

1. Summary

1.1 The current economic outlook

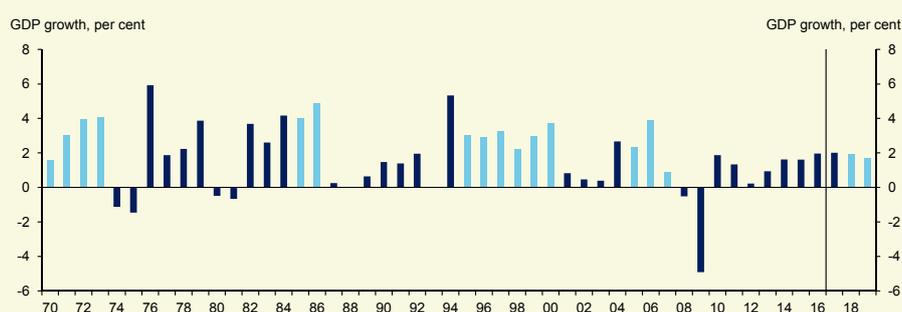
The Danish economy is experiencing high and increasing employment and stable economic growth. In 2016 GDP growth reached the highest level in 10 years, and is expected to remain high this year. GDP is estimated at 2.0 per cent this year, 1.9 per cent in 2018, and 1.7 per cent in 2019, *cf. figure 1.1*. This will bring the Danish Economy into an economic boom.

The prospects for continued economic growth are good. Households are in a position to increase consumption further, investment activity is on the rise, and economic growth in main trading partners supports export opportunities of companies. At the same time, economic reforms are adding to the supply of labour in the coming years. Nevertheless, the business cycle upturn is dependent on an adequate increase in labour supply.

A boom phase in the business cycle can last several years, if developments do not lead to overheating or significant imbalances, e.g. unsustainable increases in indebtedness or rapidly increasing housing prices. The present forecast assumes that capacity pressures will continue to build in the coming years, and increasing capacity utilisation will limit growth somewhat.

Capacity pressures have already been building, but at present there are no signs of mounting imbalances like in the mid-1980's and the 2000's. The experience from these earlier episodes of economic overheating, however, suggests that pressures can appear quite rapidly.

Figure 1.1
The Danish economy is entering an economic boom phase



Note: The light blue bars depict economic booms, which are defined as periods where the output gap is positive and increasing.

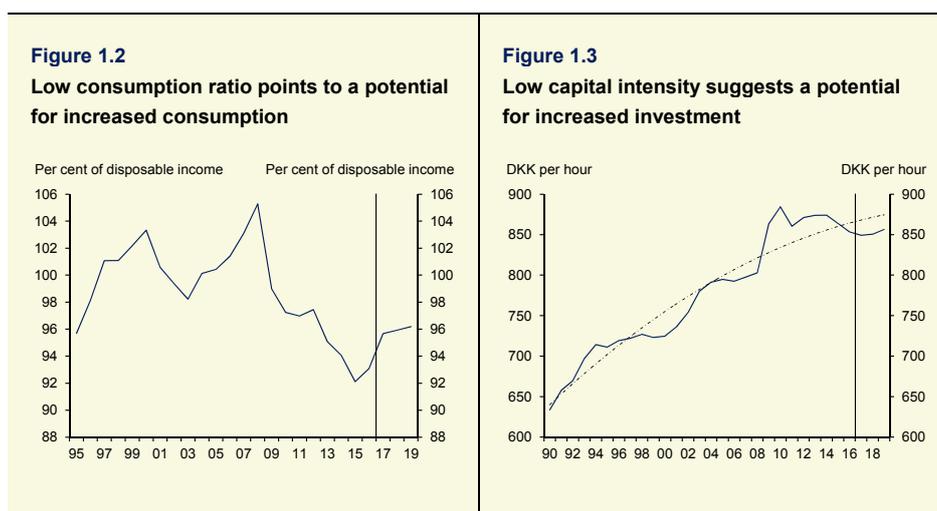
Source: Statistics Denmark and own calculations.

Demand growth is broadly based

Growth in the Danish economy is broadly based, with positive contributions from private consumption, investment and exports.

In particular, the basis for solid growth in private consumption is due to recent years' employment gains, which contribute to rising household incomes. This development is expected to continue in the coming years. Furthermore, private consumption is supported, in 2018, by the opportunity for reimbursements of voluntary early retirement contributions and, in 2019, by the refund of excessive property tax payments. In addition, lower excise taxes will also boost household purchasing power in the forecast years.

The potential for additional growth in private consumption should also be seen in light of the continued low ratio of private consumption to disposable income, *cf. figure 1.2*. This adds to the opportunity for further consumption growth without necessarily taking on debt. Also, the considerable increase in household wealth in recent years, could, with some delay, lead to increased consumption.



Note: Figure 1.3 shows capital intensity measured as the stock of capital per hour worked.
Source: Statistics Denmark and own calculations.

Investment activity has also risen in recent years. In part, this is due to rising capacity utilisation and subsequent need for investments in new equipment, building and other forms of capital, which is used for production purposes.

Furthermore, the ratio of capital to labour has fallen, despite solid investment growth. This is due to the increase in employment, which has led to a higher degree of utilisation of the stock of capital, *cf. figure 1.3*. Capital intensity will usually grow over time, because companies can increase productivity by making more and higher quality equipment and structures available to their employees. The recent development therefore point towards a potential for higher investment growth. This will influence GDP directly, through increased demand, but also have an indirect effect on structural GDP through higher productivity.

The projected increase in investment in the private sector is also due to an expectation of increased foreign demand. Danish companies appear competitive and have good prospects for increasing exports. The global business cycle conditions are the best in many years, and most parts of the global economy are experiencing solid growth. In 2017, growth on the largest export markets is expected to reach highest level since 2010, *cf. figure 1.4*.



Note: The projections for 2017, 2018 and 2019 are based on OECD's November forecast. Trade weighted GDP growth is calculated by weighing GDP-growth in the 29 most important Danish trading partners by their share of Danish exports.

Source: *OECD Economic Outlook 102*, November 2017 and own calculations.

Growth on Danish export markets is expected to remain high over the forecast horizon, but should diminish somewhat. In parallel, export growth is also expected to decline slightly.

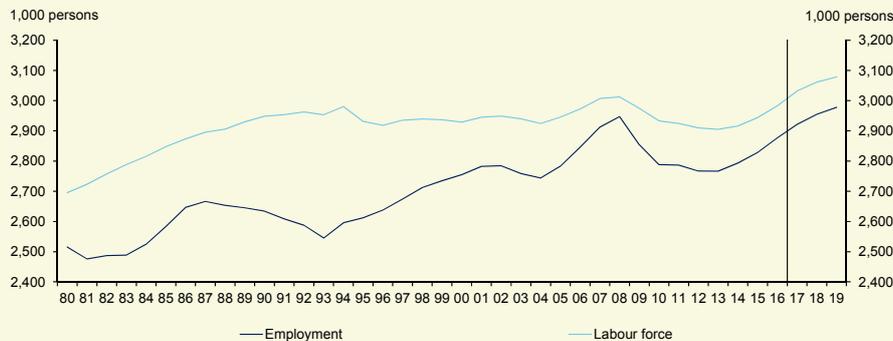
In aggregate, the developments in domestic demand and exports point toward slightly lower GDP growth in 2019 compared to 2017.

Rapid employment gains

Job growth has continued at a high pace in 2017, and since the spring of 2013 employment has increased by more than 160,000 persons (approx. 5.5 per cent). Even though the pace is expected to wane, employment is projected to increase by a further 33,000 persons (1.0 per cent) in 2018 and 26,000 persons (0.6 per cent) in 2019. Already by next year employment is set to reach a historically high level, *cf. figure 1.5*.

Strong employment gains have brought unemployment down to a low level, and further decreases in unemployment will contribute to increase pressures in the labour market. Already, a growing number of companies are reporting labour shortages and difficulties in recruiting employees with the right skills.

Figure 1.5
Employment is on track to reach a historically high level

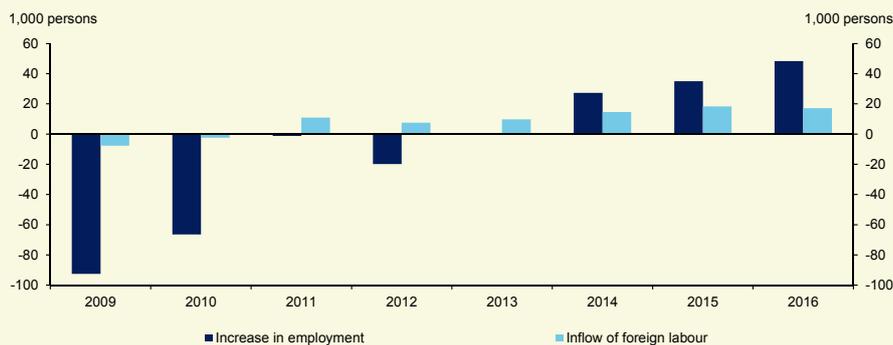


Note: Employment and the labour force are calculated including persons on leave.
 Source: Statistics Denmark and own calculations.

Sustainable employment gains in the coming years are to a large extent dependent on an increasing labour force. The labour force is already at a historically high level, and reforms are expected to add a further 31,000 persons (1.0 per cent) in 2017-2019. In 2019 the retirement age and voluntary early retirement pension age will be increased by 6 months. Those effects alone will add 8,000 persons to the labour force (0.3 per cent).

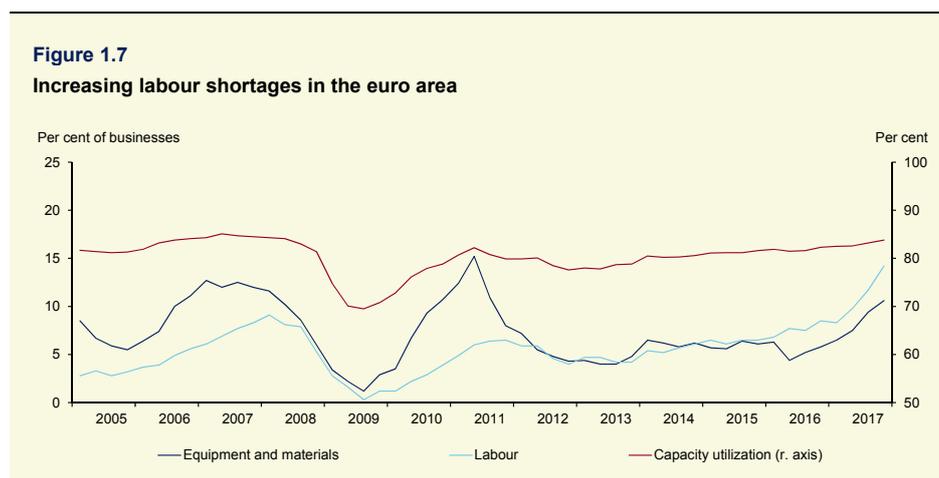
In addition, possible additions to the labour force may come from foreign citizens who find employment in Denmark. Foreign labour acts as a significant buffer over the business cycle, and has contributed with a large inflow to the labour force in recent years, cf. figure 1.6.

Figure 1.6
Foreign labour has contributed significantly to employment growth



Note: Foreign labour covers foreign citizens already residing in Denmark as well as newcomers.
 Source: Statistics Denmark, Jobindsats and own calculations.

However, in the future there is no guarantee that foreign workers will continue to move to Denmark in order to seek employment. The international competition for labour is already increasing. In the euro area reported labour shortages have reached a new historic high, *cf. figure 1.7.*



Note: The chart depicts the share of manufacturing companies in euro area who are reporting labour shortages as a limiting factor in production.

Source: DG ECFIN Business Survey.

If labour supply does not increase as expected; either because reforms effects are smaller than previously assumed, or because the inflow of foreign labour declines, pressures in the labour market will increase further, in the absence of further labour market reforms or initiatives to reduce demand.

