HOUSE OF COMMONS
LIBRARY

BRIEFING PAPER

Number 8065, 1 August 2017

Importance of trade with the EU for UK industries

By Federico Mor

Contents:

Contents

Summary

This briefing paper looks at the importance of trade with the EU for UK sectors and industries. Both imports and exports matter to firms, and this briefing considers both.

Exports are a source of revenue for firms. Imports are costs, but they should also be thought of as inputs that enable firms to produce and be more competitive. For example, UK car manufacturers import components from the continent because these components are not available in the UK, or not available at the right quality and/or price.

High levels of trade with the EU indicate that an industry is highly integrated into the European Single Market. These industries face higher risks from Brexit, if Brexit makes trade with the EU more difficult.

The analysis uses the ONS's UK input-output analytical tables for 2013 (released 9 March 2017). These tables take a long time to compile, and this is why figures are for 2013. The complexities of the source data and the difficulties in measuring such detailed information mean that this analysis should not be understood to provide exact percentages. Rather, its purpose is to give a sense of how different industries compare in terms of their trade with the EU.

On the export side, the three sectors most reliant on the EU market for their revenues are mining & quarrying (think oil and gas) at 43% of the sector's total revenues, manufacturing at 21%, and financial services at 10%. On the import side, the three sectors most reliant on the EU market for their inputs are manufacturing at 20% of total non-staff production costs, health & social care at 18%, and accommodation & food services at 15%.

Other aspects and further reading

Visit Parliament's Brexit Hub for more analysis of how leaving the EU will affect UK trade and industries, the economy and other policy areas.

1. Introduction and source

This briefing paper looks at the importance of trade in goods and services with the EU for UK sectors and industries. Both imports and exports matter to firms, and this briefing considers both.

Why exports and imports matter

Exports can be an important source of revenue for firms. Imports are costs, but they should also be thought of as inputs that enable firms to produce and be more competitive. For example, UK car manufacturers import components from the continent because these components are not available in the UK, or not available at the right quality and/or price. The import of car components is a good example of imports supporting exports, as the UK exported 79% of the cars it produced in 2016.[1]

Ben Broadbent, Deputy Governor at the Bank of England, talked about the potential impact of barriers to imports from the EU in a July 2017 speech:

> Put simply, a significant curtailment of trade with Europe would force the UK to shift away from producing the things it's been relatively good at, and therefore tends to export to the EU, and towards the things it currently imports and is relatively less good at.[2]

To quantify the importance of EU imports, the analysis estimates how much of an industry's inputs are imported from the EU (as opposed to being purchased from other UK firms, or imported from the rest of the world). To quantify the importance of exports to the EU, the analysis estimates how much of an industry's revenues come from the EU (as opposed to revenues from domestic sales, or sales to the rest of the world).

Source

The analysis uses the ONS's UK input-output analytical tables for 2013 (released 9 March 2017). These tables take a long time to compile, and this is why figures are for 2013. The complexities of the source data and the difficulties in measuring such detailed information mean that this analysis should not be understood to provide exact percentages. Rather, its purpose is to give a sense of how different industries compare in terms of their trade with the EU.

Product vs industry

The input-output tables used are actually compiled on a product by product basis – not by industries. So to be precise, the analysis shows how different UK *products* (goods and services) compare in terms of the EU imports used in the production process and in terms of the export of these products to the EU.

---

1 SMMT, Car production in 2016 press release, 26 January 2017
For more information on the motor industry, see our Commons Library briefing. paper, Motor industry: statistics and policy, April 2017

2 Ben Broadbent, Deputy Governor Monetary Policy, Bank of England, 'Winners from globalisation' speech, 11 July 2017

When this paper talks about UK sectors and industries, it is referring to the products of these sectors and industries. It is assumed that sectors and industries mostly produce their own products. In reality, although a business is allocated to a particular industry, they may also produce goods and services that belong to another industry or sector, for example, a manufacturing company that also sells repair services.

Brexit

High levels of trade with the EU indicate that an industry is highly integrated into the European Single Market. These industries face higher risks from Brexit, if Brexit makes trade with the EU more difficult.

