

# Consumers Price Index: September 2014 quarter

Embargoed until 10:45am – 23 October 2014

## Key facts

### Quarterly change

In the September 2014 quarter compared with the June 2014 quarter:

- The consumers price index (CPI) rose 0.3 percent.
- Housing and household utilities (up 1.0 percent) accounted for about three-quarters of the rise. Higher prices for local authority rates, rentals for housing, and prices of newly built houses were the main contributors.
- The rest of the CPI basket was relatively subdued, with modest price rises partly offset by price falls.
- Prices fell for grocery food (down 1.5 percent), household contents and services (down 1.3 percent), and communication (down 1.4 percent).

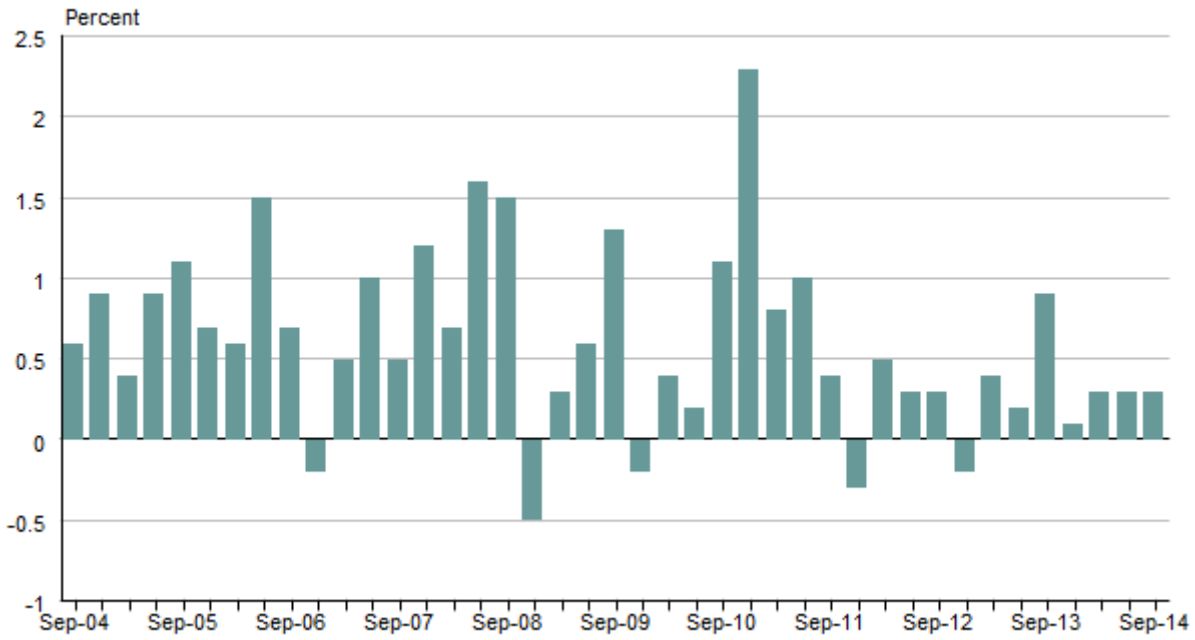
### Annual change

From the September 2013 quarter to the September 2014 quarter:

- The CPI increased 1.0 percent.
- Housing and household utilities (up 3.4 percent) accounted for about four-fifths of the increase, reflecting higher rentals for housing and higher prices for newly built houses.
- Cigarettes and tobacco prices also increased (up 11.6 percent), influenced by a tobacco excise duty rise in January.
- Prices decreased for audio-visual and computing equipment (down 9.6 percent) and fruit and vegetables (down 4.1 percent).

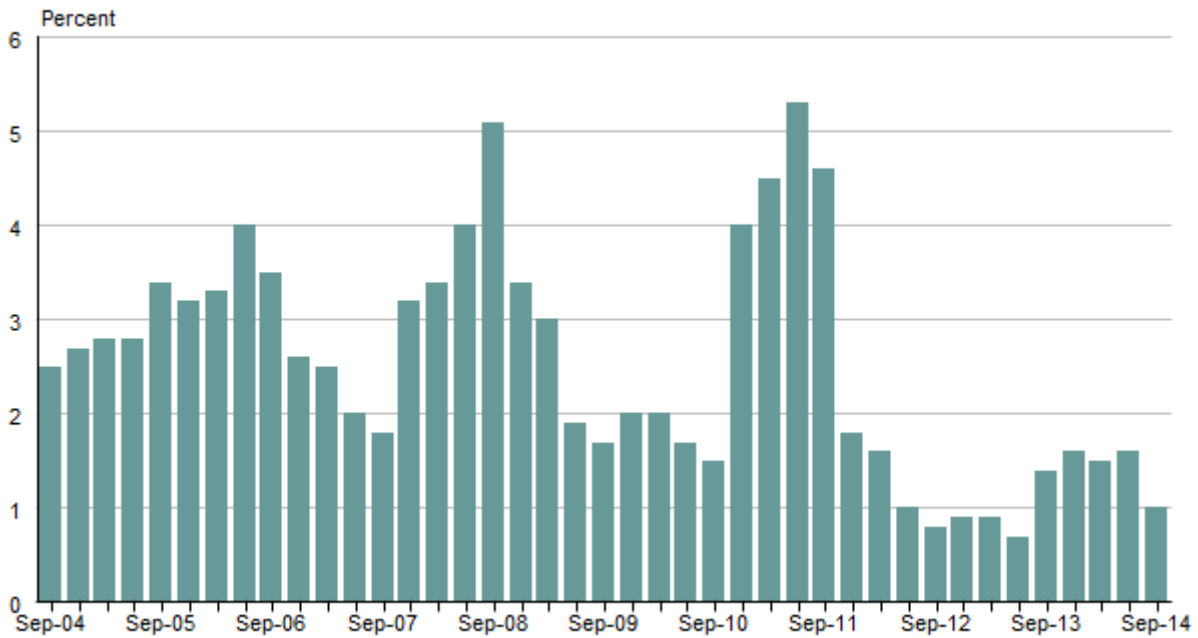
The CPI measures the rate of price change of goods and services purchased by New Zealand households. Statistics NZ visits 2,800 shops around New Zealand to collect prices for the CPI and check product sizes and features.

**Consumers price index**  
Quarterly change



Source: Statistics New Zealand

**Consumers price index**  
Annual change



Source: Statistics New Zealand

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## Commentary

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### CPI rises 0.3 percent in September 2014 quarter

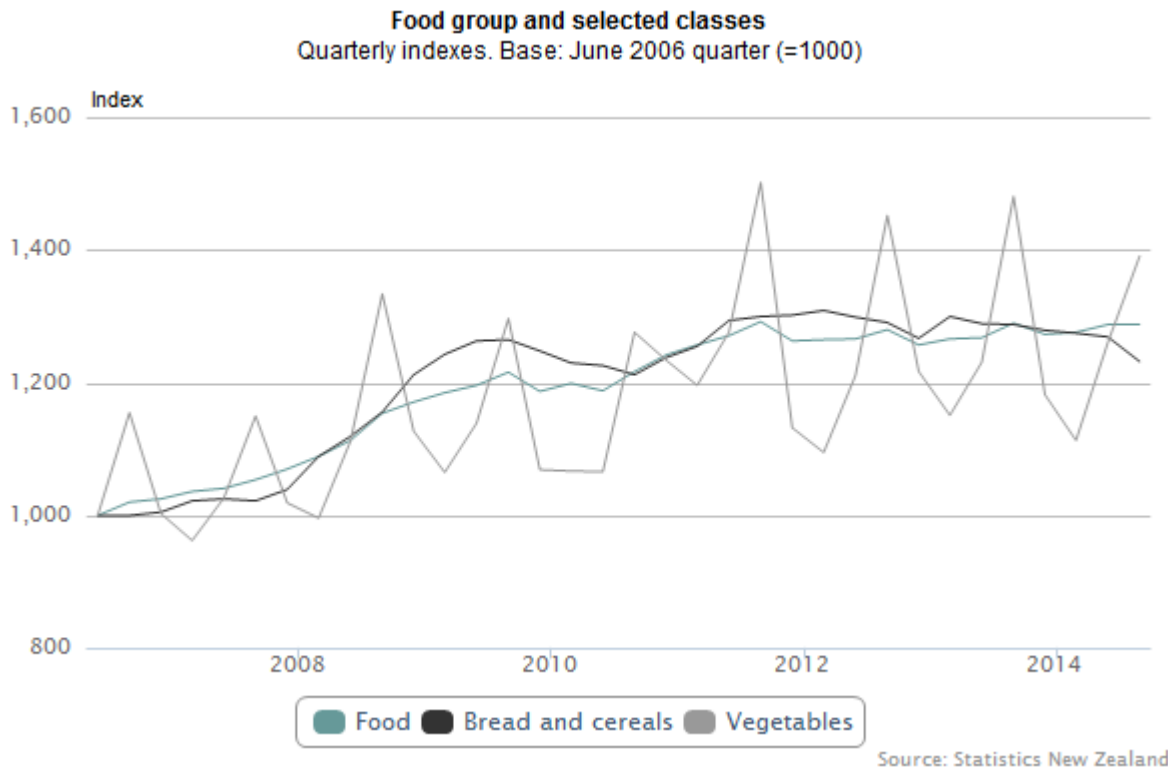
The consumers price index (CPI) rose 0.3 percent in the September 2014 quarter. This follows rises of 0.3 percent each in the June 2014 and March 2014 quarters.

