

Article

Estimating the value of service exports by destination from different parts of Great Britain: 2015

Experimental estimates of the value of service exports by destination for the former nine Government Office Regions in England, Scotland and Wales, split by Standard Industrial Classification 2007 (SIC 2007) categories.

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Table of contents

1. [Main points](#)
2. [Introduction](#)
3. [Methodology](#)
4. [NUTS1 service exports by continent, industry and Commonwealth status](#)
5. [NUTS1 service exports by single country of destination](#)
6. [Further developments](#)

1 . Main points

- This is the first time we are publishing service export figures by country of destination for countries, regions and industries in Great Britain; our analysis includes around 45% of total service exports and excludes finance, travel and transport because of data limitations.
- London dominated the absolute value of service exports to the EU, contributing 42% of the total EU exports (around £15.6 billion) in 2015.
- The EU market was more significant for service exports from the North East and West Midlands compared with London and the North West. In the North East, half of total service exports went to the EU, whereas this figure is only one-quarter for the North West.
- Real estate, professional, scientific and technical industries were the largest exporters of services, followed by information and communication industries, then services connected to manufacturing, generating 35%, 29% and 15% of the total service exports respectively.
- Of all Great Britain service exports in 2015, 10% went to the Commonwealth (around £9.8 billion), and London generated almost half of those exports (around £4.6 billion).
- Of Asian markets, Japan was the single largest destination for service exports from London and the East (receiving about £0.8 billion and £0.2 billion respectively), while the single largest Asian destination from Yorkshire and The Humber, Wales and the South West was Saudi Arabia.

2 . Introduction

This article provides estimates of the value of service exports by destination from the Nomenclature of Units for Territorial Statistics (NUTS1)¹ countries and regions of Great Britain. Northern Ireland is not included in the main analysis in this article because of data limitations.

In May 2017, we published the [estimated values of NUTS1 service exports](#), which presented figures for 2011 to 2015. This article adds to those estimates by breaking down the NUTS1 area service exports according to the country and continent they are being exported to. To date, we have not produced sub-national estimates for the value of service exports by the country or continent of the destination of exports. This article aims to fill this gap.

This article complements other sources of UK trade data. The [UK Balance of Payments](#), known as the Pink Book, shows the value of goods exports and of service exports, separately, from the UK overall to other countries. HM Revenue and Customs' [Regional Trade Statistics](#) provide estimates of the value of goods exports from the NUTS1 areas of the UK, which are Scotland, Wales, Northern Ireland and the nine English regions.

The experimental analysis of service exports by destination has been carried out as a result of increasing demand to understand where the services we are exporting are being exported from and to, and in particular to support decision-making in light of recent events, including the [declaration of the UK to leave the EU](#), the publication of the [Consultation to the Industrial Strategy](#), and continued devolution negotiations.

Considering that services are responsible for the majority of economic output in the UK, there has been a clear demand for information to show how the exports of services vary across the UK and by the destination of exports from the devolved administrations of Scotland, Wales and Northern Ireland, the Greater London Authority, and the new English "city regions"².

Notes for: Introduction

1. The [Nomenclature of Units for Territorial Statistics \(NUTS\)](#) is a hierarchical classification of administrative areas, used across the EU for statistical purposes. There are 12 NUTS1 areas in the UK: Scotland, Wales, Northern Ireland, and the nine former English Government Office Regions.
2. For information about city regions, please refer to the article [Combined Authority economic indicators](#).

3 . Methodology

To calculate the value of service exports for each Nomenclature of Units for Territorial Statistics (NUTS1) area, for each industry and for each country of destination, we start with values of international trade collected from businesses at national UK-level, which provide breakdowns by country of trade, then apportion these figures to NUTS1 areas and to different industries.

To achieve this, we start with the [International Trade in Services survey \(ITIS\)](#). The ITIS survey collects the value of transactions by country of origin and destination from a sample of approximately 14,500 UK businesses each year. Responses to the survey are used to calculate annual ITIS estimates of total trade in services, which is an important data source used in the compilation of the UK Balance of Payments. The ITIS sample is stratified by Standard Industrial Classification 2007 (SIC 2007) at four-digit level, by employment size, and also by other indicators of trade activity such as sampling large, known traders and sampling companies at random from high propensity industries.

We should note that some parts of ITIS returns are imputed and therefore do not represent actual values but estimates of what values are expected to be. In particular, about one-third of ITIS returns are based on an Annual Business Survey (ABS) sub-sample. Data for the ABS sub-sample are collected from companies at a world total level only, which is then apportioned out over both the products and countries reported to us collectively from all other businesses whose trade pattern is reported directly.

The ITIS survey is the main source of UK data on trade in services although it is important to note that the survey does not cover the whole of the UK economy. Businesses within travel, transport, banking, other financial institutions, higher education, charities and a large proportion of businesses within the legal profession are not covered by the ITIS survey. These data are obtained from other sources such as the International Passenger Survey (IPS) and the Bank of England. Estimates for the overall level of trade in services, including these industries, are published in our annual [UK Balance of Payments](#), known as the Pink Book, and monthly UK trade publications. Based on the 2015 estimates, ITIS data contributed approximately 55% to the total exports of services and 43% to total service imports, for the whole of the UK.

Having chosen ITIS as our main data source, we had to decide how to allocate total values of services exported from different parts of the UK taking into consideration the destination of exports. This is because trade information collected by ITIS is reported at UK level, not at the level of NUTS1 areas. Indicators such as number of employees can be used to apportion these totals to NUTS1 areas. This involved dividing up the export values to different countries of destination, which are provided at the level of the enterprise as a whole into their component local units (the physical locations that make up the organisation).

To do this, we used the local unit employee proportions within each enterprise from the Inter-Departmental Business Register (IDBR) to apportion ITIS export values to different countries. We assigned a geographical location and industrial sector to those values using the local unit information from the IDBR. This is consistent with the approach that assumes that all parts of an organisation contribute to exporting (rather than one based on head offices). Hence, national-level service export values for each country of destination are apportioned to the NUTS1 areas based on the number of employees located in a given region in a given sector.

