

Statistical bulletin

# Consumer price inflation, UK: October 2015

Price indices, percentage changes and weights for the different measures of consumer price inflation.



Contact:  
Philip Gooding  
cpi@ons.gsi.gov.uk  
+44 (0) 1633 456900

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# 1 . Main points

- The Consumer Prices Index (CPI) fell by 0.1% in the year to October 2015, the same fall as in the year to September 2015
- Upward price pressures for clothing and footwear and a range of recreational goods were offset by downward price pressures for university tuition fees, food, alcohol and tobacco, resulting in no change to the overall rate of inflation
- CPIH (not a National Statistic) grew by 0.2% in the year to October 2015, unchanged from September 2015

## 2 . A brief description of Consumer Price Inflation

Consumer price inflation is the speed at which the prices of goods and services bought by households rise or fall. Consumer price inflation is estimated by using price indices. A way to understand a price index is to think of a very large shopping basket containing all the goods and services bought by households. The price index estimates changes to the total cost of this basket. An [infographic](#) explains how consumer price inflation is calculated. Consumer price indices are published monthly.

A price index can be used to measure inflation in a number of ways. The most common is to look at how the index has changed over a year. This is calculated by comparing the price index for the latest month with the same month a year ago. This is known as the 12-month inflation rate. This bulletin measures inflation to October 2015, so the 12-month rate measures changes in prices between October 2014 and October 2015.

A range of measures of consumer price and other price inflation are published. [A tale of many price indices](#) summarises information on the different measures.

## 3 . Consumer Prices Index (CPI)

### What is the CPI?

The CPI is a measure of consumer price inflation produced to international standards and in line with European regulations. First published in 1997 as the Harmonised Index of Consumer Prices (HICP), the CPI is the inflation measure used in the Government's target for inflation.

The CPI is also used for purposes such as uprating pensions, wages and benefits and can aid in the understanding of inflation on family budgets. For more information see [Users and uses of consumer price inflation statistics \(100.5 Kb Pdf\)](#).

### Latest figure and long-term trend

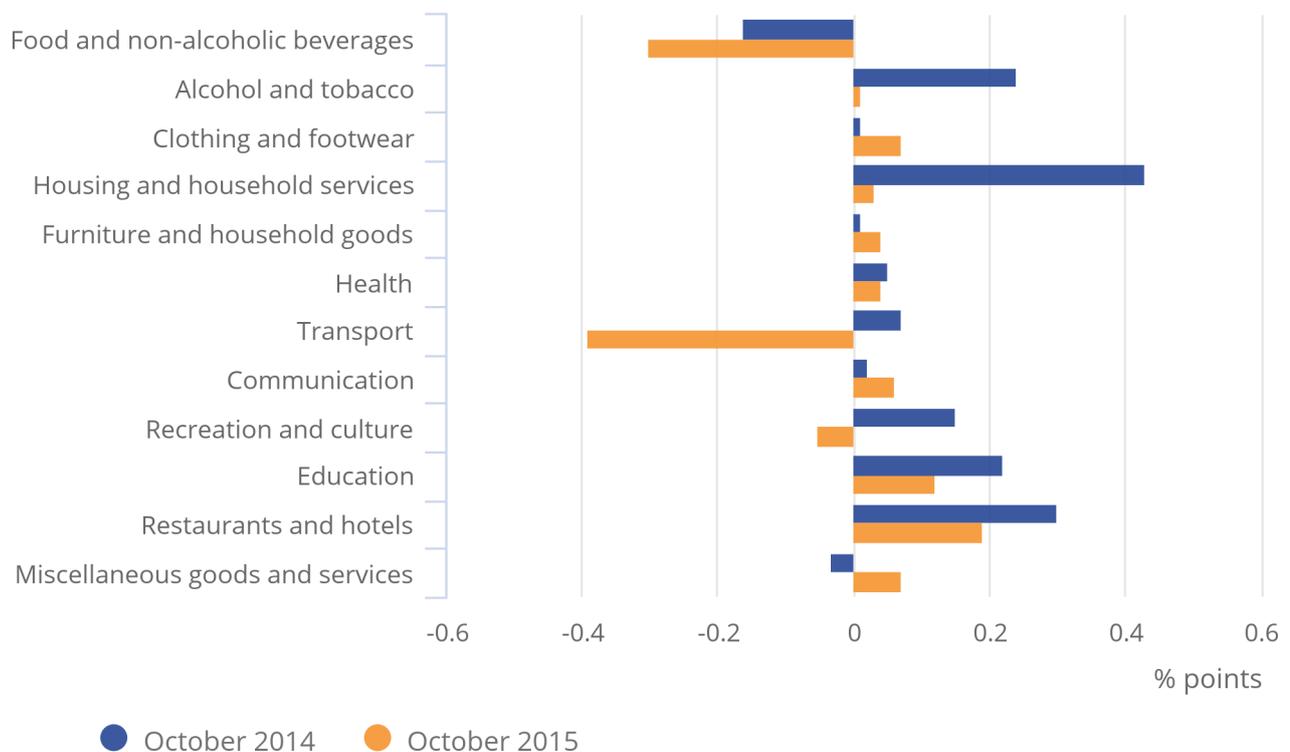
The CPI 12-month rate (the amount prices change over a year) between October 2014 and October 2015 stood at a negative 0.1%. This means that a basket of goods and services that cost £100.00 in October 2014 would have cost £99.90 in October 2015.