Housing and household utilities prices (up 1.0 percent) contributed about three-quarters of the rise, reflecting higher local authority rates (up 3.8 percent), rentals for housing (up 0.6 percent), and purchase of newly built houses excluding land (up 1.1 percent).

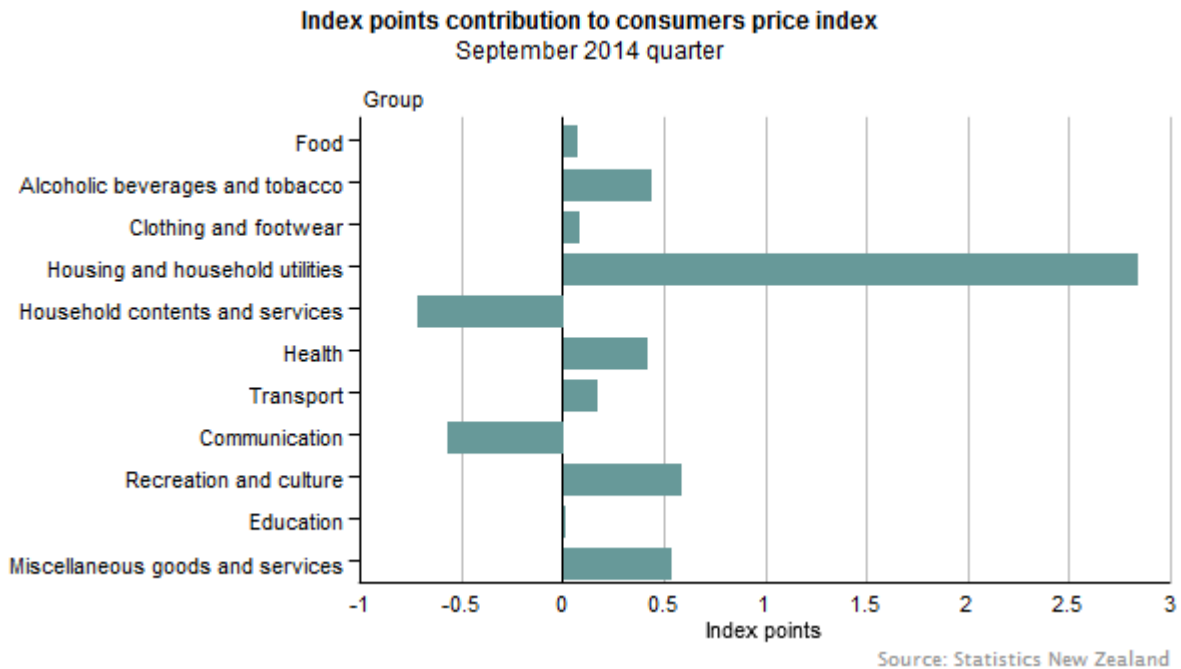
These rises were partly offset by lower prices for household contents and services (down 1.3 percent), which were influenced by lower prices for textiles, furniture, and whiteware. Communication prices also fell (down 1.4 percent), reflecting better-value telecommunication services (down 1.1 percent) and cheaper telecommunication equipment, mainly cellphone handsets (down 7.5 percent).

Transport prices showed a small rise (up 0.1 percent), with higher petrol prices (up 1.0 percent) and international airfares (up 1.4 percent) countered by cars (down 1.0 percent) and warrants of fitness. Fewer cars now require a six-month warrant of fitness, which we have shown as a price fall in the CPI.

Food prices remained flat in the quarter, compared with a 0.9 percent rise in the June 2014 quarter. Grocery food prices fell 1.5 percent, with bread down 5.9 percent (supermarkets discounted some of their own-brand bread to about \$1.00). Vegetable prices rose 10 percent in the quarter, compared with 20 percent in the September 2013 quarter. The lower rise this quarter was influenced by a mild winter.



Eight groups rose in price this quarter, as shown in the graph below.



## CPI shows 1.0 percent annual increase

The CPI increased 1.0 percent in the year to the September 2014 quarter, after increases of 1.6 percent and 1.5 percent in the years to the June 2014 and March 2014 quarters, respectively.

About four-fifths of the latest annual increase came from housing and household utilities (up 3.4 percent). Rentals for housing (up 2.2 percent) and purchase of newly built houses excluding land

(up 4.8 percent) increased. Prices for electricity (up 3.7 percent), property maintenance (up 3.7 percent), and local authority rates (up 4.1 percent) also increased.

Alcoholic beverages and tobacco prices increased 2.7 percent. Cigarettes and tobacco increased 11.6 percent, influenced by a rise in excise duty in January this year.

Higher prices were also recorded for the following groups:

- miscellaneous goods and services (up 1.6 percent)
- health (up 1.9 percent)
- education (up 3.5 percent)
- clothing and footwear (up 0.4 percent).

Individually, other upward contributions came from:

- milk, cheese, and eggs (up 5.9 percent)
- international air fares (up 4.1 percent)
- ready-to-eat food (up 2.3 percent)
- medical services (up 2.7 percent).

By group, the main downward contributions came from:

- communication (down 3.8 percent)
- transport (0.5 percent)
- recreation and culture (down 0.5 percent)
- food (down 0.2 percent).

The main individual downward contributions came from lower prices for:

- audio-visual and computing equipment (down 9.8 percent)
- alcoholic beverages (down 2.0 percent)
- petrol (down 1.8 percent)
- vegetables (down 6.1 percent).

## **Housing-related prices up 1.0 percent**

Prices for the housing and household utilities group rose 1.0 percent in the September 2014 quarter. This follows rises of 1.2 percent in the June quarter and 0.7 percent in the March quarter.

Local authority rates (up 3.8 percent) were the key contributor to the latest rise. This compares with a 3.8 percent rise in the September 2013 quarter. Local authorities set their rates annually, and these are mainly shown in the September quarter CPI. This quarter's movement in local authority rates reflects 92 percent of the weight in the sample, with the remainder expected in the December 2014 quarter CPI. Price movements on about 82 percent of the weight of the sample were included in the September 2013 quarter and 90 percent in the September 2012 quarter.

Other upward contributions came from:

- rentals for housing (up 0.6 percent), with Auckland and Canterbury both up 0.7 percent

- purchase of newly built houses (up 1.1 percent), with Canterbury up 1.3 percent and Auckland up 1.1 percent.

Of the newly built house prices reported by respondents in the September 2014 quarter and after adjusting for quality change, 45 percent showed no change in price, 52 percent showed increases, and 3 percent showed decreases.

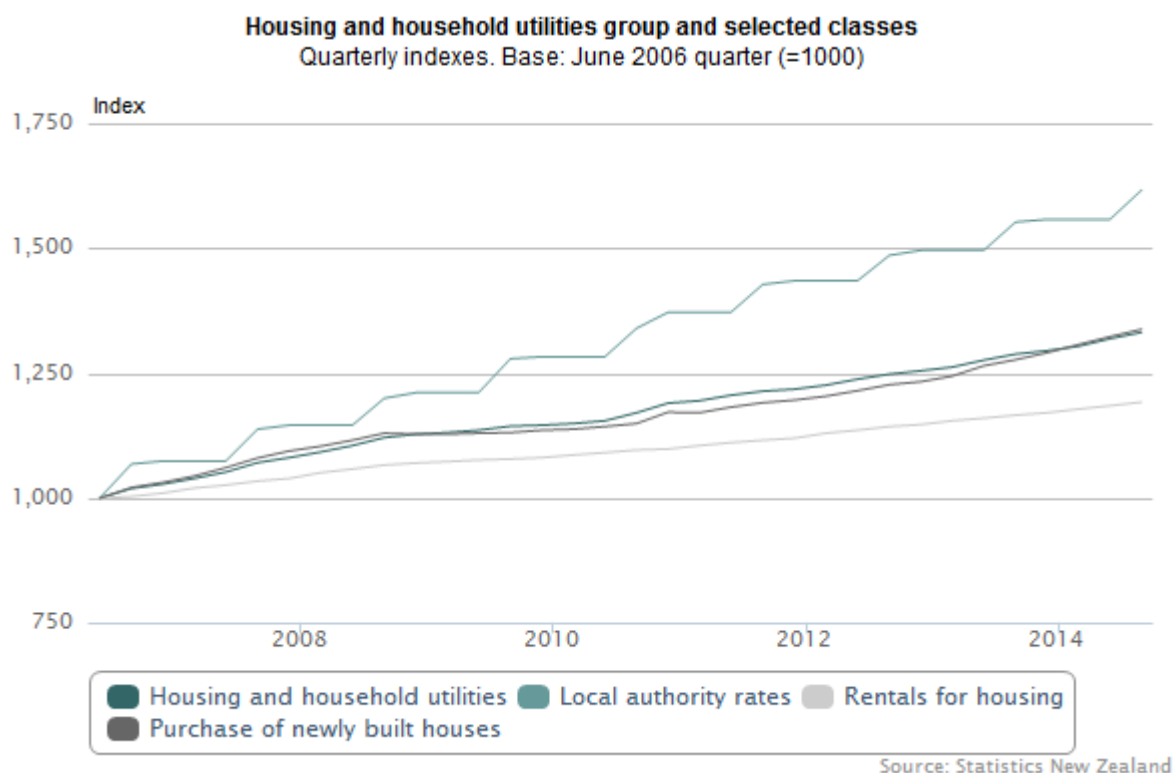
### Annual prices

For the year to the September 2014 quarter, prices for the housing and household utilities group increased 3.4 percent. All five of the subgroups showed upward movements.

