Article

UK trade in goods by industry, country and commodity: 2008 to 2016

This UK trade article accompanies a new experimental dataset providing a breakdown of UK trade in goods by industry, country and commodity on a balance of payments basis. Data are subject to disclosure control, which means some data have been suppressed to protect confidentiality of individual traders. These are Experimental Statistics.

Table of contents

1 . Main points

- This article accompanies a new trade dataset providing a breakdown of UK trade in goods by industry, country and commodity on a balance of payments basis.

- For the largest export and import industry, wholesale trade except of motor vehicles and motorcycles, 67.7% of exports went to the EU and 56.4% of imports came from the EU in 2016.

- Germany was the largest export destination for the wholesale trade except of motor vehicles and motorcycles industry, with exports of £9.1 billion in 2016.

- China was the largest import partner for the wholesale trade except of motor vehicles and motorcycles industry in 2016, with imports growing 102.2% to £14.6 billion between 2008 and 2016.

- The top 9 exporting industries in 2016 exported 50.1% of their goods to non-EU countries, while the top 9 importing industries imported 56.1% of their goods from EU countries.

2 . Introduction

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

This release looks at trade in goods by country, commodity and, for the first-time, industry, on a balance of payments (BoP) basis. The release is accompanied by a rich new dataset to help users explore which industries contribute most to the trade in goods aggregates, which countries they trade with and which commodities they trade.

By combining HM Revenue and Customs (HMRC) data on trade in goods with the UK Inter-Departmental Business Register (IDBR), we have created an experimental dataset providing detail of UK trade in goods exports and imports by partner country, industry and commodity from 2008 to 2016, on an annual basis. Further detail on the methodology used to compile these experimental statistics can be found in Section 4.

Alongside this release, we are publishing new and updated trade statistics covering quarterly trade in services by partner country, estimates of service exports from different parts of the UK and an article looking at what we have delivered over the past 12 months and what we are planning to deliver in the coming year . We are also developing methods for producing trade in services by industry, which we are currently planning to publish in the first half of 2019.

3 . Important things to note about these statistics

It is important to emphasise that the statistics included within this release are experimental. Users should be aware of the following.

Commodity data are published on balance of payments (BoP) terms using the Standard International Trade Classification (SITC). Industry data are published in line with the Standard Industry Classification 2007 (SIC 2007) . The SIC 2007 is used in classifying business establishments and other statistical units by the type of economic activity in which they are engaged.

The data are subject to disclosure control, this means 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 which have not been suppressed.

In order to minimise the amount of data we need to suppress to mitigate the risk of disclosing individual traders the data published alongside this release can be viewed as two separate datasets. Firstly, we publish country by industry (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 (SITC one-digit), by industry (SIC two-digit). There are two files accompanying this release, one for exports one for imports, each file contains both datasets.

The methodology used to compile these experimental estimates is subject to future improvements. Further detail regarding the methodology used to compile the statistics can be found in Section 4.

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

4 . Data and methodology

Data

The dataset released alongside this article was compiled by combining data from HM Revenue and Customs (HMRC) and data from the Inter-Departmental Business Register (IDBR).

Inter-Departmental Business Register (IDBR)

The IDBR is a comprehensive record of UK businesses compiled and used by government for statistical purposes. The IDBR provides the main sampling frame for Office for National Statistics (ONS) business surveys and other government departments, covering over 2.6 million businesses in all sectors of the UK economy.

The primary data used to maintain the IDBR are provided by HMRC. All firms registered with HMRC for either Value Added Tax (VAT) or Pay As You Earn (PAYE) purposes are listed, excluding those without employees and with turnover below the VAT threshold. The IDBR includes data on the structure of businesses, classifying "VAT units" and "PAYE units" from the HMRC registrations. "Local units" represent the individual sites on which the business operates whilst "reporting units" are usually made up of local units that undertake similar activities. The "VAT unit" contains all units within an enterprise group.

Trade in goods

HMRC's Overseas Trade Statistics (OTS) are an important data source for existing estimates of UK trade. These data are collected for administration and tax purposes through HMRC customs declarations as well as via the Intrastat Survey. This dataset provides information on exports and imports of goods by traders, with a code for each trader.

Methodology

The data included in this release are compiled by linking the enterprise reference (derived from the VAT reference) from a snapshot of the IDBR with the trader reference within the HMRC trade in goods data. Linking the datasets allows us to exploit business characteristic information from the IDBR, to group traders by industry in line with the Standard Industrial Classification (SIC) and estimate trade in goods by industry, commodity and country.

