

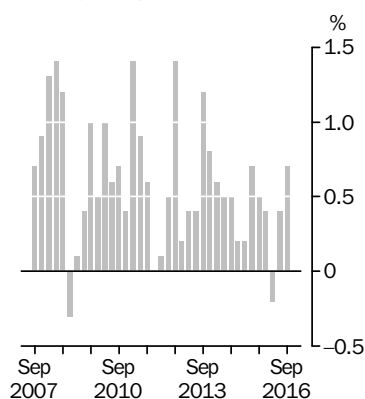
**CONSUMER PRICE INDEX**

AUSTRALIA

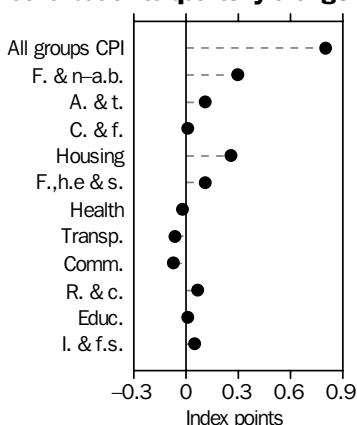
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**All Groups CPI**

Quarterly change



**Contribution to quarterly change**



**KEY FIGURES**

**WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES**

	<i>Jun Qtr 2016 to Sep Qtr 2016</i> % change	<i>Sep Qtr 2015 to Sep Qtr 2016</i> % change
<b>All groups CPI</b>	<b>0.7</b>	<b>1.3</b>
Food and non-alcoholic beverages	1.7	1.5
Alcohol and tobacco	1.1	5.7
Clothing and footwear	0.3	1.2
Housing	1.0	1.8
Furnishings, household equipment and services	1.1	1.9
Health	-0.2	3.9
Transport	-0.5	-3.4
Communication	-2.3	-7.5
Recreation and culture	0.6	0.6
Education	0.2	3.3
Insurance and financial services	0.9	2.9
<b>CPI analytical series</b>		
All groups CPI, seasonally adjusted	0.4	1.4
Trimmed mean	0.4	1.7
Weighted median	0.3	1.3

**KEY POINTS**

**THE ALL GROUPS CPI**

- rose 0.7% this quarter, compared with a rise of 0.4% in the June quarter 2016.
- rose 1.3% over the twelve months to the September quarter 2016, compared with a rise of 1.0% over the twelve months to the June quarter 2016.

**OVERVIEW OF CPI MOVEMENTS**

- The most significant price rises this quarter are fruit (+19.5%), electricity (+5.4%), vegetables (+5.9%), tobacco (+2.3%) and property rates and charges (+4.0%).
- The most significant offsetting price falls this quarter are automotive fuel (-2.9%) and telecommunication equipment and services (-2.5%).

**INQUIRIES**

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

# NOTES

## FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
December 2016	25 January 2017
March 2017	26 April 2017
June 2017	26 July 2017
September 2017	25 October 2017

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## CHANGES IN THIS ISSUE

This issue contains the feature article 'Review of the Consumer Price Index International Trade Exposure Series'. The changes outlined in this review will be implemented in the December quarter 2016 issue of the CPI, which is scheduled for release on 25 January 2017.

The CPI Annual Seasonal Re-analysis (ASR) was conducted in the September quarter 2016. The ASR assesses the CPI seasonal patterns in more detail than is possible in the quarterly processing cycle. The outcomes of the ASR are provided in the Appendix to this issue.

Changes to the seasonally adjusted CPI series do not affect the original CPI index series.

For more information about seasonal adjustment, see paragraphs 14 to 17 of the Explanatory notes.

## ROUNDING

Any discrepancies between totals and sums of components in this publication are due to rounding.

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## ABBREVIATIONS

ABS Australian Bureau of Statistics  
CPI Consumer Price Index  
n.e.c. not elsewhere classified

David W. Kalisch  
Australian Statistician

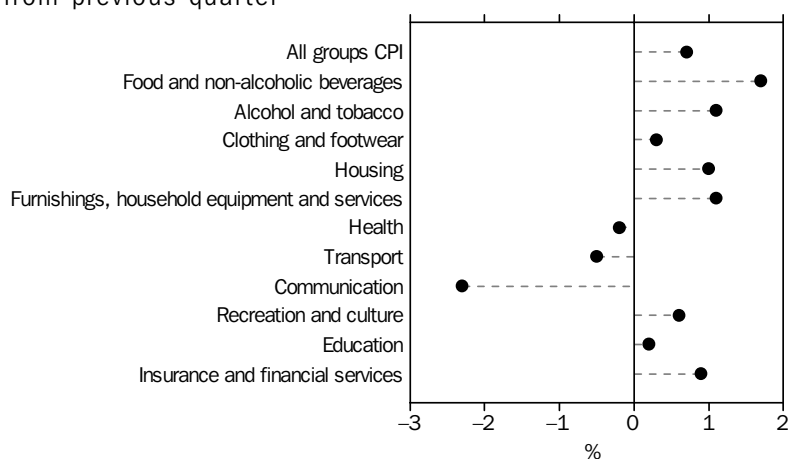
## MAIN CONTRIBUTORS TO CHANGE

### MAIN CONTRIBUTORS TO CHANGE

#### CPI GROUPS

The discussion of the CPI groups below is ordered in terms of their absolute significance to the change in All groups index points for the quarter (see Tables 6 and 7). Unless otherwise stated, the analysis is in original terms.

WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES, Percentage change from previous quarter



#### FOOD AND NON-ALCOHOLIC BEVERAGES GROUP (+1.7%)

The main contributors to the rise in the food and non-alcoholic beverages group this quarter are fruit (+19.5%) and vegetables (+5.9%). The rise in fruit and vegetable prices is due to adverse weather conditions, including floods, in major growing areas, impacting supply.

Over the last twelve months, the food and non-alcoholic beverages group rose 1.5%. The main contributor to the rise is vegetables (+11.9%).

In seasonally adjusted terms, the food and non-alcoholic beverages group recorded a rise of 1.2%. The main contributor to the rise is fruit (+7.9%).

#### HOUSING GROUP (+1.0%)

The main contributors to the rise in the housing group this quarter are electricity (+5.4%) and property rates and charges (+4.0%). The rise in electricity is driven by increases in wholesale electricity costs across the eastern and southern states.

Over the last twelve months, the housing group rose 1.8%. The main contributor to the rise is new dwelling purchase by owner-occupiers (+1.6%).

In seasonally adjusted terms, the housing group rose 0.1% this quarter. The main contributor to the rise is electricity (+1.8%).

#### ALCOHOL AND TOBACCO GROUP (+1.1%)

The main contributors to the rise in the alcohol and tobacco group this quarter are tobacco (+2.3%) and beer (+0.8%). The rise in tobacco is mainly due to the effects of the federal excise tax increase effective from 1 September 2016.

Over the last twelve months, the alcohol and tobacco group rose 5.7%. The main contributor to the rise is tobacco (+13.1%).

In seasonally adjusted terms, the alcohol and tobacco group rose 1.4% this quarter. The main contributor to the rise is tobacco (+3.0%).

## MAIN CONTRIBUTORS TO CHANGE *continued*

### FURNISHINGS, HOUSEHOLD EQUIPMENT AND SERVICES GROUP (+1.1%)

The main contributors to the rise in the furnishings, household equipment and services group this quarter are childcare (+3.6%) and household textiles (+5.9%).

Over the last twelve months, the furnishings, household equipment and services group rose 1.9%. The main contributor to the rise is child care (+7.9%).

In seasonally adjusted terms, the furnishings, household equipment and services group rose 0.6% this quarter.

### COMMUNICATION GROUP (-2.3%)

The main contributor to the fall in the communication group this quarter is telecommunication equipment and services (-2.5%).

Over the last twelve months, the communication group fell 7.5%. The main contributor to the fall is telecommunication equipment and services (-7.9%).

The communication group is not seasonally adjusted.

### RECREATION AND CULTURE GROUP (+0.6%)

The main contributor to the rise in the recreation and culture group this quarter is international holiday travel and accommodation (+1.9%). The rise in international travel and accommodation is typical of the summer peak seasons in Europe and America.

Over the last twelve months, the recreation and culture group rose 0.6%. The main contributors to the rise are international holiday travel and accommodation (+2.5%) and other recreational, sporting and cultural services (+3.5%). This is partially offset by a fall in audio, visual and computing equipment (-8.9%).

In the CPI, airfares are collected in advance (at the time of payment), but are only used in the CPI in the quarter in which the trip is undertaken. International airfares are collected two months in advance (July for travel in September) and domestic airfares are collected one month in advance (August for travel in September).

In seasonally adjusted terms, the recreation and culture group fell 0.2% this quarter. The main contributor to the fall is international holiday travel and accommodation (-1.9%).

### TRANSPORT GROUP (-0.5%)

The main contributor to the fall in the transport group this quarter is automotive fuel (-2.9%). Automotive fuel fell in July (-5.5%) and August (-5.3%), and rose in September (+4.7%). All fuel types recorded decreases this quarter with the exception of diesel. The fall is partially offset by a rise in other services in respect of motor vehicles (+1.5%).

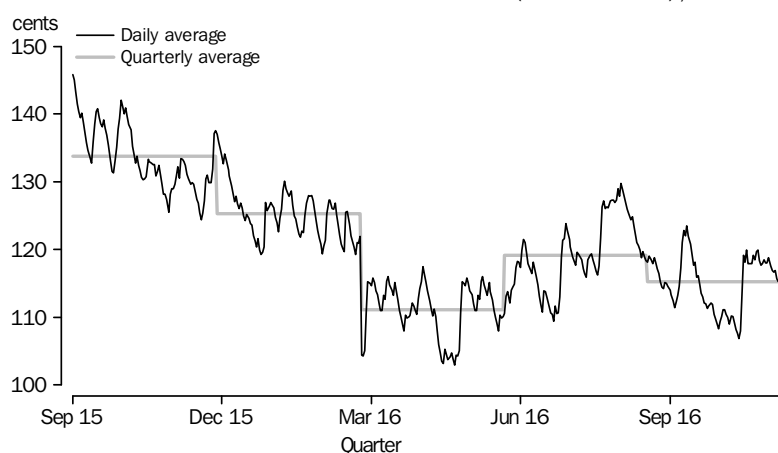
The following graph shows the pattern of the average daily prices for unleaded petrol for the eight capital cities over the last fifteen months.

## MAIN CONTRIBUTORS TO CHANGE *continued*

### TRANSPORT GROUP

(-0.5%) *continued*

AVERAGE PRICE OF UNLEADED PETROL (91 OCTANE), cents per litre



Over the last twelve months, the transport group fell 3.4%. The main contributor to the fall is automotive fuel (-12.6%). This is partially offset by a rise in other services in respect of motor vehicles (+1.8%).

In seasonally adjusted terms, the transport group fell 0.8% this quarter. The main contributor to the fall is automotive fuel (-2.9%).

### INSURANCE AND FINANCIAL SERVICES GROUP (+0.9%)

The main contributor to the rise in the insurance and financial services group this quarter is insurance (+2.5%).

Over the last twelve months, the insurance and financial services group rose 2.9%. The main contributor to the rise is insurance (+7.8%).

In seasonally adjusted terms, the insurance and financial services group rose 0.8% this quarter. The main contributor to the rise is insurance (+2.3%).

### HEALTH GROUP (-0.2%)

The main contributor to the fall in the health group this quarter is pharmaceutical products (-0.9%). The fall is due to the cyclical effect of a greater proportion of consumers exceeding the Pharmaceutical Benefits Scheme (PBS) safety net.

Over the last twelve months, the health group rose 3.9%. The main contributor to the rise is medical and hospital services (+5.4%).

In seasonally adjusted terms, the health group rose 0.8% this quarter. The main contributor to the rise is medical and hospital services (+1.2%).

### CLOTHING AND FOOTWEAR GROUP (+0.3%)

The main contributor to the rise in the clothing and footwear group this quarter is accessories (+5.7%).

Over the last twelve months, the clothing and footwear group rose 1.2%. The main contributor to the rise is accessories (+6.5%).

In seasonally adjusted terms, the clothing and footwear group recorded no movement this quarter.

### EDUCATION GROUP (+0.2%)

The main contributor to the rise in the education group this quarter is tertiary education (+0.2%).

## MAIN CONTRIBUTORS TO CHANGE *continued*

### EDUCATION GROUP (+0.2%) *continued*

Over the last twelve months, the education group rose 3.3%. The main contributor to the rise is secondary education (+4.6%).

In seasonally adjusted terms, the education group rose 1.4% this quarter. The main contributors to the rise are tertiary education (+1.4%) and secondary education (+1.3%).

### INTERNATIONAL TRADE EXPOSURE - TRADABLES AND NON-TRADABLES

The tradables component (see Table 8) of the All groups CPI rose 1.0% this quarter. Price changes for the goods and services in this component are largely determined on the world market. The tradables component represents approximately 40% of the weight of the CPI. The most significant contributor to the 0.9% rise in the tradable goods component is fruit (+19.5%). The most significant offsetting fall in the tradable goods component is automotive fuel (-2.9%). The rise in the tradable services component of 1.9% is driven by international holiday travel and accommodation (+1.9%).

The non-tradables component of the All groups CPI rose 0.5% this quarter. Price changes for the goods and services in this component are largely determined by domestic price pressures. The non-tradables component represents approximately 60% of the weight of the CPI. The most significant contributor to the 0.8% rise in the non-tradable goods component is electricity (+5.4%). The rise in the non-tradable services component of 0.4% is driven by property rates and charges (+4.0%). The most significant offsetting fall in the non-tradable services component is telecommunication equipment and services (-2.5%).

Over the last twelve months, the tradables component rose 0.7%, while the non-tradables component rose 1.7%. This compares to no movement and a rise of 1.6% respectively over the twelve months to the previous quarter.

In seasonally adjusted terms, the tradables component of the All groups CPI rose 0.4% this quarter, while the non-tradables component rose 0.4%.

A detailed description of which expenditure classes are classified as tradable and non-tradable in the 16th series is shown in Appendix 1 of the September quarter 2011 issue of Consumer Price Index, Australia (cat. no 6401.0).

### SEASONALLY ADJUSTED ANALYTICAL SERIES

The All groups CPI seasonally adjusted rose 0.4% this quarter, compared to the original All groups CPI which recorded a rise of 0.7%.

The trimmed mean rose 0.4% this quarter, compared to a rise of 0.5% in the June quarter 2016. Over the last twelve months, the trimmed mean rose 1.7%, compared to a rise of 1.7% over the twelve months to the June quarter 2016.

The weighted median rose 0.3% this quarter, compared to a revised rise of 0.5% in the June quarter 2016. Over the last twelve months, the weighted median rose 1.3%, compared to a revised rise of 1.5% over the twelve months to the June quarter 2016.