The main upward contribution came from:

- rentals for housing (up 2.2 percent), with Canterbury up 4.7 percent and Auckland up 2.2 percent
- purchase of newly built houses (up 4.8 percent), with Canterbury up 5.9 percent and Auckland up 5.7 percent
- local authority rates (up 4.1 percent).

Excluding Canterbury, newly built house prices rose 4.6 percent.



### Summary of other group movements in the CPI

In the September 2014 quarter, the following groups rose:

- recreation and culture (up 0.5 percent)
- miscellaneous goods and services (up 0.7 percent)

- alcoholic beverages and tobacco (up 0.5 percent)
- health (up 0.9 percent)
- transport (up 0.1 percent)
- clothing and footwear (up 0.2 percent)
- education (up 0.1 percent).

Combined, these groups contributed 2.25 index points to the overall CPI increase of 3.87 index points.

In the September 2014 quarter, the following groups fell:

- household contents and services (down 1.3 percent)
- communication (down 1.4 percent).

Combined, these groups contributed -1.29 index points to the overall increase of 3.87 index points.

## **CPI analytical series**

In the September 2014 quarter, the tradable component of the CPI rose 0.1 percent and the non-tradable component rose 0.5 percent.

Higher prices for vegetables, petrol, package holidays, and books were the main upward contributors to the tradable component. Lower prices for grocery food and purchase of new vehicles were the main downward contributors.

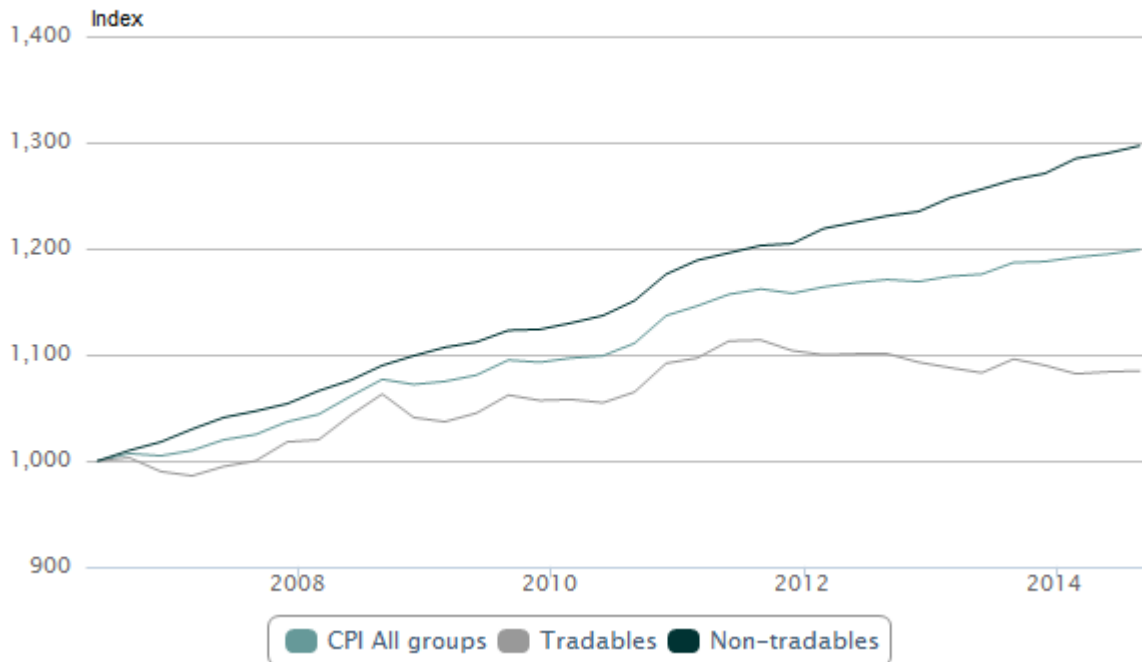
Local authority rates, rentals for housing, purchase of newly built houses, and cigarettes and tobacco influenced the rise in the non-tradable component. This was partly countered by falls in bread and cereals, and telecommunications services.

## **Annual**

For the year to the September 2014 quarter, the tradable component decreased 1.0 percent, influenced by lower prices for audio visual and computing equipment, vegetables, and petrol. The main upward contributions came from higher prices for dairy products and international air fares.

Prices for the non-tradable component increased 2.5 percent, reflecting price rises for cigarettes and tobacco, rentals for housing, purchase of newly built housing, and electricity. The main downward contributions came from lower prices for telecommunication services and grocery food.

**Tradables, non-tradables, and all groups – quarterly indexes**  
 Base: June 2006 quarter (=1000)



Source: Statistics New Zealand

In the September 2014 quarter, the trimmed mean measures – which exclude extreme price rises and falls – had quarterly rises of 0.3 percent and 0.4 percent. This indicates the ‘underlying’ price change (ie excluding extreme price rises and falls) was in line with the all groups CPI.

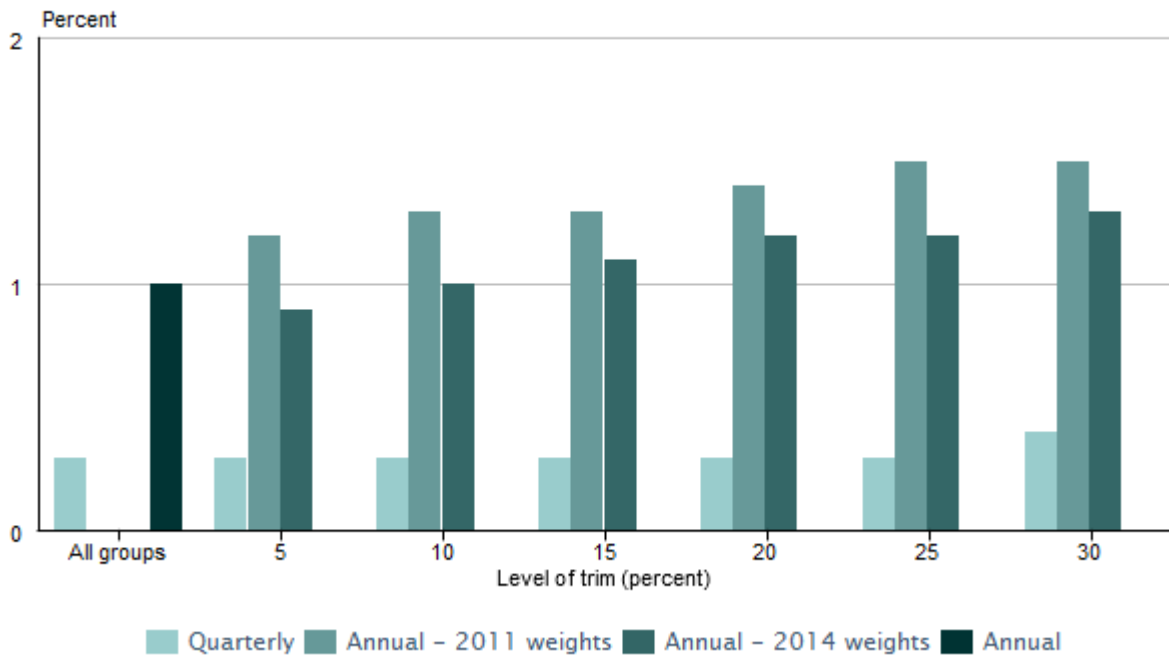
When the CPI basket is reweighted, as happened with this release, the annual trimmed mean measures can be calculated using the previous weights (June 2011 quarter weights) or the latest weights (June 2014 quarter weights).

For the September 2014 quarter, the annual trimmed mean measures based on June 2011 quarter weights are more comparable with the annual CPI all groups movement. These annual trimmed means increased between 1.2 percent and 1.5 percent. This is above the annual increase in the all groups CPI.

The annual trimmed mean measures based on September 2014 quarter weights increased between 0.9 percent and 1.3 percent.