For example, if there were £12.7 billion of UK-level service exports to the EU in the information and communication sector, and London accounted for half of all employees across the UK in this sector, then London would be apportioned the regional service export value for information and communication to the EU of around £6.0 billion.

While we use the same source and definitions as applied in ITIS, there are still differences to the total values. The total value of Great Britain service exports calculated by summing up the regional and country breakdowns in this article was £100.4 billion in 2015, whereas the total UK exports of services (excluding travel, transport and finance) as reported in the [International Trade in Services statistical bulletin](#) in 2015 was £123.2 billion. These differences are a result of two factors:

- differences in the methodology used to calculate some industrial sectors, whereby some values are allocated to industrial sections that get excluded from analysis during the apportioning phase; in particular, products collected by ITIS that get allocated to local units in the transport, accommodation and food, and finance industries which are not part of our analysis, hence they were excluded
- Northern Ireland and the Channel Islands are excluded from our analysis, as we focus on businesses located within Great Britain

Table 1 shows the industrial categories analysed in this article. By using the ITIS micro-data and merging it with micro-data from the IDBR, we create NUTS1 estimates of services exports in Great Britain for all industries in Table 1.

Table 1: Industries presented in service exports tables, Great Britain

Industry	SIC07 section
Primary and utilities (agriculture, mining, utilities)	A, B, D, E
Manufacturing	C
Construction	F
Wholesale and motor trades	G (divisions 45 and 46)
Retail excluding motor trades	G (division 47)
Information and communications	J
Real estate, professional, scientific and technical services	L, M
Administrative and support services	N
Public admin, health and education; arts, entertainment and recreation; other services	O, P, Q, R, S

Source: UK Standard Industrial Classification

Notes:

1. These categories are UK Standard Industrial Classification 2007 (SIC 2007) sections used to analyse the ITIS data.
2. Transportation, financial and travel based industries are excluded from our analysis.

In our previous article, NUTS1 estimates for transport services, insurance and pension services, and financial services were calculated based upon Pink Book estimates; however, these functional categories are not included in this article. The Pink Book is compiled on a commodity (product) basis, whereas the ITIS and IDBR data used in this project were analysed on an industry basis.

It would have been possible to produce all breakdowns on a commodity basis because ITIS data includes product information. However, as users interested in regional growth and trade analysis usually require breakdowns on an industry basis, we decided to present results broken down by the industries shown in Table 1. The Northern Ireland Statistics and Research Agency (NISRA) produce similar results for Northern Ireland using the Annual Business Inquiry (ABI).

Statistical disclosure control methodology was applied to our NUTS1 service exports by destination. This ensures that information attributable to an individual or individual organisation is not identifiable in any published outputs. Decisions regarding which countries could be included as separate parts of our analysis were carried out iteratively, whereby we started by generating service exports estimates for each NUTS1 area and industry by every country of destination as recorded in ITIS. Then after reviewing the robustness and disclosivity of results, we selected the country groupings most suitable for analysis.

4 . NUTS1 service exports by continent, industry and Commonwealth status

This section presents findings for total Great Britain international trade in services (excluding travel, transport and financial services)¹. We start by presenting estimates for service exports for Nomenclature of Units for Territorial Statistics (NUTS1) areas by continents (including separate EU estimates), then proceed with industry analysis, Commonwealth status and finally the top destinations for service exports from different NUTS1 areas. The results from this analysis are considered experimental because we are presenting new methods for “regionalising” Great Britain-level information on exports of services by destination.

The EU was the largest destination for Great Britain service exports, receiving just under £36.9 billion (or 37%) of total service exports. The second-largest destination for service exports was the Americas (25%), followed by Asia (18%), the rest of Europe (13%), Africa (5%), then Australasia, Oceania and the rest of the world (2%).

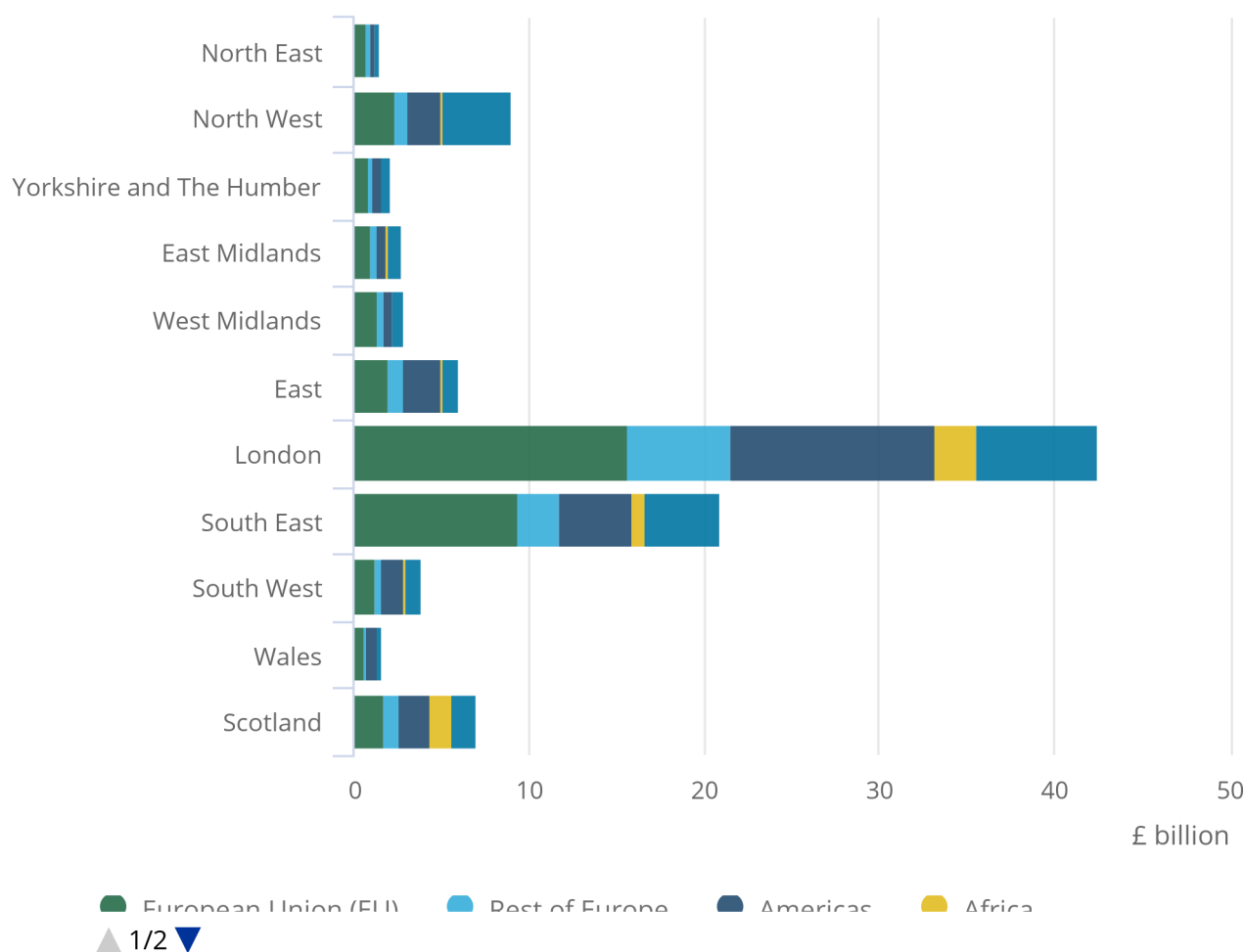
The Pink Book estimates for the UK service exports (including travel, transport and finance) show that there were 39% service exports headed to the EU, 28% to the Americas, 14% to Asia, 13% to the rest of Europe, 3% to Africa, and 3% to Australasia and Oceania².