Since early 2015, the CPI 12-month rate has been very close to 0.0%. This means that, taken as a whole, households have experienced very little change in prices so far this year compared with the same months in 2014. However, the picture for individual households will depend on the goods and services that they buy. Looking across the year as a whole, prices for transport costs, food and non-alcoholic beverages and (to a lesser extent) recreational and cultural goods and services have had a negative pull on the rate of inflation. These have been counterbalanced by a positive pull from price movements for other goods and services, most notably the cost of eating and drinking out, and education costs such as tuition fees.

Figure A shows the contributions to the CPI 12-month rate in October 2015 compared with the contributions to the 12-month rate a year earlier. A larger version of the chart can be viewed by clicking on it (HTML version only).

**Figure A: Contributions to the CPI 12-month rate: October 2014 and October 2015**

Figure A: Contributions to the CPI 12-month rate: October 2014 and October 2015



**Source: Miscellaneous goods and services**

**Notes:**

1. Individual contributions may not sum to the total due to rounding
2. More information on the contents of each group can be found in Table 3 in the accompanying consumer price inflation reference tables

Figure B shows the CPI 12-month rate over the last 10 years. Table A shows the CPI 1-month rate (the amount prices change between 2 consecutive months), 12-month rate and index values for the last year. A larger version of the chart can be viewed by clicking on it (HTML version only).

**Figure B: CPI 12-month inflation rate for the last 10 years: October 2005 to October 2015**

United Kingdom

Figure B: CPI 12-month inflation rate for the last 10 years:  
October 2005 to October 2015

United Kingdom



Source: Office for National Statistics

**Table A: CPI index values, 1-month and 12-month rates: October 2014 to October 2015**

United Kingdom			
	Index <sup>1</sup> (UK, 2005 = 100)	1-month rate	12-month rate
2014 Oct	128.5	0.1	1.3
Nov	128.2	-0.3	1.0
Dec	128.2	0.0	0.5
2015 Jan	127.1	-0.9	0.3
Feb	127.4	0.3	0.0
Mar	127.6	0.2	0.0
Apr	128.0	0.2	-0.1
May	128.2	0.2	0.1
Jun	128.2	0.0	0.0
Jul	128.0	-0.2	0.1
Aug	128.4	0.2	0.0
Sep	128.2	-0.1	-0.1
Oct	128.4	0.1	-0.1

Source: Office for National Statistics

Notes:

1. All items Consumer Prices Index

## Consumer Prices Index (CPI): What are the main movements?

This section explains which goods and services had the biggest impact on the change to the 12-month rate between September and October 2015 and, where relevant, considers the longer-term inflationary trends for these goods and services.

The change in the CPI 12-month rate can be calculated by comparing the 12-month rates for 2 consecutive months. An alternative, and equally valid, approach is to calculate it by comparing the price change between the latest 2 months and the price change between the same 2 months a year ago. [Explaining the contribution to change in the 12-month rate \(37.1 Kb Pdf\)](#) is a diagram explaining the calculation.

The CPI rose by 0.1% between September and October 2015 compared with a rise of 0.1% between the same 2 months a year earlier. The 1-month movement was therefore the same in both years, leading to the CPI 12-month rate remaining at a negative 0.1% for a second consecutive month.

