

Statistical bulletin

# Consumer price inflation, UK: May 2015

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



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# 1 . Main points

- The Consumer Prices Index (CPI) rose by 0.1% in the year to May 2015, compared with a 0.1% fall in the year to April 2015
- The largest upward contribution to the change came from transport services, notably air fares with the timing of Easter in April a likely factor in the movement. There were also significant upward effects from food and motor fuels
- The largest offsetting downward effect came from recreation and culture, particularly games, toys and hobbies (such as computer games) and data processing equipment
- CPIH (not a National Statistic) grew by 0.4% in the year to May 2015, up from 0.2% in April 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. Consumer price indices are published monthly.

A [video](#) and an [infographic](#) explain how consumer price inflation is calculated.

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 May 2015, so the 12-month rate measures changes in prices between May 2014 and May 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 May 2014 and May 2015 stood at 0.1%. This means that a basket of goods and services that cost £100.00 in May 2014 would have cost £100.10 in May 2015. This continues the trend of the latest few months when inflation has been around 0.0%.

In the year to May 2015, food prices fell by 1.8% and prices of motor fuels fell by 11.0%. In both cases, the falls are smaller than in the year to April but along with audio-visual and related equipment they provided the largest downward contributions to the 12-month rate for May. In total, the food and motor fuels groups reduced the CPI 12-month rate by approximately 0.5 percentage points. An article was published in November 2014 which outlined some [possible factors that may be affecting prices \(477.2 Kb Pdf\)](#).

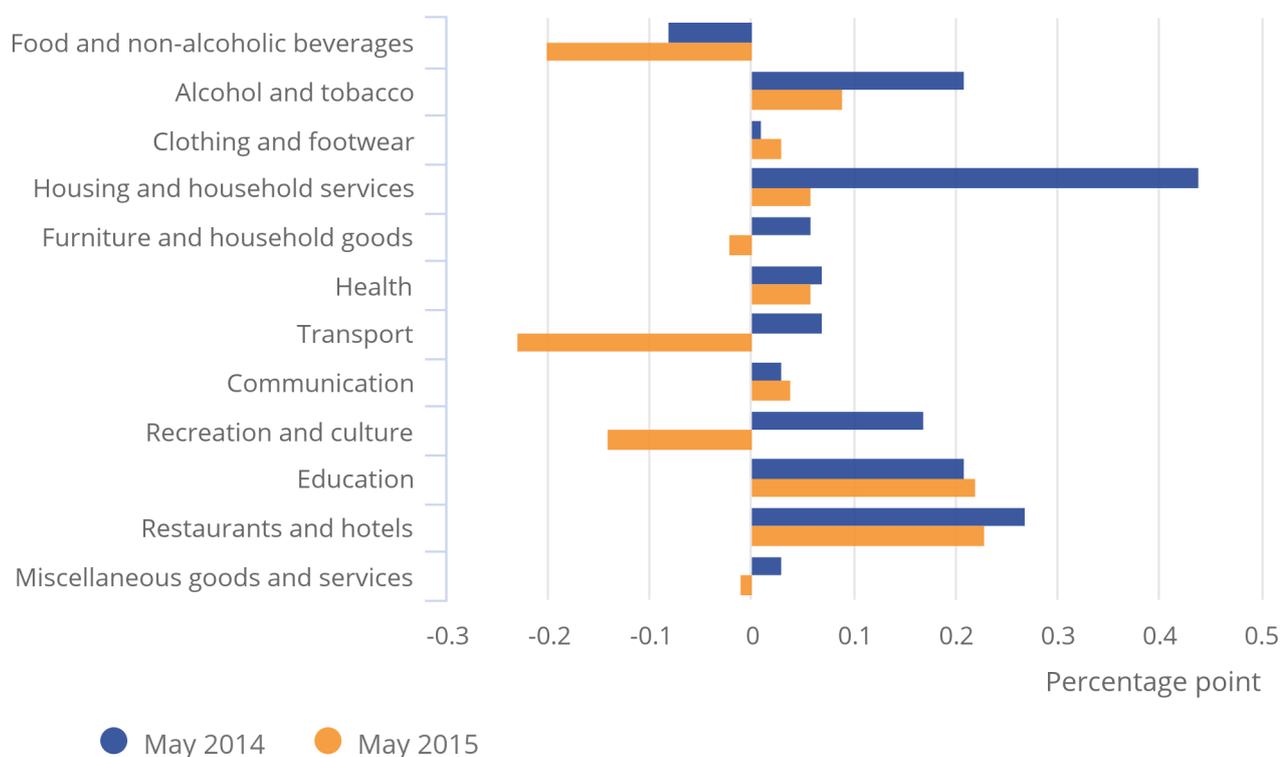
Figure A shows the contributions to the CPI 12-month rate in May 2015 compared with the contributions to the 12-month rate a year earlier. A larger version of the chart can be viewed by clicking on it (HTML version only).