The NUTS1 areas with the highest proportion of their exports headed to the EU were: the North East (50%), the West Midlands (47%), the South East (45%) and Yorkshire and The Humber (40%). These regions were, hence, relatively more dependent on the EU as their final service exports destination compared with other NUTS1 areas, given that 37% of the total Great Britain exports went to the EU.

However, London dominated the absolute value of service exports to the EU, compared with other regions, producing just over £15.6 billion, which was 42% of all EU service exports from Great Britain in 2015. The second-largest destination for London’s service exports was the Americas, which received £11.7 billion (Figure 1).

Figure 1: Total value of service exports from NUTS1 areas by continent, Great Britain, 2015

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Source: Office for National Statistics International Trade in Services

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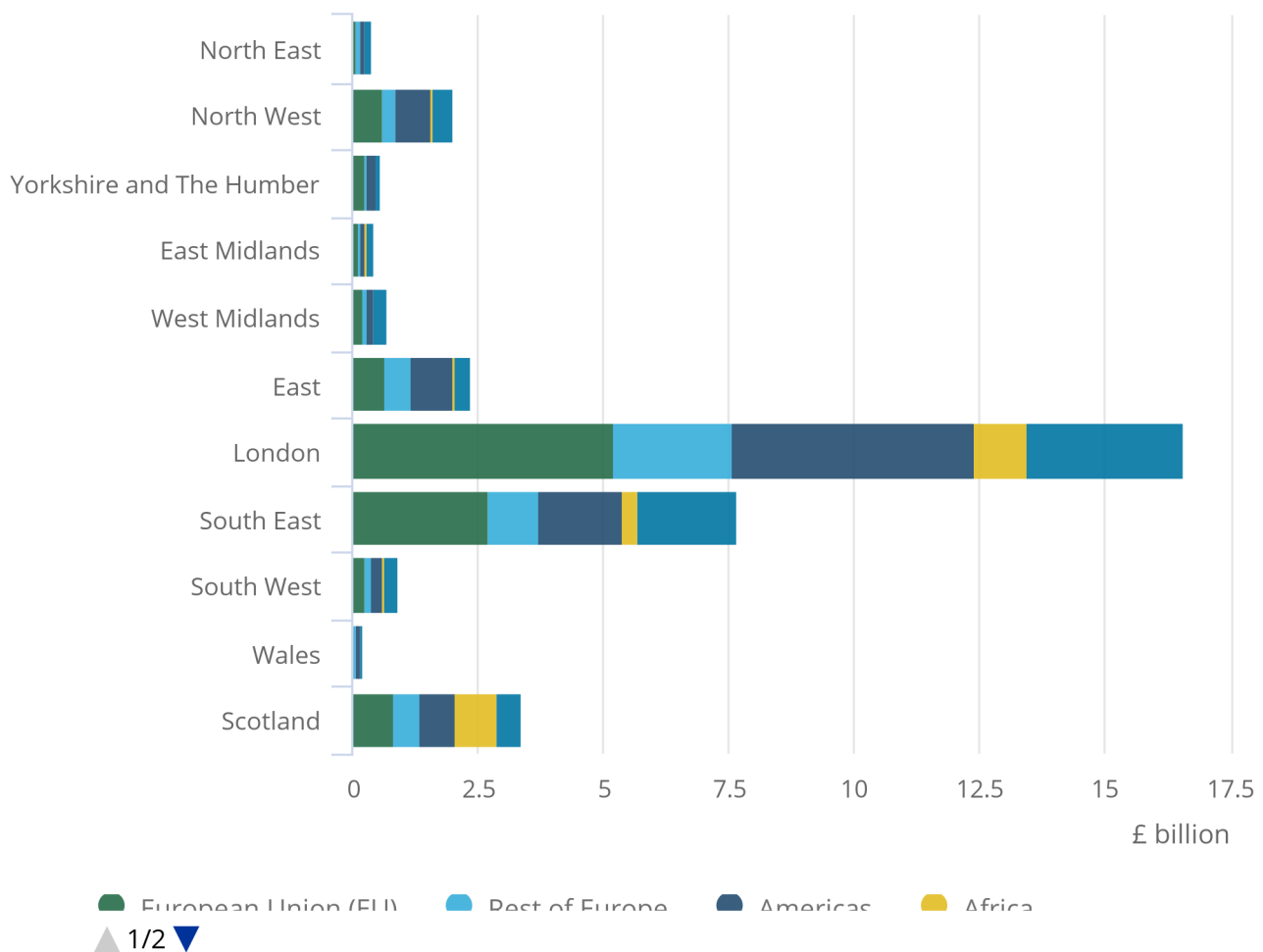
In 2015, the information and communication industry made the largest contribution to EU service exports, generating close to £12.7 billion, followed by the real estate, professional, scientific and technical services industries contributing £11.0 billion, and manufacturing contributing £5.0 billion. As mentioned in the methodology section, we should note that the financial industry is excluded from our analysis.

