

Statistical bulletin

Energy, goods and services used by UK businesses: 2018 final results

Detailed product by industry proportion estimates using the results from the Annual Purchases Survey 2018.

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Release date:
15 May 2020

Next release:
November 2021

Notice

2 November 2020

The effect of the coronavirus (COVID-19) pandemic on our capacity means we have reviewed the existing annual releases and will be suspending some publications.

This will protect the delivery and quality of our remaining annual outputs as well as ensuring we can respond to new demands. More details about the impact on annual outputs can be found in our [statement](#).

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1 . Main points

- The estimates produced in this release measure intermediate consumption, which consists of the energy, goods and services used as inputs to the production process of businesses in the UK.
- Purchasing patterns of UK businesses were consistent in 2018 compared with 2017; the top 15 products purchased by businesses across all industries remained broadly unchanged.
- In 2018, we estimate that the production industry had the highest proportion of intermediate consumption on production-related products (77.2%); while the industry consuming the lowest proportion of its own products was government, health and education (10.7%).
- Most industry groups purchased the highest proportion of their total intermediate consumption from services; businesses within the finance and insurance industry group purchased the most services products (96.2% of their total intermediate consumption), while businesses within the production industry group purchased the least (22.8%).
- Businesses within the production industry group purchased the most energy products, including water and waste services (16.6% of their total intermediate consumption), followed by businesses within the distribution, transport, hotels and restaurants industry group (16.5%).
- For goods products, businesses within the production industry group purchased the most (60.5% of their total intermediate consumption) and businesses within the finance and insurance industry group purchased the least (2.6%).

2 . Things you need to know about this release

Users should note that a new contact email address will be in use from 1 July 2020. Any queries regarding the Annual Business Survey or Annual Purchases Survey should be directed to: ABAPS@ons.gov.uk

Coronavirus (COVID-19)

The collection of the data contained in this statistical bulletin has not been affected by the coronavirus (COVID-19) pandemic.

Our latest data and analysis on the impact of the coronavirus on the UK economy and population is now available on a [new web page](#). This will be the hub for all special virus-related publications, drawing on all available data.

The Office for National Statistics (ONS) has released a [public statement](#) on the coronavirus and the production of statistics. Specific queries must be directed to the [Media Relations Office](#).

Survey background

The primary aim of the Annual Purchases Survey (APS) is to provide a comprehensive picture of the products (energy, goods and services) purchased in the production process and running of UK businesses, otherwise referred to as intermediate consumption.

This level of detail is required to feed into the supply and use tables (SUTs) and ultimately the compilation of gross domestic product (GDP). The APS will help the Office for National Statistics (ONS) adhere to international best practice outlined in the [European System of Accounts 2010: ESA 2010](#) and [Balance of Payments Manual: BPM6](#).

The APS collects information on businesses' intermediate consumption, a national accounts concept defined within the ESA 2010 manual as:

“Intermediate consumption consists of goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital. The goods and services are either transformed or used up by the production process.”

The APS covers a large part of the economy with some exceptions such as public administration and certain elements of financial industries. The exact inclusions or exclusions of industries are detailed in the [Quality and Methodology Information report](#). It is also worth noting that the 2018 APS estimates are based on [Standard Industrial Classification 2007: SIC 2007](#).

Link to supply and use tables

From [Blue Book 2019](#) onwards, the APS will be the primary source for the breakdown of products purchased within industries. Additional sources will feed into this, including the use of the [Annual Business Survey](#) for the industry totals, as is currently the procedure.

Methodological features

At present, the estimates produced from the APS are still regarded as [experimental](#). This will be the case until a formal assessment with the UK Statistics Authority ensures compliance with the [Code of Practice for Statistics](#). Alongside this release, detailed quality, methodological and technical information is now available from the [Annual Purchases Survey Quality and Methodology Information report](#) and the [Annual Purchases Survey Technical Report](#).

The product values published are constrained to [Annual Business Survey data](#) where equivalent industries are available. Revisions have been made to the 2017 data, therefore differences in proportions can be seen when comparing with previous releases. We are also today (15 May 2020) releasing [revised 2018 estimates of the non-financial business economy \(the Annual Business Survey\)](#).

3 . What is the overall picture of businesses' purchasing patterns in 2018?

