

Services Producer Prices Indices QMI

Quality and methodology information (QMI) for the Services Producer Price Indices. Includes strengths and limitations, methods, and data uses and users.

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Release date:
22 October 2025

Next release:
To be announced

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1 . Output information

- Statistical designation: official statistics
- Survey name: Services Producer Price Indices (SPPI) survey
- Data collection: administrative and survey data
- Frequency: quarterly
- How compiled: sample-based surveys
- Geographic coverage: UK
- Related publications: [Producer price inflation, UK including services bulletin](#)

2 . About this QMI

This quality and methodology information (QMI) 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
- decide suitable uses for the data
- reduce the risk of misusing the data

3 . Important points

- The Services Producer Price Index (SPPI) is constructed from a statutory quarterly survey and administrative sources, which measure changes in the price received for selected services provided by UK businesses.
- SPPIs provide a measure of inflation for the UK services sector.
- SPPIs classify goods according to the economic activity that generates them, using the [European statistical classification of products by activity, 2.1 \(CPA 2.1\) framework](#); this enables SPPIs to accurately track price movements across industries and assists harmonised statistical comparisons.
- We do not currently produce an SPPI for every industry in the services sector; the SPPI aggregate is a partial, best estimate of the overall inflation to UK businesses from the services sector.
- To maintain confidentiality, indices that risk disclosing business information are subject to data suppression.
- The last two quarters are provisional and the last five quarters are subject to revisions.
- SPPI data are used to monitor inflation, guide economic policy, and analyse industry trends.

4 . Quality summary

Overview

The Services Producer Price Index (SPPI) measures inflation in services sold by UK manufacturers. The products included in SPPI are based on the [European statistical classification of products by activity, 2.1 \(CPA 2.1\) framework](#), which is maintained by Eurostat.

The SPPI covers products from CPA Division E37 to CPA Section S. However, the coverage of prices for these services is currently partial. These prices are then weighted to reflect their relative importance within the index.

Uses and users

The main users of the SPPI include other areas of the Office for National Statistics (ONS). This includes the [National Accounts](#), which use SPPIs as deflators in the [Index of Services \(IoS\)](#) and [gross domestic product \(GDP\)](#).

External users include the Bank of England, HM Treasury, the Department for Business and Trade, the Ministry of Defence, and private companies. They use SPPIs for contract escalation, monitoring inflation within the services sector, and informing economic policy decisions.

Strengths and limitations

The main strengths of the SPPI include:

- the indices are internationally comparable with any country using the CPA 2.1 or Central Product Classification (CPC) systems
- the indices provide quarterly measures of inflation in the services sector, which can give early indications of inflation trends that can affect consumers

The main limitations of the SPPI include:

- SPPI currently provides a limited coverage of the services sector because of data collection challenges
- the indices that risk disclosing business information are subject to data suppression to maintain confidentiality
- non-response from businesses can affect data quality because SPPIs use survey data; this can require imputation methods to estimate missing prices, which may introduce uncertainty or bias into the indices

5 . Quality characteristics of the data

This section provides a range of information describing the quality of the output and details any points that should be noted when using the output.

We have developed [Guidelines for measuring statistical quality](#); these are based on the European Statistical System's five dimensions of quality. This document addresses these quality dimensions and other important quality characteristics, which are:

- relevance
- timeliness and punctuality
- coherence and comparability
- accuracy and reliability
- output quality trade-offs
- assessment of user needs and perceptions
- accessibility and clarity

More information is provided about these quality dimensions in upcoming subsections.

Relevance

(The degree to which the statistical outputs meet users' needs.)

Services Producer Price Indices (SPPIs) measure changes in the price received for selected services provided by UK businesses. They are an important economic indicator used to monitor inflationary pressures at the production level and support a wide range of decision-making across government, industry, and international organisations.

Main users include government departments (such as HM Treasury and the Bank of England), businesses, trade bodies, researchers, and international organisations like Eurostat and the OECD. These users rely on SPPIs for policy development, contract pricing, cost forecasting, deflation, and international comparisons.

To better meet user needs, the SPPIs apply a chain-linking methodology that updates index weights annually. This ensures the data reflect current production patterns and remain relevant in a changing economic landscape. Additionally, the use of the European statistical classification of products by activity, 2.1 (CPA 2.1) framework aligns the indices with international standards, enhancing consistency and comparability across sectors.

SPPIs are produced using the CPA 2.1 classification framework from Quarter 4 (Oct to Dec) 2008. Annual chain-linking has been applied to index values from Quarter 4 2013 onwards. Where available, index back histories have been added with data going back to Quarter 1 (Jan to Mar) 1996. These extended series are created by linking on previously published re-based indices produced using older classification systems.

Accuracy and reliability

(The degree of closeness between an estimate and the true value.)

Accuracy

Estimates from the SPPIs are subject to various sources of error. The total error consists of two elements: the sampling error and the non-sampling error.

