

Article

UK trade in goods by industry, country and commodity: 2008 to 2017

Update to experimental trade by industry, country and commodity dataset with additional data for 2017, more granular commodity breakdown and an alternative data linking method.

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1 . Main points

- This release is an updated iteration of the experimental trade in goods by industry, country and commodity dataset, previously published on 24 October 2018; this release includes data for 2017, a more detailed commodity breakdown and an alternative method of linking trade in goods and business-level data.
- The top 10 largest exporting industries in 2017 made up 69.8% of total UK goods exports and exported 51.2% of their goods to the EU, while the top 10 importing industries made up 77.0% of total UK goods imports, with 53.1% of imports coming from the EU.
- In 2017, the largest exporting and importing industry was wholesale trade, except of motor vehicles and motorcycles, which exported 67.7% of its goods to and imported 53.7% of its goods from EU countries.
- The largest increase in exports between 2016 and 2017 was within the wholesale trade, except of motor vehicles and motorcycles industry, which increased by £5.8 billion, due mainly to increased exports to the Republic of Ireland and China by £1.1 billion and £1.0 billion, respectively.
- The largest increase in imports between 2016 and 2017 was by the wholesale trade, except of motor vehicles and motorcycles industry, which increased £12.3 billion, the largest contributor being a £2.4 billion increase in imports from China.

2 . Introduction

We continue to deliver against an ambitious trade development plan, providing more detail than ever before about the UK's trading relationships, using improved data sources and methods enabled by our new trade IT systems.

On 24 October 2018 we published our [first iteration of experimental estimates of trade in goods by industry, country and commodity](#). These linked administrative trade in goods data with the [Inter-Departmental Business Register \(IDBR\)](#) to produce the first balance of payments (BoP) estimates of UK trade by industry. This release builds on the previous iteration updating the time series to include data for 2017, providing a more granular commodity breakdown and an alternative approach to linking administrative trade data with business-level financial data from the IDBR.

3 . Important things to note about these statistics

Experimental Statistics

It is important to emphasise that the statistics included within this release are [experimental](#). The methodology used to compile the data is subject to future improvements. Further detail regarding the methodology used to compile the statistics can be found in Section 4.

Disclosure control

Data are subject to [disclosure control](#) meaning some data have been suppressed to protect confidentiality such that individual traders cannot be identified. For this reason, when we refer to rankings or contributions of exports or imports for a given year, this only considers data that have not been suppressed.

Data

Data within this release provide estimates of trade in goods only, we are currently working to develop estimates of trade in services by industry, service type and country, which we aim to publish in spring 2019.

All data within this release are reported in current prices. Data within this release have been subject to rounding, therefore small rounding discrepancies may exist.

It is important to note that analyses presented in this article do not include data that have been suppressed to protect individual trader confidentiality. This means contributions to goods by industry do not include any data that has been suppressed.

We are making data available to users via two [datasets](#) to minimise the amount of data we need to suppress. Publishing the data in this way reduces the number of dimensions in the data, meaning we are able to reduce the amount of data that are suppressed.

Firstly, we publish country by industry (Standard Industrial Classification (SIC) two-digit) by total commodity for all countries and country regional groupings (that is, EU, non-EU and whole world) and secondly, country region by commodity ([Standard International Trade Classification \(SITC\)](#) two-digit), by industry (SIC two-digit). There are two files accompanying this release, one for exports and one for imports, each file contains both datasets.

To view the dataset for country by industry filter the dataset to by commodity "T Total". This will provide estimates by country for each industry across all products. To view the dataset for region by industry and commodity, filter the data to include all commodities other than "T Total".

Trade asymmetries

These data are our best estimates of bilateral UK trade flows, compiled following internationally agreed standards and using a wide range of robust data sources. However, in some cases alternative estimates of bilateral trade flows are available from the statistical agencies for those countries or through central databases such as [UN Comtrade](#). Differences between estimates are known as trade asymmetries and are a known aspect of international trade statistics, affecting bilateral estimates across the globe not just the UK.

We are heavily engaged in analysis of these asymmetries, developing strong bilateral relationships with other countries to understand, explain and potentially reduce them. We have produced a series of analyses showing [comparisons and the relative strengths of different estimates](#), which users may wish to reference to help you better understand the quality of our bilateral trade estimates.

4 . Data and methodology

Data

The dataset for the trade in goods analysis released alongside this article was compiled by combining data from HM Revenue and Customs (HMRC) and data from the Inter-Departmental Business Register (IDBR). For further detail regarding the source data see our [previous release on trade by industry, country and commodity](#) from 24 October 2018.