Breakdown of energy, goods and services

In 2018, most of the industry groups purchased the highest proportion of their total intermediate consumption from services products (Figure 1). The only exceptions were from businesses within the production and agriculture industry groups, which purchased more goods products than services or energy.

Businesses within the finance and insurance industry group purchased the most services products with 96.2% of their total intermediate consumption, while businesses within the production industry group purchased the least (22.8%).

Businesses within the production industry group purchased the most energy products, including water and waste services (16.6% of their total intermediate consumption), followed by businesses within the distribution, transport, hotels and restaurants industry group (16.5%) and the agriculture industry group (14.8%). Businesses in the finance and insurance industry group purchased the least energy products, with 1.2% of their total intermediate consumption.

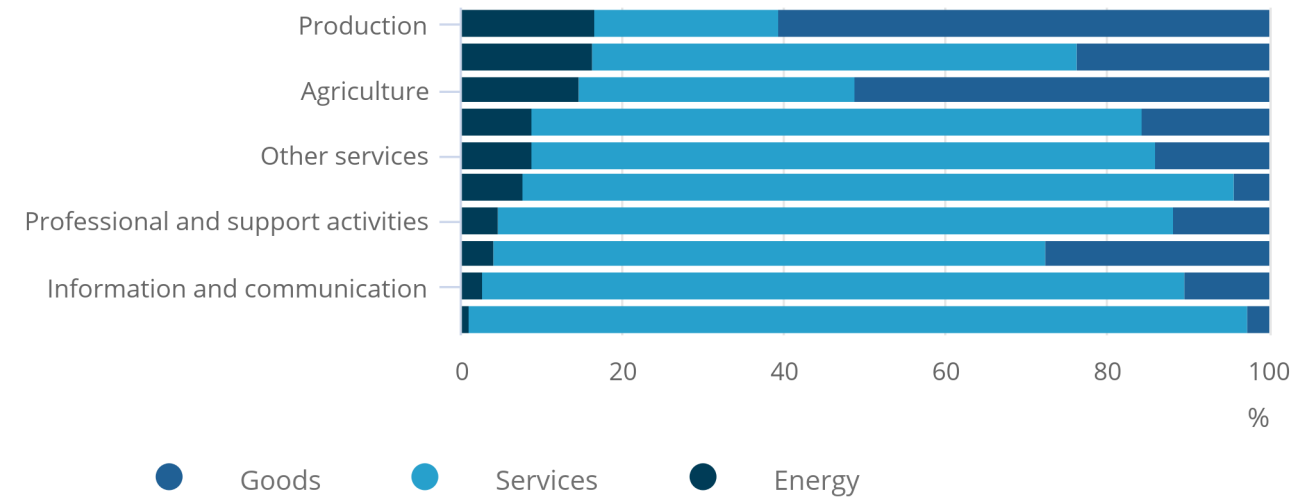
For goods products, businesses within the production industry group purchased the most (60.5% of their total intermediate consumption), followed by businesses within the agriculture industry group (51.2%). Businesses within the finance and insurance industry group purchased the least (2.6%).

Figure 1: Most industry groups spend the highest proportion of their total intermediate consumption on services

UK, 2018

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UK, 2018



Source: Office for National Statistics – Annual Purchases Survey

Figure 2 shows the proportion of total intermediate consumption spent on products within each industry group, at a 10 industry by 10 industry product groupings breakdown. The A10 matrix table, can be downloaded from the accompanying supplementary [datasets](#). Within Figure 2, darker colours represent higher percentages.

Figure 2: Most industry groups spend a higher proportion of their intermediate consumption on production, and professional and support activities

The proportion of total intermediate consumption (%) spent on products within each industry group, UK, 2018

The production industry group purchased the largest proportion of production-related products, spending 77.2% of their total intermediate consumption on these products. This was followed by the agriculture industry group and the distribution, transport, hotels and restaurants industry group, who spent 43.8% and 42.8% of their total intermediate consumption on production-related products respectively.

Additionally, the largest proportion of intermediate consumption for 4 out of the 10 industry groups was spent on products relating to professional and support activities. The industry group that bought the most of these products was the professional and support activities industry group itself. The same can be said about production-related products, also construction, and information and communication-related products, where the largest proportion of intermediate consumption spent on these products was within the same industry group.

