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Relative Price Index

The CPI and the implications of changing cost pressures on various household groups

Gavin Dufty
Ian Macmillan
October 2016

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St Vincent de Paul Society Victoria Inc.
Policy & Research Unit
Locked Bag 4800
Box Hill VIC 3128

Phone +61 3 9895 5816
Mobile +61 439 357 129
Fax +61 3 9895 5850
gavind@svdp-vic.org.au
www.vinnies.org.au

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- **Couple with three or more dependent children**
- **Renter**
- **Unemployment and student allowances**

Australia

March quarter 2016

CPI-aligned model

First Release

FINAL REPORT

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Introduction

The St Vincent de Paul Society and other community welfare organisations have continued to document increased demand for social welfare services. Practical experience suggests that price increases in particular goods and services have disproportionate impacts on some household groups. As a result, some households appear to be "falling behind".

This experience also suggests that the impacts on particular household groups are associated with price changes in particular commodity groups. For example, increases in education costs have a greater impact on larger families and increases in the cost of essential services have a greater impact on government pension recipients.

Claims to the contrary typically highlight trends in headline economic indicators such as relatively small increases in the Consumer Price Index (CPI) and Living Cost Indexes (LCIs, ALCI, PBLCI and SLCI) and increases in wages and salaries, household incomes and other indicators of positive economic growth. Essentially, it is argued that households are generally better off because costs have risen at relatively low rates (as indicated by the CPI) and household incomes have risen at higher rates.

A critical element of this debate is the question of whether the price and cost indices published by the Australian Bureau of Statistics (ABS) accurately reflect the net effect of price changes on a range of different household groups. The Relative Price Index (RPI) addresses this question by systematically examining whether weighted-average price indices vary significantly by household type and geographic area.

Further to the question of variance across household groups, the question of whether the ABS indices reflect the true cost pressures faced by many household groups – including the household sector as a whole – is also examined.

Analysis and reporting for the RPI follows four broad steps. Firstly, CPI concepts are summarised and the methods for calculating RPIs are documented with an emphasis on the methods for calculating RPIs with limited access to source data. Concepts and methods are covered in considerable detail, because they are critical to price index calculation and the interpretation of results. The detail also reflects the transparent process of auditing and review of the analysis.

Secondly, commodity group and subgroup price indices are compared and plotted in time series from 1990 to the current quarter. Thirdly, variations in household group expenditure weights are analysed across commodity groups and selected subgroups, establishing a set of weights for each household group. Finally, weighted-average price indices are calculated from the resulting contributions (in percentage points) and the differences in points are analysed by household group.

RPIs are calculated for a range of household groups, defined by various demographic and geographic variables. To date, the demographic variables defining household type are income source, income level, the percentage of income from pensions and benefits, household family composition and housing tenure. A preliminary investigation into one-wage household expenditure patterns has also been made.

To date, analysis by geographic variables has only been made for Australia (as a whole) and Tasmania but further analyses can be made by state, capital city and balance-of-state. Not all demographic variables can be directly analysed in smaller geographic areas such as Tasmania because of sample size limitations. As an alternative, household group expenditure patterns for Australia may be analysed against the price indices for the capital city of the state.

An additional component of the RPI is calculated to reflect the net growth in the implicit size of the CPI basket of goods and services.

Guideline RPIs are also calculated for nominal household subgroups with expenditure patterns which may vary significantly from the household group as a whole. Currently, the RPI subgroup modelling is based on expenditure variations in the Housing and Transport commodity groups, in which expenditure may be on rents and transport fares rather than home ownership and private motoring.

An RPI upper boundary guideline is calculated to indicate the approximate maximum the RPI could reach when the maximum upward effects of the subgroup expenditure patterns and the basket growth component are combined. Thus, the RPI effectively consists of a band of possible values for a given household group, depending on the household subgroup of interest and assumptions made about both the subgroup expenditure pattern and the makeup of the CPI basket.

No attempt is made to explicitly define “essential” versus “discretionary” commodities in this analysis. This would be a complex exercise and probably fraught, considering the difficulty of making accurate and fair judgements about what is "essential" among the gamut of commodities, in relation to the specific needs and circumstances of particular household types. Furthermore, rationing and substitution have the potential to reduce expenditure and weights on essential commodities which have high price rises, introducing a bias towards finding less weight on essentials, at a fundamental level. However, the expenditure patterns of some household groups – such as those with low disposable income and/or with their main source of income from government pensions and allowances – are expected to be more heavily weighted toward particular essentials.

The RPI also addresses the questions of whether the CPI is an accurate and reliable indicator of long-term price change and whether the CPI and, by implication, the ABS living cost indexes, are adequate cost-of-living indicators. It seeks to identify limitations of the CPI and identify areas of possible improvement and suggests strategies for improved cost-of-living assessment, advice and policy.

Concepts and methods

The Consumer Price index

The CPI is a measure of the average change in the prices of household commodities, expressed in percentage points. It is “specifically designed as a general measure of price inflation for the household sector as a whole.” The CPI is published quarterly by the Australian Bureau of Statistics (ABS). The average price change is calculated from a number of separate indices of price change in specific commodity groups (i.e., groups of goods and services).

Household commodities

In order to provide a measure of average price change, the proportions of the various goods and services which make up the set of commodities typically acquired by households has to be established. As such, the CPI is based on the expenditure pattern of the household sector as a whole and it cannot be assumed to be representative of individual households or specific groups of households.

Basket of goods and services

To simplify understanding of this concept, the set of commodities typically acquired by households is referred to as the “basket” of goods and services. The basket is an idealised collection of household goods and services of fixed quantities, based on the expenditure pattern of the household sector as a whole, at the start of a CPI series or reference period.

The proportions of the various commodities in the basket have to be precisely quantified to enable calculation of the average price change of all commodities because the prices of different commodities

change at different rates. This is achieved through the use of "weighting factors", that is, factors which scale the contributions of the various commodities in proportion to their quantities.

Weighted-average

This type of average is known as a weighted-average (or the weighted arithmetic mean). A weighted-average is similar to an arithmetic mean (which is usually referred to simply as "the average") but instead of each item contributing equally to the final average, some items contribute more than others, i.e., they are given more weight. The CPI is the weighted-average of the individual price indices of the various household commodities, where the weights are the relative quantities of the different types of commodities acquired.

Average price indices by household type

In principle, where the expenditure patterns of particular household groups vary significantly from the household sector as a whole, the weighted-average price index for these groups may vary significantly from the CPI given the continuing divergence of price indices across commodity groups (see Table 23, page 39). To examine this possibility, RPIs are calculated for a number of different household groupings. As at June 2012, households are grouped by income source, income level, income from pensions and benefits, family composition and housing tenure. A "Group RPI" is calculated for each group based on comparison of its expenditure pattern with that of the All Households group (i.e., the household sector as a whole).

The RPI also groups households by state and/or capital city. As at June 2012, RPIs have been calculated for Australia as a whole, Australian capital cities as a whole and for Tasmania.

CPI structure

The CPI has a hierarchical commodity structure built up from individual items (as priced) at the base level, elementary aggregates of similar items through to expenditure classes, subgroups and then groups, which are the main level of grouping under "All Groups" at the peak of aggregation (see Figure 1, below).

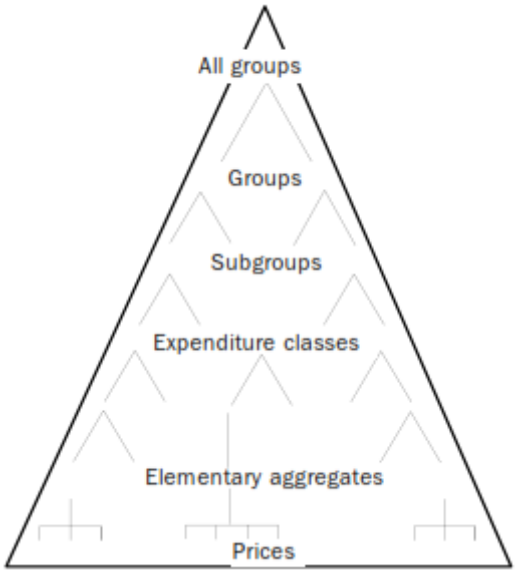

Figure 1: Hierarchical structure of the CPI[1]

RPI comparative techniques

The RPI calculation methods are based on comparative techniques, applied primarily at the upper level of the CPI hierarchy, that is, at the level of the main groups of goods and services (or commodities). The RPI does not recalculate indices from the base level upward. In other words, the main commodity group indices are re-weighted according to the expenditure patterns of specific household groups. The weights are calculated by comparing the expenditure patterns of specific household groups with All Households at the main group level. The same technique is applied to selected commodity subgroups.

The validity of this technique rests on the assumption that variations in expenditure patterns between household groups at lower levels of the CPI hierarchy are of little significance.

The CPI and RPI methods are relatively straightforward at this point but historical changes in expenditure patterns complicate RPI modelling and the interpretation of CPI data over the long-term.

Basket quantities

CPI basket quantities are equivalent to the percentages of total household goods and services expenditure spent in each of the various commodity categories (excluding particular items not included in the CPI basket). That is, the quantities are based on "expenditure shares", derived primarily from the Household Expenditure Survey (HES).[2]

One of the principles of a weighted price index is to maintain fixed quantities over time, so as to reflect changes in price rather than any changes in expenditure which could be associated with changes in the quantity and/or quality of commodities purchased. Ideally, quantity weights are kept constant, however, in practice, CPI quantities change periodically, in order to better reflect the contemporary pattern of spending and provide a general measure of price inflation as it affects the household sector over the short to medium term (i.e., three months to five years).

Patterns of spending are re-established each time a HES is conducted, usually every five years. The HES expenditure values which give rise to the implicit basket quantities are adjusted in relation to other data sources such as the National Accounts to provide more accurate and pertinent expenditure values and expenditure shares. Although this is the primary means by which changes in expenditure shares and basket quantities arise, minor changes can also be made to temper or adjust expenditure values.

Under this arrangement, changes in implicit quantities may differ from changes in HES expenditure shares. Notably, the implicit quantity of a given commodity may fall, even when expenditure on the commodity is the same, in real terms, if overall expenditure is greater (in real terms) and expenditure on the other commodities in the basket increases in real terms.

The Australian CPI is said to be a measure of “pure” price change, which may be true over the short term, but over the long term the CPI does not maintain constant basket quantities, so in this sense it is not a measure of pure price change. Some CPI basket quantities change quite significantly over periods greater than five years, which has implications for the analysis of weight differences between household groups, particularly the comparison of groups with lower-than-average rises in income and the All Households group.

The Relative Price Index

RPI weighting models

The RPI uses three weighting models: the CPI-aligned, HES-aligned and Pure Price models.