Methodology

The data included in our [previous trade in goods by industry release](#) linked the IDBR with HMRC trader data Value Added Tax (VAT) units. The VAT unit was derived from each business' unique nine-digit VAT unit code. This approach filters the IDBR so that each business would be identified with a single industry. The VAT unit codes were then linked with the trade in goods microdata from HMRC, allocating trade to industries.

Linking the data in this way assumes that a trader operates in a single industry. While this may hold for simple firms, for more complex firms who have operations spanning multiple industries, the matching method used in this release will provide a more accurate apportionment of trade values to industry.

This iteration of experimental data incorporates the linking methodology used within the publication of [UK trade in goods and productivity](#). In cases where trader code can link to VAT units with more than one enterprise group, we allocate the trade to the enterprise group with the greatest total employment. For each enterprise group, all lower-level VAT units, reporting units and enterprise units associated with the enterprise are grouped together.

Trade values are linked to the VAT unit in the same way as in the previous iteration. However, for complex businesses operating in multiple industries the trade value for the given VAT unit is apportioned between the associated reporting units. Trade is allocated to the enterprise group via the VAT unit, then apportioned between reporting units using an employment weight for that reporting unit out of the entire VAT unit. The employment weight is adjusted according to a product-industry intensity score, which adjusts the employment weight to minimise irregular product-industry associations. The values associated with these reporting units are then assigned to the associated industry.

In a very small number of cases, matching between the datasets was not possible, in these instances this trade is not included within the dataset. In 2017, this represented 0.1% of total goods exports and 0.2% of imports. We are continuing to develop methods to allocate these cases of unmatched trade and aim to incorporate these within the next iteration of experimental data.

Following matching, data are aggregated for each global region, country, direction of trade, year, commodity and industry. HMRC data, which are on a combined nomenclature (CN) basis, are mapped to the [Standard International Trade Classification \(SITC\)](#) and aggregated to the two-digit level. Industries are also aggregated to the Standard Industrial Classification (SIC) two-digit level.

HMRC trade data are collected on an Overseas Trade Statistics (OTS) basis, that is, the physical movement of goods, whereas trade figures within the balance of payments (BoP) are based on the change of economic ownership, that is, sometimes goods move across a border but do not change economic ownership, so are not considered to be an export or import in BoP. Adjustments are applied to the data so that they are consistent with the BoP and the wider UK National Accounts. Additional coverage and valuation adjustments are made to ensure estimates are BoP-consistent. Following this we attribute countries to regions such as the EU and non-EU before constraining to currently published estimates.

Finally, data are subject to disclosure control so that, following the data linking, an individual trader cannot be identified. This means some data have been suppressed to protect confidentiality.

5 . The top 10 exporting industries exported more to EU than to non-EU countries in 2017

Figure 1 shows the top 10 UK goods exporting industries in 2017 disaggregated by EU and non-EU regions.

The top 10 industries contributed 69.8% of total UK exports in 2017. The largest goods-exporting industries exported more to EU countries than non-EU countries in 2017, with 51.2% of the top 10 exporting industries exports going to the EU.

The largest exporting industry in 2017 was wholesale trade, except of motor vehicles and motorcycles (industry 46), which exported £64.3 billion of goods making up 19.0% of total UK goods exports. The industry exported 67.7% of its goods to the EU.

