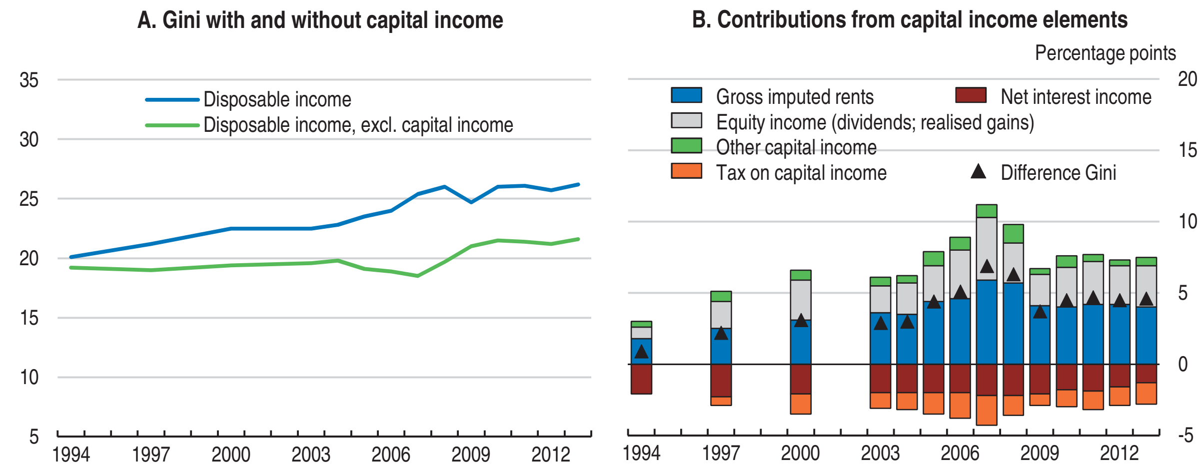
House ownership can impede labour mobility when transaction costs are high and in periods when housing market correction creates potential lock-in effects. Denmark ranks well in terms of residential mobility (Figure 1.18); also, transaction costs are low (Andrews et al., 2011). Moreover, in principle, the mortgage system does not impede mobility. Borrowers are allowed to pre-pay their mortgage at face value without penalty or can end

Figure 1.17. **Capital income has contributed to the increase in inequality**



Source: Ministry of Economic Affairs and the Interior (2015).

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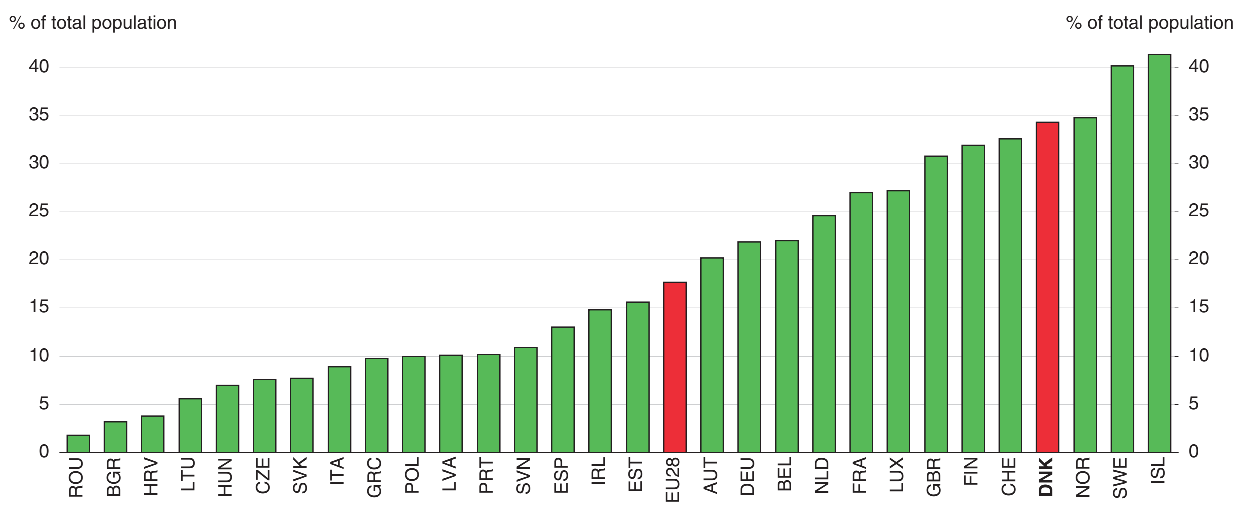
their mortgage by buying a mortgage bond. Mortgages are typically assumable, so that new homeowners can take on mortgage from the movers (Campbell, 2012). This allows for significant flexibility in the mortgage market.

Figure 1.18. **Residential mobility is high**

Share of population that moved to other dwelling within the last five years period, 2012



Source: Eurostat database.

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While such a mechanism works in good times, when house prices fall, households can find themselves with negative equity and unwilling to sell at a loss. Data for United States confirm that with the rise of the number of households with negative equity, mobility between 2005 and 2009 declined by some 15%, concentrated among homeowners with mortgages and particularly the most leveraged ones (Andrews et al., 2011). Up to a third of existing mortgages had negative equity at the end of 2011 in Denmark (Ministry of Business and Growth, 2012) and as already mentioned, some estimates show that up to a quarter of families with mortgage are technically insolvent at any point in time over past 25 years. This is a result of existing practice where young families buy dwellings with almost no down payment (Lunde, 2016). Such situation can exacerbate regional disparities, in particular when the housing market is volatile.

Bibliography

Abildgren K. et al. (2013), "Productivity and Cost-Efficiency in the Danish Financial sector", *Monetary Review*, 4th Quarter 2013, Danmarks Nationalbank, Copenhagen.

Almy, R. (2014), "Valuation and Assessment of Immovable Property", *OECD Working Papers on Fiscal Federalism*, No. 19, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz5pzvr28hk-en*.

André C. (2016), "Household Debt in OECD countries: Stylised Facts and Policy Issues", *OECD Economics Department Working Papers*, No. 1277, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jm3xgtkk1f2-en*.

Andersen A., C. Duus, and T. Jensen (2014), "Household Debt and Consumption During the Financial Crisis : Evidence from Danish Micro Data", *Danmarks Nationalbank Working Paper* No. 89, Copenhagen.

Andersen A. et al. (2012), "Danish Families' Robustness, Variable Rates and Deferred Amortisation", *Monetary Review*, 4th Quarter, 2012, Part 1 and Part 2, Danmarks Nationalbank, Copenhagen.

Andrews, D. and A. Caldera Sánchez (2011), "Drivers of Homeownership Rates in Selected OECD Countries", *OECD Economics Department Working Papers*, No. 849, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kgg9mcwc7jf-en*.

Arnold, J. (2008), "Do Tax Structures Affect Economic Growth? Empirical Evidence from a Panel of OECD countries", *OECD Economics Department Working Papers*, No. 643, OECD Publishing, Paris, *http://dx.doi.org/10.1787/236001777843*.

Association Danish Mortgage bank (2016), *www.realkreditraadet.dk/Statistics/Arrears.aspx*

Blöchliger et al. (2015), "The Stabilisation Properties of Immovable Property Taxation: Evidence from OECD countries", *OECD Economics Department Working Papers*, No. 1237, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5js0cqq93djg-en*.

Bunn (2014), "Household Debt and Spending", *Quarterly Bulletin 2014 Q 2014*, Vol. 54, No. 3, Bank of England.

Caldera, A. and Å. Johansson (2013), "The Price Responsiveness of Housing Supply in OECD Countries", *Journal of Housing Economics*, Vol. 22 (3), pp 231-249.

Campbell, J. (2012), "Mortgage Market Design", *Review of Finance*, Vol. 17, pp 1-33.

Cournède, B. and O. Denk (2015), "Finance and Economic Growth in OECD and G20 Countries", *OECD Economics Department Working Papers*, No. 1223, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5js04v8z0m38-en*.

Caballero C., P. Pontuch, and A. Kalantaryan (2015), "Rental Market Regulation in the European Union", *European Economy, Economic Papers*, No. 515, April, Brussels.

Dam, A. et al. (2014), "A Multispeed Housing Market", *Monetary Review* 3Q 2014, Danmarks Nationalbank, Copenhagen.

Dam, A. et al. (2011), "The Housing Bubble that Burst: Can House Prices be Explained? And Can their Fluctuations be Dampened?", *Monetary Review* 1Q 2011, Danmarks Nationalbank, Copenhagen.

Danmarks Nationalbank (2014a), *Financial Stability – 2nd half of 2014*, October, Copenhagen

Danmarks Nationalbank (2014b), *Response to Consultation of Two Bills Concerning Restructuring and Resolution of Certain Financial Enterprises*, October, Copenhagen.

Danmarks Nationalbank (2014c), *Danish Participation in the Banking Union*, *http://www.nationalbanken.dk/en/publications/Documents/2015/01/Danish%20Participation%20in%20the%20Banking%20Union_Mon4-2014.pdf*, Copenhagen.

Danmarks Nationalbank, (2015a), *Financial Stability – 1st half of 2015*, Danmarks Nationalbank, Copenhagen.

Danmarks Nationalbank, (2015b), *Financial Stability – 2nd half of 2015*, Danmarks Nationalbank, Copenhagen.

de Boer, R. and R. Bitetti (2014), “A Revival of the Private Rental Sector of the Housing Market?: Lessons from Germany, Finland, the Czech Republic and the Netherlands”, *OECD Economics Department Working Papers*, No. 1170, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jxv9f32j0zp-en*.

Denk, O. (2015), “Financial Sector Pay and Labour Income Inequality: Evidence from Europe”, *OECD Economics Department Working Papers*, No. 1225, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5js04v5wjw9p-en*.

Dynan K. (2012), “Is a Household Ddebt Overhang Holding Back Consumption?”, *Brookings Papers* on Economic Activity, Spring.

Eichholtz, P. and T. Lindenthal, (2014), “Demographics, human Capital and the Demand for Housing”, *Journal of Housing Economics* 26.

Goldman Sachs, (2016), “Negative Central Bank Rates and the Banking Sector – the Danish Example”, Goldman Sachs Economic Research.

Gyntelberg, J., K. Kjeldsen, M. B. Nielsen, and M. Persson (2012). The 2008 financial crisis and the danish mortgage market. In A. Bardhan, R. H. Edelstein, and C. A. Kroll (Eds.), Global Housing Markets: Crises, Policies, and Institutions. John Wiley and Sons.

Heebøll C. (2014), “Regional Danish Housing Booms and the Effects of Financial Deregulation and Expansionary Economic Policy”, Kraka, The Financial Crisis Commission.

IMF (2014), *Financial System Stability Assessment – 2014*, International Monetary Fund, Washington.

IMF (2015), *Housing Recoveries: Cluster Report on Denmark, Ireland, Kingdom of the Netherlands – The Netherlands and Spain*, International Monetary Fund, Washington.

Isaksen J. et al. (2011), “Household Balance Sheets and Debt – an International Country Study”, *Monetary Review*, 4th Quarter 2011, Part 2, Danmarks Nationalbank, Copenhagen.

Jones, B. (2015), “Asset Bubbles: Re-thinking Policy for the Age of Asset Management”, *IMF Working Paper 15/27*, International Monetary Fund, Washington.

Jorda O., P. Sularick and M. Taylor (2014), “Betting the House”, *NBER Working Paper* No. 20771.

Lauridsen J., N. Nannerup and M. Skak (2013), “House Prices and Land Regulation in the Copenhagen Area”, *Journal of Property Research*, No. 30:3, pp. 205-220.

Lunde, J., (2016), “Milestones in Danish Housing Finance since 1990”, in Lunde J., Ch, Whitehead (eds), 2016, *Milestones in European Housing Finance*, Wiley-Blackwell.

Mankiw, N. and D. Weil (1989), “The baby boom, the Baby Bust and the Housing Market”, *Regional Science and Urban Economics*, Vol. 19, May.

Mian A,, K. Rao and A. Sufi (2013), “Household balance sheets, consumption, and the economic slump”, Quarterly Journal of Economics, Vol 128, pages 1687-1726.

OECD (2006), *Economic Survey: Denmark*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk--2006en*.

OECD (2012), *OECD Economic Surveys: Denmark 2012*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-dnk-2012-en*

OECD (2014a), *Education at a Glance 2014: Highlights*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag_highlights-2014-en*

OECD (2014b), *OECD Economic Surveys: Spain 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-esp-2014-en*

OECD (2014c), *OECD Economic Surveys: Netherlands 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-nld-2014-en*

OECD (2015a), *Pension Markets in Focus*, OECD, Paris, *www.oecd.org/pensions/private-pensions/pensionmarketsinfocus.htm*.

OECD (2015b), *In It Together,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264235120-en*.

Pedersen, E. and S. Sørensen (2009), “Business Cycle, Asset Prices, and Credit”, *Danmarks Nationalbank, Monetary Review*, 1th Quarter 2009, Part 2, Danmarks Nationalbank, Copenhagen.

Rohde L., (2015), Speech at the Annual Meeting of the Association of Danish Mortgage Banks, 1 October, Danmarks Nationalbank. Copenhagen.

Saita Y., Ch. Shimizu and T. Watanabe (2013), "Aging and Real Estate Prices: Evidence from Japanese and US Regional Data", CARF F-Series CARF-F-334, *Center for Advanced Research in Finance, Faculty of Economics*, The University of Tokyo.

Salvi Del Pero et al. (2016), "Policies to promote Access to Good-Quality Affordable Housing in OECD countries", *OECD Social, Employment and Migration Working Papers*, No. 176, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jm3p5gl4djd-en*.

Sutherland D. and P. Hoeller (2012), "Debt and Macroeconomic Stability: An Overview of the Literature and Some Empirics", *OECD Economics Department Working Papers*, No. 1006, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k8xb75txzf5-en*.

Systemic Risk Council, (2015), Press Release of the Systemic Risk Council meeting, 15 December, Copenhagen.

Takáts, E., (2012), "Ageing and House Prices", *Journal of Housing Economics*, Vol. 21, Issue 2, pp. 131-141.

Tressel T. and Y. Zhang (2016), "Effectiveness and Channels of Macroprudential Instruments: Lessons from the Euro Area", *IMF Working paper* No. 16/4, Washington.

Turner, A. (2015), *Between the Debt and the Devil: Money, Credit and Fixing the Global finance*, Princeton University Press.

Chapter 2

Getting the incentives right in an ageing society

The generous Danish welfare state relies on a high degree of labour force participation both for financing and in order to ensure social cohesion. This underlines the need for getting work incentives right and improve the employability of vulnerable groups of workers, in particular migrants. Many benefit recipients also face high marginal tax rates for returning to work, creating a barrier for inclusion. Likewise, as the population ages, the need for longer working lives becomes a central aim. In Denmark, much has been done to keep older workers in the labour market, but there is further scope for reducing barriers to work for this group, including through the design of the pension system. Cost pressures at social institutions could be addressed by better reaping the effects on municipal reform, more coordination between different service providers, and open the market for social services, for instance old age care, for private suppliers under a strict quality monitoring framework.

The Danish welfare system provides material well-being and stability for the whole population. The flexicurity model, which combines a high level of social protection with flexible labour market institutions, has proven its capacity to absorb shocks during the global crisis. Despite anaemic GPD growth since 2009, well-being in terms of both material conditions and quality of life has remained very high. Maintaining strong social institutions is crucial, notably in light of existing macroeconomic risks. The high level of indebtedness and the reliance on house price developments may reduce the capacity of households in responding to shocks and weigh on future demand (Chapter 1).

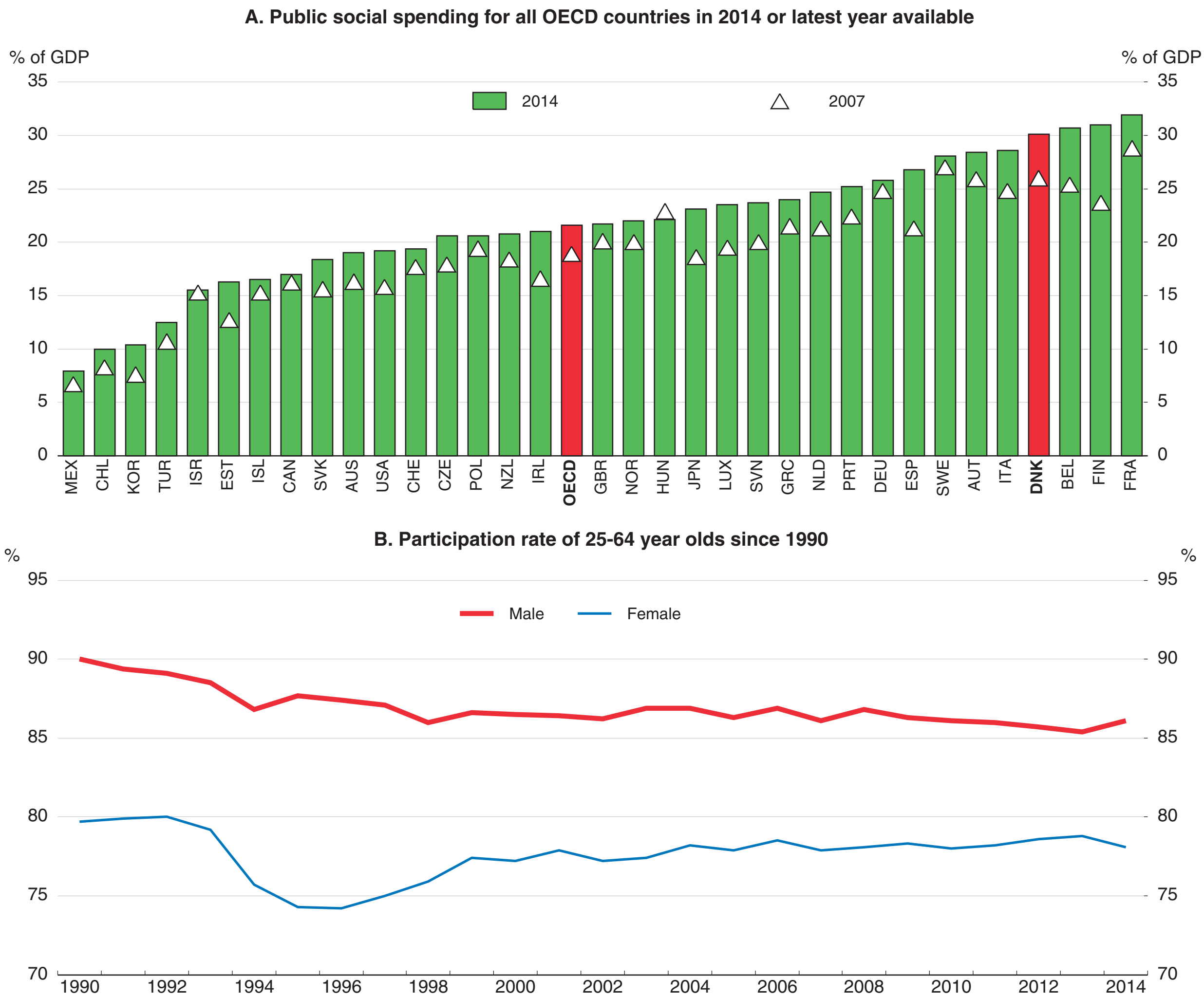
Social institutions in Denmark are confronted by two main challenges: the high number of social benefit recipients, with large groups in inactivity, and an ageing population putting pressure public spending on welfare services. Public social spending per unit of GDP – already high in Denmark – has grown in almost all OECD countries since the crisis, but the rise was more pronounced in Denmark following the recent boom/bust cycle of the economy (Figure 2.1, Panel A). More worrying, while employment and participation rates of 25-64 year are high by international standards they have been flat in recent years (Figure 2.1, Panel B). This is to some extent related to the increase of enrolment in education programmes following the crisis. While ageing in Denmark is not as marked as in some other OECD countries, demographic change will increase age-related spending (i.e. pension, healthcare, long-term care) and put pressure on the tax base.

