

Article

Consumer price inflation, updating weights: 2022

An overview of the latest annual update of Consumer Prices Index including owner occupiers' housing costs (CPIH) weights.

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1 . Main changes

- The weights for the Consumer Prices Index including owner occupiers' housing costs (CPIH) and the Consumer Prices Index (CPI) have been updated to reflect changes in household spending patterns.
- For the new 2022 weights, we have continued to align with international guidance and made adjustments to reflect the impact of the coronavirus (COVID-19) pandemic on certain spending categories.
- As a result of the COVID-19 adjustments, we have seen more significant changes in weight this year compared with the pre-pandemic period.

2 . Overview of updates

Consumer price inflation is an important indicator of how the UK economy is performing. The "shopping basket" of items and their economic importance (or weight) used in compiling the various measures of consumer price inflation are reviewed and updated each year to ensure the indices remain representative of the latest consumer spending patterns. This article focuses on updates and changes to the weights applied within these baskets.

Impact of the coronavirus (COVID-19) pandemic on 2022 weights

For the Consumer Prices Index including owner occupiers' housing costs (CPIH) and the Consumer Prices Index (CPI), the 2022 weights would normally be based on spending patterns for 2020 from the national accounts, which is the latest set of reliable and complete data available to us for a full calendar year. Similar to what was [introduced last year](#), we have used updated procedures for 2022.

In line with [international guidance \(PDF, 503KB\)](#), we have decided to update the weights and basket, and to adjust the weights where there has been a clear change in spending between 2020 and 2021 (see Table 3).

For the Retail Prices Index (RPI), the 2022 weights are based on spending patterns for the 12 months ending June 2021 from our Living Costs and Food Survey. Since this includes a period when spending was affected by COVID-19, we have decided to use the results from the survey without further adjustment.

This article will primarily focus on CPIH. Further detail on the methods discussed in this article can be found in the [CPIH compendium](#), the [Consumer Price Indices technical manual](#) and the more detailed [2021 weights article](#).

3 . Weights for 2022

What is a weight?

Consumer price inflation is the rate at which the prices of goods and services rise or fall and is estimated using price indices. One way to understand a price index is to think of a large shopping basket containing goods and services typically bought by all households. The price index estimates changes to the total cost of this basket by calculating the average price change of the items within the basket. Households spend more on some goods and services than others. For example, a 10% increase in the price of petrol will have a much bigger impact on the basket than a similar rise in the price of tea. For this reason, the components of price indices are weighted using the amount we all spend on these items as consumers, to ensure that it reflects the relative importance of the various items in the average shopping basket.

The various weights used in the calculation of consumer price inflation, along with the items that form the "shopping basket" are reviewed and updated each year. This ensures weights remain representative of [overall household expenditure patterns \(but not any one specific household\)](#) and reflect the introduction of new items into the shopping basket and removal of old ones. A separate article is published that explains the annual update to the content of the consumer price inflation basket of goods and services.

Weight changes between 2021 and 2022

These weights reflect the best available understanding of what households spent their money on at the time they were produced. The [revisions policy \(PDF, 49.6KB\)](#) for consumer price statistics means that indices are not revised historically. Whilst source data are often revised at a later date, these revisions are not taken into the calculation of weights, only the latest year's data are used in each weights update. As such, the changes in weights between years may reflect changes in data sources, methods and definitions, and changes in spending patterns. For this reason, the weights should not be used to analyse trends in consumer spending over time.

The calculation of 2022 weights have taken place after the exceptional impact of the coronavirus (COVID-19) pandemic. As a result, the latest weights show larger movements between years than would typically be expected.

The update of 2022 weights have seen two separate updates, in line with the "double update" [methodology introduced in 2017](#). The first update of weights is for the January 2022 set of indices, where expenditure for 2020 is price updated to December 2021 (notwithstanding the [adjustments made to reflect the pandemic](#) in 2022). The second update of weights is for the February to December 2022 indices, where the expenditure for 2020 is price updated to January 2022.