Under the CPI-aligned model, adjustments made to the HES expenditure shares for weighting the All Households group are essentially made in the same proportions for each household group. The

expenditure shares of each household group are factored by the ratio of the CPI implicit quantities to the HES expenditure shares for the All Households group. For example, in the 15th Series CPI, the implicit quantity of Food is only 88.6% of the HES expenditure share for Food, so the factor of 0.886 (88.6%) is used to adjust the HES expenditure share for Food to give the implicit quantity for the Food group in each household group RPI.

Under the HES-aligned model, implicit quantities are based more directly on HES expenditure shares, without adjusting them by the ratios of the CPI implicit quantities to the HES expenditure shares for All Households (i.e., in proportion to the CPI adjustments).

The Pure Price Index (PPI) is modelled purely on price movements, i.e., it reflects price changes only, with basket quantities fixed over time. This removes the effects of chain-linking and changes in expenditure weighting patterns over time.

Real dollar expenditure values

Ultimately, the CPI basket quantities need to be analysed in relation to expenditure changes, in real terms, because the CPI is chain-linked, with relatively large long-term changes in underlying quantities. These quantity changes are not just related to shifting patterns within the same total weight of expenditure but changes in total expenditure. Generally, these changes are increases rather than decreases.

The total AWHE for the All Households group has increased significantly in real terms since 1990. Consequently, the patterns of additional expenditure need to be explored to interpret historical weight changes and any differences in household group RPIs.

The Pure Price model provides measures of historical expenditure change in real dollar terms because it inflates 1990 expenditures to create the PPI, i.e., commodity group and subgroup expenditures are inflated by the corresponding individual price indices, see *Expenditure change*, page 46). Comparison of the average weekly household expenditure (AWHE) estimates under the PPI and CPI-aligned models gives change in expenditure, in real terms. In other words, for a given quarter, the Pure Price model estimates the expenditure required to purchase the same quantity of a commodity as in 1990, and the CPI-aligned model estimates the expenditure actually occurring (see *Expenditure change by commodity group*, page 47).

Comparison of historical expenditure changes across household groups also provides an opportunity to evaluate whether price modelling at the lower levels of aggregation in the CPI hierarchy – which aims to maintain equivalent quantities and qualities – reflects real-world cost pressures (see *Expenditure change by household group*, page 58). While real-dollar expenditure on a particular commodity may increase in concert with increasing disposable household income, expenditure increases would not be expected in household groups which do not have similar increases in disposable incomes, unless prices or real-world cost pressures are greater than indicated by the particular commodity index (notwithstanding more complex explanations for the AWHE increasing against the ability to pay).

The Relative Price Index (RPI) is a set of weighted-average price indices for a range of household groups, rather than one index for the household sector as a whole. It uses comparative techniques to calculate indices for specific household groups, based on the same underlying price change data as the CPI but weighted on the expenditure patterns of specific household groups.

The baseline index for each household group is the “Group RPI”, which is the weighted-average price index for the entire group, where the weighting pattern is based on expenditure pattern at the main commodity group level.

In addition to the Group RPI, several other indices are calculated. These are based on alternative expenditure patterns across selected commodity subgroups and on changes in the net weight of the CPI basket of goods and services (see *RPI definitions*, below, for more detail).

Household groups

To date, household groups have been analysed on six demographic variables:

1. Source of Government Pension or Allowance (GPA)
2. Household Family Composition
3. Principal Source of Household Income
4. Equivalised Disposable Household Income percentile (EDHI, see page 45)
5. Contribution of Government Pensions and Allowances (GPAs) to Gross Household Income (percentage)
6. Tenure Type.

Analysis of the first three variables has been reported in previous draft editions of The Relative Price Index report. Analysis of variables four to six was incorporated as of March 2011, with the two analyses now covered in separate versions of this document.

A total of twelve household types have been selected on the first three household variables (i.e., the original variables). A total of sixteen household types have been selected on the second three variables. As at June 2012, RPIs have been calculated for a total of twenty-eight household types and for periods up to the June 2011 quarter (prior to the introduction of the 16th CPI series).

As at June 2012, analyses by geographic area have been made for Australia (as a whole) and Tasmania.

As at Dec 2012, the definitions or several household groups have been refined. The Household Family Composition variable excludes households with significant income from investments. This is to improve the focus on the effect of family structure rather than indirectly associated effects (i.e., controlling for the “income from investment” variable which can quite strongly affect the weighted-average price index).

Source (or type) of Government Pension or Allowance (GPA) is restricted to households where the main source of household income is also one or more GPAs (i.e., where the majority of the household income is from Government Pensions or Benefits not just which GPA is the largest source of any GPA income).

As at March 2012, a preliminary examination of one-wage household expenditure patterns has also been made.

Validation of Group RPI calculations

The key methods for calculating the Group RPIs are validated by calculating the Group RPI for the All Households group, Australia, and comparing the results to the CPI. The maximum deviations of the All Households, Eight Capital Cities Group RPI from the CPI are + 0.84 points and - 0.47 points.

Capital city prices

For the analysis of individual capital cities prices – and for any regions other than the eight capital cities combined – the All Groups price index is compared to the CPI in the first instance (i.e., to All Groups Australia, Eight Capital Cities). This provides some perspective for the comparison of individual commodity group indices to the CPI (Australia) by showing the overall difference by city or region.

RPI definitions

The RPI consists of a band of index points within upper and lower boundaries, extending from 1990 to the current quarter. For each quarter the RPI has a range of possible values depending on household subgroup expenditure patterns and the treatment of net changes in the CPI basket quantity. The band is based on the calculation of four indices: the Group RPI, the Subgroup RPI, the Mainstream RPI and the Expanded Basket RPI.

The Group RPI is the RPI for the household group as a whole. It is calculated in essentially the same way as the CPI, so the Group RPI for All Households Eight Capital Cities is the direct equivalent of the CPI (Australia). For specific household groups (as defined above) the Group RPIs are calculated with weightings derived from the expenditure pattern of each household group as a whole, at the main commodity group level.

The Subgroup RPI is a guideline RPI for household subgroups with unfavourable expenditure patterns. It is not based directly on the expenditure data of a well-defined household subgroup because of the current limits on the availability of relevant expenditure data. It is based on the assumption that a notional household subgroup may make the AWHEs for Transport and Housing (excluding Utilities) wholly on Urban Transport Fares and Rents, respectively. As alternative subgroups of transport and housing, these are the optional areas of expenditure for some households.

The Subgroup RPI may be taken as a guideline RPI for other notional household subgroups with similarly unfavourable expenditure patterns (i.e., for households with greater weight on other commodity subgroups with higher price indices). Such household subgroups are unlikely to have much higher RPIs because the Subgroup RPI is currently based on two of the largest commodity groups (by weight) at relatively high price indices.

The Mainstream RPI is a guideline RPI for household subgroups with more common expenditure patterns. It is the inverse of the Subgroup RPI, in that it is currently based on the assumption that the AWHEs for Transport and Housing (excluding utilities) may be made wholly on Private Motoring and Home Ownership, respectively.

The Expanded Basket RPI is the Group RPI plus the points equivalent of the net change in CPI basket weight since 1990, i.e., the implicit quantity of items added to the CPI basket, less those removed.

The RPI Upper Boundary is the Subgroup RPI plus the points equivalent of the net change in CPI basket quantity since 1990 (i.e., plus the key component of the Expanded Basket RPI).

The RPI band ranges from the Mainstream RPI (which is, effectively, the RPI lower boundary) to the RPI Upper Boundary.

Reference period for the 16th Series

The current, 16th series CPI establishes a new reference base period of 2011-12. The CPI and all of the individual commodity price indices are reset to an average of 100 points for the four quarters of the 2011-12 financial year.[3] Consequently, continuity with the previous reference period of 1989-90 is lost. Because of the need to examine long-term price, quantity and expenditure changes, the RPI continues to use the 1989-90 reference base period. In the RPI, the quarterly 16th series CPI price index changes from September 2011 onward are added, percentage-wise, to the 15th series index numbers as at June 2011.

Sixteenth series index numbers, based on the new weightings for the 16th series, are first calculated for the June quarter 2011. However, September 2011 is the first quarter that a CPI based on 16th series weightings is published but the indices for the first four quarters of the 16th series use the original 1989-90 index base (of 100 points). The 16th series CPIs and commodity indices are not published on

the new reference base until the September quarter 2012, allowing the indices to be reset to 100, based on the average values for the preceding four quarters (Sep-2011 to June-2012).

The March quarter 1990 is the beginning of the 11th series CPI, the first quarter having a 1989-90 reference base, so this is the first quarter for the RPI series.

Financial quarters

In this report, CPI financial quarters are expressed in terms of the month in three-character format hyphenated with the year in four-digit format, e.g., Mar-2016, referring to "the March quarter, 2016".

Limitations

Historical quantity factor analysis

As noted earlier, CPI basket weights may change between series (see *Basket quantities*). Quantity weights may be allowed to fall even where this appears to be as a result of consumer reactions to price changes – such as rationing and substitution – rather than more general changes in consumer demographics or social and technological factors. Consequently, the CPI and RPIs do not necessarily maintain the constancy of basket quantities required for a true long-term perspective on price changes (see *Discussion*, page 77).

The accuracy and reliability of historical quantity factor analysis in the RPI is limited by the fact that some commodity indexes start later than 1990. This can be overcome to some degree by reindexing to a 1990 base but with the drawback of relying on looser estimates for any period(s) through which the index is extrapolated (i.e., typically, from 1990 to the true start date of the index). Any statistic based on the extrapolated part of the index needs to be suitably circumscribed.

Long-term self-levelling tendency

The Food group quantity falls significantly, particularly over the past ten years. In the CPI, the Food group quantity has fallen by approximately 4.2% from 1998 to 2005 and 3.7% from 1990 to 2005. Under the assumption that incomes are not rising significantly more than the CPI, a fall in the quantity of a fundamental group such as Food would suggest that the CPI may be subject to a long-term self-levelling tendency, as price rises put downward pressure on expenditure in the group.

As such, the CPI would not necessarily reflect long-term price changes faithfully. However, analysis of changes in average household incomes indicates that there have been significant increases in average real incomes, so changes in basket quantities need to be assessed in terms of expenditure changes, in real-terms, by commodity type.

Although the average household income has risen by significantly more than the CPI (evidently) the incomes of some household groups may not have. For such groups, analysis of basket quantities would be instructive but analysis of expenditure changes by commodity type (in real-terms) serves the same purpose, with the advantage of dealing more directly with expenditures.

An alternative RPI model

Both the CPI-aligned and HES-aligned RPI models may incorporate similar self-levelling tendencies to the CPI. Under the HES-aligned model, no adjustment is made for any possible consumer responses to price changes (i.e., expenditure shares are largely unadjusted in calculating implicit quantities). Under the CPI-aligned model, the RPI inherits any quantity changes already present in CPI expenditure and weight changes or adjustments.