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 one-digit level. Industries are aggregated to the 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. 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, along with the removal of non-monetary gold. 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.

Related projects

There are several similar projects that have helped inform the methodology used to compile these experimental statistics.

Similar work linking trade in goods and businesses was published in UK trade in goods and productivity by Office for National Statistics (ONS) that used trade in goods data linked to VAT. This publication explores how the trading status of a business differs by various business characteristics such as size, industry, ownership and productivity. While the publication links trade in goods data with the IDBR, the data are matched to reporting units, for comparisons at the business level with other ONS surveys, as opposed to VAT unit as per this release.

Similarly, HMRC's trade by business characteristics statistics presents information on trade in goods by industry and size, linking data via enterprise unit rather than reporting unit.

Further work published by the ONS estimates the value of services exports from each Nomenclature of Territorial Units for Statistics (NUTS1) area of the UK. The publication links International Trade in Services (ITIS) survey data to the IDBR and adds data from the International Passenger Survey, the Business Register Employment Survey, and the Bank of England. The linking of ITIS to the IDBR is done using reporting units then broken down to the local unit level to allocate trade to the different regions and countries of the UK split by industry. This experimental work is part of the ONS Devolution Programme, with further developments planned for 2019.

The reporting unit is in some instances considered to be more representative of the nature of business a firm undertakes and therefore the industry a firm sits within. In order for us to meet important user requirements around the timing of this delivery, we have used a simpler method that matches trade in goods data with enterprise reference on the IDBR (derived from the VAT reference). While in most cases there will be a one-to-one match between enterprise reference and reporting unit in terms of business activity, there will be some examples where this is not the case. In instances where an enterprise group contains businesses involved in a variety of activities, spanning several industries, matching via enterprise group may lead to mis-allocation of trade by industry. In future, following further development work on our linking methods, we plan to match at the reporting unit level.

5 . UK exporting industries

In this section we have used the industry by country region (EU and non-EU) data to show how the export value of different industries has changed between 2008 and 2016 and what proportion of an industry's total goods exports were to the EU compared with countries outside of the EU in 2016.

Figure 1 shows the top 19 industries in terms of export value in 2016 and compares this with export values for the same industries in 2008.

