

# DANMARKS NATIONALBANK

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OUTLOOK FOR THE DANISH ECONOMY – SEPTEMBER 2017

## Solid upswing with increased labour market pressure

- The Danish economy is in a solid upswing. With an expected GDP growth of 2.3 per cent this year the economy is moving into a boom with further tightening of the labour market.
- The Danish economy is well-balanced, and there is room for more capacity pressure during the boom. Over the past year the upswing has gradually increased momentum, while at the same time the fiscal policy is planned to be more expansive than previously. This intensifies capacity restraint challenges.
- Overheating may occur suddenly and vigorously when the economy is booming, and the government should be prepared to initiate a fiscal tightening in order to dampen growth in demand.

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### 2.3 per cent this year

and 1.8 and 1.7 per cent the following two years is the expected growth in real GDP

[Read more](#)


### Increased pressure

on firms' capacity as we move into the boom

[Read more](#)


### Low risk

of overheating, but on condition that labour supply continues to increase

[Read more](#)

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ECONOMICS AND  
MONETARY POLICY

## Highlights of the outlook

- The ongoing upswing in the Danish economy is solid. Labour market pressures have increased in the first half of this year, particularly in the construction sector.
- The cyclical position is more or less neutral with only few spare resources in the labour market. Until now the upswing has been balanced.
- The global economy is also in an upswing and gaining strength. Growth has increased in the euro area, and the US economy has kept momentum. This provides a favourable background for demand in the Danish economy.
- The prospects for Danish exports are good. Export markets are recovering, and the Danish exporters' wage competitiveness is strong.
- Real GDP is forecast to grow by 2.3 per cent this year and by 1.8 and 1.7 per cent in 2018 and 2019, slightly above growth potential. This implies that the Danish economy will be in a boom with larger pressure on production capacity and labour resources.
- Provided that growth takes place at a steady pace and imbalances do not build up, there is no need to tighten economic policy substantially. Overheating may occur suddenly and vigorously when the economy is in a boom and the government should be prepared to initiate a fiscal tightening in order to dampen growth in demand.
- Helped by previously implemented structural reforms growth in employment is expected to rise, however at a slower pace. Towards end-2019 employment is expected to increase by a further 60,000 persons.
- Prices and activity on the housing market is picking up in Denmark overall. In Copenhagen prices continue to rise at a worrying pace. Here the price level seems to be higher than what the development in disposable income and interest level can account for.
- The new housing taxation agreement, which means that as from 2021 housing taxes will again follow the development in house prices, will contribute to stabilise house prices from 2021. And already now it can dampen the growth in house prices in the capital, thus improving the possibilities of keeping the upswing balanced.
- Domestically risks are tilted to the upside. Too strong growth in demand can lead to an unsound pressure on production capacity, especially if firms are not able to find enough qualified labour. The downside risks of the projection are predominantly external.

### Key economic variables

	2016	2017	2018	2019	2016/17		
					Q4	Q1	Q2
GDP (real), per cent	1.7	2.3	1.8	1.7	0.6	0.6	0.6
Employment, 1,000 persons	2.877	2.923	2.955	2.974	2.895	2.907	2.918
Gross unemployment, 1,000 persons	113	116	113	113	113	115	116
Balance of payments, per cent of GDP	7.8	8.6	8.4	7.9	8.8	8.8	8.7
Government balance, per cent of GDP	-0.6	-1.2	-1.1	-1.4	0.5	-0.7	-1.4
House prices <sup>1</sup> , per cent year-on-year	3.9	3.3	2.9	2.8	3.6	2.4	4.6
Consumer prices (HICP), per cent year-on-year	0.0	1.0	1.4	1.7	0.2	0.8	0.7
Hourly wages (manufacturing), per cent year-on-year	2.2	2.4	2.8	3.0	2.4	2.1	2.3

<sup>1</sup> Nominal prices of single-family houses.

Source: Statistics Denmark and own calculations.

## Outlook for the Danish economy

### The Danish economic upswing is accelerating

The current upswing in the Danish economy is solid. The gross domestic product, GDP, grew by 1.7 per cent last year, and the economy gained further momentum in the first half of this year. This is also reflected in the labour market, where employment continues to rise rapidly. The pressure on the labour market became stronger in the first half of the year, especially in the construction sector.

The Danish economy is in a cyclically more or less neutral position at present, with only few spare resources in the labour market. Until now, the upswing has been balanced, and the immediate risk of overheating is low.

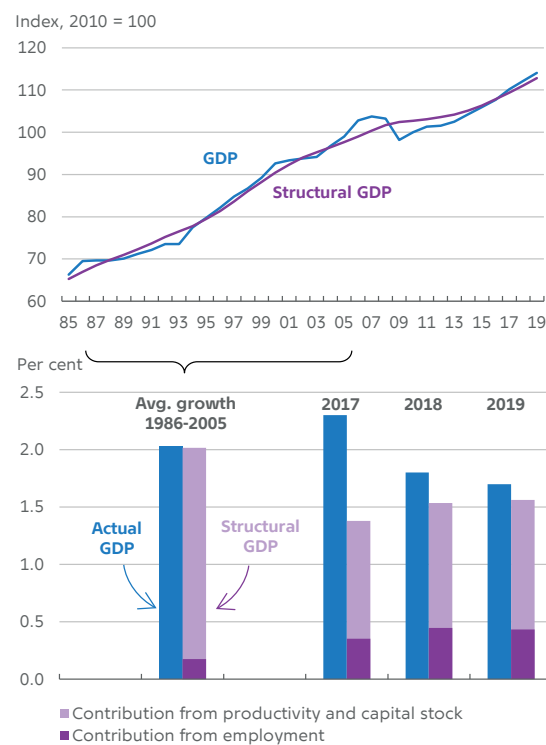
In the labour market, growth is supported by an expanding structural labour force these years, reflecting among other things the retirement age reforms implemented some years ago. This is one of the reasons why the upswing has been balanced so far. At the same time, households and firms are cautious and still save to a large extent. In other words, growth in private consumption and investment has not been financed by means of excessive credit growth, as was for example the case in the mid-2000s.

Nor are there any signs of overheating of the housing market in Denmark overall. There is cause for concern about price increases for owner-occupied flats in the large cities, but this has not seriously affected the rest of the country. The new housing taxation regime, which will reintroduce the link between house prices and housing taxes from 2021, may already now dampen prices for e.g. owner-occupied flats in Copenhagen, cf. the analysis Housing taxation agreement stabilises house prices<sup>1</sup>. This will strengthen the possibilities of keeping the upswing going.

There are strong drivers behind the domestic demand. Disposable incomes are rising and interest rates are low. Also, Denmark's export markets are

**GDP growth above potential in the coming years**

Chart 1



Note: Contribution from employment based on the number of people in employment. Hence, average working hours are included in productivity in the chart.

Source: Statistics Denmark and own calculations.

picking up. This constitutes a good background for a continued upswing in Danish economy. Reforms already adopted to increase the labour supply will help to meet the increasing demand. The large balance of payments surplus will also provide scope for meeting some of the increased demand via higher imports.