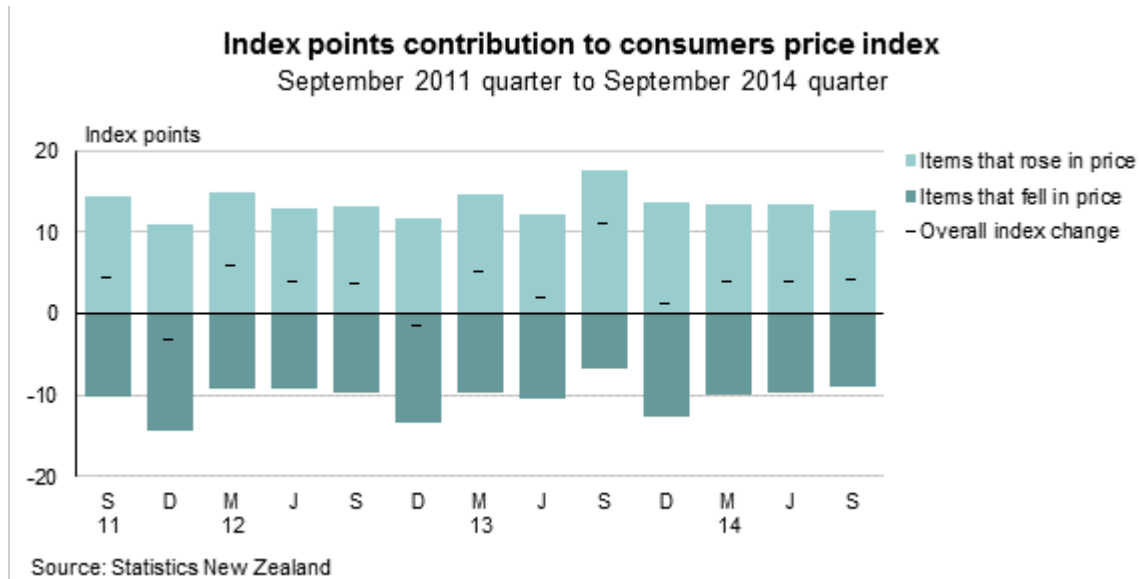
**Trimmed means and all groups**  
Percentage changes, September 2014 quarter



Source: Statistics New Zealand

**Impact of items that rose and fell in price**

Compared with the June 2014 quarter, the impact of the items that both rose and fell in price in the September 2014 quarter is slightly smaller. This led to a 0.3 percent rise in the September 2014 quarter CPI, following a 0.3 percent rise in the June 2014 quarter. The graph below shows the impact of the items that rose and fell in price.



Further information is included in table 13 of this release.

## **CPI review implemented**

Changes from our latest CPI review have been implemented in this release. The review reselected the basket of goods and services, and updated their relative importance. The CPI is reviewed every three years to ensure it maintains its relevance.

[Consumers price index review 2014](#) provides details of the review.

Fifteen items were added to the basket, including cider, property valuation services, and packaged leaf salad. Twelve items were removed from the basket including men's tracksuit pants, video cameras, and car stereos.

The updated weights show that \$24.23 of every \$100 that households spent on goods and services covered by the CPI is on housing and household utilities, compared with \$23.55 in 2011. This reflects increased spending on housing rentals, property rates and related services, and household energy.

The 2012/13 Household Economic Survey (HES) was the main source of information for the new weights. However, because the HES does not provide accurate information for some goods and services, we also used information from a range of other sources.

The updated weights are included in table 9 of this information release.

We also changed the way we weight regional price change to better align with international best practice – by weighting it using expenditure in five broad regions. This means that price change in regions with higher levels of expenditure per person (eg Auckland, which has a regional expenditure share of 34.87 percent and makes up 33.37 percent of the population) will have a bigger impact on the headline CPI. This change was recommended by the 2013 CPI Advisory Committee. Before this change, regional price change was weighted using each region's share of the population.

We also reduced the number of regional centres that CPI prices are collected from – down from 15 to 12. This was to re-invest the cost of collection towards funding CPI-related initiatives such as household living-costs price indexes for particular groups in society and seasonally adjusted analytical CPI series, as recommended by the [2013 CPI Advisory Committee](#).

The regional expenditure weights are included in table 7 of this information release.

## **Reweighted CPI food group**

The food group of the CPI showed no change from the June 2014 quarter to the September 2014 quarter. This compares with a 0.4 percent increase obtained by averaging the food price index (FPI) across the three months within each of the June and September 2014 quarters. This difference of 0.4 of a percentage point compares with smaller differences when CPI basket and weight reviews were implemented in 2011 and 2008.

A number of factors contribute to these differences. They relate to the timing of the introduction of basket and weight changes.

The reweighted CPI food group provides the best estimate of change in food prices from the June 2014 quarter to the September 2014 quarter. This is because the reweighted CPI food

group gives more new information on spending patterns than the FPI during this transitional quarter from the 2011 basket and weights to the 2014 basket and weights.

See the data quality section for further details.

## New CPI tradables and non-tradables visualisation tool

We have a new interactive [CPI tradables and non-tradables visualisation tool](#). The tool will help you explore the changes in the prices and relative importance of the goods and services in the CPI basket, broken down by tradables and non-tradables. This new tool is in addition to our existing [CPI visualisation](#).

## CPI tradables and non-tradables breakdown also available on Infoshare

Access the new CPI tradables and non-tradables time series on [Infoshare](#) by selecting the following from the homepage:

Subject category: Economic indicators

Group: **Consumers Price Index**

CPI Level 1 Groups Tradables and Non-tradables  
 CPI Level 2 Subgroups Tradables and Non-tradables  
 CPI Level 3 Classes Tradables and Non-tradables

Series reference naming pattern			
Series name	Base series reference	TT for tradables, TN for non-tradables	NZHEC classification
Eg Tradable food group	CPIQ.SE9	TT	01
Eg Non-tradable food group	CPIQ.SE9	TN	01
NZHEC = New Zealand Household Expenditure Classification			

The series reference for the all groups will stay the same:

- Tradables all groups: CPIQ.SE9NS6000
- Non-tradables all groups: CPIQ.SE9NS6500

## Big data for consumer electronics price movements

From the September 2014 quarter, we are using retail transaction data (or 'scanner data'), supplied by market research company GfK, to estimate the price movements of 12 consumer electronics categories in the CPI. The categories we are tracking this way are:

- heat pumps
- desktop computers
- laptop computers
- tablet computers
- multi-function devices
- cellphone handsets
- digital cameras

- digital camera memory cards
- television sets
- set-top boxes for television sets
- DVD, Blu-ray players and player/recorders
- home theatre and stereo systems.

Rather than collecting prices for a sample of consumer electronic products at about 60 outlets in the middle of each quarter, scanner data lets us track the prices and quantities of all products sold during a period of time. The data being supplied includes hundreds of thousands of transactions each month.

We have collaborated with Statistics Netherlands on a method to measure price change with this type of data. Our joint paper Scanner data and the treatment of quality change in nonrevisable price indexes on the method was recently published in the *Journal of Business & Economic Statistics*. This method incorporates the price-determining features of products in statistical models to ensure their changing quality is removed from the measurement of price change.

We will soon publish more details on the methodology, and its practical application in the CPI, in a 'sources and methods' document. This paper will also be included in the next issue of Price Index News.

New Zealand is the first country in the world to make such comprehensive use of scanner data for measuring price change for consumer electronics items in a CPI.

**For more detailed data on the CPI see the Excel tables in the 'Downloads' box.**

## Definitions

### About the consumers price index

The consumers price index (CPI) measures the changing price of a fixed basket of goods and services purchased by New Zealand households. The selection and relative importance of the goods and services in the CPI basket represents the overall expenditure pattern of New Zealand households.

The aim of the CPI is to measure price changes of the same sample of products at each outlet over time. When there is a change in the size or quality of any of the goods or services in the basket, an adjustment is made to ensure that the price change shown in the CPI is not affected by the change in size or quality.

The CPI is used to help set monetary policy and for monitoring economic performance. It is used by the government to adjust New Zealand Superannuation and unemployment benefit payments once a year, to help ensure that these payments maintain their purchasing power. Employers and employees use the CPI in wage negotiations.

The CPI is published quarterly. The food group is the only CPI group for which an index is published each month.

Consumers price index review: 2014 has a list of the representative goods and services monitored in the CPI basket.

CPI sources and methods articles presents the sources and methods used to compile various parts of the CPI basket of goods and services.

### More definitions

A **price index** measures the change in price between time periods for a given set of goods and services. It summarises a set of prices for a variety of goods and services collected from a number of outlets.

The **index reference period** is the benchmark to which prices in other periods are compared (eg if the index number in a later period is 1150, prices have increased by 15.0 percent since the index reference period). Prices for later periods can also be compared in similar fashion. The CPI has an index reference period of the June 2006 quarter (=1000).

**Upward/downward contributions:** items mentioned in this release are often those that made a large contribution to the overall movement in the CPI. An item's contribution is a combination of its weight in the index (ie its relative importance, based on its share of household spending on goods and services covered by the CPI) and the magnitude of price movement. For example, for two items recording the same percentage rise in price, the item with the larger weight in the CPI will make a larger contribution to the overall movement. This contribution is also referred to as points (or index points) contribution.

**Tradable and non-tradable component series:** the tradable component series contains goods and services that are imported or in competition with foreign goods, either in domestic or foreign markets. Movements in the tradables component (tradable inflation) demonstrate how international price movements and exchange rates are affecting consumer prices.

The non-tradable series contains goods and services that do not face foreign competition. It shows how domestic demand and supply conditions are affecting consumer prices.

**Analytical measures of inflation:** over the long term, the CPI captures the broad pattern of price change, but can be influenced by one-off events when analysing price change over shorter timeframes. To remove such influences, analytical measures of price change are calculated in an attempt to isolate the more persistent – or underlying – component of general price-level changes. Several analytical measures are constructed to give a good guide to underlying price-level change. These are a range of 'trimmed means' and a range of 'weighted percentiles' including a weighted median. Trimmed means and weighted percentiles are given in table 11 and table 12 of this release.