The largest export industry in 2016 was wholesale trade except of motor vehicles and motorcycles (SIC 2007 industry 46), which includes various wholesale goods including agricultural raw materials and live animals, food beverages and tobacco, and household goods; this industry's exports were worth £58.4 billion in 2016 and increased 9.4% (£5.0 billion) between 2008 and 2016.
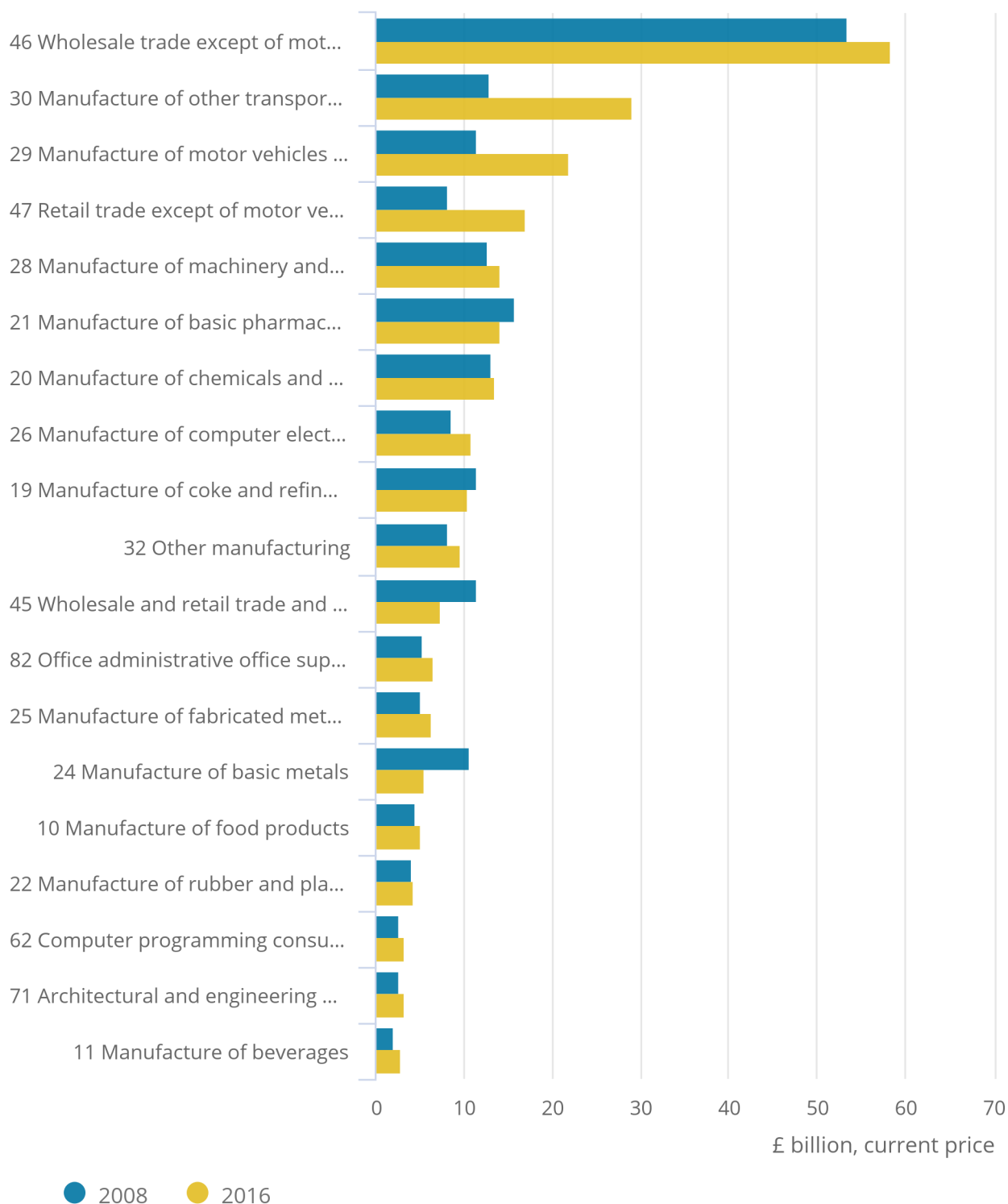
The second-largest export industry in 2016, manufacture of other transport equipment (SIC 2007 industry 30), which includes aircraft and ships, also saw the largest rise in exports between 2008 and 2016, both in absolute value and in growth terms. This industry's exports were worth £29.0 billion in 2016, growing 125.4% (£16.1 billion) from £12.8 billion in 2008.

The manufacture of beverages industry (SIC 2007 industry 11) moved into the top 19 between 2008 and 2016, whereas the waste collection, treatment and disposal activities; materials recovery industry (SIC 2007 industry 38) dropped out.

Most of the top 19 export industries showed export growth between 2008 and 2016; four industries witnessed declining export values across the period, with the two largest being manufacture of basic metals (SIC 2007 industry 24), which declined 48.4% (£5.1 billion) to £5.5 billion, and wholesale and retail trade and repair of motor vehicles and motorcycles (SIC 2007 industry 45), which fell 36.2% (£4.2 billion) to £7.3 billion.