Policy makers are already responding to these challenges. The authorities expect recent structural reforms to secure the sustainability of the welfare system, and maintain a high level of social protection, notably by increasing labour market participation among older workers. In particular, disincentives to work and thereby to contribute to the tax-financed system have been reduced. However, the expected future impact of the reforms, notably on effective retirement age, is outside past experience. Maintaining the current generous system without increasing the tax burden – already the highest in the OECD – therefore appears challenging.

The main messages of this chapter concern the return to work in the short and long run and the cost-efficiency of social institutions:

- Recent reforms of unemployment benefits and social assistance benefits have reinforced economic incentives to work. This should be complemented by further measures improving the employability of disadvantaged workers (disabled, migrants, low skilled, older workers) according to individual needs.
- In the longer run, lower than expected labour market participation of older workers poses a risk to fiscal sustainability and the robustness of social institutions. The pension system should be reformed for specific groups, who currently do not save enough for retirement. Work environment will have to be adapted to an ageing work force.
- Efficiency gains in delivering social services could be achieved by eliminating barriers to competition and ensuring a more effective distribution of resources. Improving the coordination of providers of welfare services, in particular in the healthcare sector and putting more emphasis on health prevention and rehabilitation, can also reduce the cost of ageing.

Figure 2.1. **Social spending and inactivity have increased over the past decade**



Source: OECD Social Expenditure database; OECD Employment Outlook database.

StatLink http://dx.doi.org/10.1787/888933352578

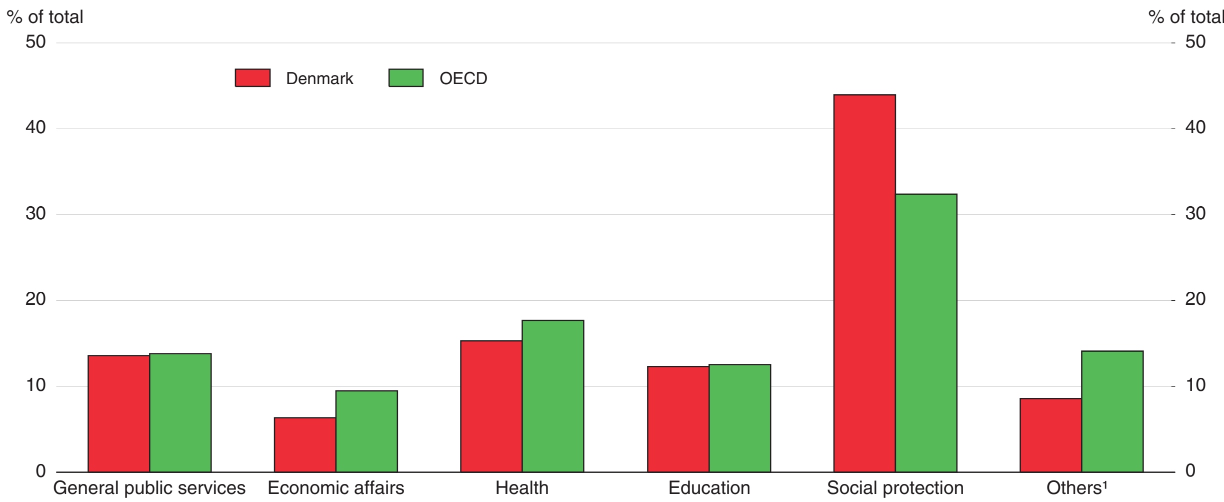
Addressing barriers to employment for benefit recipients

Social institutions, defined as pension, health and long-term care, unemployment and social assistance schemes, account for a large share of public spending (Figure 2.2). The free access for all citizens to generous public services and the redistribution of income are ensured by a large tax base due to high employment rates and a high level of income taxes. This does, however, also make the system vulnerable to a weakening of the tax base, due to e.g. lower participation rates.

The system is challenged by both population ageing and the high level of untapped labour resources. While the effect of ageing is less dramatic than in peer countries (e.g. Germany, the Netherlands, and Finland), the old age support ratio will continue to decline (the ratio between those aged 15-64 years and those aged 65 years and over, i.e. the number of person in working-age for every elderly person) from 3.5 to 2.3 by 2060, a level comparable to the OECD average, contributing to both reducing public revenues and

Figure 2.2. **Social institutions account for a large share of public spending**

Components of public spending, 2013



1. "Others" includes defence, public order and safety, environmental protection, housing community amenities, recreation, culture and religion.

Source: OECD (2015a), Government at a Glance.

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increasing social spending. At the same time, the proportion of 16 to 64-year-olds on benefits reached 22% in 2014 and which weighs on public finances through lower growth rates, lower tax revenues, and higher social spending. Long-term unemployment rose by 1 percentage point since the crisis (from 2.9% of working age population in 2007 to 3.9% in 2013, but remains low by international and historic standards). The budgetary loss related to unemployment, calculated as the sum of benefit entitlements in the initial phase of unemployment (assuming entitlement to, and full take-up of, insurance and any means-tested benefits) and the direct taxes and social contributions (including by employers) payable in the lost job, is estimated to exceed the OECD average of 80% of GDP per head, reflecting the strong automatic stabilisers at work in Denmark (Immervoll, 2012).

In response to the increasing cost of social institutions and national goal of increasing employment rate from current 72% to 80% by 2020 (Denmark's National Reform Programme, 2015), the Danish flexicurity model, based on flexible hiring and firing regulations, a generous social safety net and strong active labour market policies, has undergone important changes in the recent past (Box 2.1). Since 2010, the total number of benefit recipients (i.e. those receiving unemployment, cash, sickness and disability benefits and public pensions) has declined with fewer in early retirement, unemployment and sickness benefits (Figure 2.3, Panel A). However, the number of social assistance recipients relying on the social safety net, i.e. those who not eligible for other benefits, has increased (Figure 2.3, Panel B).

Bringing more benefit recipients into work while upgrading their skills can increase social inclusivity and reduce inequality. The authorities should focus on low-skilled workers, migrants and disabled, who – as in most other OECD countries – encounter specific barriers to employment (Figure 2.4). By international comparison, employment gaps are relatively high in Denmark, in particular for immigrants, though this is partly a result of high employment rates among native born. In order to better understand the costs and benefits of employment for each group, one should identify those who are expected to

Box 2.1. **Recent reforms of social institutions**

Unemployment insurance

- Originally, the 2010 reform of the unemployment insurance benefit (UIB) system reduced the maximum benefit duration from four to two years and increased the re-eligibility requirements for those expiring the full UI period. The 2015 revision of the reform allows an extension of the unemployment benefit from 2 years to a maximum of 3 years, if the benefit recipient has worked sufficiently, which earns him/her additional eligibility (i.e. for a day of work, two days of benefit entitlements are acquired). The possibility of an extra year of benefits is largely financed by a reduction in the unemployment benefit level for graduates. Waiting days (i.e. days without benefits) are introduced after periods of unemployment, but the waiting day can be avoided if the claimant meets a certain employment requirement. The 2015 reform will be fully implemented during 2017. Correspondingly, temporary measures introduced following the 2010 reform for those who exhausted entitlement to benefits will be phased out in 2017.

Social assistance

- In 2013 cash benefits were reduced to the level of the education grant for those under 30. Recipients under 30 who are not ready for education or employment can receive an activity supplement. In addition, education and employment efforts are initiated sooner; youth without qualification (40% of those receiving social assistance) has to undertake education; those with education are offered activation measures, including longer vocational traineeships, earlier than previously and monitoring of job search is strengthened.
- In 2016, a cap on total amount of social benefits a household can receive has been introduced (depending on the number of children and the marital status). Furthermore, new eligibility criteria require at least seven years of within country residence over past eight years, as well as 225 hours of work within a year. Benefit recipients that do not meet these conditions receive a lower cash benefits.

Disability and sickness benefits

- In 2013 a reform introduced a number of changes. Persons over the age of 40 must participate in at least one so-called rehabilitation programme before being granted disability benefit. The rehabilitation programme involves coordinated health, social and employment services and aims at strengthening the individual's work capacity. Applicants under the age of 40 are by default not granted disability benefit and must instead participate in one or more rehabilitation programmes. Those with no chance of improving work capacity, e.g. persons with serious brain damage, can be granted disability benefits without preceding rehabilitation programmes. Also, "flex jobs", i.e. subsidised jobs offered to people with reduced working capacity, have been made more targeted to those with low work capacity, more flexible in terms of time arrangement and granted for 5 years maximum (except for persons over 40 years old, who may be allowed a permanent flex job).
- A senior disability pension was introduced in January 2014 for those eligible for disability pension and with less than five years to retirement. However, such recipient has to have a minimum of 25 years of full time employment in the Danish labour market. Under the scheme, the benefit recipient is exempt from a prolonged so-called *job clarification programme*, i.e. an inter-disciplinary assessment of work capacity and its potential development. Partly due to the tight eligibility criteria (corresponding to the ones for regular disability pensions), the scheme is so far not widely used.
- Since July 2014, the assessment of eligibility for a prolonged sickness leave takes place every 22 weeks (instead of 52 weeks). Those on sick leave, who cannot get their sickness benefits extended, and unable to find a job, have a possibility of entering into a the *job clarifying programme*. Under this scheme, the person on sick leave receives an income replacement benefit that is lower than the sickness benefit.

Box 2.1. **Recent reforms of social institutions** *(cont.)*

Pensions

- Reforms of 2006 and 2011 introduced a gradually increasing statutory retirement age. In line with these reforms, the Parliament approved in November 2015 an increase of the statutory retirement age to 67 in 2022, and 68 years in 2030. From then on, the statutory retirement age will be – conditional on further Parliament's approval – adjusted to life expectancy gains every five years (by a maximum of one year) to limit pension payments to 14.5 years on average. The duration of voluntary early retirement programmes is also being progressively shortened from five to three years with the minimum eligibility age increasing in line with the statutory retirement age. At the same time, earlier reforms have limited the incentive to opt into the early retirement scheme, especially among the young (Box 2.5).

Active labour market policies

The 2014 reform of public employment service strengthened screening and provision of individualised services to job seekers. As of January 2016, a new model for reimbursements of municipal expenses for a number of benefits (notably UIB, cash benefits and disability benefits) is in place. The reimbursement of municipalities will be determined by the duration of the benefit spell, rather than the type of benefit the person receives. This should encourage municipalities to speed up the return of benefits recipients into work or education.

pose the highest future net cost to the welfare system and set priorities accordingly, an assessment of the lifetime pattern of benefit recipients and its costs should be implemented as done for instance in New Zealand (Taylor Fry, 2013).

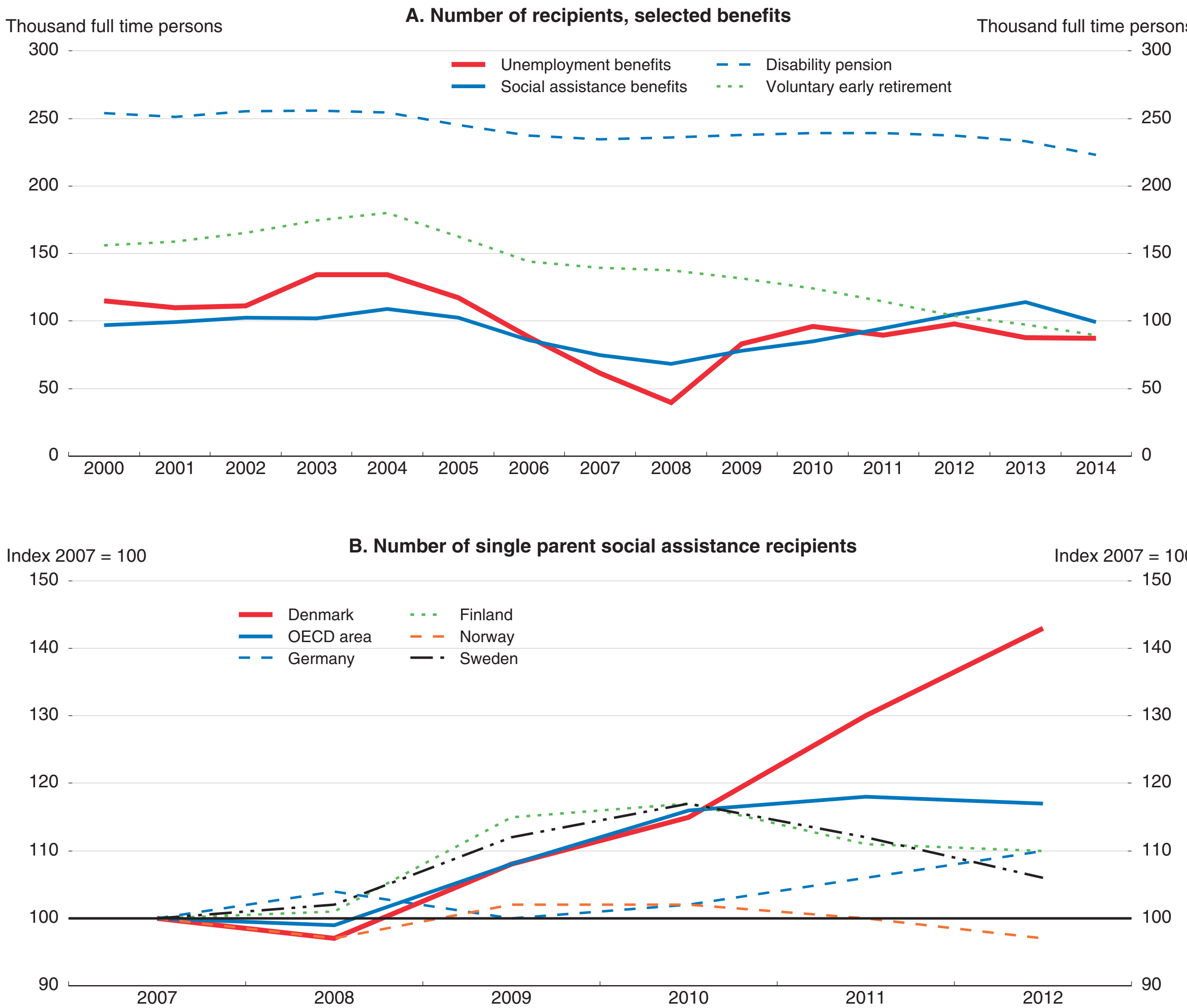
Balancing protection and work incentives for job seekers and low income earners

A balance between high coverage, generosity of the system and work incentives, is difficult to find on pure economic grounds. The Danish flexicurity system is said to achieve this combination, but inactivity traps continue to be a matter of concern, and policies try to combine equity and efficiency.

Work incentives for job seekers and social assistance recipients have been raised by cutting duration and levels of the unemployment insurance benefits (UIB), capping the level of social assistance, and tightening eligibility criteria for both UIB and social assistance (see Box 2.1). These reforms have led to improvements in labour market performance: The Danish Economic Council (2014) estimates that unemployment rate dropped by 0.5 percentage points following the UIB reform and recent data show a decline in the number of young social assistance recipients in 2014, mainly as a result of the 2013 social assistance reform (Danish Ministry of Finance, 2015). Around 9% of the social assistance recipients aged between 25 and 29 years have left social assistance and between 1 600 and 2 600 25-29 year olds have found employment, corresponding to an increase in the employment share for this age group by 0.5-0.8 percentage points (Economic Council, 2015b). Also, the number of unemployed whose entitlement to unemployment benefits expired increased significantly (from around 5 000 in 2012 to more than 30 000 in 2013, but has since been reduced to 15 000 in 2015), in part due to phase-in of the 2010 UIB reform, with consequences on lower-tier benefits.

There is room for strengthening work incentives in the UIB system further. Despite the 2010 and the 2015 reforms, the unemployment benefits remain relatively generous and

Figure 2.3. **Number of social assistance recipients has risen since the crisis**



Source: Danish Ministry of Finance; OECD SOCR database.