The main task is keeping the Danish economy on track

The economic upturn in Denmark has brought GDP close to the structural level. This means that the economy is entering a boom phase in the business cycle, and the main task for economic policy in the short-run is to keep the upturn going and avoid overheating.

Not all economic booms result in overheating. The risk of a hard landing increases if GDP rises quickly to a level significantly above the structural level along with a build-up of other imbalances. Several factors point towards stable growth in the coming years.

Since the financial crisis, several initiatives have been implemented to strengthen financial sector robustness and improve housing market stability. Credit conditions are more restrictive than during the overheating in the 2000's and currently there are no indications of substantial credit-fuelled consumption growth. In addition, households and companies have consolidated their finances in recent years, *cf. section 1.3.*

Moreover, the framework for fiscal policy has been strengthened with the Budget Law, which took effect in the fiscal year 2014. Fiscal policy is planned with the aim of gradually reaching

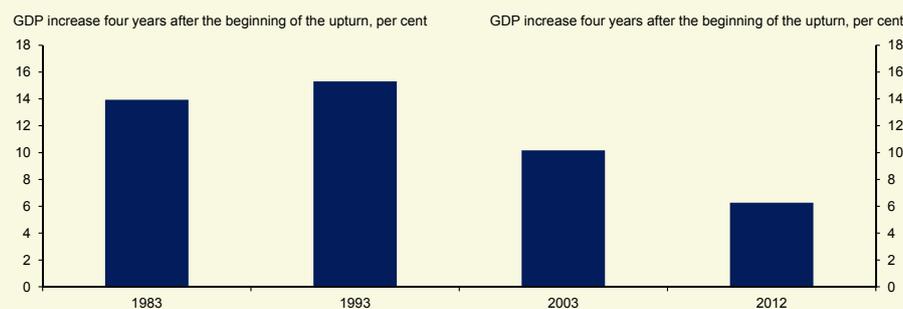
structural balance in the coming years. This implies a gradual tightening of fiscal policy, which will contribute to dampening capacity pressures in the Danish economy, *cf. section 1.2*.

Furthermore, several reforms have been implemented in order to increase labour supply, including through later retirement. In the coming years these reforms will contribute significantly to further employment gains. The new wage agreements, which cover large parts of the labour market for the years 2017 to 2020, are expected to provide some real wage gains without weakening wage competitiveness substantially.

Finally, GDP growth has been more moderate during the current business cycle upswing than during previous upturns, *cf. figure 1.8*. And GDP is not projected to move markedly above the structural level in the coming years. Hence, the forecast assumes that capacity pressures will increase further, but remain at a moderate level.

Figure 1.8

Growth has been more moderate during the current upturn than previous upturns



Note: The chart depicts the total increase in GDP four years after the upturn began. The beginning of an upturn is defined by a turn-around in the output gap.

Source: Statistics Denmark and own calculations.

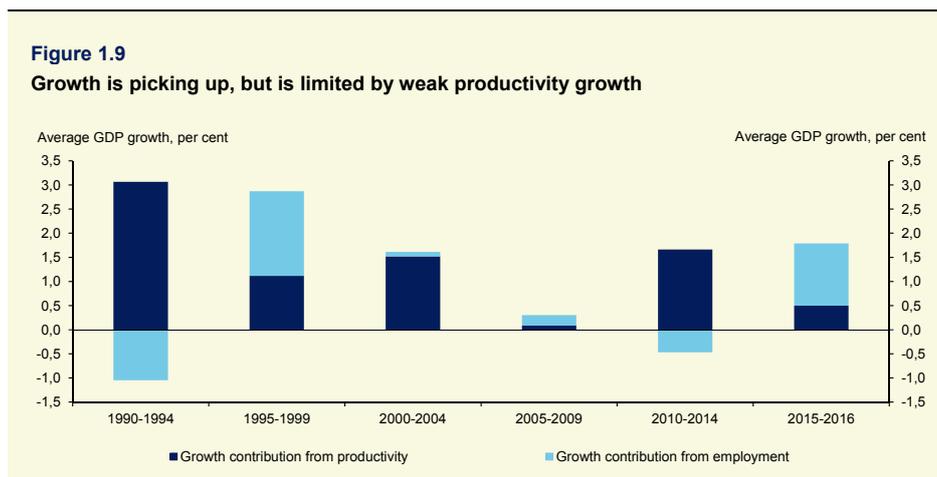
During any business cycle upturn there is inherently a risk of excessive growth *inter alia* due to overoptimistic expectations. This happened during the overheating of the Danish economy in 1986-1987 and in 2006-2007. In both episodes the end to the economic boom was swift. Overheating pressures and imbalances can quickly build up, and this risk calls for continued vigilance in the coming years.

Growth is limited by low productivity growth

GDP growth is likely to be lower in the current upswing than during previous economic booms. Growth will largely be driven by employment gains, whereas continued low productivity growth will limit the pace of growth.

Productivity growth has been low during the last two decades when seen in a historical perspective. There has been some increase in productivity since 2010, but in recent years productivity growth has waned. A similar experience with a large growth contribution from

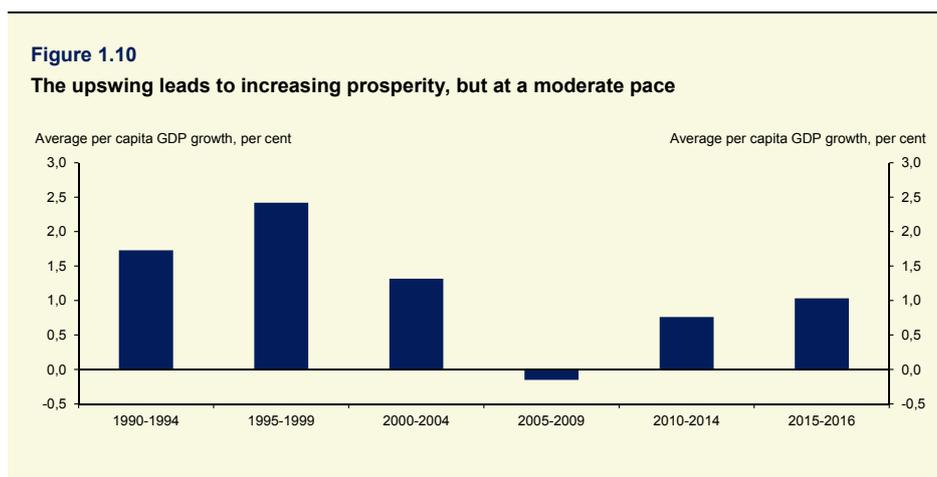
employment happened in the second part of the 1990's in connection with the implementation of a number of labour market reforms. However, at that time growth was also supported by productivity gains, as opposed to current developments. This resulted in an average annual GDP growth rate of around 3 per cent during the second half of the 1990's, 1 percentage point higher than GDP-growth since 2010, cf. figure 1.9.



Note: Growth contributions from productivity is measured residually, i.e. as the change in GDP, which is not explained by the change in employment as measured in hours worked.

Source: Statistics Denmark and own calculations.

The current weakness in productivity gains limits the increase in living standards in Denmark, and higher productivity growth is required in order to achieve the same increases in prosperity as in earlier decades. The current phase of economic growth in Denmark has only resulted in relatively moderate gains in GDP per capita, cf. figure 1.10.



Source: Statistics Denmark and own calculations.

Higher prosperity may also be reached through continued terms-of-trade gains and rising income on net foreign investments. But such gains are more difficult to promote through economic policy initiatives.

Risks are especially related to the labour market

There are both positive and negative risk factors relating to the growth forecast, and overall the risks appear to be balanced. The outlook is for stable growth in the Danish economy in the coming years, with no immediate signs of imbalances being built up. On that basis, Denmark is set to enter an economic boom phase, which can last several years supported by previous economic reforms.

However, several factors may lead to growth which is higher than what may be sustained by the underlying potential. In particular, households and companies have large savings surpluses, which can translate into increased consumption and investments and thereby higher demand growth.

Increasing demand may also lead to accelerating growth in housing prices. The extraordinarily low interest rates are already a risk factor that may cause housing prices to increase rapidly and reach unsustainable levels. This may especially be the case if a speculative element also occurs. Housing prices have a significant impact on the business cycle, among other things because rising housing prices can lead to increased building activity and loan-fuelled consumption growth due to increases in housing equity.

Stronger demand growth will also increase labour market pressures. If labour demand exceeds labour supply, there is a risk that labour shortages and rising wage pressures will eventually limit economic growth. In the worst case the Danish economy may overheat, especially if other imbalances occur simultaneously with accelerating price- and wage increases. Imbalances can e.g. take the form of unsustainable debt increases and excessive deterioration in wage competitiveness.

Risks from global economic developments relate especially to the uncertainty surrounding the impact of Brexit. The ongoing negotiations are expected to result in Britain leaving the EU in 2019, but the long-term economic consequences will only gradually materialize over a number of years and will depend on the result of the negotiations and new trade agreements. Effects from Brexit have not been incorporated in the present forecast.

In addition, there continues to be a number of other risk factor in the global economy, including economic policy in the United States, geopolitical tensions and the risk of a hard landing in the Chinese economy. Finally, there continues to be uncertainty surrounding the normalisation of monetary policy over the coming years.

On the other hand, international growth has strengthened and in many countries growth is stronger than previously expected. In particular, the economic momentum in the EU has strengthened, and there is a potential for stronger growth. If this happens the export opportunities for Danish companies will improve while at the same time increasing demand pressures in Denmark.

Box 1.1**Data underlying the forecast and changes since the august forecast**

The forecast is based on national accounts data, which are available for the third quarter of 2017 as well as a number of indicators, which cover parts of the fourth quarter. Calculations for the current forecast were finalized on December 13, 2017.

The growth projections for 2017 and 2018 are roughly unchanged compared with the August 2017 *Economic Survey*. For 2017 growth contributions are somewhat different, as domestic demand growth in the second half of 2017 appears weaker than expected. Private consumption growth is affected by a drop in household vehicle purchases while a lower registration fee was being negotiated during September. This led to a drop in private consumption in the third quarter. On the other hand, stronger international economic growth has led to higher-than-expected growth in manufacturing exports. For 2018 there are only minor adjustments to the forecast compared with the august survey.

The pace of employment growth continues to be high. On that basis employment growth is projected to be somewhat higher in 2018 than previously projected and unemployment is also expected to decline somewhat more. Employment has risen above the structural level, and the positive employment gap is estimated to be higher than previously projected. Similarly, the output gap has been adjusted upwards.

Since the August *Economic Survey* Statistics Denmark has revised GDP growth in 2016 up by 0.3 percentage points to 2.0 per cent. The revision has not given rise to a different assessment of economic developments in 2017 or to changes in the forecast.

1.2 Fiscal policy and public finances

The current outlook for the Danish economy with continued progress means that both production and employment are expected to exceed the structural levels in 2018 and 2019, cf. *table 1.1*. In such a situation it is appropriate that the fiscal and structural policy contribute to dampen capacity pressures in the economy to counteract risks of overheating.

The targets of the fiscal policy for the coming years involve a gradual consolidation towards structural balance on the public budgets. Reforms in recent years raises labour supply and contribute to create room for continued employment growth in the coming years. The fiscal and structural policies thereby contribute to dampen risks of overheating and to maintain a balanced upswing.