While the CPI 12 month rate didn't change, there were a number of offsetting upward and downward contributions to the rate.

The largest upward contributions to the change in the CPI 12-month rate between September and October 2015 came from:

- **clothing and footwear:** prices, overall, rose by 2.0% between September and October this year compared with a smaller rise of 0.6% between the same 2 months a year ago. This provided the largest contribution to change in the CPI 12-month rate in either direction. The contribution came primarily from price movements for a broad range of outerwear, where fewer products were on sale this October compared to a year ago. The 2.0% overall increase in prices is the largest September to October increase since official records began in 1996. This continues the trend seen over the summer of atypical monthly price movements in the clothing and footwear sector, with reports of retailers changing their sales strategies
- **recreation and culture:** prices, overall, rose by 0.8% between September and October this year compared with a smaller rise of 0.4% between the same 2 months a year ago. The upward contribution came from price movements for a range of recreational goods, most notably computer games and consoles

The largest downward contributions to the change in the CPI 12-month rate between September and October 2015 came from:

- **education:** prices, overall, rose by 3.6% between September and October this year compared with a larger rise of 7.9% between the same 2 months a year ago. The downward contribution came principally from UK and EU student tuition fees, where the impact from the rise in the cap for tuition fees (first introduced for new students in England in 2012) was smaller this year than in 2014. The smaller impact was because only the fees for fourth year courses rose to new higher rates this year compared with fees for third year courses rising a year ago, together with the fact that there are fewer fourth year than third year students. In addition there were more modest price increases for part-time and postgraduate fees compared with last year. A [simplified example \(322.3 Kb Pdf\)](#) of the procedures used in measuring university tuition fees in the CPI was published last year
- **food and non-alcoholic beverages:** prices, overall, fell by 0.4% between September and October this year compared with a rise of 0.1% between the same 2 months a year ago. The downward contribution came from price movements for a wide range of foodstuffs, partially offset by upward contributions from price movements for several confectionary products. The latest figures continue the trend of negative food inflation seen over the last 18 months
- **alcoholic beverages and tobacco:** prices, overall, fell by 0.4% between September and October this year compared with a rise of 0.6% between the same 2 months a year ago. The downward contribution came from wine, spirits and tobacco. This is the first time that prices, overall, have fallen in this sector between a September and October since 2009 and the largest fall between these 2 months since official records began in 1996

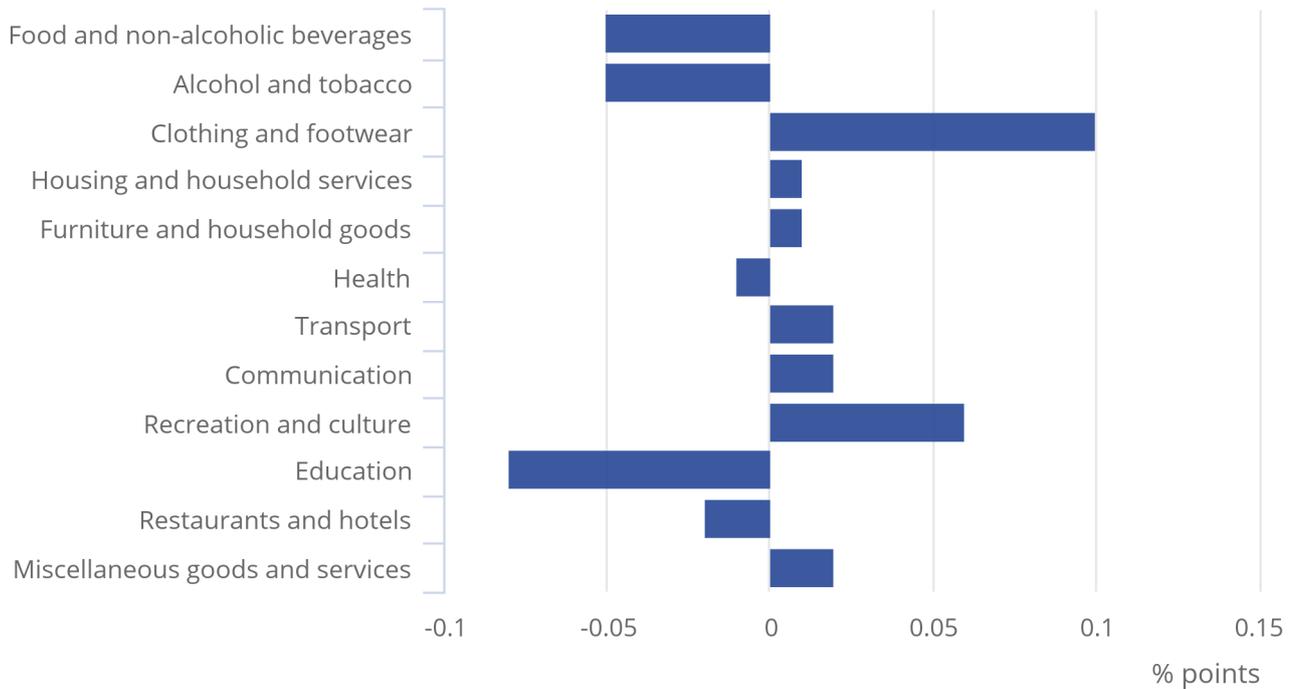
Figure C shows the contributions to change from each part of the CPI basket of goods and services. A larger version of the chart can be viewed by clicking on it (HTML version only).