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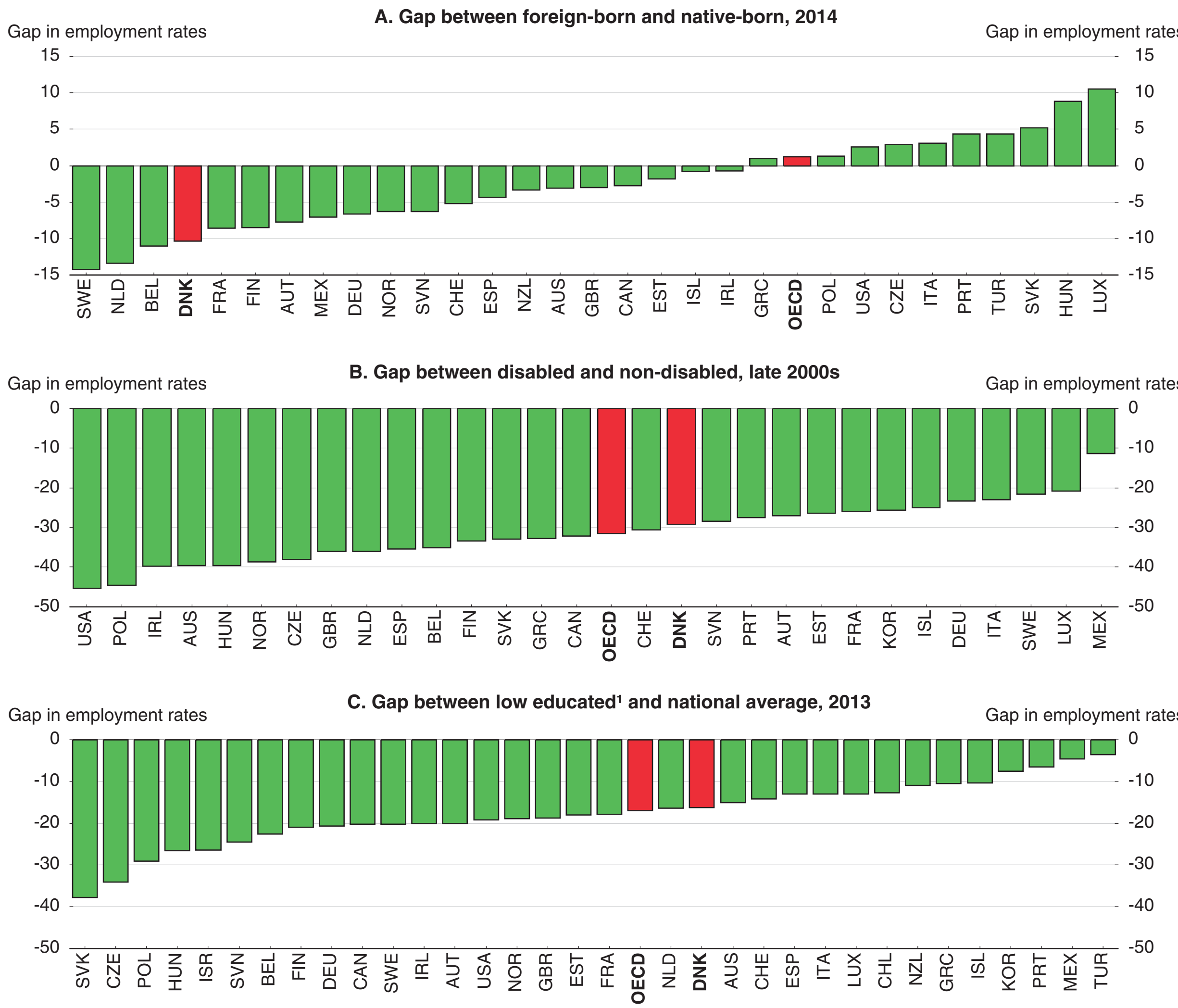
economic disincentives to work, in particular for low paid workers, are strong (Box 2.2). Empirical analyses suggest incentives effect of changes in benefit generosity in countries with more generous unemployment compensation (i.e. Nordic countries) can be relatively large (Immervoll, 2012). Because exit from unemployment into employment spikes at the end of the entitlement period, decreasing benefit gradually with the length of the unemployment spell would accelerate return to employment and thereby limit the decline in earning potential of job seekers.

Such measure could have side effects. Because membership in the UIB system is voluntary, reducing its generosity further might discourage participation of workers, reducing overall coverage. Coverage has been good (close to 80%) and stable over the past decade, though it has declined slightly for young generations, primarily due to longer education and later labour market entry (Dagpengekommissionen, 2015). A decline of coverage would undermine the capacity to protect workers against income loss and

Figure 2.4. **Scope for increasing employment is particularly high among immigrants**

Gap in employment rates, in percentage points



1. Low educated are those with less than upper secondary education.

Source: OECD *Employment Outlook 2015*; OECD (2010), *Sickness, Disability and Work: Breaking the Barriers*; Eurostat database; OECD *Education at a Glance 2015*.

StatLink http://dx.doi.org/10.1787/888933352380

conditions for effective job search. Furthermore, the impact of such a measure on inequality should be taken into consideration. A recent OECD study suggests that reducing maximum benefit duration and benefit levels increases income inequality, since it disproportionally affects those with more frequent and longer spells of unemployment (Causa et al., 2016, *forthcoming*).

The 2015 UIB reform eases of the rules for jobseekers with short or interrupted employment records to extend benefit rights, and could thereby improve incentives for those in non-regular jobs to contribute to the UIB scheme and for getting temporary jobs. All in all, the system remains complex, and has perhaps become even more so due to the 2015 reform. It is unclear what incentives exist for the self-employed and those on non-standard contracts. A comprehensive analysis of this issue is expected to be finished by in the first half of 2017.

Box 2.2. The Danish unemployment insurance benefit system

A generous system with strict requirements

By international standards, the Danish UIB scheme is generous (with a 74% net replacement rate vis-à-vis 55% in the OECD for low income workers) and highly redistributive (with benefits capped to around 53% of the average wage). As a consequence, the income gain of taking up low-paid or part-time employment, or a job that pays less than the previous one while on the UIB benefits, is low, in particular for low wage earners.

At the same time, eligibility requirements are relatively strict (labour income of 212 000 kroners in the last three years, corresponding approximately to a year full time employment at the prevailing minimum wage set by collective agreements) and entitlement to unemployment benefits is conditional on the claimants' job search effort. After three months, unemployment benefits recipients have to participate in activation programmes and to accept job offers regardless of their previous occupation and the wage offered. According to the new OECD indicator on eligibility criteria for unemployment benefits, the Danish system ranks among the strictest in terms of availability requirements, suitable work criteria, job search requirement and monitoring (Langenbucher, 2015).

A reduced coverage with a risk to public finances

The system is financed by members' voluntary contribution and public subsidies. When the UIB scheme is in deficit, such as in 2013, 70% of the benefits were financed by taxes. Despite the improvement of the labour market, the share of tax financing has not declined over the past years. Compared with other OECD countries, unemployment insurance spending is close to the average but more volatile (Pareliussen, 2014). Moreover, shocks on unemployment have a higher impact on the Danish UIB spending than in an average OECD country, reflecting relatively generous benefits combined with fairly low unemployment.

Membership in UIB is wide-spread (around 80%) and has been quite stable over the past two decades despite reforms reducing the generosity of the system. However, for the young generation (i.e. below 30 years old) membership has declined and the coverage of the unemployed has fallen from more than 65% of the unemployed in 1995 to around 61% in 2015 partly due to the strengthening of the eligibility conditions and changes in educational patterns, which implies that people sign up for the UIB system later. The decline in coverage has been more pronounced for low-wage workers who have a higher risk of unemployment but also a lower income gain of participating in the scheme compared to social assistance benefits, in spite of high replacement rations for this group (Parsons et al., 2015). Indeed, the level of UIB for those with below-average previous earnings is close to the level of social assistance (from 89% to 103% depending on the family situation; Immervoll et al., 2015).

Impact of the 2010 and 2015 reform

The 2010 reform cut the benefit duration from 4 to 2 years and increased re-eligibility requirements for those exhausting the UIB period, in order to foster more rapid return to work, and thereby reducing UIB spending. In return, the flexibility of the labour code has been reduced with an introduction of a severance pay for the low-income earners. The impact of the reform on employment is set to be positive. The UIB Commission estimates an increase in employment of 15 000 persons.

The number of unemployed whose entitlement to benefits expired increased significantly in the phase-in period (from around 5 000 in 2012 to more than 30 000 in 2013, falling to 15 000 in 2015) with consequences on lower-tier benefits. In 2014, less than 10% of those who exhausted their benefits went into employment immediately, while around 20% received a form of social transfers and more than 70% received other benefits. However, after 3 months between 20 and 30% re-entered employment. With the unemployment benefit reform from October 2015 the number of persons who exhaust their benefits is expected to be reduced to around 7 000 persons by 2017, because of the possibility to extend the benefit duration to 3 years (see Box 2.1). The reform is expected to have a minor negative effect on structural employment.

Generous social assistance and means-tested benefits are often associated with high effective taxation of returning to work, and this link is pronounced in Denmark (Figure 2.5). Some OECD countries have a similar or higher level of minimum guaranteed income but lower effective taxation of returning to work for low-income earners. In Denmark, taking up a low-paid job entails an after tax income loss or only a minor gain for those receiving means-tested housing benefits, social assistance, and/or childcare benefits. Out of 150 000 benefit recipients in 2014, around 25 000 persons older than 30 years faced an implicit tax of at least 90% (Economic Council, 2015b). The implicit tax on returning to work is significantly above the OECD average, exceeding 100% for single parents taking up a job paid half of the average wage, and exceeding 85% when taking up full time job that pays two-thirds of the average wage.

In 2015, an increase in the maximum tax deductibility of the trade union fees and a minor increase in the earned income tax credit ("*beskæftigelsesfradrag*") did not overall significantly increase income gains from work. On the other hand, the cap on total social benefits a household can receive, which was reintroduced in 2016, is expected to reduce the tax on returning to work for the concerned benefit recipients.

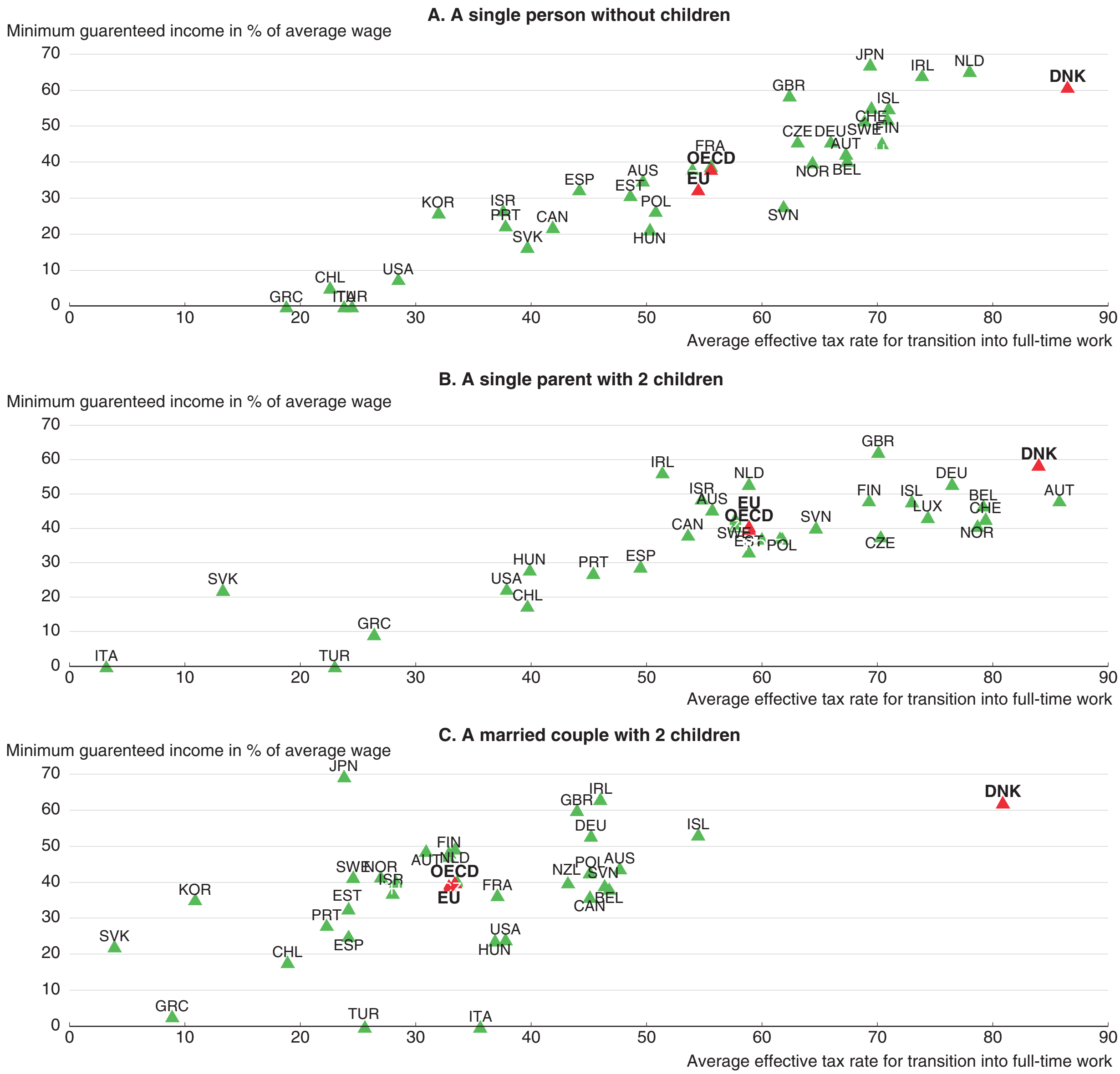
Raising income gain of work, while preserving the high level of benefit, is challenging. General in-work benefits exist already: when on social assistance, there is a threshold from which work income is deducted from social assistance and it was raised in 2014 (from DKK 15 to DKK 25 per hour worked within a maximum of 160 hours per month). Introducing stronger in-work benefits targeted to low-paid workers and withdrawing benefits more gradually for those who take up a low-paid job would make work more attractive by increasing the difference between the take-home pay and the alternative of relying on social benefits only. In-work benefits for all low-paid workers could be costly, given the compressed wage distribution and limited fiscal space. Thus, they should primarily benefit vulnerable groups. A monthly bonus for restricted groups of long-term unemployed who find a job as announced by the previous administration is an option, which, however, has not been taken up by the current government. Instead, the current government has reduced cash benefits for people having lived in Denmark for less than 7 of the latest 8 years and has introduced a cap on the amount of cash benefits a person or a family may receive.

Another option is to reduce social assistance while stepping up training and job search requirements. This was done in Germany, where the *Hartz* reforms significantly lowered benefits, introduced top-up subsistence payments for those in low-paid jobs, and improved job placement services, (Huefner and Klein, 2012). However, these have increased the poverty risk for the unemployed and a large share of benefit recipients who found a job continue to depend on top-up benefits (OECD, 2014a). Should the Danish social assistance be reformed in this direction, i.e. reduced further, measures supporting upwards income mobility, including upskilling programmes, would have to be reinforced to reduce poverty risk among vulnerable individuals with low employability and to avoid that they remain stuck in low-paid and precarious jobs.

Other levers to incentivise welfare recipients include strict job search requirements and eligibility conditions. Entitlement to social assistance is means-tested and conditional on the claimants' effort to gain employment, which is closely monitored by social services. Also, from autumn 2016, welfare recipients have to work at least 225 hours over one year to receive the full benefit rate. This workfare policy is supposed to lower the reservation wage,

Figure 2.5. **Generous social assistance is combined with relatively high effective taxation**

Minimum guaranteed income and average effective tax to work, 2014



Note: Average Effective Tax Rates for a transition into full-time work paid 67% of the average wage for persons without entitlement to unemployment insurance but entitled to social assistance and cash minimum income benefits (including housing benefits) in percent of median household incomes.

Source: OECD, Tax-Benefit Models.

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increase job search incentives and thereby decrease inactivity. The measure should be carefully monitored and complemented by additional job counselling activities. A similar policy was in place from 2006 to 2011 and had a small positive impact on employment of recipients, in particular in municipalities offering extra support for job search. However, it also significantly decreased income for those affected by the reform and encouraged the social services to move recipients into other benefit schemes instead of applying the sanctions (Pedersen, 2013; Diop-Christensen, 2015).

Social assistance recipients often face multiple barriers to employment, including skills that do not match employers' needs. This is particularly relevant for young persons who account for around 30% of social assistance recipients. Among them, only 7% are considered as ready to work and 40% have to pursue education. In this respect, effective labour market policies are central. As stressed in Jamet and Koen (2014), the efficiency of active labour market policies and upskilling programmes should be improved. This can be done by ensuring that municipalities face the right financial incentives to help the unemployed find a job and by increasing the quality control of training in the adult learning system. The 2014 reform of public employment services goes in the right direction (see Box 2.1). A new model for reimbursement by the central government of a share of municipalities' expenses for income transfers has taken effect from January 2016. The level of reimbursement is now based on the length of the benefit period, rather than the type of benefit. This should also improve the performance of public employment services as it encourages municipalities to speed up the return of benefits recipients into work or education. Nevertheless, the capacity of municipalities to improve the employability of job seekers and upgrade skills of job seekers can be a challenge, and monitoring of training programmes needs improving. Encouraging information exchange among municipalities and the public employment office about successful experiences could help in this respect.

Promoting work and income security for disability benefit recipients

The share of the working age population receiving disability benefits remains above the OECD average, at 6% of the working age population in 2014. Around 30% of disability benefits recipients in that year were 60 years or older, while they accounted for only 24% of the total Danish population. Increases in the retirement age are likely to lead to rising number of benefit claims, not least for those in physically demanding occupations (see below).

Integration of the disabled on the labour market has not improved significantly since early 2000, with a substantial gap in employment rate between people with and without disability (see Figure 2.4, Panel B) suggesting work capacity of disabled can be better used. New activation programmes involving multidisciplinary rehabilitation teams (so called "resource process") are being implemented. Entitlement to disability permanent benefit has been restricted, especially for persons below 40 years old, to better target recipients and to avoid an inactivity trap (see Box 2.1). While new entries in disability benefit scheme have started to decrease, the impact of the reform will be limited in the short run as it does not change conditions for those already granted disability and the flex-job schemes, requiring further adjustments:

- The reform should be carefully monitored to ensure a permanent entitlement to disability benefit is granted only to those with a permanent inability to work, and that the number and quality of the rehabilitation programmes deliver objectives of the reform. The arbitrary age limit of 40 to participate in more than one rehabilitation programme should also be reconsidered to avoid disabled with work capacity being trapped in inactivity.
- In 2014, around 40% of disability pensions were awarded on the basis of mental disease. The number of recognised mental illness has increased dramatically in Denmark (from less than 3 per 100 000 persons in employment in 1997 to more than 8 persons in 2011) and is much higher than in such countries as Sweden, Italy and France (Dansk Arbejdsgiverforening, 2015). At the same time, waiting time for diagnosis and treatment

of persons with mental illness are long (Kvist, 2014 and OECD, 2013d). These developments warrant a deeper review of the origin and costs of mental health issues in Denmark.