The 2015 estimates show that the real estate, professional, scientific and technical industries made the largest contribution to the overall Great Britain service exports, generating a total of £35.3 billion. UK businesses within these industries exported a wide range of services in 2015 such as legal, accounting, engineering, advertising, management consulting, research and development, and the buying, selling and renting of property. The professional, scientific and technical industries make up an important sector in which the UK has a comparative advantage. The EU was the largest destination for Great Britain exports from the real estate, professional, scientific and technical services industries.

Figure 2 shows that London's specialisation tends to be in the real estate, professional, scientific and technical services industries. The most important destination for London's real estate, professional, scientific and technical services industries was the EU, receiving £5.2 billion, followed by the Americas with £4.8 billion in 2015.

Figure 2: Total value of service exports from NUTS1 areas by real estate, professional, scientific and technical services industries, 2015

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Source: Office for National Statistics International Trade in Services

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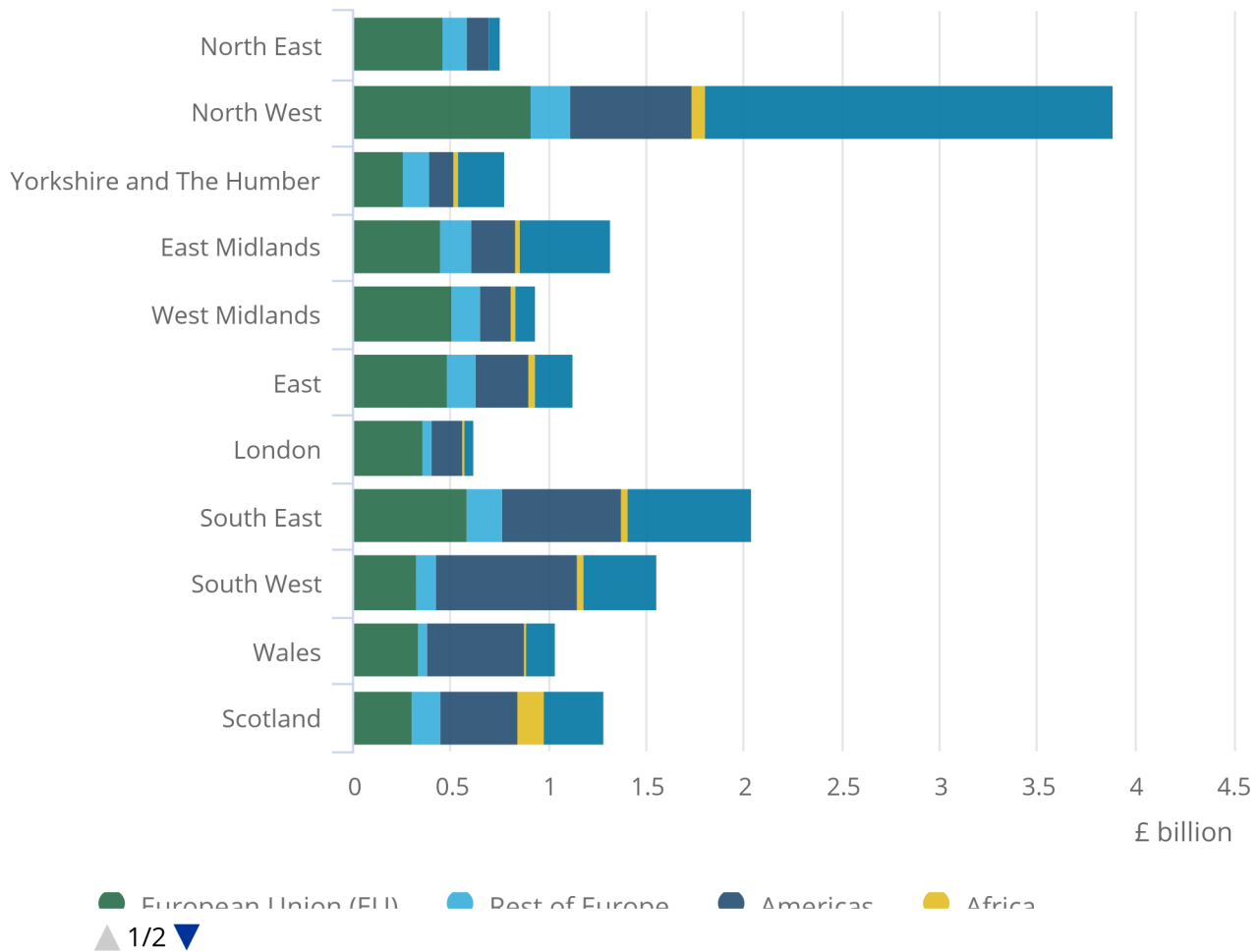
In 2015, the manufacturing industry within Great Britain made the third-largest contribution to service exports, after the real estate, professional, scientific and technical services industries, and the information and communication industry. Business units operating within the manufacturing industry generated £15.4 billion of service exports in 2015.