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

United Kingdom

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

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: May 2005 to May 2015**

United Kingdom

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

United Kingdom



Source: Office for National Statistics

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

United Kingdom

	Index <sup>1</sup> (UK, 2005 = 100)	1-month rate	12-month rate
2014 May	128	-0.1	1.5
Jun	128.3	0.2	1.9
Jul	127.8	-0.3	1.6
Aug	128.3	0.4	1.5
Sep	128.4	0	1.2
Oct	128.5	0.1	1.3
Nov	128.2	-0.3	1
Dec	128.2	0	0.5
2015 Jan	127.1	-0.9	0.3
Feb	127.4	0.3	0
Mar	127.6	0.2	0
Apr	128	0.2	-0.1
May	128.2	0.2	0.1

Source: Office for National Statistics

Notes:

1. All items Consumer Prices Index

## 4 . 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 April and May 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 0.2% between April and May 2015 compared with a fall of 0.1% between the same 2 months a year earlier. The 1-month movement was therefore 0.3 percentage points higher this year compared with a year ago, resulting in a rise in the CPI 12-month rate. The difference between the movements in the annual and monthly rates is due to rounding.

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

- **transport:** prices, overall, rose by 0.6% between April and May 2015, compared with a fall of 0.7% a year earlier. The majority of the upward contribution came from transport services, particularly air transport where fares rose this year but fell a year ago. Changes in fares between April and May vary notably year on year, with the timing of Easter a likely factor in the movements. There was also a significant upward effect from motor fuels with average petrol prices rising by 2.5 pence per litre between April and May this year compared with a smaller rise of 0.4 pence per litre a year earlier. Diesel prices also rose this year, by 1.5 pence per litre, compared with a rise of 0.3 pence per litre a year ago.
- **food and non-alcoholic beverages:** prices, overall, fell slightly by 0.1% between April and May this year but by a larger 1.1% between the same 2 months a year ago. The upward effect came from a variety of product groups, most notably vegetables, bread and cereals, and sugar, jam, syrups, chocolate and confectionery.

There was a smaller upward contribution from price movements for clothing and footwear where prices rose this year but fell a year ago, particularly for women's outerwear.

The largest downward contribution to the change in the CPI 12-month rate between April and May 2015 came from:

- **recreation and culture:** prices, overall, fell by 0.1% between April and May 2015, compared with a rise of 0.4% between the same 2 months a year ago. The downward effects came principally from games, toys and hobbies (notably computer games) and data processing equipment (principally computer peripherals such as printers and routers).

There was a smaller downward contribution from price movements for alcoholic beverages and tobacco, particularly wine.