Real GDP is forecasted to grow by 2.3 per cent this year and by 1.8 and 1.7 per cent in 2018 and 2019,

<sup>1</sup> Simon Juul Hviid and Paul Lassenius Kramp, Housing taxation agreement stabilises house prices, *Danmarks Nationalbank Analysis*, no. 14, September 2017.

respectively. This is slightly above growth potential, cf. Chart 1. In a balanced growth scenario GDP cannot be expected to grow as strongly as previously. The main reason for this is that – like in most developed countries – productivity growth has been lower than before over the past 15-20 years. This is partly because a larger part of demand is directed towards services where growth in productivity is typically lower. This dampens productivity growth in itself. In addition, the domestic productivity level is high compared with that of other countries, so the potential catch-up effects to the best performing countries is limited.

The Danish economy is thus forecasted to be heading for a boom where the pressure on production capacity and labour resources will be stronger. And there is room for this. Wage competitiveness is good, and wage growth may rise to a higher level than seen during the upswing so far without causing problems.

In the current state of the economy, it is important to avoid a sudden and excessive rise in demand that will lead to large imbalances, e.g. in the labour market, the housing market or the financial sector. Booms associated with large imbalances are typically followed by long and deep downturns. Therefore, balanced growth is preferable.

### Fiscal policy should contribute to maintaining a balanced growth

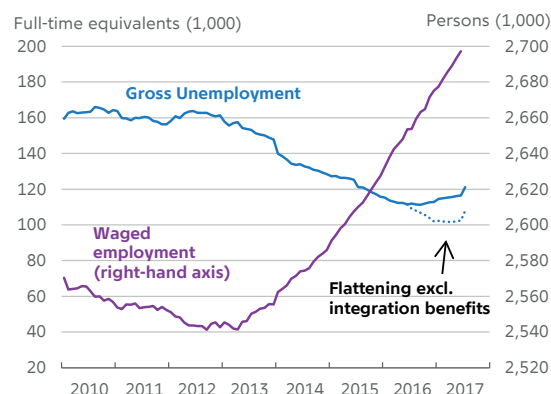
The Danish economy is well-balanced, and there is room for more capacity pressure during the boom. Over the past year the upswing has gradually increased momentum, while at the same time the fiscal policy is planned to be more expansive than previously. This intensifies capacity restraint challenges.

The interest rates are exceptionally low and thus already pushing on demand. It rests with the fiscal and structural policy to balance growth. The fiscal policy should not stimulate demand further, but rather help to ensure that growth does not overstretch capacity.

According to both the government and the Chairmanship of the Economic Council, the fiscal policy is long run sustainable. In the forthcoming negotiations of 2<sup>nd</sup> phase of the Job Reform, etc. and the Finance Act 2018, any measures intending to dispose hereof should be planned so that their aggregate activity impact is appropriate, given the cyclical position.

### Employment continues to rise, while unemployment has flattened

Chart 2



Source: Statistics Denmark, jobindsats.dk and own calculations.

Previous structural reforms that are having an effect now help to support the balanced upswing and boost prosperity. There are good reasons to continue recent years' work to implement structural reforms, e.g. to increase the supply of labour, but it is not an obvious solution to introduce further structural reforms with the intent to dampen capacity pressures in the short term. In many cases, uncertainty about their impact and the timing of their pass-through would be too uncertain.

Provided that growth takes place at a steady pace and imbalances do not build up, there is no need to tighten economic policy substantially. However, the strengthened momentum in the economy seen over the past year increases the risk of a more rapid heating of the economy. Experience proves that overheating may occur suddenly and vigorously when the economy is booming, and the government should be prepared to initiate a fiscal tightening in order to dampen growth in demand.

### Employment continues to rise and signs of labour shortage are becoming still clearer

Employment has risen continuously since the upswing gained momentum in 2013, cf. Chart 2. The total figure has increased by approximately 160,000 persons, corresponding to just under 6 per cent, driven mainly by rising employment in many service industries and in construction. Manufacturing has also contributed to the increase, while public sector employment remained flat during this period.

Growth in employment is expected to continue in the coming years, but at a somewhat slower pace than so far as the labour market tightens.

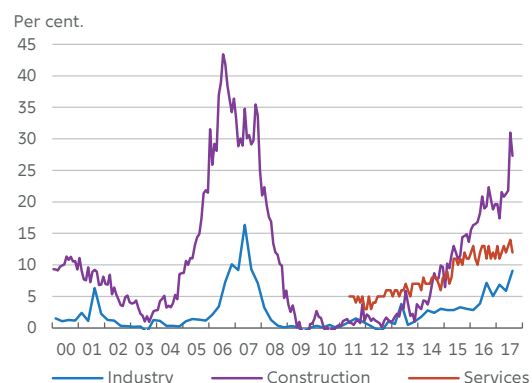
Unemployment (excluding people receiving integration benefits<sup>2</sup>) has decreased during the upswing, but over the last half year the curve has flattened at a level close to the structural level of around 4 per cent of the labour force. Unemployment rose in July there is great uncertainty due to changed compilation methods. The flattening out of unemployment does not reflect that the recovery in the labour market is coming to a halt, but rather that labour force increases, inter alia, more persons choose to remain longer on the labour market. This should be seen in the light of the phasing-in of previously implemented reforms that, inter alia, postpone the retirement age. Foreign labour and an increasing population of working age also boost the labour force.

There are still clearer signs of a shortage of labour, especially in the cyclically sensitive construction sectors, cf. Chart 3. So far, the indicators of labour shortage in construction have shown a more subdued trend than in the mid-2000s, but recent figures are getting close. The government's proposal to no longer include skilled workers services in the in tax deductibility of home repairs and improvements from 2018, will help to ease the pressure on the building and construction sector.

The increase in the labour force is expected to continue in the coming years, but it will be still more and more difficult to keep up with the rising demand for labour. Employment is expected to increase by a further 60,000 or so by the end of 2019. Conditioned on the reforms already adopted, which will gradually postpone the early retirement and retirement ages, increase the labour force, structural employment is also expected to rise – but at a slightly slower pace than employment. So the employment gap, i.e. the gap between actual and structural employment, will widen and labour market pressures increase. Finding qualified labour abroad can help to dampen labour market pressures.

**Labour shortage has increased strongly in recent months**

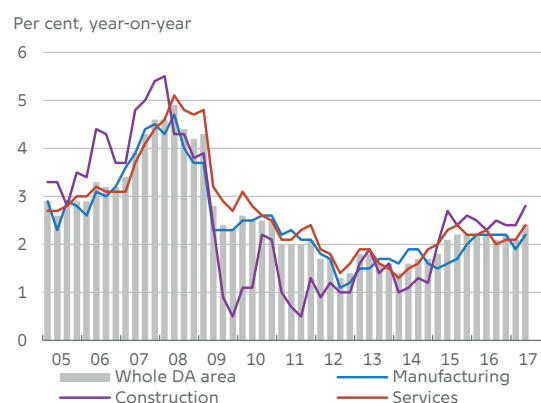
Chart 3



Source: Statistics Denmark and own calculations.