**Trimmed means:** exclude the influence of the largest price increases and decreases in the CPI. This is done at the item level of about 700 goods and services in the CPI basket (eg 91 octane petrol or strawberries). The trimmed means progressively remove the influence of the largest increases and decreases.

**Weighted percentiles:** highlight the movement of lower-level indexes at points in the distribution of price changes for a particular time period.

## **Related links**

### **Upcoming releases**

*Consumers Price Index: December 2014 quarter* will be released on 21 January 2015.

Subscribe to our information releases, including this one, by completing the online subscription form.

The release calendar lists all our upcoming information releases by date of release.

### **Past releases**

Consumers Price Index – information releases has links to past releases.

### **Related information**

Food price index measures the price change of food goods and services purchased by New Zealand households.

CPI sources and methods articles presents information about the basket of goods and services, and the sources and methods used to compile individual components of the CPI.

Electronic Card Transactions measure the number and value of electronic card transactions with New Zealand-based merchants.

Retail Trade Survey measures the sales of a range of household and personal goods and services.

## Data quality

### Period-specific information

This section has information that has changed since the last release.

- [Reference period](#)
- [Data influencers](#)
- [Response rates](#)
- [Sample size](#)

### General information

This section has information that does not generally change between releases.

- [Imputation](#)
- [Review of the CPI](#)
- [Reweighted CPI food group](#)
- [Impact of GST rise on the CPI](#)
- [Care required when using the CPI to adjust monetary values](#)
- [Reference population](#)
- [Expenditure weights](#)
- [Collection methods](#)
- [Pricing frequency](#)
- [Accuracy of the data](#)
- [Key concepts](#)
- [Consistency with other periods or datasets](#)
- [Interpreting the data](#)
- [Timing of published data](#)
- [CPI rolling review of retail outlets](#)
- [Relative importance of home ownership and property maintenance](#)
- [More information](#)

## Period-specific information

### Reference period

Prices were collected during the period July to September 2014. Visits by Statistics NZ staff to retail outlets were made during 1–15 August in the seven smallest consumers price index (CPI) regions and during 1–20 August for the five largest CPI regions. Prices for food and non-food groceries were collected each month, usually between the 8th and 17th of the month. Petrol, fresh fruit, and fresh vegetable prices were collected weekly. Quarterly postal survey prices were collected as at 15 August.

### Data influencers

Price changes may be influenced by specific events. Factors that affected the September 2014 quarter CPI are listed below.

- The annual increase of 11.6 percent in cigarette and tobacco prices was influenced by an 11.28 percent rise in excise duty from 1 January 2014.



- The strong New Zealand dollar has had a downward influence on the retail prices of internationally traded goods, including cars and appliances.
- Road user charges for private motor cars, administered by the NZ Transport Agency, increased 9.4 percent on 1 July 2014. Transaction fees associated with the purchase of road user charges remained unchanged, which moderated this increase. Petrol excise tax also increased 3 cents per litre on 1 July 2014.
- Fewer cars now require a six-month warrant of fitness, which we have shown as a price fall in the CPI.

## **Response rates**

### **Postal**

Target: 93 percent  
Achieved: 94.1 percent

### **Field collection**

Prices are collected directly from retail outlets by Statistics NZ price collectors.

### **Sample size**

About 100,000 prices were collected from about 2,800 retail outlets and 2,300 other businesses and landlords.

## **General information**

### **Imputation**

Due to unavailability at the time of price collection, on average 1–2 percent of prices (not including seasonal items such as winter clothing) are imputed each quarter. This is often done by carrying forward the previous quarter's price. Other imputation is done by applying the movements of similar categories of items.

### **Review of the CPI**

Reviews of the CPI are undertaken every three years. The latest review was implemented with the publication of the September 2014 quarter CPI. The review involved reselecting the basket of representative goods and services, updating the new national expenditure weights, and updating regional expenditure weights.

[Consumers price index review: 2014](#) has more information.

### **Reweighted CPI food group**

The food group of the CPI showed no change from the June 2014 quarter to the September 2014 quarter. This compares with a 0.4 percent increase obtained by averaging the food price index (FPI) across the three months within each of the June and September 2014 quarters. This difference of 0.4 of a percentage point compares with smaller differences when CPI basket and weight reviews were implemented in 2011 and 2008.

A number of factors contribute to these differences. They relate to the timing of the introduction of basket and weight changes.

For the 2014 CPI review, basket changes and updated expenditure weights for the June 2014 month were implemented in the monthly FPI for the July 2014 month. FPI movements up to and including the June 2014 month were based on the 2011 basket and weights. By comparison, the 2014 basket and weights were used for all months of the June 2014 quarter for the food group of the CPI.

For example, packaged leaf salad was added to the 2014 basket and now has about 40 percent of the weight previously allocated to lettuce. Lettuce prices rose strongly in May (which contributed to the FPI) and from the June quarter to the September quarter, whereas packaged leaf salad prices were relatively flat in May (which didn't contribute to the FPI) and from the June quarter to the September quarter, which contributed to the lower movement for the CPI food group in the September 2014 quarter than for the FPI.

With the 2014 CPI review, we have also moved to regional weights based on spending in five broad regions. Before the review, we used regional population shares. The FPI used 2011 regional population shares up to and including the June 2014 month, whereas the 2014 regional spending shares were used for all months of the June 2014 quarter for the food group of the CPI. For example, Auckland now has a higher share (35.5 percent) of spending on food than its 2011 population share (33.4 percent), and there was a lower-than-average change for the Auckland food group in the September 2014 quarter (down 0.2 percent).

The reweighted CPI food group provides the best estimate of change in food prices from the June 2014 quarter to the September 2014 quarter. This is because the reweighted CPI food group gives more new information on spending patterns than the FPI during this transitional quarter from the 2011 basket and weights to the 2014 basket and weights.

### Impact of GST rise on the CPI

GST rose from 12.5 percent to 15 percent on 1 October 2010. However, the rise in GST was not immediately reflected in the prices of some seasonally available goods and services in the CPI basket. The rise was reflected when prices for these items were next collected. These items make up about 3 percent of expenditure on goods and services in the CPI. Of this 3 percent, nearly half was reflected in the March 2011 quarter CPI, nearly half in the June 2011 quarter, and the remainder was shown in the September 2011 quarter.

The table below shows what the quarterly and annual percentage changes would have been if prices collected for the December 2010, and March, June, and September 2011 quarters had been processed with GST of 12.5 percent for goods and services that are subject to GST. The CPI would have risen 0.4 percent in the September 2011 quarter, and 2.5 percent for the year to the September 2011 quarter.

<b>CPI processed with GST at 12.5 percent</b>			
Quarter	Percentage change from previous quarter	Percentage change from same quarter of previous year	Adjusted index number
Dec 2010	0.5	2.1	1116
Mar 2011	0.8	2.6	1125
Jun 2011	0.9	3.3	1135
Sep 2011	0.4	2.5	1139

## **Care required when using the CPI to adjust monetary values**

The CPI is used to adjust monetary values, such as those in legislation and contracts. Care is required when using the CPI to adjust monetary values during the year-long period in which the rise in GST is reflected in the CPI. Some goods and services in the CPI are not subject to GST, some are zero-rated for GST purposes (meaning the applicable rate of GST is zero), and the rise in GST was not immediately reflected for all goods and services in the CPI that are subject to GST.

Special care is required when the monetary values being adjusted exclude GST.

It would not be appropriate to adjust prices or monetary values that exclude GST (but which are subject to GST) by the CPI movement during the period in which the increase in GST is reflected in the CPI. This would mean that the GST increase is counted twice. Another common use of the CPI is to adjust housing rentals. Housing rentals are not subject to GST. Using the CPI to adjust rental values during the period in which the increase in GST is reflected in the CPI would mean that the adjustments would include the overall impact of the GST increase on the CPI.

## **Reference population**

The reference population of the CPI covers approximately 98 percent of the usually-resident New Zealand population living in permanent dwellings.

## **Expenditure weights**

Expenditure weights give the relative importance of the goods and services in the CPI basket.

Expenditure weights are updated every three years as part of regular CPI reviews. The current set of weights are derived from the 2012/13 Household Economic Survey (HES) and other sources.

CPI weights are based on household spending for the year to June 2013 (the 'weight reference period') expressed in June 2014 quarter prices (the 'price reference period').

The relative importance of the CPI groups shows that \$24.23 of every \$100 spent by households on goods and services in the CPI is spent on housing and household utilities, \$18.84 is spent on food, and \$14.97 is spent on transport.

More information on the relative importance of CPI groups, subgroups, and classes, is in table 9 of this release.

## **Collection methods**

Prices used in the CPI are collected through three main methods: visiting retail outlets, postal surveys, and the Internet.

Statistics NZ price collectors personally visit over 2,800 different shops in 12 pricing centres throughout the country: Whangarei, Auckland, Hamilton, Tauranga, Napier-Hastings, New Plymouth, Palmerston North, Wellington, Nelson, Christchurch, Dunedin, and Invercargill.