Figure 1: Top 19 UK exporting industries in 2016 compared with values in 2008
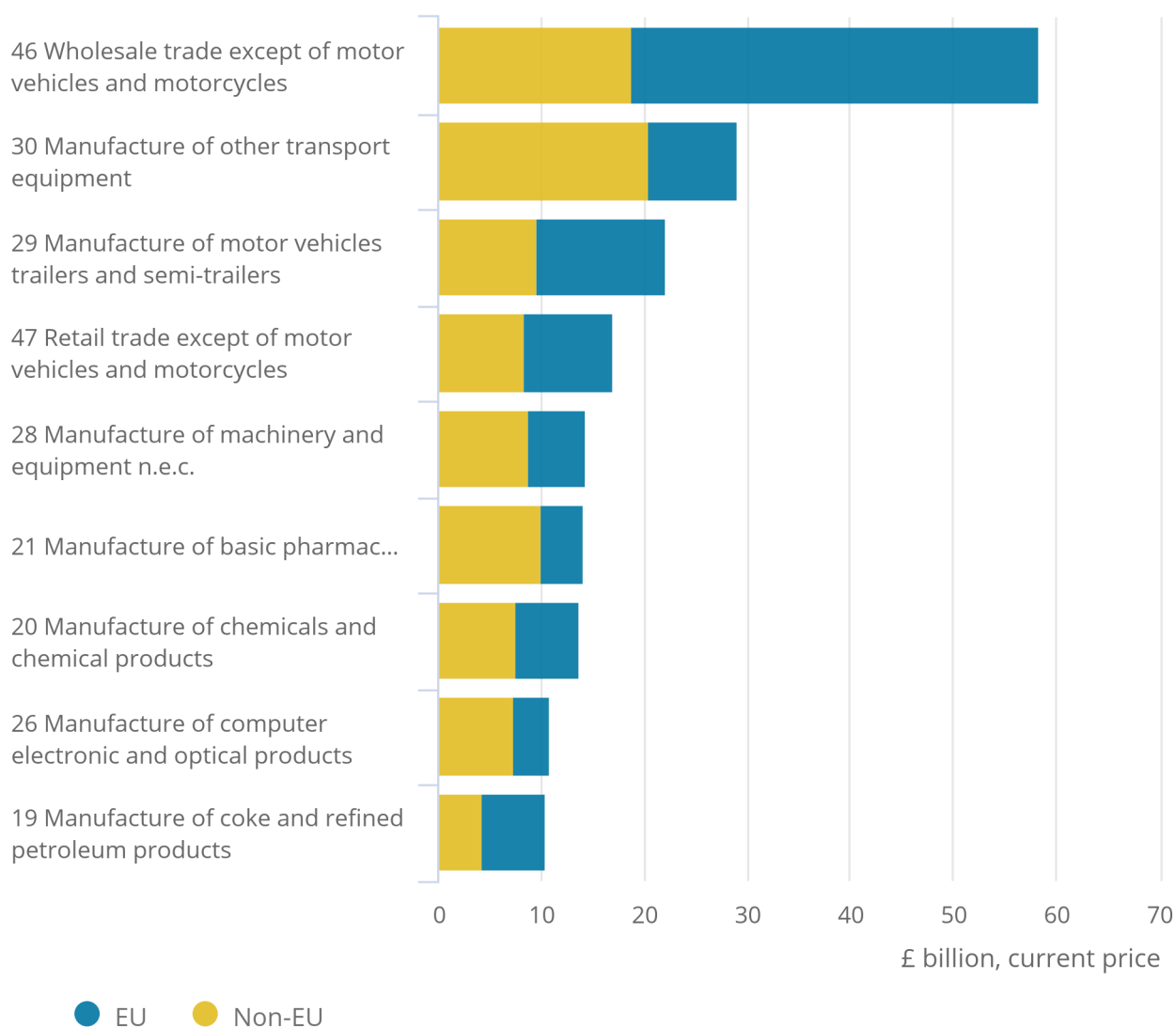

£ billion, current price

● 2008   ● 2016

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.

Figure 2 shows the UK top 9 exporting industries in 2016 by exports to the EU and countries outside of the EU. The EU was the destination for 67.7% (£39.5 billion) of exports from the largest exporting industry, wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46).

The top 9 exporting industries exported 50.1% (£95.2 billion) of their goods to countries outside of the EU in 2016. The exporting industry with the highest proportion of exports going to countries outside of the EU was manufacture of basic pharmaceutical products and pharmaceutical preparations (SIC 2007 industry 21), with non-EU countries accounting for 70.9% of exports (£10.0 billion).

Figure 2: Top 9 UK exporting industries in 2016 by exports to EU and non-EU countries

Source: Office for National Statistics

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.