- Disability pensions are granted on a permanent basis, and it is possible that some benefit recipients might have recovered some work ability over time. Thus, a regular entitlement assessment of disability pensions should be implemented. Another obstacle to return to work is the fact that recipients might not gain much financially from re-entering the labour market: the replacement rate is close to 80% at the average wage level and 115% for a low wage earner (OECD, 2014c).

To improve inclusiveness, reforms of disability benefit systems should be complemented by measures to improve the employability of disabled people. The introduction of new rehabilitation programmes with integrated health and employment services is a step in the right direction. In this vein, prevention of diseases that create a progressive detachment of the labour market should be strengthened. Policies to increase awareness about the nature of disabilities, how they can be overcome and at what cost are also crucial to allow workers with partial work capacity to keep a foothold in employment.

Integration of immigrants can be strengthened

Denmark has one of the smallest immigrant populations among OECD countries, with the foreign born accounting for 8% of the total population in 2013 (13% on average in the OECD). At the same time, immigration has intensified over the past decades, with permanent migration flows reaching close to 1% of the total population in 2013 and increasing by 73% when compared to 2007. The share of immigrants for humanitarian or for family reunification motives, groups that tend to have more difficulties integrating to the labour market across OECD countries, has not been particularly high over the past decade (11% on average between 2005-13 compared with 18% in the OECD), but is currently increasing due to the large inflow of refugees. In particular, the total number of new asylum applications roughly tripled between 2013 and 2015 from around 7 500 to 21 000 persons per year and there is little evidence that the refugee inflow is weakening, adding to the challenge of migrants' integration. The authorities have enacted a number of changes in response to the increase inflow of asylum seekers (described in more detail in Box 2.3).

Box 2.3. **Recent legislative changes for immigration and asylum seekers**

In 2015 some 21 000 persons applied for asylum in Denmark. This implies that Denmark received more asylum seekers as a share of the population than the EU average (Figure 2.6), but below the number received in other Nordic countries, and five times less than neighbouring Sweden.

Since mid-2015 a number of measures have been taken in order to curb immigration, including a reduction (up to 50%) in the benefit level for persons who had not been in Denmark seven out of the last eight years. This reduction in the benefit level was also announced through advertisements in a number of Lebanese newspapers in September 2015. The most important legislative and regulatory changes that have been passed cover a wide variety of areas, specifically targeting asylum seekers:

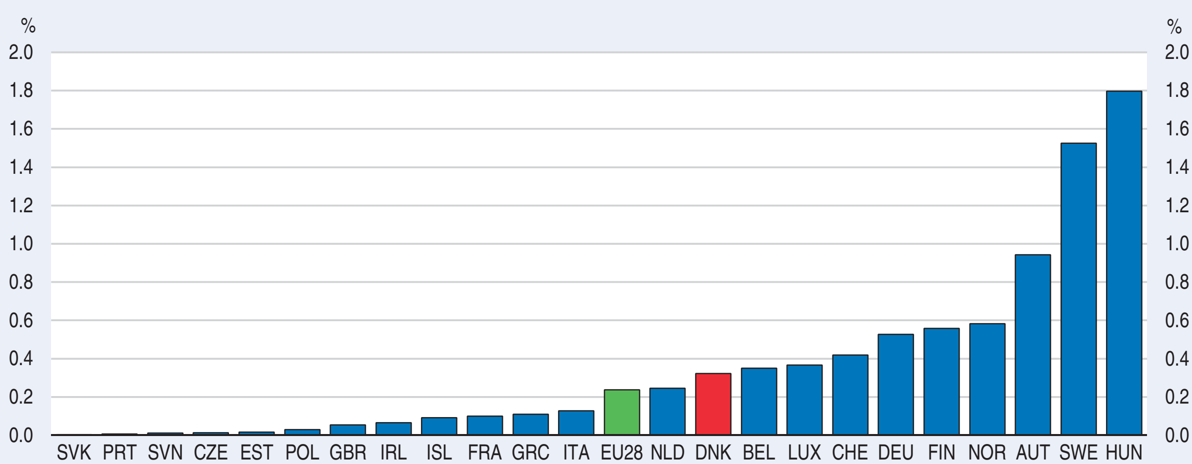
- Temporary controls on the border between Denmark and Germany were introduced on 4 January 2016 in form of random checks. Police were also given new powers to suspend trains, busses, and ferries entering Denmark.

Box 2.3. **Recent legislative changes for immigration and asylum seekers** *(cont.)*

- Waiting time for family reunification for refugees and immigrants under temporary protection (around 20% of asylum seekers in 2015) increased from 1 to 3 years. Refugees covered by the UN Refugee Convention, e.g. refugees from Syria and other groups, who due to individual circumstances are subject to prosecution in case of return, are exempted from the new rule.
- A tightening of access to permanent residency for all immigrants. As a basic requirement, though some exemptions remain, immigrants have to have been in the country for a minimum of six years to be eligible for permanent residency (rather than five under the former rules). The number of additional conditions which must be met, such as language skills and employment effort, has been raised.
- Increased co-payments. A cap (of 90 days) on the number of days that asylum seekers, who have sufficient means to pay for their stay in asylum centres, may be requested to pay for their stay in the centres is abolished. Furthermore, the police are given a right to search refugees (by frisk searching) and their belongings for valuables that may contribute to the financing of the stay in Denmark. Valuables that are assessed to have a value of less than approximately EUR 1 300 or that has sentimental value (such as wedding bands, medals, etc.), are exempt from confiscation. This assessment is to be made on the scene by the individual police officer, and asylum seekers have the right to dispute seizures of certain items in court.
- A tightening of the possibility for asylum seekers to live outside asylum centres. The requirements for asylum centre housing are relaxed. This implies that refugees may be housed in tents, and other types of housing which would otherwise not used for residency under previous regulations regarding noise and size, and according to zoning laws.
- Expanded rules for detainment. Under previous rules the police could detain foreigners, if they found it necessary in order to ensure expulsion from Denmark, for 72 hours before the person was seen by a judge. If it was not possible to get the detention upheld by a judge within the specified period, the detainee would be released. Under the new rules the police may also detain asylum seekers when entering the country, in order to determine their identity and the basis for their application. Furthermore, The Ministry of Immigration, Integration and Housing may temporarily suspend the right to have the detainment tried by a judge in less than 72 hours, in case the inflow of asylum seekers is deemed too high for this time frame to be feasible.

Figure 2.6. **Denmark receives less asylum seekers than Nordic neighbours**

Asylum applicants as a per cent of total population[1] (January-November 2015)



1. Population level as of 1 January 2015.

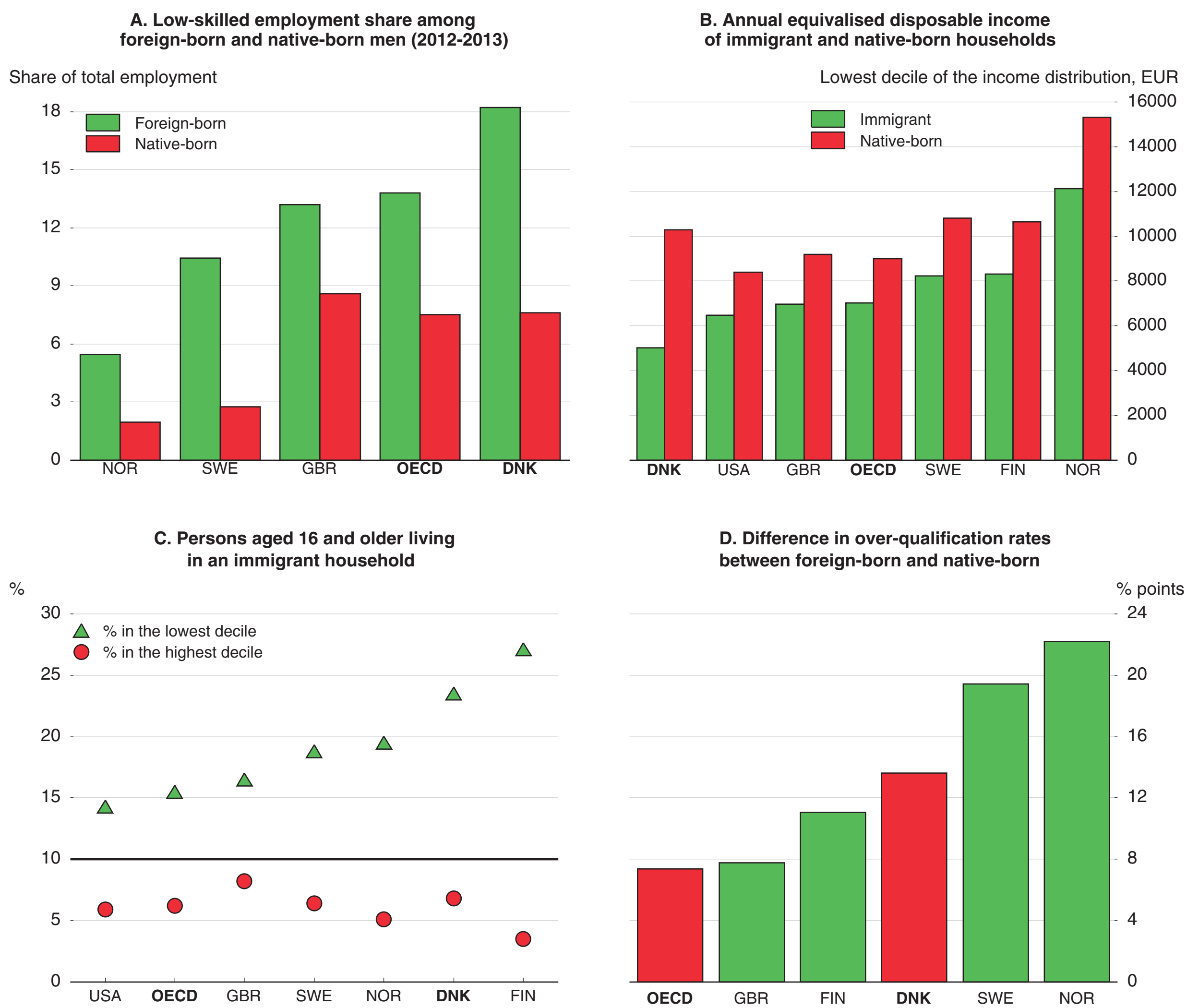
Source: Eurostat database.

StatLink http://dx.doi.org/10.1787/888933352607

Integration of immigrants is an issue in many OECD countries but is more pronounced in Denmark. Gaps in employment and activity rates between immigrants and their native peers are among the highest in the OECD (see Figure 2.4, Panel A) and have widened since the 2009 crisis. Also, income inequality is particularly high between foreign-born and natives (Figure 2.7, Panel B and C). Unemployment among foreign-born is roughly twice as high as among natives. In 2013, 32.8% of unemployed migrants were out of a job for more than one year, around 8 percentage points more than the unemployed natives. Immigrants are overrepresented in low-skilled jobs, accounting for around 27% of low-skilled employment (vs 11% of total employment) and are also more likely to be poor even when working: in-work relative poverty rate is 2.7 times as high as for the natives in Denmark (Figure 2.7).

Figure 2.7. **Inequality between foreign-born and native-born is high**

Selected OECD countries, 2012



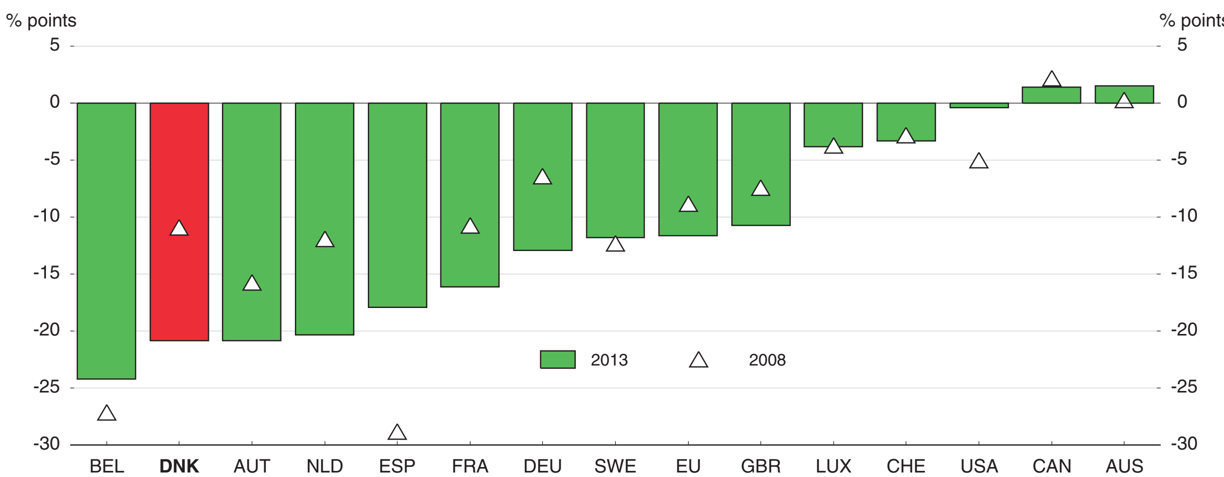
Source: OECD Indicators of Immigrant Integration 2015.

StatLink http://dx.doi.org/10.1787/888933352392

Moreover, the gaps in employment and activity between immigrants and natives persist across generations (Figure 2.8). Integration of native-born children of immigrants – 9.7% of total youth population – is quite weak and has not improved since 2007. In most OECD countries, having foreign-born parents is associated with worse labour market outcomes, but this is the case to an even larger extent in Denmark. Like their parents, immigrants' offspring have more difficulty finding a job than natives with equivalent qualifications, and the more qualified to a larger degree. Some 20% of native-born children of immigrants are neither in education, employment nor training, i.e. 6 percentage points more than for those with native-born parents.

Figure 2.8. **Employment gap persists across generations and has widened**

Difference in employment rates of native-born with foreign parents and native-born with native parents, 15-34 year olds not in education



Source: OECD Indicators of Immigrant Integration 2015.

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Integrating migrants and their children into the labour market would improve overall integration into the society, well-being, educational output, and reduce fiscal pressure. Due to a higher probability of being unemployed or inactive, immigrants are over-represented among benefit recipients; though only accounting for 7% of the working age population in 2014, non-western immigrants accounted for 15% of those receiving public benefits and 26% for social benefits. The probability of receiving welfare benefits decreases with the attachment to the labour market, language proficiency and the length of stay in the country (Hinte and Zimmermann, 2014). Improving labour market outcomes of immigrants to those of natives and further investing in targeted education programmes (in particular language courses) would therefore have a positive impact on their overall well-being and also benefit public finances (Box 2.4).

Despite good access to education, the outcomes of immigrants and their children lag behind, with a below average education and skills level (OECD, 2014b). Denmark ranks among countries with the highest gaps in PISA scores, as well as a large gap in educational attainment between students with or without an immigrant background. Around 43% of young migrants who arrived as children have a low education level, more than twice as many as in an average OECD country. The coverage of early childhood education and care

Box 2.4. **Impact of immigration on public finances in Denmark**

The net impact of immigration on the fiscal purse is small

Using a static accounting model accounting for net contributions of migrants (i.e. including tax revenues), an OECD study shows that the fiscal contribution of immigrant in Denmark is around zero and close to the OECD average (OECD, 2013a). However, on average, migrants' net fiscal contribution is lower than the one of native born, mainly due to lower employment rates but not due to higher take up of social benefits.

Danish studies using different methodologies (e.g. dynamic general equilibrium model with overlapping generations) find a negative but again relatively small impact of immigration on the public purse. For instance, Wadensjö (2000) estimates a total net negative fiscal impact of immigrants and their children of 0.7% of GDP.*

The fiscal impact of immigration is found to vary with the region of origin, reflecting uneven performance on the labour market (Wadensjö, 2000; Hinte and Zimmermann, 2014). The net contribution is positive for immigrants from high-income countries but negative for immigrants from low-income countries. The contribution of migrants from low-income countries increases with time as integration improves but remains negative (Hansen and al., 2015).

A better integration of migrants has a positive impact on fiscal sustainability

Models accounting for the contribution of migrants over their whole lifespan conclude that no financial benefit from immigration can be expected in the short and in the long run in Denmark, notably because of the below average employment rate of migrants (Schou, 2006; Hansen et al., 2015).

At the same time, bringing the employment rate of the resident immigrant population up to the level of the native-born can improve fiscal sustainability, with a net fiscal gain estimated at 1.3% of GDP (Pedersen and Riishøj, 2008). A more recent study finds that raising employment rates of refugees to the average of other non-western immigrants would improve the primary fiscal balance by at least EUR 0.28 billion (Hansen et al., 2015).

* See also Gerdes and Wadensjö, 2006; Wadensjö, 2007; Hansen et al., 2015

could be increased by bringing the attendance rate of migrants to the same level as of natives; 87% of 3-6 year-old immigrant children were enrolled in early childhood education and care in 2012, an attendance rate high by international standards, but 7 percentage points lower than among their native-born peers. Also, finding an apprenticeship contract when having an immigrant background is relatively difficult and partly explains why native-born offspring of foreign-born are overrepresented among early-school leavers. Providing more individualised training courses, implementing regular meetings with case workers as done in Switzerland and intensifying action when outcomes are bad by using multi-disciplinary teams have been identified as good practice to promoting the transition of young migrants who are neither in employment nor education or training (NEET) into employment (OECD, 2014b).

The difference in educational outcomes only partly explains the below average performance on the labour market of the migrant population (OECD, 2014b). Migrants with a high education level also have difficulties in finding a job suggesting a mismatch between their competence and the labour market needs or a lack of recognition of skills acquired abroad. Immigrants have a clear entitlement to assessment of their competences in regulated and non-regulated professions (OECD, 2014b). Public employment services have well established general procedures for assessing and validating skills, competencies, and work experience, which are placed on a digital competence card, the “Competence Card”. Social partners are involved in the certification process, thereby facilitating the recognition of qualifications in the private sector.

Integration programmes can induce lock-in effects for refugees, as they are assigned to municipalities according to quotas for the first three years while they undertake the integration programme. Refugees and immigrants who have been granted a residency are allowed to move between municipalities, but if they move before the integration programme is completed they may lose their entitlement to participating in the integration programme, the right to be assigned housing by the municipality, and the right to cash benefits or the integration allowance. Nevertheless, the entitlement to Danish language training remains, independent of whether the refugee decides to move or not. The aim of the spatial dispersal policy is to promote the integration of refugees in the Danish society by avoiding the development of ethnic ghettos and enclaves of unemployed migrants in urban areas. However, this hampers refugees’ mobility and capacity to find a job and has a negative impact on labour market performance (Edin et al., 2004). Some relaxation of the dispersal policy will come into force as a part of an integration agreement between the government and social partners, which is welcome since refugees should be able to settle in the areas where there are jobs.