**Figure C: Contributions to the change in the CPI 12-month rate: October 2015**

United Kingdom

Figure C: Contributions to the change in the CPI 12-month rate:  
October 2015

United Kingdom



Source: Office for National Statistics

Notes:

1. Individual contributions may not sum to the total due to rounding
2. More information on the contents of each group can be found in Table 3 in the accompanying consumer price inflation reference tables

## 4 . CPIH

CPIH is currently undergoing re-assessment to evaluate the extent to which it meets the professional standards set out in the Code of Practice for Official Statistics. CPIH was first assessed in 2013. In August 2014 its National Statistics status was removed pending work to improve the methods for measuring owner occupiers' housing costs in the index. [Full details](#) can be found on the UK Statistics Authority website and in an [explanatory note \(313.9 Kb Pdf\)](#) on our website. The improvements from the resulting development work were introduced as part of the February 2015 dataset with the historical series revised back to 2005. Further information on the changes is available in 2 articles: [Improvements to the measurement of Owner Occupiers' Housing Costs \(2.48 Mb Pdf\)](#) and [Private Housing Rental Prices and Revising the weight of Owner Occupiers' Housing in CPIH \(197.4 Kb Pdf\)](#).

CPIH is a measure of UK consumer price inflation that includes owner occupiers' housing costs (OOH). These are the costs of housing services associated with owning, maintaining and living in one's own home. OOH does not include costs such as utility bills, minor repairs and maintenance, which are already included in the index.

CPIH uses an approach called rental equivalence to measure OOH. Rental equivalence uses the rent paid for an equivalent house as a proxy for the costs faced by an owner occupier. In other words this answers the question "how much would I have to pay in rent to live in a home like mine?" for an owner occupier. OOH does not seek to capture increases in house prices. Although this may be inconsistent with some users' expectations of measures of OOH, the inclusion of an asset price and therefore capital gains would make the index less suitable for a measure of consumption. OOH currently accounts for 17.8% of the expenditure weight of CPIH. This compares with a weight of 19.5% in 2005.

Currently, the method of calculation, the population coverage and the basket of goods and services are the same as the Consumer Prices Index (CPI), with the exception of OOH. The method of deriving the weights for CPIH and the data used for these are also the same as for CPI, with the exception of OOH. This can result in some differences from the CPI.

In October 2015, the 12-month rate (the rate at which prices increased between October 2014 and October 2015) for CPIH stood at 0.2%, unchanged from September 2015. The difference between the CPI and CPIH annual rates in October 2015 was 0.3 percentage points, the same as the difference in September. Owner occupiers' housing costs increased by 0.2% between September and October 2015, the same as between these months a year earlier and did not change the overall difference between CPI and CPIH.

Figure D shows the CPIH and OOH component 12-month rates since January 2006 (the earliest date for which the official CPIH 12-month rate can be calculated). The CPI 12-month rate has been included for comparative purposes. Table B shows the CPIH and OOH component 1-month and 12-month rates and index values for the last year. A larger version of the chart can be viewed by clicking on it (HTML version only).