Manufacturing is typically thought of as a goods-based industry, creating tools, machinery and products through mechanical and technological processes. However, the manufacturing industry also generates notable service outputs, including activities such as design, leasing, installation and consultancy services. As the UK economy has moved from a manufacturing basis to a service basis, the manufacturing industry has followed suit and itself provides services to customers. The EU was the largest destination for manufacturing services exports, receiving close to £5.0 billion, followed by Asia with £4.3 billion, and the Americas with £3.9 billion.

London was the least important region for manufacturing services exports, as shown in Figure 3. This is because London's specialisation tends to be in business and financial services, whereas regions outside of London are relatively more specialised in manufacturing, agriculture and extraction industries. In the North West, the most important destination for manufacturing service exports was Asia, generating £2.1 billion or 53% of the total manufacturing services exports from the North West. In the South West, the most important destination for manufacturing services exports was the Americas, generating 46% of the total South West manufacturing service exports.

Figure 3: Total value of service exports from NUTS1 areas by manufacturing industry, 2015

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Source: Office for National Statistics International Trade in Services

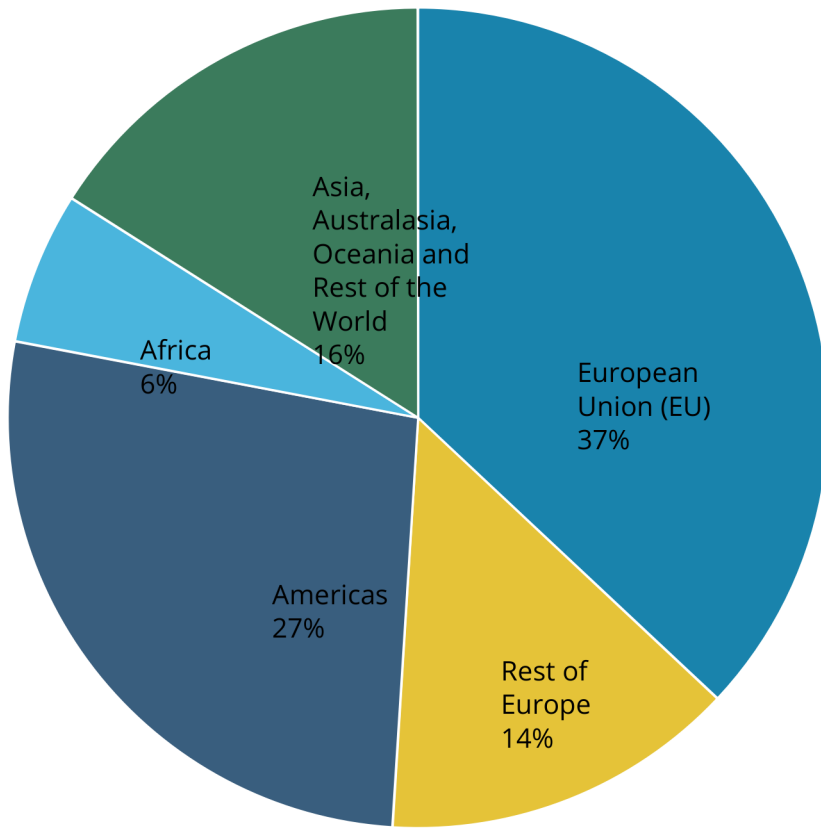
Source: Office for National Statistics International Trade in Services

The three NUTS1 areas where exports to the EU were not dominant were Wales, the East and the North West. The dominant destination for Wales and East service exports was the Americas (40% and 35% of the total areas' service exports respectively), whereas the dominant destination for North West exports was Asia (42%).

Figures 4, 5, 6 and 7 show that the EU market is relatively more important in the North East and West Midlands compared with London and the North West. In the North East, half of total service exports went to the EU, whereas this figure is only one-quarter for the North West. Figure 4 shows that London exhibits a relatively more balanced picture with regards to the destination of its exports, whereby 37% of London's total service exports went to the EU, 27% went to the Americas, 16% to Asia, Australasia and the rest of the world, 14% to the rest of Europe, and 6% to Africa.

Figure 4: Service exports from London, 2015

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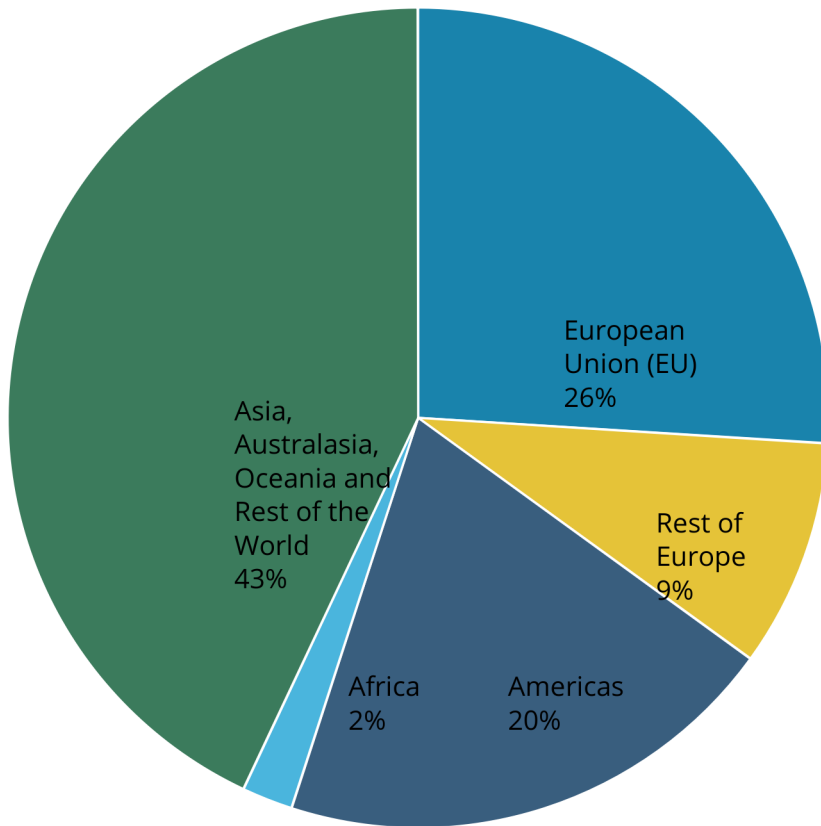