Other barriers to employment include sectoral minimum wages (determined locally by social partners, at around EUR 15 per hour in 2015) that can price lower-productivity migrant workers out of employment. Migrants are overrepresented among low-wage workers and are more affected by high labour costs related to the high minimum wages. New migrants, due to a lack of country specific human capital and low language proficiency, may have a relatively lower productivity than native-born (Causa and Jean, 2007). Also, disincentives to work generated by the generous welfare system may be stronger for migrants as their average earnings prospects are much lower than for natives. Finally, differences in cultural human capital, lower access to networks as well as ethnic discrimination can hamper integration like in many countries.

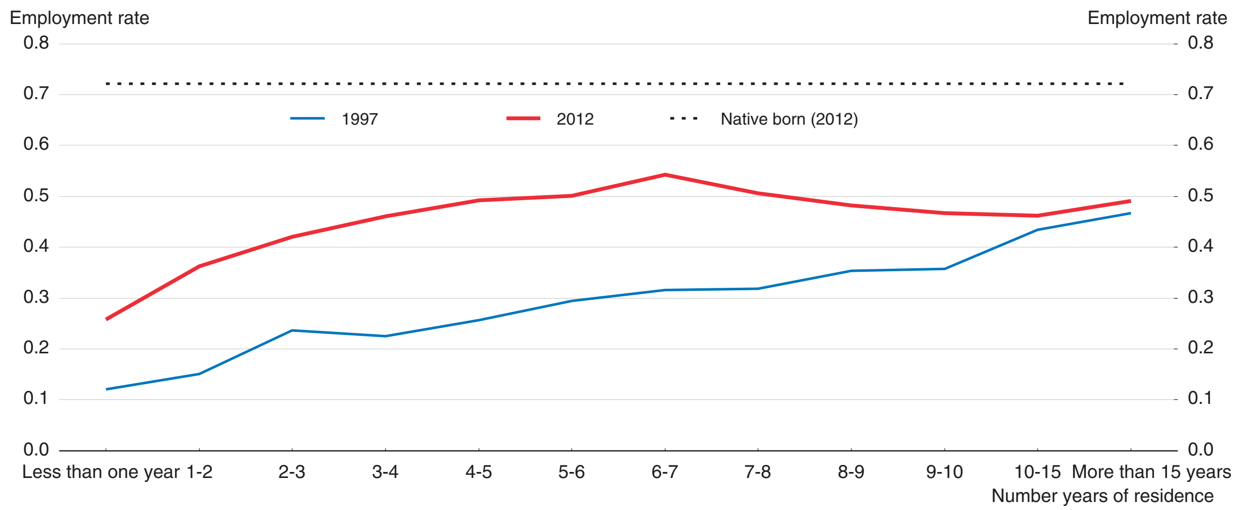
To address these complex issues Denmark has implemented a panel of innovative integration policies in the early 2000s. These include language training, work placement and wage subsidies (Liebig, 2007). Past effort on integration seems to have borne fruit and should be continued to provide full potential. Employment rates of migrants improve with time spent in the country and in particular during the first five years, but at a higher pace than in the past (Figure 2.9). Recent migrants from low-income countries who benefited from integration policies have better outcomes than long-standing migrants of the same origin. Because the impact of integration policies takes time to materialise, stability of policy making and funding in this area is desirable.

Job training in private firms, language courses and wage subsidy programmes have had a positive impact on employment of migrants (Pedersen, 2013).

- Wage subsidies proved particularly effective in promoting integration as they compensate employers for a lack of country specific human capital and low language proficiency (Clausen et al., 2009; Heinesen et al., 2011). Nevertheless, immigrants tend to be underrepresented among beneficiaries of the subsidised wages from which they would benefit most (OECD, 2014b).

Figure 2.9. **Employment rates of migrants improve with time**

Employment rate by duration of residence, migrants from non-western countries, in 1997 and 2012



Source: Danish Ministry of Finance.

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- Attention should be given to migrant's access to training, in particular after the completion of the integration programme. Immigrants are participating less in training than their native peers overall. Participation in job-related training and on-the-job training is relatively lower, for women in particular, and the gap in participation in the latter is among the highest in the OECD. Also, employers' financial contribution to job-related training is much lower for immigrants than for natives.
- Job creation for immigrants could also be promoted with diversity plans as has been done in Belgium, encouraging diversification of recruitment and promoting mobility and training for this group. The authorities can audit and certify the company's diversity management policies, i.e. the promotion of equal opportunity, and in some cases make recommendations on how to avoid discriminatory hiring practices.

A reform of the integration policies has been agreed by social partners and the government. Under the reform, an introduction of a new two-year integration training programme focusing on upskilling and entry into the labour market is envisaged. Such a programme will allow companies to hire persons for up to two years at apprentice wages, i.e. between 50 and 120 kroner an hour (corresponding to approximately 7 to 16 euro) that is significantly lower than the prevailing minimum wage. Companies will also be granted a 5 400 euro bonus, if they employ immigrants for more than two years. Furthermore, the reform agreement aims at standardising language training, and focusing the training more on labour market entry requirements. So far, outcomes of integration programmes have been uneven across municipalities, and monitoring of programmes has not taken place and proves difficult given low data availability (Dagpengekommissionen, 2015). An appropriate monitoring should be put in place at the local level. The quality of language courses should be better supervised as highlighted already in 2007 by the National Audit Office.

The policy focus has shifted to increasing incentives to work for immigrants and discouraging unskilled immigration. Welfare benefits for those who had lived abroad for more than one of the last eight years were approximately halved in 2015 while maintaining other support measures, such as for housing and children. Bonuses are granted to those with Danish language proficiency to encourage the acquisition of skills necessary to enter the labour market. Earlier experience with reduced migrant benefits indicates that such financial incentives will probably have only have some impact on the decision to participate in the labour market and acquire skills, particularly in the short term. A similar measure, i.e. a reduction of immigrant benefits (the Start Help) was implemented already between 2002 and 2012 (though with a smaller reduction in benefits) and has shown mixed results in increasing employment. It did have a positive effect on employment rates, which were increasing with the time spent in the country from 6 percentage points (from 8 to 14%) after 16 months to 12 percentage points (from 30 to 42%)after 52 months(Andersen et al., 2012). Other studies found a positive effect on employment rates for persons who have been in the country for a few years, but that the reduced benefit did not increase labour market participation among newcomers and did not impact the groups the most far away from the labour market, such as women and the low educated (Rosholm and Vejlin, 2010; Pedersen, 2013).

Newcomers with low employability may not have the capacity to find a job even if economic incentives are in place and thus face higher poverty risk. Indeed, poverty increased significantly among the "Start Help" recipients (Andersen et al., 2012). Decreased benefits specifically for migrants are likely to increase inequality between foreign-born and native-born in terms of poverty risks, income and over-qualification from current high levels (see Figure 2.7), as well as to reinforce negative stereotypes on the low willingness of migrants to integrate (Liebig, 2007).

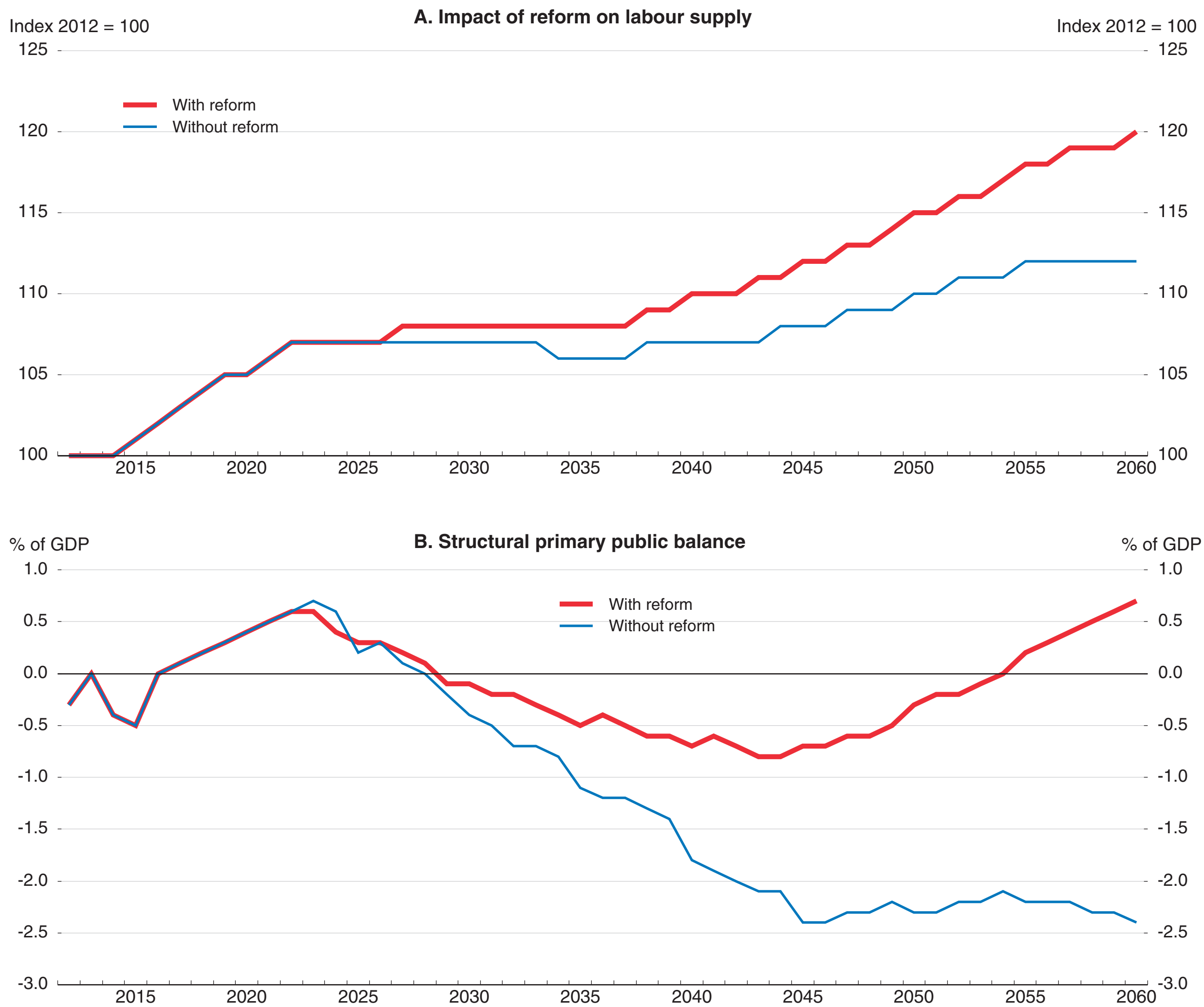
Easing expenditure pressures on social institutions

Thanks to prudent fiscal rules, public finances are deemed sustainable and to comply with EU fiscal requirements and the Budget Law (allowing for a maximum structural deficit of 0.5%) in the long run. According to national projections, public debt – at 45.2% of GDP in 2014 – will remain below 60% of GDP. The S2 sustainability indicator, i.e. the primary deficit needed to stabilise the debt to GDP ratio by 2060, has been estimated at 0.3% of GDP by the Danish Economic Council- the Danish "fiscal watchdog" – in spring 2015 (Danish Economic Council, 2015a).

National projections for the long-term sustainability of public finances are based on a number of assumptions including balanced budget by 2020 and an increase in labour participation in response to structural reforms. In particular, pension reforms are expected to compensate the impact of ageing on the labour force (Figure 2.10). Productivity is also expected to grow by 1.2% in 2020, well above the average growth over the past 10 years, and public spending per capita is to remain stable. Uncertainty surrounding these assumptions is high, notably on future developments of labour force participation (Box 2.5) and healthcare costs. Also, as in most OECD countries, national projections do not take into account contingent liabilities. These are government guarantees, i.e. liabilities related to public-private partnerships and liabilities of government-controlled entities, both classified outside general government balance sheet, estimated at 36.7% of GDP in 2013 (European Commission, 2015b).

In the medium run, complying with fiscal rules will be challenging. According to national projections structural deficits are set to temporarily exceed 0.5% of GDP after 2030 and to reach 1.5% of GDP by 2045 according to government projections (the so-called "hammock challenge"). This period of public deficits results from the fact that the

Figure 2.10. **Structural reforms[1] to help cope with ageing according to national projections**



1. These mainly refer to the pension reforms of 2006 and 2011, implying an indexation of the statutory retirement age to longevity, and a reduction in the use and duration of the early retirement scheme.

Source: Danish Ministry of Finance.

StatLink http://dx.doi.org/10.1787/888933352627

indexation of the statutory retirement age to life expectancy gains will be phased-in, and will therefore only gradually catch up with developments of longevity. Such temporary deficits could be addressed in a number of ways that are, however, not without downsides. Firstly, increases in the retirement age could be speeded up. This would necessitate another change in pension legislation, and might prove politically difficult. Secondly, tax revenues from future pension taxation could be brought forward, as done in recent years. Pensions are taxed when retirement is reached, however such measure includes the risk that tax revenues are not used to reduce public debt and that some economic losses could occur, as the government might not have the same rate of return on savings than private pension funds. A third option is to run down public debt through pre-saving future age-related spending, as done for instance in Belgium, but this would weigh on economic activity. Lastly, revising fiscal rules, more specifically how deficits and debt are measured

Box 2.5. Assessing the impact of reforms on potential growth and labour force

OECD and European Commission (EC) projections for potential and labour supply growth in Denmark are quite close, but the estimated impact of reforms on labour supply varies widely between the two institutions (cf. Table 2.1). The impact of pension reforms on old age participation is more than six times higher in percentage points in the EC projections compared with the OECD projections. This is due to differences in the methodology used and highlights the uncertainty related to the projections.

Both institutions are more conservative than the government on the impact of the reforms on labour supply and thus GDP growth. The EC takes into account the uncertainty regarding the implementation of the indexation of the pension age to life expectancy. The OECD measures the impact of pension reforms based on econometric estimates, and an assumption of an indexation of the statutory retirement age, which keeps the proportion of years in retirement fixed as a share of expected life span.[1] In this respect the OECD estimates differ from national estimates, as the Ministry of Finance assume a gradual decline in the years in retirement towards 14.5 years.

Table 2.1. **Projections for labour supply of the Danish government, OECD and European Commission**

(percentage point increase between 2013 and 2060)

	Government	OECD	EC
Total change			
Participation rate (15-74)	7.7	4.0	4.6
Participation rate (15-64)	2.5	4.6	2.2
Participation rate older (55-64)	13.8	15.3	12.7
Impact of pension reform			
Participation rate total (15-74)	7.4	0.7	6.1
Participation rate total (15-64)	1.9	0.5	2.9
Participation rate total (55-64)	10.1	2.4	14.3
Effective retirement age 2060	71	66	68

Source: OECD calculations based on the OECD EO95 and European Commission (2015), Danish Ministry of Finance.

1. For more details, see Johansson et al. (2013).

to take into account deferred taxes on pension savings, can be difficult to implement given the large uncertainty regarding the level of such tax revenues. All in all, although the "hammock challenge" is a temporary issue, it highlights the challenges future governments face in case employment and longevity do not develop according to projections, underlying the need for further action in order to ensure the long term sustainability of public finances.

Further improving the performance of the pension system

The pension system is effective in ensuring high replacement rates and limiting old-age poverty. Combining a taxed-financed defined benefit pension and mandatory occupational defined contribution schemes, it allows diversification of pension risks between idiosyncratic risks on investments of pension funds and macroeconomic risks of national pension schemes (Box 2.6). To maintain its sustainability and its generosity in spite of population ageing, major reforms have been legislated, including the indexation of retirement age to life expectancy gains from 2030 onwards. Reforms of early retirement

Box 2.6. **The Danish pension system: main features and reforms**

The pension system

The Danish pension system consists of a mix of pay-as-you-go and defined contribution schemes:

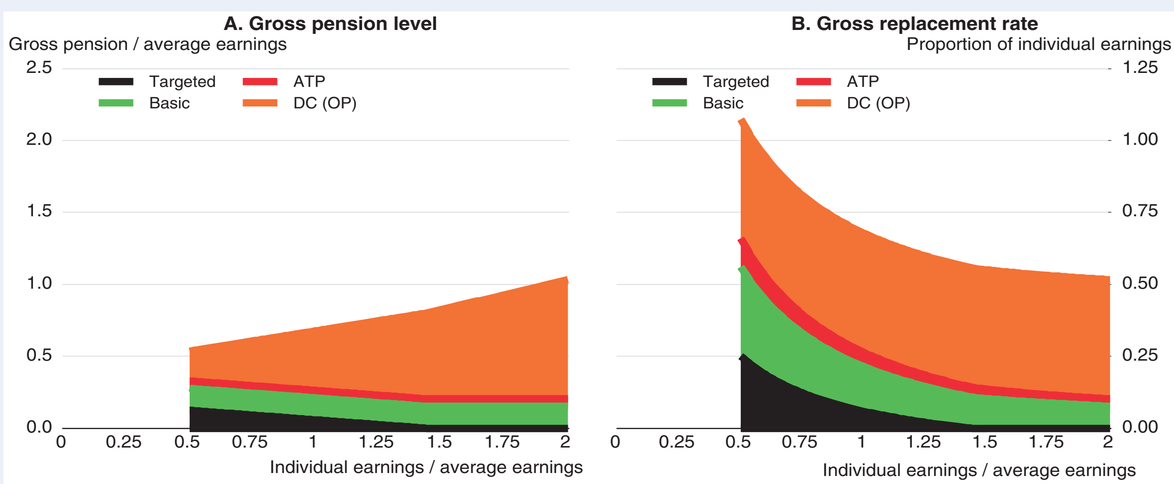
- A tax financed and means-tested public pension, including a basic flat amount (around 17% of the average wage, reduced if earned income exceeds 75% of the average wage), a pension allowance and a supplementary benefit for the most disadvantaged.
- A mandatory defined contribution scheme (ATP) for employees who work more than 9 hours a week and those receiving temporary social security benefits. A voluntary defined contribution scheme (SUPP) is also offered to those outside the labour market.
- Quasi-mandatory fully funded occupational schemes covering around 90% of full-time employees. Most of them are defined contribution schemes with contribution rates ranging from 12% to 18%.
- Individual voluntary defined contribution schemes.