Figure 3 shows exports by destination country in 2008 and 2016 for the largest exporting industry in 2016, wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46).
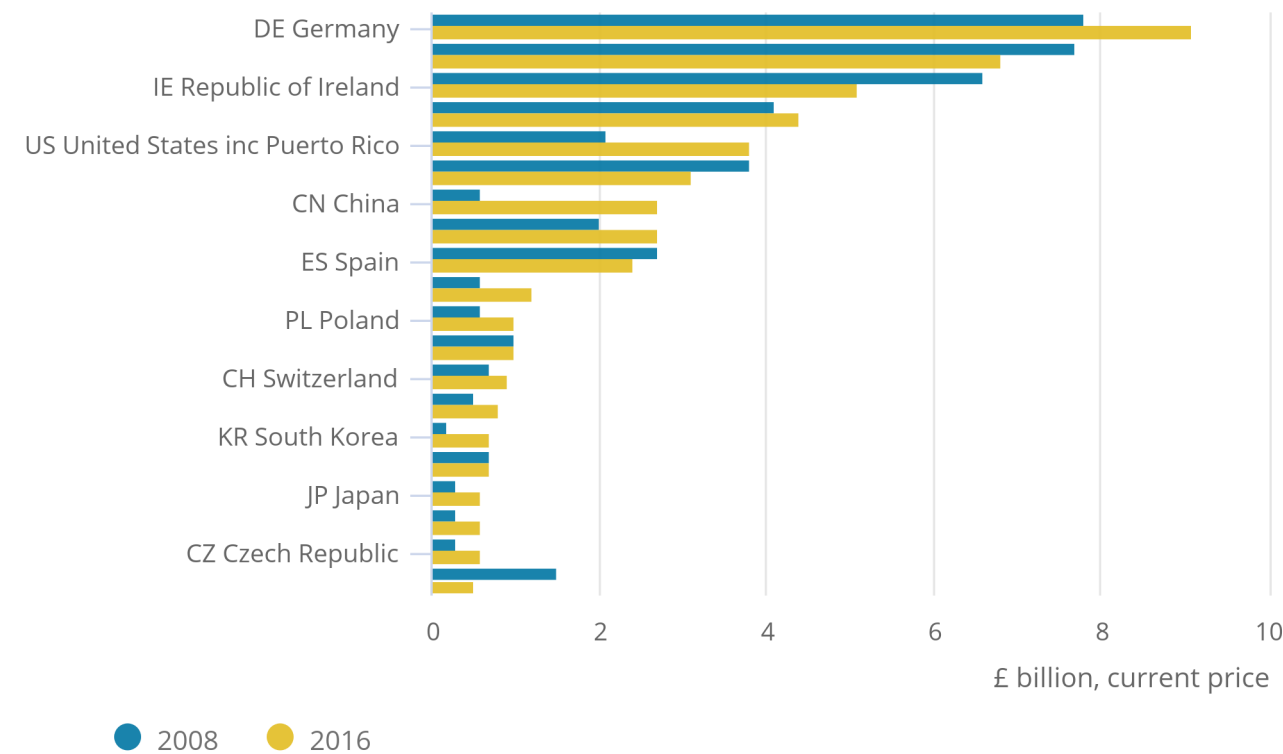
Germany was the largest export destination for wholesale trade, except of motor vehicles and motorcycles, with exports of £9.1 billion in 2016, up 16.6% (£1.3 billion) from £7.8 billion in 2008.

Exports in the wholesale trade, except of motor vehicles and motorcycles industry to China represented the largest increase between 2008 and 2016, in both absolute and growth terms, increasing 369.4% (£2.2 billion) across the period.

Exports to the Republic of Ireland from the wholesale trade, except of motor vehicles and motorcycles industry represented the largest decrease between 2008 and 2016, in absolute terms, falling 22.8% (£1.5 billion) across the period. Exports to India represented the largest decrease in growth terms, falling 63.8% (£1.0 billion).

Figure 3: Exports from wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46) by 2016 top 20 countries for 2016 compared with values in 2008

Figure 3: Exports from wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46) by 2016 top 20 countries for 2016 compared with values in 2008

DE Germany

IE Republic of Ireland

US United States inc Puerto Rico

CN China

ES Spain

PL Poland

CH Switzerland

KR South Korea

JP Japan

CZ Czech Republic

£ billion, current price

● 2008   ● 2016

Source: Office for National Statistics

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.

6 . UK importing industries

In this section we have used the industry by country region (EU and non-EU) data to show how the import value of different industries has changed between 2008 and 2016 and what proportion of an industry's total goods imports were from the EU compared with countries outside of the EU in 2016.

Figure 4 shows the top 19 industries in terms of import value in 2016 and compares this with import value for the same industries in 2008.

The manufacture of paper and paper products (SIC 2007 industry 17) and telecommunications (SIC 2007 industry 61) industries dropped out of the top 19 importing industries between 2008 and 2016 while air transport (SIC 2007 industry 51) and architectural and engineering activities; technical testing and analysis (SIC 2007 industry 71) moved into the top 19.