Tables 1 and 2 presents the Consumer Prices Index including owner occupiers' housing costs (CPIH) and Consumer Prices Index (CPI) divisional level classification of individual consumption by purpose (COICOP) weights respectively. The most notable movements will be explained further below focusing on CPIH. Typically, changes in weight between years can be caused by two factors.

- A change in the underlying expenditure used to calculate the weight.
- A change in the price factor applied to price update the expenditure.

The change when comparing the February 2022 update against the January 2022 update will be driven by any notable movement in price update factor, which is used to update the underlying expenditure to the price reference period. Whereas, any change when comparing the January 2022 updated weight with last year's weights will be because of a combination of changes in expenditure (comparing underlying expenditure used in this update with the expenditure used last year) and any notable movement in the price update factor. Also note that weights are relative, so any change in weight caused by the factors above will cause a relative reallocation of weight elsewhere in the basket.

Table 1: Consumer Prices Index including owner occupiers' housing costs (CPIH) division level weights, 2021 to 2022

CPIH Division	2021 February to December weight (PPT)	2022 Weight January update (PPT)	2022 February to December weight (PPT)
0.1 Food and non-alcoholic beverages	89	92	93
0.2 Alcoholic beverages and tobacco	35	39	39
0.3 Clothing and footwear	59	50	49
0.4 Housing, water, electricity, gas and other fuels	328	313	314
0.5 Furniture, household equipment and maintenance	49	63	63
0.6 Health	20	18	18
0.7 Transport	107	112	111
0.8 Communication	19	19	19
0.9 Recreation and culture	112	106	105
10. Education	30	26	26
11. Restaurants & hotels	69	90	90
12. Miscellaneous goods and services	83	72	73
Total	1000	1000	1000

Source: Office for National Statistics

Notes:

1. [A double weights update was introduced in 2017. The first update of weights covers the January period only. The second update covers the period February to December.](#)
2. 2022 weights have been adjusted to reflect the impact of the coronavirus (COVID-19) pandemic on household expenditure in 2020. [See February 2022 CPIH bulletin.](#)
3. Parts per thousand (PPT)

Table 2: Consumer Prices Index division level weights, 2021 to 2022

CPI Division	2021 February to December weight (PPT)	2022 Weight January update (PPT)	2022 February to December weight (PPT)
0.1 Food and non-alcoholic beverages	114	115	116
0.2 Alcoholic beverages and tobacco	45	48	50
0.3 Clothing and footwear	74	62	60
0.4 Housing, water, electricity, gas and other fuels	141	137	138
0.5 Furniture, household equipment and maintenance	62	77	76
0.6 Health	25	22	21
0.7 Transport	136	140	139
0.8 Communication	25	25	25
0.9 Recreation and culture	146	134	134
10. Education	37	33	33
11. Restaurants & hotels	87	113	114
12. Miscellaneous goods and services	108	94	94
Total	1000	1000	1000

Source: Office for National Statistics

Notes:

1. [A double weights update was introduced in 2017. The first update of weights covers the January period only. The second update covers the period February to December.](#)
2. 2022 weights have been adjusted to reflect the impact of the coronavirus (COVID-19) pandemic on household expenditure in 2020. [See February 2022 CPIH bulletin.](#)
3. Parts per thousand (PPT)

There are several divisions with notable movements when comparing the 2022 updated CPIH weights with 2021 weights. [Annex A](#) presents the detailed weights.

Division 3: Clothing and footwear

There is no notable COVID-19 adjustment made to the expenditure underpinning this division.

The main contribution to the fall in weight is coming from clothing, where there is a general fall in underlying expenditure, most notably the below.

- The component COICOP5 (see the [2021 weights article](#) for an explanation of the hierarchical structure used in CPIH and CPI) for women's garments has fallen by 3.43 parts per thousand (PPT), driven by a decrease of approximately 18% in the underlying expenditure between weights updates.
- The COICOP5 for men's garments has seen a decrease of 2.03 PPT between weights updates driven by a fall of 16% in underlying expenditure.
- The COICOP5 for infants' garments has fallen by 1.54 PPT, driven by a fall in underlying expenditure of 13% between updates.