The introduction of tariffs (a tax on imports) is one possible barrier to trade, along with a multitude of non-tariff, 'technical' barriers. Technical barriers to trade include, for example, differing product standards in the areas of labelling, packaging and safety. Given that EU tariffs are now generally low, these non-tariffs barriers are considered to be a more important barrier to trade. However, tariffs on some individual products are still high. For instance, the EU tariff on cars is around 10%. More information on potential future arrangements for trade between the UK and the EU can be found in our Commons Library briefing, Brexit: trade aspects (July 2017).

Tariff and technical barriers make trade more expensive, directly and indirectly. For example, additional border checks make importing and exporting goods slower and costlier. Therefore, the size of an industry's trade with the EU gives us an indication of how exposed that industry is to new trade barriers that might follow from Brexit.

That is the only focus of the analysis. This briefing does not attempt to estimate potentially positive effects of trade barriers for UK industries, such as the opportunity to increase their share of domestic demand at the expense of EU firms finding it harder to sell into the UK market.

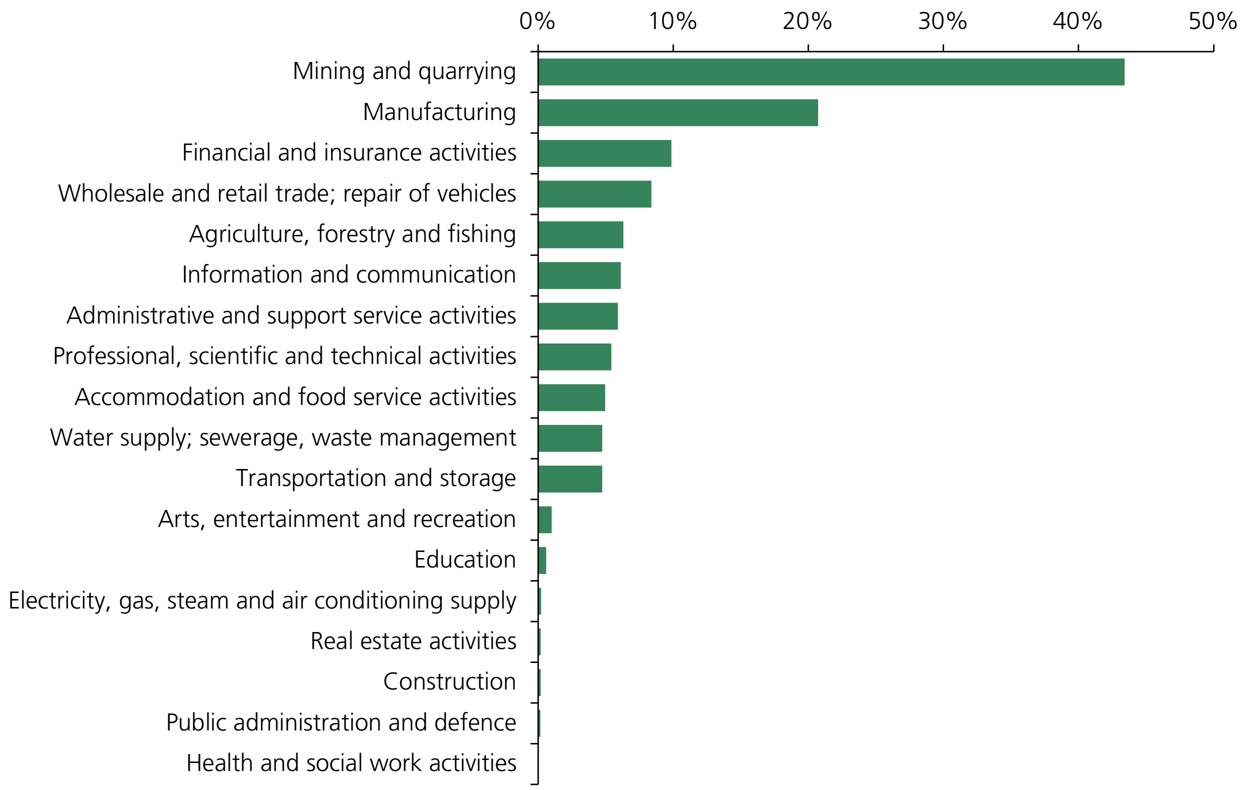
2. Trade with the EU by sectors

This section looks at the levels of trade in goods and services with the EU for all the broad sectors that make up the economy.[3] All charts and figures are based on the analysis of the ONS's UK input-output analytical tables for 2013 (released 9 March 2017).[4]