Several alternative models to explore and address the problem of historical quantity adjustment have been trialled. An improved model could produce an index which better reflects true, long-term average

price changes partly by maintaining the quantities of essential commodities. Such a model might incorporate some adjustments to other quantities, where appropriate to specific household groups. In the interim, the Pure Price model serves as a benchmark against which to gauge the potential impact of any rationing and substitution and associated self-levelling tendencies.

Items added to the CPI basket

Net changes in the total quantity of CPI basket items present another issue for CPI modelling, with implications for each of the RPI models and the use of the CPI as a cost-of-living index.

Evidently, the net weight of the CPI basket has increased since 1990, based on analysis of implicit quantity factors. The increase in the total implicit quantity arises primarily from the addition of new classes of items to the CPI basket. These items are said to be “spliced” into the CPI commodity structure. This means they are incorporated without the net addition of any weight to the basket or any additional points to the index.

This raises questions about what the new items represent. Do they represent new types of commodities, which require consumer expenditure beyond that previously defined by the basket of goods and services? To the extent that they do, a true cost-of-living index should reflect any net change in the total weight of the CPI basket as a change in index points rather than “splicing” in the changes and normalising the basket weights.

Alternatively, do they represent existing types of commodities which have hitherto been excluded from the CPI basket? If so, at what rate might the prices of these items have changed before being included in the CPI basket? In this case, a true long-term cost-of-living index should incorporate, where possible, the contribution of the price change in the new items over the period which they have been part of consumer expenditure but before being included in the CPI basket itself, i.e., since the reference period (or since they became part of consumer expenditure) until the start of the first series in which they are included.

Price changes

Long-term price trends

This section examines Australia's price index changes since March 1990. It compares the price indices of each of the eleven CPI expenditure groups with the index for All Groups Australia, i.e., the weighted average of all expenditure groups (known as "All Groups", and the basis of the CPI for Australia).[4]

Each chart plots a group price index series, related subgroups and the Australia "All Groups" series, since 1990. Several additional charts plot the classes of selected subgroups, to illustrate how the classes are driving the subgroup trend.

Each table lists the price indices for Mar-2016 (the latest quarter), the previous quarter, twelve months prior, and at March 1990, for a group and related subgroups. The tables also give the points increase and the percentage increase for the group and related subgroups over the latest quarter, twelve months and since 1990. The difference between the group price change and the Australia "All Groups" price index change is given for each period. Finally, the group price change is given as a percentage of the "All Groups" change.

Australia's All Groups price index

The price index for All Groups is compared to the CPI, i.e., All Groups Australia (eight capital cities) to provide some perspective on how the individual commodity group indices compare to the CPI (Australia).

Since 1990, Australia's All Groups price index has risen 93.6% while the CPI has risen 93.6%, a difference of 0.0%, or the same increase as the CPI increase (see Table 1, below). This difference is fairly small so comparisons of Australia's group price indices with the CPI would be similar to the comparisons with Australia's All Groups index made in this section.

CPI and Australia's All Groups price change table

Price Indexes	Quarter	All groups Australia	CPI Australia (eight capital cities)
Price Index, all household types	Mar-2016	195.4	195.4
	Mar-2015	191.9	191.9
	Mar-2011	176.7	176.7
	Mar-1990	100.9	100.9
Points increase	In last 12 months	3.4	3.4
	Previous 5 years	18.7	18.7
	Since Mar-1990	94.5	94.5
Percent increase	In last 12 months	1.8%	1.8%
	Previous 5 years	10.6%	10.6%
	Since Mar-1990	93.6%	93.6%
Difference from CPI (Australia) percent increase	In last 12 months	0.0%	0.0%
	Previous 5 years	0.0%	0.0%
	Since Mar-1990	0.0%	0.0%
Ratio to CPI (Australia) increase	In last 12 months	1.000	1.000
	Previous 5 years	1.000	1.000
	Since Mar-1990	1.000	1.000

Table 1: Long-term changes in the CPI and Australia's All Groups index

Price change impacts

The impact of each group on the CPI or RPI is related to the long-term price change of the group (as given in this section) and the basket quantity or weight of the group: the greater the increase in price index and the greater the basket quantity weight, the higher the points contribution to the Group RPI and the CPI. The group weights as at June 2011 are shown in descending order by weight in Table 2 (below).

CPI Groups ranked by basket quantity weight, June quarter 2011					
Ranked by weight, Group		Implicit Quantities (CPI)	Normalised Implicit Quantities (CPI)	Contribution to CPI at Mar-2016 (percent of total)	Variance, weight to contribution
4	Housing	22.1%	22.0%	22.4%	2.0%
1	Food	15.9%	15.8%	15.6%	-1.2%
9	Recreation	12.2%	12.1%	11.8%	-2.2%
7	Transportation	11.3%	11.2%	11.1%	-0.8%
5	Household contents and services	8.8%	8.8%	8.7%	-1.0%
11	Financial and Insurance Services	8.2%	8.2%	8.2%	0.6%
2	Alcohol and Tobacco	7.0%	6.9%	7.0%	0.7%
6	Health	5.2%	5.1%	5.2%	2.5%
3	Clothing and Footwear	3.9%	3.8%	3.8%	-1.0%
10	Education	3.2%	3.1%	3.2%	0.9%
8	Communication	3.0%	3.0%	2.9%	-0.2%
Total		**100.7%**	**100.0%**	**100.0%**	**-**

Table 2: Commodity group weights as at June 2011, in descending order.

The weights for selected subgroups, as at June 2011, are shown in Table 3 (below).

CPI basket quantity weights, selected CPI Subgroups, June quarter 2011					
	Group and Region	Implicit Quantities (CPI)	Normalised Implicit Quantities (CPI)	Contribution to CPI at Mar-2016 (percent of total)	Variance, weight to contribution
4.1	Rents	6.0%	6.7%	7.2%	7.9%
4.2	Utilities	3.3%	3.7%	5.9%	61.6%
4.3	Other Housing	10.4%	11.7%	10.0%	-13.8%
Housing Total		**19.7%**	**22.0%**	**23.2%**	**-**
7.1	Private motoring	9.4%	10.4%	9.0%	-14.2%
7.2	Urban transport fares	0.7%	0.8%	1.1%	45.4%
Transport Total		**10.1%**	**11.2%**	**10.1%**	**-**

Table 3: Selected commodity subgroup weights as at June 2011.

Summary of price changes

The results of a simple analysis of changes in commodity group and subgroup price indices as at Mar-2016 are shown two tables at the beginning of the next section: Table 23 (page 39) and Table 24 (page 40).