Division 4: Housing, water, electricity, gas and other fuels

The underlying expenditure within this division is flat between periods. The fall in weight is caused by a reallocation of weight from elsewhere in the basket where more substantive changes have taken place and where the total CPIH basket expenditure has increased by over 12%. The most notable change in weight within this division is for imputed rents which has fallen by 13 PPT, from 185 PPT in 2021 to 172 PPT in the January 2022 update.

Division 5: Furniture and equipment

There is a general upward trend in expenditure, albeit at small levels, across most of the division, possibly driven by an increase in consumer spend on household items and cleaning equipment in response to the pandemic.

- The COICOP5 for household furniture increased by 7.46 PPT driven by an increase of approximately 64% in the underlying expenditure coupled with a 15% increase in price update factor between weights updates.
- The COICOP5 for cleaning and maintenance products has seen an increase of 2.07 PPT driven by a doubling of expenditure between weights updates.
- The COICOP5 for heaters and air conditioners increased by 1.10 PPT, driven by an almost doubling in underlying expenditure coupled with an increase of 19% in price update factor.

Division 7: Transport

There is a direct adjustment to some of the underlying expenditure in this division to reflect the impact of the COVID-19 pandemic in 2021 and 2022 (Table 3). The most notable changes in weight are below.

- The COICOP5 for used motor cars has increased in weight by 8 PPT, driven by an increase in underlying expenditure of 42% coupled with a large increase in price update factor of 28%.
- The COICOP5 for petrol has increased by 2.48 PPT on the back of a 20% increase in underlying expenditure and 8.7% increase in price update factor.
- The COICOP5 for diesel increased by 1.48 PPT, this is on the back of an increase of 20% in underlying expenditure and 9.4% in price update factor.
- The COICOP5 for driving tests, MOTs etc has increased by 2.43 PPT driven by an increase of 54% in underlying expenditure.

Division 9: Recreation and culture

There are COVID-19 adjustments made to the underlying expenditure within this division to reflect the impact of the pandemic.

The most notable changes are below.

- The weight for package holidays has increased by 3 PPT, from 9 PPT in 2021 to 12 PPT in January 2022.
- There were significant adjustments within package holidays last year, and again this year with the adjusted underlying expenditure increasing by approximately 40% compared with what was used in 2021 weights.
- The COICOP5 for toys and celebration articles has fallen by 6.02 PPT on the back of a 47% fall in underlying expenditure, and games and hobbies has fallen by 4.98 PPT on the back of a 42% fall in underlying expenditure; this is offset slightly by equipment for sport, which increased by 3.16 PPT driven by an almost 90% increase in expenditure.
- A 1.16 PPT increase in the COICOP5 for cinemas, theatres etc and a 1.06 PPT increase for television and radio licenses and subscriptions were both driven by increases in underlying expenditure of 35.4% and 38.9% respectively, although the increase for cinemas, theatres etc was exacerbated by an increase of 7.7% in price update factor.

Division 11: Restaurants and hotels

There have been adjustments made to the underlying expenditure in this division to reflect the impact of the COVID-19 pandemic during 2020 and 2021. The most notable changes in weight are below.

- Restaurants, cafes etc has seen a large increase in weight of 12.75 PPT in January 2022 because of an increase in underlying expenditure of approximately 44%; there has been a direct COVID-19 adjustment to reflect the fall in household expenditure in 2020 and the subsequent increase in 2021.
- Fast food and takeaway services have seen an increase in weight of 4.25 PPT in January 2022; the underlying expenditure has increased by approximately 44% because of adjustments to reflect the COVID-19 pandemic.
- The COICOP5 for hotels and motels has seen an increase in weight of 5.16 PPT, again as the result of a COVID-19 adjustment to the underlying expenditure, which increased by 75%.

Division 12: Miscellaneous goods and services

There are no direct COVID-19 adjustments having a large affect within this division and the weight change is caused by a broad fall across most of the components. The most notable changes are below.