Exports

This first chart shows the importance of exports to the EU as a source of revenues by sector. The three sectors most reliant on the EU market for their revenues are mining & quarrying (think oil and gas) at 43% of total revenues, manufacturing at 21%, and financial services at 10%.

Exports to the EU as % of the sector's total revenues, 2013



Whilst mining and manufacturing overwhelmingly export goods, financial and insurance activities only export services.

Other sectors such as arts, entertainment and recreation have little revenue exposure to the EU, and some such as health and public administration have virtually none. The reason is not to do with the EU, but rather that the services that these sectors produce are not exported in general.

3 Sectors and industries are classified using the Standard Industrial Classifications, UK SIC 2007.

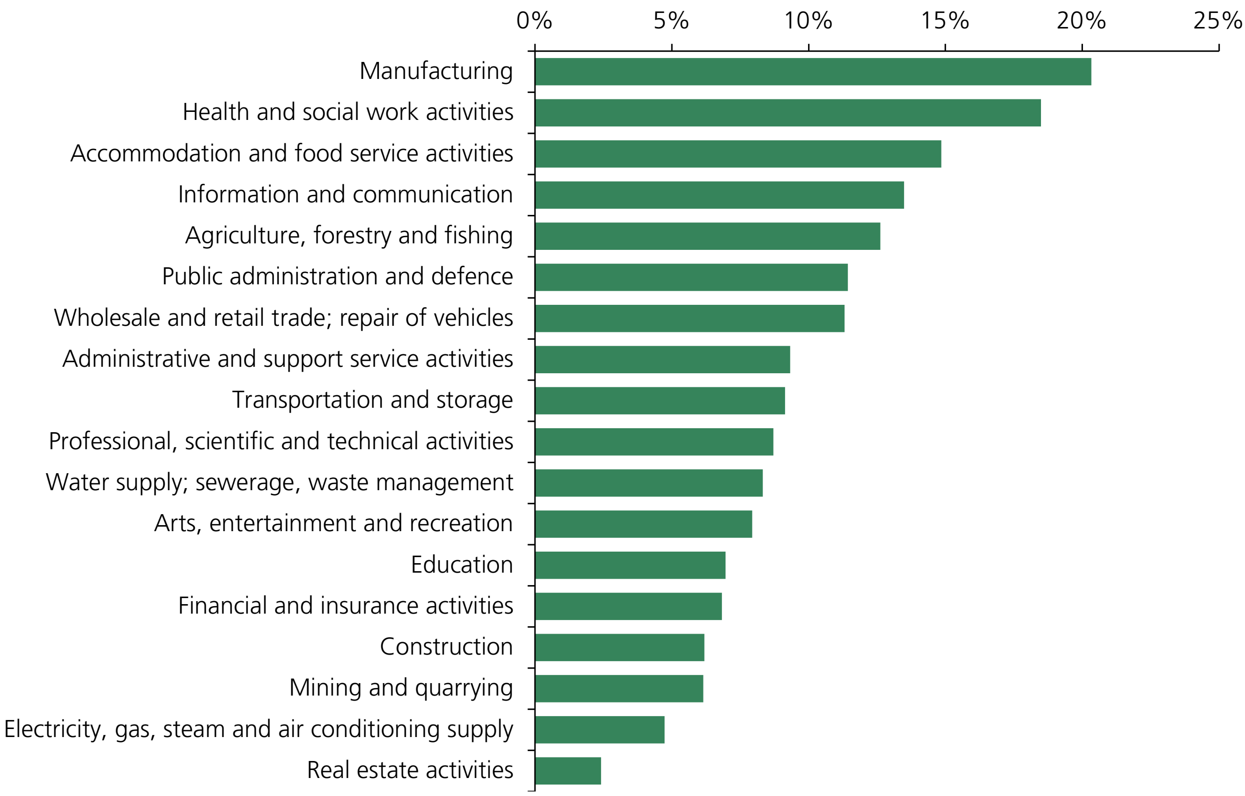
4 See 'Methodology' section for more information.