Adequacy

The pension system is highly redistributive and the replacement rate is 77% on average in 2012 – and higher for public benefit recipients and low income earners (Figure 2.11). Old age poverty rate is 5%, less than half the OECD average, constituted mainly by "fraction" pensioners, i.e. pensioners who have not lived 40 years in Denmark and are not entitled to the full public pension.

Figure 2.11. **Gross pension levels and replacement rates are high**

Expected pensions for a 20 year old entering the labour market in 2014 retiring at 67 years



Source: OECD, Pension at a Glance 2015.

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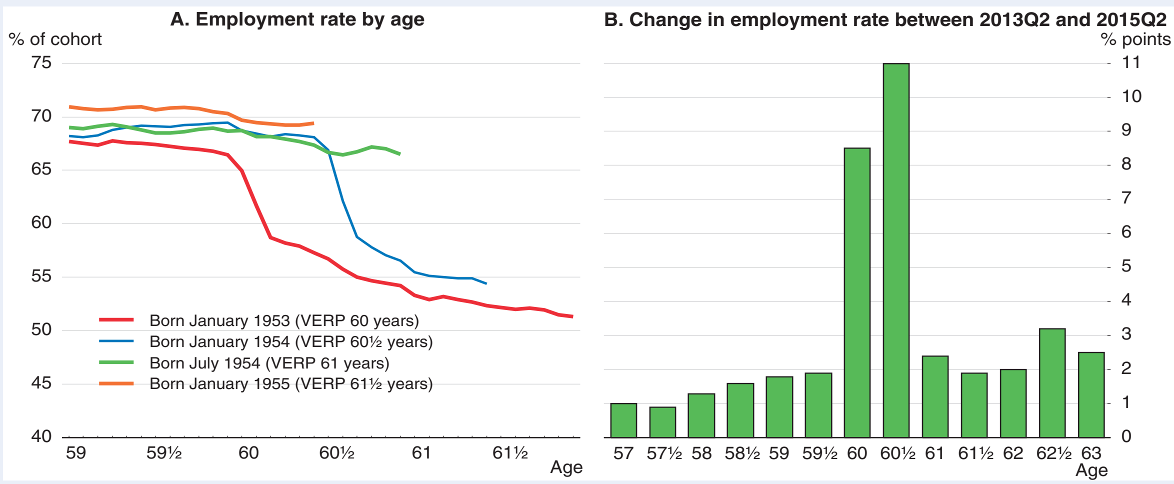
Recent reforms

With the 2006 and 2011 pension reforms, the statutory retirement age will gradually increase from 65 to 67 in 2022 and to 68 years in 2030. From then on it will be adjusted to life expectancy gains every five years (within a limit of one year and conditional on approval by the Parliament). The average pension payment period should then be reduced to 14.5 years. The duration of voluntary early retirement programmes is also progressively shortened from five to three years with the minimum age raised in line with the statutory retirement age. Overall, the Danish authorities expect the pension reforms to result in a gradual increase in the effective retirement age from around 64 years today to 70 years in mid-2040. If implemented as planned, this will imply that a person entering the labour market at 20 in 2014 will reach the legal retirement age at 73.5. This would make the Danish pension age the highest among OECD countries (OECD, 2015e).

Box 2.6. **The Danish pension system: main features and reforms** *(cont.)*

Following the increase in the statutory early retirement age, the employment rate of the age group 60-64 has improved significantly. Like in many other OECD countries, even when increments are provided for longer careers, employment rates tend to fall sharply at the legal retirement age. For the cohort of 60 year olds, affected by the reform, the employment rate increased by more than 6 percentage points, well above what is observed for other cohorts (Figure 2.12). Going forward, the employment rate for persons 61 and older is expected to increase progressively as well, as the reform affects more cohorts.

Figure 2.12. **The pension reforms have already an impact on employment rates of older workers**



Source: Danish Ministry of Finance.

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Participation in the public early retirement scheme has significantly declined. The reform of early retirement in 1998 raised the costs of opting-in in the scheme; measures in 2012 made possible to withdraw previous contributions at a tax discount and changed participation in the scheme from an opt-out system to an opt-in system. The share of 30 to 59 year olds who participate in the scheme has declined from more than 80% in 2000 to less than 30% in 2014. For the 30 to 34 year olds the decline has been more pronounced, indicating a progressive phase out of early retirement in the future.

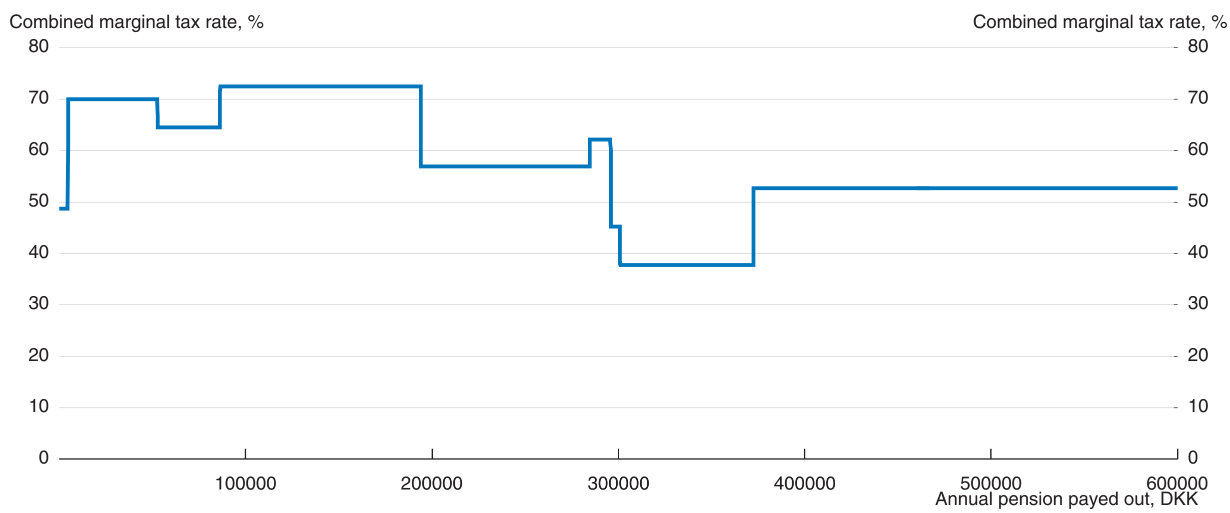
programmes (notably a progressive increase in early retirement age from 60 in 2013 to 63 in 2019) have already shown an impact on employment rates of workers above 60.

In 2012, public pensions accounted for around 70% of total gross pension payments and around 90% of individuals older than 65 received means-tested pensions. As private pension schemes introduced in the 1990's mature, public spending on pension is projected to decline from around 10% of GDP in 2013 to 7% towards 2060 (European Commission, 2015a) together with the share of pensioners relying on means-tested benefits. Also, taxation of private pension savings, both ongoing taxation of returns in pension funds and when they are paid at retirement (payments into the scheme are tax exempt), will increasingly account for a non-negligible share of public revenues which is set to absorb around 80% of the increase in age-related public spending by 2050 (Hansen et al., 2015). As taxes on pension savings increase as a share of total revenues, the volatility of revenues also increases. This poses a challenge for estimating future public revenues and the year-on-year compliance with fiscal rules.

In addition to the uncertainty about the revenues development, spending pressures could be higher than expected. The pension system creates some disincentives to save for workers earning relative low wages, particularly in the years just before the retirement age is reached. Due to means-testing of public pension, income from the occupational funded scheme reduces public pension benefits and housing subsidies and thereby the effective rate of return of private pension savings (Figure 2.13). It is uncertain if and how these economic disincentives will impact retirement decisions for low income earners in the future, as the second pillar matures, but it is likely that this group will retire as early as possible.

Figure 2.13. **Pension savings of low-income earners are heavily taxed**

Marginal effective tax rates on private pension savings, 2015



Note: Stylized calculation for a single pensioner living in a rented accommodation and receiving means-tested rent subsidy.
Source: Danish Ministry of Taxation.
StatLink http://dx.doi.org/10.1787/888933352659

In principle, means-tested benefits should provide less revenue than work-based pension income. There are number of options to reinforce income gains of staying in employment. These include removing mean-testing of the basic public pension, introducing a tax relief on pensions for low wage earners after retirement, tax exemption on contribution to the occupational scheme during the last years before retirement, excluding late contributions from the income base used from means-testing, introducing compulsory savings or reducing the rate of withdrawal of mean-tested pension allowance. The costs and benefits of these options have to be evaluated.

The marginal effective tax on pension returns is higher than on investment in property, also due to the means-testing of other benefits, and can discourage groups not covered by collective agreements from saving in pension funds. A special tax on large pension pay-outs can also weigh on voluntary savings in pension funds. In addition, the sophistication of the system – the interaction between the different schemes but also difficult access to information on the different tax rates applied to different types of savings – could hamper rational decisions about the right amount of pension savings. The complex incentives to save and the pension system's interaction with the tax system should be also investigated and analysed.

Over the past five years, around 24% of those aged 30-59 were saving less than 5% of their income in pension schemes and 12% had no savings at all (mainly self-employed and benefit recipients). They are likely to face low replacement rates from the second pillar and be eligible to means-tested pensions. Thus, the pension entitlement of individuals not covered by occupational pensions should be closely monitored and initiatives to increase the pension savings among this group should be introduced. Indeed, mandatory contributions are more effective than subsidies at increasing savings of those who tend not to save, not least because 85% of savers are unresponsive to subsidies and those using subsidies are those who already save for retirement (Chetty et al., 2014).

A sound prudential regulatory framework for the second pillar is in place to protect pensioners and avoid excessive risk taking. Nevertheless, the level of the rate of return of private pension remains uncertain and poses a risk for individuals with limited adjustment capacity. Most of the occupational schemes are defined contribution schemes and the return on pension savings depends on market outcomes. Should the level of private pensions be too low, pensioners will be eligible to tax-financed mean-tested supplements pensions, resulting in the ageing cost partly transferred from pension schemes to social safety net budgets. Thus, investment strategies should ensure exposure to risk declines with age as capacity to adjust also declines with age. Though this option (so-called life-cycle investment strategies) exists, it is voluntary. Moreover, in spite of an overall top evaluation, the Melbourne Mercer Global Pension Index points to an insufficient protection of pensioners in case of fraud, mismanagement and provider insolvency (Mercer, 2015). Also, a requirement of providing an annual report on the pension plan to individual plan holders does not include information on major investment and allocation of assets in asset classes that would allow future pensioners to better assess the risk related to their pension savings.

Increasing effective retirement age and prolonging working lives

According to national plans, the sustainability of the public pension system is ensured by future increases in the effective retirement age initiated by the pension reforms. The indexation of retirement age to life expectancy gains, which aims at reducing the average period in retirement to 14.5 years, is likely to increase labour market participation of older generations but might not be sufficient to sustain the labour force as planned. Furthermore, should life expectancy increase faster than currently projected, the existing rule for adjusting the statutory retirement age (i.e. that the retirement age can only be raised by one year every five years) will be insufficient to keep the average years spent in retirement at 14.5 years. In this case, policy makers should open up for a possibility of a faster than expected adjustment in the retirement age.

Indexation of the legal retirement age to life expectancy is subject to a political decision. The increase in retirement age has to be legislated by Parliament every five years. Political pressures not to reduce the retirement period are likely to intensify in the future as the retirement age increases (under the current national projections it will reach 70 in 2040) and if social inequality in life expectancy continues to broaden. Life and health expectancy have increased but the gap between low and highly educated workers has widened, pointing to increasing inequality in life expectancy among pensioners (Brønnum-Hansen and Baadsgaard, 2008). At the same time, the gap in pension payments between the persons with the highest and the lowest incomes has narrowed between 2000 and 2013, indicating that inequality between pensioners has decreased as private pensions schemes have become more widespread (Based on data provided by the Ministry of Finance).

Also, older workers might not fully adapt to longer working lives, in particular in physically-demanding occupations (Wubulihasimu et al., 2015). A large number of workers in occupations that require good health condition are likely to spend years in disability before reaching the statutory retirement age. In the construction sector in Sweden, for instance, 80% of lost years of working life are among men who retired due to disability at ages above 60 (Järvholm et al., 2014). As a consequence, participation in early retirement programmes, old-age unemployment and reliance on public pensions can rise in the future, inducing additional cost for tax payers and a lower-than-expected contribution base. Another question mark is to what extent occupational differences in the risk of disability pension will increase socioeconomic inequalities in the old-age population.

The effective extension of working lives will depend on the employability of older workers and therefore, improving their working opportunities should be a priority. Remaining regulatory barriers to employment of older workers should be removed and initiatives to adapt the working environment to an ageing work force developed. Most collective labour agreements include a framework on specific schemes for older workers and measures to promote age diversity but only few firms effectively implement them. Older workers can use part of the occupational pension to reduce working hours ("senior freedom") but there is no evidence on the impact of this measure on the retention of older workers and its cost-effectiveness, among other things, as the use of the scheme is not very widespread. The OECD 2015 review *Ageing and Employment Policies, Denmark* includes a number of recommendations on how to effectively extend working lives (OECD, 2015b), notably offering flexible working hours and adapted work tasks, reducing seniority elements in wage setting, implementing programmes for early identification and prevention of work-related health issues and removing remaining mandatory retirement ages.

Longer working lives have been supported by reducing generosity of voluntary early retirement programmes (VERP) and unemployment benefits for those above 55. Nevertheless, reforms have not fully translated into higher participation, suggesting other pathways to early retirement have been used (Halvorsen and Tägtström, 2013). Older workers are still over-represented among long-term unemployed (40% compared to 30% for those aged 24-54 in 2013) and disability benefits recipients (e.g. in flex-jobs). They have a quite low level of return to employment after a period of receiving unemployment benefits as they are eligible to a special allowance when they exhaust their rights. Senior jobs are also offered in the municipal sector at a normal wage to all unemployed entitled to a VERP whose unemployment benefit has expired (OECD, 2015b). The duration of these jobs and the wage level should be reduced to avoid lock-in effects and disincentives to remain out of the ordinary labour market. Also, this scheme should be targeted to those with low employment prospects. Disability benefits are another potential pathway to early retirement (see above).

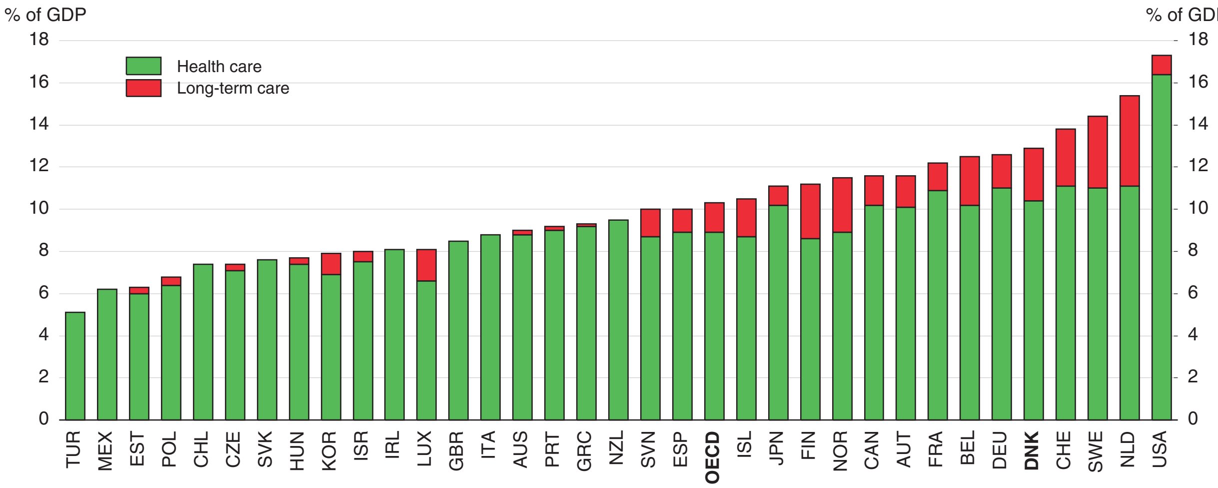
Better controlling healthcare and long-term care costs

Spending on health and long-term care (LTC) – high by international standard – is projected to continue to increase with population ageing (Figure 2.14). Projections are quite uncertain and past experience proved that such spending is difficult to control. Public spending on pharmaceuticals in hospitals increased significantly over the past years (from 5.6% of total health spending by regions in 2007 to 8.3% in 2014), partly because costs are not taken into account in the choice of treatments and no prioritisation mechanism is in place to limit spending pressures in this area.

The Danish government, the European Commission and the OECD have quite different estimates of future age-related spending (Table 2.2). The spectrum of increases in healthcare spending in OECD projections for Denmark is large, varying from 2% to 5.9% of

Figure 2.14. **Spending on health and long-term care is high**

In 2013 or latest year available



Source: OECD Health database.

StatLink http://dx.doi.org/10.1787/888933352664

GDP by 2060 depending on the scenarios. Great uncertainty also surrounds projections for LTC spending, which differs by factor 5 across institutions and scenarios. Future age-related costs will depend widely on the health status of the elderly population and on changes in relative prices of medical goods. Half of the spending variation between 1990s and late 2000s is explained by changes in prices due to innovation which generates more costly medical treatments and products (De la Maisonneuve and Oliveira-Martins, 2013). Due to the large uncertainty that surrounds both health care and long term care projections, measures to improve efficiency are welcome. Disparities across local governments in terms of outcomes and efficiency suggest the scope for improvement is quite large, in particular in healthcare and long-term care (Medeiros and Schwierz, 2015; Heijink et al., 2015).

