

Article

Consumer price inflation, updating weights: 2024

Consumer Prices Index including owner occupiers' housing costs (CPIH), overview of the latest annual update of 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.
- Following adjustments made to expenditure in previous years to account for the impact of the coronavirus (COVID-19) pandemic, the update of 2024 weights has reverted to using unadjusted expenditure.

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, typically referred to as “weights”, 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 the latest updates and changes to the weights applied within these baskets.

Adjustments made to 2024 weights

In each of the three previous weights updates (for the years 2021, 2022 and 2023), we adjusted expenditure where there were clear changes in spending patterns as the economy recovered from the coronavirus (COVID-19) pandemic. This approach was consistent with [Eurostat's international prices statistics guidance \(PDF, 64.3KB\)](#) and the approach taken by other countries, as shown in the [United Nations' Guide on producing CPI under lockdown \(PDF, 1.624KB\)](#). More information is available in our [Consumer price inflation, updating weights: 2023 article](#).

However, since the final COVID-19 lockdown occurred in 2021, we have now reverted to our standard methodology (see [Section 5: Data sources and quality](#)). This methodology uses unadjusted expenditure reflecting household spending in 2022 to produce the 2024 CPIH and CPI weights. This means, for those areas of the basket which were adjusted last year (shown in our [Consumer price inflation, updating weights: 2023 article](#)), estimated 2022 expenditure has now been replaced by actual 2022 expenditure in the latest weights update.

The weights for the Retail Prices Index (RPI) were not COVID-19 adjusted for changed spending patterns in 2021 to 2023. RPI weights have been updated as normal for 2024 in line with Living Costs and Food Survey household expenditure for the year ending June 2023, as shown in our [Consumer Prices Indices Technical Manual, 2019](#).

Section 3 of our [Consumer Prices Indices technical manual](#) explains the classification structure used in the calculation of CPIH and CPI. Historically, the weights were rounded to integers as parts per thousand of the all-items index at the class level. Class level is defined as the 4-digit classification of individual consumption by purpose (COICOP) level. Subclass level weights (5-digit COICOP, known as COICOP5) would then be rescaled to reflect this rounding. From the 2024 weights update, this integer rounding has been removed from the weight's calculation process. This means weights at division (2-digit COICOP) and class level indices across CPI and CPIH are more closely aligned to the underlying expenditure and each other. For presentational purposes, weights will be displayed to three decimal places in this article. This change does not apply to the RPI weights.

These changes may lead to larger movements in weights between updates.

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

3 . Weights for 2024

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 of price changes of the items within the basket.

The components of price indices are weighted using the amount we spend on these items, to ensure that they reflect the relative importance of the various items in the average shopping basket. 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.

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), as explained in our [Measuring the changing prices and costs faced by households blog](#). It also ensures that weights reflect the introduction of new items into the shopping basket and removal of old ones. We publish our [Consumer price inflation basket of goods and services article](#) separately, which explains the annual update to the content of the basket of goods and services.

Weight changes between 2024 and 2023

Our consumer price inflation weights reflect the best available understanding of what households spent their money on at the time they were produced. The [Revisions Policy for Consumer Price Inflation statistics \(PDF, 49.6 KB\)](#) means that indices are not revised historically. While source data are often revised at a later date, these revisions are not taken into the calculation of weights. This means that 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, as well as changes in spending patterns. There were improvements of these kinds introduced in the 2023 Blue Book, as explained in our [Impact of Blue Book 2023 changes on gross domestic product article](#), that affect the current set of weights. For this reason, the weights should not be used to analyse trends in consumer spending over time.

The update of 2024 weights included two separate updates, in line with the “double update” introduced in 2017, and explained in our [Impact of methodological improvements on the Consumer Prices Index methodology](#). These are:

- the first update of weights for the January 2024 set of indices, where expenditure for 2022 is price updated to December 2023 (see [Section 5: Data sources and quality](#), for further details on price updating)
- the second update of weights for the February to December 2024 indices, where the expenditure for 2022 is price updated to January 2024, also introducing the new year’s basket of goods and services at this stage

Tables 1 and 2 present the Consumer Price Index including owner occupier’s housing costs (CPIH) and CPI divisional level classification of individual consumption by purpose (COICOP) weights, respectively. Only the most notable movements will be explained below focusing on CPIH (although the same reasoning will also form the basis of movements in CPI weights).