**Wage growth is accelerating, but remains moderate**

Chart 4



Source: Confederation of Danish Employers (DA).

<sup>2</sup> In July 2016, integration benefits were expanded and at the same time more recipients of integration benefits were found to be ready to enter the labour market. So the influx of integration benefit recipients to the ranks of the unemployed is of a technical nature.

### Wage growth is set to accelerate a little, but wage competitiveness remains good

Private sector wages continue to grow at a moderate pace despite the cyclical upturn. In the 2nd quarter, wages in the area covered by the Danish Confederation of Trade Unions/the Confederation of Danish Employers were 2.4 per cent higher than one year earlier, cf. Chart 4. This is the first compilation of wage developments after the most recent central collective agreement took effect in the spring of 2017. A relatively high number of local bargaining procedures were, however, not yet concluded when wage growth for 2nd quarter was published.

In the construction sectors, wages rose by 2.8 per cent, which is a little more than the average for the private sector. The construction sectors are mainly domestically oriented, and this is traditionally the area where domestic upswings are first reflected in accelerating wage growth. But in the current upswing, construction has to some extent succeeded in attracting labour, including from abroad.

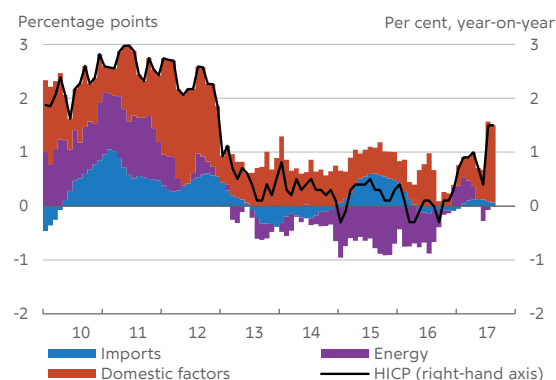
In the manufacturing industries, where a large share of output is exported, wage growth has been slightly higher than in competitor countries in the last year and a half. This comes after a lengthy period of slower wage development in Denmark than abroad, and overall Denmark's wage competitiveness must be said to be good.

Wage growth is forecast to rise only moderately in the coming years. The spring collective agreement for the industrial sector for the period 2017-20 is expected to imply only subdued cost increases for manufacturing firms. The main elements of the other collective agreements in the area covered by the Danish Confederation of Trade Unions/the Confederation of Danish Employers resemble those of the industrial agreement closely. The results of the first decentralised bargaining in the minimum wage area, which are typically seen in the 2nd quarter, confirm the impression that wage pressures remain moderate. There is room in the economy for the expected moderate rise in wage growth in the coming years.

Public sector wage growth is also subdued. Viewed over a longer period of time, private and public sector wages grow at the same rate, as public sector wages are regulated relative to those of the private sector. So public sector wage growth is set to remain moderate in the coming years.

### Consumer price inflation is rising

Chart 5



Note: Domestic factors cover domestic market based inflation, rent and tariffs etc. The breakdown on components for August is partly an estimate.

Source: Statistics Denmark and own calculations.

### Consumer price inflation and domestic price pressures have increased

Consumer price inflation has increased in the last half year, following a prolonged period with inflation close to zero. In July and August, annual consumer price inflation, measured by the EU Harmonized Index of Consumer Prices, was 1.5 per cent, up from 0.4 per cent in June, cf. Chart 5. A part of the rise in consumer price inflation is assessed to be of temporary character which can be attributed to vacation related factors.

Consumer prices in Denmark are now rising almost at the same rate as prices in the euro area, after a year of weaker domestic price growth due to among other things declining prices for mobile services. In the medium term, Danish consumer prices mirror those of the euro area, but in the short term some degree of divergence is not unusual.

Core inflation, i.e. inflation excluding energy and unprocessed food, has also increased. Together with the trend in domestic market-determined inflation, IMI, this points to continued moderate underlying price pressures in the economy, although they are not quite as low as previously.

Price pressures in the wholesale link also remain weak. Energy prices increase the index a little, but not to the same extent as at the beginning of the year. Import prices are rising only slowly. They are

being kept down by a strengthened effective exchange rate of the krone, which reduces the price of foreign goods measured in Danish kroner.

Together with prospects of a moderate acceleration in wages, the increased capacity pressures in the economy result in an expected gradual rise in the annual rate of increase for consumer prices to 1.7 per cent in 2019.

In 2017, price developments will be dampened slightly by the lowering of various indirect taxes and abolition of the PSO duty.

### A solid foundation for growth in private consumption and investment

There is a large potential for further growth in private consumption. Low consumer price inflation in recent years has resulted in appreciably higher real wages. Disposable incomes have increased with rising employment and falling interest rates, while higher house prices and continued build-up of savings have boosted household wealth.

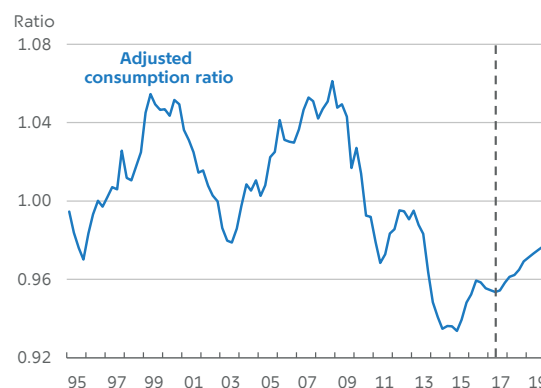
Households still consume a smaller part of their disposable income than previously, cf. Chart 6. The fact that consumption has not risen as much as income during the upswing could indicate more cautious consumer behaviour. Especially households with a high net debt have consolidated themselves over recent years. This indicates that changes in the households' balances are a prolonged process which has stretched into the present economic upswing<sup>3</sup>. The cautiousness has contributed to a balanced upswing.

With employment continuing to rise and slightly higher wage growth, household disposable income is set to increase further. In addition, it will be possible to have accumulated contributions to the early retirement scheme disbursed in 2018, and in connection with the introduction of a new property valuation system some households will in 2019 receive one-off disbursements of excess housing taxes paid. This will also support further growth in private consumption.

Households and firms generally have robust financial

**Consumption ratio remains low, but is expected to rise a little**

Chart 6

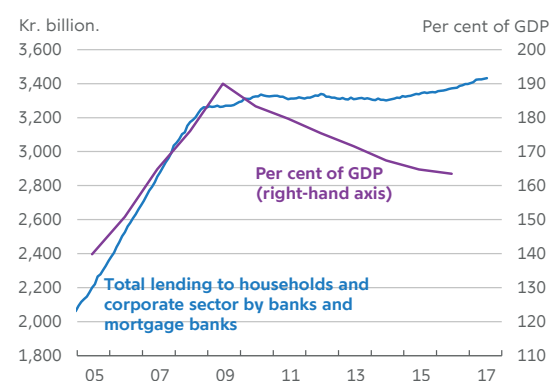


Note: The consumption ratio is calculated as the averages of the current and three previous quarters. The consumption ratio is consumption relative to disposable income, disposable income having been adjusted for capital pension taxation, etc.