Imports

This second chart shows the importance of EU imports as a source of inputs by sector. That importance is measured by the share of total non-staff production costs accounted for by imports from the EU.

The three sectors most reliant on the EU market for their inputs are manufacturing at 20% of total non-staff production costs, health & social care at 18%, and accommodation & food services at 15%.

EU imports as % of the sector's non-staff production costs, 2013



The manufacturing sector mostly imports manufactured products that it uses as components to produce more complex goods. For example, the pharmaceutical industry imports chemical products to produce medicines. But the manufacturing sector also imports basic products such as crude petroleum and metals.

The health sector's high reliance on the EU market for inputs is due to large imports of pharmaceutical products (e.g. medicines) and electronic equipment.

Overall picture

The range of reliance on imports goes from 2% to 20% of non-staff production costs, while reliance on exports ranges from 0% to 43% of revenues. An interesting difference is that exposure to the EU is concentrated in about half of the sectors on the export side, whilst it is more spread on the import side. The main reason for this difference is again that the products of some sectors such as health and construction tend not to be exported very much, whereas all sectors can, for example, buy IT services from the EU if they want.

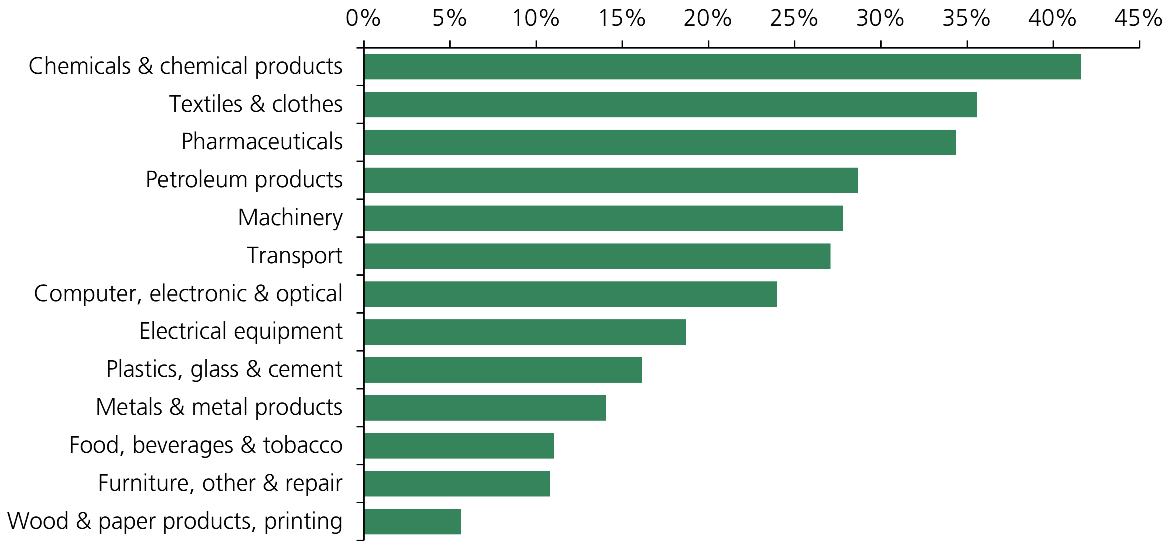
A number of sectors have a high degree of reliance on the EU market for both inputs and revenues: manufacturing most of all, but also wholesale and retail trade, financial services, agriculture, and information and communication. Other sectors have mostly a one-sided exposure: mining on the revenue side; health, accommodation and food services, and public administration on the input side. Finally, other sectors such as professional and scientific activities and transportation buy and sell sizeable amounts to and from the EU, although not as much as the most exposed sectors.

