

International trade in services QMI

Quality and methodology information for the International Trade in Services Survey data detailing the strengths and limitations of the data, methods used, and data uses and users.

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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

National Statistic	
Survey name	International Trade in Services
Data collection	Survey data
Frequency	Annual
How compiled	Survey
Geographic coverage	UK
Related publications	Annual International Trade in Services

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 18,200 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 contribute 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) data show 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 18,200 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 which services are exported to, and those 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 the Office for National Statistics' (ONS) 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 uses 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](#) 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 geographical 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

In the 2019 annual sample, regional boosts for Wales and Scotland have been introduced to the sample in order to increase the representation of those regions in the sample. These boosts have been funded specifically for the 2019 results and may not be included in future years.

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 because of 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 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](#)
- [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.

Standard errors are an estimate of the sampling error and provide a measure of the precision of the estimate. A low standard error indicates a precise estimate. To aid comparison, the standard error is also expressed as a percentage of the total value, allowing the standard error to be put in context.

Table 1: Standard errors, 2019

Industries	Exports			Imports		
	Estimate (£ million)	Standard error (£ million)	Relative Standard error (%)	Estimate (£ million)	Standard error (£ million)	Relative Standard error (%)
Total ITIS	194,726	2,365	1	103,521	1,449	1
Manufacturing	17,855	142	1	14,841	67	0
Wholesale and Retail	21,119	163	1	9,970	848	9
Information and Communication	49,983	532	1	31,313	523	2
Professional, Scientific and Technical	54,075	2,016	4	26,108	806	3
Administrative and Support Services	10,057	407	4	3,541	255	7
Arts, Entertainment and Recreation	8,295	32	0	2,642	23	1

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, geographical 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 the 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 softwares 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 sent to the ITIS public enquiry team at 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 2: 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	Other Countries	Other Countries
Croatia		Israel	American Oceania	Algeria
Cyprus	Other Countries	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
Ireland	British Virgin Islands	Other Countries	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 Antilles	Turkey	Netherlands Antilles	Turkey
Lebanon		Mali	Lebanon	
	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 Maarten	Bosnia-Herzegovina	St Maarten	Bosnia-Herzegovina
North Korea		Niger	North Korea	
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	San Marino	Uruguay	San Marino
Sri Lanka		Sierra Leone	Sri Lanka	
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

The 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, details 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, but 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 3: Annual International Trade in Services (ITIS) Survey processing cycle based on 2019 as the reference period

Stage in annual process	Dates
Selection	September or October 2019
Dispatch forms	January 2020
Close for provisional results	April 2020
Deliver provisional results	June 2020
Close for final results	September or October 2020
Deliver final results	November 2020
Benchmark quarterly data using 2019 estimates	November 2020
International trade in services (ITIS) the annual dataset is published.	January 2021

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 (as 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.