Source: Statistics Denmark and own calculations.

**Only small increase in lending to households and the corporate sector during the upswing**

Chart 7



Source: Danmarks Nationalbank.

<sup>3</sup> See Simon Juul Hviid and Andreas Kuchler, Consumption and savings in a low interest-rate environment, *Danmarks Nationalbank Working Papers*, no. 116, June 2017.



buffers after a long period of high savings ratios has been high, and increased private sector demand is not driven by lending growth. Lending to households and the corporate sector in billion kroner was more or less flat in the post-crisis years and has risen only little during the upswing, although home equity has increased, cf. Chart 7. Even though lending as a share of GDP is reduced slightly, the debt level is still relatively higher than previously.

Interest rates remain very low. The yield on a 30-year fixed rate mortgage loan is only just over 2 per cent. Interest rates are assumed to rise over the projection period, which will curb growth in disposable income, wealth and private consumption a little. Nevertheless, the low level of interest rates will still have a strong stimulating effect on demand in the coming years.

Residential investment is increasing – especially in the Copenhagen area, where prices for houses and owner-occupied flats have risen the most. Both new construction and major repairs are displaying an upward trend. With the new housing taxation agreement, it may be an advantage for property developers to complete construction projects before the tax rebate is abolished in 2021, as this will allow them to sell the housing units at higher prices. Bringing forward such projects could increase activity in the construction sector, which is already reporting labour shortage. This applies especially to the completion of ongoing projects, which may be speeded up if possible.

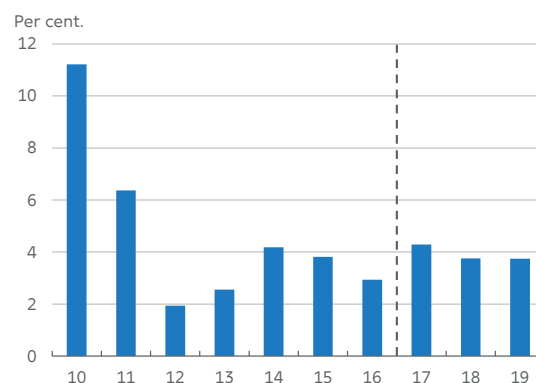
As capacity utilisation increases, private investment is expected to rise. Investment in plant and equipment is expected to outpace construction investment. The number of vacant premises remains high, which reduces the need for new construction. A potential increase in residential investment with a view to completing construction projects before 2021 may also postpone other construction investments if there is insufficient labour.

### A good point of departure for Danish exports

Exports of both goods and services were high in the first half of this year. Following two years of weak export developments, mainly on account of a weak level of activity in sea freight, higher world trade has lifted freight rates and activity. Exports of industrial goods are also at a high level relative to last year.

**Prospects of solid export market growth**

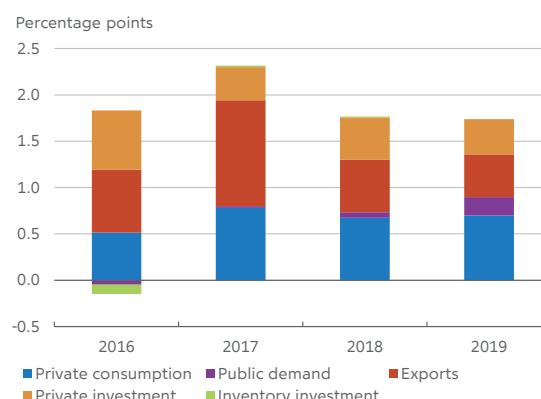
Chart 8



Source: OECD, IMF and own calculations.

**Private consumption and exports are driving growth**

Chart 9



Note: Growth contributions adjusted for imports.  
Source: Statistics Denmark and own calculations.

The opportunities for Danish exports are good. The wage competitiveness of Danish exporters can be characterised as good. Furthermore, the outlook points to robust export market growth, cf. Chart 8. On the other hand, the effective krone rate has strengthened and, viewed in isolation, this may dampen export growth in the coming years. This strengthening reflects the recent weakening of the US dollar and the pound sterling, among other factors.



Exports are expected to continue to grow, and together with private consumption they will be the primary drivers of GDP, cf. Chart 9.

The balance of payments surplus is large and growing as earnings from Danish sea freight increase, cf. Chart 10. Over the last 12 months, the surplus has been just under kr. 180 billion, corresponding to almost 8.5 per cent of GDP. The surplus is expected to decline a little in the coming years, but to remain large. The balance of payments surplus reflects very large savings surpluses among firms and households.

### Prices for owner-occupied dwellings are rising in all of Denmark

The housing market has been picking up for some time. Initially, the rise in activity and prices was concentrated on the cities, but it has now rippled through to virtually all of Denmark. Combined with the many new construction projects in Copenhagen, this may help to ease the pressure on the market in Copenhagen and other cities.

Prices of single-family homes and owner-occupied flats rose in all regions in the 1st half of 2017, but the annual rate of increase has abated a little. All the same, the rate of price increase for owner-occupied flats in Copenhagen still gives cause for concern. The price level is assessed to be higher than warranted by developments in disposable incomes and interest rates. At the same time, the housing market is more sensitive to interest rates in Copenhagen than in the rest of the country, due, among other factors, to a higher prevalence of more risky mortgage types.

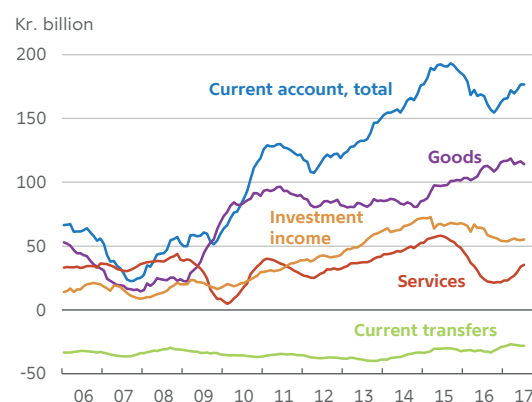
The solid improvement in the housing market is also reflected in turnover. For both single-family houses and owner-occupied flats, it is at the highest level for 10 years, but again there are considerable geographical differences.

The high level of trading activity is also reflected in the number of homes for sale, which has fallen to the lowest level since the overheating of the housing market in the years leading up to the financial crisis in 2008. Combined with a dwindling supply, strong trading activity has led to a continuous decline in time on market.

The generally positive outlook for the Danish economy and a sustained low level of interest rates

Large balance of payments surplus

Chart 10



Source: Statistics Denmark.

indicate that house prices will continue to rise in the coming years, but there will be a better geographical balance than so far during the upswing. Against that background, the price of single-family houses is forecast to grow by approximately 3 per cent p.a. until 2019.