Food prices

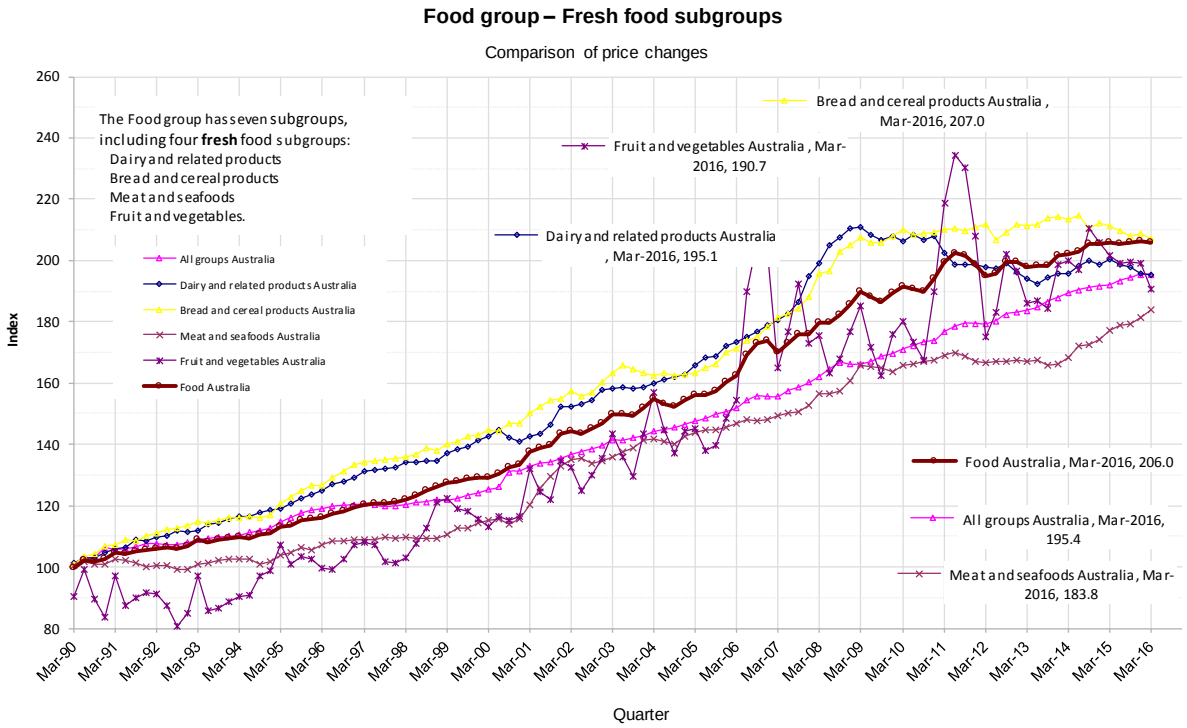

Figure 2: Food, fresh food price change comparison

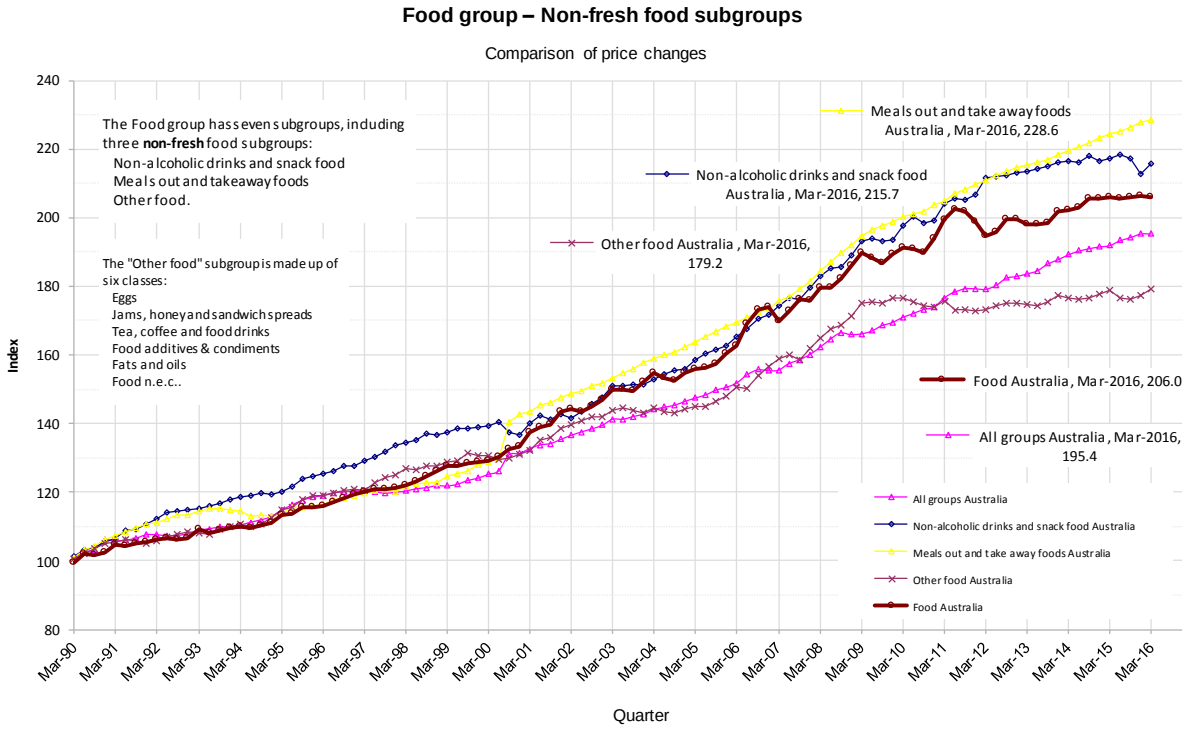

Figure 3: Food, non-fresh food price change comparison

Food price change table

Group, Subgroup or Class	Quarter	**Food**	Dairy and related products	Bread and cereal products	Meat and seafoods	Fruit and vegetables
Price Index, all household types	Mar-2016	206.0	195.1	207.0	183.8	190.7
	Mar-2015	206.0	200.5	211.2	177.1	201.7
	Mar-2011	199.6	202.5	210.0	169.0	218.9
	Mar-1990	99.5	101.3	101.0	100.4	90.3
Points increase	In last 12 months	0.0	-5.3	-4.2	6.7	-10.9
	Previous 5 years	6.4	-7.4	-3.0	14.8	-28.2
	Since Mar-1990	106.5	93.8	106.0	83.4	100.4
Percent increase	In last 12 months	0.0%	-2.7%	-2.0%	3.8%	-5.4%
	Previous 5 years	3.2%	-3.6%	-1.4%	8.7%	-12.9%
	Since Mar-1990	107.0%	92.6%	105.0%	83.0%	111.2%
Difference from CPI Australia percent increase	In last 12 months	-1.8%	-4.4%	-3.8%	2.0%	-7.2%
	Previous 5 years	-7.4%	-14.2%	-12.0%	-1.8%	-23.4%
	Since Mar-1990	13.4%	-1.0%	11.4%	-10.6%	17.6%
Ratio to CPI Australia increase	In last 12 months	0.000	-1.501	-1.117	2.127	-3.055
	Previous 5 years	0.302	-0.344	-0.133	0.827	-1.220
	Since Mar-1990	1.143	0.989	1.122	0.887	1.188

Table 4: Food, fresh-food price change analysis

Non-fresh food price change table

Group, Subgroup or Class	Quarter	**Food (continued)**	Non-alcoholic drinks and snack food	Meals out and take away foods	Other food
Price Index, all household types	Mar-2016	206.0	215.7	228.6	179.2
	Mar-2015	206.0	217.2	224.4	178.9
	Mar-2011	199.6	203.9	204.9	176.0
	Mar-1990	99.5	101.1	100.9	100.4
Points increase	In last 12 months	0.0	-1.5	4.2	0.3
	Previous 5 years	6.4	11.8	23.7	3.2
	Since Mar-1990	106.5	114.6	127.7	78.8
Percent increase	In last 12 months	0.0%	-0.7%	1.9%	0.2%
	Previous 5 years	3.2%	5.8%	11.5%	1.8%
	Since Mar-1990	107.0%	113.4%	126.5%	78.5%
Difference from CPI Australia percent increase	In last 12 months	-1.8%	-2.5%	0.1%	-1.6%
	Previous 5 years	-7.4%	-4.8%	1.0%	-8.7%
	Since Mar-1990	13.4%	19.8%	32.9%	-15.1%
Ratio to CPI Australia increase	In last 12 months	0.000	-0.379	1.055	0.109
	Previous 5 years	0.302	0.550	1.093	0.174
	Since Mar-1990	1.143	1.211	1.351	0.839

Table 5: Non-fresh food price change analysis

Since 1990, Australia's Food price index has increased by 107.0%. This is 1.143 times the Australia All Groups increase of 93.6%, or a difference of 13.4%. Over the same period, the prices of Dairy, Bread & Cereal, and Fruit & Vegetables have increased by 0.989, 1.122, and 1.188 times the All Groups increase, respectively. Meat and sea foods have increased less than the CPI increase, at 0.887 of the All Groups increase.

The Food price index is currently much higher than the CPI so, with the second largest basket weight, at 15.8%, a strong upward influence is expected on long-term cost trends for most household types.