4 . Intermediate consumption patterns for 2018

Purchases within and outside industry groups

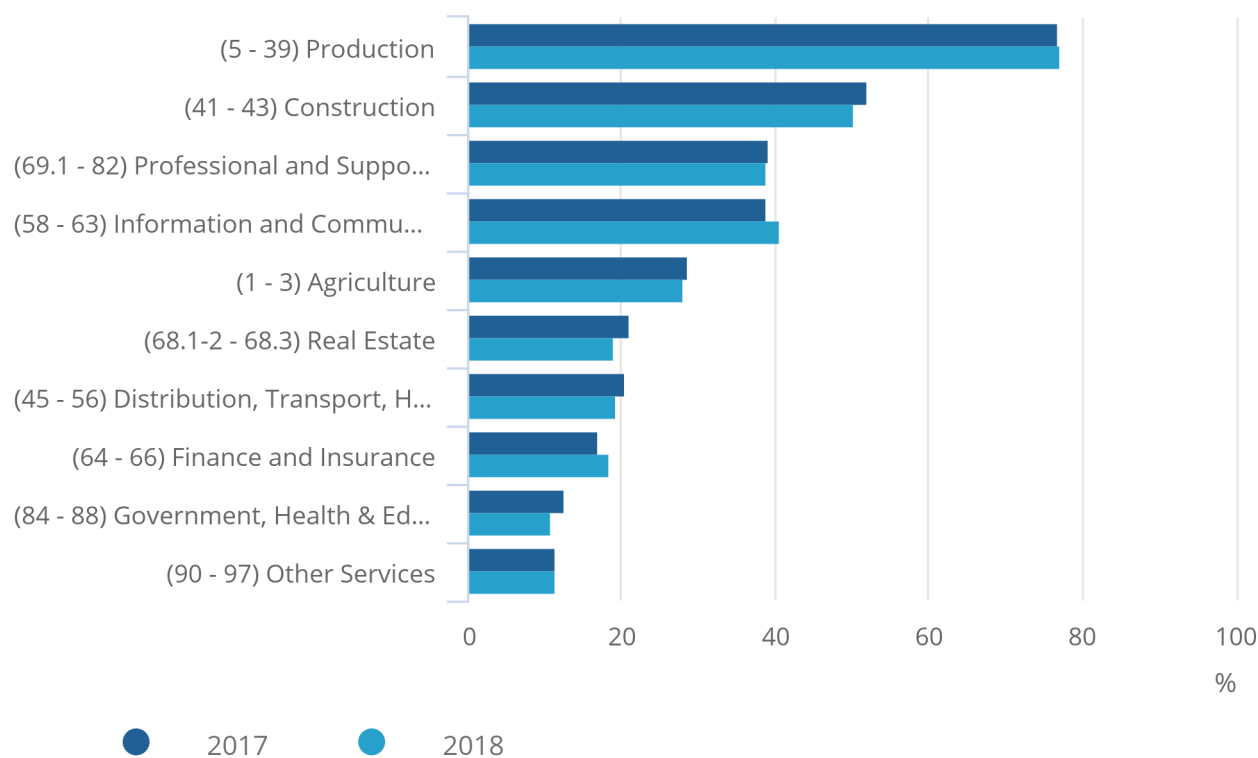
Figure 3 summarises the spread of intermediate consumption, showing how businesses within a given industry purchased products within their own industry group (for example, a production business, such as one manufacturing basic metals, purchasing production-related products).

Figure 3: The percentage of purchases within the same industry group is consistent year-on-year

Summary of the spread of intermediate consumption, as proportions (%), showing how businesses within a given industry purchases products within their own industry group, UK, 2017 to 2018

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Summary of the spread of intermediate consumption, as proportions (%), showing how businesses within a given industry purchases products within their own industry group, UK, 2017 to 2018



Source: Office for National Statistics – Annual Purchases Survey

Notes:

1. Within an industry group means businesses are purchasing products mapped to this group based on both the [Standard Industrial Classification 2007: SIC 2007](#) and [Statistical Classification of Products by Activity \(CPA\)](#) version 2.1.
2. Outside of an industry group means businesses are purchasing products not directly mapped to their industry group.