### The new property taxation regime is already helping to stabilise prices

In May, a broad majority in the Folketing (parliament) reached agreement on future housing taxation. The agreement means that from 2021 housing taxes will, once again, contribute to stabilise property prices, as they did prior to the nominal freeze on property value taxes in 2001. That is positive. Housing, of which the value has risen most since the property value tax was frozen in nominal terms in 2001, today have the lowest effective property value tax rates. The agreement will make the tax equal for all. Thus it is expected that after 2021 housing taxes will increase in the areas where pressure on the housing market also today is strongest, i.e. especially for expensive owner-occupied flats in the larger cities, while they will fall in areas far from the cities, where pressure is weaker. This will help to smooth regional differences in house price developments and presumably the agreement already today will dampen the increase in prices in areas where the growth is strongest.

The agreement entails that housing taxes increase for some homes. The price of these homes will even-

tually decrease compared to a situation without the taxation agreement. However, existing homeowners will receive a tax rebate. This rebate will be fixed in nominal terms and will apply only until the first sale of the home after 2021. The rebate implies that the prices are not fully corrected before the implementation of the new taxation regime – that is not before 2021. But when the feasible tax rebate disappears it will dampen the price. This is especially true if the rebate is large. Consequently, most buyers have no tax incentive to buy a home before 2021 merely in order to obtain the rebate, cf. the analysis Housing taxation agreement stabilises house prices<sup>4</sup>.

### Fiscal policy pushes on demand in 2018

In the Economic Survey from August, the government expects the structural deficit to be 0.5 per cent of GDP this year, falling to 0.3 per cent of GDP in 2018. At the same time, measured by the 1-year fiscal effect the fiscal policy is calculated to have a slightly dampening effect on economic growth in 2018. However, with the government's proposal to the 2<sup>nd</sup> phase of the Job Reform etc. and the draft budget for 2018 the fiscal policy has become slightly more expansive next year than previously planned in past Economic Surveys. This applies regardless of whether the new method of calculation from the August Survey or the traditional method from the Economic Survey is used. It is assessed that the planned fiscal policy affects the demand in a slightly expansive way in 2018, when disregarding possible structural effects on the production capacity which are included in the government's new method of calculation.

The government budget deficit is forecasted at 1.2 per cent of GDP in 2017. The continued cyclical improvement will help to reduce the deficit in 2018 and 2019, but disbursement of contributions previously made to the early retirement scheme to those opting out and the extraordinary refund of property taxes in connection with the introduction of the new property valuation system, will have a negative impact on the balance in those two years. The government budget deficit is expected to be 1.1 and 1.4 per cent of GDP in 2018 and 2019, respectively.

### The domestic risks are primarily upwards

There is a risk that demand strengthens more than assumed in the projection and possibly to an extent that will lead to widespread labour shortages and inexpediently strong wage growth. The remaining labour reserve is very small and it is uncertain whether the labour force can be increased sufficiently. Viewed in a long-term perspective, households are still consuming a low share of income, and wealth is high. This provides a solid potential for stronger-than-projected growth in private consumption. Housing market developments may amplify this risk, especially if the strong price rises in the Copenhagen area spread to larger parts of Denmark.

On the whole, the Danish economy is, however, well-prepared to tackle future capacity pressures. In the last couple of years, consumption and investment growth has been taken from earnings or savings while credit growth has been modest. There is scope for higher wage growth, and part of the increased demand can be met via higher imports.

With the agreement on a new property valuation system, it has been decided that property owners who (according to the new valuation system) have paid too high housing taxes will receive reimbursements in 2019. The total amount has been estimated at kr. 13-14 billion, depending on the actual property valuations. From an overall cyclical point of view, the timing of these disbursements could be unfortunate.

The downside risks of the projection are linked mainly to external conditions. These include developments in Denmark's export markets. Although risks of greater fiscal policy stimulus under the Trump administration have declined, the effects of faster-than-predicted monetary policy normalisation in the USA and the euro area, including e.g. equity market adjustments, and geopolitical risks may still worsen the growth outlook. Interest rate hikes could potentially mean that price rises in the housing market make way for falls.

Denmark is dependent on foreign trade, and the current upswing and the prospect of further improvements are to a large extent linked to foreign demand for Danish goods and services. Access to markets abroad is the foundation for Denmark's prosperity. If the protectionist views increasingly voiced in the economic policy debate in recent years are translated into measures that impede trade, this will weaken Denmark's growth opportunities.

<sup>4</sup> Simon Juul Hviid and Paul Lassenius Kramp, Housing taxation agreement stabilises house prices, *Danmarks Nationalbank Analysis*, no. 14, September 2017.

## Key economic variables

Table 1

	2016	2017	2018	2019	2016 Q4	2017 Q1	2017 Q2
Real growth on preceding period, per cent							
GDP	1.7	2.3	1.8	1.7	0.6	0.6	0.5
Private consumption <sup>1</sup>	2.1	2.3	2.0	2.1	1.6	0.8	0.0
Public consumption	0.4	0.8	0.5	0.8	-0.4	0.8	0.4
Residential investment	11.0	5.2	3.6	3.8	0.5	3.7	1.3
Public investment	1.8	0.1	-1.4	1.7	-4.9	2.0	4.0
Business investment	4.9	2.5	5.9	4.7	3.4	-5.2	1.3
Inventory investment, etc. <sup>2</sup>	-0.2	0.0	0.0	0.0	-1.1	0.2	0.6
Exports	2.5	4.4	2.7	2.7	4.5	-0.9	0.8
Industrial exports	3.2	5.1	3.6	3.4	5.3	-1.2	2.2
Imports	3.5	3.9	3.4	3.7	3.5	-1.6	1.8
Employment, 1,000 persons	2,877	2,923	2,955	2,974	2,895	2,907	2,918
Gross unemployment, 1,000 persons	113	116	113	113	113	115	116
Balance of payments, per cent of GDP	7.8	8.6	8.4	7.9	8.8	8.8	8.7
Government balance, per cent of GDP	-0.6	-1.2	-1.1	-1.4	0.5	-0.7	-1.4
House prices <sup>3</sup> , per cent year-on-year	3.9	3.3	2.9	2.8	3.6	2.4	4.6
Consumer prices (HICP), per cent year-on-year	0.0	1.0	1.4	1.7	0.2	0.8	0.7
Hourly wages (manufacturing), per cent year-on-year	2.2	2.4	2.8	3.0	2.4	2.1	2.3

<sup>1</sup> Includes both households and non-profit institutions serving households, NPISH.

<sup>2</sup> Contribution to GDP growth (this item comprises inventory investment, valuables and statistical discrepancy).

<sup>3</sup> Nominal prices of single-family houses.

Source: Statistics Denmark and own calculations.