Figure D: CPIH, OOH component and CPI 12-month rates since January 2006

United Kingdom

Figure D: CPIH, OOH component and CPI 12-month rates since January 2006

United Kingdom



Source: Office for National Statistics

Notes:

1. The National Statistics status of CPIH has been discontinued pending work to investigate and improve the method for measuring owner occupiers' housing costs in this index. The improvements from the resulting development work were introduced as part of the February 2015 dataset with the historical series revised back to 2005
2. The time series for this chart will be gradually increased up to a time span of 10 years as more periods of data become available

**Table B: CPIH and OOH component index values, 1-month and 12-month rates: October 2014 to October 2015**

United Kingdom

	CPIH Index <sup>1</sup> (UK, 2005 = 100)	OOH Index <sup>1</sup> (UK, 2005 = 100)	CPIH 1-month <sup>1</sup> rate	OOH 1-month <sup>1</sup> rate	CPIH 12-month <sup>1</sup> rate	OOH 12-month <sup>1</sup> rate
2014 Oct	126.1	115.3	0.1	0.2	1.3	1.7
Nov	125.8	115.4	-0.2	0.1	1.1	1.6
Dec	125.9	115.6	0.0	0.2	0.7	1.7
2015 Jan	125.0	115.9	-0.7	0.2	0.5	1.9
Feb	125.3	116.0	0.2	0.1	0.3	1.9
Mar	125.5	116.1	0.2	0.1	0.3	2.0
Apr	125.8	116.3	0.2	0.1	0.2	1.9
May	126.0	116.4	0.2	0.2	0.4	1.8
Jun	126.1	116.6	0.1	0.1	0.3	1.9
Jul	126.0	116.8	-0.1	0.1	0.4	1.8
Aug	126.3	117.0	0.2	0.2	0.3	1.8
Sep	126.2	117.2	-0.1	0.1	0.2	1.8
Oct	126.4	117.3	0.1	0.2	0.2	1.8

Source: Office for National Statistics

Notes:

1. The National Statistics status of CPIH has been discontinued pending work to investigate and improve the method for measuring owner occupiers' housing costs in this index. The improvements from the resulting development work were introduced as part of the February 2015 dataset with the historical series revised back to 2005

## 5 . Retail Prices Index (RPI) and RPIJ

**In accordance with the Statistics and Registration Service Act 2007, the Retail Prices Index and its derivatives have been assessed against the Code of Practice for Official Statistics and found not to meet the required standard for designation as National Statistics. The [full assessment report](#) can be found on the UK Statistics Authority website.**

The RPI is a long-standing measure of UK inflation that has historically been used for a wide range of purposes such as the indexation of pensions, rents and index-linked gilts. For further information see [Users and uses of consumer price inflation statistics \(100.5 Kb Pdf\)](#).

RPIJ is an improved variant of the Retail Prices Index, which is calculated using formulae that meet international standards. The rationale for creating RPIJ was to give users a better alternative to the RPI if their needs were for a measure of inflation based on the same population, classifications, weights, etc as the RPI. Currently, RPIJ also acts as an analytical series in that it allows users to see the impact of using the Jevons (which meets international standards) in place of the Carli formula (which does not meet international standards) in the RPI. The use of the different formulae at the elementary aggregate level is currently the only difference between the 2 indices. Detailed goods and services indices are not produced for RPIJ.

In October 2015, the 12-month rate for RPIJ stood at 0.0%, down from 0.1% in the year to September 2015.

The RPI 12-month rate for October 2015 stood at 0.7%, meaning that it was 0.7 percentage points higher than it would have been had it used formulae that meet international standards.

Figure E shows the RPI and RPIJ 12-month rates for the last 10 years. Over this period the RPIJ 12-month rate has been, on average, 0.5 percentage points lower than the RPI but the difference has increased to an average of 0.6 percentage points over the last 3 years. Cumulatively, inflation as measured by the RPI is 34.2% over the 10-year period, compared with 27.1% as measured by RPIJ. The use of the Carli formula has therefore added 7.1 percentage points to the change in prices over the last 10 years. A larger version of the chart can be viewed by clicking on it (HTML version only).

Table C shows the RPI and RPIJ 1-month and 12-month rates and index values for the last year.