Sampling error occurs because estimates are based on a sample rather than a census. To minimise sampling errors, the sample allocation is reviewed to maximise coverage with the available resources.

Non-sampling errors are not easy to quantify and include errors of coverage, measurement processing and non-response.

Various procedures are in place to ensure that errors are minimised. Validation checks on data, based on percentage movements from quarter to quarter and year to year, are conducted to highlight unusual price changes for items. Disparities in data are investigated by contacting the respondent.

Reliability

Assessing the difference between the first published estimate and the final revised figure provides an indication of reliability. Figures for the latest two quarters are provisional, and the latest five quarters are subject to revisions because of late and revised respondent data.

Our guidance and policies on revisions can be found in our [Revisions and corrections of errors guidance](#).

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, the geographic level.)

Coherence across time series

To ensure effective comparability, it is essential that the SPPI reflects the price movements of products of fixed quality. When the specification of a product changes, only the "pure" price change is recorded for SPPI purposes. This generally relies on advice from respondents.

Coherence with International SPPIs

While the coverage of various sectors may not be equal in all countries, the use of the European CPA ensures that all products are measured in a way that allows comparability across Europe. This means that the SPPIs are broadly comparable internationally. For more information on how the CPA 2.1 compares with other classifications, see our [Standard and other national and international classifications guidance](#).

Accessibility and clarity

(Accessibility is the ease with which users can 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.)

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 email business.prices@ons.gov.uk.

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

- our [Terms and conditions \(for data on the website\)](#)
- our [Accessibility statement](#)

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 SPPIs are published quarterly, with approximately two to three weeks between publication and the reference quarter to which the SPPI data refer.

For more details on related releases, our [Release calendar](#) provides advance notice of release dates. If there are any changes 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](#).

Why you can trust our data

The Office for National Statistics (ONS) is the UK's largest independent producer of statistics and its National Statistical Institute.

Our [Data Strategy](#) details how data are collected, secured and used in the publication of statistics. We treat the data that we hold with respect, keeping them secure and confidential, and we use statistical methods that are professional, ethical and transparent.

6 . Methods used to produce the data

Data collection, main data sources and accuracy

There are two main types of data used in the calculation of the Services Producer Price Index (SPPI). These are the prices quoted by manufacturers for their products and the sales values that are used to provide a weight for the prices.

Price data collection

The survey price data used to compile Services Producer Price Indices (SPPI) come from a statutory quarterly survey. The movements in these prices are weighted together, to reflect their importance within the relevant services industry, and aggregated into a price index.

Most of the price data used to compile SPPI comes from our statutory quarterly surveys. However, some SPPIs are supplemented by third-party administrative data. These sources are:

- the Consumer Prices Index — repair of motor vehicles (G452)
- the Water Services Regulation Authority — sewerage services (E37)
- the Office of Rail Regulation — rail fares (H491)
- the Investment Property Databank — real estate (L68)
- the Bank of England — banking (L641)
- the Office of Communications — telecommunications (J61)
- Parcelforce — national post parcels (H53)

Sales data collection

Sales data are gathered from our Annual Business Survey (ABS) and Annual Survey of Goods and Services (ASGS) to ensure full coverage and representativeness of all service product groups. These are all price uprated before being used as weights in SPPI.

Annual Survey of Goods and Services

The ASGS is an annual survey that focuses on collecting the turnover of service products. It has been designed to be the service sector equivalent of the [UK manufactures' sales by product \(ProdCom\) survey](#), which provides product-level sales data for manufactured goods.

Annual Business Survey

The Annual Business Survey (ABS) is a sample survey that collects annual sales data for UK businesses across the whole economy, including businesses within the manufacturing sector, and was also used during the last rebasing exercise. ABS data are used to fill gaps in ASGS coverage.

Main Services Producer Price Indices methodologies

Our aim is to construct indices that track service price movements in the services sectors at several different levels of detail.

We collect price data for many service products in the form of a basket of goods. These are weighted together to form indices that measure the price behaviour of broad groupings, up to the headline SPPI. These measure the price movements in a wide range of services.

We construct weights using sales data from our surveys. The sales data represent the sales generated by UK companies selling each service product to the UK market.

The weight for any index into a higher aggregate is equal to the proportion of its products' sales within the total sales for the aggregate. The higher the sales value for an index, the higher its weight into the aggregated price index.

Index methods

The SPPIs measure the change over time in the selling prices received by producers for their output. International best practice is to calculate SPPIs as an annually chain-linked Laspeyres price index. The Laspeyres formula can be expressed:

$$\sum_i R_{bti} w_{bi}$$

where:

- R_{bti} is the price relative for product i , comparing current period t with base period b
- w_{bi} is the weight for product i in base period b (the weight is the proportion of base period turnover attributable to the product)
- the summation is over all products being aggregated

To implement chain-linking, a series of Laspeyres indices is calculated, each using a different base year:

$$\sum_i R_{b_j t i} w_{b_j i}$$

where:

- b_j represents each base year (for example, 2015, 2016, 2017...)