## MAIN CONTRIBUTORS TO CHANGE *continued*

SEASONALLY ADJUSTED

ANALYTICAL SERIES

*continued*

	ORIGINAL	SEASONALLY ADJUSTED
	Jun Qtr 2016 to Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016
	%	%
<b>All groups CPI</b>	<b>0.7</b>	<b>0.4</b>
Food and non-alcoholic beverages	1.7	1.2
Alcohol and tobacco	1.1	1.4
Clothing and footwear	0.3	0.0
Housing	1.0	0.1
Furnishings, household equipment and services	1.1	0.6
Health	-0.2	0.8
Transport	-0.5	-0.8
Communication(a)	-2.3	-2.3
Recreation and culture	0.6	-0.2
Education	0.2	1.4
Insurance and financial services	0.9	0.8
International trade exposure series		
Tradables	1.0	0.4
Non-tradables	0.5	0.4

(a) not seasonally adjusted

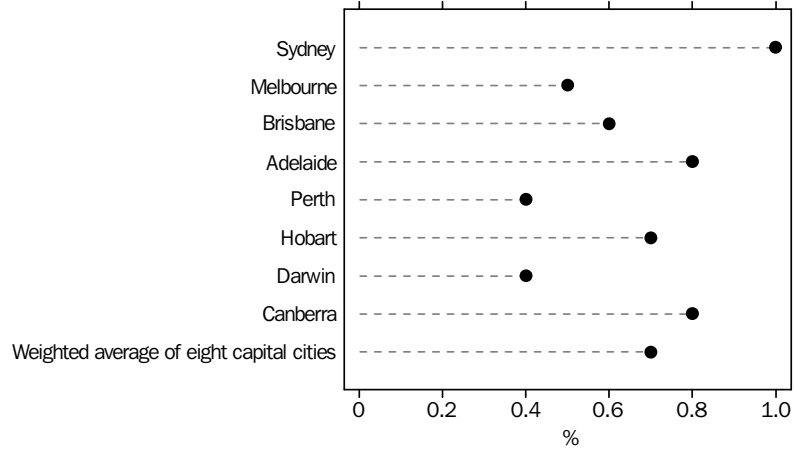
A detailed explanation of the seasonal adjustment of the All Groups CPI and calculation of the trimmed mean and weighted median measures is available in *Information Paper: Seasonal Adjustment of Consumer Price Indexes, 2011* (cat. no. 6401.0.55.003) available on the ABS website. Revisions to the seasonally adjusted estimates can be the result of the application of concurrent seasonal adjustment, described in paragraph 15 of the Explanatory Notes.

## CAPITAL CITIES COMPARISON

### CAPITAL CITIES COMPARISON

ALL GROUPS CPI

ALL GROUPS CPI, Percentage change from previous quarter



At the All groups level, the CPI rose in all eight capital cities this quarter.

The food and non-alcoholic beverages group (+1.7%) is the most significant positive contributor to the All groups quarterly movement, with rises across all eight capital cities. The rise in fruit and vegetable prices is due to adverse weather conditions, including floods, in major growing areas, impacting supply. However, Perth recorded a smaller rise than other cities due to WA fruit growing regions being much less impacted by adverse weather than growing regions in eastern Australia.

The housing group (+1.0%) is the second most significant positive contributor to the All groups quarterly movement, with rises in six of eight capital cities. This is driven by rises in electricity (+5.4%), due to electricity supply constraints and wholesale cost increases across the eastern and southern states. Property rates and charges (+4.0%) also contributed to the rise this quarter, as rates are adjusted annually in September quarters.

The alcohol and tobacco group (+1.1%) is the third most significant positive contributor to the All groups quarterly movement, with rises in all eight capital cities. The rise is driven by increases in tobacco (+2.3%), mainly due to the effects of the federal excise tax increase effective from 1 September 2016.

The most significant offsetting negative contributor to the All groups quarterly movement is the communication group (-2.3%). The fall is driven by telecommunication equipment and services (-2.5%) and is due to strong continued competition amongst service providers.

Over the last twelve months to September quarter 2016, the All groups CPI has risen in seven out of eight capital cities with Sydney (+1.7%) recording the largest positive movement. Darwin (0.0%) recorded no movement.



## CAPITAL CITIES COMPARISON *continued*

### ALL GROUPS CPI *continued*

#### ALL GROUPS CPI, All groups index numbers and percentage changes

	INDEX	PERCENTAGE CHANGE	
	NUMBER(a)		
	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016	Sep Qtr 2015 to Sep Qtr 2016
Sydney	110.4	1.0	1.7
Melbourne	109.1	0.5	1.4
Brisbane	109.7	0.6	1.5
Adelaide	108.4	0.8	1.2
Perth	108.6	0.4	0.5
Hobart	107.1	0.7	1.3
Darwin	108.7	0.4	0.0
Canberra	107.3	0.8	1.4
Weighted average of eight capital cities	109.4	0.7	1.3

(a) Index reference period: 2011–12 = 100.0.

#### SYDNEY (+1.0%)

The main contributors to the rise in Sydney this quarter are electricity (+10.4%), fruit (+23.5%) and vegetables (+6.5%). The rise in electricity is due to increases in wholesale electricity costs. The rise is partially offset by falls in automotive fuel (-2.6%), water and sewerage (-7.4%) and telecommunication equipment and services (-2.5%).

#### MELBOURNE (+0.5%)

The main contributors to the rise in Melbourne this quarter are fruit (+21.3%), tobacco (+2.8%), vegetables (+6.8%) and property rates and charges (+5.0%). The rise in property rates and charges is due to increases in general rates, garbage charges and other levies. The rise is partially offset by falls in automotive fuel (-4.2%) and motor vehicles (-2.9%). The fall in motor vehicles is due to dealerships offering extended end of financial year sales.

#### BRISBANE (+0.6%)

The main contributors to the rise in Brisbane this quarter are fruit (+19.4%), tobacco (+2.4%) and electricity (+3.2%). The rise in electricity is due to market adjustments following price deregulation in South-East Queensland on 1 July 2016. The most significant offsetting falls are automotive fuel (-4.5%) and telecommunication equipment and services (-2.5%).

#### ADELAIDE (+0.8%)

The main contributors to the rise in Adelaide this quarter are electricity (+11.6%), fruit (+23.8%), vegetables (+8.5%) and tobacco (+2.5%). The rise in electricity is due to supply constraints and wholesale cost increases. The rise is partially offset by falls in gas and other household fuels (-10.0%), water and sewerage (-6.3%) and telecommunication equipment and services (-2.6%). The fall in gas and other household fuels is driven by retailers passing on reductions in network costs.

#### PERTH (+0.4%)

The main contributors to the rise in Perth this quarter are insurance (+11.2%) and tobacco (+2.5%). The rise in insurance is due to the introduction of universal catastrophic injury insurance for all motorists in WA, resulting in an additional charge for all new and existing compulsory third party premiums. The rise is partially offset by falls in rents (-2.2%) and telecommunication equipment and services (-2.5%). The fall in rents is due to a continuation of high vacancy rates. Fruit (+3.6%) recorded a small rise when

## CAPITAL CITIES COMPARISON *continued*

PERTH (+0.4%) *continued*

compared to other cities, as WA fruit growing regions have been much less affected by adverse weather than growing regions in eastern Australia.

HOBART (+0.7%)

The main contributors to the rise in Hobart this quarter are fruit (+26.6%), tobacco (+3.8%) and electricity (+3.5%). The rise in electricity is due to increases in wholesale electricity costs. The rise is partially offset by domestic holiday travel and accommodation (-2.3%), due to increases in airline capacity following the addition of services to Hobart from Sydney and Melbourne.

DARWIN (+0.4%)

The main contributors to the rise in Darwin this quarter are domestic holiday travel and accommodation (+7.7%), fruit (+18.9%), vegetables (+6.8%) and tobacco (+2.5%). The rise in domestic holiday travel and accommodation is due to the peak tourist season in Darwin. The rise is partially offset by falls in rents (-2.4%) and other financial services (-3.6%). The fall in other financial services is due to the introduction of a First Home Owner Discount on stamp duty.

CANBERRA (+0.8%)

The main contributors to the rise in Canberra this quarter are fruit (+20.0%), property rates and charges (+8.2%) and electricity (+6.3%). The rise in property rates and charges is typical for this time of year. The rise is partially offset by falls in garments for women (-6.3%) and gas and other household fuels (-4.5%). The fall in gas and other household fuels is due to lower network and distribution charges in the ACT.

## FEATURE ARTICLE

### REVIEW OF THE CONSUMER PRICE INDEX INTERNATIONAL TRADE EXPOSURE SERIES

#### SUMMARY OF OUTCOMES

The Australian Bureau of Statistics (ABS) has reviewed the classification of the Consumer Price Index (CPI) expenditure classes (ECs) as either tradables or non-tradables. This review maintains the relevance of the International Trade Exposure series.

As a result of this review, five ECs that were classified as non-tradables will be re-classified as tradables: Breakfast cereals, Waters, soft drinks and juices, Gas and other household fuels, Therapeutic appliances and equipment and Newspapers, magazines and stationery; and three ECs that were classified as tradables will be re-classified as non-tradables: Spirits, Tobacco and Pharmaceutical products.

These changes to the classification of ECs will be implemented in the December quarter 2016 issue of the CPI which is scheduled for release on 25 January 2017.

In addition, the ABS will, over the coming months and in consultation with users, further consider the terminology for these series with a view to use terms that reflect their primary purpose: measuring the source of consumer inflation. Please provide feedback on series names to [prices.statistics@abs.gov.au](mailto:prices.statistics@abs.gov.au) by 30th November 2016. The ABS Privacy Policy outlines how the ABS will handle your personal information.

Proposed changes to terminology will be communicated to users in advance of implementation. If changes to terminology are to occur, these will be updated as part of the CPI re-weight scheduled for the December quarter 2017.

#### INTRODUCTION

The CPI Tradables and Non-tradables series, collectively known as the International Trade Exposure series, measure the contribution of domestic (non-tradables) and imported (tradables) inflation to overall household inflation. Identifying the source of household inflation supports the understanding and forecasting of inflation, as well as supporting monetary and fiscal policy decisions.

The International Trade Exposure series classifies ECs as either tradables or non-tradables by assessing the degree to which their prices are affected by domestic developments and international competition. The Tradables and Non-tradables series are available each quarter in table 8 of the CPI publication.

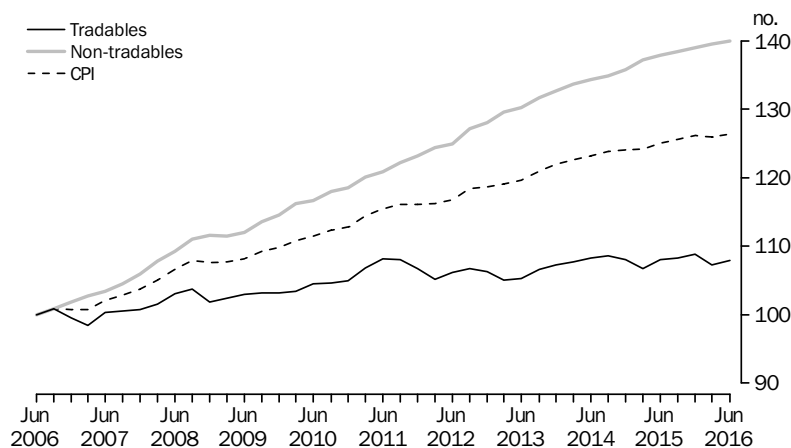
The current classification of CPI ECs as tradables or non-tradables is listed in appendix 1. Of the 87 ECs in the CPI, 40 are classified as non-tradables, and 47 as tradables. Non-tradables contributes approximately 64 per cent of the CPI, while tradables contributes the remaining 36 per cent.

The International Trade Exposure series classification was last updated in 2011 as part of the 16th Series CPI Review. Data from the 2006-07 Input-Output tables were used to classify each of the CPI ECs. Price indexes for these series can be found in Figure 1.

Figure 1 shows over the past ten years tradables inflation increased by around 10 per cent, while non-tradables inflation increased by 40 per cent. The lower production costs of imports and the strength of the Australian dollar has reduced the prices of imports and resulted in a smaller increase in the Tradables series, while growth in domestic wages and changes in administered taxes has contributed to the larger increase in the Non-tradables series.

INTRODUCTION *continued*

TRADABLES AND NON-TRADABLES INDEX NUMBERS:  
Australia—(Jun-2006=100.0)



CONCEPT

The CPI International Trade Exposure series measures the contributions of domestic (non-tradables) and imported (tradables) inflation to household inflation.

The CPI is a measure of price change. Ideally, therefore, the classification of CPI ECs as tradables or non-tradables would be determined by assessing the contribution of the domestic and imported impacts to the overall price change (rather than the contribution to the price level)<sup>1</sup>. However, in practice, this approach is difficult to implement.

Data limitations affect the ability to quantify the impact of domestic and international forces on the price change. Therefore, the predominant method used to assist in the classification of CPI ECs relies on the internationally traded contributions on the price level of each CPI EC. Put simply, the classification between tradables and non-tradables distinguishes ECs by the degree to which their prices are affected by domestic developments and international competition. Additional analysis is also conducted to determine the final classification.

METHOD AND DATA  
SOURCES

Three steps were used to classify the CPI ECs as either tradables or non-tradables:

1. Assess the level of imports and exports to determine a 'default' classification;
2. Utilise supplementary data to determine the appropriateness of the default classification; and
3. Analyse the contribution of domestic taxes and subsidies.

*Step 1: Assess the level of imports and exports*

The ratio of imports and exports to Australian production for each EC was calculated and compared against a threshold. If this threshold was exceeded, either by imports, exports or both, then the EC was classified (by default) as tradable.

Data on imports, exports and Australian production were sourced from the 2013-14 Input-Output tables (cat. no. 5209.0.55.001). These data were adjusted to exclude expenditure by international tourists. Data from the 2013-14 Tourism Satellite Account (cat. no. 5249.0) was used to exclude expenditure by international tourists from the data

<sup>1</sup> These two perspectives can result in the same EC being classified differently. An obvious example of this is tobacco. Tobacco is largely imported, and therefore assessing its price level one would classify it as tradable. However, the price change of tobacco is predominantly due to changes in the domestic taxes on tobacco (e.g. the federal excise tax), which on this basis would see it classified as non-tradable.

*Step 1: Assess the level of imports and exports continued*

in the Input-Output (I-O) tables. These data were then mapped from the I-O product classification to the CPI Commodity Classification.

*Step 2: Utilise supplementary data*

The use of a threshold in step 1 provided a 'rule of thumb' in an attempt to simply and transparently classify each of the CPI ECs. However, it was also important to assess the appropriateness of each EC's classification from a consumer price change perspective.