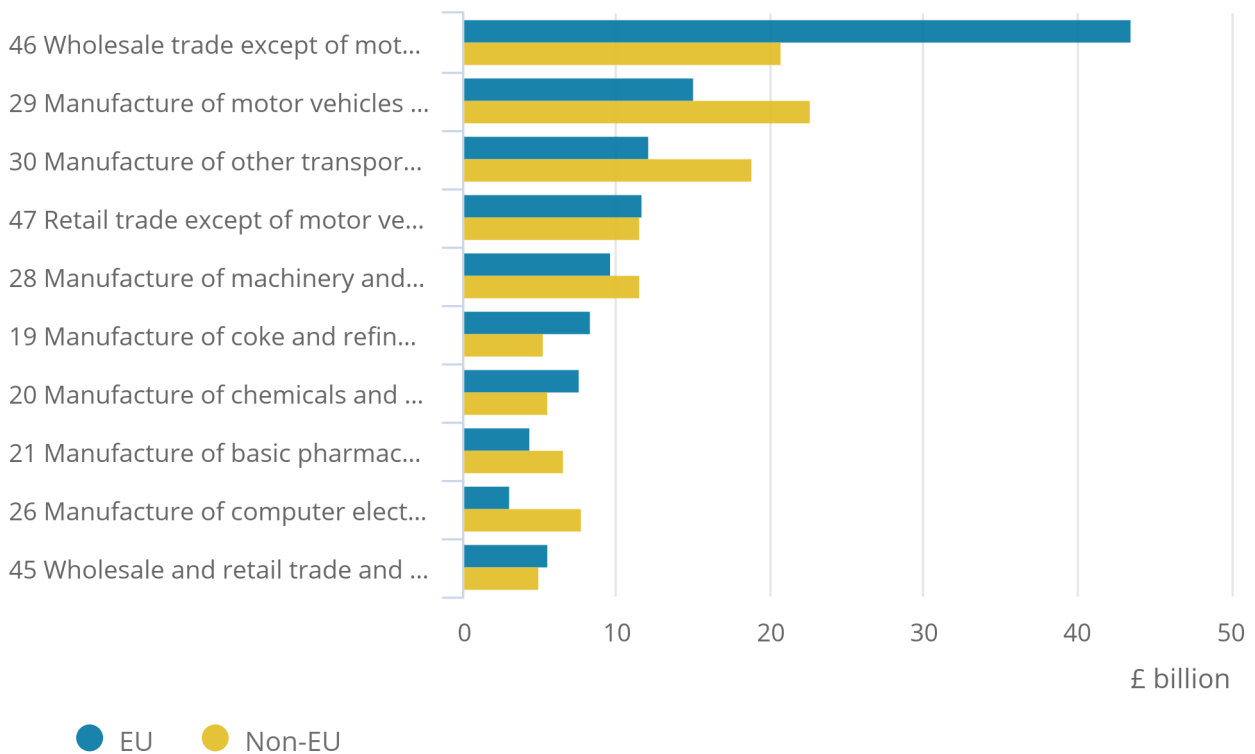
The second- and third- largest exporting industries, manufacturers of motor vehicles, trailers and semi-trailers (industry 29) and manufacture of other transport equipment (industry 30), exported more to non-EU countries than EU countries. Industry 29 exported £37.5 billion of goods in 2017, of which £22.6 billion (60.1%) was exported to non-EU countries. Industry 30 exported £31.1 billion of goods in 2017, with £18.9 billion (60.8%) going to non-EU countries.

Figure 1: The largest exporting industry exported 67.7% of its goods to the EU in 2017

Top 10 goods exporting industries split by EU and non-EU, 2017

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Top 10 goods exporting industries split by EU and non-EU, 2017



Source: Office for National Statistics

Notes:

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Table 1 shows the main commodities exported by the top 10 exporting industries in 2017.

Medicinal and pharmaceutical products was the largest commodity exported by wholesale trade, except of motor vehicles and motorcycles (industry 46), which contributed £11.2 billion (17.5%) to the industry's total goods exports in 2017. Industry 46 exported 63.3% of its largest exported commodity, medicinal and pharmaceutical products, to the EU in 2017.

Manufacture of coke and petroleum products (industry 19) was the least diverse of the top 10 exporting industries in 2017 in terms of the commodities it exports. Oil exports contributed £12.0 billion (87.1%) to the exports of industry 19 in 2017, with 58.5% going to the EU.

Table 1: Medicinal and pharmaceutical products made up the biggest share of exports within the largest exporting industry
Largest commodities exported by the top 10 exporting industries, 2017

Industry	Value of industry exports (£ billion)	Largest commodity exported	Value of exported commodity within industry (£ billion)	Share of commodity out of total industry exports (%)
46 Wholesale trade, except of motor vehicles and motorcycles	64.3	54 Medicinal & pharmaceutical products	11.2	17.5
29 Manufacture of motor vehicles, trailers and semi-trailers	37.5	78 Road vehicles	31.9	85.1
30 Manufacture of other transport equipment	31.1	79 Other transport equipment	12.5	40.3
47 Retail trade, except of motor vehicles and motorcycles	23.3	80 Other manufactures	10.0	43.0
28 Manufacture of machinery and equipment n. e.c.	21.2	7M Mechanical machinery	14.2	66.8
19 Manufacture of coke and refined petroleum products	13.7	33 Oil	12.0	87.1
20 Manufacture of chemicals and chemical products	13.1	51 Organic chemicals	2.2	16.7
21 Manufacture of basic pharmaceutical products and pharmaceutical preparations	10.9	54 Medicinal & pharmaceutical products	8.4	77.1
26 Manufacture of computer, electronic and optical products	10.7	7E Electrical machinery	4.9	46.4
45 Wholesale and retail trade and repair of motor vehicles and motorcycles	10.5	78 Road vehicles	8.2	78.2

Source: Office for National Statistics

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Table 2 uses the country by industry element of the dataset to explore the main industry exporting to each of the UK's five largest goods export destinations and the largest commodity exported by that industry.

