Input-Output Analytical Tables QMI

Quality and methodology information for the Input-Output Analytical Tables.

Table of contents

1 . Output information

- Statistical designation: Official Statistics

- Frequency: annual

- How compiled: The product by product input-output tables use the hybrid technology assumption and the industry by industry input-output tables use the fixed product sales structure, following UN guidance on supply and use tables and input output tables

- Geographic coverage: UK

- Related publications: supply and use tables, employment multipliers and effects, input-output analysis tool

2 . About this QMI report

This quality and methodology information report contains information on the quality characteristics of the data (including the European Statistical System's 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

- The input-output analytical tables (IOATs) provide information on the structure of the UK economy.

- IOATs are a valuable tool used to explore the interconnectivity and dependency of industries and products in the UK economy.

- IOATs have a broad user-base, including government departments, academics, industry groups, arm's length bodies, and international organisations.

- IOATs are produced following the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

4 . Quality summary

Overview

The Input-output analytical tables (IOATs) are important statistics, used to analyse the structure of the UK economy, showing the products used to produce other products and the industries used in the production function of other industries. IOATs present 105 product and industry group breakdowns; consistent with the classification groups used in the supply and use tables (SUTs). Further information on compiling IOATs can be found in the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

IOATs are produced annually and provide detailed statistics on the input-output relationships in industries, and products used in the UK. These statistics are compiled as two separate datasets; industry-by-industry IOATs and product-by-product IOATs. Each dataset contains a range of statistics, including an input-output table, a Leontief Inverse, a matrix of coefficients, an effects table, and multipliers table.

IOATs are derived from two data inputs; the annual SUTs and estimates on the final use of imported products by industry.

Uses and users

The data are used by government departments, arm's length bodies, academics, industry groups, consultants and international institutions, to analyse the structure of the economy and understand the inter-dependencies of products and industries in the UK economy. The data also support analysts in making well-informed decisions on wider economic policy and developing industrial strategies. This data is also used by OECD for international analysis and comparison.

Strengths and limitations

Strengths

The input-output analytical tables (IOATs) are produced using the latest supply and use estimates in the Blue Book of the corresponding reference year the tables are compiled.

The IOATs are a useful tool for understanding the structure of the UK economy by estimating the input-output relationships across industries and products. These tables provide estimates of the value and type of use (intermediate or final use) of imported and domestically produced inputs into the production of products or an industry's production function.

Limitations

Product-by-product IOATs are available from 1984, and industry-by-industry IOATs are available from 2016. The data are not a time series as earlier years are not revised with each additional year's tables produced. Each dataset is only coherent with the latest supply and use estimates in the Blue Book of the corresponding reference year the tables are compiled.

Using the effects and multipliers to estimate the impact of a change in final demand on the economy, assumes all other things remain unchanged; including assumptions such as increases of supply can be met and prices remain unaffected from changes in final demand and output.

IOATs include type 1 effects and multipliers, which consist of direct and indirect effects. They do not include type 2 effects and multipliers, which show the induced effects on the change in compensation of employees and other incomes, as these may induce further spending and hence further changes in final demand.

Recent improvements

Input-output analytical tables (IOATs) are now produced in a timelier schedule and are aligned with the latest year's supply and use balanced tables, in the annual Blue Book of the reference year they are compiled.

IOATs are now presented in an accessible format, following Government Analysis Function guidance on making spreadsheets accessible.

To expand our user-base, data from the product-by-product IOATs are now presented in a new interactive input-output analytical tool on our website. This is a non-technical, user-friendly interactive tool that helps to explore and investigate interdependent relationships for a selected product. The interactive tool provides information on which industries use a selected product, which products are required to make the selected product, and the impacts on the UK economy following a change in final use of the selected product.

5 . Quality characteristics of the data

Relevance

The input-output analytical tables (IOATs) are released annually, in both product-by-product and industry-by-industry tables. These statistics are used in conducting industrial analysis, advising on policy decisions, understanding the interdependencies of industries and products and making international comparisons.