## International background

The global upswing is strengthening. The euro area has seen increased growth, while the US economy has kept its momentum. Among the emerging market economies, growth rates remain high in China and India, while Russia and Brazil are coming out of deep recessions. The IMF expects global growth in 2017 to reach the highest level since 2011. This provides a favourable background for demand in the Danish economy. High consumer confidence may lead to stronger-than-expected growth in the euro area and elsewhere. Conversely, adjustments in the equity market, effects of monetary policy normalisation, increased protectionism or geopolitical risks may worsen the export market outlooks.

### Higher global growth

The upswing in the global economy has accelerated since the summer of 2016. This is reflected in global industrial output, which is growing at a faster pace, having been affected by the dive in oil-related investments in 2014-16, cf. Chart 11.

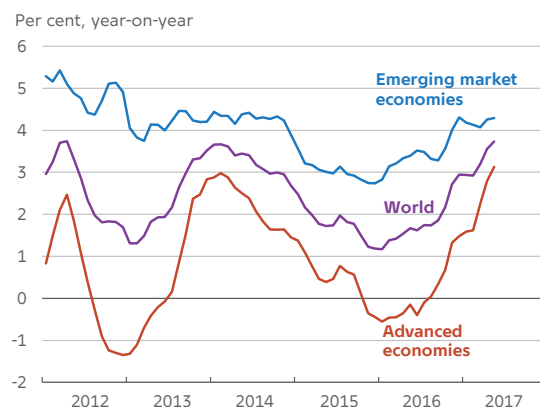
World trade is also picking up and especially imports in the emerging market economies have increased substantially in recent quarters, cf. Chart 12. This is partly because Brazil and Russia are coming out of recessions, while growth remains high in India and China. Import growth has also risen in the advanced countries in 2017 so there are signs that the fall in the growth rate seen in the last couple of years is turning.

In the 1st half of 2017, euro area growth increased relative to the preceding year, while the US economy kept its momentum, cf. Chart 13. Average euro area growth has been on a par with that of the USA since late 2014. This underscores the strength of the euro area upswing, as the increase in the population of working age has been lower than in the USA. In China, fiscal policy stimuli are buoying up growth.

The US upswing has entered its ninth year, and the output gap has more or less closed. So if Congress adopts any major fiscal policy easing measures in connection with the forthcoming negotiations on a tax reform, the Federal Reserve, Fed, may have to raise interest rates faster than the markets currently expect. The euro area, which was hit by both the financial crisis and the subsequent debt crisis, is expected to reach its structural output level in 2018.

**Higher global growth in industrial production**

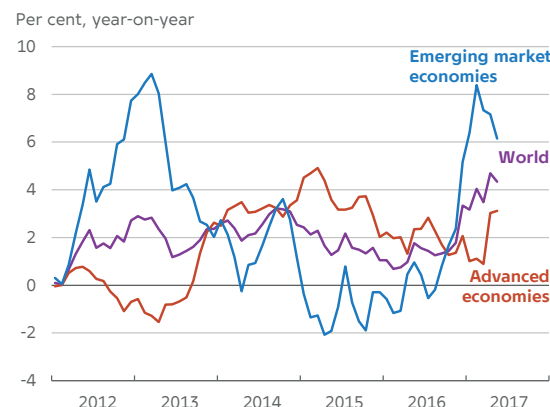
Chart 11



Note: Data weighted relative to output. 3-month centred moving averages.  
Source: Macrobond.

**Import growth is rising, especially in the emerging market economies**

Chart 12

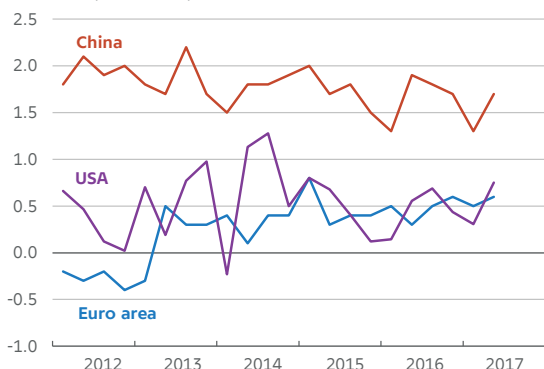


Note: 3-month centred moving averages.  
Source: Macrobond.

### Slightly higher GDP growth in the 2nd quarter

Chart 13

Per cent, quarter-on-quarter



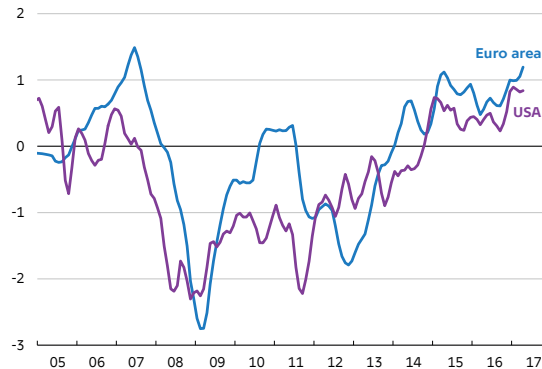
Note: Preliminary national accounts data for the 2nd quarter of 2017.

Source: Macrobond.

### High consumer confidence

Chart 14

Index, avg. 1990-2016 = 0



Note: Consumer confidence has been harmonised across the euro area and the USA by subtracting the average for the period 1990-2016 and dividing by the standard deviation. 3-month moving averages.

Source: Macrobond.

Consumer confidence is high in the largest economies, cf. Chart 14. In recent years, the rise in consumer confidence has not been matched by an equivalent rise in retail sales as previously seen. But the high level of confidence indicates that private consumption may accelerate. This applies particularly to the euro area, where consumer confidence is high and growth in private consumption has been below the historical average for several years.

The IMF's July forecast of global GDP growth is unchanged relative to the April forecast, cf. Chart 15. This means that the global upswing is still expected to gain strength in the coming years. If these expectations are met, global GDP growth in 2017 will be the highest since 2011.

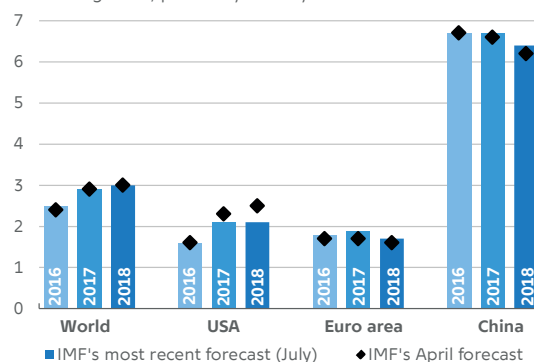
Compared with the April forecast, the growth outlook has been revised slightly upwards for both the euro area and China. But the IMF has adjusted its growth forecast for the USA downwards, primarily due to expectations that fiscal policy stimuli will be lower under the Trump administration than expected so far. The growth outlook for the UK has also been adjusted downwards.

