

# Research Denmark

## Large current account surplus is here to stay

- Denmark has been running significant current account surpluses over the past few years. However, the surplus has trended down recently and we expect it to edge down a bit further in the years to 2020.
- While the Danish recovery tends to narrow the current account surplus, the build-up of Danish net foreign wealth has the opposite effect.
- Denmark will probably continue to run substantial current account surpluses thanks to its large trade balance surpluses and net foreign capital income.
- A large current account surplus implies an underlying demand for Danish krone which will continue to contribute to a downward pressure on Danish interest rates going forward.
- The risks to our outlook come from global trading activity, which has been low in recent years and could be further depressed by any future US protectionist measures, as well as from developments in the return on investment in Denmark and abroad.

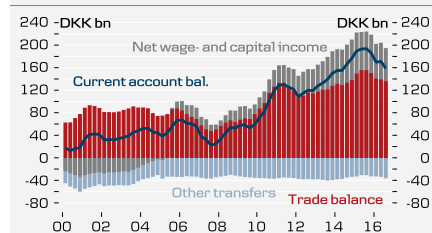
Denmark has been running a surplus on its current account almost continuously since 1990 and the surplus has grown to be very substantial over the past few years in historical terms and relative to peers. Since 2010, the current account surplus has exceeded DKK100bn annually, or 6½-9½% of GDP. While Denmark has maintained a large trade surplus for a long time, the surplus has widened in recent years and has been accompanied by considerable investment income as Denmark's net foreign wealth has grown and Danish investment abroad has yielded larger returns than foreign investment in Denmark.

The spread of workplace pensions since the beginning of the 1990s has gradually dampened consumer spending growth in Denmark, even though higher saving has been partly offset by growing household debt. This goes a long way towards explaining the significant current account surplus – and workplace pensions are set to continue growing for many years to come. However, in spite of the significant Danish savings abroad, the Danish current account surplus will probably not keep widening. On the contrary, the surplus as a percentage of GDP is likely to shrink a little in coming years.

### Business cycle trends have supported a trade surplus

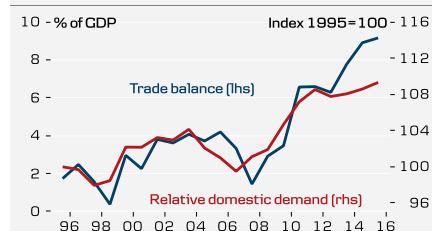
Part of the surplus on Denmark's trade balance (the overall balance on goods and services) can be attributed to the current business cycle conditions. Domestic demand is modest in Denmark compared with our trade partners, which include, not least Germany and Sweden, and this is clearly reflected in the trade balance.

### Large current account surpluses for quite a long time



Source: Statistics Denmark.

### Business cycle conditions affect the trade balance quite significantly



Note: Relative domestic demand is the trade-weighted domestic demand of Denmark's trade partners relative to Danish domestic demand.  
Source: Statistics Denmark, OECD

#### Analyst

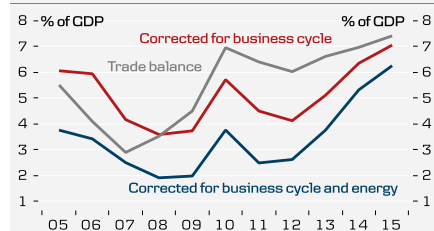
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As the Danish economy is still not operating at full steam, *demand for foreign goods and services is subdued*. This is true of private demand and also reflects the relatively low level of Danish business investment, which is putting a damper on Danish imports. The economies of Denmark's trading partners are also running at less than top speed, so we can probably expect greater demand from abroad for Danish goods and services when the business cycle normalises. However, we estimate the net effect will be negative overall, with the trade surplus falling as the economy normalises. This is because the business cycle in Denmark (in terms of the output gap) is further from the norm than is the case with our trading partners as a whole. However, it is also due to Danish demand for overseas goods and services typically being slightly more income-sensitive than overseas demand for Danish goods and services – as foreign trade is a major factor in the Danish economy. Hence, we can expect imports to outpace exports when the output gap in Denmark and among our trading partners closes.