To support users in developing industrial strategies, bespoke IOATs have also been produced upon request.

The IOATs have been produced following the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

Accuracy and reliability

The input-output analytical tables (IOATs) reflect interdependencies between industries and products, coherent with the supply and use tables, which have been compiled using a plethora of administrative and survey data sources and price indices, during the annual balancing exercise. IOATs reflect the accuracy and reliability of the supply and use balanced tables used in the vintage of the annual Blue Book and Pink Book releases of the corresponding year the tables are compiled.

Coherence and comparability

Input-output analysis tables (IOATs) are produced using the latest supply and use estimates in the Blue Book of the corresponding reference year, which has a lag of T+2 years. As each year's IOATs are coherent with the Blue Book and Pink Book vintage, earlier years' IOATs are not revised. Therefore, IOATs should not be viewed as a time series and each edition should not be compared with that of an earlier year. The IOATs are produced at the UK level, using the same product and industry classification and granularity as the supply and use tables. The IOATs have been produced following the United Nations handbook on supply and use tables and input output tables – with extensions and applications. This allows for international comparisons to be made.

Accessibility and clarity

The input-output analytical tables (IOATs) are now presented in an accessible format, following Government Analysis Function guidance on making spreadsheets accessible.

Additional information relating to IOATs can be found on the menu and notes pages within each data file. These pages contain useful metadata on the data it relates to, the vintage of Blue Book and Pink Book that the data is consistent with, as well as caveats and assumptions relating to the quality of the data.

To enhance our user-base, in 2025 we introduced an online interactive input output tool. This tool uses data from the product-by-product IOATs, in a user-friendly presentation, helping users understand which industries use selected products and which products are required to produce them. The tool also gives users information on how much of the product has been imported or domestically produced. A user guide was also published alongside this tool to provide further information on the how the statistics from the product-by-product IOATs were used.

Timeliness and punctuality

Significant improvements were introduced in the timeliness of publishing input-output analysis tables (IOATs).

IOATs are now produced the same year as the latest supply and uses balanced tables available in the annual Blue Book, of the corresponding year the tables are produced.

Concepts and definitions

The input-output analytical tables (IOATs) are compiled following the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

IOATs are designated as Official Statistics. More detail on this statistical designation can be found here: https://uksa.statisticsauthority.gov.uk/about-the-authority/uk-statistical-system/types-of-official-statistics.

The UK SIC (Standard Industrial Classification) 2007 is used to classify industries.

The CPA (Classification of Products by Activity) 2008 is used to classify products.

These classification groups used in the compilation of IOATs are coherent with those used in the supply and use tables.

Geography

Input-output analytical tables cover the United Kingdom.

6 . Methods used to produce the data

The input-output analytical tables (IOATs) are compiled following international guidance in the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

The methodology for compiling product-by-product IOATs, uses both a "product technology" and an "industry technology" assumption for each product and industry combination; known as models A and B, respectively, in the United Nations handbook on supply and use tables and input output tables – with extensions and applications. Model A represents the assumption that a product is produced the same way, irrespective of the industry producing it. Model B represents the assumption that each industry has its own specific way of production, irrespective of its product mix.

The choice of technology assumption, A and B, is stored in a "hybrid technology" matrix. The "hybrid technology" assumption uses model A if it can, providing it does not produce negative values, otherwise it uses model B.

Then, a transformation matrix is calculated to complete the transformation into a product-by-product matrix. More information on the product-by-product IOATs can be found here: UK input-output Analytical Tables 2010: explanatory article(PDF, 508KB).

The methodology for compiling industry-by-industry IOATs, uses the "fixed product sales assumption", known as model D, in the United Nations handbook on supply and use tables and input output tables – with extensions and applications. This assumes that each product has its own specific sales structure, irrespective of the industry where it is produced.