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 (a method where we apply price change to the expenditure to bring it in line with the price reference period, see [Section 5: Data sources and quality](#), for more details)

Changes when comparing the January 2024 updated weights with last year's weights will be the result 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. The change when comparing the February 2024 update against the January 2024 update will be driven only by any notable movement in price update factor (effectively driven by the price changes we have seen between December and January). 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: CPIH division level weights, 2023 to 2024 [Note 1]

CPIH Division	2023 February to December weight (ppt) [Note 3]	2024 Weight January update (ppt) [Note 2]	2024 February to December weight (ppt) [Note 2]
0.1 Food and non-alcoholic beverages	96	91.307	91.327
0.2 Alcoholic beverages and tobacco	35	30.800	31.600
0.3 Clothing and footwear	48	49.031	47.305
0.4 Housing, water, electricity, gas and other fuels	303	295.004	298.854
0.5 Furniture, household equipment and maintenance	56	51.823	50.426
0.6 Health	18	20.794	21.156
0.7 Transport	111	111.991	109.334
0.8 Communication	19	18.526	18.635
0.9 Recreation and culture	112	114.725	115.120
10. Education	23	23.880	23.980
11. Restaurants & hotels	112	117.715	117.126
12. Miscellaneous goods and services	67	74.404	75.137
Total	1000	1000.000	1000.000

Source: Consumer price inflation from the Office for National Statistics

Notes

1. A double weights update was introduced in 2017, as shown in our [Impact of methodological improvements to CPI methodology](#). The first update of weights covers the January period only. The second update covers the period February to December.
2. The rounding of higher-level weights to the nearest integer has been removed in 2024 weights. They are presented here to 3 decimal places.
3. Weights for 2023 were adjusted to reflect the impact of the coronavirus (COVID-19) pandemic on household expenditure in 2022. For full details, see our [Consumer price inflation, updating weights: 2023 article](#).

Table 2: Consumer Price Index division level weights, 2023 to 2024 [Note 1]

CPI Division	2023 February to December weight (ppt) [Note 3]	2024 Weight January update (ppt) [Note 2]	2024 February to December weight (ppt) [Note 2]
0.1 Food and non-alcoholic beverages	119	112.908	113.146
0.2 Alcoholic beverages and tobacco	42	38.086	39.150
0.3 Clothing and footwear	58	60.631	58.607
0.4 Housing, water, electricity, gas and other fuels	141	128.220	131.340
0.5 Furniture, household equipment and maintenance	68	64.083	62.474
0.6 Health	24	25.713	26.211
0.7 Transport	137	138.486	135.456
0.8 Communication	23	22.910	23.087
0.9 Recreation and culture	138	141.866	142.624
10. Education	29	29.529	29.709
11. Restaurants & hotels	138	145.563	145.109
12. Miscellaneous goods and services	83	92.005	93.088
Total	1000	1000.000	1000.000

Source: Consumer price inflation from the Office for National Statistics

Notes

1. A double weights update was introduced in 2017, as shown in our [Impact of methodological improvements to CPI methodology](#). The first update of weights covers the January period only. The second update covers the period February to December.
2. The rounding of higher-level weights to the nearest integer has been removed in 2024 weights. They are presented here to 3 decimal places.
3. Weights for 2023 were adjusted to reflect the impact of the coronavirus (COVID-19) pandemic on household expenditure in 2022. For full details, see our [Consumer price inflation, updating weights: 2023 article](#).

The more detailed weights for CPIH, CPI and RPI are presented in our [Consumer price inflation, updating weights: Annex A, Tables W1 to W3 dataset](#).

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

This division has shown a fall of roughly 8 parts per thousand (ppt) when comparing the January 2024 weight with the weight used for February to December 2023. This fall has mainly been driven by falls in weight for the electricity COICOP5, which fell by almost 4 ppt and gas, which fell by just under 5 ppt. In both cases, the underlying expenditure was adjusted in 2023 weights, so estimated 2022 expenditure has now been replaced by actual 2022 expenditure. However, there has been a substantial fall in the price update factor applied to this expenditure for 2024 weights compared to 2023 (section 5 explains the price update process). For 2023 weights, the price update factor took into account the record high price levels seen for energy prices at the end of 2022, and reported in our [CPIH Index electricity, gas and other fuels data time series](#). For 2024 weights, we are now reflecting the falls in energy prices seen during 2023. This large fall in price update factor results in a substantial fall in underlying expenditure and, subsequently, a fall in weight.

The weight for both electricity and gas subsequently increase slightly at the second update of 2024 weights, and reflects the price increases seen in January 2024, and reported in our [Consumer price inflation, UK: January 2024 bulletin](#).

Division 7: Transport

While the overall weight of this division is little changed between weights updates, there are a few large offsetting movements worth noting.