Source: Office for National Statistics International Trade in Services

Source: Office for National Statistics International Trade in Services

Figure 5: Service exports from the North West, 2015

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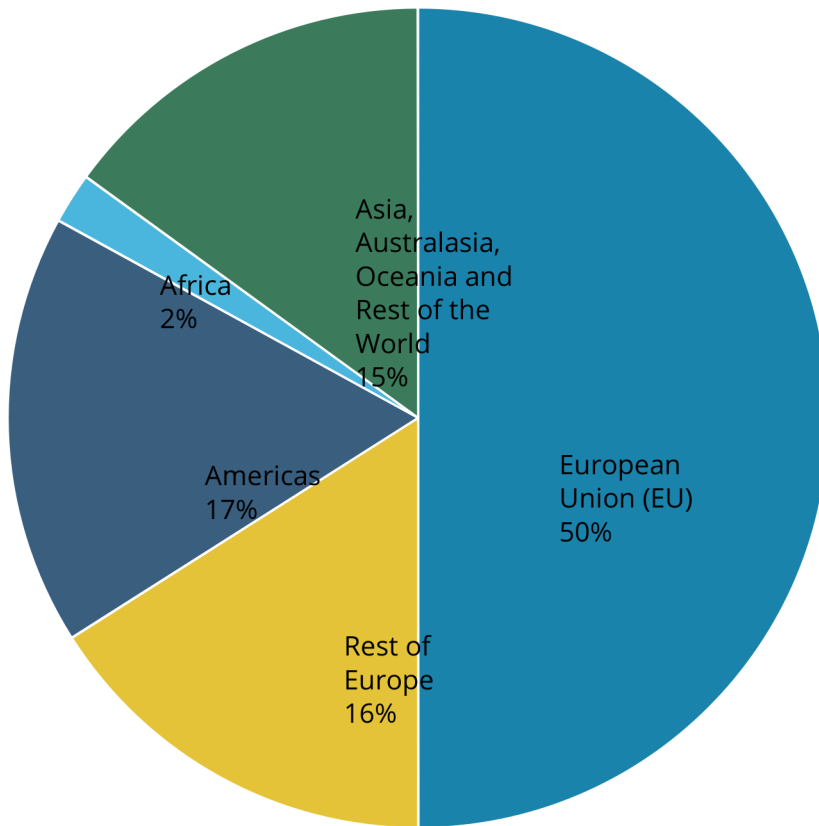


Source: Office for National Statistics International Trade in Services

Source: Office for National Statistics International Trade in Services

Figure 6: Service exports from the North East, 2015

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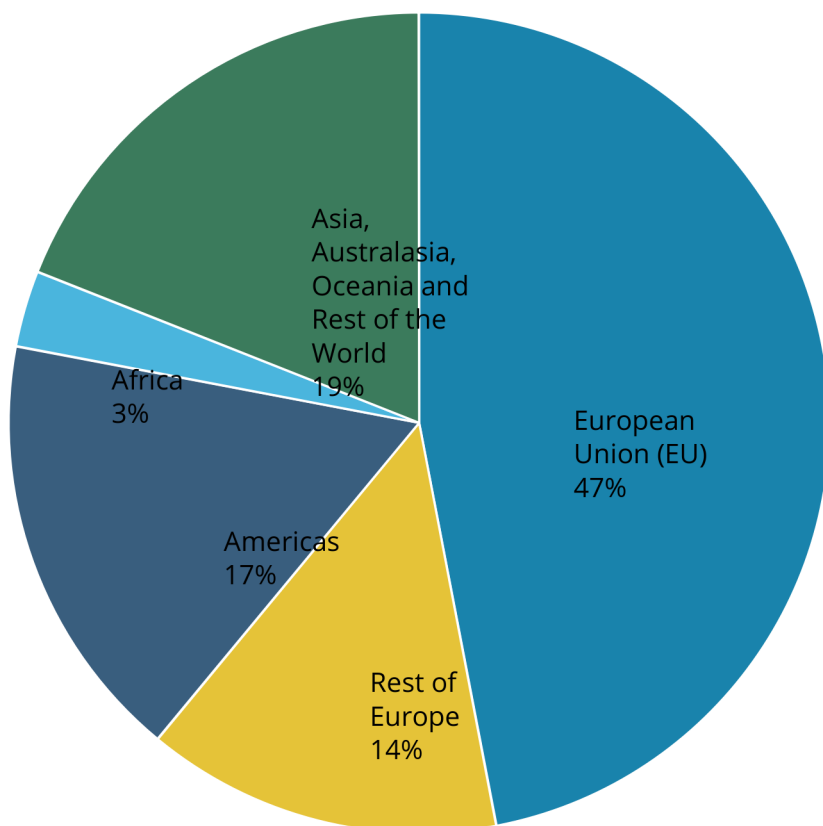


Source: Office for National Statistics International Trade in Services

Source: Office for National Statistics International Trade in Services

Figure 7: Service exports from the West Midlands, 2015

Figure 7: Service exports from the West Midlands, 2015



Source: Office for National Statistics International Trade in Services

Source: Office for National Statistics International Trade in Services

The data shows that service exports to the Commonwealth from Great Britain were 10% of total exports, or just over £9.8 billion in 2015. London was the largest contributing NUTS1 area, generating around £4.6 billion, which was almost half of total service exports to the Commonwealth in 2015. The South East was the second-largest exporting NUTS1 area to the Commonwealth, contributing 20% of total exports, followed by Scotland with 11%.