Before 1 July 2014, we also collected CPI prices in Rotorua, Wanganui, and Timaru. However, in line with recommendation 7 of the CPI Advisory Committee 2013, we stopped collecting prices in these three regions, so we could divert the cost of collection towards funding CPI-related initiatives such as household living-costs price indexes and seasonally adjusted analytical CPI series. Price change for these regions will be directly represented by Tauranga, Palmerston North, and Christchurch, respectively.

In addition to prices obtained by price collectors, about 70 different postal surveys are sent out each month, quarter, or year. These surveys are used primarily to collect prices for services, such as electricity and bus fares. The surveys are sent directly to service providers. In some cases, for sampling and collection reasons, these prices are aggregated to the national level or to broad regions such as Auckland, Wellington, Canterbury, rest of North Island, and rest of South Island. Items where movements for the five broad regions are used include: the purchase of second-hand cars; purchase of new housing; and rentals for housing. In these cases, price movements for the five broad regions are used for the corresponding 12 pricing centres.

The types of outlets visited include supermarkets, department stores, and appliance stores. Prices are collected weekly for motor fuels and for fresh fruit and vegetables; monthly for food, non-food groceries, alcoholic beverages, and newspapers; and quarterly for other goods and services.

Postal surveys are sent to service providers who set prices nationally or with little variation according to location, such as prices for telephone homeline rental.

Prices for products and services (such as digital downloads, package holidays, and air fares) are also collected each month or quarter from the Internet.

## **Pricing frequency**

Prices are collected weekly, monthly, quarterly, or annually, depending on the expected frequency of price changes exhibited by the goods or service.

## **Accuracy of the data**

### **Elementary aggregate formula**

Average prices in the CPI are called elementary aggregates. These elementary aggregates are the first level of the index aggregation. Regional elementary aggregates are calculated for each of the 12 pricing centres where price collection supports regional estimation. In other cases, regional elementary aggregates are calculated for five CPI broad regions (Auckland, Wellington, rest of North Island, Canterbury, rest of South Island) or, where prices do not support regional estimation, directly to a national elementary aggregate. Since the 2006 review of the CPI, the geometric mean, or Jevons, formula has been used to calculate the elementary aggregate indexes for items where outlet substitution is possible (eg for groceries and appliances).

The 'ratio of arithmetic mean prices', or Dutot, formula is used for items where outlet substitution is not possible (eg local authority rates), where prices are subsidised and may fall to zero (eg GPs' fees), for fresh fruit and vegetables (as the first stage of aggregation is across both outlets within each region, and across weeks within each month), and where it is not currently practical to adopt the Jevons formula (eg when prices are aggregated directly to a national elementary aggregate, rather than aggregated to a regional level).

Information about the consumers price index has more information on the Jevons and Dutot formulae.

### **Method of aggregating monthly collected prices from the monthly to the quarterly level**

Prices are collected monthly for the food group and a number of non-food items in the CPI, including electricity, cigarettes and tobacco, alcoholic drinks, and air travel. These prices are averaged over the quarter for inclusion in the CPI.

The method for calculating these averages is to obtain monthly regional average prices for the item by outlet-weighting the prices collected at different outlets within each region. The monthly regional average prices are used to calculate quarterly regional average prices by weighting each monthly regional average price by the number of days in the month in which it was collected. This is called day weighting. All the regions are aggregated to obtain the national quarterly index by weighting together regional price movements from the base (ie June 2014) quarter to the current quarter, using the regional expenditure weights.

Petrol and diesel prices are collected weekly, usually on Fridays. The CPI petrol price index measures price changes of 91 octane petrol and 95/98 octane petrol. Within each CPI region, an average price per 10 litres of each fuel is calculated from the prices surveyed each week from individual service stations. Monthly regional average prices for each fuel are then calculated as simple averages of the averages for the weeks within each month. Quarterly regional average prices for each fuel are then calculated as the day-weighted averages of the averages for the three months within the quarter. Regional price movements from the base (ie June 2014) quarter to the current quarter are then weighted by the regional population-weighted share of the national expenditure weight, to calculate the national petrol and diesel price indexes for the current quarter.

Since petrol and diesel prices are collected either 12 or 13 times within each quarter, a price change that occurs during the quarter is only partly reflected in that quarter, with the remainder being reflected in the following quarter. This is also the case for commodities that are priced monthly, such as cigarettes and tobacco.

### **Regional expenditure weights**

From the September 2014 quarter CPI onwards, regional price change is weighted using regional expenditure weights for the five broad regions (Auckland, Wellington, rest of North Island, Canterbury, and rest of South Island). Regional expenditure weights use expenditure in each region to weight regional price change. This ensures that price change in regions where households spend more per person on a particular item relative to other regions (eg Auckland which has 33.37 percent of the population and a CPI regional expenditure weight of 34.87 percent) has more influence on the combined national price change for that item.

For broad regions with multiple pricing centres (rest of North Island and rest of South Island), we use population shares to allocate the regional expenditure weight to the pricing centres.

Previously, we used national expenditure weights in each of the (then) 15 regional pricing centres, weighted by the centre's population share. This change was recommended by the 2013 CPI Advisory Committee (recommendation 6) and aligns with international best practice.

We calculated regional expenditure weights as proportions of national expenditure (eg 35.50 percent of food expenditure is in the Auckland region) for each CPI class or section (the lowest published level) using HES regional expenditure. We applied class/section level proportions to

the individual items within that class or section (eg the regional proportions for fruit was applied to national expenditure on each fruit item) to derive regional expenditure on each individual item (eg spending on apples in Auckland).

Regional expenditure was then expressed in June 2014 prices for the respective region (eg apple expenditure in Auckland was expressed in June 2014 apple prices collected in Auckland). The group level regional weights were then calculated by aggregating all food expenditure in each broad region.

We publish CPIs for the five broad regions based on regional council area boundaries. These indexes are available from [Infoshare](#).

For the 2014 regional expenditure weights for the five broad regions, see table 7 of this release.

### **Outlet weights**

Outlets are given appropriate weights to reflect their relative importance in terms of household spending.

### **'On special' prices**

Items that are 'on special' are included in the CPI at the price levels observed at the time of price collection. Quantity specials (such as a 15-pack of beer at a cheaper shelf price than the 12-pack) are also taken into account where appropriate (as the price per bottle for the special is lower).

### **Key concepts**

#### **Standard and non-standard series**

CPI series that contribute to the hierarchical structure of the overall CPI are known as standard series. For example, the clothing index, combined with the footwear index, contributes to the clothing and footwear index, which in turn contributes to the all groups index. Components of this pyramid-like structure are known as standard index series. In addition, a selection of non-standard series is published in the information release tables, and additional series can be accessed free of charge from [Infoshare](#). Examples of these non-standard series include:

- all groups CPI less each of the 11 CPI groups
- all groups CPI plus interest
- interest.

The CPI is published at the following levels: group, subgroup, and class – all at the national level. Selected sections within the food group are also published.

#### **Tradable and non-tradable non-standard series**

The tradable and non-tradable component series that appear in table 1 allow users to decompose CPI goods and services into two components: one contains goods and services that are imported or in competition with foreign goods, either in domestic or foreign markets (tradables); the other contains goods and services that do not face foreign competition (non-tradables).

Movements in the tradables component (tradable inflation) demonstrate how international price movements and exchange rates are affecting consumer prices. The non-tradables component shows how domestic demand and supply conditions are affecting consumer prices.

The June 2014 quarter expenditure weight of the tradables component is 43.59 percent, compared with 44.01 percent in 2011. The June 2014 quarter weight of non-tradables is 56.41 percent, compared with 55.99 percent in 2011.

The June 2014 quarter tradable/non-tradable weights for each group, subgroup, and class are included in table 6 of the Consumers price index review: 2014.

Consumers price index tradable and non-tradable series presents the methodology used to categorise the tradable and non-tradable series.

### **Trend measures of price-level change**

Over the long term, the CPI captures the broad pattern of price change, but can be influenced by one-off events when analysing price change over shorter timeframes (such as a supply disturbance affecting petrol prices). To remove such influences, analytical measures of price change are calculated in an attempt to isolate the more persistent – or underlying – component of general price-level changes. Several analytical measures are constructed to give a good guide to underlying price-level change. These are a range of 'trimmed means' and a range of 'weighted percentiles' including a weighted median. Trimmed means and weighted percentiles are given in table 11 and table 12 of this release.

### **Trimmed means**

Trimmed means exclude the influence of the largest increases and decreases in the CPI. This is done at the item level of about 700 goods and services in the CPI basket (eg 91 octane petrol or strawberries). The trimmed means progressively remove the influence of the largest increases and decreases. **Weighted percentiles** highlight the movement of lower-level indexes at points in the distribution of price changes for a particular time period.

Trend measures of price level change has detailed information on the methodology and compilation of trimmed means and weighted medians.

The **central and local government charges index**, which appears in tables 3.01, 3.02, and 3.03, made up 10.78 percent of the CPI at the June 2014 quarter.

Central and local government charges non-standard series includes items such as:

- Housing New Zealand and local authority rentals
- land transfer registration fees
- local authority rates
- water supply and part of refuse disposal, electricity
- prescription charges and oral contraception, general practitioner fees
- vehicle relicensing fees, road user charges, driver licensing fees
- postage
- State and integrated schools, tertiary education, other education
- cheque duty, and official passports, licences and certificates.

