

## Large increase in sales of goods abroad by Danish manufacturing industries

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**Globalisation means that Danish enterprises are increasingly organising their production across borders. Today, processing abroad, traditional trading with goods across borders, as well as purchases and sales of goods not crossing Danish borders (merchandising) have become closely linked. This trend has been particularly strong over the past decade.**

**This analysis describes how enterprises organise production internationally, with special focus on Danish manufacturing industries' production and sales abroad. The analysis is based on new figures for balance of payments and international trade in goods and services, which were published on 10 October 2016.**

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### **Main conclusions of the analysis:**

- In 2005, Danish manufacturers sold goods abroad which were not produced in Denmark for about DKK 8 bn. In 2015, this figure had risen to more than DKK 120 bn.
- Sales of merchandising goods by manufacturing industries, i.e. goods purchased and sold outside of Danish borders, amounted to almost DKK 70 bn. in 2015. The merchandising goods were primarily sold in other EU countries.
- Purchases abroad by Danish enterprises of foreign goods for processing abroad have increased over ten years from virtually zero to almost DKK 16 bn. In the same period, purchases by Danish enterprises of processing services abroad have risen from almost DKK 1 bn. to almost DKK 9 bn.

## Growing global organisation of production

Globalisation has created new opportunities and increasing competition, thus enterprises are looking for ever more efficient methods of production. In the wake of the international financial crisis, however, many enterprises have also been forced to cut spending and think differently about all of their activities.

At the same time, accelerating developments within IT over past decades have enabled enterprises to organise all or some of their production in new and often more remote markets. Furthermore, the difference in costs between countries, lower customs barriers, as well as improved logistics and protection of IP rights have encouraged many enterprises to organise their activities across borders.

Danish enterprises are also taking part in this ever more comprehensive globalisation. Multinationals are integrating subsidiaries abroad as part of their international organisation. A global production setup entails buying and selling goods and services between group undertakings located in different countries around the world. This way of organising production means that manufacturing activities, general trade in goods, and merchanting (i.e. purchases and sales by Danish enterprises outside of Danish borders) are closely linked today, see box 1.

If Danish enterprises trade goods globally, and these goods never enter Danish territory, the trade is not included in the statistics for international trade in goods. On the other hand, this trade is included in the balance of payments and the national accounts. The balance of payments is compiled on the basis of the activity of enterprises based on an ownership perspective and not a traditional cross-border perspective; the ownership perspective is also the principle for compiling GDP.

By looking more closely at selected items in trade in goods in the context of the balance of payments, for example the outcome of processing and merchanting activities, it is possible to get an impression of how Danish enterprises organise their production internationally.

Processing of Danish-owned goods abroad entails that a Danish enterprise fully or partly owns the raw materials, but buys the production services from an enterprise abroad. The Danish enterprise also retains ownership of the finished goods. Merchanting means that a Danish enterprise buys and resells goods abroad without further processing of the product. The primary element in this organisation is that the goods never cross Danish borders. Goods can be finished goods or semi-manufactured goods.

This analysis will illustrate how Danish enterprises organize production in a globalised world, with special focus on manufacturing industries.

### Box 1: Trends in the organisation of international production

In the past, international production has meant that an enterprise sends raw materials abroad for processing, after which the goods are returned to the country of dispatch. Today, these processed goods are often not returned to the country of dispatch, but are sold locally or sold to a third country. However there are also far more complex processing patterns, e.g. if a parent company located in country A buys raw materials in country B and sends them for processing in country C for final sale in country D. If the processed goods in the example were not owned by country A during processing, but instead were bought directly from country C and sold on directly to country D, this would be merchanting.

Merchanting is widespread among multinationals as part of their international organisation. This type of trade takes place outside of Danish borders. A group's products are usually produced by a foreign subsidiary, after which the parent company buys and resells the goods, either to customers outside the group, or to sales companies within the group.