Alcohol and Tobacco prices

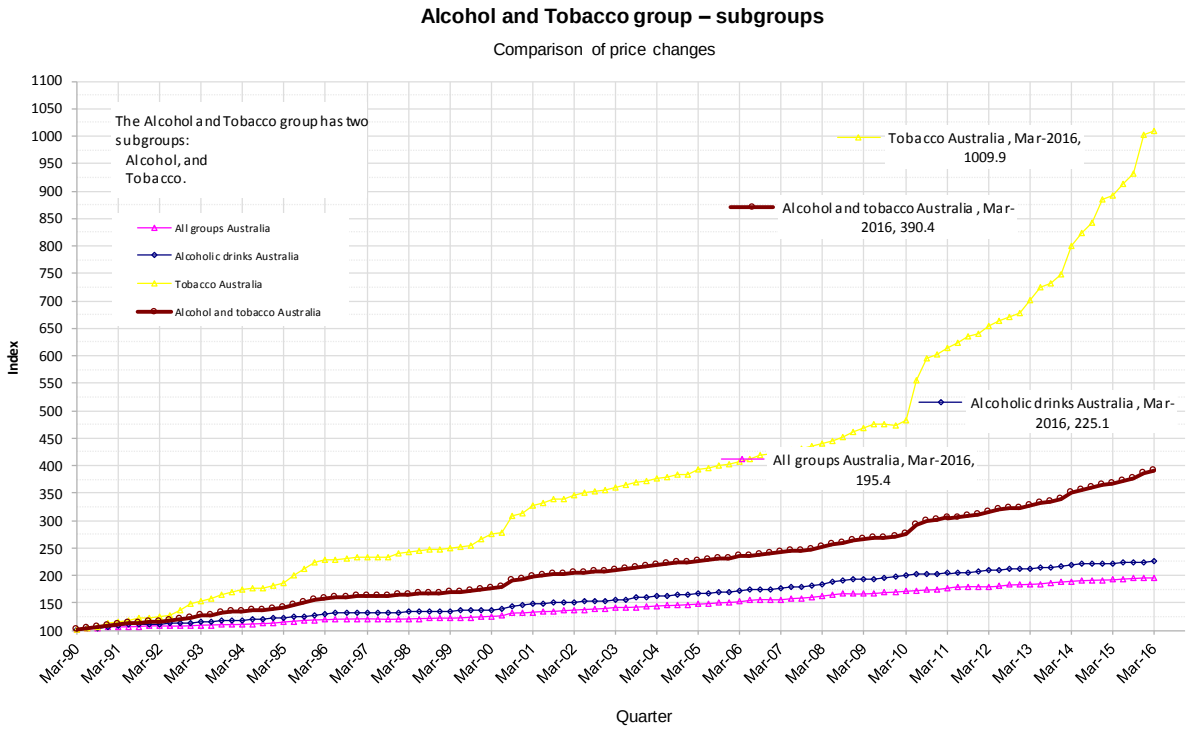

Figure 4: Alcohol and Tobacco price change comparison

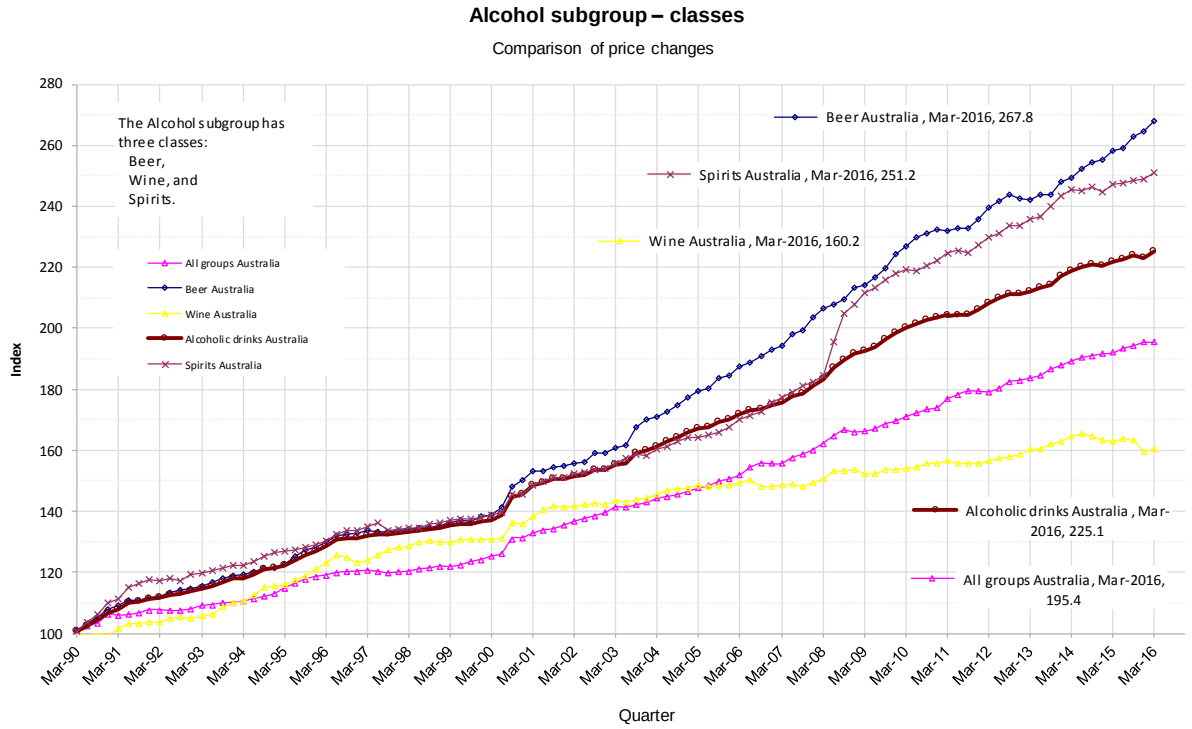

Figure 5: Alcohol subgroups price change comparison

Alcohol and Tobacco price change table

Group, Subgroup or Class	Quarter	**Alcohol and tobacco**	Beer	Wine	Spirits	Tobacco
Price Index, all household types	Mar-2016	390.4	267.8	160.2	251.2	1009.9
	Mar-2015	367.8	258.1	163.0	247.1	891.4
	Mar-2011	305.0	231.8	156.7	224.9	614.5
	Mar-1990	101.1	101.2	99.9	100.6	101.8
Points increase	In last 12 months	22.6	9.7	-2.8	4.1	118.6
	Previous 5 years	85.4	36.0	3.5	26.3	395.4
	Since Mar-1990	289.3	166.6	60.3	150.6	908.1
Percent increase	In last 12 months	6.1%	3.8%	-1.7%	1.7%	13.3%
	Previous 5 years	28.0%	15.5%	2.2%	11.7%	64.4%
	Since Mar-1990	286.2%	164.7%	60.3%	149.7%	892.1%
Difference from CPI Australia percent increase	In last 12 months	4.4%	2.0%	-3.5%	-0.1%	11.5%
	Previous 5 years	17.4%	5.0%	-8.3%	1.1%	53.8%
	Since Mar-1990	192.6%	71.1%	-33.3%	56.1%	798.5%
Ratio to CPI Australia increase	In last 12 months	3.453	2.122	-0.971	0.936	7.483
	Previous 5 years	2.652	1.473	0.210	1.106	6.095
	Since Mar-1990	3.057	1.759	0.645	1.599	9.529

Table 6: Alcohol and Tobacco price change analysis

Since 1990, Australia's Alcohol and Tobacco price index has increased by 286.2%. This is 3.057 times the Australia All Groups increase of 93.6%, or a difference of 192.6%. Over the same period, the prices of beer, spirits and tobacco have increased by 1.759, 1.599 and 9.529 times the All Groups increase, respectively. Wine has increased less than the CPI, at 0.645 of the All Groups increase.

The Alcohol and Tobacco price index is much greater than the CPI and it has a low-to-moderate weight at 6.9%. On this basis, it could have considerable influence, although it's not expected to be a very strong influence on long-term cost trends for most household groups (notwithstanding, the fact that its weight has changed considerably since 1990).

Clothing and Footwear prices

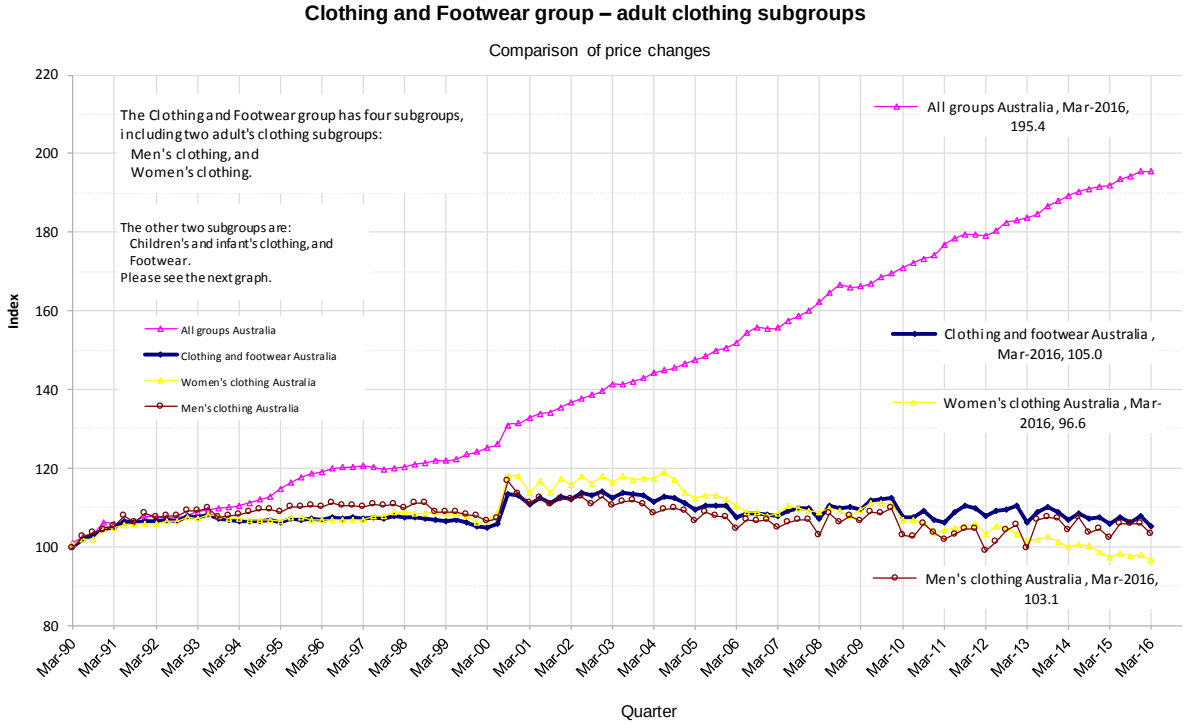

Figure 6: Clothing and Footwear, Adult Clothing price change comparison

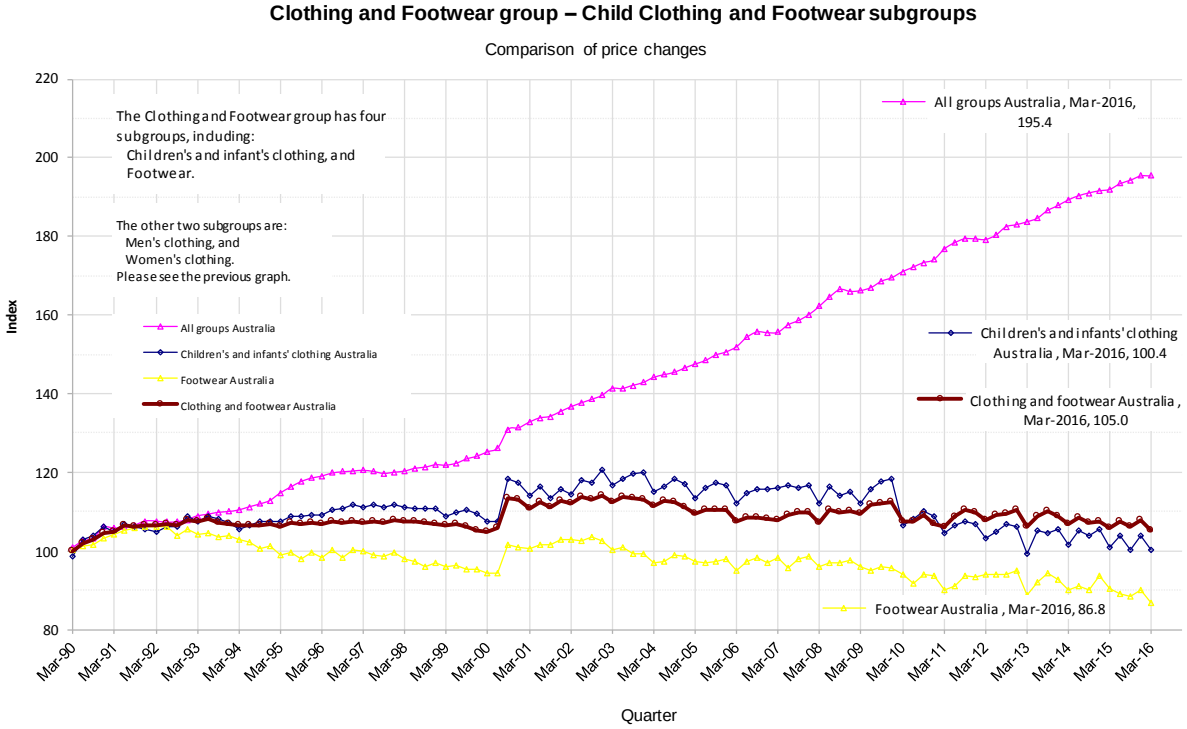

Figure 7: Children's and Infants' Clothing, and Footwear price change comparison

Clothing and Footwear price change table

Group, Subgroup or Class	Quarter	**Clothing and footwear**	Men's clothing	Women's clothing	Children's and infants' clothing	Footwear
Price Index, all household types	Mar-2016	105.0	103.1	96.6	100.4	86.8
	Mar-2015	105.9	102.1	97.1	101.0	90.3
	Mar-2011	106.1	101.9	104.0	104.6	89.9
	Mar-1990	100.0	99.5	100.4	98.7	100.1
Points increase	In last 12 months	-0.9	1.0	-0.5	-0.6	-3.5
	Previous 5 years	-1.1	1.2	-7.4	-4.2	-3.1
	Since Mar-1990	5.0	3.6	-3.8	1.7	-13.3
Percent increase	In last 12 months	-0.8%	1.0%	-0.5%	-0.6%	-3.8%
	Previous 5 years	-1.1%	1.2%	-7.1%	-4.0%	-3.5%
	Since Mar-1990	5.0%	3.6%	-3.8%	1.7%	-13.3%
Difference from CPI Australia percent increase	In last 12 months	-2.6%	-0.8%	-2.3%	-2.4%	-5.6%
	Previous 5 years	-11.6%	-9.4%	-17.7%	-14.6%	-14.0%
	Since Mar-1990	-88.6%	-90.0%	-97.4%	-91.9%	-106.9%
Ratio to CPI Australia increase	In last 12 months	-0.465	0.564	-0.303	-0.353	-2.159
	Previous 5 years	-0.099	0.111	-0.672	-0.383	-0.328
	Since Mar-1990	0.053	0.039	-0.040	0.018	-0.142

Table 7: Clothing and Footwear price change analysis

Since 1990, Australia's Clothing and Footwear price index has increased by 5.0%. This is 0.053 of the Australia All Groups increase of 93.6%, or a difference of -88.6%. Over the same period, the changes in its subgroup prices have all been much less than the CPI, between -14.2% and 3.9% of the All Groups increase. The Women's Clothing subgroup index has actually decreased slightly, by -3.8%, or -0.040 of the All Groups increase.

The clothing and footwear price index has increased much less than the CPI but it has only the seventh largest basket weight so - at a weight of 3.8% - it is not expected to have a particularly strong influence on long-term cost trends for most households.