The technology assumption is stored in a matrix. Then, a transformation matrix is applied that reassigns products to the industries producing them. This transformation is based on output function across the whole economy, which reflects the degree of secondary production in each industry. More information on the industry-by-industry IOATs can be found here: Input-output analytical tables: guidance for use.

Main data sources

Two data sources are used to compile input-output analytical tables; supply and use tables and data on imports of products by industry and final use.

How we process the data

Three main steps are used to produce input-output analytical tables (IOATs).

First, supply and use data at purchaser's prices are converted into basic prices. Second, data on imports of products by industry and final use, are used to produce use tables at basic prices, by imported and domestically produced products.

Thirdly, the matrix of co-efficient and Leontief inverse are produced, using the assumptions of the hybrid technology and the fixed product sales structure, described in the United Nations handbook on supply and use tables and input output tables – with extensions and applications.

Further information on the product-by-product IOATs production process can be found here: UK input-output Analytical Tables 2010: explanatory article(PDF, 508KB). More information on the industry-by-industry IOATs can be found here: Input-output analytical tables: guidance for use.

How we quality assure and validate the data

As part of the quality assurance process, we validate the input-output analytical tables (IOATs) to ensure coherence with supply and use tables. Supply and use data and trade pattern data inputs are quality assured to check for consistency and coherence prior to the compilation of IOATs. Trade import pattern data contains information on the imports of products by industry and their final uses. IOAT are also checked for coherence with wider national accounts aggregates, and trade statistics.

Trends and changes within the data are analysed against the previous year's results and where significant differences are noted, they are checked with data providers and their datasets, including published trade statistics . Economic policies and global economic trends are also used to assess the plausibility of these statistics. Significant changes in the multipliers and other variables are checked for plausible economic stories which can explain changes in the structure of the economy.

The data outputs from production are then quality assured and validated against the data inputs to ensure consistency.

How we disseminate the data

Input-output analytical tables (IOATs) consist of analytical tables which include the input output table, the Leontief Inverse, the matrix of coefficients, which are explained here: Input-output analytical tables: guidance for use.

The publication of these statistics is announced in the release calendar and are available annually on our website as datasets with accompanying information displayed on the menu and notes pages. Data from the product-by-product IOTs are also presented in the input output analysis tool.

How we review and maintain the data processes

Input-output analytical tables are reviewed annually using the statistical quality maturity model, to assess and review the quality of this statistical product and the production process used to create this product.

7 . Other information

[UK inputoutput analytical tables: industry by industry](#)
Dataset | 20 February 2025
Includes industry by industry and further analysis tables derived from the annual Supply and Use Tables (SUTs).

[UK input-output analytical tables: product by product](#)
Dataset | 20 February 2025
Product by industry, product by product and further analysis tables derived from the annual Supply and Use Tables (SUTs).

[Input-output analysis tool](#)
Interactive tool | 5 March 2025
Use our new tool to explore how a selected product or service is used in the UK economy, and the wider effects of changes in final demand for a product.

[Input-output analysis tool user guide](#)
Article | 5 March 2025
Supporting information to help users use our interactive Input-output analysis tool.

[Employment multipliers and effects in the UK](#)
Dataset | 31 March 2025
Estimates of full-time equivalent(FTE) employment per £m, type 1 FTE employment effects, and type 1 FTE employment multipliers across 105 industries. These are official statistics in development.

8 . Related links

[Input-output analytical tables: guidance for use](#)
Article | Released 1 April 2022
This is a guide for the use of input-output analytical tables (IOATs). It provides insights on how to interpret them and is aimed at users looking to familiarise themselves with IOATs.

[UK input-output Analytical Tables 2010: explanatory article](#)(PDF, 508KB)
Article | Released 12 February 2014
Outline of the 2010 input-output analytical tables (IOATs) compiled using industry input-output groups.

[United Nations handbook on supply and use tables and input output tables – with extensions and applications](#)
Handbook | Released 2018
This handbook provides step-by-step guidance for the compilation of supply and use tables and input output tables.

9 . Cite this methodology

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