In 2015, the Commonwealth market was more important for Scotland, London and the East Midlands compared with other NUTS1 areas in Great Britain. More precisely, the NUTS1 areas with the highest proportion of their exports headed to the Commonwealth were Scotland (15%), followed by the East Midlands (12%) and London (11%).

Table 2: Percentage of service exports from NUTS1 areas to the Commonwealth by industry, 2015

NUTS1 areas	Primary and utilities (agriculture, mining, utilities)	Manufacturing	Construction	Wholesale and motor trades	Retail (excluding motor trades)	Information and communication	Real estate, professional, scientific and technical	Adminis and s S
North East	0.0	0.3	0.0	0.2	0.6	
North West	0.0	1.4	0.0	0.2	0.1	0.7	2.6	
Yorkshire and The Humber	0.0	0.5	0.0	0.0	0.0	0.5	0.4	
East Midlands	0.0	1.7	0.0	0.0	0.0	0.5	0.5	
West Midlands	0.0	0.5	0.0	0.1	0.0	0.8	0.8	
East	0.1	0.8	0.2	0.1	0.0	1.3	1.0	
London	..	0.2	0.4	4.5	0.3	13.8	22.5	
South East	0.0	1.1	0.0	1.0	0.1	6.6	10.6	
South West	0.0	1.4	0.1	0.0	0.0	0.6	0.6	
Wales	..	0.5	0.0	0.4	0.3	
Scotland	2.6	1.2	0.1	0.1	0.0	0.7	5.5	
Great Britain	2.8	9.4	1.0	6.3	0.7	26.1	45.3	

Source: Office for National Statistics, International Trade in Services

Notes:

1. The symbol “..” denotes values that have been suppressed for confidentiality reasons.

2. The industrial sectors presented in this table are based upon the UK Standard Industrial Classification (SIC) 2007. Section A has been grouped as "Primary and utilities", and section G has been split whereby divisions 45 and 46 form "Wholesale and motor trades" and division 47 as "Retail excluding motor trades". For further details on SIC 2007, please see UK Standard Industrial Classification Activities on our website.

Table 2 shows that exports from the real estate, professional, scientific and technical services industries made the largest contribution towards exports to the Commonwealth in 2015, producing 45% (£4.5 billion) of Commonwealth exports, followed by the information and communication industry, producing 26% (£2.6 billion). In 2015, total exports by real estate, professional, scientific and technical services industries from the London region alone contributed 23% towards Great Britain service exports to the Commonwealth.

Notes for: NUTS1 service exports by continent, industry and Commonwealth status

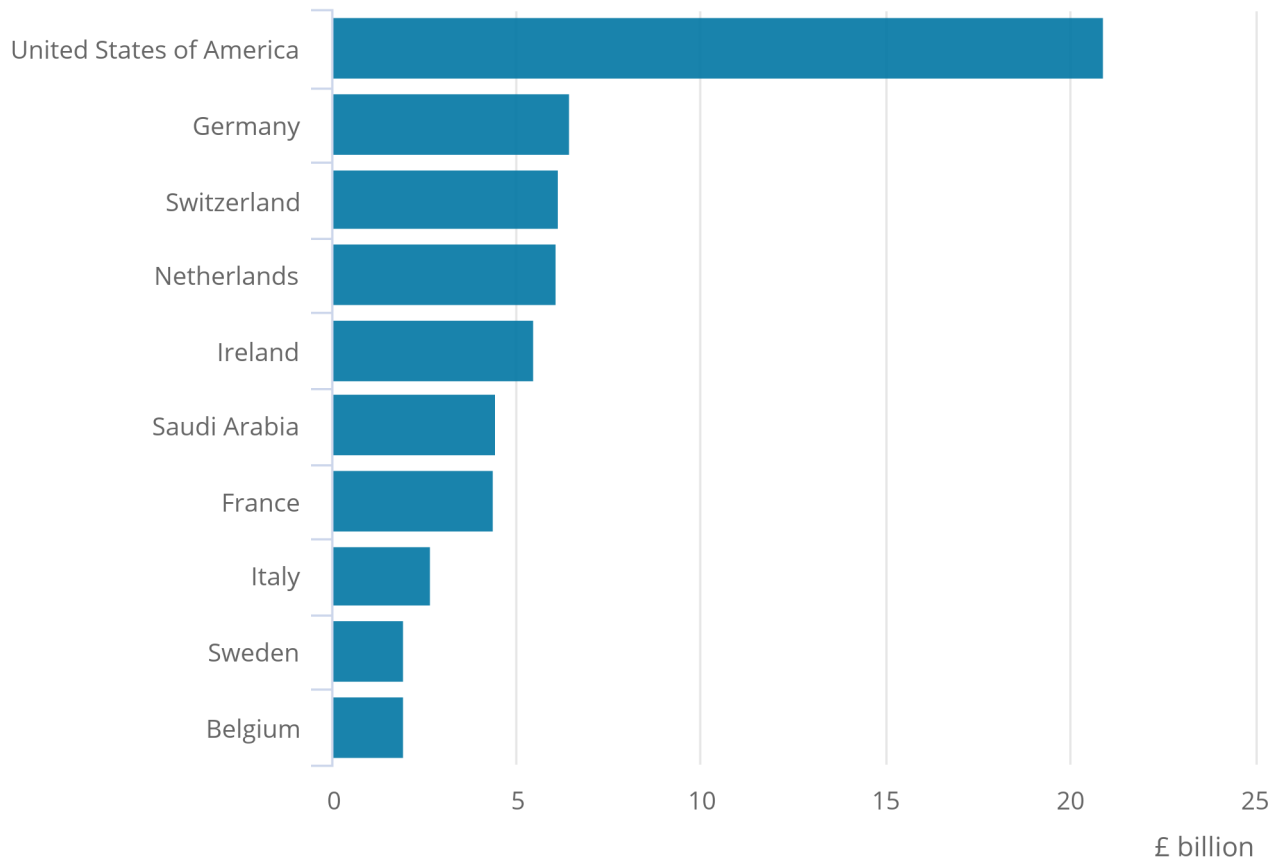
1. For more detailed information relating to Great Britain exports of services as well as continent and country groupings, please refer to the our dataset [Table AE](#) – Total trade in services (excluding travel, transport and finance) analysed by NUTS1 areas, industries, continents and countries.
2. For Pink Book estimates on UK trade in services by destination, please refer to [Pink Book \(Table 9.5\)](#).