However, there is considerable uncertainty at the moment about the *potential for global trade* and hence also Danish foreign trade – as global trade has only grown at around the same pace as global income since the financial crisis. Thus the correlation between foreign trade (imports and exports) and GDP has been just one-to-one, which is considerably less than in the 1990s and 2000s. If this new pattern is a structural shift and thus a guide for the future, the trade surplus should, all else being equal, not change very much as the business cycle normalises. An increasing number of obstacles to trade have been introduced in recent years, especially in the BRIC nations, such as Russia's import ban on a string of agricultural products from the US and the EU. Moreover, trade in intermediate products (used in production) as a share of global trade has slowed in recent years, reflecting, among other things, how Chinese manufacturing has become ever more self-sufficient. Going forward, incoming US president Donald Trump's very protectionist agenda could also hamper global trade. All the above could contribute to putting a damper on Denmark's potential export growth. However, part of the explanation for the less trade-intensive growth of recent years is also cyclical. That the crisis had a particularly hard impact on trade-intensive Europe has thus been a significant factor for global trade growth. Moreover, the very low levels of investment in global terms have also helped stifle trade, as investment typically includes a large import content.

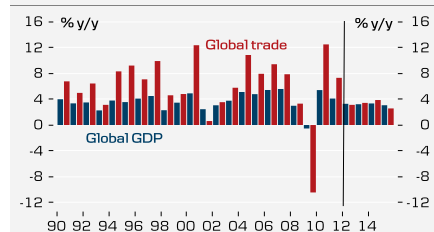
Global trade also plays an important role in the services trade surplus stemming from shipping, which in 2013-15 generated revenues of around DKK200bn annually. In 2015 shipping produced a net surplus including fuel (bunkering) of DKK33bn, or 1.6% of GDP. This – together with the low level of domestic demand, which has also left its mark on the import of other services such as consultancy and auditing services – contributed to pushing the services trade surplus significantly higher. However, a dip in freight rates and sluggish growth in global trade have more or less eliminated the services trade surplus this year, while further pressure on global trade could also pull the services trade surplus lower in coming years.

**Trade balance corrected for business cycle and energy**



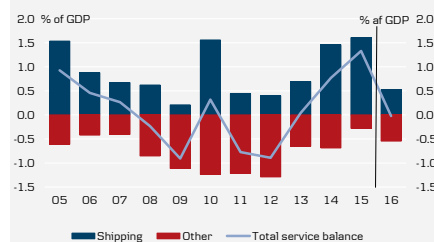
Source: Statistics Denmark, OECD, Ministry of Finance and own calculations

**Growth has had a lesser effect on global trade in recent years**



Source: OECD

**Low freight rates have eroded the large shipping surplus**



Note: Shipping surplus calculated including bunkering. 2016 is an estimate  
Source: Statistics Denmark

However, the bulk of the trade surplus stems from trade in goods. The agro-industry, in particular, has produced major surpluses, while manufacturing has swung between surplus and deficit – though one reason for this is very substantial imports of industrial goods that are used for production in other sectors, such as agriculture. Limited business investment in recent years has kept imports of industrial goods low, which has helped boost the surplus on the balance of trade in goods. Trade in energy previously also contributed positively to the surplus. However, energy exports are heavily dependent on how much oil and gas is extracted from the North Sea, where production peaked in the mid 2000s and will (according to Danish Energy Agency projections) continue to decline gradually in the coming years as Danish oil reserves become depleted. How things develop going forward will very much depend on oil prices, as they will determine how profitable North Sea production can be. Correcting the balance of trade for energy exports would cut just under 1% of GDP off the balance of trade in 2015. Hence, corrected for energy and the business cycle, the surplus was just over 6% of GDP.

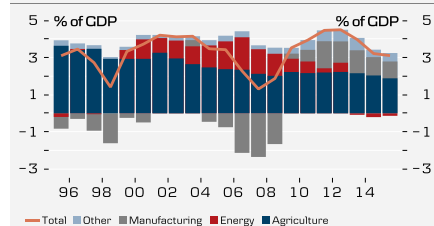
The trade surplus also reflects to some extent developments in *Danish competitiveness*, including companies' production costs – the so-called unit labour costs. Unit labour costs in the manufacturing sector rose sharply in the 2000s compared to Denmark's competitors, and the goods trade surplus was to a large extent maintained by North Sea energy production. Very subdued Danish wage growth after the financial crisis helped improve wage competitiveness in manufacturing considerably and has been a contributing factor to the large goods trade surpluses in recent years despite the decline in raw materials extraction. This trend was brought about by companies successfully reducing unit labour costs relatively quickly, which thus helped restore Danish competitiveness. A key factor here was the flexibility of the Danish labour market.

