

Article

# Services Producer Price Inflation: adjustments for coronavirus (COVID-19) in 2021 annual weight update

Approach to calculating weights for 2021 in the context of the coronavirus (COVID-19) pandemic.

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# 1 . Main points

- The weights for the Services Producer Price Index (SPPI) have been updated to reflect the most recently available sales data.
- For the new 2021 weights, we have followed the approach used in the Consumer Price Index (CPI) and applied adjustments to account for the loss of sales during the coronavirus (COVID-19) pandemic; for further information on the adjustments applied in CPI [see Coronavirus \(COVID-19\) and Consumer Price Inflation weights and prices: 2021](#).
- The adjusted weights have decreased the relative importance of air transport, food serving services and accommodation services to reflect the impact of the coronavirus on sales and turnover during the pandemic.

## 2 . Overview of weights update

The purpose of this article is to explain the weights update for the 2021 index. Weights represent the structure of the UK economy in the Services Producer Price Index (SPPI) and determine which prices should have the greatest influence. The weights for this period have been adjusted to reflect the impact of restrictions placed on the UK throughout the coronavirus (COVID-19) pandemic on businesses.

## 3 . Method of calculating the Services Producer Price Index (SPPI)

The SPPI is calculated using a Laspeyres-Lowe index. That is, the prices are weighted using price updated weights, which are lagged one year behind the current index year. This method is in line with current international best practice. For further detail on this method, see the article [Chain-linking in Business Prices](#).

For the 2021 index, the sales data refer to 2018 and are price updated to Quarter 4 (Jan to Mar) 2020. Because of shifts in the economy during the coronavirus (COVID-19) pandemic we have adjusted the weights using the Monthly Business Survey (MBS). This adjustment has been calculated by using the growth rates between the 2018 and 2020 sales collected by MBS. The source data used for SPPI weights has been adjusted using this growth rate where the MBS indicates the growth of that sector has been greater than 25% or less than negative 25% between 2018 and 2020. The adjusted 2018 data are then price updated to Quarter 4 of 2020.

The methods used to calculate the coronavirus (COVID-19) adjustment are in line with the [approach applied in the Consumer Price Index \(CPI\)](#) and follow the approach recommended in [international guidance \(PDF, 503KB\)](#).

## 4 . Impact of the method

Using the approach outlined in the methods section, three divisions were adjusted:

- I56; Food and beverage serving services
- I55; Accommodation service
- H51; Air transport services

These are sectors in the Services Producer Price Index (SPPI) that are more consumer orientated. The coronavirus (COVID-19) pandemic has had the greatest impact on these areas because of shifts in consumer spending caused by restrictions on movement.

In contrast, sectors where business to business sales make up a higher proportion of total sales have remained more stable during the coronavirus pandemic. These have increased their weight following adjustment because of the reduced relative importance of the consumer orientated sectors.

Table 1 shows the overall impact of the adjustments on the section weights.

Table 1: Impact of adjustments on section weights

| Component index  | 2020    | 2021               | 2021             |
|--|---------|--------------------|------------------|
|  | Weights | Weights unadjusted | Weights adjusted |
| <b>M Professional, Scientific and technical services</b> | 27.9    | 28.8               | 31.0             |
| <b>N Administrative and Support services</b>             | 16.1    | 17.7               | 19.1             |
| <b>H Transportation and Storage services</b>             | 19.9    | 18.0               | 17.0             |
| <b>J Information and Communication services</b>          | 13.6    | 12.2               | 13.2             |
| <b>I Accommodation and Food Services</b>                 | 10.9    | 12.6               | 8.1              |
| <b>L Real Estate Services</b>                            | 3.4     | 3.3                | 3.6              |
| <b>P Education Services</b>                              | 3.1     | 3.2                | 3.5              |
| <b>G452 Maintenance and Repair Services</b>              | 2.6     | 2.1                | 2.3              |
| <b>S Other Services</b>                                  | 2.5     | 2.1                | 2.2              |

Source: Office for National Statistics

The main decrease caused by the adjustment is in section I; Accommodation and food services, which has dropped from 10.9 to 8.2 between 2020 and 2021. If no adjustment had been applied, section I would have increased its relative importance in this period. In addition, section H; Transportation and storage services has reduced by 2.9 percentage points between 2020 and 2021. If no adjustment had been applied, section H would have had a decrease of 1.9 percentage points in weight.

In contrast, section M; Professional, scientific and technical services, and section N; Administrative and support services have notable increases between 2020 and the adjusted 2021 weights. For section M, the adjusted weight has increased by 4.1 percentage points compared with 2020. Had no adjustment been applied, section M would have had a more modest increase of 0.9 percentage points. Similarly, section N has a 3.0 percentage point increase compared with 2020, whereas the unadjusted 2021 weight would have increased this section weight by 1.6 percentage points.

These adjustments therefore mean that prices from sectors more heavily based on business to business transactions have a greater influence over the inflation rate calculated by the SPPI.

## 5 . Related links

[Producer price inflation and services producer price inflation](#)

Bulletin | Monthly (PPI), quarterly (SPPI)

Changes in the prices of goods bought and sold by UK manufacturers including input and output prices.

Also includes quarterly estimates of changes in prices charged for services provided to UK-based customers for a range of industries.