5 . NUTS1 service exports by single country of destination

In 2015, the largest single destination for Great Britain service exports was the US, receiving £20.9 billion or 21% of the total world service exports from Great Britain (Figure 8). The US was followed by Germany, Switzerland, the Netherlands, Ireland, Saudi Arabia, France, Italy, Sweden and Belgium as the top 10 countries receiving Great Britain's service exports¹.

Figure 8: Top 10 countries receiving Great Britain service exports, 2015

Figure 8: Top 10 countries receiving Great Britain service exports, 2015



Source: Office for National Statistics International Trade in Services

Source: Office for National Statistics International Trade in Services

In all NUTS1 areas, except the North East, the US was the single most dominant destination for service exports. In the North East, the single most important destination was the Netherlands. Service exports from the North East to the Netherlands were driven by the manufacturing industry, which generated around £0.4 billion exports to the Netherlands in 2015.

Table 3: Top five countries in Europe receiving service exports by NUTS1 areas, 2015

values in £ billion

NUTS1 areas	Germany	Switzerland	Netherlands	Ireland	France
North East	0.1	0.1	0.4	0.0	0.1
North West	0.4	0.4	0.6	0.2	0.3
Yorkshire and The Humber	0.2	0.2	0.2	0.1	0.1
East Midlands	0.4	0.2	0.1	0.1	0.1
West Midlands	0.3	0.2	0.3	0.1	0.2
East	0.5	0.7	0.4	0.2	0.2
London	2.1	2.7	2.5	2.5	1.9
South East	1.7	1.3	1.0	1.7	1.1
South West	0.2	0.2	0.2	0.2	0.1
Wales	0.1	0.1	0.1	0.1	0.1
Scotland	0.4	0.2	0.3	0.3	0.2
Great Britain Total	6.4	6.1	6.1	5.5	4.4

Source: Office for National Statistics, International Trade in Services

Notes:

1. Values appearing to be zero may be any value below £50 million.

Table 3 presents figures for the top five countries for service exports by NUTS1 areas in Europe as a continent, rather than just the EU. Within Europe during 2015, Germany was the single largest destination for service exports, receiving 6.4% of total Great Britain service exports, followed by Switzerland with 6.1%, the Netherlands with 6.0%, Ireland with 5.5% and France with 4.3%.

Table 3 shows that in London and the East, the most important European destination for service exports was Switzerland, whereas the most important European country for service exports from Wales, the West Midlands, the North East and the North West was the Netherlands. The Netherlands was the second largest destination for London's service exports.

Table 4: Top five countries in Asia receiving service exports by NUTS1 areas, 2015

values in £ billion

NUTS1 areas	Saudi Arabia	Singapore	United Arab Emirates	Japan	China
North East	0.0	0.0	0.0	0.0	0.0
North West	..	0.1	0.2	0.1	0.1
Yorkshire and The Humber	0.2	0.0	0.0	0.0	0.0
East Midlands	..	0.1	0.0	0.0	0.1
West Midlands	0.0	0.0	0.0	0.0	0.1
East	0.1	0.1	0.1	0.2	0.1
London	..	0.7	0.7	0.8	0.4
South East	..	0.6	0.4	0.4	0.4
South West	0.2	0.1	0.1	0.1	0.1
Wales	0.1	0.0	0.0	0.0	0.0
Scotland	0.1	0.1	0.1	0.1	0.1
Great Britain Total	4.4	1.9	1.7	1.7	1.3

Source: Office for National Statistics, International Trade in Services

Notes:

1. The symbol “..” denotes values that have been suppressed for confidentiality reasons.
2. Values appearing to be zero may be any value below £50 million.

Within Asia, during 2015 the largest single destination for service exports was Saudi Arabia, receiving 4.4% of the total Great Britain service exports. This was followed by Singapore, the United Arab Emirates, Japan and China, each receiving about 1.6% of the total Great Britain service exports in 2015.

Japan was the single most important Asian destination for London’s service exports, receiving over £0.8 billion in 2015, while in Yorkshire and The Humber, the South West and Wales, the single largest Asian destination for service exports was Saudi Arabia. China was the single most important destination in Asia for service exports from the West Midlands in 2015.

Notes for: NUTS1 service exports by single country of destination

1. The list of top countries presented may differ to that presented in the [International Trade in Services statistical bulletin](#). This is because our analysis focuses on Great Britain and NUTS1-level service exports, whereas the [International Trade in Services survey \(ITIS\)](#) publication is at UK level only. Our analysis excludes trade by Northern Ireland and is calculated at a lower geographic level and therefore will show different individual trading patterns to the national level.

6 . Further developments

These estimates are considered as [Experimental Statistics](#), but we are continuing development work. In the coming months, we will be carrying out a user consultation to gather user views of the NUTS1 service exports with the intention of making these estimates into [official statistics or National Statistics](#). Continuing development of the NUTS1 service exports methodology forms part of the [ONS Supporting Devolution programme](#) and also part of the [UK trade development plan](#).

In December 2016, HM Revenue and Customs (HMRC) made improvements to its Regional Trade Statistics methodology for goods exports, bringing it more in line with our service exports estimates. However, the two outputs are still not directly comparable and users are advised to proceed with caution in any attempt to combine the two sets of export statistics. We continue to work with colleagues at HMRC in attempting to align our outputs even further.

We would welcome your feedback via email to james.p.harris@ons.gsi.gov.uk, particularly with suggestions toward improving the methodology or upon whether this approach meets your needs. You are also invited to get in touch if you wish to feed into the forthcoming user consultation.