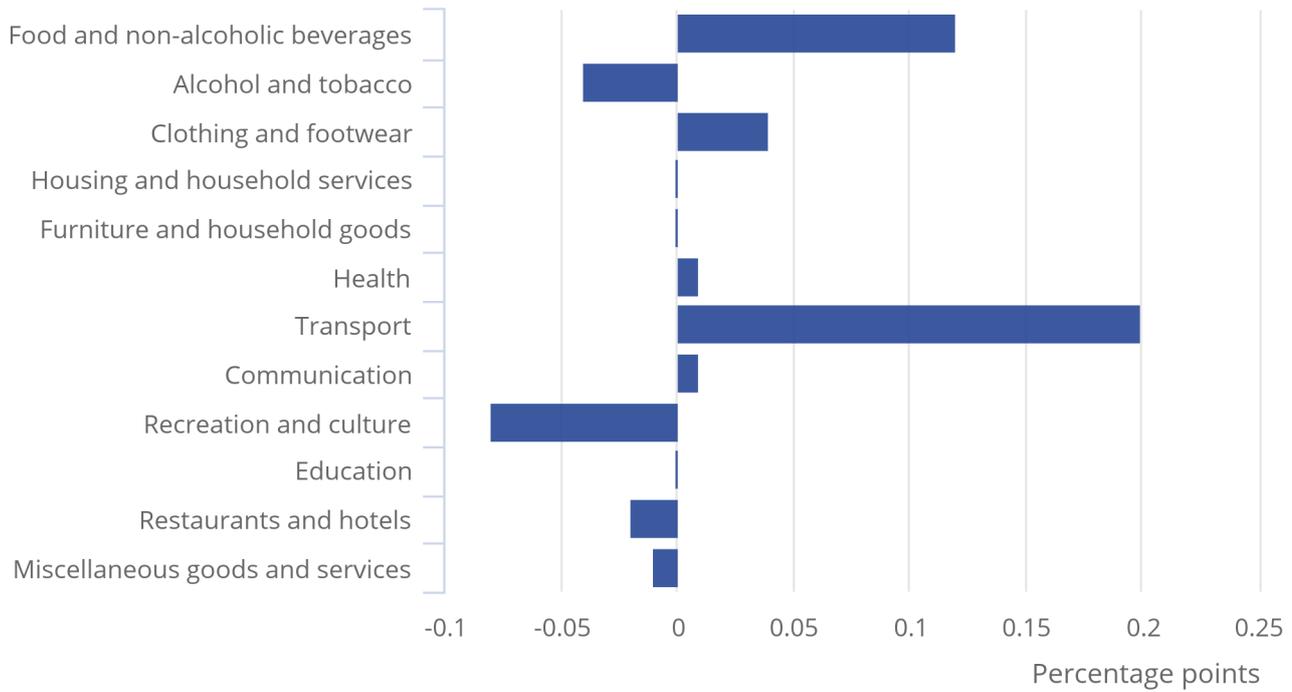
Figure C shows the contributions to change from each part of the CPI basket of goods and services. A larger version of the chart can be viewed by clicking on it ([HTML version only](#)).

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

United Kingdom

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

## 5 . CPIH

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. [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 and Private Housing Rental Prices \(2.48 Mb Pdf\)](#) 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 May 2015, the 12-month rate (the rate at which prices increased between May 2014 and May 2015) for CPIH stood at 0.4%, up from 0.2% in April 2015. The difference between the CPI and CPIH annual rates in May 2015 was 0.3 percentage points, the same as the difference in April, despite a small downward contribution from owner occupiers' housing costs.

