

# International trade in services QMI

Quality and Methodology Information for international trade in services detailing the strengths and limitations of the data, methods used and data uses and users.

Contact:  
itis@ons.gov.uk


Release date:  
31 January 2019

Next release:  
To be announced

## Table of contents

1. [Output information](#)
2. [About this Quality and Methodology Information report](#)
3. [Important points](#)
4. [Quality summary](#)
5. [Quality characteristics of the international trade in services data](#)
6. [Methods used to produce the international trade in services data](#)

# 1 . Output information

<b>National Statistic</b>	
<b>Survey name</b>	International Trade in Services
<b>Data collection</b>	Survey data
<b>Frequency</b>	Annual
<b>How compiled</b>	Survey
<b>Geographic coverage</b>	UK

## 2 . About this Quality and Methodology Information report

This quality and methodology report contains information on the quality characteristics of the data (including the European Statistical System five dimensions of quality) as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- understand the methods used to create the data
- help you to decide suitable uses for the data
- reduce the risk of misusing data

## 3 . Important points

- International trade in services (ITIS) measures the value of transactions of UK businesses by country of origin and destination.
- ITIS data are based solely on survey data.
- ITIS data are based on a quarterly sample of approximately 2,200 businesses and an annual sample of approximately 15,500 businesses.
- The annual results are supplemented by information collected via the Annual Business Survey (ABS).
- Data are collected by both industry and product on a geographical basis.
- The ITIS surveys are the main source of data for UK trade in services.
- ITIS data are an important element of the UK's [Balance of Payments \(BoP\)](#) and contributes towards the measure of gross domestic product (GDP).
- The surveys do not provide full coverage of the UK economy, and excluded sectors include: travel and transport; banking and other financial institutions; higher education; and most activities in the legal professions.
- ITIS data are not seasonally adjusted.

## 4 . Quality summary

### Overview

International trade in services (ITIS) shows the import and export activity of UK companies overseas and is the main source of information for UK trade.

The ITIS surveys collect company-level microdata on exports and imports of services products.

Office for National Statistics (ONS) ITIS data are compliant with the latest international standards, as outlined in the Manual on Statistics of International Trade in Services 2010 (MSITS 2010). Breakdowns are available by product, industry and geographical region and products are classified using the Extended Balance of Payments Services classification (EBOPS 2010). ITIS consists of 52 products and 17 product groups. The ITIS survey is the main source of UK trade in services data, covering most industries but with several exceptions such as:

- travel
- transport
- banking and other financial institutions
- higher education
- charities
- most activities within the legal profession

Data for the excluded industries are obtained from other sources and are not included in this bulletin. Statistics presented are not seasonally adjusted.

The quarterly sample is made up of approximately 2,200 businesses and the annual sample is made up of approximately 15,500 businesses. The survey data from both the quarterly and annual results are combined to produce the [annual ITIS estimates](#) and are used as a main data source to compile total trade in services estimates.

In 2009, the ITIS survey incorporated the Film and Television Survey, which was discontinued as a stand-alone survey in 2008. The ITIS survey is also supplemented by information collected via the [Annual Business Survey \(ABS\)](#) in relation to amounts paid or received for the imports or exports of services. Care is taken during the sampling and estimation process to avoid duplication between surveys.

ITIS data are collected by both industry and product on a geographical basis, by collecting data for the countries to which services are exported to and where they are imported from. These data are primarily used in the compilation of the services account for the UK's [Balance of Payments \(BoP\)](#), which in turn contributes towards the measure of UK [gross domestic product \(GDP\)](#). The ITIS estimates are published annually.

## Uses and users

The results of the annual and quarterly ITIS survey, represent a main element of the balance of payments account and of [GDP](#). The results are published in detail in the [ITIS statistical bulletin](#). The results from the ITIS survey make up approximately 59% of total exports and 48% of total imports of the trade in services account for 2017.

As a condition of membership to the [International Monetary Fund \(IMF\)](#), the UK is obliged to provide detailed trade in services information. [The Statistical Office of the European Communities \(Eurostat\)](#) also requires a detailed geographical breakdown of trade in services products to allow construction of European Union (EU) aggregates. The geographical data also allow the analysis of bilateral asymmetries between member states to take place. As such, businesses taking part in the ITIS survey are required to respond under the [Statistics of Trade Act 1947](#).

The data are also used by Office for National Statistics' (ONS's) Supply and Use Production Branch within national accounts. Tables are provided containing industrial and non-industrial service breakdown. They use the weighted flows of the industry and product matrix data from ITIS for the analyses of industrial and non-industrial services supplied by the Annual Business Survey (ABS).