Table 1.1
Main components of the projection relating to fiscal policy

	2017	2018	2019
Structural balance, per cent of structural GDP	-0.2	-0.3	-0.2
Actual fiscal balance, per cent of GDP	0.0	-0.8	-0.6
EMU debt, per cent of GDP	36.0	35.4	34.6
Growth in public consumption, per cent ¹⁾	0.5	1.0	0.3 ¹⁾
One-year fiscal effect, per cent of GDP ²⁾	-0.2	0.0 ²⁾	-0.2
Output gap, per cent. ³⁾	-0.2	0.4	0.7
Employment gap, 1,000 persons ³⁾	1	14	20

- 1) The Government prioritise an annual basic real growth in public consumption expenditures of 0.3 per cent in the years 2019-2025. The remaining fiscal room in 2019 is technically placed in a reserve to other priorities.
- 2) Calculated measure of how fiscal and structural policy affects the capacity pressure (the output gap). The public consumption expenditures of 2018 are assumed to correspond to budgets. The public consumption expenditures of 2017 are estimated to be approx. DKK 3.2 bn. below budget. This difference increases the one-year fiscal effect in 2018 by almost 0.2 per cent of GDP.
- 3) Calculated measure of how far production and employment are from structural levels. When gaps are approx. zero it corresponds to a situation where there are no available resources in the economy in a normal situation.

Source: Statistics Denmark and own calculations.

With the budget bill for 2018 and the agreements with the municipalities and regions the structural deficit is estimated to be 0.3 per cent of GDP. The deficit is estimated to be reduced to 0.2 per cent of GDP by 2019. The structural deficits for 2018 and 2019 are unchanged compared to the August projections. The deficits are thereby aligned with the planned consolidation of the fiscal policy and the Government's lines of sight for the structural budget balance of the 2025 plan.

During the fall, the Government has reached agreements on, among other things, lower registration taxes on cars and a range of initiatives targeted at strengthening the business sector. The agreements contribute to make it more beneficial to buy safer cars and to improve framework conditions for businesses, *cf. box 1.2.*

Box 1.2**Agreements on restructuring of car taxes and business initiatives**

With the *Agreement on a restructuring of car taxes*, September 2017, the Government and the Danish People's Party decided to restructure car taxes to reduce car registration taxes on primarily common family cars. This means, among other things, an increased incentive to buy safer cars that uses the latest environmental friendly technology. In total the restructuring amounts to a tax reduction of DKK 0.7 bn. in 2018 and DKK 0.6 bn. in 2019. The agreement is fully financed from parts of the reserve from the first phase of the Jobreform, the reserve of DKK ½ bn. allocated to the second phase of the Jobreform on the budget bill proposal for 2018 and from periodic road taxes.

With the *Agreement on business initiatives*, November 2017, a range of taxes are removed or reduced with the aim to strengthen shareholder culture, reduce cross-border trading and to reduce burdens for businesses. In addition hereto comes initiatives targeted rural activities, digitalisation and Danish businesses' international competitiveness. The agreement includes more than 35 initiatives, to which there is allocated DKK 0.7 bn. in 2018, DKK 1.6 bn. in 2019 and approx. DKK 2.2 bn. in 2023, when the agreement is fully phased in. The agreement is among other things financed through a simplified controlling of employment measures and a streamlining of DSB. In addition hereto comes a contribution from the fiscal room within the framework of the medium term fiscal targets towards 2025.

With an outset in the Government's proposed second phase of the Jobreform *How we prolong the upswing* there is currently ongoing negotiations on a tax reform. In Economic Survey, December 2017, it is technically presumed that the remaining reserve from the first phase of the Jobreform for income tax reductions and from the reserve from the *Agreement on more year on the labour market*, June 2017, to deal with the pension interaction problem, as well as the pool for municipally-tax reductions are allocated to lower personal income taxes.

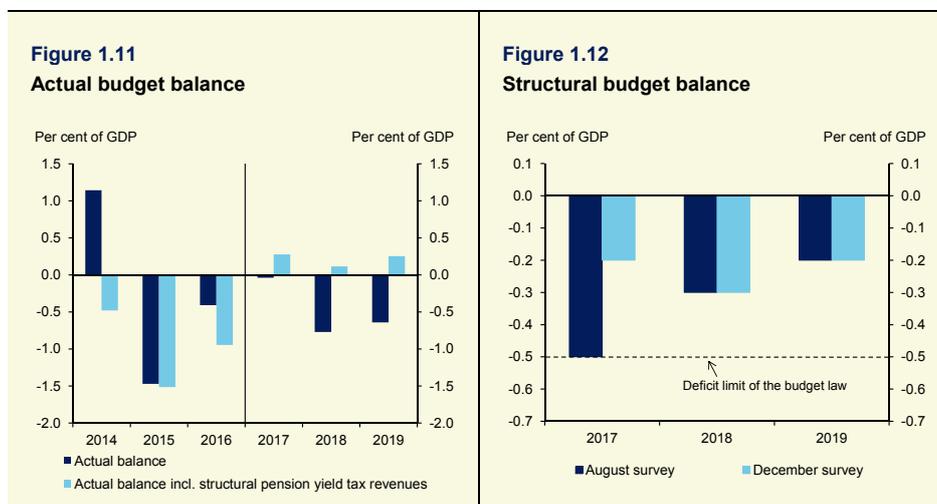
Source: *Agreement on a restructuring of car taxes* (September 2017) and *Agreement on business initiatives* (November 2017).

Fiscal policy of 2019 will be put forward during 2018 with, among other things, the agreements with the municipalities and the regions and the budget bill for 2019.

Outlook for the public finances towards 2019

The higher pace in the Danish economy implies that more people are employed, fewer people are on public income benefits and businesses are increasing production. Therefore, the improved cyclical position of the Danish economy means higher revenues from income taxes, VATs etc. and lower expenditures to public income transfers. The actual budget balance is therefore substantially improved compared to the August projections. The actual budget balance is estimated to be balanced in 2017.

The actual budget balance is also affected by temporary variations in revenues from the volatile pension yield tax. In 2018 and 2019 the actual budget deficits are estimated to 0.8 per cent of GDP and 0.6 per cent of GDP respectively. When corrected for the large variations in pension yield tax revenues, the budget balance is estimated to show small business cycle dependent surpluses in 2017-2019, cf. *figure 1.11*.



Source: Statistics Denmark and own calculations.

When calculating the structural budget balance, the actual budget balance is corrected for variations, which are considered to be dependent on business cycles, and other temporary conditions including the large variations in the pension yield tax revenue. The structural budget balance can thus be interpreted as the underlying position of the public finances and the presumed fiscal policy.

The estimated structural deficit in 2017 is revised downwards compared to the August projections. This is among other things due to lower expected public consumption expenditures in the state sector, which is also influencing the real growth in 2018, *cf. box 1.3*. Further, the expenditures to primarily public pensions are estimated to be lower than earlier expected. The structural budget deficit in 2017 is thus now estimated to be 0.2 per cent of GDP compared to 0.5 per cent of GDP in the August survey, *cf. figure 1.12*. The estimate for 2018 is a deficit of 0.3 per cent of GDP in line with the August projection. Similarly, the estimated structural deficit for 2019 is unchanged on 0.2 per cent of GDP compared to the medium term projection from August.

The Government is planning the medium termed fiscal policy with a target of a structural deficit of 0.1 per cent of GDP in 2020 and a target of structural balance in 2025. The targets for fiscal policy thereby include a gradual fiscal consolidation, which contributes to a dampening of capacity pressures in the Danish economy.

The public EMU debt is estimated to amount to approx. 35 per cent of GDP in 2017-2019 and thus keeps a broad margin of safety to the 60 per cent limit of the Stability and Growth Pact.

Box 1.3**Revision and the real public consumption growth in 2018**

The estimated real public consumption growth in 2018 is revised up by 0.5 percentage points to 1.0 per cent compared to the August projections.

The higher estimated real public consumption growth in 2018 can to a large extent be viewed in light of the public consumption level in 2017, which is estimated to be lower than earlier expected, due to lower than expected public consumption in the state sector. The lower estimated public consumption expenditures in 2017 implies in itself that the real growth rate in 2018 is increased by approx. 0.4 percentage points, *cf. table a.*

The estimated public consumption expenditures in 2018 are based on the public budgets for 2018, including the budget bill and the budgets of the municipalities and regions. The budget bill of 2018 has an isolated effect on the real public consumption growth in 2018 of approx. 0.1 percentage points.

The estimated public consumption growth in 2018 can be adjusted as new information and data on the expenditure levels of 2017 and 2018 become available.

Table a**Public consumption growth in 2018**

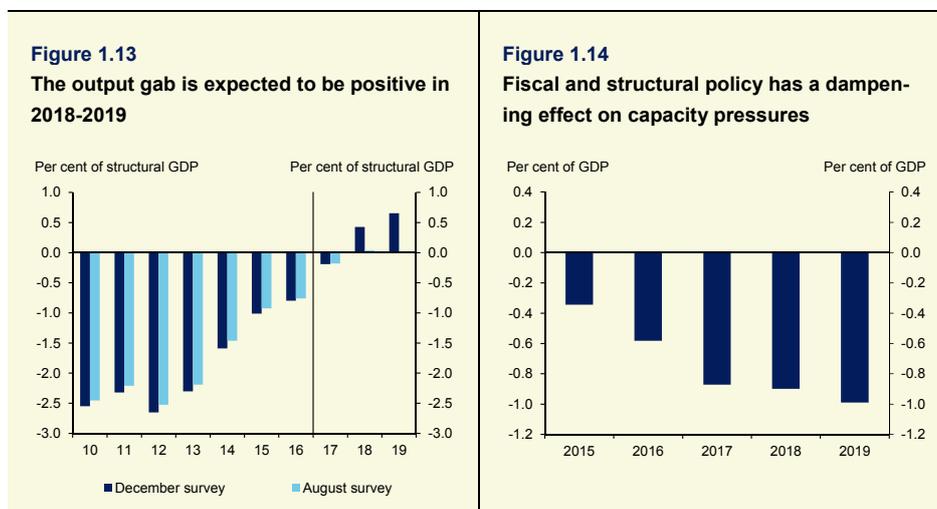
Per cent	2018
Public consumption growth in 2018 in Economic Survey, August 2017	0.5
<i>Adjustment due to adjusted estimate of the 2017 level (percentage points)</i>	<i>+0.4</i>
<i>Other adjustments due to the budget bill for 2018 etc. (percentage points)</i>	<i>+0.1</i>
Economic Survey, December 2017	1.0

Source: Statistics Denmark and own calculations.

The fiscal policy is in sync with the upswing in the Danish economy

A key priority in economic policy in the coming years is to maintain the progress in GDP and employment without risking an overheating of the economy that can end in a prolonged set back in the Danish economy, such as the set back in the years after the financial crisis. The need for a fiscal and structural policy setup, which can contribute in stabilising the business cycles, should among other things be seen in light of the expected continuing of a very re-missive monetary policy in the euro area and thus in Denmark.

With the expected positive output gaps in 2018-2019, it is important that economic policy contributes to dampen capacity pressures, *cf. figure 1.13*. The so-called fiscal effect show that the fiscal and structural policy since 2014 in total has had a dampening effect on capacity pressures during the upswing, *cf. figure 1.14*.



Note: Figure 1.4 shows the multi-annual fiscal policy effect on capacity pressures (measured by the output gap) of changes in fiscal policy since 2014.

Source: Statistics Denmark and own calculations.

In the coming years fiscal and structural policy are expected to further dampen capacity pressures. In 2018, however, the fiscal effect is affected by the one-time tax-free payments of early retirement contributions (following the *Agreement on more years on the labour market*, June 2017) and the assumed allocation of reserves devoted with the first phase of the Jobreform and *Agreement on more years on the labour market*. These factors will counteract the fiscal tightening, which is reflected in a neutral fiscal effect in 2018, cf. table 1.2. In addition hereto the payback of property taxes as a consequence of the transition to the new real estate valuation system (following the *Agreement on housing taxation*, May 2017) in 2019 and 2020. In total, the one-off payments amounts to approx. DKK 5 bn. in 2018 and approx. DKK 9 bn. in 2019. The dampening effect from the fiscal and structural policies is expected to continue in 2019.