An assessment of the appropriateness of the classification of each EC using the threshold approach was conducted, particularly for those ECs which were close to the threshold. The threshold approach was supplemented by information on correlations with exchange rates, supporting trade data, significant world events and the regulatory environment within which prices are set.

*Step 3: Analyse the contribution of domestic taxes and subsidies*

Changes to taxes and subsidies are a domestic contribution to inflation. Therefore, the contribution of taxes and subsidies on the price paid by consumers was estimated to determine the classification of ECs as either tradables or non-tradables. Data from the 2013-14 Input-Output tables were used to determine the contribution of taxes and subsidies to final demand<sup>2</sup>. Where taxes and subsidies make a large contribution to the prices paid by consumers on products within an EC, these ECs were classified as non-tradables.

## RESULTS

For step 1, a number of thresholds were tested to identify the optimal level where the classification of ECs as tradables was deemed appropriate. At a threshold value of ten per cent, 53 ECs were considered tradables, which is comparable to the 47 that are currently classified as tradables. The ECs that were considered non-tradables at this threshold were found to largely consist of services, with only a handful of goods.

Based on this analysis, a ten per cent threshold was determined as the optimal level of international exposure for classifying the ECs as tradables or non-tradables.

Using the ten per cent threshold, the default classification showed six ECs changing classification from non-tradables to tradables:

- Waters, soft drinks and juices;
- Beer;
- Gas and other household fuels;
- Therapeutic appliances and equipment;
- Telecommunication equipment and services;
- Domestic holiday travel and accommodation.

In the case of Waters, soft drinks and juices, Gas and other household fuels and Therapeutic appliances and equipment, there was ample evidence that the prices of products within these ECs being influenced by international competition. As part of the 2011 review it was decided to classify Gas and other household fuels as non-tradable due to the prices being highly regulated. However, more recently, the price of gas has

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<sup>2</sup> For the contribution of taxes, the purchasers' price was used. This is the amount paid by the purchaser, excluding any deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place. Australian System of National Accounts, 2014-15 (cat. no. 5204.0)

RESULTS *continued*

become increasingly exposed to international competition, coinciding with a surge in liquefied natural gas exports. As a result, Gas and other household fuels will change classification from non-tradable to tradable.

Step 2 involved using supplementary data, which showed that there was a strong case to leave the classification of Telecommunication equipment and services and Domestic holiday travel and accommodation as non-tradables. In the case of Telecommunication equipment and services, imports are predominately mobile phone handsets, which are commonly bundled together with other products, most of which are services and considered non-tradable. For Domestic holiday travel and accommodation, prices are largely unaffected by international competition. Although a significant proportion of Domestic holiday travel and accommodation are exports, the range of services is something that cannot be met by producers in another country.

Further analysis of two ECs: Breakfast cereals and Newspapers, magazines and stationery, were added to the list of changes, with both ECs being close to the ten per cent threshold.

In analysing taxes and subsidies data, step 3 saw three ECs re-classified from tradables to non-tradables: Spirits, Tobacco, and Pharmaceutical products, while the Beer EC has remained as non-tradable. Any changes to the taxes or subsidies to the products within these ECs will be reflected as a domestic impact and captured in the non-tradables series.

As a result of this review, a list of the ECs changing classification is shown in table 1. In all, there are five ECs changing from non-tradables to tradables, and three ECs changing from tradables to non-tradables.

TABLE 1: EXPENDITURE CLASSES CHANGING STATUS

<i>CPI expenditure class</i>	<i>Current classification</i>	<i>New classification</i>
Breakfast cereals	Non-tradables	Tradables
Waters, soft drinks and juices	Non-tradables	Tradables
Gas and other household fuels	Non-tradables	Tradables
Therapeutic appliances and equipment	Non-tradables	Tradables
Newspapers, magazines and stationery	Non-tradables	Tradables
Spirits	Tradables	Non-tradables
Tobacco	Tradables	Non-tradables
Pharmaceutical products	Tradables	Non-tradables

SUMMARY

It is important to regularly review and update the International Trade Exposure series as the Australian economy's exposure to international competition changes over time. While the fundamental concern of this analysis was the source (domestic or imported) of inflation, the method used in this analysis focused on the price level rather than the price change. A ten per cent threshold was assessed and deemed an appropriate level of exposure to international competition to be classified as tradable.

SUMMARY *continued*

The ten per cent threshold was used as a rule of thumb to classify the CPI ECs as either tradables or non-tradables. Further analysis using supplementary data, and an assessment of the contribution of domestic taxes and subsidies was conducted to ensure the appropriateness of each EC's classification. The end result was five ECs changing classification from non-tradables to tradables, and three ECs changing classification from tradables to non-tradables.

APPENDIX 1: CURRENT CLASSIFICATION OF TRADABLES AND NON-TRADABLES

TRADABLES COMPONENT

NON-TRADABLES COMPONENT

**Food and non-alcoholic beverages**

Cakes and biscuits; Other cereal products; Beef and veal; Pork; Lamb and goat; Other meats; Fish and other seafood; Cheese; Ice cream and other dairy products; Fruit; Vegetables; Jams, honey and spreads; Food additives and condiments; Oils and fats; Snacks and confectionery; Other food products n.e.c.; Coffee, tea and cocoa.

Bread; Breakfast cereals; Poultry; Milk; Eggs; Waters, soft drinks and juices; Restaurant meals; Take away and fast foods.

**Alcohol and tobacco**

Spirits; Wine; Tobacco.

Beer.

**Clothing and footwear**

Garments for men; Garments for women; Garments for infants and children; Footwear for men; Footwear for women; Footwear for infants and children; Accessories.

Cleaning, repair and hire of clothing and footwear.

**Housing**

Rents; New dwelling purchase by owner-occupiers; Maintenance and repair of the dwelling; Property rates and charges; Water and sewerage; Electricity; Gas and other household fuels.

**Furnishings, household equipment and services**

Furniture; Carpets and other floor coverings; Household textiles; Major household appliances; Small electric household appliances; Glassware, tableware and household utensils; Tools and equipment for house and garden; Cleaning and maintenance products; Personal care products; Other non-durable household products.

Child care; Hairdressing and personal grooming services; Other household services.

**Health**

Pharmaceutical products.

Therapeutic appliances and equipment; Medical and hospital services; Dental services.

**Transport**

Motor vehicles; Spare parts and accessories for motor vehicles; Automotive fuel.

Maintenance and repair of motor vehicles; Other services in respect of motor vehicles; Urban transport fares.

**Communication**

Postal services; Telecommunication equipment and services.

**Recreation and culture**

Audio, visual and computing equipment; Audio, visual and computing media and services; Books; International holiday travel and accommodation; Equipment for sports, camping and open-air recreation; Games, toys and hobbies.

Newspapers, magazines and stationery; Domestic holiday travel and accommodation; Veterinary and other services for pets; Sports participation; Other recreational, sporting and cultural services; Pets and related products.

**Education**

Preschool and primary education; Secondary education; Tertiary education.

**Insurance and financial services**

Insurance; Deposit and loan facilities (direct charges); Other financial services.





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## ALL GROUPS CPI, Index numbers(a)

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
<b>2012-13</b>	102.6	102.2	102.0	102.1	102.2	101.2	103.1	101.9	102.3
<b>2013-14</b>	105.2	105.0	104.9	104.7	105.3	103.7	106.9	104.2	105.0
<b>2014-15</b>	107.3	106.5	106.8	106.3	107.2	104.9	108.4	105.3	106.8
<b>2015-16</b>	108.9	108.2	108.5	107.2	108.2	106.3	108.5	106.1	108.3
<b>2012</b>									
September	102.2	101.6	101.6	101.7	101.6	100.6	102.0	101.4	101.8
December	102.3	102.0	101.9	102.1	101.9	101.0	102.0	101.8	102.0
<b>2013</b>									
March	102.7	102.4	102.0	102.1	102.4	101.3	103.7	101.9	102.4
June	103.1	102.6	102.5	102.3	103.0	101.7	104.6	102.5	102.8
September	104.3	104.0	103.8	103.7	104.2	102.6	105.5	103.1	104.0
December	105.0	104.8	104.6	104.4	104.9	103.6	106.5	104.1	104.8
<b>2014</b>									
March	105.6	105.3	105.2	105.1	105.6	104.1	107.4	104.6	105.4
June	106.0	105.9	105.8	105.5	106.4	104.5	108.1	104.8	105.9
September	106.6	106.1	106.5	105.9	106.9	104.6	108.3	105.2	106.4
December	106.8	106.3	106.7	106.2	107.0	104.7	108.5	105.3	106.6
<b>2015</b>									
March	107.3	106.4	106.7	106.3	107.1	105.0	108.3	105.2	106.8
June	108.3	107.1	107.4	106.8	107.7	105.1	108.3	105.6	107.5
September	108.6	107.6	108.1	107.1	108.1	105.7	108.7	105.8	108.0
December	108.9	108.3	108.5	107.3	108.6	106.6	109.0	106.0	108.4
<b>2016</b>									
March	108.7	108.2	108.5	107.0	107.9	106.4	108.0	106.2	108.2
June	109.3	108.6	109.0	107.5	108.2	106.4	108.3	106.4	108.6
September	110.4	109.1	109.7	108.4	108.6	107.1	108.7	107.3	109.4

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

## ALL GROUPS CPI, Percentage changes

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
PERCENTAGE CHANGE (from previous financial year)									
<b>2012-13</b>	2.6	2.2	2.0	2.1	2.2	1.2	3.1	1.9	2.3
<b>2013-14</b>	2.5	2.7	2.8	2.5	3.0	2.5	3.7	2.3	2.6
<b>2014-15</b>	2.0	1.4	1.8	1.5	1.8	1.2	1.4	1.1	1.7
<b>2015-16</b>	1.5	1.6	1.6	0.8	0.9	1.3	0.1	0.8	1.4
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
<b>2012</b>									
September	2.3	1.8	1.7	1.7	2.0	0.7	2.1	1.6	2.0
December	2.5	2.1	2.2	2.1	2.1	1.0	2.5	1.7	2.2
<b>2013</b>									
March	2.8	2.5	2.1	2.2	2.4	1.0	3.8	2.2	2.5
June	2.6	2.2	2.0	2.1	2.5	1.8	3.9	2.2	2.4
September	2.1	2.4	2.2	2.0	2.6	2.0	3.4	1.7	2.2
December	2.6	2.7	2.6	2.3	2.9	2.6	4.4	2.3	2.7
<b>2014</b>									
March	2.8	2.8	3.1	2.9	3.1	2.8	3.6	2.6	2.9
June	2.8	3.2	3.2	3.1	3.3	2.8	3.3	2.2	3.0
September	2.2	2.0	2.6	2.1	2.6	1.9	2.7	2.0	2.3
December	1.7	1.4	2.0	1.7	2.0	1.1	1.9	1.2	1.7
<b>2015</b>									
March	1.6	1.0	1.4	1.1	1.4	0.9	0.8	0.6	1.3
June	2.2	1.1	1.5	1.2	1.2	0.6	0.2	0.8	1.5
September	1.9	1.4	1.5	1.1	1.1	1.1	0.4	0.6	1.5
December	2.0	1.9	1.7	1.0	1.5	1.8	0.5	0.7	1.7
<b>2016</b>									
March	1.3	1.7	1.7	0.7	0.7	1.3	-0.3	1.0	1.3
June	0.9	1.4	1.5	0.7	0.5	1.2	0.0	0.8	1.0
September	1.7	1.4	1.5	1.2	0.5	1.3	0.0	1.4	1.3
PERCENTAGE CHANGE (from previous quarter)									
<b>2012</b>									
September	1.7	1.2	1.1	1.5	1.1	0.7	1.3	1.1	1.4
December	0.1	0.4	0.3	0.4	0.3	0.4	0.0	0.4	0.2
<b>2013</b>									
March	0.4	0.4	0.1	0.0	0.5	0.3	1.7	0.1	0.4
June	0.4	0.2	0.5	0.2	0.6	0.4	0.9	0.6	0.4
September	1.2	1.4	1.3	1.4	1.2	0.9	0.9	0.6	1.2
December	0.7	0.8	0.8	0.7	0.7	1.0	0.9	1.0	0.8
<b>2014</b>									
March	0.6	0.5	0.6	0.7	0.7	0.5	0.8	0.5	0.6
June	0.4	0.6	0.6	0.4	0.8	0.4	0.7	0.2	0.5
September	0.6	0.2	0.7	0.4	0.5	0.1	0.2	0.4	0.5
December	0.2	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.2
<b>2015</b>									
March	0.5	0.1	0.0	0.1	0.1	0.3	-0.2	-0.1	0.2
June	0.9	0.7	0.7	0.5	0.6	0.1	0.0	0.4	0.7
September	0.3	0.5	0.7	0.3	0.4	0.6	0.4	0.2	0.5
December	0.3	0.7	0.4	0.2	0.5	0.9	0.3	0.2	0.4
<b>2016</b>									
March	-0.2	-0.1	0.0	-0.3	-0.6	-0.2	-0.9	0.2	-0.2
June	0.6	0.4	0.5	0.5	0.3	0.0	0.3	0.2	0.4
September	1.0	0.5	0.6	0.8	0.4	0.7	0.4	0.8	0.7

CPI GROUPS, Weighted average of eight capital cities—Index numbers(a)

<i>Period</i>	<i>Food and non-alcoholic beverages</i>	<i>Alcohol and tobacco</i>	<i>Clothing and footwear</i>	<i>Housing</i>	<i>Furnishings, household equipment and services</i>	<i>Health</i>
<b>2012-13</b>	100.5	103.9	99.5	104.9	100.8	106.9
<b>2013-14</b>	101.8	110.0	99.3	109.0	101.5	111.6
<b>2014-15</b>	103.9	116.7	97.9	111.7	102.5	116.5
<b>2015-16</b>	104.1	123.5	97.5	113.9	104.3	122.1
<b>2012</b>						
September	100.9	102.6	100.2	103.9	101.6	105.5
December	100.8	102.8	101.0	104.1	101.0	104.6
<b>2013</b>						
March	100.0	104.4	97.1	105.4	99.7	107.7
June	100.1	105.8	99.7	106.0	100.7	109.8
September	100.3	106.7	100.8	108.1	101.7	109.8
December	101.9	108.4	99.7	108.6	102.1	109.2
<b>2014</b>						
March	102.2	111.5	97.6	109.2	100.6	112.0
June	102.6	113.3	99.1	110.1	101.7	115.2
September	103.8	114.5	98.1	110.6	102.1	115.0
December	103.9	116.4	98.2	111.2	102.6	114.0
<b>2015</b>						
March	104.1	117.3	96.9	112.1	102.1	116.9
June	103.9	118.7	98.2	112.9	103.1	120.1
September	104.0	120.2	97.1	113.6	103.9	120.5
December	104.3	123.4	98.7	113.7	104.5	120.0
<b>2016</b>						
March	104.1	124.5	96.1	114.0	104.1	122.3
June	103.8	125.7	98.0	114.4	104.7	125.5
September	105.6	127.1	98.3	115.6	105.9	125.2

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

<i>Period</i>	<i>Transport</i>	<i>Communication</i>	<i>Recreation and culture</i>	<i>Education</i>	<i>Insurance and financial services</i>	<i>All groups CPI</i>
<b>2012–13</b>	101.1	101.7	99.1	105.9	102.8	102.3
<b>2013–14</b>	103.5	103.0	101.4	111.6	104.5	105.0
<b>2014–15</b>	100.8	99.7	102.8	117.6	106.3	106.8
<b>2015–16</b>	99.1	93.7	103.7	122.7	108.6	108.3
<b>2012</b>						
September	100.5	100.6	99.2	103.0	101.2	101.8
December	101.2	101.9	99.8	103.0	102.7	102.0
<b>2013</b>						
March	101.7	101.9	99.0	108.9	103.4	102.4
June	100.8	102.3	98.2	108.8	103.7	102.8
September	103.2	102.4	100.1	108.8	104.1	104.0
December	103.1	103.6	102.2	108.8	104.3	104.8
<b>2014</b>						
March	104.2	103.8	101.7	114.4	104.7	105.4
June	103.5	102.0	101.4	114.4	104.7	105.9
September	103.4	100.6	102.0	114.5	105.3	106.4
December	101.1	100.5	103.0	114.5	106.4	106.6
<b>2015</b>						
March	97.7	99.1	103.7	120.6	106.6	106.8
June	101.0	98.5	102.3	120.6	106.9	107.5
September	101.1	96.5	103.1	120.8	107.4	108.0
December	99.7	94.2	104.8	120.8	108.3	108.4
<b>2016</b>						
March	97.2	92.8	103.8	124.6	109.0	108.2
June	98.2	91.4	103.1	124.6	109.5	108.6
September	97.7	89.3	103.7	124.8	110.5	109.4

(a) Unless otherwise specified, reference period of each index: 2011–12 = 100.0.