Government and business users also use the data for economic assessment. The [Department for International Trade \(DIT\)](#) states that the ITIS survey is the only source of product detail for UK services and is essential for UK regional exports analyses. DIT also use the ITIS survey data to monitor the competitiveness of UK businesses and to gain a better understanding of the level of service exports.

In addition, the [Scottish Government \(SG\)](#) also shows significant interest in the survey results to supplement Scotland's [Global Connections Survey \(GCS\)](#) and the [Department for Digital, Culture, Media and Sport \(DCMS\)](#) use the ITIS data in one of their main outputs, the [Creative Industries statistical bulletin](#).

## Strengths and limitations

### Strengths

- Product-level detail is published at both world total and sector level.
- The ITIS survey is the only source of product detail for UK services and is essential for UK regional exports analyses.

## Limitations

- ITIS data are not representative of the whole economy, as travel, transport and banking sectors are excluded.
- Full geographic breakdown is not published, select countries only are published.
- Some published tables contain high volumes of suppressed data as a result of disclosure being applied.
- Sector-only estimates are published, but not industry estimates.
- It is a sample survey, not a census.

## Recent improvements

Further to increased user demand for more timely and granular trade in services statistics, the sample size of the quarterly ITIS survey increased from approximately 1,100 to 2,200 businesses; this enabled quarterly estimates to be published by country and broad industry grouping. The quarterly sample is now optimised by product group, industry and country. The imputation methodology was also amended to provide imputation at product and country level.

## 5 . Quality characteristics of the international trade in services data

This section provides a range of information that describes the quality and characteristics of the data and identifies issues that should be noted when using the output.

### Relevance

International trade in services (ITIS) is a major source of data for UK trade, which is a main economic indicator due to the importance of international trade to the UK economy.

The conceptual framework of the ITIS data corresponds to that of the International Monetary Fund (IMF) Balance of Payments Manual sixth edition (BPM6) and is also compliant with the latest international standards, as outlined in the Manual on Statistics of International Trade in Services 2010 (MSITS 2010). Both provide objective and coherent international standards to make data for the UK and other countries comparable, reflecting the needs of international and domestic users. The UK economic territory excludes the Channel Islands and the Isle of Man, which have their own fiscal and monetary authorities. BPM6 was compiled in close co-operation with Eurostat, the Organisation for Economic Co-operation and Development (OECD), the United Nations and the World Bank.

The ITIS data, as a component of UK trade data, form part of the broader system of UK National Accounts. The international standard for national accounts is the System of National Accounts 2008: SNA 2008, jointly published by the same organisations. The EU published its own version of SNA 2008, the European System of National Accounts 2010: ESA 2010, upon which the UK's National Accounts are based. BPM6, SNA 2008 and ESA 2010 are consistent.

The main users of the ITIS bulletin are:

- [Department for International Trade \(DIT\)](#)
- [Scottish Government \(SG\)](#)
- [Department for Digital, Culture, Media and Sport \(DCMS\)](#)
- [Department for Environment, Food and Rural Affairs \(DEFRA\)](#)

## Accuracy and reliability

There is no simple way of measuring the accuracy of ITIS statistics, that is, the extent to which they measure the underlying “true” value for a particular period. Non-sampling errors are not easy to quantify and include errors of coverage, measurement, processing and non-response. Various procedures and checks are made to ensure these errors are minimised. As ITIS is based on survey responses, Office for National Statistics (ONS) systems validate these entries and prompt confirmation of suspect data is sought.

## Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain, for example, geographic level.)

Every effort is made to ensure that the series are comparable over time. International standards (BPM6) are used in the production of ITIS data; therefore, figures published by the UK should be comparable with other countries. UK representation in working groups and Eurostat (by ONS), help ensure that the UK is synchronised with any changes from EU member states.

## Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.)

The annual survey data are published in the [International trade in services statistical bulletin](#). Each publication includes a Quality and methodology section, to enable users to further understand the complexities of the ITIS survey. There is also a separate [methodology page](#).

Our recommended format for accessible content is a combination of HTML web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. Our website also offers users the option to download the narrative in PDF format. In some instances, other software may be used, or may be available on request. Available formats for content published on our website but not produced by us, or referenced on our website but stored elsewhere, may vary. For further information please refer to the contact details at the beginning of this report.

For information regarding conditions of access to data, please refer to the following links:

- [terms and conditions](#) (for data on the website)
- [copyright and reuse of published data](#)
- [accessibility](#)

Access to microdata is via the Secure Research Service (SRS).

Further queries can be addressed to the ITIS public enquiry team by email to [itis@ons.gov.uk](mailto:itis@ons.gov.uk).