Table 1.2
Fiscal and structural policies effects on capacity pressures

	2015	2016	2017	2018	2019
Per cent of GDP					
Multi annual fiscal effect	-0.3	-0.6	-0.9	-0.9	-1.0
Year to year development	-0.3	-0.2	-0.3	0.0	-0.1
<i>Hereof: Annual fiscal effect</i>	<i>-0.3</i>	<i>-0.2</i>	<i>-0.2</i>	<i>0.0</i>	<i>-0.2</i>

Note: The fiscal effect for 2018 reflects the budget bill, including that public consumption corresponds to the budgets, *cf. also table 1.1.*

Source: Statistics Denmark and own calculations.

The calculation of the fiscal effect is updated in the December survey as to give a more detailed picture of the overall fiscal and structural policy effects on capacity pressures, *cf. box 1.4.*

Box 1.4
Updated method of calculating fiscal effect

The Ministry of Finance has updated the method of calculating the fiscal effects and the effects on capacity pressures from fiscal and structural policies.

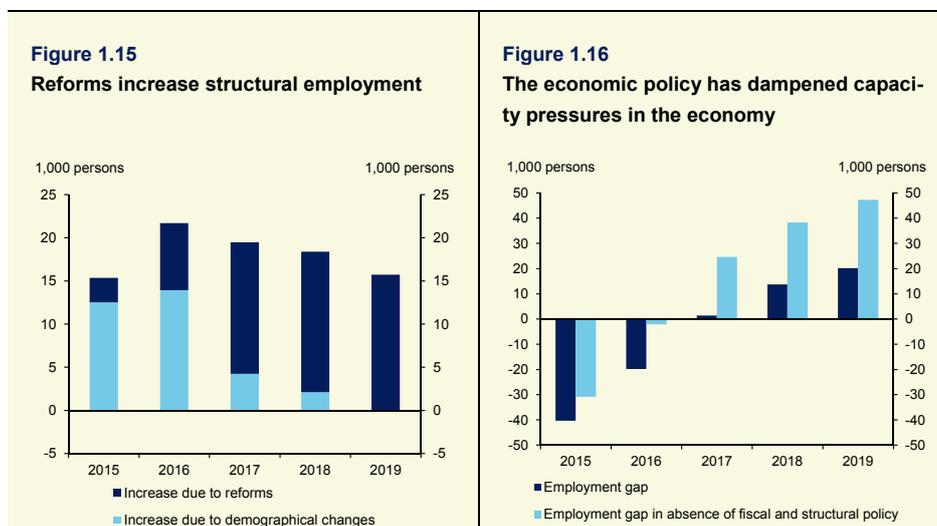
With the updated method, the fiscal effects are measuring the effects of the planned fiscal and structural policies on the capacity pressures in the economy. The total effect on capacity pressures can be interpreted as the fiscal and structural policies' isolated contribution to the output and employment gaps. A neutral fiscal policy implies, as a whole, that the public expenditures and revenues develop in line with the economy's growth potential measured by structural GDP.

The updated method is described in detail in *Chapter 5* and in *Updated fiscal effects: Documentation*, available on fm.dk (both only available in Danish).

The dampening effect on capacity pressures from the economic policy is to be viewed together with earlier implemented reforms, which increase labour supply in current years. In spite of an already historically high employment level, implemented reforms contribute to create room for a continued job growth

Structural employment is estimated to be increased by approx. 53,000 persons in the years 2017-2019, primarily driven by the implemented reforms, *cf. figure 1.15*. This is especially due to the gradual increase of the early retirement age and the old age pension age.

The Danish economy is thereby better suited to continued progress than during the upswing of the 00'ies, where reforms only expanded the labour force to a modest extend.



Note: Figure 1.15 includes reform contributions from reforms implemented since 2011 with effects in 2015-2019.

Source: Statistics Denmark and own calculations.

In absence of the implemented reforms and the gradual tightening of fiscal policy the current employment levels would have been substantially over the structural levels already in 2017, cf. figure 1.16.

Reforms and the gradual tightening of fiscal policy reduce the risks of a situation with significant pressure on the labour market and risks of a following overheating, also in the years to come. However, higher pressure on the labour market in the coming years cannot be rejected. In such a situation, new reforms and foreign recruitment will contribute to create room for further sustainable job growth. It is further noted that the framework for controlling fiscal policy in Denmark has been strengthened with the budget law, which has been effective from 2014, e.g. in comparison with the 00'ies.

In addition hereto is a range of initiatives implemented since the financial crisis, which has been designed to strengthen the financial sector and contribute to a more stable development on the housing and credit markets. The latest initiatives include the statutory order on 'good practice' concerning the most risky loans for households with a high debt-to-income-ratio.

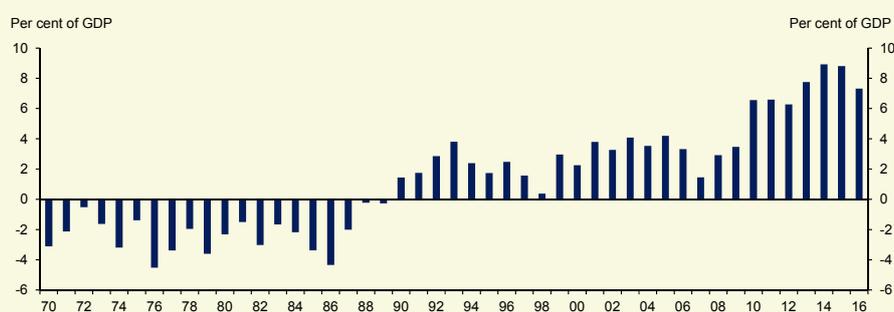
1.3 Why does Denmark have high balance of payments surpluses?

Denmark has in recent years had historically high balance of payments surpluses. The surplus was around 150 billion DKK in 2016, corresponding to approximately DKK 26,000 per citizen or 7.3 per cent of GDP.

The balance of payments, or more precisely the current account balance, reflects the net value of a country's transactions with foreign countries in a given period.

The Danish balance of payments surplus is not a new phenomenon. After many years with deficits, the balance became positive in 1990, and it has remained in positive territory ever since. In the 2010s, the surplus has reached a very high level, both in comparison with other countries and in a historical perspective, *cf. figure 1.17*.

Figure 1.17
Historically high balance of payments surpluses in recent years



Source: Statistics Denmark and own calculations.

This chapter looks at the significance of high surpluses for the Danish economy. Is it a strength or a weakness? What are the explanations for the balance of payments surpluses and can the very high surpluses be expected to last?

Are the high surpluses making us rich?

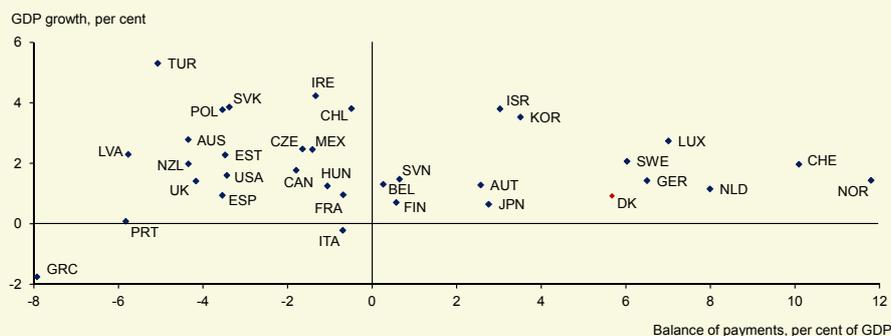
Current account surpluses imply current net earnings from abroad, but do not necessarily lead to high growth or prosperity. There are examples of both more and less wealthy countries that have had surpluses or deficits.

This is the case for a number of northern European countries, including the Scandinavian countries, which have had balance of payments surpluses in recent years. Other wealthy countries such as the UK have had a large deficit.

The United States has had more persistent balance of payments deficits and has thus built up significant foreign debt. This is possible, *inter alia*, because of the dollar's role as an international reserve currency, and the willingness of foreign countries to finance the deficit. Alongside with persistent deficit, the United States has had relatively good growth and maintained its position as one of the world's most prosperous countries.

Many factors are important for growth, and there is no clear correlation between GDP growth, for example over a decade, and the balance of payments across countries, *cf. figure 1.18*.

Figure 1.18
No unambiguous correlation between balance of payments surpluses and GDP growth



Note: Average annual balance of payments surplus and real GDP growth over the period 2005-2016.
 About the same picture arises if GDP per capita or GNI per capita is considered instead.
 Source: Statistics Denmark and own calculations.

In the 1970s and 1980s, Denmark had sustained balance of payments deficits, but growth was generally somewhat higher than it has been in recent years, where the surpluses have been high.

However, the fact that the deficit has turned into a surplus has not been irrelevant to the Danish economy.

In the 1980s, Denmark had built up a large foreign debt – amounting to up to 46 per cent of GDP. The debt was at that time a major focus point for rating agencies as well as others, because indebtedness may imply uncertainty about a country's ability to repay loans, measured in foreign currency. This may cause investors to demand higher risk premium and lead to higher interest rates. This is especially true for countries like Denmark with fixed-exchange rate policy.

The prolonged period of balance of payments surpluses has helped to turn Denmark's foreign debt into net foreign assets. Today, the Danish economy is well consolidated with low interest rates. Both the government and the financial institutions have a high credit rating, which can be attributed, among other things, to the solid balance of payments surpluses. Public finances, households and firms benefit from the low interest rates.

As a rule, it is a good thing that countries can have both surpluses and deficits on the balance of payments. Among other things, it promotes that savings can be invested where the benefits are highest and the savings generate the highest return. It also helps to offset differences in the cyclical development between countries.

However, both large surpluses and major deficits may indicate underlying imbalances or weaknesses. In some cases, the imbalances may be corrected by economic policy or by structural measures. Therefore, there are good reasons for monitoring the balance of pay-

ments. The EU has also set threshold values for the size of both surpluses and deficits in connection with their macro imbalance procedure.

We save more than we invest

In order to assess whether a large balance of payments surplus or deficit reflects sound fundamentals or not, it is necessary to look at the underlying causes. In Denmark, the large surpluses do not appear to be indicative of inappropriate framework conditions for neither private sector savings, investments or public finances. The surpluses largely reflect an increase in the propensity to save, which is partly due to a number of political measures.

The balance of payments can by definition be calculated as the difference between savings and domestic investments, *cf. box 1.5*. The current surplus on the balance of payments in Denmark is due to the fact that savings exceed investments.

Box 1.5

The balance of payments can be interpreted as a country's savings balance vis-à-vis foreign countries

The balance of payments is an account of payments between countries. Those payments are income and expenditures related to trade in goods and services, income from abroad and other transfers, incl. wage payments. A surplus increases national income in a country. By definition, the part of the income that is not spent on consumption (both private and public) will be saved. Therefore, the balance of payments can also be interpreted as a country's savings deducted domestic investments.

When the total savings over a given period exceed total investments, there will be excess savings and thereby surplus on the balance of payments. The counterbalance to a balance of payments surplus is that a country invests part of its savings abroad. If a country's investment exceeds the savings, capital imports is needed, i.e. that foreigners invest in that country. This will be reflected in a balance of payments deficit.

In particular, savings have increased. In 1982, savings were historically low at approx. 15 per cent of GDP. Today, the share has almost doubled. During the same period, investments (with some fluctuations from year to year) have amounted to about 20 per cent of GDP, *cf. figure 1.19*.

Figure 1.19
In particular savings have risen



Source: Statistics Denmark and own calculations.

The savings surplus can be divided into contributions from households, companies and the public sector respectively.

For the public sector, the contribution to the balance of payment corresponds approximately to the actual public balance. In the wake of the financial crisis there has been a deficit on the public balance, partly as a result of a series of measures implemented to support the economy and employment during the crisis. However, the deficits have been limited compared to the very large deficits in the early 1980s and in the first half of the 1990s. From the mid-1990s until the crisis, public finances gradually improved, and today fiscal sustainability has been achieved.

The general improvement in public finances has in itself contributed to the fact that the balance of payments deficit has reversed. However, it is not sufficient to explain the whole development. The rising balance of payments surplus should therefore also be seen in light of savings and investment decisions of companies and households.

Households save more...