Some enterprises fall into a special category with regard to international organisation of their production. These are called factoryless goods producers (FGP) and are defined as enterprises who have outsourced their entire produc-

tion, including ownership of all raw materials. The role of the FGP is to check the production process and supply intellectual rights. Production in this type of enterprise is treated as a trading activity and it is not considered as manufacturing in the balance of payments and the national accounts.

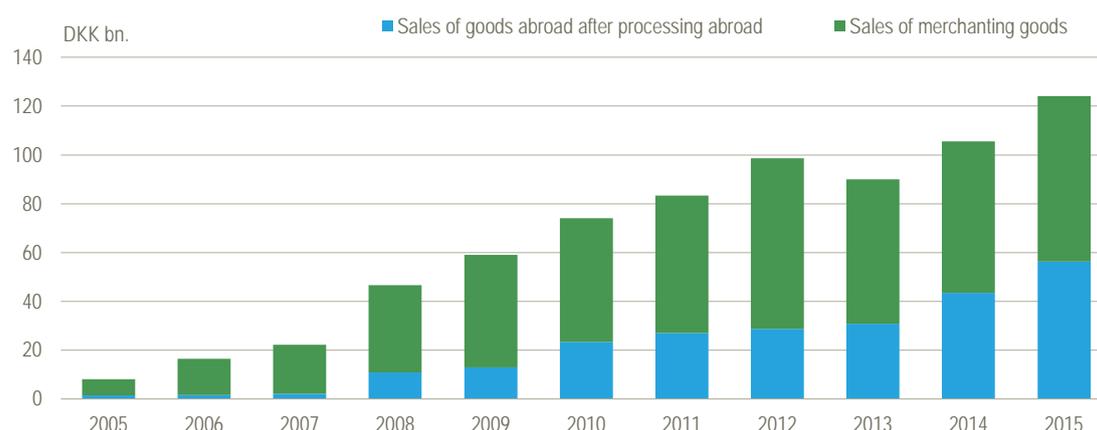
## Large increase in sales of goods abroad by manufacturing industries

Total sales by manufacturing industries of goods produced outside of Denmark in 2015 amounted to more than DKK 120 bn., see figure 1. Total sales outside of Danish borders comprise sales of goods processed abroad and sales of merchanting goods. Sales of merchanting goods made up more than one-half of total sales in 2015.

In the period from 2005 to 2015, sales of processed goods grew from about DKK 2 bn. to more than DKK 55 bn., while sales of merchanting goods grew from around DKK 7 bn. to almost DKK 70 bn.

The above suggests that not only enterprises within distributive trades, where merchanting is the actual business model, have a significant amount of merchanting sales. In distributive trades, merchanting sales were high in the period and remained generally constant at around DKK 70 bn.

Figure 1 Sales of goods by manufacturing industries outside of Danish borders



Note: The majority of processing activities are done by the manufacturing sector.

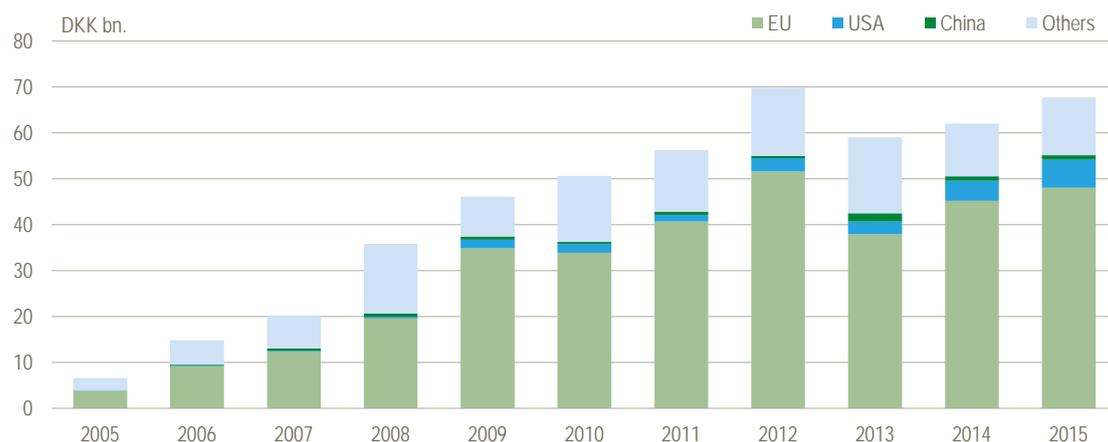
Source: [www.statistikbanken.dk/BBUHV](http://www.statistikbanken.dk/BBUHV) and data extraction made especially for this analysis