Housing prices

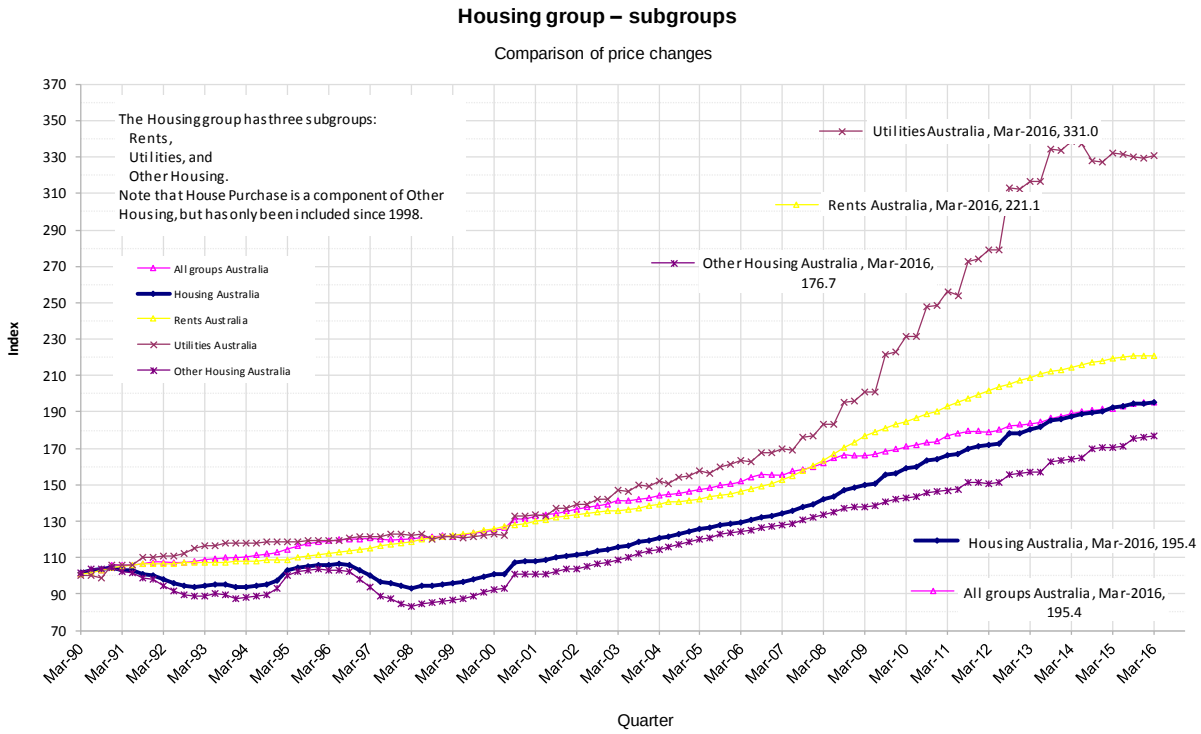

Figure 8: Housing price change comparison

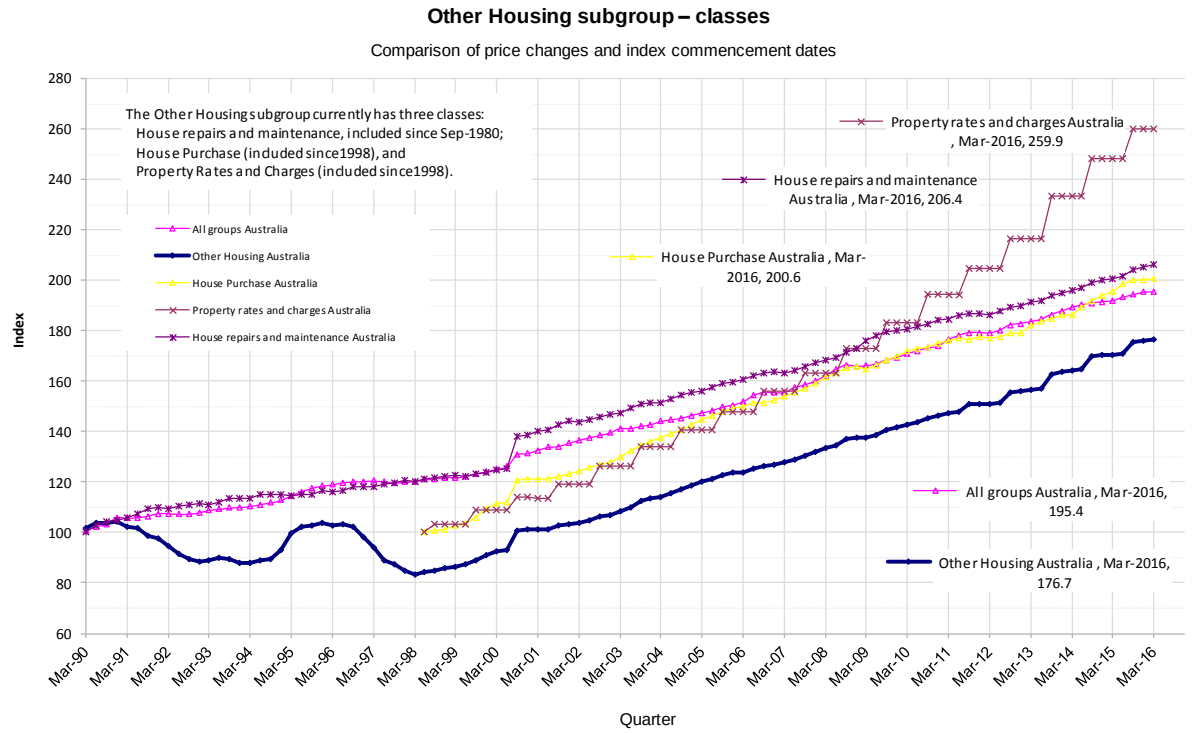

Figure 9: Home ownership (Other Housing) subgroup price change comparison

Housing price change table

Group, Subgroup or Class	Quarter	**Housing**	Rents	Utilities	Other Housing
Price Index, all household types	Mar-2016	195.4	221.1	331.0	176.7
	Mar-2015	192.1	219.1	332.4	170.6
	Mar-2011	166.4	193.0	256.1	147.2
	Mar-1990	101.4	100.7	100.4	101.7
Points increase	In last 12 months	3.3	2.0	-1.4	6.0
	Previous 5 years	29.0	28.1	74.9	29.5
	Since Mar-1990	94.0	120.4	230.6	75.0
Percent increase	In last 12 months	1.7%	0.9%	-0.4%	3.5%
	Previous 5 years	17.4%	14.5%	29.3%	20.0%
	Since Mar-1990	92.7%	119.5%	229.7%	73.7%
Difference from CPI Australia percent increase	In last 12 months	-0.1%	-0.9%	-2.2%	1.8%
	Previous 5 years	6.9%	4.0%	18.7%	9.5%
	Since Mar-1990	-0.9%	25.9%	136.1%	-19.9%
Ratio to CPI Australia increase	In last 12 months	0.954	0.515	-0.234	1.993
	Previous 5 years	1.649	1.378	2.771	1.896
	Since Mar-1990	0.990	1.277	2.454	0.787

Table 8: Housing price change analysis

Home ownership price change table

Group, Subgroup or Class	Quarter	Housing	**Other Housing**	House Purchase	Property rates and charges	House repairs and maintenance
Price Index, all household types	Mar-2016	195.4	176.7	200.6	259.9	206.4
	Mar-2015	192.1	170.6	195.6	248.4	200.6
	Mar-2011	166.4	147.2	176.2	194.4	184.9
	Mar-1990	101.4	101.7	100.0 (98)	100.0 (98)	100.4
Points increase	In last 12 months	3.3	6.0	5.0	11.5	5.8
	Previous 5 years	29.0	29.5	24.4	65.5	21.5
	Since Mar-1990	94.0	75.0	100.6 (98)	159.9 (98)	106.0
Percent increase	In last 12 months	1.7%	3.5%	2.5%	4.6%	2.9%
	Previous 5 years	17.4%	20.0%	13.8%	33.7%	11.6%
	Since Mar-1990	92.7%	73.7%	100.6% (98)	159.9% (98)	105.6%
Difference from CPI Australia percent increase	In last 12 months	-0.1%	1.8%	0.8%	2.8%	1.1%
	Previous 5 years	6.9%	9.5%	3.3%	23.1%	1.1%
	Since Mar-1990	-0.9%	-19.9%	6.9% (98)	66.3% (98)	12.0%
Ratio to CPI Australia increase	In last 12 months	0.954	1.993	1.427	2.595	1.625
	Previous 5 years	1.649	1.896	1.310	3.190	1.101
	Since Mar-1990	0.990	0.787	1.074 (98)	1.708 (98)	1.128

Table 9: Home ownership (Other Housing) subgroup price change analysis

Since 1990, Australia's Housing price index has increased by 92.7%. This is 0.990 of the Australia All Groups increase of 93.6%, or a difference of -0.9%. In contrast, the prices of Rents and Utilities have increased by 1.277 and 2.454 times the All Groups increase, respectively. Home ownership (Other Housing) has increased less than the CPI increase, at 0.787 of the All Groups increase.

Although the Housing price index is much less than the All Groups index, it has the largest basket weight. At a weight of 22.0%, it is expected to have a strong downward influence on long-term cost trends for most household groups. The disparity between the Rents and Home Ownership index rates suggests that this effect would not be universal: household groups with a relatively high proportion of housing expenditure on rents would not experience such a strong downward effect. For All

Households, the Rents weight is 6.7%, a little over half of the Home Ownership weight of 11.7% (see Table 26, page 42) although these weights reflect the proportions of households renting and owning houses, not just the average expenditure levels.