### Figure E: RPI and RPIJ 12-month rates for the last 10 years: October 2005 to October 2015

United Kingdom

Figure E: RPI and RPIJ 12-month rates for the last 10 years:  
October 2005 to October 2015

United Kingdom



Source: Office for National Statistics

Notes:

1. The RPI has been de-designated as a National Statistic

**Table C: RPI and RPIJ index values, 1-month and 12-month rates: October 2014 to October 2015**

United Kingdom

	RPI Index <sup>1</sup> (UK, 1987 = 100)	RPIJ Index (UK, 1987 = 100)	RPI 1- month <sup>1</sup> rate	RPIJ 1-month rate	RPI 12- month <sup>1</sup> rate	RPIJ 12-month rate
2014 Oct	257.7	238.9	0.0	0.0	2.3	1.7
Nov	257.1	238.3	-0.2	-0.3	2.0	1.4
Dec	257.5	238.6	0.2	0.1	1.6	1.0
2015 Jan	255.4	236.5	-0.8	-0.9	1.1	0.5
Feb	256.7	237.2	0.5	0.3	1.0	0.4
Mar	257.1	237.4	0.2	0.1	0.9	0.3
Apr	258.0	238.0	0.4	0.3	0.9	0.3
May	258.5	238.5	0.2	0.2	1.0	0.4
Jun	258.9	238.7	0.2	0.1	1.0	0.4
Jul	258.6	238.4	-0.1	-0.1	1.0	0.4
Aug	259.8	239.4	0.5	0.4	1.1	0.5
Sep	259.6	239.1	-0.1	-0.1	0.8	0.1
Oct	259.5	238.9	0.0	-0.1	0.7	0.0

Source: Office for National Statistics

Notes:

1. The RPI has been de-designated as a National Statistic

For users who want to understand the causes of the difference between the CPI and RPI, please see Table 5 in the [Consumer Price Inflation Reference Tables](#) of the October 2015 release.

## 6 . Guide to data

Table D outlines where data for all consumer price inflation statistics can be found.

**Table D: Guide to data**

	Statistical bulletin	Detailed briefing note	Reference tables (Excel format)	Time series dataset
CPI	H, T, D <sup>2</sup>	H, D	H, T, D	T, D
CPIY	:	H	H, T	T
CPI-CT	:	H	H, T	T
CPIH <sup>1</sup>	H, T, D	H	H, T, D	T, D
CPIHY <sup>1</sup>	:	H	H, T	T
RPIJ	H, T	H	H, T	T
RPI <sup>1</sup>	H, T	H, D	H, T, D	T, D
RPIX <sup>1</sup>	:	H	H, T	T
RPIY <sup>1</sup>	:	H	H, T	T
TPI <sup>1</sup>	:	H	H, T	T
RPI pensioner indices <sup>1</sup>	:	:	H, T	T
International comparisons	:	:	H, T	T

Source: Office for National Statistics

Notes:

1. These statistics are not National Statistics
2. H = Latest headline figures, D = Detailed data (including disaggregations), T = Time series data

## 7. Background notes

### 1. News

#### Measuring Consumer Prices: the options for change consultation

The UK Statistics Authority [public consultation](#) on consumer price statistics closed on 15 September. A summary of the views raised will be published on 23 November on the UK Statistics Authority website. The National Statistician will consider these responses carefully before making his proposals for change to the UK Statistics Authority Board in early 2016.

#### Re-referencing of CPI and CPIH indices

From the release of January consumer price inflation data in February 2016, CPI and CPIH indices will be re-referenced and published with 2015=100. Regular re-referencing of indices is methodological good practice as it avoids rounding issues that can arise from small index values. Published CPI and CPIH inflation rates are calculated from unrounded indices, meaning that re-referencing will not impact on published inflation rates. Re-referencing will result in revisions to the CPI and CPIH indices. Full back series for each of the revised indices will be published shortly before publication of the January data. Re-referencing does not impact on RPI and RPIJ. Further details will be included in future CPI statistical bulletins. For more information please contact [cpi@ons.gsi.gov.uk](mailto:cpi@ons.gsi.gov.uk).

## 2. Understanding and accessing the data

A full description of how consumer price indices are compiled is given in the [Consumer Price Indices Technical Manual \(674.4 Kb Pdf\)](#). This is supplemented by infographics and textual information available from the [guidance and methodology section](#) of our website.

A more detailed [quality report \(141.9 Kb Pdf\)](#) for this statistical bulletin is available. The report assesses consumer price inflation statistics against standard dimensions of quality such as relevance, accuracy and accessibility. The report was last updated in October 2013.