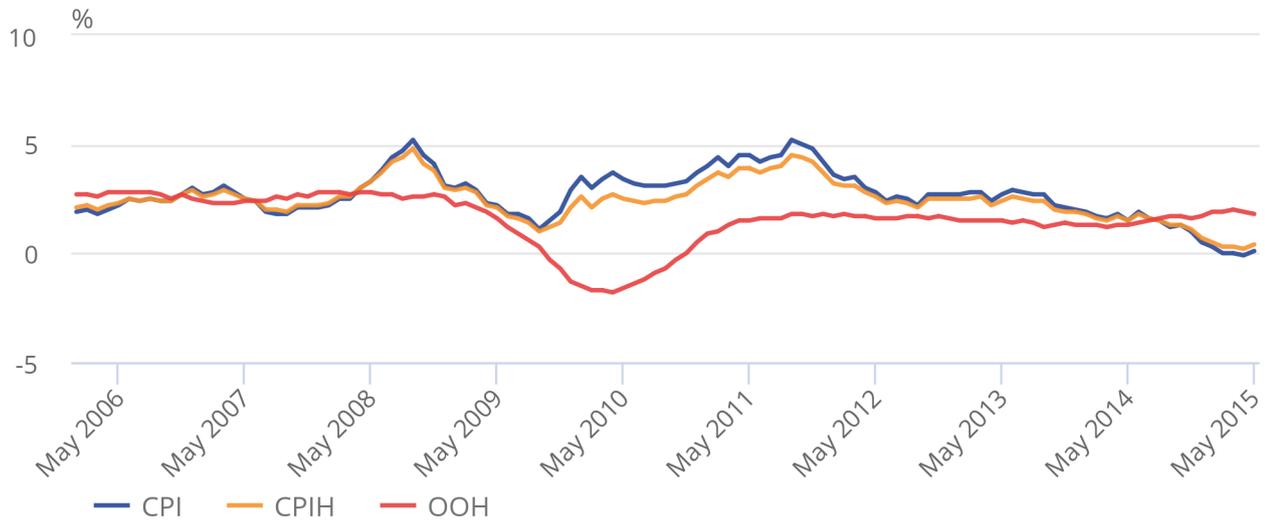
Figure D shows the CPIH and OOH component 12-month rates since January 2006 (the earliest date for which the official CPIH 12-month rate can be calculated). The CPI 12-month rate has been included for comparative purposes. Table B shows the CPIH and OOH component 1-month and 12-month rates and index 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: May 2014 to May 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 May	125.5	114.3	0.0	0.2	1.5	1.3
Jun	125.7	114.4	0.2	0.1	1.8	1.4
Jul	125.4	114.7	-0.2	0.2	1.6	1.5
Aug	125.9	115.0	0.4	0.2	1.5	1.6
Sep	125.9	115.1	0.1	0.1	1.3	1.7
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

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

## 6 . 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 May 2015, the 12-month rate for RPIJ stood at 0.4%, up from 0.3% in the year to April 2015.

The RPI 12-month rate for May 2015 stood at 1.0%, meaning that it was 0.6 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 34.6% over the 10-year period, compared with 27.7% as measured by RPIJ. The use of the Carli formula has therefore added 6.9 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).

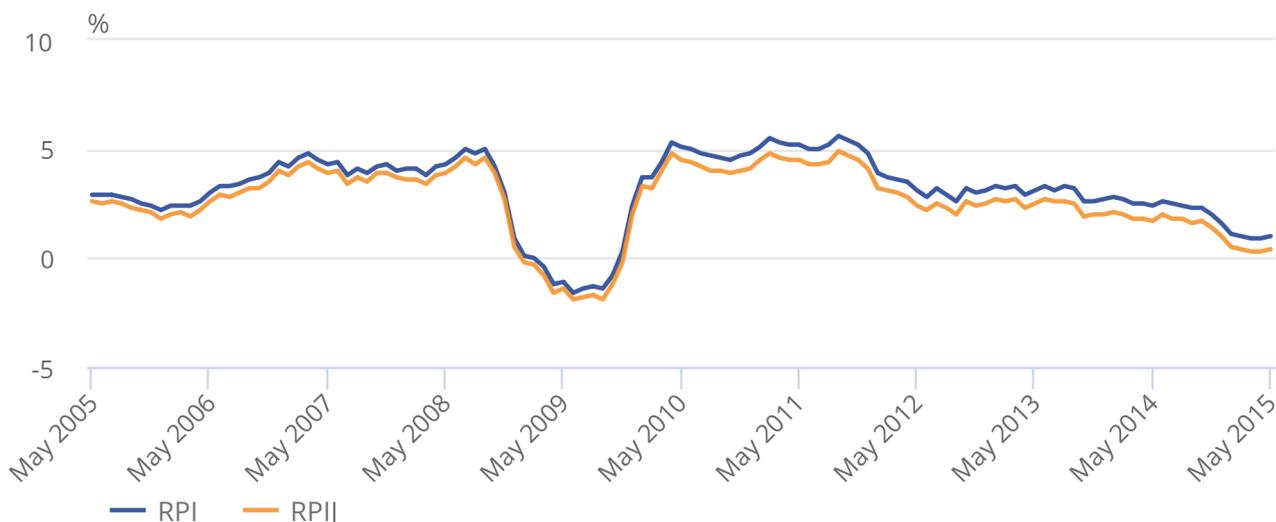
Table C shows the RPI and RPIJ 1-month and 12-month rates and index values for the last year.