The industry that exported the largest proportion of goods to the United States was the manufacture of motor vehicles, trailers and semi-trailers (industry 29), which exported £7.5 billion in 2017; this accounted for 14.6% of total goods exports to the US in 2017. The largest industry exporting to Germany was industry 46, wholesale trade, except of motor vehicles and motorcycles, which exported £9.0 billion (24.3% of total goods exports to Germany) in 2017.

Table 2: Wholesale trade, excluding motor vehicles and motorcycles was the largest exporting industry to three out of five of the UK's biggest export destinations in 2017

Largest exporting industries within the top five export destinations in 2017

Country	Total exports (£ billion)	Largest industry	Industry value (£ billion)	Industry share of total exports (%)
1 United States inc Puerto Rico	51.4	29 Manufacture of motor vehicles, trailers and semi-trailers	7.5	14.6
2 Germany	37.2	46 Wholesale trade, except of motor vehicles and motorcycles	9.0	24.3
3 France	24.2	46 Wholesale trade, except of motor vehicles and motorcycles	5.5	22.8
4 Netherlands	22.0	30 Manufacture of other transport equipment	6.4	29.0
5 Ireland	20.4	46 Wholesale trade, except of motor vehicles and motorcycles	6.5	32.0

Source: Office for National Statistics

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Exporting industries, 2016 to 2017

Figure 2 shows the change in exports of goods with EU and non-EU countries for a particular industry between 2016 and 2017.

The largest increase in goods exports between 2016 and 2017 was within wholesale trade, except of motor vehicles and motorcycles, which increased by £5.8 billion; £3.6 billion of this growth came from increased exports to the EU, while £2.1 billion came from increased exports to non-EU countries. China and the Republic of Ireland contributed £1.0 billion and £1.1 billion to the increase in goods exports, respectively.

Manufacture of motor vehicles, trailers and semi-trailers had the largest increase in exports to non-EU countries. Exports from this industry rose by £4.2 billion, with exports to the EU increasing £1.1 billion while exports to non-EU countries increased by £3.1 billion between 2016 and 2017. The increase in exports to non-EU countries within this industry were due largely to an increase in exports of £0.8 billion to the US.

The industry with the largest decrease in goods exports between 2016 and 2017 was rental and leasing activities (industry 77); exports fell by £0.4 billion due largely to a £0.4 billion fall in exports to non-EU countries.

Hover over the data points in Figure 2 to see how the change in total industry goods exports between 2016 and 2017 was split between EU and non-EU countries. Data points in the top right quadrant show industries that experienced an increase in goods exports with both EU and non-EU regions between 2016 and 2017, while those in the bottom left show industries that decreased with EU and non-EU countries. The top left quadrant includes industries that experienced an increase in exports to non-EU countries but a decrease in exports to EU countries. The bottom right quadrant shows industries that increased exports to EU countries while exports to non-EU countries fell.

Figure 2: The largest increases in exports in 2017 were due mainly to increased exports to EU countries

Change in exports by industry, EU compared with non-EU between 2016 and 2017

[Download the data](#)

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6 . The top 10 importing industries imported more from EU than from non-EU countries in 2017

Figure 3 shows the top 10 UK goods importing industries in 2017 disaggregated by EU and non-EU countries. The top 10 industries contributed 77.0% of total UK imports in 2017. The largest goods importing industries imported more goods from the EU than non-EU countries in 2017, with 53.1% coming from the EU.

The largest importing industry in 2017 was wholesale trade, except of motor vehicles and motor cycles, which imported £160.6 billion of goods in 2017, making up 33.8% of total UK goods imports; this industry imported 53.7% of goods from EU countries in 2017.