The increase in merchanting sales by manufacturing industries is because, in many cases, enterprises choose to buy the processed goods and resell them instead of concluding a processing contract for their raw materials. In this case, the activity of the enterprise will not be purchase for processing, but trade in merchanting goods, see box 1. In some countries, e.g. China, it is not unusual that the processing enterprises own the goods.

### Manufacturing industries sell merchanting goods primarily in the EU

Merchanting sales by manufacturers are primarily to the countries whom Denmark already has significant trade with - primarily EU countries, see figure 2. Outside of the EU, most goods are sold to the US. Note that the figure only shows countries to which goods are sold, and not from where goods are bought.

Figure 2 Merchenting sales by manufacturing industries by partner country



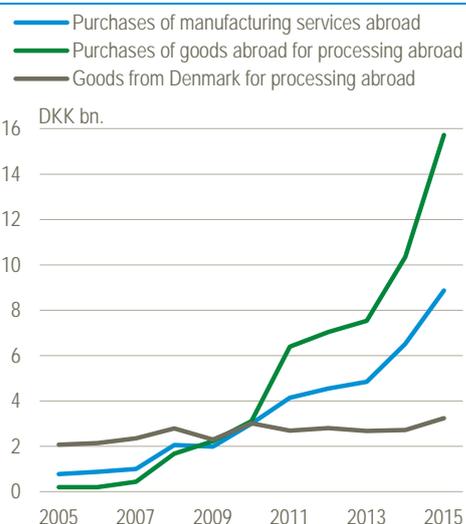
Source: Data extraction made especially for this analysis

**Danish enterprises have more processing abroad now than ever**

Clearly, increased purchases of processing services outside of Denmark will be a cause to the increasing sales abroad of goods which enterprises have had processed outside of Danish borders, see figure 1. In 2005, Danish enterprises bought processing services worldwide for almost DKK 1 bn. In 2015 this figure had grown to almost DKK 9 bn., see figure 3.

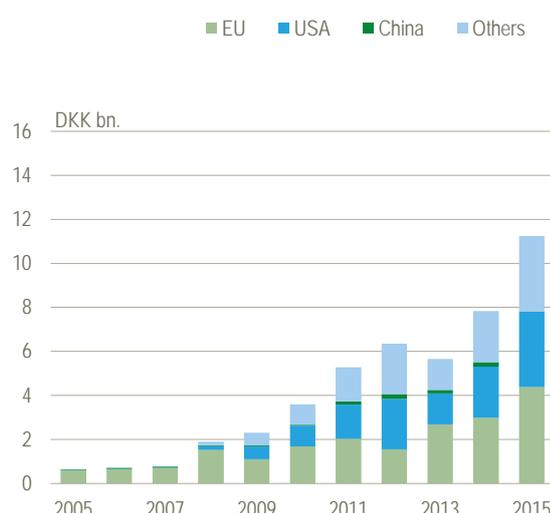
In the past, goods processed abroad have primarily come from Denmark. This pattern has changed drastically over the past decade. In 2005, Danish enterprises bought almost no foreign raw materials for foreign production. In 2015, this had risen to almost DKK 16 bn., see figure 3. The amount of goods sent from Denmark for processing abroad has not risen correspondingly. In other words, Danish enterprises are having more goods processed abroad than in the past, and the raw materials that Danish enterprises are having processed abroad are increasingly being purchased abroad.