Table 2.2. **The range of healthcare and long-term care spending projections is large**

Increase in percentage points of GDP by 2060

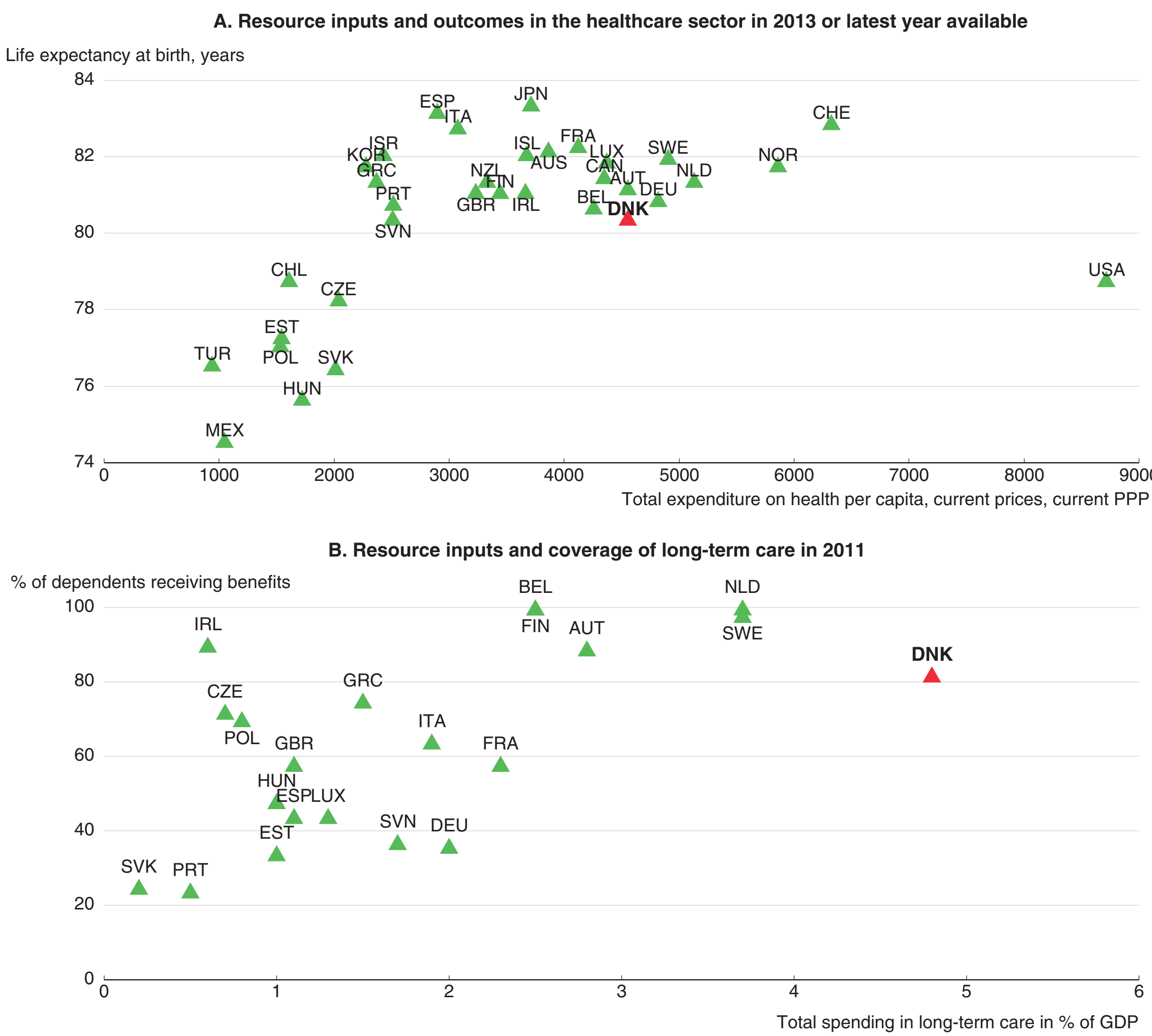
	OECD	Government	EC
Health care			
Average	-	0.0	+0.9
Best scenario	+2.0		+0.1
Worst scenario	+5.9		+3.1
Long-term care			
Average	-	+1.4	+2.0
Best scenario	+0.6		+1.9
Worst scenario	+1.0		+3.0

Source: De la Maisonneuve and Oliveira-Martins (2013), European Commission (2015a), Danish Ministry of Finance.

Improving the provision of welfare services

Achieving efficiency gains in the provision of public services would limit increases in age-related costs and strengthen the robustness of the welfare system. Disparities across local governments in terms of outcomes and efficiency analyses suggest the scope for improvement is quite large in Denmark, in particular in the healthcare and the long-term care sectors (Medeiros and Schwierz, 2015; Heijink et al., 2015; Wittrup et al., 2013). Life expectancy is relatively low given the level of spending per capita on health (Figure 2.15, Panel A). Also, international comparison, notably with peer countries, indicates that the large coverage of LTC could be reached at a lower cost (Figure 2.15, Panel B). Denmark has been successful in preventing costly long-term institutional care and older people tend to receive care in their homes. Nevertheless, the unit cost of institutional care is higher in Denmark than in Finland and Sweden (European Commission, 2014).

Figure 2.15. **Large efficiency gains are possible in the healthcare and the long-term care sectors**



Source: OECD Health database; European Commission (2014).

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Reaping more benefits from territorial reform

The 2007 territorial reform has significantly restructured the administrative landscape and led to major changes in the relations between central and local governments (Vammalle et al., 2014). This went in the direction of larger local governments to allow for economies of scale but also of less autonomy for the local administrations (OECD, 2015c). Administrative costs have been significantly reduced but the reform has not triggered efficiency gains in all sectors, in particular not in day care and elderly care (Blom-Hansen et al., 2015). Further gains of decentralisation could be reaped by granting greater autonomy coupled with strong accountability to local government (Sow and Razafimahefa, 2015).

Indeed, limiting autonomy of local government in assigning qualitative and quantitative objectives would risk undermining operational freedom and capacity to adjust. Besides, Danish public employees and organisations have called for a reduction in rules and regulation – a "Trust Reform" of the public sector (Sørensen, 2015). The Productivity Commission also recommended giving more room of manoeuvre to local government by removing unnecessary rules.

During 2012 to 2015 nine local municipalities were granted some exemptions from government rules and documentation requirements in order to test new ways of solving their tasks, in a policy experiment known as the "Free Municipality" initiative. The main focus has been on simplification, innovation, quality and a more inclusive approach to the individual citizen, with many of the experiments focusing on the employment effort. The Free Municipality experiment is currently being evaluated, in order to form the basis for potential future legislation on de-bureaucratisation for all municipalities. The concept of Free Municipalities continues in an adjusted form until 2019, and is extended to more municipalities.

Well defined targets and sanctions helped to keep spending under control at the local level, but the impact on efficiency is unclear. Since 2011, sanctions are imposed on local government which do not comply with budget requirements. In case of non-compliance, poor performance is usually made public, occasionally intensive monitoring is put in place, and the budget is always reduced. Such rules have induced a reduction in spending exceeding budget requirements and the build-up of precautionary budget in municipalities. The question is whether precautionary savings are desirable and funds could not have to be used in a more productive manner. Furthermore, uncertainty on the level of subsidy paid by the central government to the local one hampers the effective management of the budget and cash flows (National Audit Office, 2014). The use of grants to sub-national governments to too specific purposes should continue to be limited, in order to allow more operational freedom and capacity to adjust spending priorities while making sure that appropriate output performance monitoring and minimum service delivery regulation remains in place.

The provision and the quality of welfare services differ widely across municipalities, e.g. in terms of the number of benefit recipients and the implementation of programmes. Improved quality monitoring and performance management can help to identify the sources of these local discrepancies (including differences in work environment and conditions) and best practices. In secondary care, quality monitoring is well developed but has not systematically induced improvement efforts and is not fully used for peer reviews (OECD, 2013b). Data collected should be used to evaluate the impact of financial incentives in hospitals (i.e. to achieve 2% productivity gains per year) on efficiency, notably on over-prescription. In primary and long-term care, there are only few mechanisms to assess and reward the quality of services, and already available data on performance could be better utilised (OECD, 2013b). In the LTC sector, stricter budget constraints to municipalities led a process of retrenchment and restructuring and the impact on the quality and the adequacy of services remains unknown (Kvist, 2014).

Developing an integrated welfare system, prevention and rehabilitation

Integrating the delivery of welfare services – healthcare, LTC and social services – would allow for an early identification of multidimensional needs, improve information sharing between providers, avoid overlaps and duplication, and improve access to services (OECD, 2014d). In particular, a better coordination of care between municipalities, general practitioners, and hospitals would ensure the more cost-effective option is envisaged and prevent unnecessary and expensive hospital admissions. However, transition costs for an integrated system could be elevated as integration requires financial inputs to accompany the restructuration, creating incentives to collaborate and monitoring.

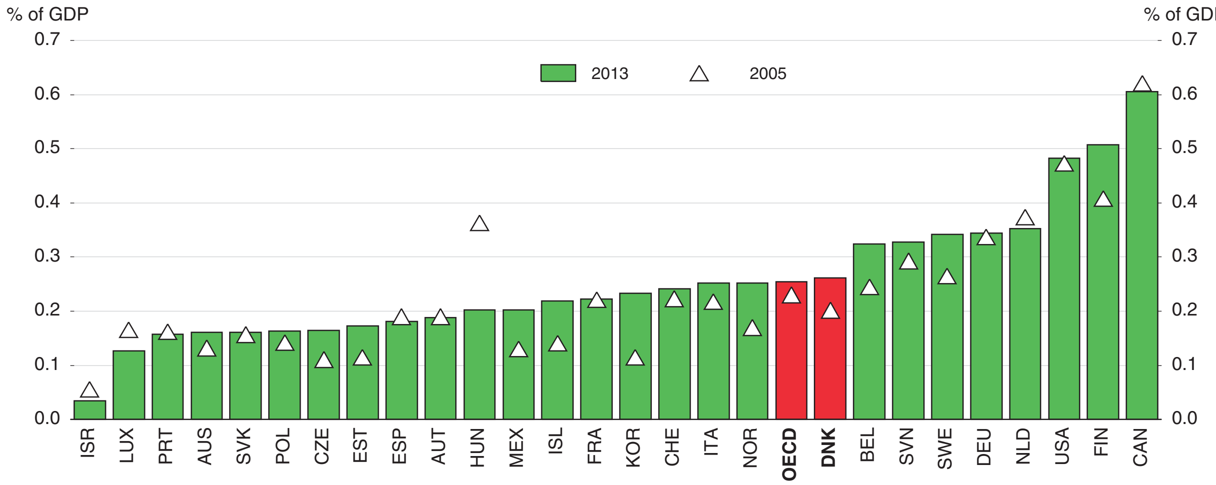
In the healthcare sector, municipalities have been pressed to ensure a better correction between primary and secondary care, to encourage general practitioners (GPs) and hospitals to offer a coordinated package of treatment. Nevertheless, mechanisms to reward the continuity of care are not well developed and incentives for GPs to participate in integrated care pilot projects had a quite low up-take. Better assessing the quality of primary care, publishing performance indicators and giving GPs more responsibility for outcomes across the whole patient pathways would support the transition towards an integrated system (OECD, 2013b). Financial incentives in the form of lump sum for those participating in Disease Management Programmes (DMPs) or a joint payment to the care providers for chronic diseases can also be provided as done in Germany and in the Netherlands.

Many key disease areas and the need for long-term care can be substantially reduced through appropriate prevention and rehabilitation programmes (OECD, 2015c). In particular, prevention targeted on main causes of morbidity or disability at a relatively early stage could support healthy ageing, self-care and home-based services and reduce disability in old age with a significant impact on public finances. Were the longevity gains not to translate into more years in good health, public healthcare spending would increase by around 2 percentage points of GDP from 12.2% to 13.4% (De la Maisonneuve and Oliveira-Martins, 2013).

Since 2007, Danish municipalities have been asked to place more emphasis on prevention and rehabilitation. However, expenses on prevention have not increased as a percentage of GDP over the past decade (Figure 2.16). Also, facilities for providing necessary rehabilitation services were not in place five years after this competence was assigned to municipalities (Olejaz et al., 2012). Financial incentives for municipalities that are successful at rehabilitation and reducing institutionalisation should be strengthened, as done in Germany for the sickness funds. In addition, national targets on alcohol, tobacco and obesity should be set and actions targeted to the most vulnerable. Low educated and low-income earners are more exposed to unhealthy lifestyles and because of geographical access constraints they use less preventive services (Ellins et al., 2014).

Developing tax instruments to limit health-damaging behaviours should also be considered as it proves quite effective in improving health outcomes (Sassi et al., 2013). Denmark already imposes excise duties on unhealthy items such as alcohol, tobacco and sugar, but could consider whether more is possible. In 2011 a tax on saturated fat was introduced, but was abolished in 2012, due to arguments that it posed an excessive

Figure 2.16. **Spending on health prevention is largely unchanged**



Source: OECD Health database.

StatLink http://dx.doi.org/10.1787/888933352685

administrative burden, induced cross-border trading, and potentially introduced barriers to EU single market. Likewise, a plan to expand the chocolate and sugar tax to other sugary foods (e.g. yoghurt, ketchup, jam) was scrapped in 2012.

Increasing competition and private funding for welfare services

Only a small share of welfare services are contracted out to private providers and the state of competition for public contracts varies widely among municipalities (Sørensen, 2015; OECD, 2015d). In 2008, it was reported that leading municipalities opened 35% of their procurements to competition, while in other municipalities less than 20% of procurements were made competitively (OECD, 2015d). Opening welfare services further to competition requires imposing standards and closely monitoring outcomes to ensure high quality services. Related efficiency gains can thereby be small because of induced administrative costs. Empirical analyses find a positive impact of marketization in technical areas (waste collection, road maintenance, cleaning) but evidence is mixed for welfare services (Peterson and Heljmar, 2014). Some studies point to cost savings and higher quality in the healthcare sector as a result of competition exposure, in particular when associated with free choice of providers and dissemination of information on their performance (OECD, 2015c). At the same time, the literature does not identify a one-size-fits-all set of policies to increase efficiency by competitive pressure and the modalities should be assessed on a case by case basis.

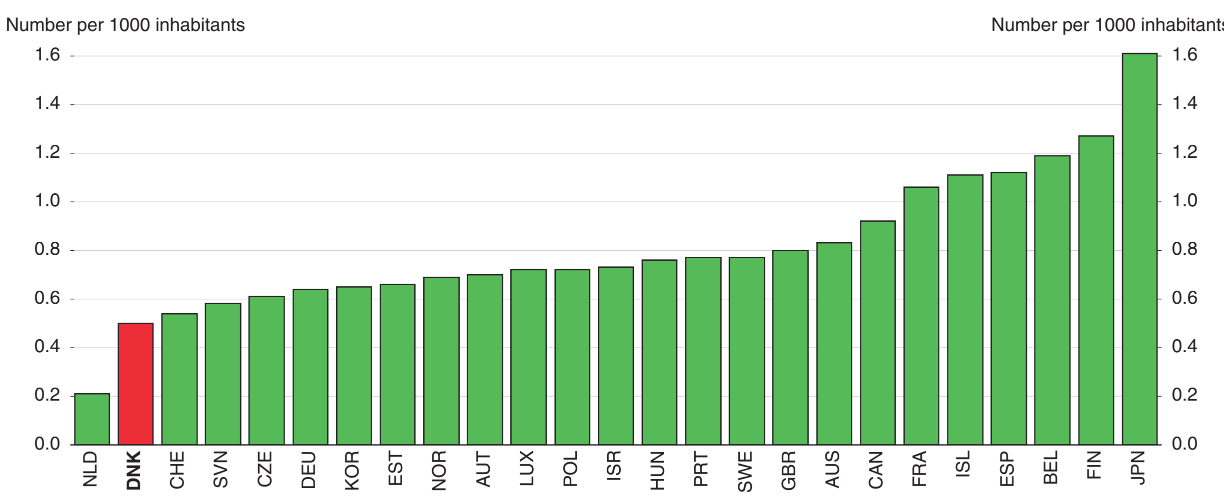
Enforcement of competition law is limited in the Danish public sector. Central and local governments can provide ad hoc exemptions to the operation of the Competition Act for practices deemed being "direct or necessary consequence of public regulation" without having to find alternative means that do not produce anticompetitive effects. There are no implementation guidelines or regulation for applying these exemptions. Clear standards should be defined and the use of competition exemptions should be made or assessed by an independent body. At minimum, the Competition Council should be in a position to seek a judicial review of the administrative decision to override the application of the Competition Act (OECD, 2015d).

Competition could be extended in the LTC and the healthcare sectors.

- Public spending on LTC is mostly provided in cash (45% vs. 28% on average in the EU) and people eligible for home care can choose their provider. Diversity is limited however for nursing homes: independent institutions make up only 11% of the market.
- In the healthcare sector, secondary care is concentrated in public hospitals. Patients are allowed to choose private providers only if the public sector is not able to provide care within a guaranteed period. While extending public procurement to private providers can lead to savings for certain services (e.g. for scans; Holstein, 2014), the development of private hospital activity remains limited. Also, contract prices for hospital medicine are confidential and practitioners cannot choose the most cost-effective treatments (Hostenkamp, 2012). Transparency on prices and an obligation to prescribe the cheapest treatment can help to contain costs.
- In the retail sector, regulation for pharmacies creates barriers to competition. Entry and ownership are restricted, prices and profits are controlled (e.g. a collective financial equalisation system requires pharmacies with above-average turnovers to contribute to pharmacies with below-average turnovers). The number of pharmacists per inhabitant in Denmark is low compared with other OECD countries (Figure 2.17). Relaxing conditions for establishing internet pharmacies, for multiple ownerships, and for opening hours, removing the limit on the number of pharmacies and the equalisation scheme as recommended by the Competition Council would improve access to care, and foster productivity gains in the pharmaceutical sector.