The largest importing industry was wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46), with imports worth £124.2 billion in 2016, growing 7.9% (£9.1 billion) between 2008 and 2016.
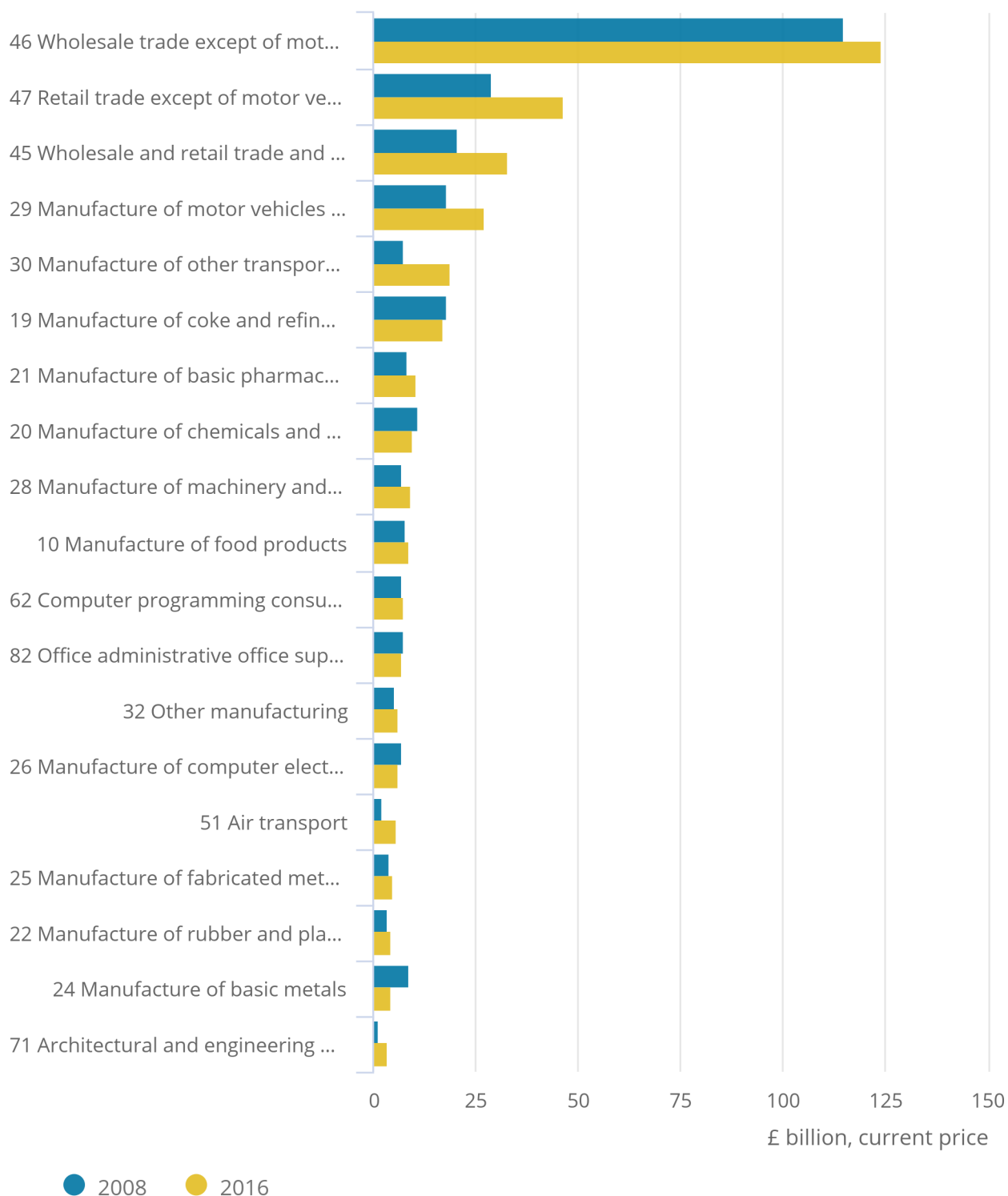
The second-largest importing industry was also the industry that witnessed the largest value increase between 2008 and 2016; retail trade, except of motor vehicles and motorcycles (SIC 2007 industry 47), with imports worth £46.5 billion in 2016, increasing 60.0% (£17.4 billion) between 2008 and 2016.

Architectural and engineering activities; technical testing and analysis (SIC 2007 industry 71) witnessed the largest import growth between 2008 and 2016; imports from this industry increased 193.1% (£2.3 billion) to a worth of £3.6 billion across the period.

Five industries witnessed declining import values between 2008 and 2016. The industry with the largest decline in value across the period was manufacture of basic metals (SIC 2007 industry 24), which fell 52.2% (£4.7 billion) to £4.3 billion; this was followed by manufacture of chemicals and chemical products (SIC 2007 industry 20), which decreased by 12.3% (£1.3 billion) to £9.5 billion.