Exports lost a lot of ground relative to other countries during the boom years in the 2000s as unit labour costs soared and weighed on Danish competitiveness. Another aspect of the story is that growth in the important Danish pharmaceutical industry is relatively independent of the business cycle. Hence the pharmaceutical industry was a factor in dampening the fluctuations in Danish exports around the crisis years.

If we compare export growth (by volume) since 1995 with, for example, Germany or Sweden, Danish exports have not been overly impressive. One factor here has been the decline in North Sea production in recent years, whereas shipping has been a key contributor to lifting exports.

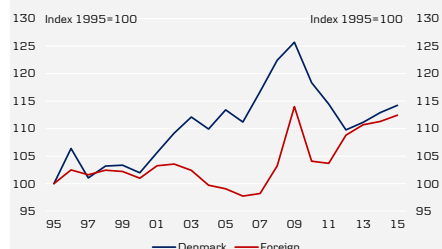
That the trade surplus has nevertheless been growing for some time has to be seen, in particular, against a steady *improvement in the terms of trade* over the past many years. Improving terms of trade are the result of prices on Danish goods exports growing faster than prices on imported goods, in part because Denmark has benefited from cheap imported goods as a result of globalisation – just like our trading partners. In addition, Denmark has been able to raise export prices to a much greater extent than, for example, Sweden or Germany, and this has made a significant contribution to the growing trade surplus. The relatively high price increases on Danish goods exports are in part due to Denmark not having any major electronic or technology exports – sectors where productivity growth has been very strong and where prices have fallen. In contrast, the pharmaceutical industry has been able to hike sales prices due to patent protection and generally increasing demand. Given that the pharmaceutical industry has grown from accounting for 11% of Danish goods exports in 1997 to 20% in 2015, this has been a major reason for the increase in Danish export prices. Moreover, the Danish Economic Councils has previously shown that, post-crisis, Danish exporters have shifted towards producing goods with favourable price

**Sustained goods trade surplus despite declining North Sea oil production**



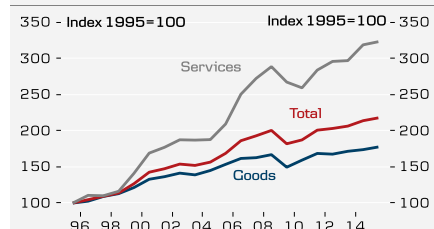
Note: Energy calculated excl. bunkering. Source: Statistics Denmark's foreign trade statistics

**Danish unit labour costs corrected sharply after the financial crisis**



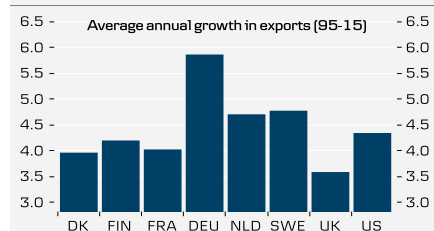
Note: Chart shows manufacturing unit labour costs. Source: OECD

**Services have driven exports**



Note: Chart shows volume growth. Source: Statistics Denmark

**Danish export growth by volume has not been impressive**



Note: Chart shows volume growth. Source: OECD, Statistics Denmark

growth. It was essentially this new mix of exported goods that improved the terms of trade in 2008-11 – a period when export prices rose considerably.

Going forward to 2020, the normalisation of the business cycle in Denmark and abroad would likely mean the balance of trade deteriorating by around 1% of GDP relative to 2016. This is in addition to the quite pronounced fall we have seen so far in 2016 as a result of the lower surplus on trade in services. Moreover, the outlook is for less oil to be extracted from the North Sea going forward than has been the case in recent years, though the effect on the current account will, given the DEA’s projections for oil and gas production, not really be seen until after 2025. The effect here is of course subject to considerable uncertainty, due to both uncertainty on future oil prices and also political uncertainty in the shape of the oil industry’s future operating framework. We should also note that as well as the uncertainty associated with economic forecasts in general, there is also uncertainty when calculating output gaps, which form the basis for calculating the balance of trade corrected for the business cycle.