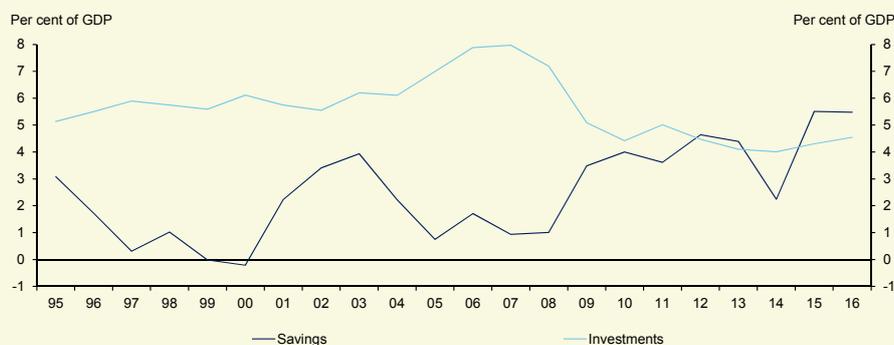
Over the past 20 years, household savings have risen significantly. The significant increase is an important part of the explanation of the balance of payments developments, and should particularly be seen in the context of two initiatives: the introduction of labour market pensions and the reduction of interest rates deductibility (which have made it less advantageous to take on debt).

The accumulation of occupational pension assets began in the 1990s, and today the value of gross pension assets amount to around 200 per cent of GDP – equivalent to a fourfold increase compared to 30 years ago. The Danish pension system will only be fully built up around 2080, where all pensioners with a pension scheme with the current contributions will have saved up throughout an entire working life. However, the propensity to save will be dampened in the coming years due to the fact that there will be relatively more elderly people who retire and start dissaving their pension assets.

In addition, the current business cycle situation contributes to pushing household savings to a historically high level, *cf. figure 1.20*. The capital loss in connection with the housing bubble burst, and the effects of partially debt-financed consumption in the 00's have affected household spending. While households in 2008 spent DKK 106 on consumption for every DKK 100 they earned, the share had decreased to approx. DKK 95 in 2016.¹ The rest was used for either housing investments or savings/debt reduction.

There are good reasons to expect a return to a more normal consumption propensity, which in turn will reduce savings. This is, among other things, due to the fact that households have consolidated over a number of years and now are in a better position to increase consumption.

Figure 1.20
Household savings have reached an extraordinarily high level



Note: Household investment mainly reflects housing investment, but other investments are also included.
Source: Statistics Denmark and own calculations.

The rising savings surplus for households in recent years should also be seen in conjunction with a decline in households' housing investments in the wake of the crisis. This has contributed to a greater difference between savings and investments and thus to the rising balance of payments surplus. However, housing investments have risen again in recent years, and today their share of GDP is closer to the historical average.

... while companies invest less

Contrary to households, the higher savings surplus of companies should to a larger extent be seen in conjunction with the fact that companies currently invest less than previously, *cf. figure 1.21*.

Domestic investment by Danish companies declined during the crisis and has since then been at a low level seen in a historical perspective. The decline is largely due to the lengthy

¹ Disposable income is in this context the income after income taxes and interest expenses have been paid. Income typically consists of salary, earnings from self-employment, public transfers, capital income incl. interest expenses, gains on the purchase and sale of securities and dividends.

recession after the financial crisis. In addition, there was a significant build-up of production capacity in the years before the crisis, which left the companies with idle production capacity.

Figure 1.21

Business investments have stagnated at a low level during the crisis

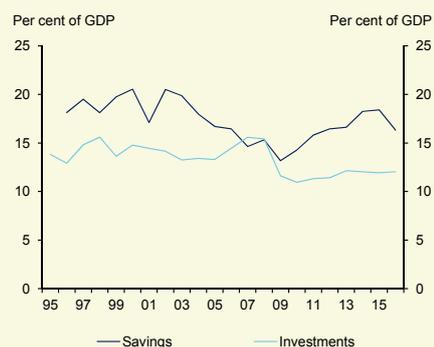
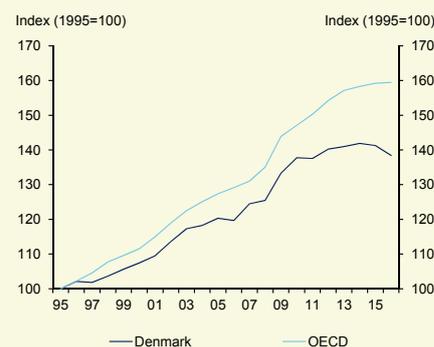


Figure 1.22

Capital intensity has decreased compared to other countries



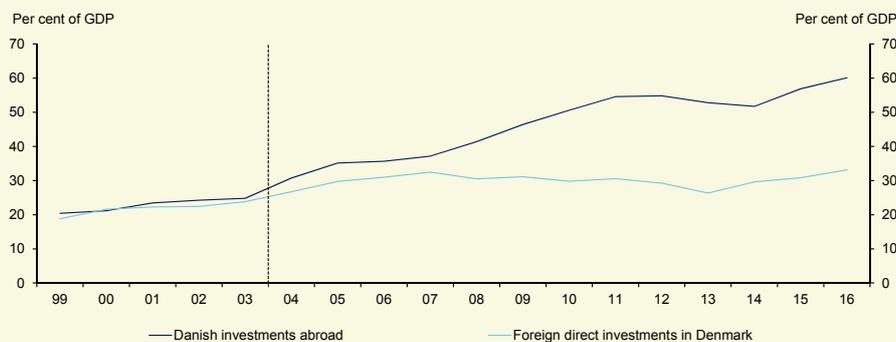
Note: Business investments in figure 1.21 cover domestic investments in buildings, machinery and equipment that are used in production. It is generally difficult to allocate private savings precisely between households and businesses because households also own a part of the companies and thus have savings connected to them. Therefore, corporate savings can also include financial savings from households. The capital intensity in figure 1.22 is based on the total number of working hours, and the capital stock is calculated for the whole economy, excl. housing. The OECD is a simple (non-weighted) average of countries where data is available for the entire period.

Source: Statistics Denmark, OECD and own calculations.

The relatively low investment ratio has not been seen in other countries to the same extent. Furthermore, employment growth has in recent years been particularly strong in Denmark. Consequently, capital intensity, i.e. the amount of fixed capital relative to the input of labour in production, has stagnated in Denmark, while the OECD countries as a whole have seen an increase in capital intensity, although the increase has levelled off a bit in recent years, *cf. figure 1.22.*

Since 2007, there has also been an overweight of foreign direct investments out of Denmark. This reflects in particular that investments out of Denmark have grown relatively strongly, while foreign investments into Denmark have remained at an approximately unchanged level. This development is in contrast to the long period prior to 2007 where investments in and out of Denmark evolved roughly at the same pace, *cf. figure 1.23.*

Figure 1.23
Overweight of investments out of Denmark in the past decade



Note: There is data break between 2003 and 2004, and the numbers before 2004 has been formed on the basis of the level in 2004 and the historical growth rates.

Source: Danmarks Nationalbank and own calculations.

The greater gap between investments in and out of Denmark can be due, among other things, to the fact that companies have increasingly found attractive investment opportunities abroad. It is a strength that Danish companies can operate across borders because it increases opportunities for turnover and productivity, for example through economies of scale and international division of labour.

The increasing investment activity out of Denmark also means that a larger proportion of Danish trade now takes place outside of the Danish borders and is related to the activities of Danish companies abroad. Trade outside Denmark's borders has contributed increasingly to the balance of payments surplus in the last ten years, *cf. box 1.6*. The development implies that Danish companies seem to have been good at seizing the new opportunities for international division of labour, *cf. also Economic Survey, August 2017*.

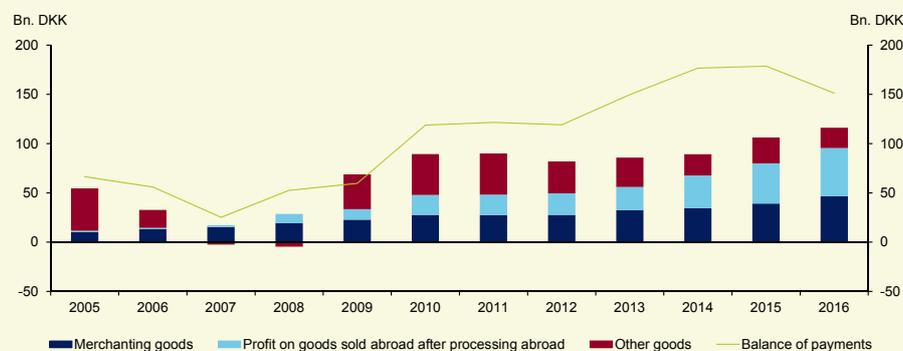
Box 1.6**The balance of payments surplus is largely due to trade in goods produced outside of Denmark**

The balance of payments is traditionally calculated as the sum of the sub-items: net exports of goods and services, wage- and capital income and current transfers. Denmark's trade in goods is the biggest contributor to the balance of payments surplus in recent years, with a total contribution of DKK 116.2 billion 2016.

With globalization, Danish companies, like companies in a number of other high-income countries, have organized a larger proportion of their production outside of their respective countries of origin. This also means that a large proportion of the production of Danish companies and trade takes place outside of Denmark. Trade outside of the Danish borders takes place in the form of merchandising, which covers Danish companies' purchases and resale of goods abroad (without processing) as well as purchase and sale of goods for processing abroad (i.e., where Danish companies send raw materials – or buy them abroad – for processing abroad and sell the processed product directly without crossing the Danish border).

These two forms of trade in goods, which never cross the Danish border, account for an increasing share of the surplus on the trade balance and thus on the overall balance of payments. By 2016, it amounted to DKK 95.6 billion, *cf. figure a*. It covers primarily trade with other EU countries and the United States.

Merchandising is widespread among multinational companies. Typically the goods are produced by a subsidiary abroad, after which the parent company buys and resells the goods.

Figure a**Increasing contribution to trade balance surplus from trade outside Denmark's borders**

Note: The figure shows nominal net income. Merchandising covers Danish companies' purchases and resale of goods that take place outside Denmark's borders. Processing and merchandising activities are included in the trade balance of the balance of payments. Other goods are calculated residually on the basis of the trade in goods balance.

Source: Statistics Denmark and own calculations.

It has probably also played a role that Danish investors, including companies, households and institutions, in recent years have been able to achieve a higher return on investments abroad than in Denmark. It is natural – and a sign of good health – that investments are allocated to locations where the return is the highest.

As a rule, it is also natural that a wealthy country like Denmark with a high rate of savings, and with a well-developed capital stock, places part of its savings abroad – including in countries with less developed production capacity.

If the preferences for investing in other countries rest on more fundamental, structural conditions, it could, however, lead to a lower level of domestic investments. This may be the case if the Danish framework for business investments is less attractive than abroad, including if tax conditions make it less attractive to invest in Denmark or if the administrative burdens are high.

It is difficult to measure accurately how competitive the framework conditions are. As a rule, Denmark is placed high in international studies of the business environment. This applies, for example, to the World Bank's Doing Business Index. In the OECD FDI index, which highlights the degree of unnecessary regulation that foreign investors meet, the regulation in Denmark is also significantly less restrictive than the OECD average.

The framework conditions have improved in Denmark in recent years, most recently with the agreement from this October on business and entrepreneurial initiatives that contribute to strengthening the Danish business environment.

The lower level of investment in Denmark also reflects to a certain extent changes in the sectoral structure, where less capital-intensive industries such as service increase relative to more capital-intensive industries such as agriculture. The investment ratio for several types of investments has therefore had a declining tendency in recent decades.

For the individual company or others who are saving, it is not crucial whether an investment is placed in Denmark or abroad. The decisive factor for the investment decision will normally be where the highest return is expected. In this respect, better opportunities for free movement of capital across borders over the past 30 years have helped make investing in production capacity across borders more easy and more safe. However, it could have negative consequences in the longer term for productivity and prosperity if the production capacity in Denmark is not renewed to the same extent, or if growth in the capital stock per employed abates permanently.