Figure 3 shows that the spread of intermediate consumption has remained relatively consistent between 2017 and 2018. Production was the least diverse industry group in terms of its purchasing patterns, as 77.2% of its total intermediate consumption was spent purchasing products from production itself.

Information and communication showed the highest increase in the percentage spent on products relating to its own industry group, moving from 38.9% of total intermediate consumption in 2017 to 40.7% in 2018.

On- and off-diagonal intermediate consumption patterns

As previously mentioned in Section 2, the Annual Purchases Survey (APS) collects and can produce estimates at a much more granular level than is available from other Office for National Statistics (ONS) business surveys.

On-diagonal intermediate consumption means businesses are purchasing a product mapped directly to their industry based on both the [Standard Industrial Classification 2007: SIC 2007](#) and [Statistical Classification of Products by Activity \(CPA\), version 2.1](#). Off-diagonal intermediate consumption means businesses are purchasing products not mapped directly to their industry.

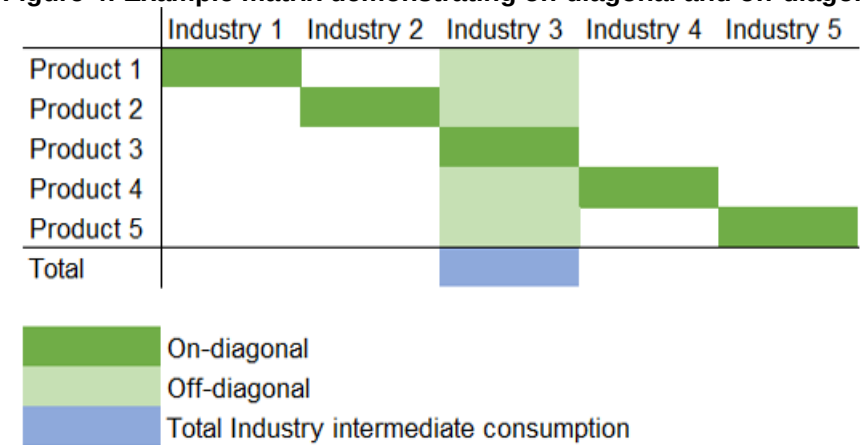
An example of on-diagonal intermediate consumption would be a business in car manufacturing (industry 29) purchasing a car manufacturing-related product (CPA 29); both specifically refer to car manufacturing (SIC and CPA 29).

An example of off-diagonal intermediate consumption, in this context, would be a business within the car manufacturing (industry 29) purchasing a product within paints and varnishes (CPA 20.3). Although both industry and product are within production, they are not the same industry.

Using the 109 industry by 107 industry product groupings breakdown (the A110 matrix table, which can be downloaded from the accompanying supplementary [datasets](#)), on- and off-diagonal intermediate consumption can be identified.

Figure 4 provides a visual representation to demonstrate the concept of on- and off-diagonal intermediate consumption.

Figure 4: Example matrix demonstrating on-diagonal and off-diagonal purchases



Source: Office for National Statistics - Annual Purchases Survey

Notes:

1. Due to the size of the table it is not possible to show it in its entirety within this release, but it can be found in the accompanying supplementary datasets (A110 matrix table).