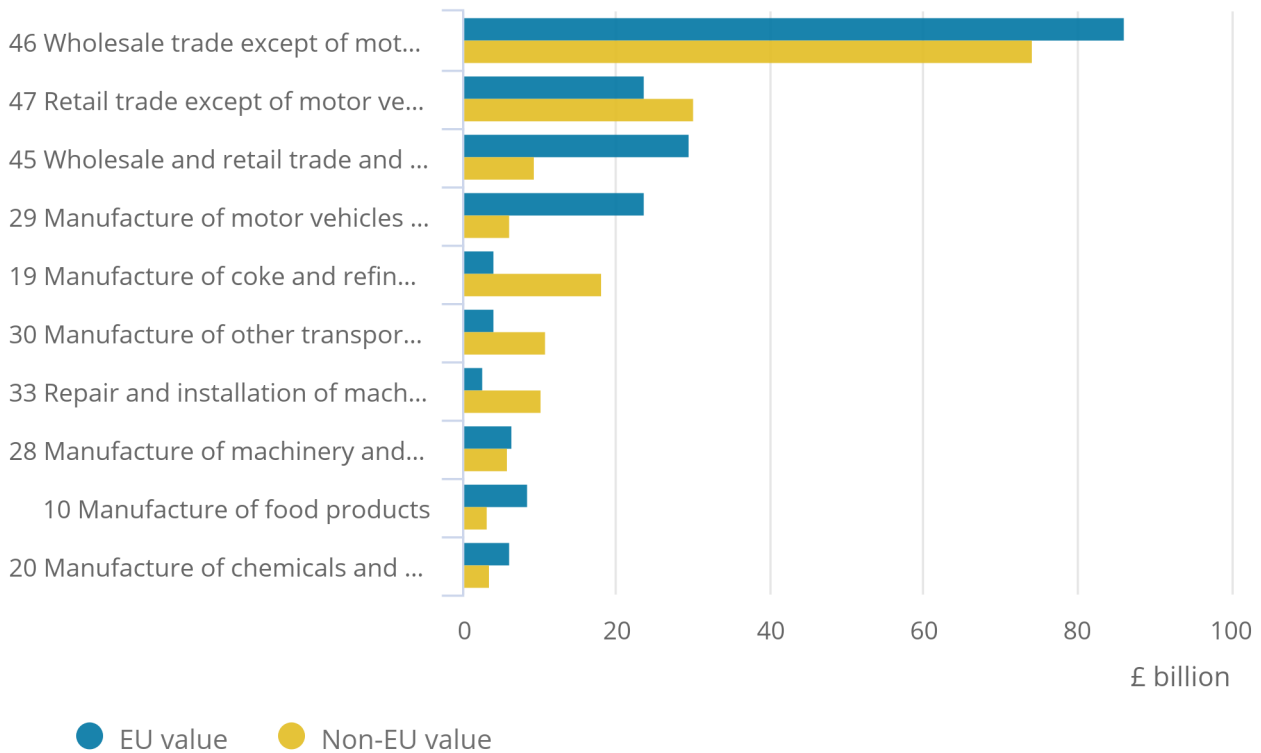
The second-largest importing industry in 2017 was retail trade except of motor vehicles and motorcycles (industry 47), which imported £53.6 billion of goods in 2017, making up 11.3% of total UK goods imports. Industry 47 imported £30.1 billion (56.1%) of its goods from non-EU countries in 2017. The third-largest importing industry was manufacture of motor vehicles, trailers and semi-trailers (industry 29), which imported £38.9 billion of goods in 2017 with £23.6 billion (76.1%) imported from the EU.

Figure 3: The largest importing industry, wholesale trade except of motor vehicles and motorcycles, imported 53.7% of its goods from the EU in 2017

Top 10 importing industries split by EU and non-EU, 2017

Figure 3: The largest importing industry, wholesale trade except of motor vehicles and motorcycles, imported 53.7% of its goods from the EU in 2017

Top 10 importing industries split by EU and non-EU, 2017



Source: Office for National Statistics

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Table 3 shows the main commodities imported by the top 10 importing industries in 2017.

Electrical machinery was the largest commodity imported by wholesale trade, except of motor vehicles and motorcycles (industry 46) in 2017, contributing £31.7 billion (19.7%) to the total imports within that industry. Industry 46 imported £18.4 billion (57.9%) of its largest imported commodity, electrical machinery, from non-EU countries in 2017.

Clothing was the largest commodity imported by retail trade, except for motor vehicles and motorcycles (industry 47) in 2017, contributing £14.6 billion (27.2%) to the total imports of the industry. Industry 47 imported £10.1 billion (69.3%) of its largest imported commodity, clothing, from non-EU countries in 2017.