The COICOP5 for international flights saw an increase in weight of 4.7 ppt when comparing the January 2024 weight with the weight used for February to December 2023. International flights were one area of the basket where COVID-19 adjustments were made last year, so we had to make an estimate of 2022 expenditure. For 2024 weights, we are now using actual outturn expenditure for international flights, which is higher than the estimates used last year. There is also a small increase in the price update factor applied at the first update of 2024 weights. Both factors result in an increased weight in January 2024.

As usual, the weight for international flights then falls back at the second weight update. In 2024, the weight falls back by 3.0 ppt, driven by the seasonal fall in airfare prices we see each January, where this year we saw a fall in price of 38.9% between December 2023 and January 2024, as reported in our [CPIH index passenger transport by air data time series](#).

This overall increase within the division is offset by:

- a fall of 1.6 ppt, in the COICOP5 for new cars, when comparing January 2024 weights with last year; a slight fall in underlying expenditure (4.1%) coupled with a small fall in price update factor (2.9%) has resulted in the lower weight
- a fall of 2.2 ppt, in the COICOP5 for second-hand cars; this fall is driven by an increase in underlying expenditure (13.7%) and offset by a much bigger fall in price update factor of 17%, which subsequently brings down the weight

Division 11: Restaurants and hotels

Division 11 has seen an increase of just under 6 ppt when comparing 2024 weights with last year. It is worth noting that COVID-19 adjustments were applied to this division last year, so estimated 2022 expenditure is now being replaced by actual 2022 expenditure in the latest weights.

The COICOP5 for restaurants and cafes etc. increased by 1.8 ppt compared with the 2023 weight. The actual 2022 expenditure used in 2024 weights was slightly higher than the estimate used last year, but this increase is exacerbated by a bigger rise in the price update factor resulting in an overall increase in weight.

The COICOP5 for fast food etc. increased by 0.9 ppt compared with last year. The underlying expenditure was relatively unchanged between updates, but a large increase in price update factor has resulted in the weight increase.

Similarly, the COICOP5 for hotels, motels etc. increased by 2.3 ppt compared with the 2023 weight. The actual 2022 expenditure used in 2024 weights came in higher than last year's estimates, but this increase is exacerbated by a bigger rise in price update factor resulting in the increased weight.

4 . Consumer price inflation weights data

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

Dataset | Released 11 March 2024

The latest annual update of consumer price inflation weights.

5 . Data sources and quality

The update of CPIH and CPI weights is predominantly based on national accounts Household Final Consumption Expenditure (HHFCE) data at a two-year lag. In normal times, these data are deemed to be representative of household spending patterns of the calendar year “t-1”, the previous calendar year to which the weights take effect (we cannot use actual t-1 expenditure as this is not available in time for our updates). This means for the latest set of consumer inflation weights, we are using 2022 expenditure (known as the weights reference period) consistent with the latest published national accounts, which represents the most complete and comprehensive set of household spending data available to us. Full details are available in [Section 8 of our Consumer Prices Indices technical manual](#).

Once we have our expenditure data, we then apply a process known as price updating. We apply this price update process for methodological reasons. The CPIH and the CPI are Laspeyres-type price indices, or more specifically “Lowe” price indices (see [Section 3.3 of our Consumer Prices Indices technical manual](#) for more details). To achieve a Lowe price index, the weights reference period should be the same as the price reference period. Whatever source is used for expenditure weights, given the delays in collecting and processing these data, the weight reference period will always predate the price reference period, remembering that CPIH and CPI use a “double update” methodology, introduced in 2017, explained on our [Assessing the Impact of methodological improvements on the Consumer Prices Index methodology page](#).

To bring our expenditure in line with the price reference period, it is adjusted for any price change over the interval between the weights reference period and the price reference period. In other words, the expenditure is revalued at price reference period prices to fall in line with a Laspeyres-type methodology. In the case of 2024 CPI and CPIH weights, this means we apply a factor to the underlying expenditure based on the change in price between December 2023 and the average of 2022 for the initial weights update. The second update moves the price change to reference January 2024 prices. This price updating is applied at the lowest level, so at the 5-digit COIOP level. Our approach is consistent with [Eurostat's international consumer prices statistics guidance](#), which underpinned the development of CPI.

Therefore, any substantial change in price between weights updates will most likely lead to a subsequent change in weight.

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 | 14 March 2022

The “shopping baskets” of items used in compiling the various measures of consumer price inflation are reviewed annually. The items in the baskets change so that the measures are up to date and representative of consumer spending patterns.

[Consumer price inflation, updating weights: 2021](#)

Article | 15 March 2021

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

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

Article | 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.

[Consumer price inflation, updating weights: 2022](#)

Article | 14 March 2022

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

8 . Cite this article

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