## CPI GROUPS, Weighted average of eight capital cities—Percentage changes

	<i>Food and non-alcoholic beverages</i>	<i>Alcohol and tobacco</i>	<i>Clothing and footwear</i>	<i>Housing</i>	<i>Furnishings, household equipment and services</i>	<i>Health</i>
PERCENTAGE CHANGE (from previous financial year)						
<b>2012–13</b>	0.5	3.9	-0.5	4.9	0.8	6.9
<b>2013–14</b>	1.3	5.9	-0.2	3.9	0.7	4.4
<b>2014–15</b>	2.1	6.1	-1.4	2.5	1.0	4.4
<b>2015–16</b>	0.2	5.8	-0.4	2.0	1.8	4.8
PERCENTAGE CHANGE (from corresponding quarter of previous year)						
<b>2012</b>						
September	-1.1	4.3	-0.8	4.7	1.5	7.2
December	0.3	3.5	0.6	4.4	0.8	7.7
<b>2013</b>						
March	1.6	3.7	-1.5	5.1	0.6	6.1
June	1.1	4.0	-0.3	5.3	0.1	6.6
September	-0.6	4.0	0.6	4.0	0.1	4.1
December	1.1	5.4	-1.3	4.3	1.1	4.4
<b>2014</b>						
March	2.2	6.8	0.5	3.6	0.9	4.0
June	2.5	7.1	-0.6	3.9	1.0	4.9
September	3.5	7.3	-2.7	2.3	0.4	4.7
December	2.0	7.4	-1.5	2.4	0.5	4.4
<b>2015</b>						
March	1.9	5.2	-0.7	2.7	1.5	4.4
June	1.3	4.8	-0.9	2.5	1.4	4.3
September	0.2	5.0	-1.0	2.7	1.8	4.8
December	0.4	6.0	0.5	2.2	1.9	5.3
<b>2016</b>						
March	0.0	6.1	-0.8	1.7	2.0	4.6
June	-0.1	5.9	-0.2	1.3	1.6	4.5
September	1.5	5.7	1.2	1.8	1.9	3.9
PERCENTAGE CHANGE (from previous quarter)						
<b>2012</b>						
September	1.9	0.9	0.2	3.2	1.0	2.4
December	-0.1	0.2	0.8	0.2	-0.6	-0.9
<b>2013</b>						
March	-0.8	1.6	-3.9	1.2	-1.3	3.0
June	0.1	1.3	2.7	0.6	1.0	1.9
September	0.2	0.9	1.1	2.0	1.0	0.0
December	1.6	1.6	-1.1	0.5	0.4	-0.5
<b>2014</b>						
March	0.3	2.9	-2.1	0.6	-1.5	2.6
June	0.4	1.6	1.5	0.8	1.1	2.9
September	1.2	1.1	-1.0	0.5	0.4	-0.2
December	0.1	1.7	0.1	0.5	0.5	-0.9
<b>2015</b>						
March	0.2	0.8	-1.3	0.8	-0.5	2.5
June	-0.2	1.2	1.3	0.7	1.0	2.7
September	0.1	1.3	-1.1	0.6	0.8	0.3
December	0.3	2.7	1.6	0.1	0.6	-0.4
<b>2016</b>						
March	-0.2	0.9	-2.6	0.3	-0.4	1.9
June	-0.3	1.0	2.0	0.4	0.6	2.6
September	1.7	1.1	0.3	1.0	1.1	-0.2

	<i>Transport</i>	<i>Communication</i>	<i>Recreation and culture</i>	<i>Education</i>	<i>Insurance and financial services</i>	<i>All groups CPI</i>
PERCENTAGE CHANGE (from previous financial year)						
<b>2012-13</b>	1.1	1.7	-0.9	5.9	2.8	2.3
<b>2013-14</b>	2.4	1.3	2.3	5.4	1.7	2.6
<b>2014-15</b>	-2.6	-3.2	1.4	5.4	1.7	1.7
<b>2015-16</b>	-1.7	-6.0	0.9	4.3	2.2	1.4

	<i>Transport</i>	<i>Communication</i>	<i>Recreation and culture</i>	<i>Education</i>	<i>Insurance and financial services</i>	<i>All groups CPI</i>
PERCENTAGE CHANGE (from corresponding quarter of previous year)						
<b>2012</b>						
September	1.3	1.4	-1.5	6.1	2.3	2.0
December	2.0	1.6	-1.7	6.1	3.1	2.2
<b>2013</b>						
March	1.4	1.5	-0.5	5.8	2.9	2.5
June	-0.5	2.2	-0.1	5.7	2.7	2.4
September	2.7	1.8	0.9	5.6	2.9	2.2
December	1.9	1.7	2.4	5.6	1.6	2.7
<b>2014</b>						
March	2.5	1.9	2.7	5.1	1.3	2.9
June	2.7	-0.3	3.3	5.1	1.0	3.0
September	0.2	-1.8	1.9	5.2	1.2	2.3
December	-1.9	-3.0	0.8	5.2	2.0	1.7
<b>2015</b>						
March	-6.2	-4.5	2.0	5.4	1.8	1.3
June	-2.4	-3.4	0.9	5.4	2.1	1.5
September	-2.2	-4.1	1.1	5.5	2.0	1.5
December	-1.4	-6.3	1.7	5.5	1.8	1.7
<b>2016</b>						
March	-0.5	-6.4	0.1	3.3	2.3	1.3
June	-2.8	-7.2	0.8	3.3	2.4	1.0
September	-3.4	-7.5	0.6	3.3	2.9	1.3

	<i>Transport</i>	<i>Communication</i>	<i>Recreation and culture</i>	<i>Education</i>	<i>Insurance and financial services</i>	<i>All groups CPI</i>
PERCENTAGE CHANGE (from previous quarter)						
<b>2012</b>						
September	-0.8	0.5	0.9	0.1	0.2	1.4
December	0.7	1.3	0.6	0.0	1.5	0.2
<b>2013</b>						
March	0.5	0.0	-0.8	5.7	0.7	0.4
June	-0.9	0.4	-0.8	-0.1	0.3	0.4
September	2.4	0.1	1.9	0.0	0.4	1.2
December	-0.1	1.2	2.1	0.0	0.2	0.8
<b>2014</b>						
March	1.1	0.2	-0.5	5.1	0.4	0.6
June	-0.7	-1.7	-0.3	0.0	0.0	0.5
September	-0.1	-1.4	0.6	0.1	0.6	0.5
December	-2.2	-0.1	1.0	0.0	1.0	0.2
<b>2015</b>						
March	-3.4	-1.4	0.7	5.3	0.2	0.2
June	3.4	-0.6	-1.4	0.0	0.3	0.7
September	0.1	-2.0	0.8	0.2	0.5	0.5
December	-1.4	-2.4	1.6	0.0	0.8	0.4
<b>2016</b>						
March	-2.5	-1.5	-1.0	3.1	0.6	-0.2
June	1.0	-1.5	-0.7	0.0	0.5	0.4
September	-0.5	-2.3	0.6	0.2	0.9	0.7

Quarters	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
FOOD AND NON-ALCOHOLIC BEVERAGES									
<b>2014</b>									
September	104.0	103.7	104.0	103.8	103.0	104.0	104.6	104.2	103.8
December	104.2	103.9	103.9	103.4	103.2	103.9	104.6	104.0	103.9
<b>2015</b>									
March	104.8	103.8	104.3	103.8	103.1	103.8	104.3	104.2	104.1
June	104.7	103.7	103.5	103.3	103.3	102.4	103.5	103.3	103.9
September	104.5	104.3	103.7	103.3	102.6	102.5	103.6	103.4	104.0
December	104.9	104.2	104.3	103.7	103.2	103.0	104.6	103.6	104.3
<b>2016</b>									
March	104.7	103.8	104.4	103.1	103.4	102.9	104.4	103.7	104.1
June	104.4	103.9	103.9	102.9	102.5	102.8	103.9	103.4	103.8
September	106.9	105.7	105.6	104.8	102.6	104.2	105.9	105.5	105.6
ALCOHOL AND TOBACCO									
<b>2014</b>									
September	113.6	114.4	115.8	115.8	114.2	115.9	112.6	113.7	114.5
December	115.2	116.4	117.8	118.2	116.3	117.2	114.8	116.5	116.4
<b>2015</b>									
March	116.0	117.5	118.6	118.4	117.7	117.6	115.0	117.2	117.3
June	117.4	118.9	119.6	119.8	119.8	118.8	115.6	118.6	118.7
September	119.0	119.9	121.5	121.6	121.3	120.4	117.2	119.7	120.2
December	121.4	123.2	125.9	124.6	125.1	124.8	121.3	121.7	123.4
<b>2016</b>									
March	122.7	124.4	126.4	126.0	125.9	125.7	122.0	122.8	124.5
June	124.2	124.7	127.8	127.4	127.7	126.8	123.7	124.4	125.7
September	125.2	126.5	129.4	129.1	129.3	129.6	125.1	125.3	127.1
CLOTHING AND FOOTWEAR									
<b>2014</b>									
September	95.4	98.2	100.6	95.3	104.9	100.8	96.9	95.8	98.1
December	94.4	97.3	101.9	99.7	105.3	101.8	98.7	96.3	98.2
<b>2015</b>									
March	93.5	94.9	101.5	96.4	105.7	101.5	98.1	93.9	96.9
June	95.8	95.5	101.7	99.5	106.0	101.4	99.7	97.9	98.2
September	94.3	94.8	102.1	96.4	104.8	100.0	96.8	95.6	97.1
December	94.6	97.8	104.0	98.0	106.4	102.0	98.5	95.4	98.7
<b>2016</b>									
March	91.6	95.5	103.7	95.0	102.8	96.3	94.4	91.7	96.1
June	93.7	97.8	104.4	96.4	104.9	97.4	96.5	95.0	98.0
September	95.1	97.2	105.4	96.8	104.2	94.9	94.7	92.3	98.3
HOUSING									
<b>2014</b>									
September	111.7	109.3	111.5	109.7	112.0	101.3	112.1	106.1	110.6
December	112.6	109.7	112.4	110.0	112.4	101.7	112.4	106.4	111.2
<b>2015</b>									
March	113.6	110.7	112.7	112.0	112.5	102.1	113.3	105.9	112.1
June	114.9	111.9	113.3	110.8	112.8	102.6	113.4	105.4	112.9
September	115.1	113.2	114.3	110.6	113.7	104.5	113.3	106.1	113.6
December	115.4	113.3	114.4	110.7	113.4	104.9	112.9	106.2	113.7
<b>2016</b>									
March	115.9	113.9	114.6	111.7	111.7	105.7	111.5	106.9	114.0
June	116.7	114.5	115.1	111.2	111.5	106.0	110.8	107.0	114.4
September	118.4	115.6	116.2	112.3	111.5	107.4	110.1	108.2	115.6

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.