Each index series is then linked to the previous one through scaling, resulting in a single continuous chain-linked series. This method introduces a new base year annually, allowing the index to reflect more current economic structures and price patterns.

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Index weights

The primary aim of index weights in the SPPI is to ensure the index accurately reflects the relative economic importance of different products within the economy. Weights are based on the value of sales, allowing the SPPI to represent average price changes in a way that mirrors real-world production patterns.

The weight, $w_{b_j k}$, of any index k in aggregate h with base year b_j is:

$$w_{b_j k} = \frac{x_{b_j k}}{\sum_{k' \in h} x_{b_j k'}}$$

where:

- $x_{b_j k}$ is the sales relating to index k in base period b_j
- k' represents the indices contributing to aggregate h

Price uprating

When sales data for a base year are not directly available, price uprating is applied to sales figures from an earlier year to estimate their value in the base year. To align these figures appropriately, a relevant price index is used to calculate the rate of inflation between the annual average of the year that the sales data originates from and the annual average of the base year.

For instance, to produce weights for the 2025 SPPI, sales data sourced from ASGS for 2023 are price-uprated to estimate their value in 2024. These uprated 2024 sales figures are then used as weights for SPPIs during the 2025 calendar year.

Within the SPPI framework, price-uprating factors are calculated at the CPA 2.1 four-digit level.

How we analyse and interpret the data

To ensure that the SPPI results are accurate, quality assurance checks and analysis is carried out on the data received. Once the data have been validated, they can be accepted into our database and processed through our calculation systems and pipelines. Following processing and calculation, further quality assurance and analysis is done on the results and any unusual behaviour in the results identified is investigated before publication.

We go through a series of analysis tasks once the preliminary SPPI results have been calculated, which help us to understand and interpret the results. This includes, but is not limited to:

- calculation of growth rates to see how price levels have changed or moved in different product groups
- calculation of contributions to understand the relative impact that price changes for particular products or product groups are having on an index
- investigating indices with particularly large changes in price level, to understand what is causing those movements and check that they have been correctly validated
- check revisions to results for in-spectrum periods (periods that are still open to revisions in the current period, under our revisions policy)

Once analysis is complete, we go through internal assurance process where we present our initial results to internal groups, panels and directors. These meetings provide additional scrutiny to the results, which can draw out new angles for further investigation and analysis. This helps us to build our interpretation before completion and publication of our bulletin.

How we quality assure and validate the data

Quality assurance takes place at various stages in the production process. Before the price data can be passed through the system, they go through a validation process to ensure only appropriate data are being taken on for use in our calculations.

Any products showing price movements exceeding a certain threshold are flagged for validation. At this stage, the data provided by the respondent are reviewed. The respondent may be contacted to verify the price movement and provide further explanation of any notes provided in the survey response.

The thresholds vary for different product groups and are reviewed regularly and are subject to change.

How we disseminate the data

The SPPIs are published quarterly alongside our other price indices, which are published monthly, including:

- the PPI
- the Consumer Price Index including owner occupiers' housing costs (CPIH)
- the Retail Price Index (RPI)
- the House Price Index (HPI)

Aggregate-level SPPIs are published quarterly in our [Producer price inflation UK, including services bulletins](#). SPPIs for lower-level product aggregates are included in the accompanying SPPI dataset and SPPI timeseries.

Future publication dates can be found in our [Release calendar](#).

7 . Related links

[Producer prices development plan: October 2025](#)

Article | Released 22 October 2025

Research and development plans aimed at improving and maintaining producer price inflation statistics and ensuring they meet user needs, use new data sources, and follow international best practice.

[Producer price indices QMI](#)

Methodology | Last updated 22 October 2025

Quality and methodology information (QMI) for the Producer Price Index, detailing the strengths and limitations of the data, methods used and data uses and users.

[Impact of correction to chain-linking methodology used in producer price indices and services producer price indices](#)

Methodology | Released 22 October 2025

Discussion of the methodology error identified in February 2025 and corrections that have been applied, including how corrections have affected previously published data and our commentary based on producer prices indices (PPI) and services producer prices indices (SPPI) data since 2014.

[Services Producer Price Index methods changes](#)

Article | Released 20 July 2020

The sources used to compile the weights required for chain-linking and a change to the classification framework.

[Guidance on using indices in Indexation Clauses \(PDF, 197KB\)](#)

User guide | Released March 2015

This user guide sets out a range of issues that should be taken into account by parties considering including an Indexation Clause in a contract using an Office for National Statistics (ONS) published Index.

[Services Producer Price Indices Methods and Guidance \(PDF, 456KB\)](#)

User guide | Released October 2015

User guide outlining current Services Producer Price Indices (SPPI) procedures and the developments currently being undertaken.

8 . Cite this methodology

Office for National Statistics (ONS), updated 22 October 2025, ONS website, methodology, [Services Producer Price Indices QMI](#)