Utilities prices (Housing)

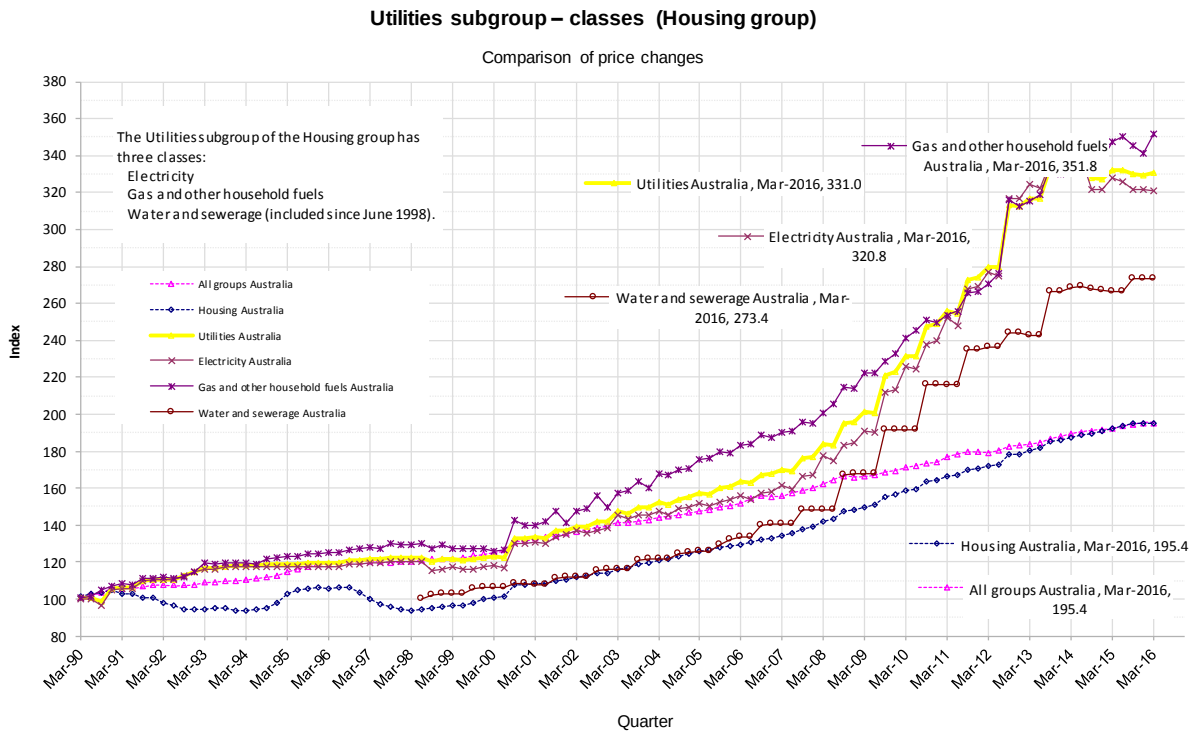

Figure 10: Utilities subgroup price change comparison

Utilities price change table

Group, Subgroup or Class	Quarter	Housing	**Utilities**	Electricity	Gas and other household fuels	Water and sewerage
Price Index, all household types	Mar-2016	195.4	331.0	320.8	351.8	273.4
	Mar-2015	192.1	332.4	327.8	347.2	266.6
	Mar-2011	166.4	256.1	252.3	253.5	216.2
	Mar-1990 (Jun-98)	101.4	100.4	100.2	100.9	100.0 (98)
Points increase	In last 12 months	3.3	-1.4	-7.1	4.6	6.8
	Previous 5 years	29.0	74.9	68.5	98.3	57.2
	Since Mar-1990 (Jun-	94.0	230.6	220.6	250.9	173.4 (98)
Percent increase	In last 12 months	1.7%	-0.4%	-2.2%	1.3%	2.6%
	Previous 5 years	17.4%	29.3%	27.1%	38.8%	26.5%
	Since Mar-1990 (Jun-	92.7%	229.7%	220.1%	248.6%	173.4% (98)
Difference from CPI Australia percent increase	In last 12 months	-0.1%	-2.2%	-3.9%	-0.5%	0.8%
	Previous 5 years	6.9%	18.7%	16.6%	28.2%	15.9%
	Since Mar-1990 (Jun-	-0.9%	136.1%	126.5%	155.0%	79.8% (98)
Ratio to CPI Australia increase	In last 12 months	0.954	-0.234	-1.214	0.743	1.441
	Previous 5 years	1.649	2.771	2.570	3.671	2.507
	Since Mar-1990 (Jun-	0.990	2.454	2.351	2.656	1.853 (98)

Table 10: Utilities subgroup price change analysis

The Utilities subgroup index is 2.454 of Australia's All Groups index. The Electricity index is 2.351 and Gas and Other Household Fuels 2.656 times the All Groups index (see Table 10).

The index for Water and Sewerage only started in June 1998, so the rate from 1990 is not available as such. The Water and Sewerage index increased at about the same rate as inflation from June 1998 to June 2003 but at a higher rate, similar to other utilities, to the current quarter (see Figure 10).

At a weight of 3.7%, the Utilities subgroup has the smallest proportion of the Housing subgroup weights and would not expected to have a particularly strong influence on long-term cost trends for most household types (the Housing group has a total weight of 22.0%) except that the price index is very high. However, some household types have significantly higher than average relative expenditures on utilities, particularly among low income households.

Household Contents and Services

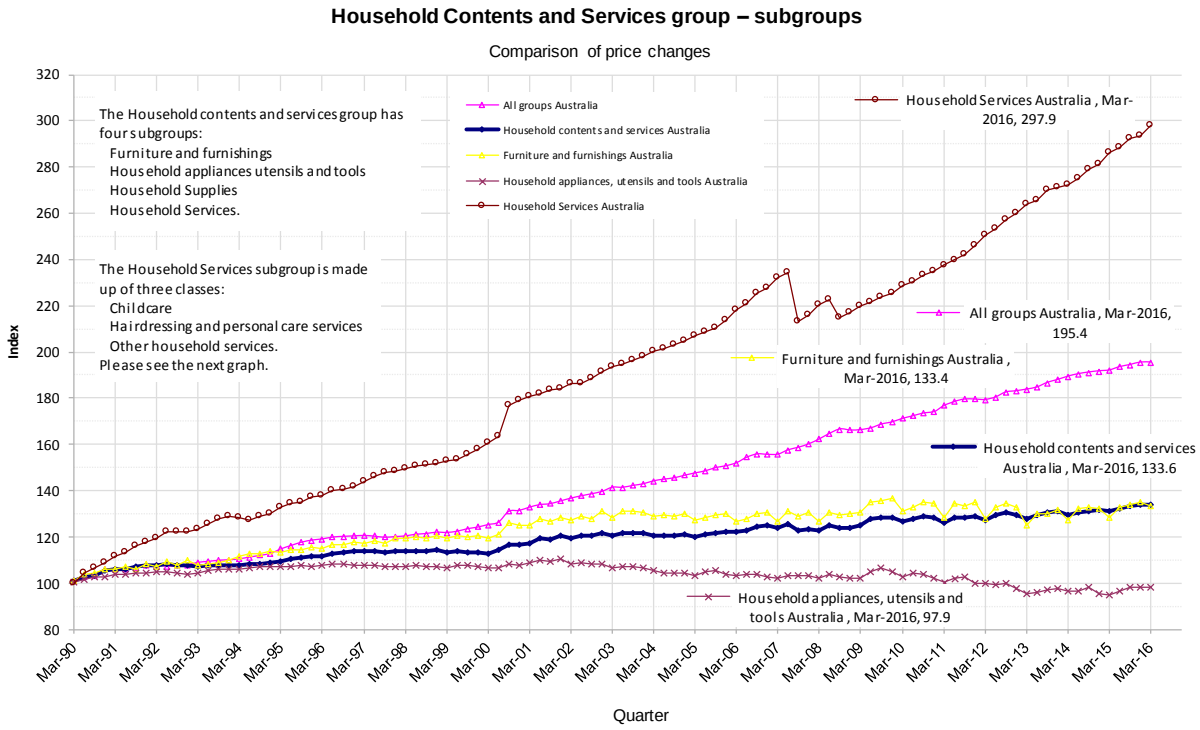

Figure 11: Household Contents and Services price change comparison

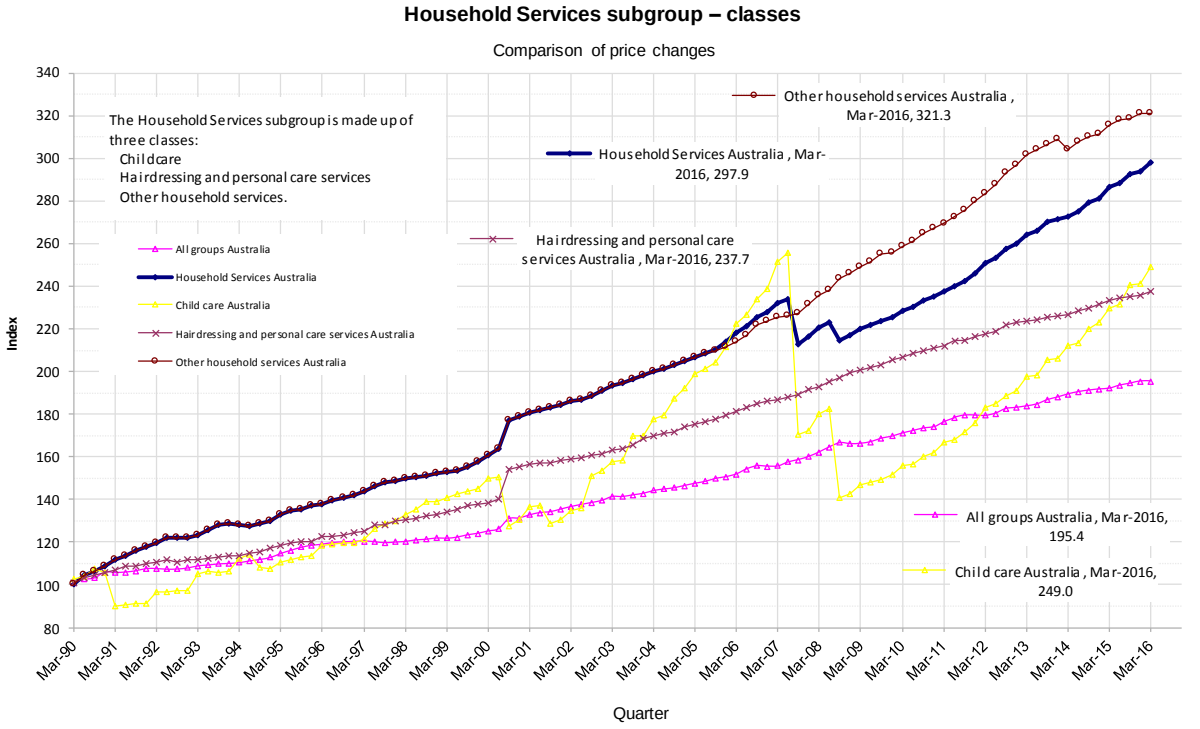

Figure 12: Household Services price change comparison

Household Contents and Services price change table

Group, Subgroup or Class	Quarter	**Household contents and services**	Furniture and furnishings	Household appliances, utensils and tools	Household Services	Household Supplies
Price Index, all household types	Mar-2016	133.6	133.4	97.9	297.9	140.1
	Mar-2015	131.1	128.5	94.9	286.2	142.9
	Mar-2011	126.2	128.2	100.3	237.6	144.3
	Mar-1990	100.7	100.8	100.4	100.0	100.6
Points increase	In last 12 months	2.6	4.9	3.0	11.7	-2.8
	Previous 5 years	7.4	5.2	-2.4	60.3	-4.2
	Since Mar-1990	32.9	32.6	-2.5	197.9	39.5
Percent increase	In last 12 months	2.0%	3.8%	3.2%	4.1%	-2.0%
	Previous 5 years	5.9%	4.1%	-2.4%	25.4%	-2.9%
	Since Mar-1990	32.7%	32.3%	-2.5%	197.9%	39.2%
Difference from CPI Australia percent increase	In last 12 months	0.2%	2.0%	1.4%	2.3%	-3.8%
	Previous 5 years	-4.7%	-6.5%	-13.0%	14.8%	-13.5%
	Since Mar-1990	-60.9%	-61.3%	-96.1%	104.3%	-54.4%
Ratio to CPI Australia increase	In last 12 months	1.102	2.140	1.786	2.291	-1.115
	Previous 5 years	0.557	0.385	-0.228	2.403	-0.278
	Since Mar-1990	0.349	0.346	-0.027	2.114	0.419