Quarters	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
FURNISHINGS, HOUSEHOLD EQUIPMENT AND SERVICES									
<b>2014</b>									
September	103.7	100.9	101.7	99.3	102.4	100.0	104.3	104.1	102.1
December	103.0	102.0	103.0	101.2	102.7	100.6	105.5	105.1	102.6
<b>2015</b>									
March	102.7	101.4	102.3	99.7	102.1	101.2	105.5	105.7	102.1
June	103.3	102.7	104.3	100.9	102.8	101.9	106.3	107.4	103.1
September	104.5	102.9	104.7	102.4	103.8	102.4	106.9	107.5	103.9
December	104.5	103.8	105.7	102.6	105.0	102.4	107.3	108.3	104.5
<b>2016</b>									
March	104.4	103.0	105.7	101.8	104.3	101.3	106.9	108.2	104.1
June	104.8	103.7	106.9	103.3	104.7	101.7	108.0	108.7	104.7
September	106.3	104.6	107.7	105.0	105.7	102.5	108.5	110.7	105.9
HEALTH									
<b>2014</b>									
September	115.3	114.6	115.2	117.0	113.8	115.7	113.0	114.2	115.0
December	114.2	113.7	113.8	116.3	112.8	114.9	111.8	112.8	114.0
<b>2015</b>									
March	116.9	117.1	117.6	117.7	115.8	117.5	114.1	116.5	116.9
June	120.2	120.3	120.7	121.1	118.5	121.5	117.1	118.5	120.1
September	120.7	120.7	120.5	121.3	118.8	121.9	117.7	119.5	120.5
December	120.3	120.3	119.7	120.9	118.3	121.7	117.8	118.4	120.0
<b>2016</b>									
March	122.7	123.0	122.6	122.1	120.4	123.7	118.3	121.5	122.3
June	125.8	126.1	125.9	126.5	122.9	128.0	122.1	124.2	125.5
September	125.3	125.7	125.3	126.4	122.7	127.9	121.6	124.6	125.2
TRANSPORT									
<b>2014</b>									
September	101.5	105.1	102.6	103.8	104.2	105.0	108.3	103.8	103.4
December	99.3	102.9	100.3	101.8	101.2	102.6	106.1	102.1	101.1
<b>2015</b>									
March	96.5	99.0	96.5	98.2	98.2	98.7	103.6	98.9	97.7
June	100.4	101.8	99.8	102.0	100.5	101.7	104.3	101.8	101.0
September	100.7	101.3	99.6	102.4	101.8	102.9	103.8	101.7	101.1
December	99.2	100.6	97.9	100.8	99.8	101.3	103.3	100.4	99.7
<b>2016</b>									
March	95.6	98.4	96.0	98.0	97.6	99.9	101.4	99.7	97.2
June	96.9	100.2	96.9	98.7	97.9	98.6	101.0	98.5	98.2
September	96.7	98.6	95.8	98.6	98.3	99.5	101.6	100.1	97.7
COMMUNICATION									
<b>2014</b>									
September	100.5	100.6	100.7	100.6	100.2	100.6	100.5	100.6	100.6
December	100.4	100.5	100.6	100.5	100.1	100.5	100.4	100.5	100.5
<b>2015</b>									
March	99.1	99.2	99.3	99.1	98.8	99.2	99.0	99.2	99.1
June	98.5	98.6	98.7	98.5	98.1	98.6	98.4	98.5	98.5
September	96.5	96.6	96.7	96.6	96.2	96.4	96.3	96.5	96.5
December	94.2	94.3	94.4	94.3	93.9	94.2	94.1	94.2	94.2
<b>2016</b>									
March	92.8	92.9	92.9	92.8	92.4	92.7	92.6	92.7	92.8
June	91.4	91.5	91.6	91.4	91.0	91.5	91.3	91.5	91.4
September	89.3	89.4	89.4	89.2	88.8	89.6	89.4	89.6	89.3

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

Quarters	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
RECREATION AND CULTURE									
<b>2014</b>									
September	101.8	102.2	101.7	101.1	102.2	100.2	107.7	103.3	102.0
December	103.2	103.3	102.4	101.5	103.4	101.2	107.9	103.7	103.0
<b>2015</b>									
March	103.9	104.6	102.4	101.8	103.5	103.7	105.0	104.2	103.7
June	102.6	102.3	101.8	100.8	102.7	100.1	102.5	102.7	102.3
September	103.3	103.1	103.4	101.9	103.0	100.0	106.0	103.3	103.1
December	104.8	105.5	104.4	103.0	104.6	103.4	105.4	105.3	104.8
<b>2016</b>									
March	104.0	104.8	103.1	101.5	103.4	102.9	102.0	104.5	103.8
June	103.2	103.3	102.9	101.7	104.0	100.4	103.8	104.0	103.1
September	104.1	103.4	103.9	102.5	104.0	100.7	105.9	104.7	103.7
EDUCATION									
<b>2014</b>									
September	113.6	113.9	116.1	115.1	116.5	114.9	113.8	112.1	114.5
December	113.7	113.9	116.1	115.2	116.5	114.9	113.8	112.1	114.5
<b>2015</b>									
March	123.7	118.6	120.0	119.8	121.5	118.0	118.8	115.4	120.6
June	123.8	118.6	120.0	119.8	121.5	118.0	118.8	115.5	120.6
September	123.9	118.7	120.1	120.0	121.8	118.0	118.9	115.6	120.8
December	123.9	118.7	120.1	120.0	121.8	118.0	118.9	115.6	120.8
<b>2016</b>									
March	127.5	123.1	123.9	123.3	125.3	121.1	122.9	119.3	124.6
June	127.5	123.1	124.0	123.3	125.3	121.1	122.9	119.3	124.6
September	127.7	123.5	124.0	123.3	125.7	121.1	122.9	119.6	124.8
INSURANCE AND FINANCIAL SERVICES									
<b>2014</b>									
September	108.2	104.6	101.4	103.5	106.3	108.1	107.2	99.8	105.3
December	109.8	106.3	101.3	104.3	106.7	109.8	108.1	100.3	106.4
<b>2015</b>									
March	110.2	105.9	101.0	104.8	107.7	109.9	108.3	100.6	106.6
June	110.6	106.7	101.0	104.4	107.9	109.9	108.5	101.3	106.9
September	110.9	107.1	103.1	105.3	107.5	110.5	109.4	99.2	107.4
December	111.6	108.7	102.4	106.2	109.2	111.1	109.8	99.5	108.3
<b>2016</b>									
March	112.3	109.3	103.4	106.6	110.1	112.5	110.8	100.1	109.0
June	113.1	109.5	103.7	107.0	110.5	113.0	111.0	100.4	109.5
September	113.9	110.1	104.0	109.1	113.9	112.5	109.1	99.8	110.5

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

<i>Group, sub-group and expenditure class</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
<b>Food and non-alcoholic beverages</b>	0.42	0.29	0.27	0.30	0.02	0.23	0.27	0.32	0.30
Bread and cereal products	0.01	0.00	-0.01	-0.01	0.00	-0.01	0.00	-0.02	0.00
Bread	-0.01	-0.01	0.00	-0.01	0.00	0.00	0.00	0.00	0.00
Cakes and biscuits	0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	0.01
Breakfast cereals	0.00	0.00	-0.01	0.00	0.01	0.00	0.00	-0.01	0.00
Other cereal products	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00
Meat and seafoods	0.02	-0.01	0.01	-0.01	-0.03	-0.02	0.03	0.00	0.00
Beef and veal	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.00
Pork	-0.01	-0.01	0.00	0.00	-0.01	0.00	0.00	0.00	0.00
Lamb and goat	0.01	0.02	0.01	0.01	0.00	0.00	0.02	0.00	0.00
Poultry	0.00	0.00	0.00	-0.02	0.00	0.00	0.01	0.01	0.00
Other meats	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
Fish and other seafood	0.02	0.00	0.00	0.00	-0.01	-0.02	0.00	0.00	0.00
Dairy and related products	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	-0.01
Milk	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Cheese	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	0.00	0.00
Ice cream and other dairy products	0.00	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.01	0.00
Fruit and vegetables	0.36	0.31	0.24	0.34	0.08	0.28	0.25	0.26	0.28
Fruit	0.26	0.21	0.18	0.22	0.04	0.25	0.15	0.20	0.20
Vegetables	0.10	0.09	0.06	0.12	0.04	0.02	0.10	0.06	0.08
Food products n.e.c.	0.02	0.01	0.02	0.00	-0.01	-0.03	0.01	0.00	0.00
Eggs	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Jams, honey and spreads	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Food additives and condiments	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00
Oils and fats	0.00	0.01	0.00	0.00	-0.01	0.00	0.01	0.00	0.00
Snacks and confectionery	0.01	0.00	0.01	-0.02	-0.01	-0.03	0.00	-0.01	0.00
Other food products n.e.c.	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Non-alcoholic beverages	-0.03	-0.01	0.00	0.00	0.00	-0.02	-0.02	-0.02	-0.01
Coffee, tea and cocoa	-0.01	-0.01	0.00	-0.01	0.00	0.00	-0.01	-0.01	0.00
Waters, soft drinks and juices	-0.02	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Meals out and take away foods	0.05	0.02	0.03	-0.01	-0.01	0.04	0.04	0.09	0.03
Restaurant meals	0.04	0.02	0.01	0.00	-0.01	0.02	0.01	0.05	0.01
Take away and fast foods	0.01	0.00	0.01	0.00	0.00	0.03	0.03	0.04	0.01
<b>Alcohol and tobacco</b>	0.07	0.13	0.12	0.13	0.13	0.22	0.13	0.06	0.11
Alcoholic beverages	0.01	0.03	0.02	0.01	0.02	0.03	0.02	0.01	0.01
Spirits	0.00	0.00	0.01	0.00	0.00	0.01	0.00	-0.01	0.00
Wine	0.00	0.01	-0.02	-0.01	0.00	0.00	0.00	0.00	-0.01
Beer	0.01	0.01	0.03	0.01	0.02	0.02	0.02	0.03	0.02
Tobacco	0.05	0.11	0.10	0.12	0.11	0.20	0.10	0.05	0.08
Tobacco	0.05	0.11	0.10	0.12	0.11	0.20	0.10	0.05	0.08
<b>Clothing and footwear</b>	0.05	-0.02	0.03	0.02	-0.03	-0.11	-0.06	-0.10	0.01
Garments	0.00	-0.04	-0.01	-0.02	-0.07	-0.07	-0.06	-0.12	-0.03
Garments for men	0.00	0.01	0.00	0.00	-0.03	-0.02	-0.01	-0.05	0.00
Garments for women	0.00	-0.04	-0.01	-0.01	-0.04	-0.05	-0.05	-0.08	-0.02
Garments for infants and children	0.01	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00
Footwear	0.01	-0.02	0.00	-0.01	0.00	-0.03	0.00	-0.01	-0.01
Footwear for men	0.00	0.00	0.00	0.00	0.01	-0.02	0.00	0.00	0.00
Footwear for women	0.00	0.00	-0.01	0.00	-0.01	-0.01	0.00	-0.01	-0.01
Footwear for infants and children	0.00	-0.01	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01
Accessories and clothing services	0.05	0.04	0.05	0.05	0.05	-0.01	0.00	0.02	0.04
Accessories	0.05	0.03	0.05	0.05	0.05	-0.01	0.00	0.02	0.04
Cleaning, repair and hire of clothing and footwear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<i>Group, sub-group and expenditure class</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
<b>Housing</b>	0.40	0.24	0.25	0.21	0.00	0.28	-0.19	0.22	0.26
Rents	0.09	0.03	0.01	0.02	-0.14	0.04	-0.21	0.01	0.02
Rents	0.09	0.03	0.01	0.02	-0.14	0.04	-0.21	0.01	0.02
New dwelling purchase by owner-occupiers	0.05	0.07	0.05	0.01	-0.04	0.03	-0.01	0.01	0.04
New dwelling purchase by owner-occupiers	0.05	0.07	0.05	0.01	-0.04	0.03	-0.01	0.01	0.04
Other housing	0.05	0.11	0.07	0.08	0.05	0.07	0.04	0.15	0.08
Maintenance and repair of the dwelling	0.01	0.02	0.00	0.02	0.00	0.01	0.01	0.00	0.01
Property rates and charges	0.05	0.09	0.07	0.06	0.06	0.06	0.03	0.14	0.06
Utilities	0.20	0.03	0.13	0.11	0.12	0.15	0.00	0.07	0.12
Water and sewerage	-0.07	-0.01	0.04	-0.10	0.04	0.02	0.00	0.01	-0.02
Electricity	0.27	0.00	0.09	0.35	0.06	0.13	0.00	0.12	0.14
Gas and other household fuels	0.01	0.03	0.01	-0.14	0.01	0.00	-0.01	-0.07	0.00
<b>Furnishings, household equipment and services</b>	0.13	0.08	0.07	0.16	0.10	0.07	0.05	0.21	0.11
Furniture and furnishings	0.03	0.02	0.02	0.02	0.03	-0.01	0.00	0.01	0.02
Furniture	0.03	0.02	0.01	0.02	0.02	-0.01	-0.01	0.02	0.02
Carpets and other floor coverings	-0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Household textiles	0.03	0.03	0.02	0.07	0.02	0.03	0.03	0.05	0.03
Household textiles	0.03	0.03	0.02	0.07	0.02	0.03	0.03	0.05	0.03
Household appliances, utensils and tools	0.00	0.01	0.00	0.02	0.02	0.03	0.01	0.05	0.01
Major household appliances	-0.01	0.00	-0.01	0.00	-0.01	-0.01	0.00	0.00	0.00
Small electric household appliances	-0.01	0.00	0.00	0.01	0.00	0.02	0.00	0.01	0.00
Glassware, tableware and household utensils	0.01	0.01	0.01	0.03	0.02	0.02	0.01	0.02	0.01
Tools and equipment for house and garden	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Non-durable household products	0.02	0.00	-0.01	0.02	-0.01	0.00	0.01	-0.01	0.00
Cleaning and maintenance products	-0.01	-0.01	0.01	-0.01	0.00	0.00	0.00	-0.01	0.00
Personal care products	0.01	0.01	0.00	0.02	-0.01	0.00	0.01	-0.01	0.01
Other non-durable household products	0.02	0.00	-0.02	0.00	0.00	-0.01	0.00	0.01	0.00
Domestic and household services	0.06	0.02	0.05	0.04	0.05	0.03	0.01	0.10	0.04
Child care	0.04	0.01	0.05	0.03	0.05	0.00	0.01	0.10	0.04
Hairdressing and personal grooming services	0.00	0.00	0.00	0.01	0.01	0.00	-0.01	0.00	0.00
Other household services	0.01	0.00	0.01	0.01	-0.01	0.02	0.00	0.00	0.00
<b>Health</b>	-0.03	-0.01	-0.03	0.00	-0.01	-0.01	-0.02	0.02	-0.02
Medical products, appliances and equipment	-0.02	0.00	-0.01	-0.01	0.00	-0.01	-0.02	-0.01	-0.01
Pharmaceutical products	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	-0.01
Therapeutic appliances and equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medical, dental and hospital services	-0.01	-0.01	-0.02	0.01	-0.01	0.01	0.00	0.03	-0.01
Medical and hospital services	-0.01	-0.01	-0.02	0.00	-0.01	0.00	-0.01	0.02	-0.01
Dental services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
<b>Transport</b>	-0.02	-0.19	-0.12	-0.01	0.04	0.10	0.07	0.20	-0.06
Private motoring	-0.02	-0.19	-0.12	-0.01	0.04	0.10	0.08	0.20	-0.07
Motor vehicles	0.02	-0.09	-0.03	0.01	0.02	0.02	0.05	0.08	-0.01
Spare parts and accessories for motor vehicles	0.01	0.01	-0.01	0.01	0.01	0.02	-0.02	0.01	0.01
Automotive fuel	-0.08	-0.14	-0.13	-0.05	-0.02	0.02	-0.01	0.04	-0.08
Maintenance and repair of motor vehicles	0.02	-0.01	0.03	-0.01	0.00	0.00	0.04	0.00	0.00
Other services in respect of motor vehicles	0.01	0.04	0.03	0.03	0.02	0.03	0.00	0.07	0.03
Urban transport fares	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01
Urban transport fares	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01