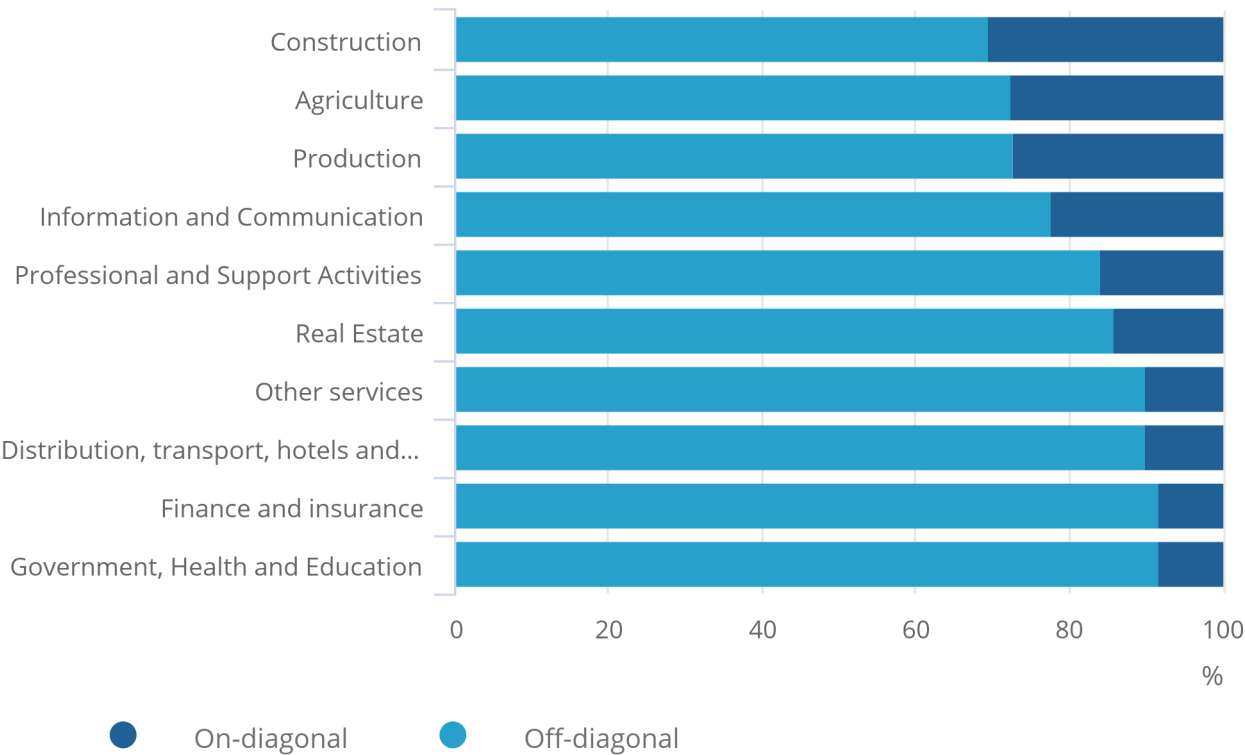
Using these definitions, Figure 5 summarises the proportion of purchases as on- or off-diagonal products within each industry group.

Figure 5: UK businesses purchase more off-diagonal products than on-diagonal

Summary of the proportion of purchases (%) as on- or off-diagonal products within each industry group, UK, 2018

Figure 5: UK businesses purchase more off-diagonal products than on-diagonal

Summary of the proportion of purchases (%) as on- or off-diagonal products within each industry group, UK, 2018



Source: Office for National Statistics - Annual Purchases Survey

Notes:

1. This excludes industry groups wholesale, retail and pension funding for the following reasons:
 - wholesale and retail: you cannot buy the wholesale or retail product – since that is going to be an intangible mark-up on products sold by wholesalers or retailers
 - pension funding: pensions are not a cost of production – they are an employer’s social contribution – so spending on pensions is not a purchase; it is part of compensation of employees, which is not included in intermediate consumption.

The construction industry had the highest percentage of on-diagonal intermediate consumption (30.4% of total intermediate consumption), while the government, health and education industry had the lowest (8.1%).

At high-level industry groupings (Figure 3), businesses within the production industry group appear to be predominantly purchasing production-related products (77.2% of total intermediate consumption). However, Figure 5 shows that this does not map to the more detailed level. At this more detailed industry and product level, businesses within the production industry are purchasing a smaller proportion of products directly related to their own industry classification (27.2% of total intermediate consumption).

5 . Most purchased products year-on-year

Figure 6 shows the top 15 products purchased by businesses across all industries as proportions of total intermediate consumption, when comparing 2017 and 2018. The top 15 products have remained consistent between 2017 and 2018, with only their relative positions changing.

Figure 6: The top 15 products have remained the same year-on-year, with only their positions changing

The top 15 products purchased by businesses across all industries as proportions of total intermediate consumption (%), comparing 2017 and 2018

In 2018, products relating to the construction of buildings accounted for the highest proportion of all purchased products (4.5% of total intermediate consumption). The second-highest proportion of all purchased products in 2018 was accounted for by products relating to the buying and selling, rental and operating of own or leased real estate (4.4% of total intermediate consumption).

6 . Quality and methodology

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Annual Purchases Survey QMI](#).

You will also find detailed information on the methods used in the calculation of the APS in the [Annual Purchases Survey Technical Report](#).