In the assessment of the IMF, short-term risks are balanced, while negative risks dominate in the longer term. Positive growth surprises in the short term could include stronger momentum in the euro area and fiscal policy easing in the USA. On the other

### Global growth is expected to increase in the coming years

Chart 15

Real GDP growth, per cent year-on-year



Source: IMF.

hand, the IMF sees potential impediments to growth from equity market adjustments, effects of monetary policy normalisation, China's high debt, protectionism and geopolitical risks.

### Pressure on the US labour market – still spare capacity in the euro area

Spare capacity is shrinking in the US labour market, as 83 consecutive months of growth in employment mean that the previous record of 48 months has been beaten by a wide margin. Several indicators point to labour market pressures being stronger now than during the pre-crisis boom, and the risk of bottlenecks is increasing, cf. Chart 16. But the employment rate for 25-54-year-olds is only at the historical mean so it may still be possible to find extra resources here. This could be one of the reasons why nominal wage growth is only slightly higher than the historical mean.

The euro area's employment rate has risen substantially since the trough at the beginning of 2013. But labour market indicators suggest that there are still spare resources, and nominal wage growth remains low, cf. Chart 17.

The low rate of nominal wage growth in the USA and the euro area since the financial crisis was initially due to extensive spare capacity in the labour market. Subsequently, wage developments should also be viewed in the context of recent years' low inflation, which has meant that even modest nominal increases would give wage earners higher real wages. At the same time, the low rate of nominal wage growth has contributed to dampening price inflation so that wages and prices have kept each other down. Finally, wages react to capacity pressures with a lag.

Core inflation in the euro area has risen a little in 2017, but is still somewhat below the inflation target, cf. Chart 18. In the assessment of the ECB, the rise has been partly driven by temporary factors (clothing and travel-related items) and the underlying price pressures remain subdued.

In the USA, core inflation has declined in recent months, reflecting, inter alia, falling prices for telecom services (service providers have introduced unlimited mobile data) and indirect effects of low energy prices.

Pressure on the US labour market

Chart 16



Note: The indicators have been stated as percentiles of their historical observations since 2000. The centre is the minimum, the outer edge the maximum value (unemployment measures multiplied by minus 1). The benchmarks are the peak before the financial crisis and the most recent trough.

Source: Macrobond.

Still spare resources in the euro area

Chart 17

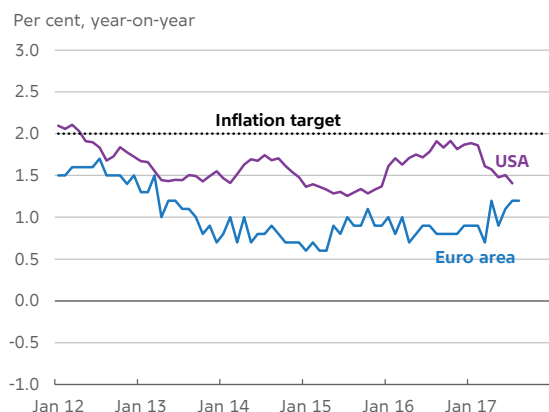


Note: See the note to Chart 16.

Source: Macrobond.

### Core inflation has been rising in the euro area and falling in the USA in recent months

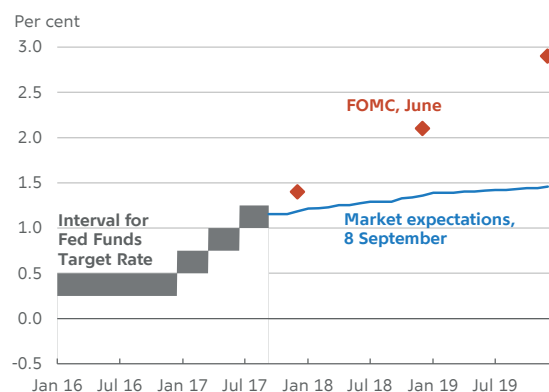
Chart 18



Note: HICP excluding energy, food, alcohol and tobacco for the euro area and the Personal Consumption Expenditures price index, PCE, excluding energy and food for the USA.  
Source: Macrobond.

### In the USA, markets expect far fewer interest rate increases than the FOMC does

Chart 19



Note: FOMC members' expectations indicate the midpoint of the Fed Funds target range. Market expectations are based on futures prices.  
Source: FOMC and Macrobond.

### Monetary policy is being tightened in the USA, but remains accommodative in the euro area

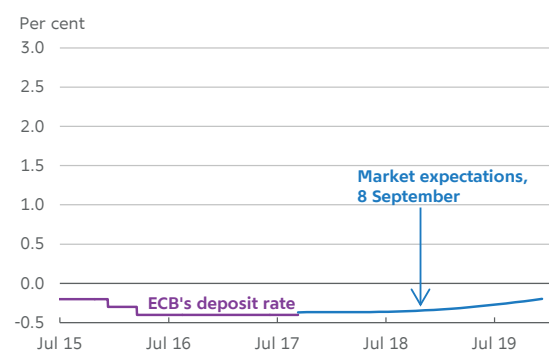
The Fed has gradually begun to normalise US monetary policy. The Fed Funds target rate has been raised by 0.25 percentage point on three occasions since December 2016, most recently at the meeting on 14 June, cf. Chart 19. The Federal Open Market Committee, FOMC, expects one further increase of 0.25 percentage point this year and another three in both 2018 and 2019. This is considerably more than factored in by the financial markets.

In addition, the Fed has announced that it expects to begin to reduce its balance sheet in late 2017. This will be achieved by not fully reinvesting payments from bonds maturing. Over a period of 12 months, the Fed's reduction of its balance sheet will gradually be increased from 10 to 50 billion dollars per month. The Fed has announced that after normalisation the balance sheet will be larger than before the financial crisis, but no specific size has been mentioned. At present the Fed's balance sheet totals almost 4,500 billion dollars, whereas the pre-crisis level was below 1,000 billion.

In the euro area, the ECB has kept its monetary policy interest rates unchanged, cf. Chart 20, and continues to increase its bond holdings by 60 billion euro per month. The asset purchase programme

### In the euro area, the market expects accommodative monetary policy also in the coming years

Chart 20



Note: Market expectations are based on implied forward rates.  
Source: Macrobond and Scanrate RIO.



is expected to continue at least until and including December 2017, and the ECB has announced that it does not expect to raise interest rates during this period.

There has been a tendency to a strengthening of the euro since April, cf. Chart 21. The strengthening possibly reflects waning political risks after the French presidential election and favourable macro-economic data.

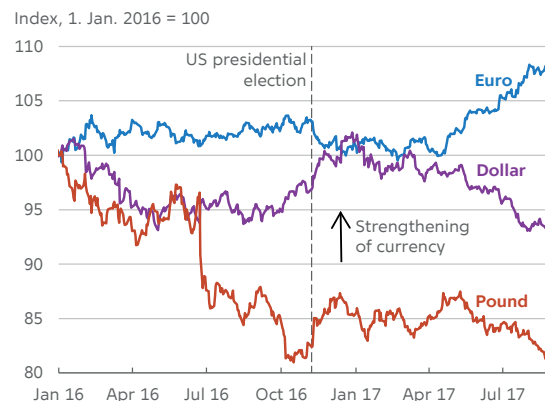
At the same time the dollar has been weakened and the dollar rate is now at a lower level than before the election. This may be attributable to the Trump administration's problems in implementing its political agenda. The dollar strengthened in the wake of the US presidential election in November 2016, including as a result of market expectations of expansionary fiscal policy under President Trump.