In addition to lower investments, which in themselves have led to increased excess savings, there are also conditions on the surplus account that have contributed to a higher surplus in recent years.

In the wake of the crisis, Danish companies have consolidated their financial situation, among other things, by adjusting their costs. The wage increases have been moderate and financing costs low. This has contributed to an increase in profits in the companies.

In addition, the Danish business structure means that part of the profits will be placed in non-profit-making funds whose assets are separate from the former owners and is not directly owned by the households. The so-called non-distributed profits in these funds make up more than 1 per cent of GDP, thus contributing to explaining the balance of payments surplus, *cf. Economic Survey, December 2015*. Over time, however, it must be expected that assets in these funds will be returned to the economy through non-profit purposes.

Thus, both lower investments and larger savings have contributed to a high financial savings by companies, which is part of the explanation for the current very high balance of payments surplus. In the coming years, companies are expected to need larger investments, *cf. section 3.3*. This will in itself reduce the surplus on the balance of payments.

Will the surpluses remain high?

Overall, the surplus on the balance of payments largely reflects an increase in the propensity to save. Since the late 1980s, it has been a deliberate political strategy to strengthen the incentives to savings, including to turn balance of payments deficits into surpluses; eliminate/reduce net foreign debt, and to obtain sustainable public finances. Denmark has by far the highest pension savings among OECD countries, and the significant pension wealth also includes deferred taxes that contribute to sustainable public finances.

Savings-promoting measures will not have a sustained effect on the balance of payments as demographic development and dissaving over time will reduce net savings and thereby reduce the current surplus as the population ages.

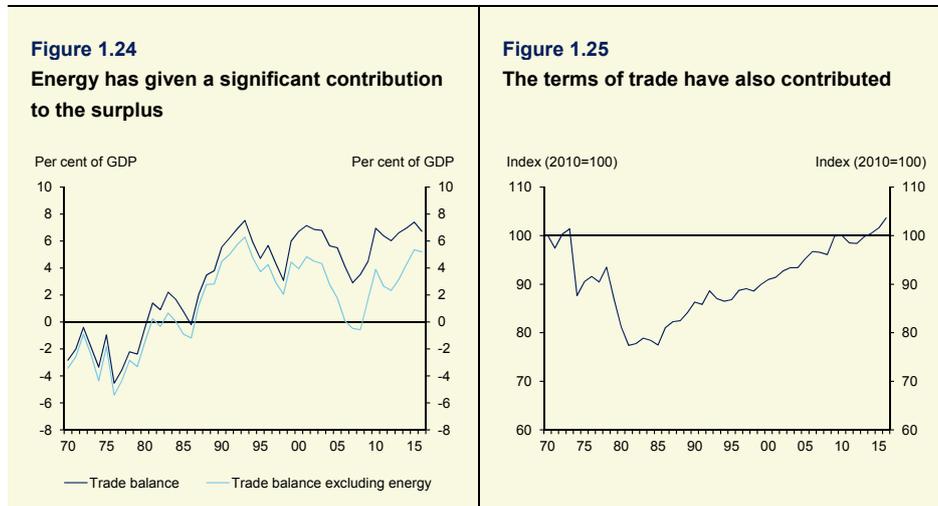
The high and growing surplus on the balance of payments in recent years should also be seen in conjunction with weak investment development in the wake of the recession after the financial crisis and a significant overcapacity.

In recent years, the surplus on the balance of payments has also been affected by other factors, some of which are of a more temporary and technical nature.

First, revenues from the oil and gas production in the North Sea have for a number of years contributed significantly to the trade balance surplus, equivalent to over 2 per cent of GDP in some years, *cf. figure 1.24*. The production in the North Sea is already diminishing and as the resources are exhausted, the contribution from oil and gas will get smaller.

Second, Denmark has achieved significant terms of trade gains from trading abroad since 1980. The price of imported goods has risen less than the price of export goods, leading to a balance of payments improvement, *cf. figure 1.25*. Denmark is one of the countries in the OECD, which has had the most favourable development in the terms of trade, which is partly due to the composition of Denmark's trade with foreign countries. The favourable terms of trade development has thus in itself contributed to improve the balance of payment over the last 30 years.

Third, the many years of balance of payments surpluses have meant that Denmark turned the foreign debt into net foreign assets. The assets have grown rapidly in recent years, helped by significant value gains. At the same time, the composition of Danish assets and liabilities has also played a part. Danish assets abroad consist largely of direct investments that have had a high return, while liabilities are largely foreign owned Danish bonds where the interest rate has been historically low. Rising interest rates in the coming years could therefore lead to a smaller contribution from the net assets to the balance of payments surplus.



Source: Statistics Denmark and own calculations.

1.4 A review of the labour force

Currently, the Danish labour force is at a historic high level. More people than ever before are part of the labour market.

In 2017, the labour force is estimated to have surpassed 3 million persons. This is approximately 20,000 persons above the previous high set in 2008. Towards 2019, the labour force is projected to expand by an additional 46,000 persons, *cf. figure 1.26*.

Figure 1.26
The labour force is at a historic high and projected to expand further



Note: The labour force includes persons who participate in the labour market, i.e. are either employed or unemployed. The change in the labour force should also be seen in light of the general increase in the working age population. In the forecast years 2017-2019, the labour force participation rate is expected to remain below the previous peaks in 2008 and 1994.

Source: Statistics Denmark and own calculations.

This section takes a closer look at the significant expansion of the labour force from the 2nd quarter of 2013, when the expansion in employment began, to the 2nd quarter of 2017. During this period of time the labour force has expanded by approximately 100,000 persons aged 15 to 70 years.

The labour force expansion can largely be explained by three factors:

- Workers aged 60+ remain in the labour force, among other things due to reforms.
- Foreign workers have to an increasing extent found employment in Denmark.
- The integration into the labour market of refugees and other migrants into Denmark.

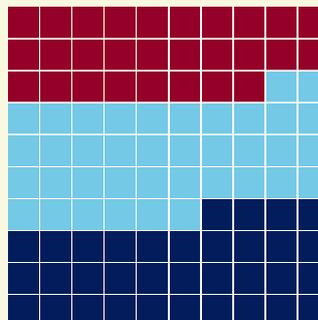
The analysis shows that the single most important contribution to a larger labour force during the period has come from international recruitment, i.e. foreign workers who have come to Denmark to work. The remaining share is largely due to later retirement from the labour market and improved integration into the labour market, cf. figure 1.27.

Figure 1.27
Three main factors behind the increase in the labour force since 2013

Workers aged 60+ remain in the labour market for longer combined with demographic changes
 (28 per cent)

International recruitment
 (38 per cent)

Integration into the labour market
 (34 per cent)



Note: The figure shows net contributions, i.e. the effect of compositional changes in the population is included. *Workers aged 60+ remain in the labour market for longer combined with demographic changes* comprises only persons of Danish origin and descendants of immigrants. *International recruitment* comprises foreign workers from the EU, the EEA and the Nordic Region, persons in work schemes as well as foreign students which are part of the labour force. *Integration into the labour market* comprises refugees, family reunifications and other relatives to persons with Danish residency permit. Data regarding the basis for residency in Denmark is not available for persons who immigrated to Denmark before 1997. This group is allocated to the categories *International Recruitment* and *Integration into the labour market* on the basis of the country of origin (Western/non-Western).

Source: Statistics Denmark and own calculations.

The analysis makes a distinction between the contribution to the labour force coming from on the one hand persons of Danish heritage and descendants of immigrants, and on the other hand contribution from immigrants. The contribution from immigrants can be further split into the contribution from international recruitment and integration of immigrants into the labour market respectively, cf. box 1.7.

Box 1.7**The calculation of the labour force in the analysis**

In this analysis the labour force has been calculated using register based data, as this makes it possible to have a closer look into the persons who have entered and left the labour force. The labour force comprises persons who are available to the labour market, either in employment or as unemployed.

Employment has been calculated based on the register of wage earners. The register comprises wage earners whose wage income is reported to the tax authority's (SKAT) by the employer, using the so-called elndkomst system. Self-employed, who e.g. are remunerated through the returns of their business, are not covered by this data and are therefore not the labour force in this analysis. All wage earners are covered, whether they work full-time or part-time. This roughly corresponds to the treatment in the national accounts. Only persons between the age of 15 to 70 years are included.

Gross unemployment is tallied using the register for recipients of public transfers benefits. The unemployed are measured in full-time equivalents. The unemployed who are in activation with wage subsidies are measured both in the unemployment statistics and the register of wage earners, as wage subsidies are defined as wage income. In the analysis an adjustment has been made to correct for this overlap, so that subsidized wage earners are measured as employed persons only.

The number of unemployed in the unemployment statistics (and the register of public transfer recipients) has been affected in 2016 and 2017 by regulatory changes, which mean that recipients of integration benefits are now to a greater extent assessed to be ready to participate in the labour market and therefore influence the gross number of unemployed.

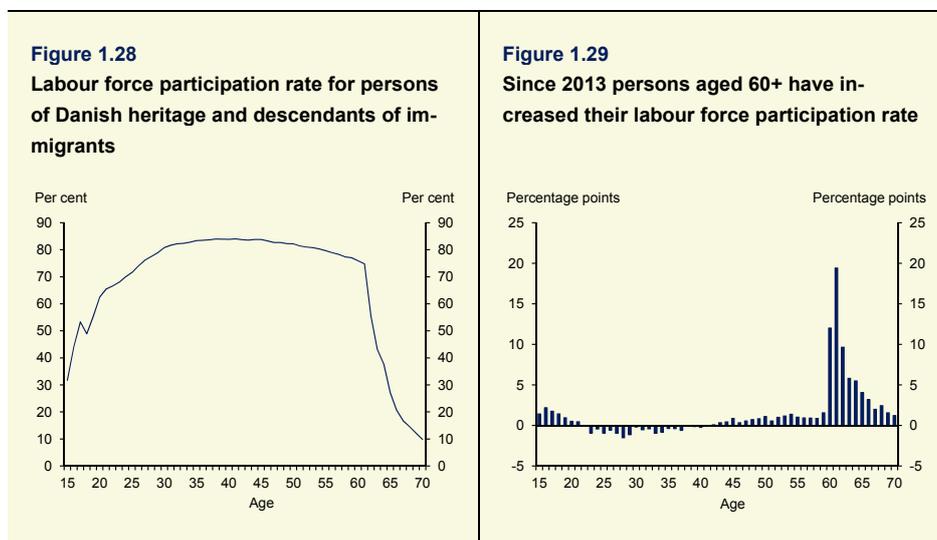
Grounds for residency

The analysis distinguished between persons of Danish origin (including descendants of immigrants) and immigrants. Immigrants are categorized according to their grounds for residency. A distinction is made between immigrants who have primarily come to Denmark intending to work (or study), and immigrants who have come to Denmark for other reasons, e.g. refugees who have been granted asylum. There is no information available regarding the grounds for residency for persons who immigrated before 1997.

Older persons remain in the labour market for longer

The labour force participation rate measures the share of the working age population, which is part of the labour market, either as employed or unemployed.

The labour force participation rate generally increases for younger persons throughout their twenties, as they complete their education and enter into the labour market. From the late twenties and to around the age of 60, the labour force participation rate is high and roughly constant at around 80 per cent. After the age of 60, the ratio declines as more and more retire from the labour market, *cf. figure 1.28*.



Note: The labour market participation ratio is the labour force as a percentage share of the population in that age group. Figure 1.28 shows the labour force participation ratio in the 2nd quarter of 2017.

Figure 1.29 shows the change in the labour force participation ratio from the 2nd quarter of 2013 to the 2nd quarter of 2017.

Source: Statistics Denmark and own calculations.

Since 2013 the labour force participation ratio has increased for many age groups, including persons below the age of 20 and persons in the 40-59 years of age group. On the other hand, the labour force participation rate for the 20-39 years of age group has fallen, which is among other things due to a higher enrolment in education.