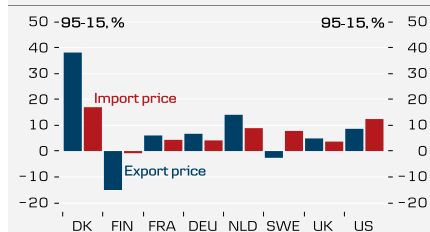
### Net foreign income will continue to grow

Denmark has considerable net foreign wealth. This has arisen in part from the surpluses on the current account, which have resulted in a sizeable Danish foreign investment requirement. Denmark’s net foreign wealth amounted to DKK952bn in Q2 16, and assets of that order generate large net foreign incomes. However, it is not only the scale but also the composition of the foreign assets owned by Denmark compared to foreign holdings of Danish assets that plays a role for the return. The return on foreign direct investment (FDI) in particular, which has historically been high, has helped boost net foreign income, as a relatively large share of Denmark’s net foreign wealth is placed in FDI.

Just over half of Danish FDI is in manufacturing and financial companies, and roughly that share of the return also stems from here. The pharmaceutical industry, for example, has generated very large returns. In fact, when we ignore the pharmaceutical industry, then return on Danish FDI is no longer systematically higher than overseas FDI in Denmark, which is very much concentrated in the financial sector.

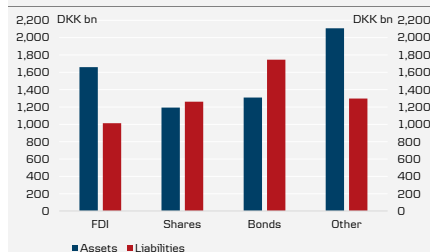
The bulk of Danish FDI is in countries with which Denmark trades extensively. Hence, Denmark’s share of FDI placed in the EU is just over 60%, while Sweden is clearly the country that attracts most investment from Denmark. Likewise, the share of FDI in Asia grew from 6% to 16% between 2004 and 2015 as Danish trade with Asia grew rapidly. The largest investor in Denmark is the US when using the ultimate investment country (where the direct investors’ ultimate parent company is based) in the calculations. The US has almost 50% more investment in Denmark than the second largest investor, Sweden.

### Prices on Danish goods exports have risen markedly compared to other countries



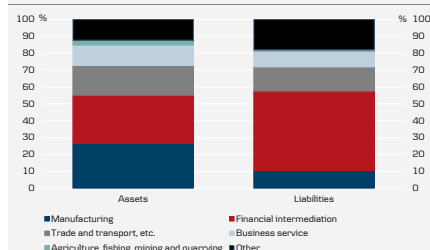
Note: Chart shows terms of trade for goods. Source: Statistics Denmark

### Foreign assets Q2 16



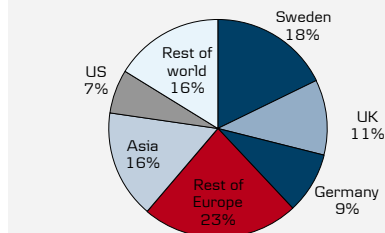
Source: Statistics Denmark, Danmarks Nationalbank

### Distribution of FDI



Note: Chart shows distribution in 2015 based solely on equity. Source: Danmarks Nationalbank

### Danish FDI generally placed with major trading partners



Note: Chart shows distribution in 2015 based solely on equity. Source: Danmarks Nationalbank

Otherwise, Denmark's liabilities generally consist of a relatively large volume of loans in the form of issued bonds. They give a limited return and, incidentally, a lower return than the foreign bonds Denmark's wealth is invested in. This is in part a consequence of Denmark having a large mortgage bond market that provides very cheap loans to homeowners. Returns on assets and liabilities have generally been lower in recent years than historically, which is in part a reflection of the very low level of interest rates.

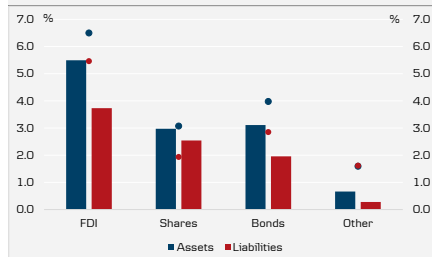
Going forward, we expect that net foreign wealth and hence also *net foreign income will continue to grow*. One reason for this is that the composition of assets suggests a greater return on Danish investments abroad than foreign investments in Denmark. However, net foreign wealth will also grow as private pension wealth increases for many years into the future, even if the need to save up in other assets – for example, one's home – may slow as pension savings grow. This appears to suggest more liabilities with a relatively low return in the shape of mortgage bonds and more assets with a higher return. The trade surplus itself will also mean a continued demand for investments abroad, which will tend to increase net foreign wealth. Future returns on Danish assets abroad and foreign assets in Denmark are naturally subject to considerable uncertainty. In recent years, the return on Danish assets has softened slightly relative to the return on foreign assets in Denmark, and if this trend corrects it will mean a slightly higher net foreign income than assumed in our calculations. However, there will in any event be a structural upside pressure on Danish net foreign wealth.