<i>Group, sub-group and expenditure class</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
<b>Communication</b>	-0.07	-0.07	-0.07	-0.07	-0.07	-0.05	-0.06	-0.06	-0.07
Communication	-0.07	-0.07	-0.07	-0.07	-0.07	-0.05	-0.06	-0.06	-0.07
Postal services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunication equipment and services	-0.07	-0.07	-0.07	-0.07	-0.07	-0.05	-0.05	-0.06	-0.07
<b>Recreation and culture</b>	0.11	0.01	0.12	0.11	-0.01	0.05	0.25	0.09	0.07
Audio, visual and computing equipment and services	-0.02	-0.03	-0.01	-0.02	-0.02	0.00	-0.02	0.00	-0.02
Audio, visual and computing equipment	-0.01	-0.03	-0.01	0.00	-0.02	0.00	-0.01	0.00	-0.02
Audio, visual and computing media and services	-0.01	0.01	0.00	-0.02	-0.01	0.00	-0.02	0.01	0.00
Newspapers, books and stationery	0.01	0.01	0.00	0.00	0.01	0.03	0.01	0.00	0.01
Books	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01
Newspapers, magazines and stationery	0.00	-0.01	0.00	-0.01	0.01	0.01	0.01	0.00	0.00
Holiday travel and accommodation	0.09	0.02	0.11	0.07	-0.02	0.00	0.29	0.04	0.06
Domestic holiday travel and accommodation	0.03	-0.02	0.05	0.04	-0.04	-0.08	0.25	-0.02	0.01
International holiday travel and accommodation	0.06	0.05	0.07	0.03	0.02	0.08	0.04	0.06	0.04
Other recreation, sport and culture	0.03	0.01	0.02	0.06	0.02	0.04	-0.04	0.04	0.02
Equipment for sports, camping and open-air recreation	-0.01	0.00	0.02	0.00	-0.02	-0.01	0.01	0.01	0.00
Games, toys and hobbies	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Pets and related products	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01
Veterinary and other services for pets	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Sports participation	0.00	0.01	-0.01	0.01	0.01	0.01	-0.08	0.03	0.00
Other recreational, sporting and cultural services	0.01	-0.01	0.00	0.03	0.02	0.01	0.00	0.00	0.01
<b>Education</b>	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01
Education	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01
Preschool and primary education	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Secondary education	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tertiary education	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01
<b>Insurance and financial services</b>	0.04	0.03	0.02	0.09	0.17	-0.02	-0.08	-0.03	0.05
Insurance	0.04	0.01	0.01	0.08	0.17	0.01	0.01	0.00	0.04
Insurance	0.04	0.01	0.01	0.08	0.17	0.01	0.01	0.00	0.04
Financial services	0.00	0.03	0.02	0.01	0.00	-0.03	-0.10	-0.02	0.01
Deposit and loan facilities (direct charges)	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00
Other financial services	0.00	0.02	0.02	0.02	-0.01	-0.03	-0.10	-0.03	0.00
<b>All groups CPI</b>	<b>1.1</b>	<b>0.5</b>	<b>0.7</b>	<b>0.9</b>	<b>0.4</b>	<b>0.7</b>	<b>0.4</b>	<b>0.9</b>	<b>0.8</b>

Group, sub-group and expenditure class	INDEX NUMBERS(a)			PERCENTAGE CHANGE		CONTRIBUTION TO TOTAL CPI (ALL GROUPS) (INDEX POINTS)		CHANGE IN POINTS CONTRIBUTION
	Sep Qtr 2015	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016	Sep Qtr 2015 to Sep Qtr 2016	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016
<b>Food and non-alcoholic beverages</b>	104.0	103.8	105.6	1.7	1.5	16.95	17.25	0.30
Bread and cereal products	99.2	98.0	98.0	0.0	-1.2	1.66	1.66	0.00
Bread	95.2	96.5	96.1	-0.4	0.9	0.55	0.55	0.00
Cakes and biscuits	102.9	102.0	102.1	0.1	-0.8	0.74	0.75	0.01
Breakfast cereals	99.0	92.3	93.0	0.8	-6.1	0.17	0.17	0.00
Other cereal products	97.7	93.3	93.2	-0.1	-4.6	0.19	0.19	0.00
Meat and seafoods	107.0	109.5	109.5	0.0	2.3	2.45	2.45	0.00
Beef and veal	114.9	123.9	125.1	1.0	8.9	0.48	0.48	0.00
Pork	109.3	111.3	110.1	-1.1	0.7	0.39	0.39	0.00
Lamb and goat	95.4	100.2	103.1	2.9	8.1	0.25	0.25	0.00
Poultry	103.5	100.3	100.0	-0.3	-3.4	0.47	0.47	0.00
Other meats	111.1	112.7	111.2	-1.3	0.1	0.43	0.43	0.00
Fish and other seafood	104.4	107.6	107.4	-0.2	2.9	0.43	0.43	0.00
Dairy and related products	99.9	99.0	98.2	-0.8	-1.7	1.12	1.11	-0.01
Milk	96.9	96.6	96.6	0.0	-0.3	0.41	0.41	0.00
Cheese	104.8	102.7	101.9	-0.8	-2.8	0.34	0.34	0.00
Ice cream and other dairy products	98.9	98.3	96.8	-1.5	-2.1	0.37	0.37	0.00
Fruit and vegetables	100.3	97.4	108.7	11.6	8.4	2.42	2.70	0.28
Fruit	96.2	84.0	100.4	19.5	4.4	1.02	1.22	0.20
Vegetables	104.3	110.2	116.7	5.9	11.9	1.40	1.48	0.08
Food products n.e.c.	101.6	100.3	100.7	0.4	-0.9	2.17	2.17	0.00
Eggs	109.2	108.7	109.1	0.4	-0.1	0.12	0.12	0.00
Jams, honey and spreads	105.5	103.7	105.3	1.5	-0.2	0.15	0.15	0.00
Food additives and condiments	98.5	96.7	97.8	1.1	-0.7	0.30	0.30	0.00
Oils and fats	99.7	101.9	102.0	0.1	2.3	0.18	0.18	0.00
Snacks and confectionery	103.5	102.5	102.2	-0.3	-1.3	0.98	0.98	0.00
Other food products n.e.c.	97.5	94.5	95.8	1.4	-1.7	0.45	0.45	0.00
Non-alcoholic beverages	104.0	102.6	101.5	-1.1	-2.4	1.18	1.17	-0.01
Coffee, tea and cocoa	104.9	101.5	99.6	-1.9	-5.1	0.29	0.29	0.00
Waters, soft drinks and juices	103.6	103.0	102.1	-0.9	-1.4	0.89	0.88	-0.01
Meals out and take away foods	107.6	108.8	109.2	0.4	1.5	5.96	5.99	0.03
Restaurant meals	106.8	107.7	108.3	0.6	1.4	3.05	3.06	0.01
Take away and fast foods	108.4	109.9	110.2	0.3	1.7	2.91	2.92	0.01
<b>Alcohol and tobacco</b>	120.2	125.7	127.1	1.1	5.7	9.00	9.11	0.11
Alcoholic beverages	108.2	108.9	109.2	0.3	0.9	5.20	5.21	0.01
Spirits	108.8	110.7	110.7	0.0	1.7	1.01	1.01	0.00
Wine	104.5	102.2	102.0	-0.2	-2.4	1.67	1.66	-0.01
Beer	110.7	113.0	113.9	0.8	2.9	2.52	2.54	0.02
Tobacco	144.0	159.2	162.9	2.3	13.1	3.81	3.89	0.08
Tobacco	144.0	159.2	162.9	2.3	13.1	3.81	3.89	0.08
<b>Clothing and footwear</b>	97.1	98.0	98.3	0.3	1.2	3.89	3.90	0.01
Garments	96.4	96.9	95.8	-1.1	-0.6	2.41	2.38	-0.03
Garments for men	103.3	102.3	101.7	-0.6	-1.5	0.75	0.75	0.00
Garments for women	93.2	93.8	92.3	-1.6	-1.0	1.36	1.34	-0.02
Garments for infants and children	95.0	98.7	98.3	-0.4	3.5	0.30	0.30	0.00
Footwear	94.4	96.6	95.8	-0.8	1.5	0.60	0.59	-0.01
Footwear for men	99.0	98.1	98.6	0.5	-0.4	0.14	0.14	0.00
Footwear for women	92.5	94.4	93.6	-0.8	1.2	0.34	0.33	-0.01
Footwear for infants and children	94.8	101.6	99.0	-2.6	4.4	0.13	0.12	-0.01
Accessories and clothing services	101.1	102.2	107.2	4.9	6.0	0.88	0.92	0.04
Accessories	99.8	100.6	106.3	5.7	6.5	0.75	0.79	0.04
Cleaning, repair and hire of clothing and footwear	109.7	112.1	112.7	0.5	2.7	0.13	0.13	0.00

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

continued

Group, sub-group and expenditure class	INDEX NUMBERS(a)			PERCENTAGE CHANGE		CONTRIBUTION TO TOTAL CPI (ALL GROUPS INDEX POINTS)		CHANGE IN POINTS CONTRIBUTION
	Sep Qtr 2015	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016	Sep Qtr 2015 to Sep Qtr 2016	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016
<b>Housing</b>	113.6	114.4	115.6	1.0	1.8	25.98	26.24	0.26
Rents	109.9	110.4	110.7	0.3	0.7	7.56	7.58	0.02
Rents	109.9	110.4	110.7	0.3	0.7	7.56	7.58	0.02
New dwelling purchase by owner-occupiers	112.9	114.2	114.7	0.4	1.6	9.83	9.87	0.04
New dwelling purchase by owner-occupiers	112.9	114.2	114.7	0.4	1.6	9.83	9.87	0.04
Other housing	116.2	117.2	119.5	2.0	2.8	3.94	4.02	0.08
Maintenance and repair of the dwelling	109.2	110.8	111.3	0.5	1.9	2.26	2.27	0.01
Property rates and charges	127.0	127.0	132.1	4.0	4.0	1.68	1.74	0.06
Utilities	119.5	119.6	122.6	2.5	2.6	4.65	4.77	0.12
Water and sewerage	116.1	116.1	114.0	-1.8	-1.8	1.13	1.11	-0.02
Electricity	118.1	117.4	123.7	5.4	4.7	2.54	2.68	0.14
Gas and other household fuels	128.1	130.8	130.7	-0.1	2.0	0.98	0.98	0.00
<b>Furnishings, household equipment and services</b>	103.9	104.7	105.9	1.1	1.9	9.47	9.58	0.11
Furniture and furnishings	101.2	103.1	104.2	1.1	3.0	1.93	1.95	0.02
Furniture	100.6	102.4	103.7	1.3	3.1	1.63	1.65	0.02
Carpets and other floor coverings	104.6	107.3	107.2	-0.1	2.5	0.30	0.30	0.00
Household textiles	92.7	89.7	95.0	5.9	2.5	0.54	0.57	0.03
Household textiles	92.7	89.7	95.0	5.9	2.5	0.54	0.57	0.03
Household appliances, utensils and tools	97.7	98.4	99.0	0.6	1.3	1.37	1.38	0.01
Major household appliances	98.8	100.1	99.1	-1.0	0.3	0.48	0.48	0.00
Small electric household appliances	96.2	94.8	94.8	0.0	-1.5	0.22	0.22	0.00
Glassware, tableware and household utensils	94.2	94.0	96.2	2.3	2.1	0.40	0.41	0.01
Tools and equipment for house and garden	103.1	106.0	107.2	1.1	4.0	0.27	0.28	0.01
Non-durable household products	99.4	98.8	98.9	0.1	-0.5	2.80	2.80	0.00
Cleaning and maintenance products	96.9	97.4	96.3	-1.1	-0.6	0.28	0.28	0.00
Personal care products	94.9	93.5	93.9	0.4	-1.1	1.02	1.03	0.01
Other non-durable household products	103.4	103.2	103.2	0.0	-0.2	1.49	1.49	0.00
Domestic and household services	117.9	120.8	122.7	1.6	4.1	2.84	2.88	0.04
Child care	134.7	140.4	145.4	3.6	7.9	1.02	1.06	0.04
Hairdressing and personal grooming services	108.4	109.9	110.5	0.5	1.9	1.00	1.00	0.00
Other household services	113.0	114.5	115.1	0.5	1.9	0.82	0.82	0.00
<b>Health</b>	120.5	125.5	125.2	-0.2	3.9	6.63	6.61	-0.02
Medical products, appliances and equipment	102.9	103.6	102.8	-0.8	-0.1	1.32	1.31	-0.01
Pharmaceutical products	103.8	104.4	103.5	-0.9	-0.3	1.18	1.17	-0.01
Therapeutic appliances and equipment	96.8	97.2	97.3	0.1	0.5	0.15	0.15	0.00
Medical, dental and hospital services	126.0	132.5	132.3	-0.2	5.0	5.31	5.30	-0.01
Medical and hospital services	128.8	136.1	135.8	-0.2	5.4	4.68	4.67	-0.01
Dental services	109.6	110.9	110.9	0.0	1.2	0.63	0.63	0.00
<b>Transport</b>	101.1	98.2	97.7	-0.5	-3.4	11.36	11.30	-0.06
Private motoring	100.8	97.7	97.1	-0.6	-3.7	10.57	10.50	-0.07
Motor vehicles	95.9	95.0	94.4	-0.6	-1.6	3.00	2.99	-0.01
Spare parts and accessories for motor vehicles	106.0	106.2	106.9	0.7	0.8	1.05	1.06	0.01
Automotive fuel	93.3	83.9	81.5	-2.9	-12.6	2.97	2.89	-0.08
Maintenance and repair of motor vehicles	106.3	107.4	107.8	0.4	1.4	1.86	1.86	0.00
Other services in respect of motor vehicles	120.7	121.1	122.9	1.5	1.8	1.68	1.71	0.03
Urban transport fares	105.3	105.2	105.5	0.3	0.2	0.79	0.80	0.01
Urban transport fares	105.3	105.2	105.5	0.3	0.2	0.79	0.80	0.01