## **Timeliness and punctuality**

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

The annual ITIS bulletin is published 13 months after the end of the reference year. There are Eurostat requirements on the timeliness of quarterly national accounts.

For more details on related releases, our [release calendar](#) provides 12 months' advance notice of release dates. Publication dates for ITIS are fixed, but, in the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Statistics](#).

## **Concepts and definitions (including list of changes to definitions)**

(Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.)

The ITIS survey is mandatory and is collected under the [Statistics of Trade Act 1947](#). Detailed [Standard Industrial Classification: SIC 2007](#) is available. Data are collected in accordance with the latest edition of the [Balance of Payments: BPM6 manual](#).

## **Geography (including list of changes to boundaries)**

The geographical groupings used in the ITIS tables are detailed in Table 1.





**Table 1: Geographical groupings used in the International Trade in Services (ITIS) Survey**

Europe	The Americas	Asia	Australasia and Oceania	Africa
Specified Countries	Specified Countries	Specified Countries	Specified Countries	Specified Countries
Austria	Brazil	China	Australia	Nigeria
Belgium	Canada	Hong Kong	New Zealand	South Africa
Bulgaria	Mexico	India		
Channel Islands	USA	Indonesia	<b>Other Countries</b>	<b>Other Countries</b>
Croatia		Israel	American Oceania	Algeria
Cyprus	<b>Other Countries</b>	Japan	Antarctica	Angola
Czech Republic	Anguilla	Malaysia	Australian Oceania	Benin
Denmark	Antigua and Barbuda	Pakistan	Fiji	Botswana
Estonia	Argentina	Philippines	Kiribati	British Indian Ocean
Finland	Aruba	Saudi Arabia	Marshall Islands	Burkina Faso
France	Bahamas	Singapore	Micronesia	Burundi
Germany	Barbados	South Korea	Nauru	Cameroon
Greece	Belize	Taiwan	New Zealand Oceania	Cape Verde
Hungary	Bermuda	Thailand	Northern Mariana Islands	Central African Republic
Iceland	Bolivia		Palau	Chad
Irish Republic	British Virgin Islands	<b>Other Countries</b>	Papua New Guinea	Comoros
Isle of Man	Cayman Islands	Abu Dhabi	Pitcairn	Congo
Italy	Chile	Afghanistan	Polar regions	Cote d'Ivoire
Latvia	Columbia	Armenia	Solomon Islands	Djibouti
Liechtenstein	Costa Rica	Azerbaijan	Tonga	Egypt
Lithuania	Cuba	Bahrain	Tuvalu	Equatorial Guinea
Luxembourg	Dominica	Bangladesh	Vanuatu	Eritrea
Malta	Dominican Republic	Bhutan	Samoa	Ethiopia
Netherlands	Ecuador	Brunei		Gabon
Norway	El Salvador	Cambodia		Gambia
Poland	Falkland Islands	Dubai		Ghana
Portugal	Grenada	Georgia		Guinea
Romania	Guatemala	Iran		Guinea Bissau
Russia	Guyana	Iraq		Kenya
Slovakia	Haiti	Jordan		Lesotho
Slovenia	Honduras	Kazakhstan		Liberia

Spain	Jamaica	Kuwait	Libya
Sweden	Montserrat	Kyrgyzstan	Madagascar
Switzerland	Nicaragua	Laos	Malawi
Turkey	Netherlands Antillies	Lebanon	Mali
	Panama	Macao	Mauritania
Other Countries	Paraguay	Maldives	Mauritius
Albania	Peru	Mongolia	Morocco
Andorra	St Kitts and Nevis	Myanmar (Burma)	Mozambique
Belarus	St Lucia	Nepal	Namibia
Bosnia-Herzegovina	St Maaten	North Korea	Niger
Gibraltar	St Vincent and The Grenadines	Oman	Rwanda
Macedonia	Surinam	Palestinian Territory	Sao Tome and Principe
Moldova	Trinidad and Tobago	Qatar	Senegal
Montenegro	Turks and Caicos Islands	Sharjah	Seychelles and Dependencies
San Marino	Uruguay	Sri Lanka	Sierra Leone
Serbia	US Virgin Islands	Syria	Somalia
Ukraine	Venezuela	Tajikistan	St Helena and Dependencies
Vatican City State	West Indies	Turkmenistan	Sudan
		United Arab Emirates	Swaziland
		Uzbekistan	Tanzania
		Vietnam	Togo
		Yemen	Tunisia
			Uganda
			Zambia
			Zimbabwe

## Output quality

This provides a range of information that describes the quality of the outputs and details any points that should be noted when using the output. We have developed guidelines for measuring statistical quality; these are based upon the five European Statistical System (ESS) quality dimensions covered later in this section.