However, the most significant change is seen for persons aged 60+, whose labour force participation rate has increased markedly, *cf. figure 1.29*. In 2013 only just above half of the 61 year olds took part in the labour market. This share had increased to approximately three quarters by 2017. In total, the labour market participation ratio for persons aged 60-70 years has increased by approximately 6 percentage point since 2013.

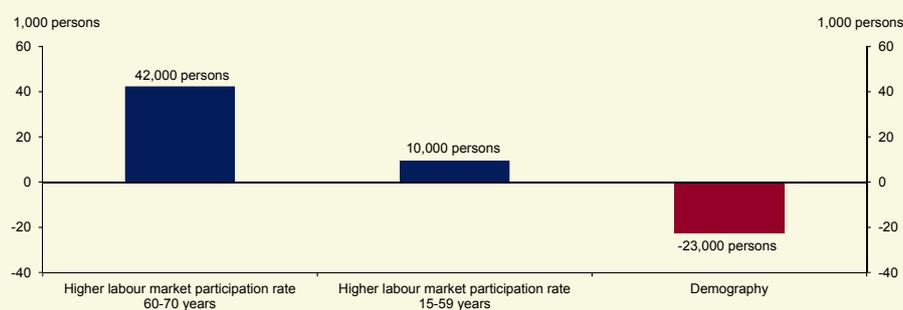
This change should primarily be seen in light of the retirement agreement from 2011, which gradually increases the age of eligibility for voluntary early retirement benefits and the social retirement pension (folkepension). The age of eligibility for voluntary early retirement benefits was initially raised by 6 months in 2014, and has by 2017 been raised by 2 years to the present age of eligibility of 62 years. The age of eligibility for retirement pension will be raised by 6 months in 2019 (from 65 years to 65½ years) and thereafter increased by 6 months increments annually towards 2022, where the age of eligibility will be 67 years.

In the period 2018-2023 the number of years it is possible to receive voluntary early retirement pension is gradually reduced from 5 to 3 years. This is done by increasing the age of eligibility for voluntary early retirement in 6 months increments in 2018 and 2019 as well as in 2022 and 2023. From 2023 onwards the age of eligibility for voluntary early retirement will be 64 years. This will contribute to further increasing the labour force in the coming years.

Later retirement for 60-70 year-olds is estimated to have enlarged the labour force by approximately 42,000 persons since 2013, *cf. figure 1.30*. The increased age of eligibility for the voluntary early retirement scheme is the main explanatory factor, but the business cycle upturn, lower taxation of labour income, a higher level of educational attainment and other factors can also have contributed to the increase in the labour force participation ratio.

Figure 1.30

Increased labour market participation ratios for 60-70-year-olds of Danish origin or descendants of immigrants has contributed significantly to the expansion of the labour force since 2013



Note: The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.

Source: Statistics Denmark and own calculations.

In addition, since 2013 there has been a contribution to the labour force of approximately 10,000 persons from increased labour force participation by persons in the 15 to 59 age group.

When analysing the changes in the labour force it is necessary to take underlying changes in the composition of the population into account. For instance, cohorts with a lower labour force participation ratio now account for a greater share of the population. During the time period under consideration (2013-2017) these changes have in isolation had a negative effect on the labour force. This is mainly due to the fact that cohorts have retired, while smaller cohorts have entered the labour market. In total, changes in the demographic composition of persons of Danish origin and descendants of immigrants have contributed to a fall in the labour force of 23,000 persons.

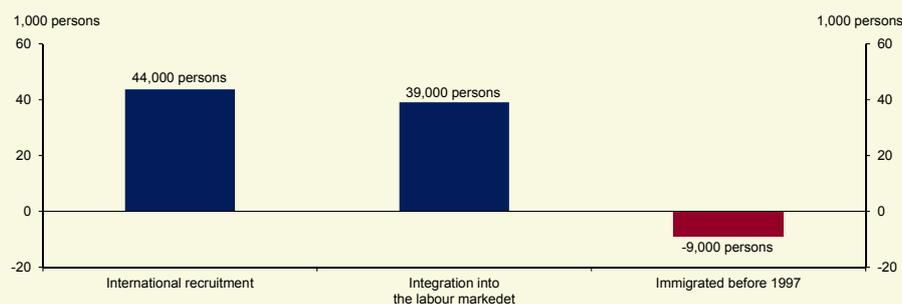
The net effect of the abovementioned changes in the labour force participation rate and demographic composition is that persons of Danish origin and descendants of immigrants have contributed to an expansion of the labour force of 29,000 persons since 2013.

When the contribution of persons of Danish origin and descendants of immigrants has been subtracted from the total change in the labour force of 103,000 persons, a residual contribution of 74,000 persons remains. Largely, this increase can be ascribed to the increase in

employment of foreign workers in Denmark, and the integration into the labour market of refugees and family reunifications, *cf. figure 1.31*.

Figure 1.31

International recruitment and integration into the labour market has contributed to a larger labour force since 2013



Note: The figure comprises persons who are immigrants to Denmark, categorised by their grounds for residency. For persons who immigrated to Denmark before 1997 there is no data on grounds for residency. Seen in isolation the contributions from respectively *international recruitment* and *integration into the labour market* would be smaller if it was possible to split the pre-1997 immigrants into the two subcategories. The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.

Source: Statistics Denmark and own calculations.

The further analysis on the impact of immigrants on the increase in the labour force is based on a distinction on grounds for residency. Needless to say there are many possible ways to make this distinction. This analysis distinguishes between immigrants who have come to Denmark in order to work (or study) and immigrants who have come to Denmark for other reasons, but have nonetheless been integrated into the labour force.

For pre-1997-immigrants, information regarding the grounds for residency is not available. The remaining part of the analysis therefore disregards this group (which in total has contributed to reduce the labour force by approx. 9,000 persons since 2013).

Increase in internationally recruited labour

Since the spring of 2013 the number of foreign workers who have come to Denmark in order to work or study has increased by 44,000 persons.

Among other things, these are citizens from other EU-countries who have come to Denmark in order to work, and highly skilled workers from other countries, who have entered Denmark e.g. due to the so-called pay limit scheme. Internationally recruited labour has contributed to an increase in the labour force of approximately 32,000 persons since 2013.

In addition there is a contribution to the labour force of approximately 12,000 persons from foreign students who have taken on employment in combination with their studies, *cf. figure 1.32*.



Note: *Internationally recruited employees* encompasses immigrants from EU/EEA-countries with wage labour as their grounds for residency. Citizens from the Nordic countries are included in this category. *Work schemes for citizens of countries outside of EU/EEA* excludes persons with family connections to persons that have residency based on the work schemes. The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.

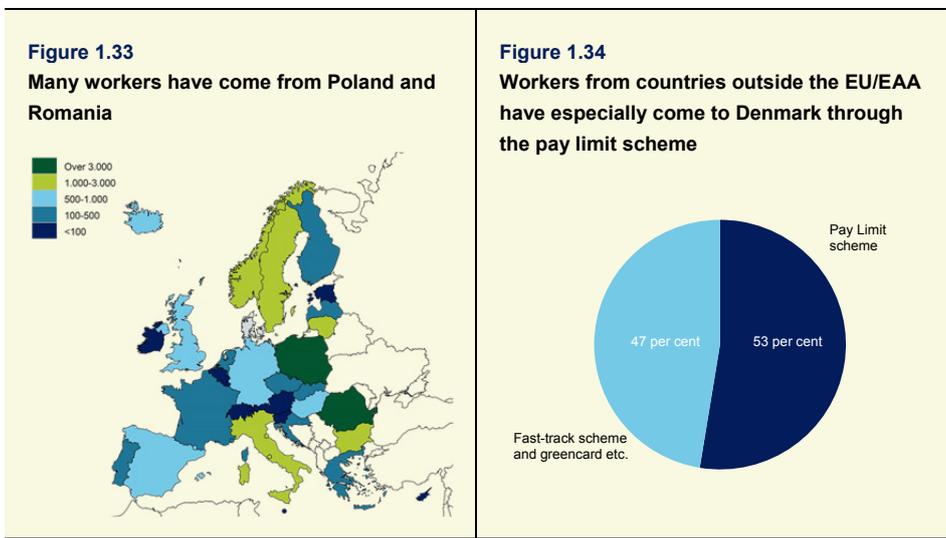
Source: Statistics Denmark and own calculations.

Only a minor share of these immigrants is unemployed. Thus, the expansion of the labour force stemming from international recruitment is mostly driven by foreign workers who have found employment in Denmark.

Many foreign workers only stay in Denmark for a short period of time. This means that the movements of people in and out of Denmark are large. By far, the largest contribution to the labour force since 2013 is from persons who have come to Denmark through EU-agreements related to the free movement of labour with the EU borders. Foreign workers from EU/EEA countries are largely new arrivals. In other words, they have not had residency in Denmark for an extended period of time prior to finding employment.

European workers who have found employment in Denmark come from all over Europe. Citizens from Poland, Romania, Lithuania and Bulgaria have made the largest contributions to the expansion of the labour force, *cf. figure 1.33*. These four countries account for roughly half of the increase in the labour force from EU-countries, amounting to approx. 15,000 persons.

International recruitment from countries outside of the EU/EEA countries mainly consists of persons who have come to Denmark through various work schemes, which are characterized by being targeted at foreign workers who have special skills and qualifications, *cf. box 1.8*. Especially the pay limit scheme has contributed to the expansion of the labour force, *cf. figure 1.34*.



Note: Figure 1.33 covers only workers from the EU/EEA/Nordic- countries (almost 27,000 persons). Both figures show the change from the 2nd quarter of 2013 to the 2nd quarter of 2017. Source: Statistics Denmark and own calculations.

Box 1.8**Grounds for residency in Denmark****Workers from the EU/EEA/Nordic countries**

It is a right for citizens of any EU country to seek employment in a different EU country. Furthermore it is possible to travel freely into Denmark and remain for up to three months without a residency document. If the residency period exceeds three months, application for an EU-residency document is mandatory. Citizens from the EEA-countries and Switzerland are covered by the same rules, whereas citizens from the Nordic countries are exempt from having to obtain a residency document.

Workers from countries outside the EU/EEA and the Nordic Countries

There are a number of schemes which enables highly qualified foreign workers from countries outside of the EU/EEA to obtain a residency and work permit in Denmark. These includes inter alia:

- *The pay limit scheme*, which enables persons who have been offered employment in Denmark with remuneration above DKK 408,800 per annum (in 2017) easy access to the Danish labour market.
- *Fast-track* is dependent on certification by the individual company where the foreign worker in question is to be employed. The scheme allows companies who have been certified the Agency for International Recruitment and Integration a faster employment start for certain types of highly qualified labour.
- *The positive list* comprises certain industries where there is a shortage of labour with the right qualifications. Individuals who have been offered employment in one these industries and have the necessary qualification have particular easy access to the Danish labour market.
- *Start-up Denmark* enables foreign entrepreneurs to establish and run a business in Denmark.
- *Establishment card* enables foreigners who have obtained a Danish Masters or Ph.D. degree the possibility to gain residency in Denmark.
- *Green card scheme* enabled work-related residency based on a point system, which was based on education, work related experience and age. This scheme was abolished on June 1st 2016. Persons who have obtained residency through this scheme may remain in Denmark.

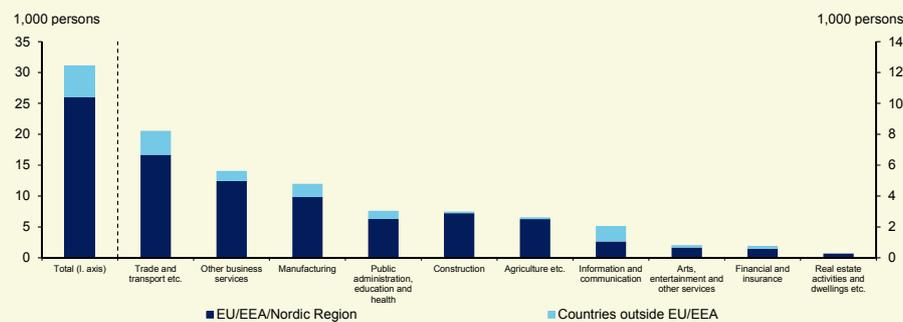
Source: Nyidanmark.dk and statsforvaltningen.dk.

