

Input-output analysis tool user guide

Supporting information to help users use our interactive Input-output analysis tool.

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1. Overview of our input-output statistics

Input-output analysis tables provide a rich data source for analysing the interdependencies of different producers, industries, and products across the economy.

Our statistics use internationally recognised macroeconomic concepts from the <u>United Nations System of National Accounts</u> and matrix algebra. They describe how products and primary inputs are used to produce further products, to meet final demand. These statistics help better understand the impact of positive and negative changes in final demand and the ripple effects they may have throughout the wider economy.

Our input-output analytical tables estimate Type 1 effects and multipliers. These capture both the direct and indirect impacts. For example, the direct effect of building more dwellings would be an increased requirement for products like bricks, cement, steel, construction equipment, labour, and other inputs. The indirect (or secondary) effects would be the impact on suppliers of the increased requirement for these primary products, for example, which products are required to produce more bricks, cement, or steel. By using input-output analysis, users can understand the change in output across the economy resulting from a change in inputs in one or more specific industries.

2. Using our input-output analysis tool

Our interactive Input-output analysis (IO) tool demonstrates how the different industries and products are dependent on each other, both by domestically produced products and imports. Using data from our UK input-output analytical tables: product by product dataset, along with clear and accessible visualisations and simple language, the tool draws on three important areas of input-output analysis.

Which industries use your selected product the most

The first section in our IO tool shows which industries use individual products the most. This includes information on the total value of each product used in the production of other goods and services across the UK industries in a particular year. This also includes the value of those inputs that are produced domestically and those that were imported.

This information is presented in two charts. The first chart shows the industries that spent the most on the product. The second chart shows the industries that are most reliant on the product – those that make up the largest proportion of all the products used in their production process.

The total products required to produce an industry's output is the sum of imported and domestically produced inputs, if either are applicable.

This section of the tool uses data from two tables of our UK input-output analytical tables: product by product dataset. The first is the "Use BP Pxl" table, which shows domestically produced intermediate inputs used to produce the output of industries. The second table is the "Imports use Pxl", which shows imported intermediate inputs used to produce the output of industries. The total products required to produce another product is the sum of imported and domestically produced inputs, if either are applicable.

What goods and services were used to make your selected product

The second section of the IO tool also uses data from our UK input-output analytical tables dataset. It explains what goods and services were needed to produce a selected product, across all industries. Using simple and clear visualisations, it shows which goods and services were used the most across all UK industries to produce the selected product. It also shows what proportion of those products were domestically produced and imported.

This section also provides information on the total value of goods and services required to produce the selected product in a particular year. This is where the total products required is the sum of imported and domestically produced inputs, if either are applicable.

This section uses data from two tables of our UK input-output analytical tables: product by product dataset. The first is the "IOT" table, which shows domestically produced intermediate inputs that are used to produce other goods and services. The second is the "Import use pxp" table, which shows imported intermediate inputs that are used to produce other goods and services.

Effects of a change in final demand

The third section of the IO tool shows the effect of a change in final demand. If more people or businesses were to buy the selected product, then more of the goods and services used to make it would need to be produced in the UK or imported. This then has a cumulative effect on the whole supply chain. Using a simple table format, the tool shows how changes in final demand for the selected product would affect wider economic indicators like gross value added (GVA), output, wages and salaries, and imports (subject to all other things remaining equal).

This section of the tool uses data from the "Effects" table of our UK input-output analytical tables: product by product dataset. The product effects estimate the total impact on variables like GVA and compensation of employees per unit of change in final demand.

3. Further information

Our Input-output analysis (IO) tool uses data published in our <u>UK input-output analytical tables: product by product dataset</u>. Input-output analytical tables are not a time series.

Data for our 2019 UK input-output analytical tables are consistent with 2019 Supply and use tables, published in our UK National Accounts, The Blue Book: 2022 compendium and our UK Balance of Payments, The Pink Book: 2022 bulletin. Data for our 2020 UK input-output analytical tables are consistent with our 2020 Supply and use tables, published in our UK National Accounts, The Blue Book: 2023 compendium and our UK Balance of Payments, The Pink Book: 2023 bulletin. Data for our 2021 and 2022 UK IO analytical tables are consistent with our Supply and use tables for the corresponding years, published in our UK National Accounts, The Blue Book: 2024 compendium and our UK Balance of Payments, The Pink Book: 2024 bulletin.

Values in the IO tool may differ slightly from those published in our Input-output analytical tables because of rounding.

The IO tool assumes that the structure of the UK economy does not change within a given year and that where additional demand for products arises, that demand can be met.

Our input-output analysis statistics do not account for changes in household spending because of increased or decreased earnings. These earnings can induce further spending, and therefore further changes in final demand, and are known as Type 2 effects.

4. Useful links

UK input-output analytical tables: product by product

Dataset | Released 20 February 2025

Product by industry, product by product and further analysis tables derived from the annual Supply and Use Tables (SUTs).

UK input-output analytical tables: industry by industry

Dataset | Released 20 February 2025

Includes industry by industry and further analysis tables derived from the annual Supply and Use Tables (SUTs).

Input-output analytical tables: guidance for use

Article | Released 1 April 2022

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.

Input-output supply and use tables

Dataset | Released 31 October 2024

Estimates of industry inputs and outputs, product supply and demand, and gross value added (GVA) for the UK. Supply and use tables for 1997 to 2022 are consistent with the UK National Accounts in Blue Book 2024.

UK National Accounts, The Blue Book time series

Dataset | Released 31 October 2024

Datasets for each of the chapters in The Blue Book 2024 including the national accounts at a glance, financial and non-financial corporations, households and non-profit institutions serving households, and summary supply and use tables.

5. Cite this user guide

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