Figure 4: Top 19 UK importing industries in 2016 compared with values in 2008

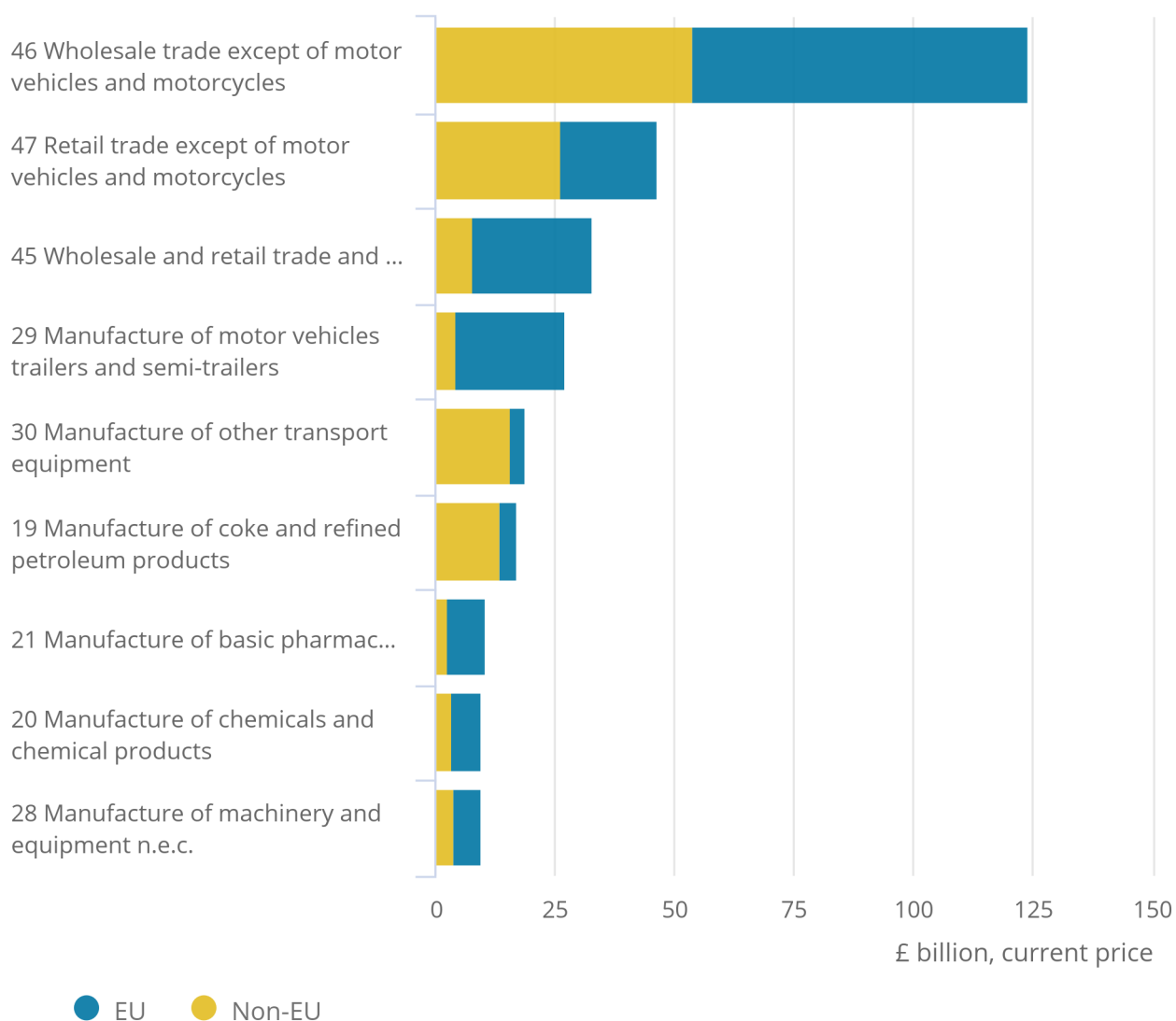£ billion, current price

● 2008   ● 2016

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.

Figure 5 shows the UK top 9 importing industries in 2016 by imports from the EU and countries outside of the EU. The largest importing industry, wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46) imported 56.4% (£70.1 billion) of its goods from the EU in 2016.

The EU represented the largest import location for these top 9 industries, providing 55.3% (£163.8 billion) of imports in 2016. The importing industry with the highest proportion of imports coming from the EU was manufacture of motor vehicles, trailers and semi-trailers (SIC 2007 industry 29), which imported 83.2% (£22.7 billion) of its goods from the EU in 2016.