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

continued

Group, sub-group and expenditure class	INDEX NUMBERS(a)			PERCENTAGE CHANGE		CONTRIBUTION TO TOTAL CPI (ALL GROUPS INDEX POINTS)		CHANGE IN POINTS CONTRIBUTION
	Jun Qtr 2015	Jul Qtr 2015	Aug Qtr 2015	Jun Qtr 2015 to Jul Qtr 2015	Jul Qtr 2015 to Aug Qtr 2015	Jun Qtr 2015	Jul Qtr 2015	Jun Qtr 2015 to Jul Qtr 2015
	2015	2016	2016	Sep Qtr 2016 to Jun Qtr 2016	Sep Qtr 2016 to Jul Qtr 2016	2016	2016	Sep Qtr 2016 to Jun Qtr 2016
<b>Communication</b>	96.5	91.4	89.3	-2.3	-7.5	2.79	2.72	-0.07
Communication	96.5	91.4	89.3	-2.3	-7.5	2.79	2.72	-0.07
Postal services	111.3	110.1	111.2	1.0	-0.1	0.14	0.14	0.00
Telecommunication equipment and services	95.9	90.6	88.3	-2.5	-7.9	2.65	2.58	-0.07
<b>Recreation and culture</b>	103.1	103.1	103.7	0.6	0.6	12.88	12.95	0.07
Audio, visual and computing equipment and services	81.4	78.1	77.3	-1.0	-5.0	1.85	1.83	-0.02
Audio, visual and computing equipment	70.8	65.7	64.5	-1.8	-8.9	0.92	0.90	-0.02
Audio, visual and computing media and services	96.8	96.0	95.7	-0.3	-1.1	0.93	0.93	0.00
Newspapers, books and stationery	108.7	109.6	110.3	0.6	1.5	1.17	1.18	0.01
Books	98.6	98.1	100.5	2.4	1.9	0.38	0.39	0.01
Newspapers, magazines and stationery	114.5	116.2	116.0	-0.2	1.3	0.79	0.79	0.00
Holiday travel and accommodation	108.2	108.5	109.7	1.1	1.4	5.28	5.34	0.06
Domestic holiday travel and accommodation	106.0	106.1	106.4	0.3	0.4	2.73	2.74	0.01
International holiday travel and accommodation	110.6	111.3	113.4	1.9	2.5	2.56	2.60	0.04
Other recreation, sport and culture	107.9	109.4	109.9	0.5	1.9	4.58	4.60	0.02
Equipment for sports, camping and open-air recreation	102.6	104.1	103.9	-0.2	1.3	0.62	0.62	0.00
Games, toys and hobbies	91.7	88.1	88.8	0.8	-3.2	0.66	0.66	0.00
Pets and related products	98.2	100.0	101.5	1.5	3.4	0.38	0.39	0.01
Veterinary and other services for pets	112.7	116.5	117.5	0.9	4.3	0.48	0.48	0.00
Sports participation	114.7	116.6	117.0	0.3	2.0	1.12	1.12	0.00
Other recreational, sporting and cultural services	117.3	121.0	121.4	0.3	3.5	1.33	1.34	0.01
<b>Education</b>	120.8	124.6	124.8	0.2	3.3	4.06	4.07	0.01
Education	120.8	124.6	124.8	0.2	3.3	4.06	4.07	0.01
Preschool and primary education	120.5	125.5	126.0	0.4	4.6	0.67	0.67	0.00
Secondary education	121.4	127.0	127.0	0.0	4.6	1.65	1.65	0.00
Tertiary education	120.3	122.1	122.4	0.2	1.7	1.74	1.75	0.01
<b>Insurance and financial services</b>	107.4	109.5	110.5	0.9	2.9	5.62	5.67	0.05
Insurance	111.8	117.6	120.5	2.5	7.8	1.72	1.76	0.04
Insurance	111.8	117.6	120.5	2.5	7.8	1.72	1.76	0.04
Financial services	105.7	106.2	106.5	0.3	0.8	3.90	3.91	0.01
Deposit and loan facilities (direct charges)	101.3	101.1	101.7	0.6	0.4	0.76	0.76	0.00
Other financial services	106.8	107.5	107.7	0.2	0.8	3.15	3.15	0.00
<b>All groups CPI</b>	<b>108.0</b>	<b>108.6</b>	<b>109.4</b>	<b>0.7</b>	<b>1.3</b>	<b>108.6</b>	<b>109.4</b>	<b>0.8</b>

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.



## ANALYTICAL SERIES, Weighted average of eight capital cities(a)

	INDEX NUMBERS(b)			PERCENTAGE CHANGE		CONTRIBUTION TO TOTAL CPI (ALL GROUPS CPI INDEX POINTS)		CHANGE IN POINTS CONTRIBUTION
	Sep Qtr 2015	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016	Sep Qtr 2015 to Sep Qtr 2016	Jun Qtr 2016	Sep Qtr 2016	Jun Qtr 2016 to Sep Qtr 2016
<b>All groups CPI</b>	108.0	108.6	109.4	0.7	1.3	108.6	109.4	0.8
<b>All groups CPI, seasonally adjusted</b>	r107.8	r108.9	109.3	0.4	1.4	..	..	..
<b>Underlying trend series</b>								
Trimmed mean(c)	..	..	..	0.4	1.7	..	..	..
Weighted median(c)	..	..	..	0.3	1.3	..	..	..
<b>International trade exposure series</b>								
Tradables	101.8	101.5	102.5	1.0	0.7	39.54	39.91	0.37
Non-tradables	111.9	113.2	113.8	0.5	1.7	69.10	69.49	0.39
<b>Goods and services series</b>								
Goods component	105.0	105.2	106.0	0.8	1.0	60.67	61.17	0.50
Services component	112.0	113.4	114.0	0.5	1.8	47.97	48.22	0.25
<b>All groups CPI including</b>								
Deposit and loan facilities (indirect charges)	108.2	109.3	110.0	0.6	1.7	..	..	..
<b>Market goods and services excluding 'volatile items'</b>								
Goods	105.0	106.0	106.4	0.4	1.3	49.45	49.65	0.20
Services	107.8	108.4	108.8	0.4	0.9	33.15	33.27	0.12
Total	106.1	107.0	107.4	0.4	1.2	82.60	82.92	0.32
<b>All groups CPI excluding</b>								
Food and non-alcoholic beverages	108.7	109.6	110.1	0.5	1.3	91.69	92.15	0.46
Alcohol and tobacco	107.0	107.3	108.0	0.7	0.9	99.64	100.29	0.65
Clothing and footwear	108.4	109.1	109.9	0.7	1.4	104.75	105.50	0.75
Housing	106.3	106.9	107.6	0.7	1.2	82.67	83.16	0.49
Furnishings, household equipment and services	108.4	109.0	109.7	0.6	1.2	99.17	99.82	0.65
Health	107.3	107.7	108.5	0.7	1.1	102.01	102.79	0.78
Transport	108.9	110.0	110.9	0.8	1.8	97.28	98.10	0.82
Communication	108.3	109.2	110.0	0.7	1.6	105.86	106.68	0.82
Recreation and culture	108.7	109.4	110.2	0.7	1.4	95.76	96.45	0.69
Education	107.5	108.1	108.9	0.7	1.3	104.59	105.33	0.74
Insurance and financial services	108.0	108.6	109.3	0.6	1.2	103.02	103.73	0.71
Housing, Insurance and financial services	106.2	106.8	107.4	0.6	1.1	77.04	77.49	0.45
Medical and hospital services	107.2	107.7	108.5	0.7	1.2	103.97	104.73	0.76
Food and energy	108.9	110.3	110.8	0.5	1.7	88.24	88.67	0.43
'Volatile items'	108.7	109.9	110.5	0.5	1.7	103.25	103.81	0.56

.. not applicable

r revised

(a) Refer to paragraphs 11 and 12 of the Explanatory Notes for a description of these series.

(b) Unless otherwise specified, reference period of each index: 2011–12 = 100.0.

(c) Index numbers are available in the time series spreadsheet 'Table 8. CPI: Analytical Series, Weighted Average of Eight Capital Cities'.

## EXPLANATORY NOTES

### BRIEF DESCRIPTION OF THE CPI

**1** The Consumer Price Index (CPI) measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditure by the CPI population group (i.e. metropolitan households). This 'basket' covers a wide range of goods and services, arranged in the following eleven groups:

- Food and non-alcoholic beverages
- Alcohol and tobacco
- Clothing and footwear
- Housing
- Furnishings, household equipment and services
- Health
- Transport
- Communication
- Recreation and culture
- Education
- Insurance and financial services.

**2** Capital city indexes used by the CPI are based on the 2006 Australian Standard Geographical Classification (ASGC) statistical divisions. The capital city indexes measure price movements over time in each city individually. They do not measure differences in retail price levels between cities.

**3** Further information about the CPI is contained in *Consumer Price Index: Concepts, Sources and Methods, 2011* (cat. no. 6461.0). An updated version reflecting the changes made during the 16th series review was released on 19 December 2011.

### PRICES

**4** The frequency of price collection by item varies as necessary to obtain reliable price measures. Prices of some items are volatile (i.e. their prices may vary many times each quarter) and for these items frequent price observations are necessary to obtain a reliable measure of the average price for the quarter. Each month prices are collected at regular intervals for goods such as milk, bread, fresh meat and seafood, fresh fruit and vegetables, alcohol, tobacco, women's outerwear, project homes, motor vehicles, petrol and holiday travel and accommodation. For most other items, price volatility is not a problem and prices are collected once a quarter. There are a few items where prices are changed at infrequent intervals, for example education fees where prices are set once a year. In these cases, the frequency of price collection is modified accordingly.

**5** In order to facilitate a more even spread of field collection workload, the number of items for which prices are collected quarterly is distributed roughly equally across each month of each quarter. In all cases, however, individual items are priced in the same month of each quarter. For example, items for which prices are collected in the first month of the September quarter, July, are also priced in the first month of subsequent quarters, namely October, January and April.

### WEIGHTING PATTERN

**6** There are 87 expenditure classes (that is, groupings of like items) in the 16th series CPI and each expenditure class has its own weight, or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

**7** Changes in the weighting pattern have been made at approximately six yearly intervals to take account of changes in household spending patterns. The CPI now comprises sixteen series of price indexes which have been linked to form a continuous series. The current and historical weighting patterns for the CPI for the weighted average of the eight capital cities are published in *Consumer Price Index: Historical Weighting Patterns (1948 to 2011)* (cat. no. 6431.0). The 16th series weighting pattern for the weighted average of eight capital cities and for each of the eight capital cities, as well as each city's percentage contribution to the weighted average, are also published in the

## EXPLANATORY NOTES *continued*

### WEIGHTING PATTERN *continued*

*Consumer Price Index: 16th Series Weighting Pattern* (cat. no. 6471.0). Both publications are available on the ABS website <<http://www.abs.gov.au>>.

### ANALYSIS OF CPI CHANGES

**8** Movements in indexes from one period to another can be expressed either as changes in index points or as percentage changes. The following example illustrates the method of calculating changes in index points and percentage changes between any two periods:

All groups CPI: Weighted average of eight capital cities. Index numbers:

June Quarter 2012 100.4 (see Table 1)

less June Quarter 2011 99.2 (see Table 1)

Change in index points 1.2

Percentage change  $1.2/99.2 \times 100 = 1.2\%$  (see Table 2)

**9** Percentage changes are calculated to illustrate three different kinds of movements in index numbers:

- movements between consecutive financial years (where the index numbers for financial years are simple averages of the quarterly index numbers)
- movements between corresponding quarters of consecutive years
- movements between consecutive quarters.

**10** Table 7 provides a detailed analysis, for the weighted average of eight capital cities, of movements in the CPI since the previous quarter, including information on movements for groups, sub-groups and expenditure classes. It also shows the contribution which each makes to the total CPI. For instance, the dairy and related products sub-group contributed 1.13 index points to the total All groups index number of 100.4 for the June Quarter 2012. The final column shows contributions to the change in All Groups index points by each group, sub-group and expenditure class.

### ANALYTICAL SERIES

**11** Various series are presented in Table 8 in this publication to assist users analyse the CPI. Some of the analytical series are compiled by taking subsets of the CPI basket, and most are self explanatory, such as 'All groups CPI excluding Food and non-alcoholic beverages'. (A complete list of CPI groups, sub-groups and expenditure classes is contained in Tables 6 and 7). Other series and their composition are described below:

- *All groups CPI, seasonally adjusted*: Comprises all components included in the All groups CPI, seasonally adjusted where seasonality has been identified at the weighted average of eight capital cities level. Seasonal adjustment factors are calculated using the history of price changes up to the current quarter CPI and are revised each quarter.
  - Where CPI expenditure classes are identified as having a seasonal pattern, quarterly price changes are estimated on a seasonally adjusted basis. At the introduction of the 16th series, 62 out of the 87 expenditure classes were classified as seasonal. A description of which series are currently seasonally adjusted is published in Appendix 1 of every September quarter issue of *Consumer Price Index, Australia* (cat. no. 6401.0), following the annual seasonal reanalysis.
- *Underlying trend series, 'Trimmed mean' and 'Weighted median'*: These are two analytical measures of trend inflation calculated from the June quarter 2002 using standard ABS seasonal adjustment techniques. For more information see the *Information Paper: Seasonal Adjustment of Consumer Price Indexes, 2011* (cat. no. 6401.0.55.003). The Trimmed mean and Weighted median are calculated using the distribution of expenditure classes each quarter derived as follows:
  - The CPI expenditure classes are ranked from lowest to highest according to the seasonally adjusted percentage change from the previous quarter.
  - The seasonally adjusted relative weight of each expenditure class is calculated based on its previous quarter contribution to the All groups CPI.

## EXPLANATORY NOTES *continued*

### ANALYTICAL SERIES *continued*

- The 'Trimmed mean' is calculated by using a weighted average of percentage change from the previous quarter (seasonally adjusted) from the middle 70 per cent of the distribution.
- The 'Weighted median' is calculated using the percentage change from the previous quarter (seasonally adjusted) expenditure class at the 50th percentile of the distribution.
- *International trade exposure series, Tradables component*: Comprises all items whose prices are largely determined on the world market. For more information, see paragraph 12 below.
- *International trade exposure series, Non-tradables component*: Comprises all items not included in the Tradables component.
- *All groups CPI, goods component*: Comprises the Food and non-alcoholic beverages group (except Restaurant meals); Alcohol and tobacco group; Clothing and footwear group (except Cleaning, repair and hire of clothing and footwear); Furnishings, household equipment and services group (except Domestic and household services sub-group); Utilities, Audio, visual and computing equipment and services, and Newspapers, books and stationery sub-groups; and New dwelling purchase by owner-occupiers, Pharmaceutical products, Motor vehicles, Automotive fuel, Spare parts and accessories for motor vehicles, Equipment for sports, camping and open-air recreation, Games, toys and hobbies and Pets and related products expenditure classes.
- *All groups CPI, services component*: Comprises all items not included in the 'All groups CPI, goods component'. A description of which series are goods or services is published in Appendix 1 of the September quarter 2011 issue of Consumer Price Index, Australia (cat. no 6401.0).
- *All groups CPI including Deposit and loan facilities (indirect charges)*: One of the outcomes of the 16th series CPI Review was to remove the indirectly measured component of the Deposit and loan facilities index from the headline CPI but to include it in a new analytical series. This index includes the 16th series All groups CPI plus the indirectly measured component of the Deposit and loan facilities index.
- *Market goods and services excluding 'volatile items'*: in addition to the items excluded from the series 'All groups CPI excluding 'volatile items'', also excludes: Utilities, Property rates and charges, Child care, Health, Other services in respect of motor vehicles, Urban transport fares, Postal services, and Education.
- *All groups CPI excluding Insurance and financial services*: Reflecting the changing composition of the CPI, from the September quarter 1989 to the June quarter 1998, comprises the All groups CPI excluding house insurance, house contents insurance, vehicle insurance and mortgage interest charges and consumer credit charges; from the September quarter 1998 to the June quarter 2000 comprises the All groups CPI excluding house insurance, house contents insurance and vehicle insurance; from the September quarter 2000 to the June quarter 2005 comprises the All groups CPI excluding insurance services; from the September quarter 2005 to the June quarter 2011 comprises the All groups CPI excluding Financial and insurance services; from the September quarter 2011 comprises the All groups CPI excluding Insurance and financial services.