- The COICOP5 for childcare services fell 3.01 PPT and services to maintain people in homes fell 2.17 PPT because of a 8.4% and 48% fall in underlying expenditure respectively between updates.
- The COICOP5 for other fees and services saw a fall in underlying expenditure of 6.8%, coupled with a fall in price update factor of 6.6% leading to a fall of 2.24 PPT between updates.

Theses changes were offset by the COICOP5 for charges by banks which increased by 2.72 PPT on the back of an increase in underlying expenditure of 63% and the COICOP5 for fees and services of brokers which increased by 1.28 PPT on the back of a 71% increase in expenditure.

Notable movements between the January 2022 and February 2022 update

Most divisions experience small, offsetting change in weight of plus or minus 1 PPT, which is driven by a change in the price update factor used at the February 2022 update (where the underlying price index has changed). However, there is no change that warrants any further briefing in comparison with the changes seen when comparing January 2022 weights with those used last year.

4 . Consumer price inflation weights data

[Consumer price inflation, updating weights: Annex A, Tables W1 to W3](#)

Dataset | Released 14 March 2022

The latest annual update of consumer price inflation weights.

5 . Data sources and quality

The normal update of weights would be based on national accounts Household Final Consumption Expenditure (HFCE) data at a two-year lag. However, in 2021 we made further adjustments to incorporate some of the larger changes in spending patterns seen in the base year 2020. More information is provided in the article, [Coronavirus \(COVID-19\) and Consumer Price Inflation weights and prices: 2021](#). This approach was consistent with [international guidance](#) (PDF, 503KB), which stipulated that "the expenditure shares used for the HICP (Harmonised Index of Consumer Prices, an internationally comparable measure of consumer price inflation as measured by the Consumer Prices Index (CPI) in the UK) in year t should be representative of year t-1. This is in line with the overall Laspeyres philosophy of the HICP".

For this year's weights update we have adopted a similar approach. We estimated a 2021 dataset by taking the most up to date HFCE data available ([Quarter 1 \(Jan to Mar\) to Quarter 3 \(July to Sept\), second estimate](#)) and imputing the fourth quarter based on the 2019 seasonal growth. We used the same threshold as in the previous year (25%) to identify classification of individual consumption according to purpose (COICOP) classes where there were large changes in spending levels between 2020 and 2021. For these classes, we replaced the usual 2020 data with the 2021 estimate (Table 3). This year, we also gave consideration to classes below the threshold that have tended to have a larger number of basket items that were unavailable because of coronavirus lockdowns (see Table 58 of the [Consumer price inflation dataset](#)).

The Consumer Prices Index including owner occupiers' housing costs (CPIH) and CPI COICOP classes that have been adjusted are detailed in Table 3.

Table 3: Classification of individual consumption according to purpose categories adjusted to reflect 2021 expenditure in the latest consumer inflation weights

COICOP category adjusted to reflect 2021 expenditure

0.3.14	Cleaning, repair and hire of clothing
04.5.3	Liquid fuels
06.2.2	Dental services
07.2.2	Fuels and lubricants
07.2.4	Other transport services
07.3.1	Passenger transport by railway
07.3.3	Passenger transport by air
07.3.4	Passenger transport by sea and inland waterway
09.3.3	Gardens, plants and flowers
09.4.1	Recreational and sporting services
09.4.2	Cultural services
9.6	Package holidays
11.1.1	Restaurants and cafes
11.1.2	Canteens
11.2	Accommodation services
12.1.1	Hairdressing and personal grooming establishments

Source: Office for National Statistics

6 . Future developments

This weights update represents our best estimates of consumer spending now, they will not be revised later in the year.

7 . Related links

[Consumer price inflation basket of goods and services: 2022](#)

Article | Released 14 March 2022

The review process for the items making up the inflation basket used to calculate the UK consumer price inflation indices and how and why the various items in the basket are chosen.

[Coronavirus \(COVID-19\) and Consumer Price Inflation weights and prices: 2021](#)

Article | Released 11 February 2021

This article describes our approach to calculating weights and collecting reference prices for 2021 in the context of the coronavirus (COVID-19) pandemic.