The **goods and services component series** that appear in tables 3.01, 3.02, and 3.03 allow users to decompose the CPI into its goods and services components, respectively. The goods component made up 60.44 percent, and the services component 39.56 percent at the June 2014 quarter.

The **goods component** comprises:

- the food group (except restaurant meals)
- alcoholic beverages and tobacco group
- clothing and footwear group (except clothing services)
- purchase of new housing, property maintenance materials, water supply, and household energy
- household contents and services group (except repair and hire of household appliances, hire of major tools and equipment, and other household services)
- medical products, appliances and equipment; dentures
- purchase of vehicles, vehicle parts and accessories, petrol, other vehicle fuels and lubricants
- telecommunication equipment
- recreation and culture group (except recreational and cultural services, accommodation services, and package holidays)
- miscellaneous goods and services group (except hairdressing and personal grooming services, jewellery and watch repair, insurance, credit services, and other miscellaneous services).

The **services component** comprises all items not included in the goods component.

## **Consistency with other periods or datasets**

### **Impact of the Christchurch earthquakes on price collection**

There was no material impact on CPI movements from the Christchurch earthquakes in 2010 and 2011.

For goods and services prices collected quarterly from shops in February 2011, collection was completed in all regions before the earthquake. In March, food (and non-food grocery) prices were not collected by Statistics NZ staff in Christchurch city. For Christchurch, price movements for the rest of New Zealand were used to calculate the March 2011 food price index, which represents one-third of the food group in the March 2011 quarter CPI. This approach was also taken for non-food grocery prices for the March month.

For goods and services prices collected quarterly by postal survey (and posted in early February 2011), there were lower-than-usual response rates for Canterbury respondents. The overall response rate for quarterly postal surveys was about 96 percent, compared with about 98 percent over the previous eight quarters. For most parts of the basket, the usual treatment for missing prices in the current quarter is to use the last reported price. With the lower response rate in the March 2011 quarter, there was the potential for the higher level of non-response to slightly flatten the quarterly movement. Therefore, price movements for responding businesses were used to bring the Christchurch response rate up to its usual level.

Statistics NZ began collecting prices again in Christchurch in April 2011.

For goods and services prices collected quarterly from shops for the June 2011 quarter, collection was completed in May. While the June monthly collection of food and non-food grocery prices was put on hold for the remainder of the week following the Monday 13 June earthquakes, pricing was completed on Monday 20 and Tuesday 21 June.

For goods and services prices collected quarterly by postal survey (and posted in early May), the overall response rate for quarterly postal surveys was about 98 percent, which compares well with previous quarters.



By November 2011, when quarterly collection was undertaken, almost all outlets that had not been replaced had reopened.

### **Index reference period**

All CPI indexes have an index reference period of the June 2006 quarter (=1000), except where additional indexes were added in subsequent reviews of the CPI.

Additions to the CPI basket at the June 2008 quarter resulted in the publication of two new indexes at the class level of the New Zealand Household Expenditure Classification (NZHEC). These classes are clothing accessories, and other education. Before the 2008 review, expenditure on goods and services within these two classes was allocated to other apparel and education items, respectively. There was also one new subgroup, for other education. As the two classes and one subgroup were new, they are expressed on the June 2008 quarter (=1000). Similarly, other property related services were added to the CPI in 2011. The other property related services class is expressed on the June 2011 quarter (=1000).

We did not add or discontinue any class or sub-group level series in the CPI as part of the 2014 review. However, the 'pet-related products' class was renamed 'pets and pet-related products' due to pets being added to the CPI scope.

### **Reconciling the FPI and food group of the CPI**

When comparing the FPI and the food group of the CPI, strictly speaking, the quarterly food group index number is not the average of the relevant three monthly FPI numbers. There are some technical differences between the monthly FPI indexes and quarterly indexes.

Food prices in the consumers price index and food price index has more information.

### **Treatment of fresh fruit and fresh vegetables – removal of seasonal adjustment**

Until the June 2006 quarter, fresh fruit and fresh vegetable items that exhibited a seasonal pattern were adjusted to remove the effect of normal seasonal change. This treatment was used to reduce the influence of normal seasonal price fluctuations. However, the treatment did not completely eliminate the effects of seasonal fluctuations if shifts in seasonal patterns occurred.

From the September 2006 quarter onwards, the CPI incorporates seasonally unadjusted prices for fresh fruit and fresh vegetables. This is in line with a recommendation made by the 2004 CPI Revision Advisory Committee.

The ongoing, fully unadjusted CPI is linked at the June 2006 quarter to the previously published CPI, which is partly seasonally adjusted. As such, annual movements calculated over the annual period encompassing the June 2006 quarter are based on fully unadjusted index numbers for the latest quarter, compared with partly adjusted index numbers for the same quarter of the previous year. However, analytical time series provided annual movements on a fully unadjusted basis during the year-long transition of the official CPI. During this time, annual movements were based on fully unadjusted index numbers for the latest quarter, compared with partly adjusted index numbers for the same quarter of the previous year.

## **Availability of regional indexes**

Indexes are published for five broad regions: Auckland, Wellington, Canterbury (encompasses Christchurch and Timaru until the September 2014 quarter, then Christchurch only), rest of North Island, and rest of South Island. These series are considered to be fit for purpose and do not make significant use of national pricing indicators in their compilation.

Until the June 2006 quarter, indexes were published for 15 regional pricing centres. These series were not considered 'fit for purpose', as price movements from national or broad-region price collection were used to compile them. We calculate series for the 12 regional price centres (15 up until the June 2014 quarter) which are available only on request.

## **Interpreting the data**

### **Rounding of index numbers and calculation of percentage changes**

Percentage changes are published to one decimal place and are calculated from index numbers rounded to the nearest index point. For comparisons that cross the index reference period, rounded index numbers (for the later period) should be compared to unrounded index numbers (for the earlier period).

### **Distribution of item-level index movements table**

The distribution of item-level index movements table in this release gives additional information on the distribution of price movements for the current quarter's CPI. The analytical statistics in the table give an indication of how widespread price changes are, and their relative magnitude when compared with previous quarters.

The weighted average price increase and decrease uses unrounded index numbers for the previous and current periods to calculate item-level price movements from the previous period, and these are weighted using previous period expenditure weights. The previous period expenditure weight for an item is calculated by updating base-period expenditure weights, using the price change for the item from the base period to the previous period.

Movements based on unrounded index numbers are used to determine whether items have increased, showed no change, or decreased in price. Previous period expenditure weights are used to indicate the proportion of the expenditure weight that has increased, showed no change, or decreased.

### **Detailed contribution information tables**

Tables 8.01 and 8.02 include supplementary analytical information for group, subgroup, and class contributions to the overall change in the all groups CPI. The contribution information is given as index points, percentage points, and percentage contributions from the previous quarter and from the same quarter of the previous year. These tables are included to provide a broader perspective of the categories contributing to the movement in the all groups CPI. Where there is only one class within a subgroup, the class is omitted to avoid unnecessary duplication.

The index points, percentage points, and percentage contribution information in tables 8.01 and 8.02 is calculated from unrounded index numbers. Percentage changes are calculated from index numbers rounded to the nearest index point (see 'Rounding of index numbers and calculation of percentage changes', above). As such, the sum of each of the group, subgroup, or

class percentage point contributions may differ from the overall percentage change in the CPI all groups.

### Weighted average retail prices of selected food items

A selection of average retail prices for the current and previous quarter is included in table 5 of this release. The weighted average prices are calculated by applying index movements to weighted average prices for the June 2006 quarter CPI. They are not statistically accurate measures of average transaction price levels, but do provide a reliable indicator of percentage changes in prices.

### Determining the effect of a specified change in a lower-level index

As the CPI and FPI were reweighted at the June 2014 quarter, but continue to be published on an index reference period of June 2006 quarter (=1000), the method used to determine the effect that a specified change in a lower-level index would have on a higher-level index to which it contributes has been modified for the September 2014 quarter and subsequent quarters.