## EXPLANATORY NOTES *continued*

### ANALYTICAL SERIES *continued*

- *All groups CPI excluding Housing and Insurance and financial services*: Reflecting the changing composition of the CPI, from the September quarter 1989 to the June quarter 1998, comprises the All groups CPI excluding Housing, house contents insurance, vehicle insurance and consumer credit charges; from the September quarter 1998 to the June quarter 2000 comprises the All groups CPI excluding Housing, house insurance, house contents insurance and vehicle insurance; from the September quarter 2000 to the June quarter 2005 comprises the All groups CPI excluding Housing and insurance services; from the September quarter 2005 to the June quarter 2011 comprises the All groups CPI excluding Housing and Financial and insurance services; from the September quarter 2011 comprises the All groups CPI excluding Housing and Insurance and financial services.
- *All groups CPI excluding food and energy*: Comprises the All groups CPI excluding the Food and non-alcoholic beverages group (except Restaurant meals); Electricity, Gas and other household fuels; and Automotive fuel.
- *All groups CPI excluding 'volatile items'*: Comprises the All groups CPI excluding Fruit and vegetables and Automotive fuel.

**12** The International trade exposure series was reviewed and updated for the 16th series. There were five changes of classification. 'Cakes and biscuits' and 'Jams, honey and spreads' were reclassified from non-tradable to tradable. 'Waters, soft drinks and juices', 'Newspapers, magazines and stationery' and 'Pets and related products' were reclassified from tradable to non-tradable. A description of which series are tradable or non-tradable is published in Appendix 1 of the September quarter 2011 issue of Consumer Price Index, Australia (cat. no 6401.0). These changes are included from the September quarter 2011. The historical tradable and non-tradable series will not be revised.

### ROUNDING

**13** Published index numbers, except for the underlying trend series, are rounded to one decimal place. Percentage change movements are calculated from the index numbers and then rounded to one decimal place. Rounding errors can occur, causing discrepancies (e.g. when calculating percentage changes of aggregates and their components). Underlying trend series, 'Trimmed mean' and 'Weighted median' index numbers are published to four decimal places. Percentage change movements are calculated from the published index numbers and rounded to one decimal place.

### SEASONALLY ADJUSTED INDEXES

**14** Seasonally adjusted estimates are derived by estimating and removing systematic calendar related effects from the original series. In most economic data these calendar related effects are a combination of the classical seasonal influences (e.g. the effect of the weather, social traditions or administrative practices such as government charges increasing on 1 July each year) plus other kinds of calendar related variations, such as Easter or the proximity of significant days in the year (e.g. Christmas). In the seasonal adjustment process, both seasonal and other calendar related factors evolve over time to reflect changes in activity patterns. The seasonally adjusted estimates reflect the sampling and non-sampling errors to which the original estimates are subject.

**15** The CPI uses a concurrent seasonal adjustment methodology to derive the adjustment factors. This method uses the original time series available at each reference period to estimate seasonal factors for the current and previous quarters. Concurrent seasonal adjustment is technically superior to the more traditional method of reanalysing seasonal patterns once each year because it uses all available data to fine tune the estimates of the seasonal component each quarter. With concurrent analysis, the seasonally adjusted series are subject to revision each quarter as the estimates of the seasonal factors are improved. In most instances, the only significant revisions will be to the combined adjustment factors for the previous quarter and for the same quarter in the preceding year as the reference quarter (i.e. if the latest quarter is September quarter 2011 then the most significant revisions will be to June quarter 2011 and September

## EXPLANATORY NOTES *continued*

### SEASONALLY ADJUSTED INDEXES *continued*

quarter 2010). The seasonal patterns are also reanalysed on an annual basis or when there are known changes to regular events. This can lead to additional revisions.

**16** Autoregressive integrated moving average (ARIMA) modelling can improve the revision properties of the seasonally adjusted and trend estimates. ARIMA modelling relies on the characteristics of the series being analysed to project future period data. The projected values are temporary, intermediate values, that are only used internally to improve the estimation of the seasonal factors. The projected data do not affect the original estimates and are discarded at the end of the seasonal adjustment process. From the December quarter 2012, the Consumer Price Index uses ARIMA modelling where appropriate for individual time series. The ARIMA model is assessed as part of the annual reanalysis. For more information on ARIMA modelling see Feature article: Use of ARIMA modelling to reduce revisions in the October 2004 issue of *Australian Economic Indicators* (cat. no. 1350.0).

**17** The ABS applies seasonal adjustment to the expenditure class components of the CPI which are found to be seasonal, and then aggregates the seasonally adjusted and non-seasonally adjusted components to calculate the All groups CPI, seasonally adjusted, Trimmed mean and Weighted median estimates. The seasonally adjusted expenditure class components are available in Table 13 – CPI expenditure classes and selected analytical series, seasonally adjusted index numbers, weighted average of eight capital cities. The seasonal factors used to derive these seasonally adjusted indexes are available in Table 14 – CPI expenditure class, combined seasonal adjustment factors, weighted average of eight capital cities. For more information about seasonal adjustment of the CPI please refer to *Information Paper: Seasonal Adjustment of Consumer Price Indexes, 2011* (cat. no. 6401.0.55.003).

### INTERNATIONAL COMPARISONS

**18** In analysing price movements in Australia, an important consideration is Australia's performance relative to other countries. However, a simple comparison of All groups (or headline) CPIs is often inappropriate because of the different measurement approaches used by countries for certain products, particularly housing and financial and insurance services. To provide a better basis for international comparisons, the 17th International Conference of Labour Statisticians adopted a resolution which called for countries to 'if possible, compile and provide for dissemination to the international community an index that excludes housing and financial services' in addition to the all-items index.

### REVISIONS

**19** CPI original indexes are revised only in exceptional circumstances, such as to correct a significant error. As is the case with all price indexes, the index reference period (i.e. the period in which the index is set equal to 100.0) will be changed periodically. The index number levels for all periods will be changed by this process and it may also result in differences, due to rounding, between the percentage changes published on the old base and those on the new base. Seasonally adjusted indexes (including the Trimmed mean and Weighted median) for some quarters will be revised as extra quarters are included in the series analysed for seasonal influences (see paragraphs 14 to 17).

### RELATED PUBLICATIONS

**20** Current publications and other products released by the ABS are listed on the ABS website <<http://www.abs.gov.au>>. The ABS also issues a daily *Release Advice* on the website which details products to be released in the week ahead.

**21** Users may also wish to refer to the following publications and other data products that are available free of charge from the ABS website:

- *Enhancing the Australian CPI: A roadmap, Aug 2015* (cat. no. 6401.0.60.001)
- *Information Paper: Increasing the Frequency of CPI Expenditure Class Weight Updates, July 2016* (cat. no. 6401.0.60.002)
- *A Guide to the Consumer Price Index, 16th Series* (cat. no. 6440.0)
- *Consumer Price Index: Concepts, Sources and Methods, 2011* (cat. no. 6461.0)

## EXPLANATORY NOTES *continued*

### RELATED PUBLICATIONS

*continued*

- *Information Paper: Introduction of the 16th Series Australian Consumer Price Index, 2011* (cat. no. 6470.0)
- *Information Paper: Outcome of the 16th Series Australian Consumer Price Index Review, Australia* (cat. no. 6469.0)
- *Consumer Price Index Commodity Classification, Australia, 16th Series, 2011* (cat. no. 6401.0.55.004)
- *Consumer Price Index: 16th Series Weighting Pattern* (cat. no. 6471.0)
- *Consumer Price Index: Historical Weighting Patterns (1948–2011)* (cat. no. 6431.0)
- *Analytical Living Cost Indexes and Pensioner and Beneficiary Living Cost Index: 16th Series Weighting Patterns* (cat. no. 6472.0)
- *Consumer Price Index: Concordance with Household Expenditure Classification, Australia* (cat. no. 6446.0.55.001)
- *Information Paper: Seasonal Adjustment of Consumer Price Indexes, 2011* (cat. no. 6401.0.55.003)
- *Information Paper: Experimental Price Indexes for Financial Services* (cat. no. 6413.0)
- *Information Paper: The Introduction of Hedonic Price Indexes for Personal Computers* (cat. no. 6458.0)
- *Analytical Living Cost Indexes for Selected Australian Household Types* (cat. no. 6463.0)
- *Selected Living Cost Indexes, Australia* (cat. no. 6467.0)
- *Residential Property Price Indexes: Eight Capital Cities* (cat. no. 6416.0)
- *Producer Price Indexes, Australia* (cat. no. 6427.0)
- *International Trade Price Indexes, Australia* (cat. no. 6457.0)
- *Wage Price Index, Australia* (cat. no. 6345.0)

### DATA AVAILABLE

**22** As well as the statistics included in this publication, there is more detailed data for each capital city available on the ABS website. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

## APPENDIX SEASONAL ADJUSTMENT OF THE CPI

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### SEASONALITY OF CPI EXPENDITURE CLASSES

1 The Annual Seasonal Re-analysis (ASR) reviews the seasonal adjustment of the CPI series in more detail than is possible in the quarterly processing cycle.

2 Following the 2016 ASR, 58 of the 87 expenditure classes are considered seasonal and will be seasonally adjusted for the Analytical series; 'All Groups CPI, seasonally adjusted' and 'Underlying trend series - Trimmed mean and Weighted median'. There has been no change to this set of indexes which are seasonally adjusted.

3 Seasonally adjusted index numbers can be found in 'Table 13. CPI: Group, Expenditure Class and Selected Analytical Series Index Numbers, Seasonally adjusted, Weighted Average of Eight Capital Cities' and combined seasonal adjustment factors can be found in 'Table 14. CPI: Expenditure Class, Combined seasonal adjustment factors, Weighted Average of Eight Capital Cities'. These tables can be downloaded from the 'Downloads' tab of this issue on the ABS website <<http://www.abs.gov.au>>.

4 The following series has had an adjustment introduced due to changes in seasonal pattern:

- Footwear for infants and children, from June quarter 2014.

5 The following series have had trend breaks introduced to reflect one off changes to price index levels:

- Electricity, from September quarter 2015.
- Gas and other household fuels, from September quarter 2015.
- Tertiary education, from March quarter 2016.
- Water and sewerage, from September quarter 2016.

6 Changes to the seasonally adjusted series do not affect the original CPI index series.

7 For more details on the seasonal adjustment of the CPI please refer to the Explanatory notes of this issue or the Information Paper: Seasonal Adjustment of Consumer Price Indexes, 2011 (cat. no. 6401.0.55.003).



# APPENDIX SEASONAL ADJUSTMENT OF THE CPI *continued*

TABLE 1 – SEASONAL ADJUSTMENT OF CPI EXPENDITURE CLASSES

<i>CPI expenditure classes</i>	<i>Seasonally adjusted prior to 2016 Annual Seasonal Reanalysis (ASR)</i>	<i>Seasonally adjusted following 2016 ASR</i>
Bread	n	n
Cakes and biscuits	y	y
Breakfast cereals	y	y
Other cereal products(a)	y	y
Beef and veal	y	y
Pork	y	y
Lamb and goat	y	y
Poultry	n	n
Other meats	y	y
Fish and other seafood	y	y
Milk	n	n
Cheese	n	n
Ice cream and other dairy products	n	n
Fruit	y	y
Vegetables	y	y
Eggs	n	n
Jams, honey and spreads	n	n
Food additives and condiments	y	y
Oils and fats	n	n
Snacks and confectionery	y	y
Other food products n.e.c.	y	y
Coffee, tea and cocoa	n	n
Waters, soft drinks and juices	y	y
Restaurant meals	n	n
Take away and fast foods	y	y
Spirits	n	n
Wine(a)	n	n
Beer	n	n
Tobacco	y	y
Garments for men	y	y
Garments for women	y	y
Garments for infants and children	y	y
Footwear for men	n	n
Footwear for women	y	y
Footwear for infants and children	y	y
Accessories	y	y
Cleaning, repair and hire of clothing and footwear	n	n
Rents	y	y
New dwelling purchase by owner-occupiers	n	n
Maintenance and repair of the dwelling	y	y
Property rates and charges	y	y
Water and sewerage	y	y
Electricity	y	y
Gas and other household fuels	y	y
Furniture	y	y
Carpets and other floor coverings	y	y
Household textiles	y	y
Major household appliances	n	n
Small electric household appliances	y	y
Glassware, tableware and household utensils	y	y
Tools and equipment for house and garden	n	n
Cleaning and maintenance products	n	n
Personal care products(a)	y	y
Other non-durable household products	y	y
Child care	y	y
Hairdressing and personal grooming services	n	n
Other household services	n	n
Pharmaceutical products	y	y
Therapeutic appliances and equipment	n	n
Medical and hospital services	y	y

## APPENDIX SEASONAL ADJUSTMENT OF THE CPI *continued*

SEASONALITY OF CPI  
EXPENDITURE CLASSES  
*continued*

TABLE 1 – SEASONAL ADJUSTMENT OF CPI EXPENDITURE CLASSES  
*continued*

<i>CPI expenditure classes</i>	<i>Seasonally adjusted prior to 2016 Annual Seasonal Reanalysis (ASR)</i>	<i>Seasonally adjusted following 2016 ASR</i>
Dental services	y	y
Motor vehicles	n	n
Spare parts and accessories for motor vehicles(a)	n	n
Automotive fuel	n	n
Maintenance and repair of motor vehicles	n	n
Other services in respect of motor vehicles	y	y
Urban transport fares	y	y
Postal services	n	n
Telecommunication equipment and services	n	n
Audio, visual and computing equipment	n	n
Audio, visual and computing media and services	n	n
Books	y	y
Newspapers, magazines and stationery	y	y
Domestic holiday travel and accommodation	y	y
International holiday travel and accommodation	y	y
Equipment for sports, camping and open-air recreation	n	n
Games, toys and hobbies	y	y
Pets and related products(a)	y	y
Veterinary and other services for pets	y	y
Sports participation	y	y
Other recreational, sporting and cultural services	y	y
Preschool and primary education	y	y
Secondary education	y	y
Tertiary education	y	y
Insurance(a)	y	y
Deposit and loan facilities (direct charges)	n	n
Other financial services	n	n



## FOR MORE INFORMATION . . .

*INTERNET*      **www.abs.gov.au** the ABS website is the best place for data from our publications and information about the ABS.

### INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our website. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

*PHONE*                      1300 135 070

*EMAIL*                      [client.services@abs.gov.au](mailto:client.services@abs.gov.au)

*FAX*                            1300 135 211

*POST*                         Client Services, ABS, GPO Box 796, Sydney NSW 2001

## FREE ACCESS TO STATISTICS

All statistics on the ABS website can be downloaded free of charge.

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