Figure 2.17. **The retail market for pharmaceuticals is more concentrated than in most OECD countries**

Number of practising pharmacists per 1 000 inhabitants in 2013 or latest year available

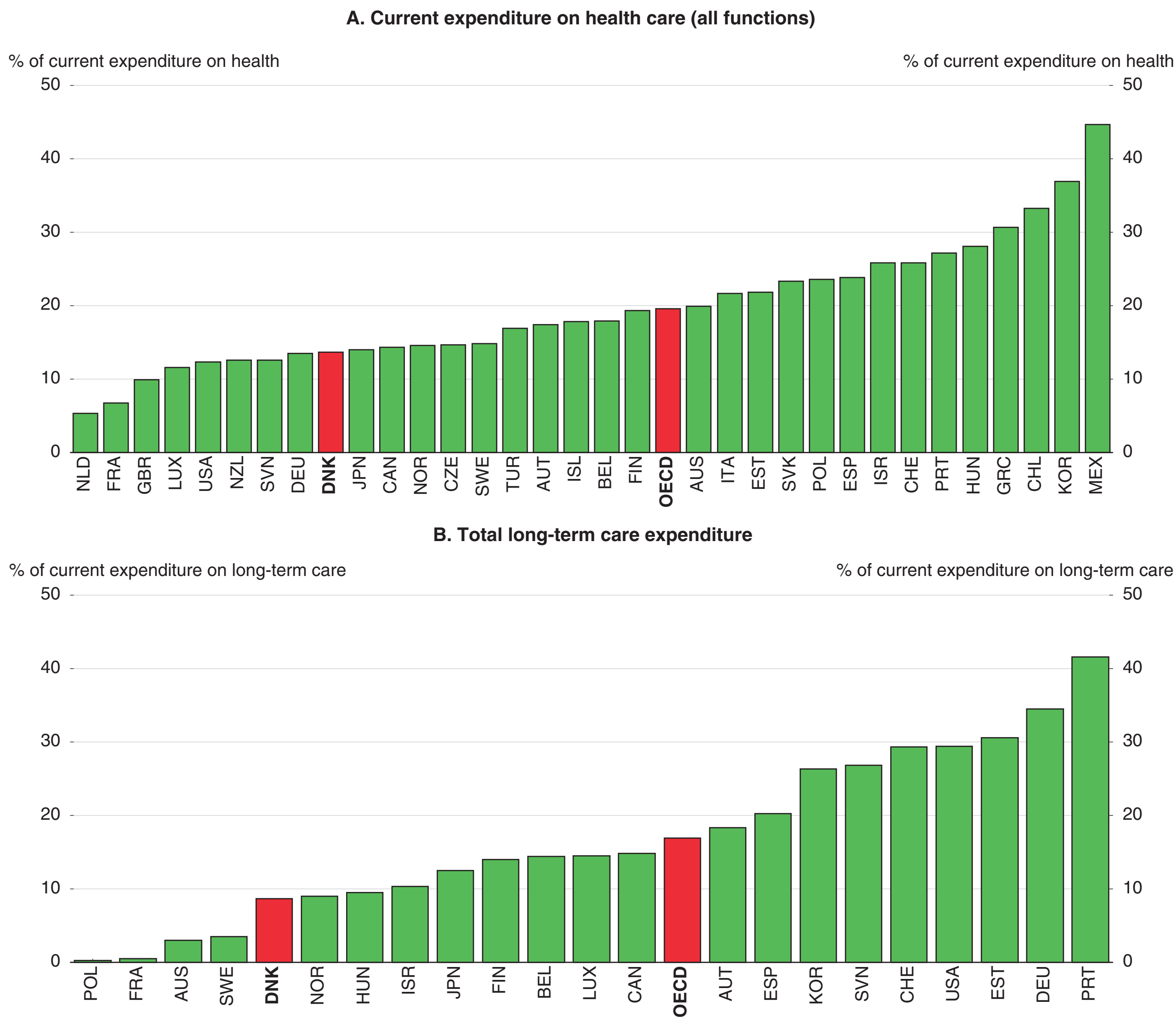


Source: OECD Health database.

StatLink http://dx.doi.org/10.1787/888933352699

Increasing private funding from the current low level would limit overreliance on tax-financed public budget for the provision of healthcare and LTC services. In Denmark, most of the healthcare is provided for free, except for in particular pharmaceuticals, dental services and glasses. As a result, out-of-pocket payments (OPP) account for around 13.7% of total health spending (vs 19.6% on average in the OECD, Figure 2.18, Panel A). Extending co-payments would limit demand without adverse effect on access to medical services and thereby on health status if kept at relatively low levels. Excluding high value health care and introducing a ceiling on OPP can limit the negative impact of cost-sharing on health outcomes on the poorest or the sickest (Pisu, 2014).

Figure 2.18. **Co-payments are quite low in the healthcare and the long-term care sectors**
Out-of-pocket expenditure on health and long-term care in 2013 or latest year available



Source: OECD Health database.

StatLink http://dx.doi.org/10.1787/888933352708

In the LTC sector, municipalities have the legal obligation to offer a range of services to elderly in need. They have the freedom to make the decisions about the amount and type of services, based on concrete assessment of each individual case (European Commission, 2011). Some rationing of care is already in place, and since January 2015 municipalities are obliged to offer an individual rehabilitation and training to make the elderly more self-sufficient, before granting home care. This is both aimed at promoting independence and quality of life, and to limit the strain on municipal budgets from an aging population.

Home care services are provided for free and municipalities have only a limited freedom to charge for home help and non-health related expenses. As a result, OPP payments account for 8.6% of total spending on long-term care, 8 percentage points less than on average in the OECD (Figure 2.18, Panel B). Consideration should be given to the role OPPs could play in increasing well-being for patients with LTC needs. At the same time, national eligibility criteria for different types of home care should be elaborated, to ensure that the elderly get a comparable level of services across municipalities.

Recommendations to sustain effective social institutions

Making work more attractive for benefit recipients

Key recommendations

- Reduce the effective taxation of returning to work by reforming benefits in order to make work pay. Allocate a permanent disability pension only to those with permanent incapacity to work regardless of age.
- Improve the quality and the implementation of integration programmes for migrants.
- Monitor work requirements for social assistance recipients.

Other recommendations

- Review existing exceptions, and reassess eligibility to disability benefits on a regular basis.
- Assess the lifetime pattern of benefit recipients and the costs of their inactivity.
- Promote diversity in firms with information campaigns, audits on management policies, programmes for early identification and prevention of work-related health issues.

Addressing expenditure pressure in social institutions

Key recommendations

- Eliminate disincentives and barriers to work at older ages originating from public and occupational pension design.
- Use autonomy of local governments better for drawing lessons from the diversity of approaches in providing social services, which should also strengthen accountability for outcomes. Integrate welfare, prevention and rehabilitation services to improve provision of public services.
- Make general practitioners more responsible for continuity of care.
- Encourage the private supply of welfare services to offer more choice while at the same time reaping efficiency gains.

Other recommendations

- Implement initiatives to increase the pension savings among individuals not covered by occupational pensions.
- Support competition on welfare services, notably by revising exemptions to the Competition Act in the public sector and relaxing regulation in the pharmaceutical sector.
- Improve employability of older workers and develop initiatives to adapt working environment to an ageing work force.
- Consider diversifying funding sources of healthcare and long-term care by raising co-payments, mean-testing public support for home care, and expanding “sin taxes”.

Bibliography

Andersen, L., H. Hansen, M. Schultz-Nielsen et al. (2012), "Starthjælpens betydning for flygtninges levevilkår og beskæftigelse", *Working paper* No. 25, The Rockwool Foundation Research Unit.

Blom-Hansen, J., K. Houlberg and S. Serritzlew (2016), "Elusive Scale Effects: Jurisdiction Size and the Costs of Providing Public Services", *forthcoming.*

Brønnum-Hansen, H. and M. Baadsgaard (2008), "Increase in Social Inequality in Health Expectancy in Denmark", *Scandinavian Journal of Public Health*, No. 36, pp. 44-51.

Causa,O. and S. Jean (2007), "Integration of Immigrants in OECD Countries: Do Policies Matter?", *OECD Economics Department Working Papers*, No. 564, OECD Publishing, Paris, *http://dx.doi.org/10.1787/162367775052*.

Causa O. et al. (2016), "Inequality in Denmark through the Looking Glass", *OECD Economics Department Working Papers*, *forthcoming.*

Chetty, R. et al. (2014), "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark", *The Quarterly Journal of Economics*, Vol. 129 (3), pp. 1141-1219.

Clausen, J. et al. (2009), "The Effect of Integration Policies on the Time Until Regular Employment of Newly Arrived Immigrants: Evidence from Denmark", *Labour Economics*, Vol. 16, Issue 4.

Dagpengekommissionen (2015), "Frivillig eller obligatorisk forsikring mod ledighed", *Working Paper*, October.

Dansk Arbejdsgiverforening (2015), "Work Life, Safety and Health", *Labour Market Report 2014*.

Danish Economic Council (2014), "Effekter af en toårig dagpengeperiode på beskæftigelse og ledighed: En foreløbig evaluering af dagpengereformen", *De Økonomiske Råds Arbejdspapir*, N° 2014:03.

Danish Economic Council (2015a), "Dansk Økonomi, efterår 2015", *English Summary*, Autumn

Danish Economic Council (2015b), "Dansk Økonomi, forår 2015", *English Summary*, Spring.

Danish Ministry of Finance (2015), "National Reform Programme 2015", March.

Diop-Christensen, A. (2015), "Is 'Making Work Pay' Effective for the 'Unemployable'? The Impact of Benefit Sanctions on Social Assistance Recipients in Denmark", *Journal of European Social Policy*, Vol. 25(2), pp. 210-224

De la Maisonneuve, C. and J. Oliveira-Martins (2013), "A Projection Method for Public Health and Long-Term Care Expenditures", *OECD Economics Department Working Papers*, No. 1048, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k44v53w5w47-en*.

Edin, P.-A., P. Fredriksson and O. Aslund (2004), "Settlement Policies and the Economic Success of Immigrants", *Journal of Population Economics*, Vol. 17(1), pp. 133-155.

Ellins, J. et al. (2014), "International Responses to Austerity", *Evidence Scan No. 22*, Health Foundation, Birmingham.

European Commission (2015a), "The 2015 Ageing Report: Economic and Budgetary Projections for the 28 EU Member States (2013-60)", *European Economy 3*, May 2015, Brussels.

European Commission (2015b), "Contingent Liabilities", Brussels.

European Commission (2014), "Identifying fiscal sustainability challenges in the areas of pension, health care and long-term care policies", *European Economy, Occasional Papers 201*, October.

European Commission (2011), "Closing the gap – between expanding care needs and limited resources", *European Economy, Peer review*, October.

Gerdes, C. and E. Wadensjö (2006), "Immigration and the Welfare State: Some Danish Experiences", *AMID Working Paper Series*, No. 60/2006.

Halvorsen, B. and J. Tägtström, (2013), "Det dreier seg om helse og arbeidsglede: Om seniorer, arbeid og pensjonering i Norden", Nordic Council of Ministers, Copenhagen.

Hansen J., S. Hougaard Jensen and P. Stephensen (2015), "Occupational Pensions, Aggregate Saving and Fiscal Sustainability in Denmark", PeRCent's First Annual Conference, "Taking the Danish Pension System to the Next Stage", held at Copenhagen Business School, June 16.

Hansen M., M. Schultz-Nielsen and T. Tranæs (2015), "The Impact of Immigrants on Public Finances: A Forecast Analysis for Denmark", *IZA Discussion Paper*, No. 884, February.

Heijink R. et al. (2015), “Comparative Efficiency of Health Systems, corrected for Selected Lifestyle Factors”, Funded by the European Commission and carried out by the Dutch National Institute for Public Health and the Environment (RIVM).

Heinesen, E., L. Husted and M. Rosholm (2011), “The Effects of Active Labour Market Policies for Immigrants Receiving Social Assistance in Denmark”, *IZA Discussion Papers*, No. 5632.

Hinte, H. and K. Zimmermann (2014), “Does the Calculation Hold? The Fiscal Balance of Migration to Denmark and Germany,” *IZA Policy Paper*, No. 87.

Holstein, M. (2014), “Regionernes udbud af MR-Scanninger”, CEPOS, Copenhagen.

Hostenkamp, G. (2012), “The Market for Hospital Medicine in Denmark”, *Nordic Journal of Health Economics*, Vol. 1(1), pp. 57-71.

Huefner F.and C. Klein (2012), “The German Labour Market: Preparing for the Future”, *OECD Economics Department Working Papers*, No. 983, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k92sn01tzzv-en*.

Immervoll, H. (2012), “Reforming the Benefit System to ’Make Work Pay’: Options and Priorities in a Weak Labour Market”, *IZA Policy Paper*, No. 50.

Immervoll, H., S. Jenkins and S. Königs (2015), “Are Recipients of Social Assistance ‘Benefit Dependent’? Concepts, Measurement and Results for Selected Countries” *OECD Social, Employment and Migration Working Paper*, No. 162, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jxrcmgpc6mn-en*.

Jamet, S. and V. Koen (2014), “Making the Most of Skills in Denmark”, *OECD Economics Department Working Papers*, No. 1119, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz2qt4crff8-en*.

Järvholm B. et al. (2014), “Heavy Work and Disability Pension – A LongTerm FollowUp of Swedish Construction Workers”, *Scand J Work Environ Health*, Vol. 40(4), pp. 331-333.

Johansson A. et al. (2013), “Long-Term Growth Scenarios”, *OECD Economics Department Working Papers*, No. 1000, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k4ddxpr2fmr-en*.

Kvist, J. (2014), “Pensions, Health and Long-Term Care, update 2014, Denmark”, *ASISP Country Document*, European Commission, March.

Langenbucher, K. (2015), “How Demanding are Eligibility Criteria for Unemployment Benefits, Quantitative Indicators for OECD and EU Countries”, *OECD Social, Employment and Migration Working Papers*, No. 166, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jrxtk1zw8f2-en*.

Liebig, T. (2007), “The Labour Market Integration of Immigrants in Denmark”, *OECD Social, Employment and Migration Working Papers*, No. 50, OECD Publishing, Paris, *http://dx.doi.org/10.1787/233783261534*.

Medeiros, J. and C. Schwierz (2015), “Efficiency Estimates of Health Care Systems”, European Commission, *Economic Papers,* No. 549, June.

Mercer (2015), *Melbourne Mercer Global Pension Index*, Australian Centre for Financial Studies, Melbourne.

National Audit Office (2014), “Report to the Public Accounts Committee on the Financing of Unemployment Benefits for Insured Unemployed People”, *English summary,* Rigsrevisionen.

National Audit Office (2015), “Report on the Integration Effort”, *English Summary*, Rigsrevisionen.

OECD (2015a), *Government at a Glance*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/gov_glance-2015-en*.

OECD (2015b), *Ageing and Employment Policies, Denmark*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264235335-en*.

OECD (2015c), *Fiscal sustainability of health systems,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264233386-en*.

OECD (2015d), *In-depth review of the competition law and policy in Denmark,* OECD Publishing.

OECD (2015e), *Pensions at a Glance 2015: OECD and G20 indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/pension_glance-2015-en*.

OECD (2014a), *OECD Economic Surveys: Germany 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-deu-2014-en*.

OECD (2014b), “Labour Market Integration of Immigrants and Their Children: Developing, Activating and Using Skills”, in *International Migration Outlook 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/migr_outlook-2014-5-en*.

OECD (2014c), *OECD Economic Surveys: Denmark 2013*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_surveys-deu-2014-en*.

OECD (2014d), "Integrating the Delivery of Social Services for Vulnerable Groups, Bridging Sectors for Better Service Delivery", OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264233775-en*.

OECD (2013a), "The Fiscal Impact of Immigration in OECD Countries", in *International Migration Outlook 2013,* OECD publishing, Paris, *http://dx.doi.org/10.1787/migr_outlook-2013-6-en*.

OECD (2013b), "OECD Reviews on Health Care Quality: Denmark", OECD Publishing.

OECD (2013c), "Public Spending on Health and Long-Term Care: A New Set of Projections", OECD Publishing.

OECD (2013d), "Mental Health and Work: Denmark", OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264191136-en*.

Olejaz M. et al. (2012), "Denmark: Health system review", *Health Systems in Transition,* Vol. 14(2), pp. 1-192.

Pareliussen, J. K. (2014), "Overcoming Vulnerability of Unemployment Insurance Schemes", *OECD Economics Department Working Papers*, No. 1131, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz1592jj48r-en*.

Parsons, D., T. Tranæs and H. B. Lilleør (2015), "Voluntary Public Unemployment Insurance", *IZA Discussion Paper*, No. 8783.

Pedersen, E. and J. Riishøj (2008), "Growth, Public Finances and Immigration", *Danmarks Nationalbank Monetary Review*, 3rd quarter 2008, pp. 119-129.

Pedersen, P. (2013), "Immigration and Welfare State Cash Benefits: The Danish Case", *International Journal of Manpower*, Vol. 34, No. 2, pp. 113-125.

Petersen, O. and U. Hjelmar (2014), "Marketization of Welfare Services in Scandinavia: A Review of Swedish and Danish Experiences", *Scandinavian Journal of Public Administration*, Vol. 17(4), pp. 3-20.

Pisu, M. (2014), "Overcoming Vulnerability of Health Care Systems", *OECD Economics Department Working Papers*, No. 1132, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz159228n6j-en*.

Rosholm, M. and R. Vejlin (2010), "Reducing Income Transfers to Refugee Immigrants: Does Start-Help Help You Start?", *Labour Economics*, No. 17, pp. 258-275.

Sassi, F., A. Belloni and C. Capobianco (2013), "The Role of Fiscal Policies in Health Promotion", *OECD Health Working Papers*, No. 66, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3twr94kvzx-en*.

Schou, P. (2006), "Immigration,Iintegration and Fiscal Sustainability", *Journal of Population Economics*, Vol. 19, pp. 671-689.

Sørensen P. (2015), "Reforming Public Service Provision: What Have We Learned?", *EPRU Working Paper Series*, No. 2015-01.

Sow, M. and I. Razafimahefa (2015), "Fiscal Decentralization and the Efficiency of Public Service Delivery", *IMF Working Paper*, No. 15/59, International Monetary Fund.

Taylor Fry (2013), "MSD Actuarial Valuation of the Benefit System for Working-Aage Adults", Ministry of Social Development and the Treasury, New Zealand.

Vammalle, C., R. Ahrend and C. Hulbert (2014), "A Subnational Perspective on Financing Investment for Growth II – Creating Fiscal Space for Public Investment: The role of Institutions", *OECD Regional Development Working Papers*, 2014/06, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jz3zvxc53bt-en*.

Wadensjö, E. (2000), "Immigration, the Labour Market, and Public Finances in Denmark", *Swedish Economic Policy Review*, Vol. 7, pp. 59-83.

Wadensjö, E. (2007), "Immigration and Net Transfers Within the Public Sector in Denmark", *European Journal of Political Economy*, Vol. 23, pp. 472-485.

Wittrup, J. et al. (2013), "Kommunale serviceniveauer og produktivitet," KORA.

Wubulihasimu P., W. Brouwer and P.van Baal (2015), "Does Living Longer in Good Health Facilitate Longer Working Lives? The Relationship Between Disability and Wworking Lives", *European Journal of Public Health*, 1-5.

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Volume 2016/11
May 2016

ISSN 0376-6438
2016 SUBSCRIPTION
(18 ISSUES)

ISBN 978-92-64-25610-1
10 2016 11 1 P

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