The [mini Triennial Review \(1.75 Mb Pdf\)](#) of the CPI and RPI Central Collection of Prices is available.

The most efficient way to access the latest consumer price inflation data and briefing on our website is via the CPI key figure on the [homepage](#).

In response to user feedback, all consumer price inflation data are available in 1 location. The [Consumer Price Inflation Reference Tables](#) are provided via an Excel file.

To help users further, very detailed CPI data are now available including the [individual price quotes and item indices](#) that underpin the CPI. Please note, the data that are published are at a level which means that no individual retailer or service provider will be able to be identified. The data published covers January 1996 to June 2015. These data are updated once a quarter with around a 2-month lag with the latest CPI publication. For example, the data will next be updated when the November CPI is published on 15 December 2015, at which point the detailed data published will be extended to September 2015.

Internationally, the CPI is known as the Harmonised Index of Consumer Prices (HICP). HICPs are calculated in each member state of the European Union according to rules specified in a series of European regulations developed by the European Commission (Eurostat) in conjunction with the EU member states. Eurostat released figures for the Harmonised Index of Consumer Prices (HICP) for the month of October 2015 for EU member states, together with an EU average, on 16 November 2015. A summary of the latest European data is available from [Eurostat's database tables](#). Further information on HICP for the European Union, Euro area and other EU member states is available from [Eurostat's HICP web page](#).

## 3. Methods - CPI and other measures of inflation

The CPI, CPIH, RPIJ and RPI are compiled using the same underlying price data, based on a large and representative selection of around 700 individual goods and services for which price movements are measured in around 140 randomly selected areas throughout the UK. Around 180,000 separate price quotations are used every month to compile the indices. The outlets in which the prices are collected are selected randomly. Expenditure weights are held constant for 1 year at a time.

The selection of goods and services that are priced to compile these indices is reviewed annually. The contents of the 2015 basket are described in an article [Consumer Price Inflation: The 2015 Basket of Goods and Services \(139.4 Kb Pdf\)](#). The expenditure weights used to compile the indices are also updated each year. Additional details of the updated weights for 2015 are available in an article published on 24 March 2015 entitled [Consumer Price Inflation: 2015 Weights \(431.9 Kb Pdf\)](#).

Rates of change for the CPI and CPIH are calculated from unrounded index levels, rather than from the published indices which are rounded to 1 decimal place. The use of unrounded indices increases the accuracy of the calculation. The unrounded index levels for the CPI and CPIH are available from Tables 64 and 65 of the [Consumer Price Inflation Reference Tables](#). By contrast, rates of change for the RPI and RPIJ are calculated from the published rounded indices.

Further information on the methods used to construct the CPI, CPIH, RPI and RPIJ, including differences in the methods used for each index can be found in the [Consumer Price Indices Technical Manual \(674.4 Kb Pdf\)](#). [Users and uses of consumer price inflation statistics \(100.5 Kb Pdf\)](#) provides further details of how consumer price statistics are used more generally.

#### 4. Revisions policy

On 15 October 2013, a [revisions policy \(49.6 Kb Pdf\)](#) was published for the suite of consumer price inflation statistics. The policy reaffirms the existing practices for CPI and RPI and sets out the policies for the new CPIH and RPIJ measures.

In summary, CPI, CPIH and RPIJ are revisable in theory though revisions only occur under exceptional circumstances. The RPI is never revised once published.

#### 5. Publication policy

This bulletin includes the October 2015 data, collected on and around 13 October 2015. Future [publication dates](#) for this statistical bulletin are available to January 2018 (the publication of the December 2017 inflation figures). Publication dates from February 2017 onwards are provisional.

Details of the policy governing the release of new data are available from our Media Relations Office. Also available is a list of the names of those given [pre-release access](#) to the contents of this release.

Consumer price inflation for November 2014 to November 2015 will be published on 15 December 2015.

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**Media contact:** Tel: Luke Croydon + 44 (0) 845 6041858 Out of hours media line + 44 (0) 7867 906553  
Email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

**Statistical contact:** Tel: Richard Campbell +44 (0)1633 651536 Email: [cpi@ons.gsi.gov.uk](mailto:cpi@ons.gsi.gov.uk)

Consumer Price Inflation recorded message (available after 9.45am on release day): Tel: + 44 (0) 800 0113703

**Consumer Price Inflation Enquiries:** Tel: + 44 (0) 1633 456900

6. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.