## Why you can trust our data

ONS is the UK's largest independent producer of statistics and is the country's National Statistics Institute. The Data Policies and Information Charter, available on the ONS website, detail how data are collected, secured and used in the publication of statistics. We treat the data that we hold with respect, keeping it secure and confidential, and we use statistical methods that are professional, ethical and transparent. More information about our [data policies](#) is available.

# 6 . Methods used to produce the international trade in services data

## How we collect the data, main data sources and accuracy

### Data collection

Annual International Trade in Services (ITIS) data are collected using paper questionnaires with manual input of data onto the system, while quarterly ITIS data are input via batch take on from Quarter 1 (Jan to Mar) 2017.

To improve the efficiency of the survey operations and reduce the burden on respondents, telephone data entry (TDE) is now being used for all annual respondents to register a nil response.

Data relating to the import or export of goods are excluded from this survey as they are already collected in the estimates for [UK trade](#). However, merchanting (earnings from arranging the sale of goods between two countries outside the UK and where the goods never physically enter the UK) are included along with earnings from commodity trading. As with merchanting, the services element is calculated as the businesses' profit minus the loss.

### Response

Written reminders are issued to non-responders, which are subsequently followed by telephone reminders to try and minimise non-response and any associated non-response bias.

The ITIS survey is covered under the [Statistics of Trade Act 1947](#) meaning legal action can be taken against persistent non-responders, though we prefer to work together with businesses to produce the necessary information.

Response rate targets are 85% for both annual and quarterly ITIS.

## How we process the data

**Table 2: Annual International Trade in Services (ITIS) Survey processing cycle based on 2017 as the reference period**

Selection	September 2017 or October
Dispatch forms	January 2018
Close for provisional results	April 2018
Deliver provisional results	June 2018
Close for final results	September 2018 or October
Deliver final results	November 2018
Benchmark quarterly data using 2013 estimates	November 2018
International trade in services (ITIS ) statistical bulletin published	January 2019

## How we analyse and interpret the data

Analysis of ITIS is carried out at a number of levels, to limit the margin for error. This is carried out at product, country, industry and concern level. Concern is an identifier used to determine which part of the sample reporting units are found in.

## How we quality assure and validate the data

### Validation

Returned information is run through a series of checks to identify errors. These checks ensure that:

- responses to individual questions are consistent within the questionnaire as a whole, that is, totals equate to the sum of the parts
- the return is consistent with historical data from the business

### Data clearance

Data clearance is the point at which data become error-free. The target clearance rates for both annual and quarterly ITIS are 98% of the achieved response by the agreed close-down date.

## Outliers

The method of outlier detection and treatment is based on the principle of Winsorisation. The aim is to identify the sample observations that are felt not to be representative of unsampled companies. Outlied values are identified and modified prior to estimation using one-sided Winsorisation (since there are no negative values given as part of ITIS).

## Imputation

Imputation takes place when sampled respondents do not respond. Two methods of imputation are used by ITIS. Ratio imputation – this method is used where historical data for a non-responder are present. Data are taken from the previous corresponding periods and updated by the average growth within the same cell.

Means of ratio – this method is used for non-responders where no historical data are present. An imputed value is calculated by averaging returns from within the same cell as the non-responder.

## Estimation

For the annual survey, Horvitz-Thompson estimation is used to produce estimates for the entire population from sampled data. Estimates are produced separately for each industry by employment stratum and aggregated to produce high-level estimates.

The exception is the data obtained from the Annual Business Survey. Estimation is performed by multiplying design-weighted responses by the imputation weight and aggregating to the appropriate level.

## Disclosure

[Statistical disclosure control](#) methodology is applied to ITIS survey data. This ensures that information attributable to an individual or individual organisation is not identifiable in any published outputs. The [Code of Practice for Statistics](#) sets out practices for how we protect data from being disclosed. The Code includes the statement that ONS outputs should “ensure that official statistics do not reveal the identity of an individual or organisation or any private information relating to them, taking into account other relevant sources of information.”

## How we disseminate the data

ITIS data are published annually in the annual ITIS statistical bulletin. It also forms part of UK trade outputs, [UK Economic Accounts](#), [UK Balance of Payments](#), [The Pink Book](#) and [UK Trade](#).

## How we review and maintain the data processes

Previous data are used to ensure the quality of the time series. For example, at the aggregate level (country, industry, product and product group), checks are undertaken to ensure latest years are comparable as part of the time series in comparison with previous year values. If not, data queries are sent to understand drivers behind movements in the data.