Hence, we expect to see two opposing effects driving the overall current account. The business cycle normalising will pull the trade surplus lower, but this will be partially offset by ever increasing returns on net foreign wealth. The current account surplus will therefore, in our view, decline slightly going forward to 2020, though it will remain relatively high.

### Current account surplus means low interest rates will continue

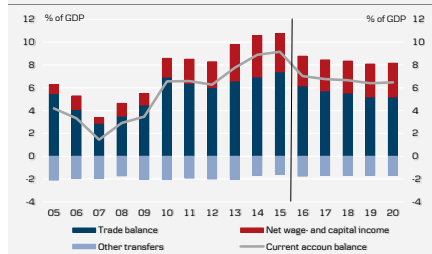
Denmark's large and sustained current account surplus is a key reason why Danish interest rates have been lower than in the eurozone in recent years. A large and sustained surplus on a country's current account will tend to create a real appreciation pressure on its currency, which in turn will tend to reduce the surplus. For countries with floating exchange rates the nominal exchange rate takes care of some of this adjustment, though this is not possible in Denmark's case, as it has a fixed exchange rate policy against the euro (EUR). To avoid the Danish krone (DKK) appreciating against the EUR, Danmarks Nationalbank has been forced to set a lower interest rate, which has therefore made it more expensive to hold DKK. Prior to 2010, when Denmark's current account surplus was more modest, Denmark had a positive rate spread against the eurozone of around 0-0.5 percentage points. Since 2010, during which period the surplus has grown, the rate spread has hovered around minus 0.2 to minus 0.5 percentage points. This more accommodative monetary policy tends to push prices up in Denmark and in that way ensure a real appreciation of the DKK. Given the outlook for a sizeable surplus being maintained on the current account in the coming years, we estimate Danish interest rates will have to be kept lower than in the eurozone. We therefore expect that Danmarks Nationalbank will keep its policy rate at the current minus 0.65% for the coming year.

### Returns on Danish- and foreign-held assets have fallen in recent years



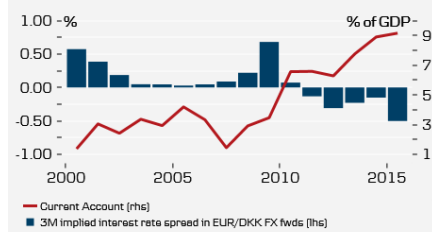
Note: Columns show return in 2015. Dots show average return for 2005-15. Capital gains are not included in the figures. This means the return on shares, in particular, appears very low. Source: Statistics Denmark, Danmarks Nationalbank

### Current account surplus to decline slightly going forward



Source: Statistics Denmark, OECD, Ministry of Finance, Danish Energy Agency and own calculations

### Growing surplus has resulted in negative rate spread



Source: Macrobond Financial

## Appendix – Correcting the current account for the business cycle

Our calculations assume that the current account is only affected by the business cycle via the balance of trade.

The balance of trade is corrected for the business cycle using the output gap for Denmark and its main trading partners. The significance the output gap, and hence unbalanced demand, has for respectively the export and import of goods and services depends on the so-called income elasticities of demand.

The income elasticity of demand for Danish imports is calculated by considering the historical correlation between GDP growth and import growth. The same principle applies to exports. Energy exports, however, are handled separately, as these are much more dependent on the production of gas and oil than demand. Energy exports are removed from the balance of trade by correcting for the import content using input-output tables. Remaining goods exports can be corrected using a trade-weighted foreign output gap and income elasticities for goods exports excluding energy. The same applies to service exports excluding shipping, which are typically sold to neighbouring markets like Sweden, Norway, Germany and the UK. Shipping exports are heavily influenced by developments in global trade, which is estimated using developments in global GDP.

As well as the general uncertainty associated with calculating the output gap, there is also great uncertainty about the future trade intensity of the global economy and hence also the potential for Danish foreign trade. If the just modest growth in global trade in recent years reflects a structural trend, then the normalisation of the business cycle will have less significance for the current account surplus going forward than is assumed in our calculations.

Sources for the output gaps are the Ministry of Finance for Denmark and the OECD for the rest of the world.

*Source: Danske Bank Markets*



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