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

United Kingdom

Figure E: RPI and RPIJ 12-month rates for the last 10 years: May 2005 to May 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: May 2014 to May 2015**

United Kingdom

	RPI Index1 (UK, 1987 = 100)	RPIJ Index (UK, 1987 = 100)	RPI 12-month <sup>1</sup> rate	RPIJ 12-month rate	RPI 1-month <sup>1</sup> rate	RPIJ 1-month rate
2014 May	255.9	237.5	2.4	1.7	0.1	0.0
Jun	256.3	237.8	2.6	2.0	0.2	0.1
Jul	256.0	237.5	2.5	1.8	-0.1	-0.1
Aug	257.0	238.3	2.4	1.8	0.4	0.3
Sep	257.6	238.8	2.3	1.6	0.2	0.2
Oct	257.7	238.9	2.3	1.7	0.0	0.0
Nov	257.1	238.3	2.0	1.4	-0.2	-0.3
Dec	257.5	238.6	1.6	1.0	0.2	0.1
2015 Jan	255.4	236.5	1.1	0.5	-0.8	-0.9
Feb	256.7	237.2	1.0	0.4	0.5	0.3
Mar	257.1	237.4	0.9	0.3	0.2	0.1
Apr	258.0	238.0	0.9	0.3	0.4	0.3
May	258.5	238.5	1.0	0.4	0.2	0.2

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 \(2.49 Mb Excel sheet\)](#) of the May 2015 release.

## 7 . 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

## 8. Background notes

### 1. News

The UK Statistics Authority launched a [public consultation](#) on consumer price statistics on 15 June. The consultation follows [a recent review of consumer price statistics](#) led by Mr Paul Johnson (Director of the Institute of Fiscal Studies) and seeks users' views on the issues raised in that review. During the consultation period, the Authority will be hosting a series of consultation events across the UK beginning in London on 24 June. After the consultation closes on 15 September, the Authority will summarise the responses and publish a report.

On 11 June, we published historic estimates of [CPIH covering the period 1988 to 2004](#) based on existing CPI data. Due to data limitations, these estimates do not form part of the official back series, but provide users with a best available estimate of CPIH for this period.

On 8 June, we published [trial consumer price indices](#) constructed purely from price quotes that have been scraped from the web. Web scraping is a tool for extracting information from the underlying HTML code of websites. We have been conducting research into these technologies and, since April 2014, have been scraping daily prices from the websites of three major retailers. The indices cover 35 grocery and alcohol items, and are presented at daily, weekly, fortnightly and monthly frequencies. The indices are accompanied by an explanatory methodological note and a brief overview of the project.

## 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 video, 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 \(2.49 Mb Excel sheet\)](#) 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. Previously the data published covered January 1996 to December 2014. The data for January to March 2015 are also now available. 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 August CPI is published on 15 September 2015, at which point the detailed data published will be extended to June 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 releases figures for the Harmonised Index of Consumer Prices (HICP) for the month of May 2015 for EU Member States, together with an EU average, on 17 June 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 \(2.49 Mb Excel sheet\)](#) . 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 May 2015 data, collected on and around 12 May 2015. Future [publication dates](#) for this statistical bulletin are available to January 2017 (the publication of the December 2016 inflation figures). Publication dates from February 2016 onwards are provisional.

Details of the policy governing the release of new data are available from the 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 June 2014 to June 2015 will be published on 14 July 2015.

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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.