2.1 Manufacturing industries

The analysis shows how the UK manufacturing sector is highly integrated with the rest of the EU, with the sector buying many materials, components and equipment from EU firms (20% of non-staff production costs) and selling a large part of its finished products back to EU firms and consumers (21% of revenues).

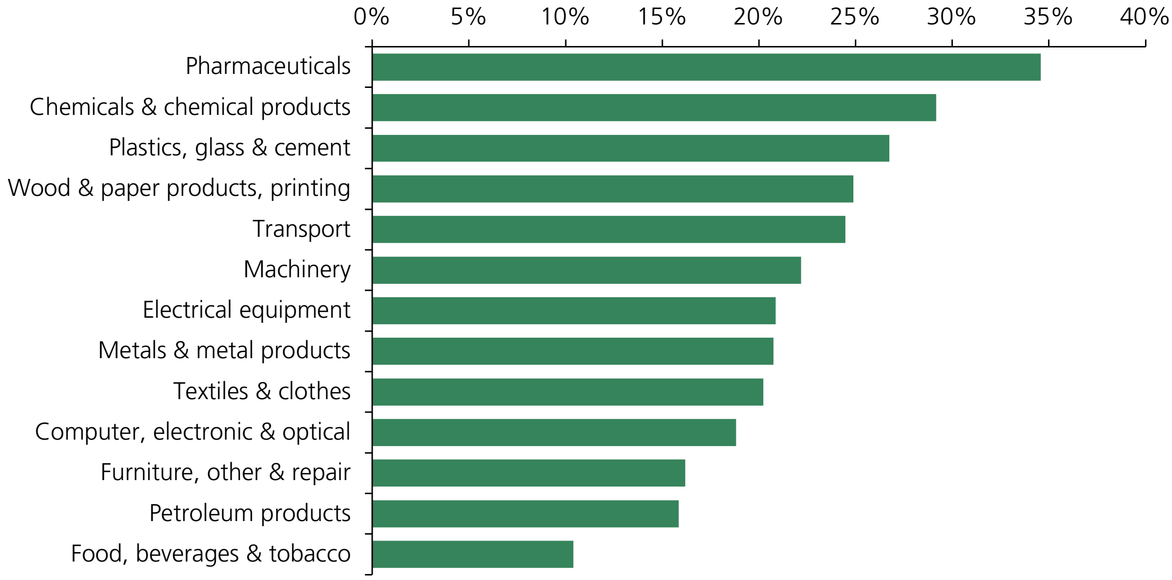
The detailed source data used in this analysis allows us to look at the exposure of specific industries within the manufacturing sector. The charts below show the reliance on EU trade for the manufacturing industries. On the revenue side, chemicals, textiles & clothes and pharmaceuticals are most exposed – at 42%, 36% and 34% of revenues respectively, while furniture and wood & paper products are least exposed.

Exports to the EU as % of total revenues, 2013
Manufacturing industries



Pharmaceuticals and chemicals lead the chart on the input side too, at 35% and 29% of non-staff production costs respectively. This double exposure makes these two industries highly dependent on trade with the EU.