The index points effect and percentage contribution on a higher-level index of a specified percentage change in a lower-level index that contributes to the higher-level index can be determined by:

1. Adjusting the lower-level index for the previous period ( $I_{n-1,low}$ ) by the specified percentage change ( $PC_{n,low}$ ) to derive the index number for the current period:

$$I_{n,low} = I_{n-1,low} \times \left( 1 + \left( \frac{PC_{n,low}}{100} \right) \right)$$

2. Calculating the index points effect on the higher-level index of the specified change in the lower-level index:

$$PE_{low-on-high} = \left( \frac{I_{Jun14,high}}{I_{Jun14,low}} \right) \times \left( \frac{W_{Jun14,low}}{W_{Jun14,high}} \right) \times (I_{n,low} - I_{n-1,low})$$

3. Calculating the percentage change in the higher-level index that would be caused by the specified change in the lower-level index:

$$PC_{n,high} = \left( \left( \frac{I_{n-1,high} + PE_{low-on-high}}{I_{n-1,high}} \right) - 1 \right) \times 100$$

**I** : index

**n** : period n, where n is the September 2014 quarter or a subsequent quarter (CPI), or the July 2014 month or a subsequent month (FPI)

**n-1** : period n-1

**Jun14** : June 2014 quarter (CPI) or June 2014 month (FPI)

**low** : lower-level index

**high** : higher-level index

**W** : expenditure weight, expressed as a percentage of the all groups (CPI) or group (FPI) index

**PC** : percentage change

**PE** : index points effect

**low-on-high** : lower-level index on higher-level index

*Example:*

The effect that a 5.0 percent increase in the petrol index (which has a weight of 5.03 percent in the CPI) from the June 2014 quarter to the September 2014 quarter would have on the all groups CPI index can be calculated by:

1. Increasing the petrol index for the June 2014 quarter by 5.0 percent to derive the index number for the September 2014 quarter:

$$\begin{aligned} I_{Sep14,low} &= I_{Jun14,low} \times \left( 1 + \left( \frac{PC_{Sep14,low}}{100} \right) \right) \\ &= 1260 \times \left( 1 + \left( \frac{5.0}{100} \right) \right) \\ &= 1323 \end{aligned}$$

2. Calculating the index points effect on the all groups CPI index of the 5.0 percent increase in the petrol index:

$$\begin{aligned} PE_{low-on-high} &= \left( \frac{I_{Jun14,high}}{I_{Jun14,low}} \right) \times \left( \frac{W_{Jun14,low}}{W_{Jun14,high}} \right) \times (I_{n,low} - I_{n-1,low}) \\ &= \left( \frac{1195}{1260} \right) \times \left( \frac{5.03}{100} \right) \times (1323 - 1260) \\ &= 3.01 \end{aligned}$$

3. Calculating the percentage change in the all groups CPI index that would be caused by a 5.0 percent change in the petrol index:

$$\begin{aligned} PC_{n,high} &= \left( \left( \frac{I_{n-1,high} + PE_{low-on-high}}{I_{n-1,high}} \right) - 1 \right) \times 100 \\ &= \left( \left( \frac{1195 + 3.01}{1195} \right) - 1 \right) \times 100 \\ &= 0.3 \text{ percent} \end{aligned}$$

## Timing of published data

The CPI is published 12 working days after the reference quarter.

## CPI rolling review of retail outlets

The first cycle of our rolling review of retail outlets (where we collect prices from for the CPI) was completed in January 2014.

[Price Index News: July 2012](#) has more information on the review's scope.

At the start of the CPI rolling review, the CPI basket items we track at retail outlets were organised into eight review groups. Consumer electronics items were to be reviewed annually, in group 4 and group 8. However, a decision was made to reduce the number of review groups to seven by reviewing consumer electronics items once, in the last group. This is because external

data about the characteristics of consumer electronics items was not available at the time the first scheduled review of that group was to start.

Changes actioned in the first seven review groups were:

- Group 1 – clothing, footwear, and furniture (implemented in the Consumers Price Index: September 2012 quarter)
- Group 2 – services, vehicles, and personal goods (implemented in the Consumers Price Index: December 2012 quarter)
- Group 3 – sports and stationery goods (implemented in the Consumers Price Index: March 2013 quarter)
- Group 4 – convenience stores, liquor stores, bars, hospitality clubs, and ready-to-eat food outlets (implemented in the Food Price Index: April 2013 and the Consumers Price Index: June 2013 quarter)
- Group 5 – supermarkets (food) (implemented in the Food Price Index: August 2013 and the Consumers Price Index: September 2013 quarter)
- Group 6 – supermarkets (food and non-food) (implemented in the Food Price Index: August 2013 and the Consumers Price Index: September 2013 quarter)
- Group 7 – home appliances, audio-visual equipment, electronic equipment and games, builders' hardware, and garden supplies (implemented in the Consumers Price Index: December 2013 quarter).

During the CPI rolling review, we reviewed the following:

- outlets visited in groups 1–4 and group 7
- product specifications of the items priced at the outlets visited in groups 1–7
- mix of brands tracked at supermarkets (groups 5 and 6), to ensure they continue to reflect market shares.

We also expanded price collection for the following items:

- CDs and books – to include local and overseas online retailers (group 3)
- magazines – to include local online retailers (group 3)
- takeaway pizzas – to collect prices from pizza chain outlets online (group 4)
- pre-recorded Blu-ray discs, pre-recorded DVDs, tablets, MP3 players, and computer software – to include local online retailers (group 7).

We will begin the next cycle of our rolling review in 2015.

For more information on the review, please contact:

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## Relative importance of home ownership and property maintenance

In quality assurance checks for the 2012/13 Household Economic Survey (HES), released in late November 2013, a classification error was found in the housing and household utilities group. For both the 2006/07 and 2009/10 HES years, some expenditure that should have been coded to property alterations, additions, and improvements was instead coded to property maintenance. See Revision note: Household Economic Survey for further details. HES figures for 2006/07 and 2009/10 have been revised. The largest change resulting from these revisions and affecting 2009/10 is that 'property maintenance services' was overstated by about \$840 million, and 'services for property alterations, additions, and improvements' was understated by the same amount.

We implemented the current CPI weights, for the June 2011 quarter, in the September 2011 quarter. The 2009/10 HES was our main source of information for the CPI expenditure weight of the property maintenance subgroup and the property alterations, additions, and improvements component of the weight for the home ownership (ie purchase of newly built housing) subgroup.

We looked at how the CPI would have tracked from the September 2011 quarter to the June 2014 quarter if the revised 2009/10 HES figures for property maintenance and for property alterations, additions, and improvements had been used to reweight the CPI subgroups for property maintenance and home ownership. There would not have been a material cumulative effect on either the all groups CPI or the housing and household utilities group.

We have updated the relative importance of the goods and services in the CPI basket, using 2012/13 HES, from the September 2014 quarter CPI release.

### More information

More information about the consumers price index is available on our website.

Statistics in this release have been produced in accordance with the Official Statistics System principles and protocols for producers of Tier 1 statistics for quality. They conform to the Statistics NZ Methodological Standard for Reporting of Data Quality.

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## Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the files, see [opening files and PDFs](#).

From the June 2012 quarter, the consumers price index table formatting has been updated.

1. Consumers price index, tradables, non-tradables, and all groups – index numbers and percentage changes
- 2.01 Consumers price index, groups and subgroups – index numbers
- 2.02 Consumers price index, groups and subgroups, percentage change from previous quarter
- 2.03 Consumers price index, groups and subgroups, percentage change from same quarter of previous year
- 3.01 Consumers price index, selected groupings – index numbers
- 3.02 Consumers price index, selected groupings, percentage change from previous quarter
- 3.03 Consumers price index, selected groupings, percentage change from same quarter of previous year
4. International comparisons of consumer price indexes, excluding housing and household utilities group and credit services class – index numbers and percentage change
5. Weighted average retail prices of selected items
6. Consumers price index, expenditure weights, by group
7. Consumers price index, regional expenditure weights
- 8.01 Contribution to all groups and percentage change from previous quarter, by group, subgroup, or class
- 8.02 Contribution to all groups and percentage change from same quarter of previous year, by group, subgroup, or class
9. Consumers price index, expenditure weights, by group, subgroup, or class
10. Consumers price index, COICOP divisions – index numbers and percentage changes
11. Consumers price index, trimmed means and all groups – percentage changes
12. Consumers price index, weighted percentiles and all groups – percentage changes
13. Distribution of national item-level index movements from previous quarter

## Supplementary tables

These tables provide longer time-series information than the tables above. Given the long time-series nature of the tables, they are not suitable for printing. See the 'Downloads' box.

1. Consumers price index, tradables, non-tradables, and all groups – index numbers and percentage changes
- 2.01 Consumers price index, groups and subgroups – index numbers
- 2.02 Consumers price index, groups and subgroups, percentage change from previous quarter
- 2.03 Consumers price index, groups and subgroups, percentage change from same quarter of previous year
- 3.01 Consumers price index, selected groupings – index numbers
- 3.02 Consumers price index, selected groupings, percentage change from previous quarter
- 3.03 Consumers price index, selected groupings, percentage change from same quarter of previous year
- 4.01 Consumers price index, purchase of housing class, selected regions – index numbers and percentage changes
- 4.02 Consumers price index, actual rentals for housing subgroup, selected regions – index numbers and percentage changes
- 5.01 Consumers price index, percentage of prices that were discounted in quarter

5.02 Consumers price index, average quarterly percentage price change of items that were discounted in quarter

## Access more data on Infoshare

Use [Infoshare](#), a free online tool to access time-series data specific to your needs.

To access the CPI time series, select the following from the homepage:

Subject category: **Economic indicators**

Group: **Consumers Price Index**

The CPI series provide additional information to that included in this release, including:

- index series for the CPI and its groups, subgroups, classes, and selected sections
- indexes compiled under the international classification of Classification of Individual Consumption according to Purpose (COICOP)
- the CPI, and selected groups, for the five broad regions
- non-standard aggregations of indexes (for example, alcoholic beverages consumed off licensed premises)
- analytical measures of price change
- historical seasonally unadjusted index series
- average prices for a selection of items in the CPI basket.

The time series can be downloaded in Excel or comma delimited format. Percentage movements can be calculated using the following formula:

$$\left( \frac{\text{Index number for later period} - \text{Index number for earlier period}}{\text{Index number for earlier period}} \right) \times 100$$

More information about [Infoshare](#) can be found on our website.