The requirement of special skills or qualifications for workers from countries outside of the EU/EEA is also reflected in the industries where they obtain employment.

The increase in employment for all internationally recruited (i.e. including persons from EU/EEA-countries and from other countries) has especially been large in a number of service sector industries like *trade and transport etc.* and *business services*.

At the same time EU-citizens have accounted for almost the entire increase in employment in *agriculture* and *construction*. On the other hand, citizens from countries outside of the EU have to a large extent found employment in *information and communication*, cf. *figure 1.35*. This may reflect the fact that quite often they are highly qualified employees who have come to Denmark through the work schemes.

Figure 1.35
Since 2013 internationally recruited workers have mainly found employment in *trade and transport etc.* and *business services*



Note: The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.

Source: Statistics Denmark and own calculations.

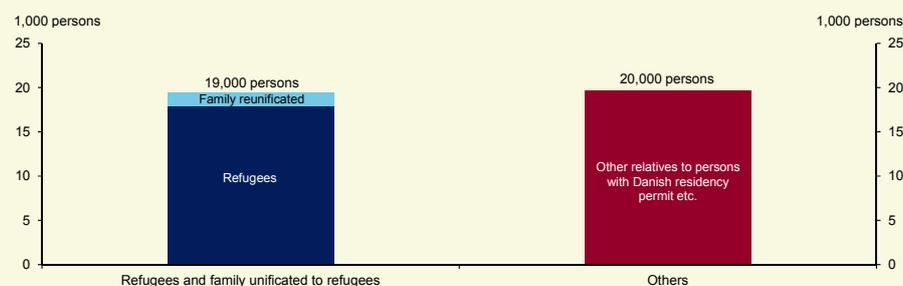
The integration into the labour market

In the past years more immigrants, i.e. refugees and foreign relatives to persons with Danish residency permit, have become part of the Danish labour market. These immigrants have come to Denmark for reasons other than work. They have, however, contributed substantially to a larger labour force since 2013.

Mainly, the expansion in the labour force is due to a larger amount of immigrants who have come to Denmark since 2013 and joined the labour force. In addition, foreigners who immigrated to Denmark before 2013 have also to an increasing extent joined the labour market. In total, integration into the labour market has enlarged the labour force by approximately 39,000 persons since 2013. One half of the enlargement is due to refugees. The other half can be attributed to foreign relatives to persons with Danish residency permit, *cf. figure 1.36*.

Figure 1.36

Since 2013, both refugees and other immigrants have to a greater extent become a part of the labour market



Note: *Refugees* includes mainly immigrants who have been granted asylum. *Others* covers for instance family reunificated with a Danish, EU/EEA citizen, accompanying family members of a person working in Denmark, EU-citizen with sufficient funds and immigrants with other residency. The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.

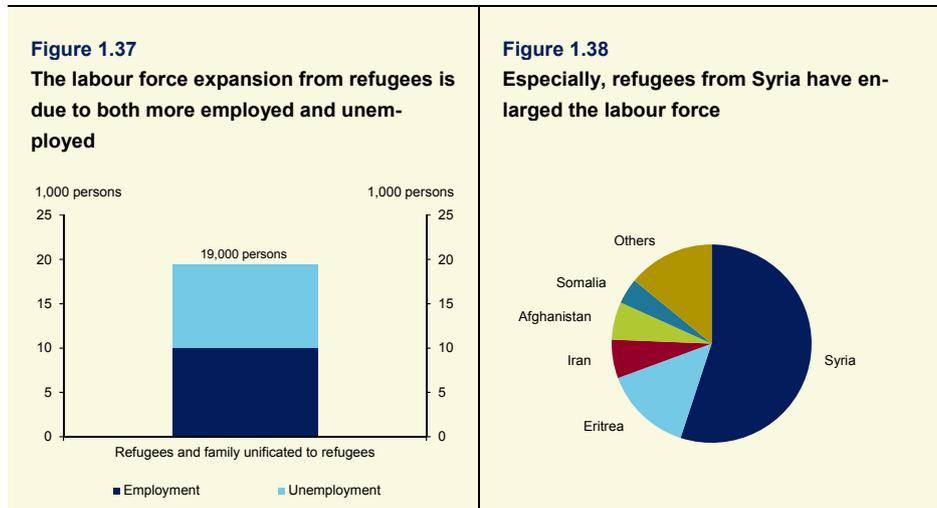
Source: Statistics Denmark and own calculations.

The stronger labour market participation is due to the business cycle upturn in general. Also, various initiatives regarding social assistance and integration have been implemented. For instance the integration benefits have been introduced as well as a new basic integration training module which offers practical work experience and skill-upgrading to refugees.

In addition, the government has made agreements with Local Government Denmark (KL) and the social partners to establish an integration programme that is more job-oriented and closely linked to businesses, where refugees as a rule should be considered ready to join the labour force. This establishes a focus on employment and will possibly have spill-over effects on the employment status. As a result of the agreement, a larger fraction of refugees has become part of the labour force (as unemployed)

In total, refugees and family reunificated to refugees have enlarged the labour force by approximately 19,000 persons since 2013. Half of the expansion can be attributed to a higher employment the other half is due to larger unemployment, *cf. figure 1.37*.

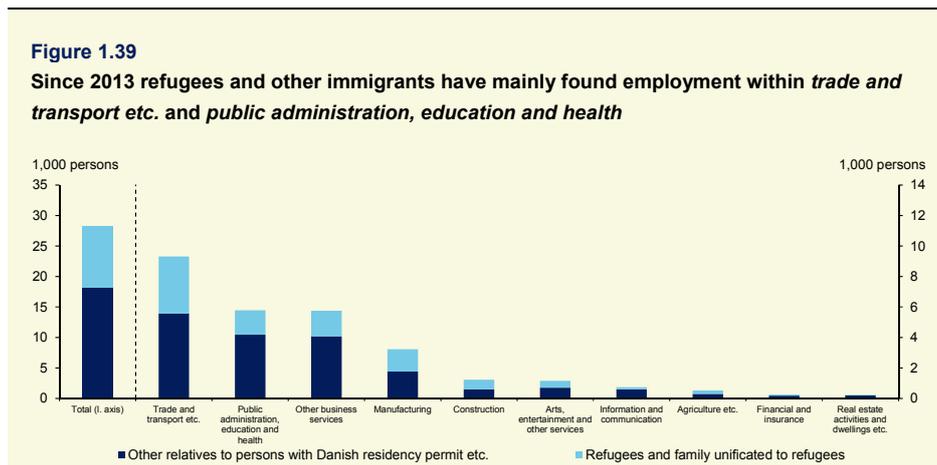
The majority of the refugees and family reunificated to refugees originates from Syria. Also, refugees from Afghanistan, Iran, Eritrea and Somalia have expanded the size of the labour force, *cf. figure 1.38*.



Note: Figure 1.37 covers refugees with asylum etc. in Denmark and family reunificated to refugees. Both figures show the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.
Source: Statistics Denmark and own calculations.

Foreign relatives to persons with Danish residency permit (the red pillar in figure 1.36) are mainly in employed. This group covers for instance a partner to a Danish citizen or a family member accompanying a person working in Denmark.

Foreign relatives to persons with Danish residency permit are especially employed in the public sector or service sector industries such as *trade and transport etc.* and *other business services*. Refugees and family reunificated to refugees are mainly employed in manufacturing and construction, cf. figure 1.39.



Note: The figure shows the change from the 2nd quarter of 2013 to the 2nd quarter of 2017.
Source: Statistics Denmark and own calculations.

1.5 Annex table

Table 1.3**Key figures compared to Economic Survey, August 2017, for 2017 and 2018**

	2017		2018		2019
	Aug.	Dec.	Aug.	Dec.	Dec.
Real change, per cent					
Private consumption	2.4	2.0	2.4	2.3	2.4
Total government demand	0.7	0.0	0.3	0.8	0.3
- of which government consumption	0.8	0.5	0.5	1.0	0.3
- of which government investment	0.1	-4.0	-1.4	-1.1	-0.1
Housing investment	5.0	3.5	6.0	6.0	5.6
Business fixed investment	3.0	3.8	4.3	4.9	5.5
Total final domestic demand	1.9	1.5	2.2	2.4	2.3
Inventory investment (per cent of GDP)	-0.1	0.1	0.0	0.0	0.0
Total domestic demand	1.8	1.6	2.2	2.3	2.4
Exports	3.8	3.5	2.9	2.8	2.6
- of which manufacturing exports	4.9	6.4	3.2	3.6	3.6
Total demand	2.5	2.3	2.5	2.5	2.5
Imports	3.7	2.9	3.8	3.7	4.0
- of which imports of goods	4.5	5.1	3.6	3.7	3.8
GDP	2.0	2.0	1.8	1.9	1.7
Gross value added	1.9	1.9	1.7	2.1	1.9
- of which private non-farm sector	2.3	2.4	2.4	2.6	2.6
Change, 1,000 persons	48	49	23	29	17
Labour force, total	48	49	23	29	17
Employment, total	44	45	25	33	23
- of which private sector	43	45	25	31	24
- of which public sector	1	0	0	2	-1
Gross unemployment	3	4	-3	-5	-5
Cyclical developments, per cent					
Output gap	-0.2	-0.3	0.0	0.3	0.5
Employment gap	0.0	0.0	0.0	0.5	0.7
Unemployment gap	-0.1	0.0	-0.2	-0.2	-0.4

Table 1.3 (continued)
Key figures compared to Economic Survey, August 2017, for 2017 and 2018

	2017		2018		2019
	Aug.	Dec.	Aug.	Dec.	Dec.
Change, per cent					
House prices (single family homes)	3.5	4.3	3.5	3.8	3.3
Consumer prices	1.1	1.2	1.5	1.5	1.7
Hourly earnings in the private sector	2.5	2.5	2.8	2.8	2.9
Real disposable income, households	1.8	2.3	2.2	2.7	2.2
Productivity in the private non-farm sector	0.5	0.4	1.2	1.1	1.4
Per cent per year					
Interest rate, 1-year rate loan	-0.5	-0.6	-0.2	-0.5	-0.1
Interest rate, 10-year government bond	0.6	0.5	1.0	0.7	1.1
Interest rate, 30-year mortgage credit bond	2.3	2.3	2.8	2.3	2.7
Public finances					
Actual public balance (Bn. DKK)	-30.4	-1.3	-27.1	-18.4	-19.0
Actual public balance (per cent of GDP)	-1.4	-0.1	-1.2	-0.8	-0.8
Actual public balance (per cent of GDP)	-0.5	-0.5	-0.3	-0.3	
Gross debt (per cent of GDP)	36.3	35.3	35.4	35.0	34.0
Labour market					
Labour force, total	3,031	3,032	3,054	3,061	3,079
Employment, total	2,921	2,922	2,946	2,955	2,978
Gross unemployment (yr. avg., 1,000 persons)	116	116	113	112	107
Gross unemployment (per cent of labour force)	4	4	4	4	3
External assumptions					
Trade-weighted international GDP-growth	2.4	2.8	2.2	2.6	2.3
Export market growth (manufactured goods)	44.7	27.1	-10.6	-8.2	-0.3
Exchange rate (DKK per USD)	6.6	6.6	6.4	6.3	6.3
Oil price, dollars per barrel	43.1	54.2	55.9	62.9	64.3
Balance of payments					
Current account balance (DKK bn.)	174	175	175	170	164
Current account balance (per cent of GDP)	8.2	8.1	7.9	7.6	7.1