EU imports as % of non-staff production costs, 2013
Manufacturing industries



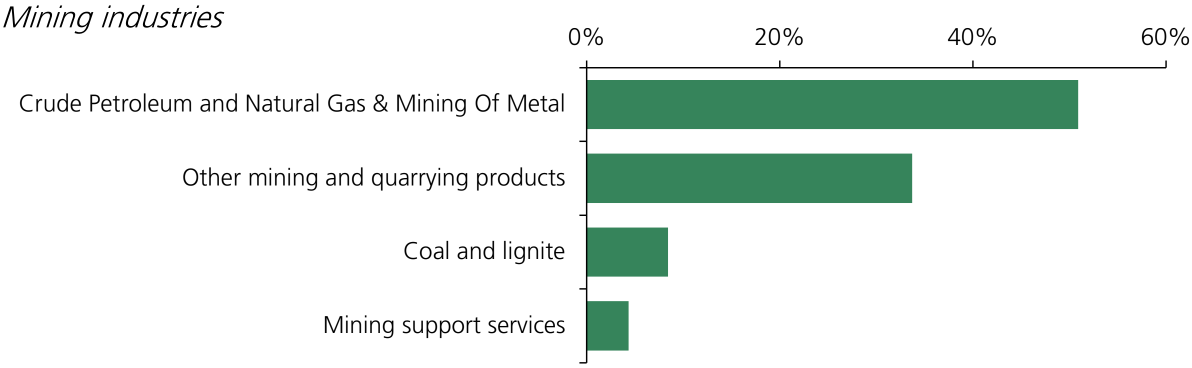
It is possible to drill down even further into some industries. For example, the figure for the transport manufacturing industry hides a wide variation between its sub-industries. 32% of the motor vehicle industry's sales go to the EU, while for ships & boats, it is only 10%. In terms of inputs, the figures are 31% and 12%, respectively.

2.2 Mining and quarrying industries

At 43%, mining and quarrying was the sector with the highest share of its sales going to the EU by far – twice the exposure of the next highest sector, manufacturing.

This chart shows that the sector's overall figure is driven by the oil & gas extraction industry. An estimated 51% of the industry's sales went to the EU in 2013.

Exports to the EU as % of total revenues, 2013
Mining industries

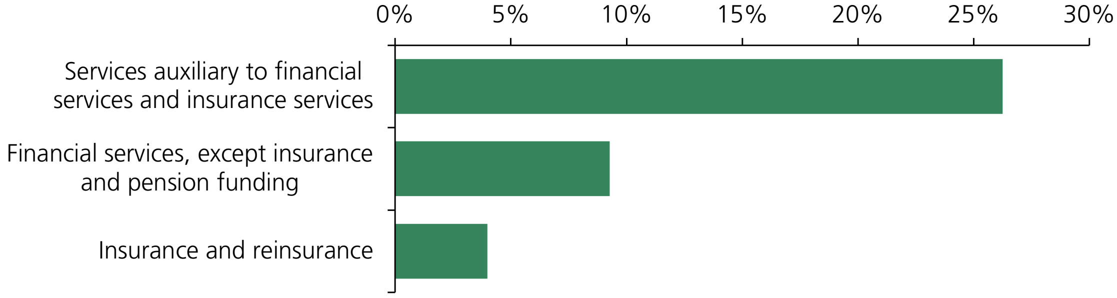


On the other hand, the sector's EU imports are relatively low, at 12% of non-staff production costs for coal and other mining, and at 5% for oil & gas.

2.3 Financial and insurance activities

The financial sector's relatively high reliance on the EU for revenues (10%) is concentrated in the auxiliary financial services industry. An estimated 26% of these auxiliary services were sold to the EU in 2013.

Exports to the EU as % of total revenues, 2013
Financial industries



Auxiliary financial services are made up of the following elements:

- Administration of financial markets
- Security and commodity contracts brokerage
- Risk and damage evaluation
- Activities of insurance agents and brokers
- Fund management activities

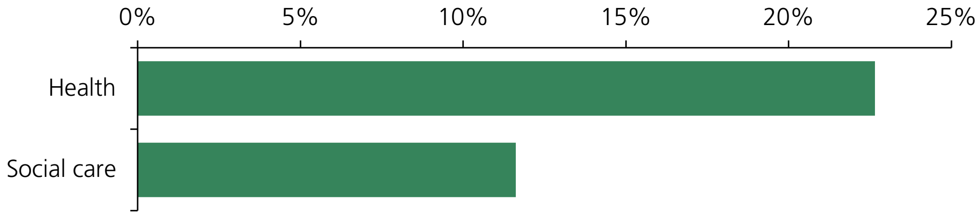
Insurance and reinsurance, on the other hand, are least exposed, at 4% of revenues only.

The sector's overall imports from the EU are estimated at 7% of non-staff production costs, which is less than most other sectors. At the industry level, reliance on EU imports ranges from 4% for insurance to 9% for financial services.