US equity prices, measured by the S&P 500, are currently historically high, cf. Chart 22. In early September, they were more than 20 per cent above the level from the beginning of 2016 and just in the first eight months of 2017 they increased by more than 10 per cent. Measured relative to earnings, i.e. P/E, equity prices are also high.

European equity prices have also risen during 2017, but the level is well below the pre-crisis peak.

**The euro has strengthened, while the dollar has weakened**

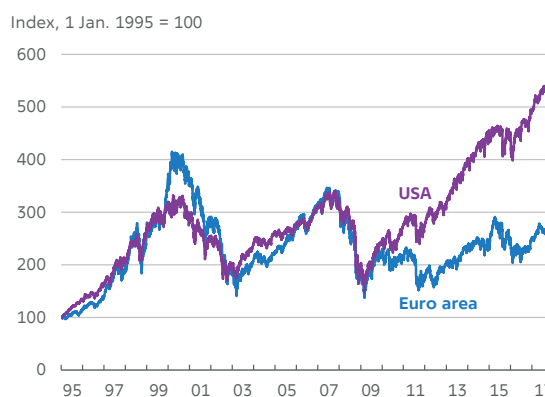
Chart 21



Note: Nominal effective exchange rates.  
Source: Macrobond.

**Historically high equity prices in the USA but not in the euro area**

Chart 22



Note: The S&P 500 index for the USA. The STOXX 50 index for the euro area.  
Source: Macrobond.

## Appendix: Assumptions in and revision of the projection for the Danish economy

The projection has been prepared using the macro-economic model MONA and is based on the available economic statistics, including Statistics Denmark's provisional quarterly national accounts for the 2th quarter of 2017. The projection is based on a number of assumptions concerning the international economy, financial conditions and fiscal policy.

### The international economy

The forecasts of the international organisations are virtually unchanged. The forecasts of GDP growth in the USA have been adjusted slightly downwards, while for the euro area they have been adjusted slightly upwards. Export market growth for 2017 has been adjusted upwards by 1.1 percentage point due to stronger-than-expected growth in the beginning of the year. Looking forward, growth in the markets for Danish industrial exports is predicted to be 4.3 per cent this year and 3.7 per cent in 2018 and 2019, cf. Table A1.

Foreign wage growth is expected to be moderate as labour markets are still weak – but improving. Moderate foreign price increases are expected this year and the next two years.

### Interest rates, exchange rates and oil prices

Developments in short-term and long-term interest rates in the projection are based on the expectations of future developments that can be derived from term structures in the financial markets. Throughout the projection period, the 3-month money market interest rate, measured by the CITA swap rate, is expected to be negative.

The average bond yield is an average of the yields to maturity on outstanding government and mortgage bonds. It is expected to rise slightly over the projection period, from just over 0.7 per cent initially to 1.1 per cent in 2019.

Since the previous projection, the dollar has weakened relative to the Danish krone. The weaker dollar points to an increase in the effective exchange rate of the Danish krone.

The price of oil is around 50 dollars per barrel. The oil price is assumed to develop in line with futures prices and be largely flat until the end of 2019. That is more or less unchanged from the most recent projection.

### Fiscal assumptions

The projection is based on preliminary national accounts data on public sector consumption and investment as well as the planned fiscal policy in the Economic Survey from August 2017 and the updated 2025 projections.

Real public consumption is expected to rise by 0.8 per cent this year and 0.5 and 0.8 per cent in 2018 and 2019 respectively, while public investment is expected to rise by 0.1 per cent this year, fall by 1.4 per cent in 2018 and rise again by 1.7 per cent in 2019, cf. Table A1.

### Revisions in relation to the previous projection

The GDP growth forecast for Denmark has been adjusted upwards by 0.7 percentage point this year. This is primarily due to a much stronger state of the Danish economy than expected in March. It reflects both revisions of Statistics Denmark's calculation of GDP and higher growth than expected in the first half of the year. Viewed in isolation, higher growth on Denmark's export markets also points to higher GDP growth, while a stronger Danish krone points to weaker exports and GDP growth. For 2018 and 2019, GDP growth has been adjusted upwards by 0.2 and 0.1 percentage point respectively.

The HICP inflation forecast has been adjusted downwards by 0.4 percentage point in 2017 and 0.3 percentage point in 2018, primarily due to the stronger effective exchange rate of the Danish krone and lower oil prices.

## Overview of projection assumptions

Table A1

	2016	2017	2018	2019
International economy:				
Export market growth, per cent year-on-year	2.9	4.3	3.7	3.7
Foreign price <sup>1</sup> , per cent year-on-year	-2.2	4.6	2.4	1.5
Foreign hourly wages, per cent year-on-year	1.8	2.0	2.2	2.5
Financial conditions, etc.:				
3-month money market interest rate, per cent p.a.	-0.4	-0.5	-0.4	-0.3
Average bond yield, per cent p.a.	0.8	0.7	0.8	1.1
Effective krone rate, 1980 = 100	100.8	102.1	103.3	103.3
Dollar exchange rate, DKK per USD	6.7	6.6	6.2	6.2
Oil price, Brent, USD per barrel	43.6	51.2	51.4	52.3
Fiscal policy:				
Public consumption, per cent year-on-year	0.4	0.8	0.5	0.8
Public investment, per cent year-on-year	1.8	0.1	-1.4	1.7
Public sector employment, 1,000 persons	818	818	819	819

<sup>1</sup> Weighted import price for all countries to which Denmark exports. The projection assumes that the same growth rates apply to the weighted export prices for all countries from which Denmark imports.

## Revisions in relation to the previous projection

Table A2

Per cent, year-on-year	GDP			Consumer prices, HICP		
	2017	2018	2019	2017	2018	2019
Projection, March 2017	1.6	1.6	1.6	1.4	1.7	1.7
Contribution to revised projection from:						
Export market growth	0.3	0.2	0.1	0.0	0.1	0.1
Interest rates	0.0	0.1	0.1	0.0	0.0	0.0
Exchange rates	-0.6	-0.5	-0.1	-0.2	-0.4	-0.4
Oil prices	0.0	0.0	0.0	-0.2	-0.1	0.0
Other factors	1.0	0.4	0.0	-0.1	0.1	0.3
This projection	2.3	1.8	1.7	1.0	1.4	1.7

Note: The transition from the previous to this projection may not add up due to rounding. "Other factors" includes data revisions.

## ABOUT ANALYSIS



As a consequence of Danmarks Nationalbank's role in society we conduct analysis of economic and financial conditions.

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