Table 3: Electrical machinery made up the biggest share of imports within the largest importing industry
Largest commodities imported by the top 10 importing industries in 2017

Industry	Value of industry imports (£ billion)	Largest commodity imported	Value of imports of commodity within industry (£ billion)	Share of commodity out of total industry imports (%)
46 Wholesale trade, except of motor vehicles and motorcycles	160.6	7E Elecctrical Machinery	31.7	19.7
47 Retail trade, except of motor vehicles and motorcycles	53.6	84 Clothing	14.6	27.2
45 Wholesale and retail trade and repair of motor vehicles and motorcycles	38.9	78 Road vehicles	31.5	81.0
29 Manufacture of motor vehicles, trailers and semi-trailers	29.6	78 Road vehicles	15.5	52.2
19 Manufacture of coke and refined petroleum products	22.2
30 Manufacture of other transport equipment	14.8	79 Other transport equipment	3.3	22.4
33 Repair and installation of machinery and equipment	12.9	7M Mechanical machinery	9.3	71.8
28 Manufacture of machinery and equipment n. e.c.	12.4	7M Mechanical machinery	5.3	43.0
10 Manufacture of food products	11.7	01 Meat & meat preparations	2.2	19.0
20 Manufacture of chemicals and chemical products	9.5	51 Organic chemicals	2.3	24.4

Source: Office for National Statistics

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Table 4 uses the country by industry element of the dataset to explore the main industry importing from each of our top five import source countries and the largest commodity imported within that industry. The largest importing industry, for all of the top five countries, was wholesale trade except for motor vehicles and motorcycles (industry 46).

Table 4: Wholesale trade, excluding motor vehicles and motorcycles was the largest importing industry from all of the UK's top five import sources in 2017

Largest importing industries from the top five import sources in 2017

Country	Total imports (£ billion)	Largest importing industry	Industry imports (£ billion)	Industry share of total country imports (%)
1 Germany	68.8	46 wholesale trade, except for motor vehicles and motorcycles	16.9	24.5
2 China	43.4	46 wholesale trade, except for motor vehicles and motorcycles	19.4	44.8
3 Netherlands	40.5	46 wholesale trade, except for motor vehicles and motorcycles	17.5	43.3
4 United States inc Puerto Rico	39.7	46 wholesale trade, except for motor vehicles and motorcycles	8.8	22.1
5 France	27.4	46 wholesale trade, except for motor vehicles and motorcycles	8.7	31.8

Source: Office for National Statistics

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Importing industries, 2016 to 2017

Figure 4 shows the change in imports of goods with EU and non-EU countries for a particular industry between 2016 and 2017.

The largest increase in goods imports between 2016 and 2017 was, as with exports, within wholesale trade, except of motor vehicles and motorcycles (industry 46), which increased by £12.3 billion; £8.0 billion of this growth came from increased imports from non-EU countries. The largest increase in imports from a single country was from China, which increased by £2.4 billion between 2016 and 2017.

The industry with the second-largest increase in imports between 2016 and 2017 was the manufacture of coke and refined petroleum products (industry 19), where imports rose by £7.6 billion. Of this £7.6 billion, £0.9 billion was from EU countries, with £6.8 billion coming from non-EU countries. Norway saw the largest increase in imports of £4.4 billion between 2016 and 2017, with the US being the next-largest contributor, with a £1.1 billion increase in imports.

The industry that experienced the largest decrease in imports between 2016 and 2017 was computer programming, consultancy and related activities. Imports fell by £0.8 billion, following falls of £0.4 billion from both EU and non-EU countries. The largest import within this industry was electrical machinery, of which the industry imported £2.7 billion from EU countries and £0.9 billion from non-EU countries in 2017. This industry's imports from Germany and the Netherlands fell by £0.2 billion and £0.1 billion, respectively, between 2016 and 2017.

Hover over the data points in Figure 4 to see how the change in total industry imports between 2016 and 2017 was split between EU and non-EU. Data points in the top right quadrant show industries that experienced an increase in goods imports with both EU and non-EU regions between 2016 and 2017, while those in the bottom left show industries that decreased with EU and non-EU countries. The top left quadrant includes industries that experienced an increase in imports from non-EU countries but a decrease in imports from EU countries. The bottom right quadrant shows industries that increased imports from EU countries while imports from non-EU countries fell.

Figure 4: Most of the increase in imports by the wholesale trade, excluding motor vehicles and motorcycles industry was due to increased imports from non-EU countries

Change in imports by industry, EU compared with non-EU between 2016 and 2017

[Download the data](#)

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7 . Authors

William Flynn and Freya Lawrence