2.4 Health and social work activities

The health and care sector shows negligible exports, but it has the second highest reliance on EU imports of all sectors, at 18% of non-staff production costs. Breaking the sector down shows health at 23% and social care at 12%.

EU imports as % of non-staff production costs, 2013
Health and social care



The difference is largely due to the fact that social care uses and imports few pharmaceutical products, unlike the health sector.

3. Table of sectors and industries

Exposure to EU trade by sector and industry, 2013

	EU imports as % of non-staff production costs	Exports to the EU as % of total revenues
Sectors		
Agriculture, forestry and fishing	13%	6%
Mining and quarrying	6%	43%
Manufacturing	20%	21%
Electricity, gas, steam and air conditioning supply	5%	0%
Water supply; sewerage, waste management	8%	5%
Construction	6%	0%
Wholesale and retail trade; repair of motor vehicles	11%	8%
Transportation and storage	9%	5%
Accommodation and food service activities	15%	5%
Information and communication	13%	6%
Financial and insurance activities	7%	10%
Real estate activities	2%	0%
Professional, scientific and technical activities	9%	5%
Administrative and support service activities	9%	6%
Public administration and defence; compulsory social security	11%	0%
Education	7%	1%
Human health and social work activities	18%	0%
Arts, entertainment and recreation	8%	1%
Other service activities	10%	1%
Manufacturing industries		
Food, beverages & tobacco	10%	11%
Textiles & clothes	20%	36%
Wood & paper products, printing	25%	6%
Petroleum products	16%	29%
Chemicals & chemical products	29%	42%
Pharmaceuticals	35%	34%
Plastics, glass & cement	27%	16%
Metals & metal products	21%	14%
Computer, electronic & optical	19%	24%
Electrical equipment	21%	19%
Machinery	22%	28%
Transport	24%	27%
Furniture, other & repair	16%	11%
Mining industries		
Crude Petroleum and Natural Gas & Mining Of Metal Ores	5%	51%
Other mining and quarrying products	12%	34%
Coal and lignite	12%	8%
Mining support services	7%	4%
Financial industries		
Services auxiliary to financial services and insurance services	6%	26%
Financial services, except insurance and pension funding	9%	9%
Insurance and reinsurance	4%	4%
Health and social care		
Health	23%	0%
Social care	12%	0%

4. Methodology

As explained in the Introduction, the input-output tables used are compiled on a product by product basis – not by industries. So to be precise, the analysis shows how different UK *products* (goods and services) compare in terms of the EU imports used in the production process and in terms of the export of these products to the EU.

When this paper talks about UK sectors and industries, it is referring to the products of these sectors and industries. It is assumed that sectors and industries mostly produce their own products. In reality, although a business is allocated to a particular industry, they may also produce goods and services that belong to another industry or sector, for example, a manufacturing company that also sells repair services.

Exports to the EU as a percentage of total revenues is obtained by calculating the exports to the EU of an industry's products as a percentage of the total demand (domestic and foreign) for these UK products at basic prices. The calculation is straightforward, as all the required figures are readily available in the ONS's UK input-output analytical tables for 2013.

Estimating EU imports as a percentage of non-staff production costs is slightly more complicated, and required an assumption.

The 'Imports use table' shows what type of products (goods and services) are imported to produce specific UK products. Another table, the 'Imports of goods and services', breaks down imported products by origin, between EU and non-EU. The analysis presented in this paper uses these two tables to estimate the value of EU goods and services imported by UK industries.

The 'Imports of goods and services' table is used to calculate the percentage of imports that come from the EU for every available product (goods and services). These percentages are then applied to the 'Imports use table' to estimate the value of goods and services imported from the EU by UK industries.

The key assumption, then, is that the share of imported products *purchased by the UK as a whole from the EU* is a good approximation for the share of these products *purchased by UK industries from the EU*. For example, if 50% of the UK's imports of basic fish come from the EU, then we assume that 50% of the basic fish imported by UK producers of processed fish products comes from the EU.

BRIEFING PAPER
Number 8065
1 August 2017