Figure 5: Top 9 UK importing industries in 2016 by imports from EU and non-EU countries

£ billion, current price

● EU ● Non-EU

Source: Office for National Statistics

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.
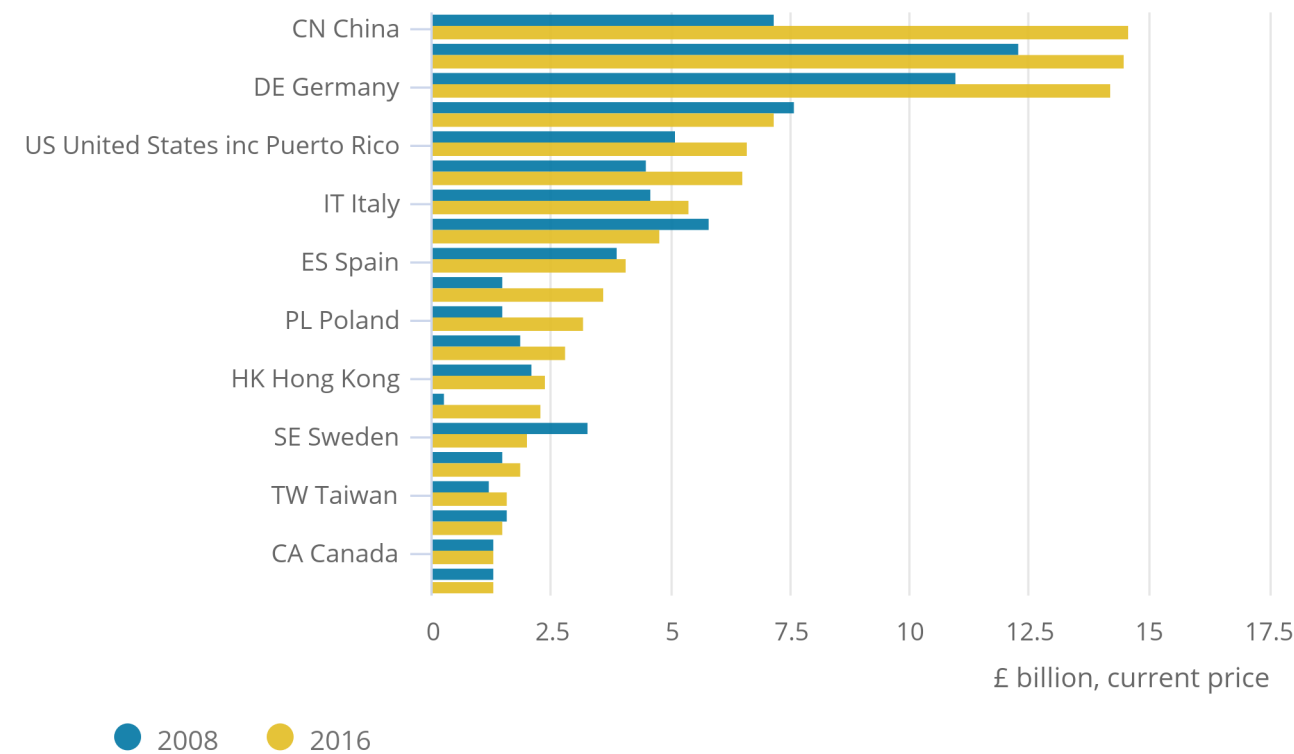
Figure 6 shows imports by country in 2008 and 2016 for the largest importing industry in 2016, wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46).

China was the largest import country for the wholesale trade, except of motor vehicles and motorcycles industry in 2016 and also showed the largest import value growth in absolute terms between 2008 and 2016; imports were worth £14.6 billion in 2016, up 102.2% (£7.4 billion) from 2008.

Vietnam showed the largest import growth between 2008 and 2016, with imports increasing 626.3% (£2.0 billion), while Sweden showed the largest absolute decline in import value between 2008 and 2016, with imports falling 39.7% (£1.3 billion) across the period.

Figure 6: Imports to wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46) by top 20 countries in 2016 compared with values in 2008

Figure 6: Imports to wholesale trade, except of motor vehicles and motorcycles (SIC 2007 industry 46) by top 20 countries in 2016 compared with values in 2008

Source: Office for National Statistics

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.

2. Figures within this release contain industry and country codes alongside names where relevant. This is so that users can easily search for the corresponding series within datasets.

7 . Explore UK trade in goods by country and industry with our interactive map

Use our interactive map to get a better understanding of UK trade in goods by a particular industry with a particular country. Select a country by hovering over it or using the drop-down menu.

Notes:

1. The data are subject to disclosure control, this means some data has 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 considers only data which has not been suppressed.