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Nordic Research

Danish and Swedish exports relatively robust to supply problems

- **Globalisation has made corporate production processes sensitive to supply problems. However, this is less of a problem in both Denmark and Sweden than in other countries.**
- **Almost 75% of value creation in manufacturing sector exports is domestically based in Denmark and Sweden – which is more than in, for example, Finland, Holland or Austria.**
- **The pharmaceutical industry in particular is very self-sufficient in Denmark. As this makes up 25% of total goods exports, it is very supportive.**
- **Sweden's pharmaceutical industry is also very self-sufficient, though the paper industry helps boost the level of self-sufficiency.**
- **The first wave of supply shortages will hit harder further south. Denmark and Sweden will encounter increased problems if supplies from Germany begin to dry up.**

Global and integrated can quickly equal vulnerable

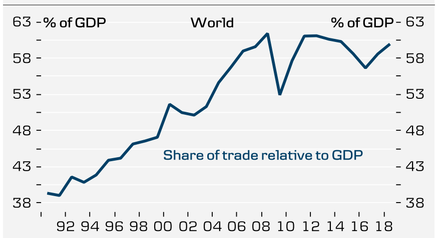
The global economy has become ever more integrated in recent decades. In 1993, the EU's single market boosted trade considerably in Europe, in 2001 China joined the WTO, and in 2004 the EU expanded eastwards. All these events have contributed to the world becoming ever more dependent on cross-border trade, and while globalisation has stumbled in the past few years due to the US-China trade war and the subsequent increase in new trade barriers, that does not change the fact that trade is now more important than ever for keeping production lines running in our companies.

A great deal of production now happens with input from other countries – both near and far – and in a situation such as the present, where much production around the world has stalled, many companies will be vulnerable to supply shortages from abroad.

Bulk of value creation in exports from both Denmark and Sweden happens domestically – making these economies less vulnerable

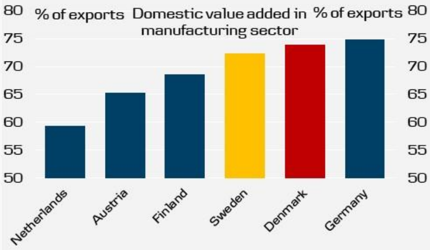
However, if we compare the Danish and Swedish manufacturing sectors (food, timber, paper and traditional industry) with the same sectors in other, smallish economies, then both countries are relative robust to supply disruption from abroad. Hence, 74% of exports from the Danish manufacturing sector are produced domestically – or put more precisely, 74% of the value creation in exports occurs within the country's borders. For Sweden, the equivalent figure is 72%. This is more than countries of comparable size, such as Finland, Holland or Austria. It is a little below Germany, but Germany is of course a much larger economy and so is naturally more self-sufficient throughout the production value chain than smaller countries.

Global trade accounts for an ever-increasing share of the global economy



Source: World Bank, Macrobond Financial

Denmark less sensitive to supply shortages



Source: OECD TiVA data, Danske Bank

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Denmark's robustness here is due to several factors. First, much of the explanation lies in the export of pharmaceuticals. Value creation in the Danish pharmaceutical industry is 81% domestically based, which is more than the same industry in comparable countries. Second, the pharmaceutical industry accounts for a considerably greater share of exports in Denmark that in other countries.

Self-sufficiency in the Swedish pharmaceutical industry is also relatively high. However, it accounts for rather less exports than in Denmark. Sweden also has large production of paper products, which likewise have a very low import content. One factor pulling in the opposite direction is transportation, which also accounts for a large share of Swedish exports. This has a considerably higher import content. Transportation is also probably relatively hard hit by a lack of demand at the moment.

However, the relatively high degree of self-sufficiency in Denmark and Sweden is also because these countries do not have major exporting of metals like Finland, computers and electronics like Holland, or transportation like Austria (in the case of Denmark) – industries that all have a large import content.

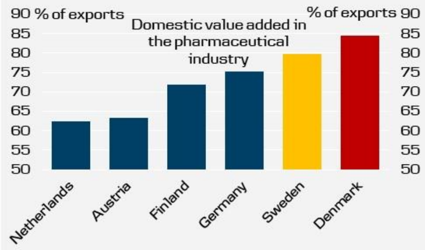
With service exports the story is rather different. Denmark has a relatively high input from other countries here. However, this applies solely to shipping, which has ships that fill up on fuel right around the world. Shipping could be vulnerable when global trade declines as production shuts down and demand falls, but fuel shortages should not be a problem.

First wave of shortages will hit hardest further south

Many companies are presumably already experiencing problems with supplies from the first countries that shut down production. Industrial production in China was 13.5% down year-on-year in February. As production in China normally grows by 5% y/y, this inevitably means there will be supply problems for companies that use Chinese goods – and very many do so. However, Denmark and Sweden are not among the most vulnerable here. Danish production employs a relatively modest input of Chinese goods. That is also the case with Sweden, while Germany is more vulnerable. However, production shutdowns are no longer confined to China. In fact, China is ramping up towards full production after getting the coronavirus contained, while much of Europe is in the process of shutting down large areas of their economies. Italy has long had the greatest problems. Beyond its immediate neighbours, Germany will also be somewhat more affected by shortages of Italian supplies than, for example, Denmark.

Recent developments mean all of Europe is likely to be hit by production shutdowns. For Denmark and several other countries, the consequences will likely be greatest if supplies from Germany are interrupted, though production shutdowns across Europe can make it problematic to be dependent on supplies from abroad generally. Nevertheless, both Denmark and Sweden look less vulnerable than other countries. If we extrapolate the OECD's data with the trends we have seen in recent years, the picture becomes even clearer for Denmark. The pharmaceutical industry accounts for a quickly growing share of Danish exports, which means the manufacturing sector as a whole in 2020 will probably be more self-sufficient than was the case in 2015 – the year to which the OECD's data refers.

Danish and Swedish pharmaceutical industries very self-sufficient

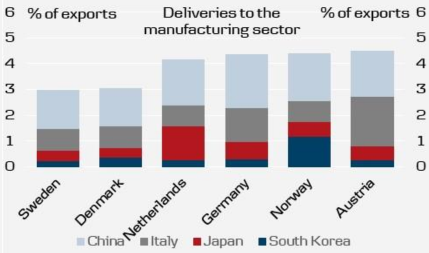


Source: OECD TiVA data, Danske Bank

Production shutdown in China will hit supply chains throughout the world

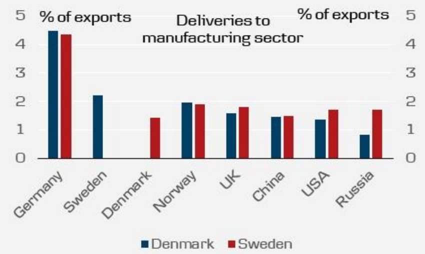
Source: NBS, Macrobond Financial

First wave of production shutdowns will hit other countries harder



Source: OECD TiVA data, Danske Bank

Germany accounts for most supplies to the manufacturing sectors in Denmark and Sweden



Source: OECD TiVA data, Danske Bank

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