Figure 3 Manufacturers' processing activities abroad



Source: [www.statistikbanken.dk/BBUHV](http://www.statistikbanken.dk/BBUHV)

Figure 4 Manufacturers' purchases of processing services abroad by partner country



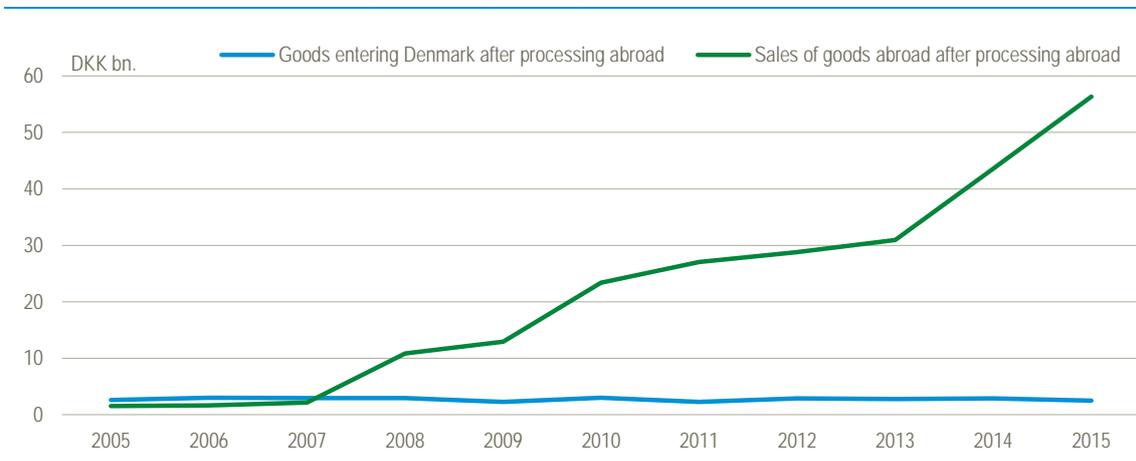
Source: analysis made especially for this analysis

There has also been a significant change in which countries are involved in processing Danish-owned goods. Just ten years ago, processing was primarily as it has been traditionally, with goods going from Denmark to East Europe. Today processing is very much part of 'internal' production with subsidiaries and sister companies around the world. In 2015, the country from which Danish enterprises purchased most processing services was the US, see figure 4. However, overall processing services are primarily bought from neighbouring markets.

### Danish production abroad is also sold abroad

The goods Danish enterprises have processed abroad are also primarily sold abroad. These sales have increased constantly over the past nine years, see figure 5. In more recent years, the trend has been particularly strong. In 2015, foreign-processed goods were sold abroad for almost DKK 60 bn.; twice as much as in 2013. There is no corresponding increase for goods coming to Denmark after processing abroad. The level for these goods has remained unchanged throughout the period at just above DKK 2 bn.

Figure 5 Manufacturers' sales of goods after processing abroad



Source: [www.statistikbanken.dk/BBUHV](http://www.statistikbanken.dk/BBUHV)

Danish enterprises therefore have significant trading activity outside of Danish borders. As the goods do not pass the Danish border, they are not included in the international trade in goods statistics, but they are included in the balance of payments concept of goods.

#### Box 2: Greater degree of detail in the Statistics Bank

Several of the figures on which this analysis is based will be available from the Statistics Bank in the future. Merchancing is calculated as net exports, but in the future information on purchases and sales will also be available from the Statistics Bank. In connection with publication of the balance of payments on 10 October 2016, the transitional table between international trade in goods and the concept of goods in the balance of payments was expanded with the following items

- Goods purchased or sold abroad in connection to processing abroad
- Goods sold under merchancing
- Goods acquired under merchancing
- Goods received for or returned after processing in Denmark without a change of ownership
- Goods sent abroad or returned after processing abroad without a change of ownership

These items have previously been included in other items, or they have been a sub-element in an existing item. Read more about the transitional table between international trade in goods and the definition of goods in the balance of payments at [www.dst.dk/bopdok](http://www.dst.dk/bopdok).