Table 11: Household Contents and Services price change analysis

Household Services price change table

Group, Subgroup or Class	Quarter	Household contents and services	**Household Services**	Child care	Hairdressing and personal care services	Other household services
Price Index, all household types	Mar-2016	133.6	297.9	249.0	237.7	321.3
	Mar-2015	131.1	286.2	229.9	233.2	315.3
	Mar-2011	126.2	237.6	166.7	212.3	269.3
	Mar-1990	100.7	100.0	102.5	101.0	100.0
Points increase	In last 12 months	2.6	11.7	19.1	4.6	5.9
	Previous 5 years	7.4	60.3	82.3	25.4	52.0
	Since Mar-1990	32.9	197.9	146.5	136.7	221.3
Percent increase	In last 12 months	2.0%	4.1%	8.3%	2.0%	1.9%
	Previous 5 years	5.9%	25.4%	49.4%	12.0%	19.3%
	Since Mar-1990	32.7%	197.9%	142.9%	135.4%	221.3%
Difference from CPI Australia percent increase	In last 12 months	0.2%	2.3%	6.5%	0.2%	0.1%
	Previous 5 years	-4.7%	14.8%	38.8%	1.4%	8.7%
	Since Mar-1990	-60.9%	104.3%	49.3%	41.7%	127.6%
Ratio to CPI Australia increase	In last 12 months	1.102	2.291	4.681	1.099	1.056
	Previous 5 years	0.557	2.403	4.675	1.133	1.827
	Since Mar-1990	0.349	2.114	1.527	1.446	2.363

Table 12: Household Services price change analysis

Since 1990, Australia's Household Contents and Services price index has increased by 32.7%. This is 0.349 of the Australia All Groups increase of 93.6%, or a difference of -60.9%. Similarly, the indices of three of its subgroups: Furniture & furnishings; Household appliances, utensils & tools; and Household Supplies; have increased by 0.346, -0.027 and 0.419 of the All Groups increase, respectively. In contrast, Household Services index has increased much more, at 2.114 times the All Groups increase.

Household Contents and Services has the fifth largest basket weight, at 8.8%, and its price index has increased significantly less than the All Groups Index, so it is expected to exert some significant downward pressure on long-term cost trends, for most households. The individual classes of the Household Services subgroup have significantly different rates of price change. Child Care has risen at

1.527 of Australia's All Group's index whereas Hairdressing and Personal Care Services has risen by 1.446 times Australia's All Group's index, since 1990, although Child Care is again rising more sharply.

Household Supplies

The price indices of all three classes of the Household Supplies subgroup have risen at low rates, similar to the subgroup as a whole: Household cleaning agents, Toiletries and Personal Care Products, and Other Household Supplies have risen at 0.325, 0.351 and 0.608 of Australia's All Groups increase.

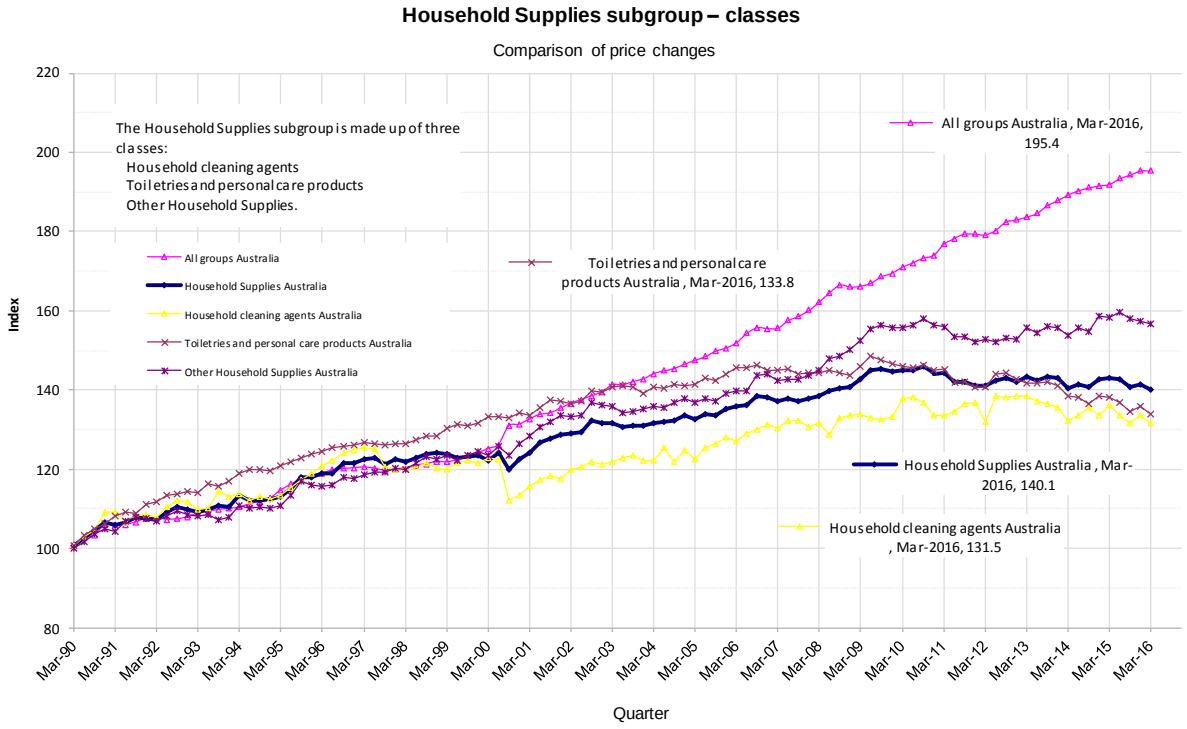

Figure 13: Household Supplies price change comparison

Household Supplies price change table

Group, Subgroup or Class	Quarter	Household contents and services	**Household Supplies**	Household cleaning agents	Toiletries and personal care products	Other Household Supplies
Price Index, all household types	Mar-2016	133.6	140.1	131.5	133.8	156.8
	Mar-2015	131.1	142.9	136.1	138.0	158.4
	Mar-2011	126.2	144.3	133.4	145.4	156.0
	Mar-1990	100.7	100.6	100.8	100.7	99.9
Points increase	In last 12 months	2.6	-2.8	-4.6	-4.3	-1.7
	Previous 5 years	7.4	-4.2	-1.9	-11.6	0.8
	Since Mar-1990	32.9	39.5	30.7	33.1	56.9
Percent increase	In last 12 months	2.0%	-2.0%	-3.4%	-3.1%	-1.1%
	Previous 5 years	5.9%	-2.9%	-1.4%	-8.0%	0.5%
	Since Mar-1990	32.7%	39.2%	30.5%	32.8%	56.9%
Difference from CPI Australia percent increase	In last 12 months	0.2%	-3.8%	-5.2%	-4.9%	-2.8%
	Previous 5 years	-4.7%	-13.5%	-12.0%	-18.6%	-10.1%
	Since Mar-1990	-60.9%	-54.4%	-63.1%	-60.8%	-36.7%
Ratio to CPI Australia increase	In last 12 months	1.102	-1.115	-1.909	-1.735	-0.596
	Previous 5 years	0.557	-0.278	-0.134	-0.757	0.046
	Since Mar-1990	0.349	0.419	0.325	0.351	0.608

Table 13: Household Supplies price change analysis

Health prices

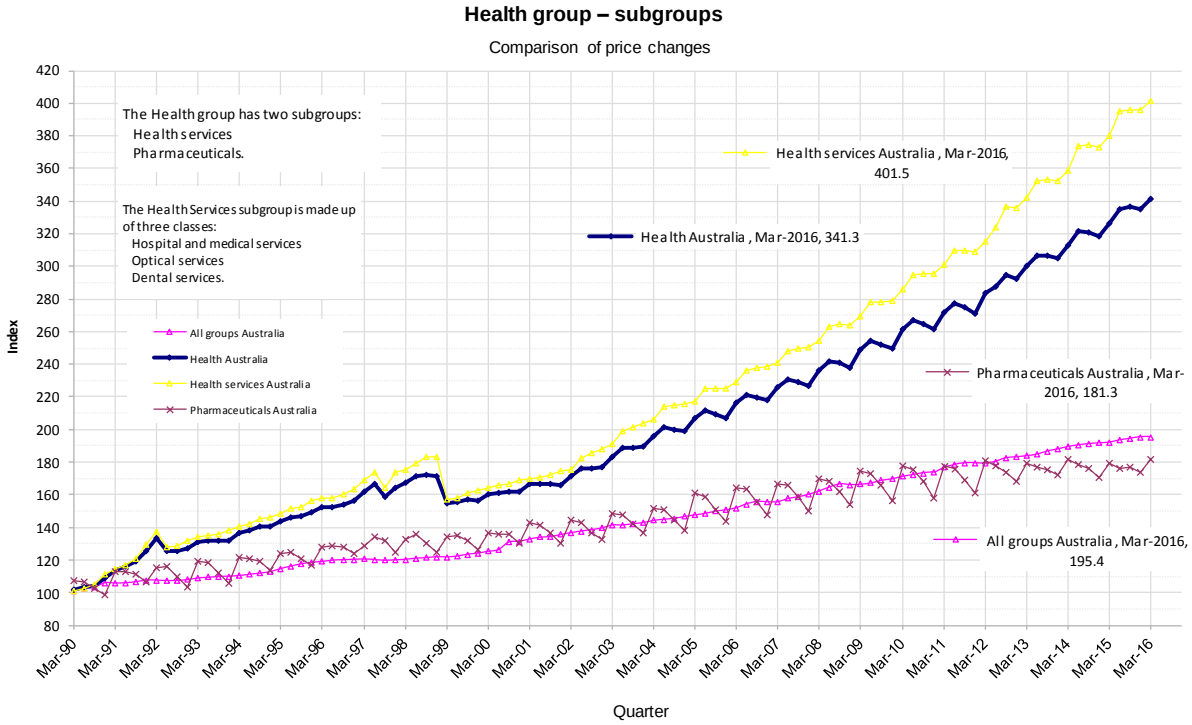

Figure 14: Health price change comparison

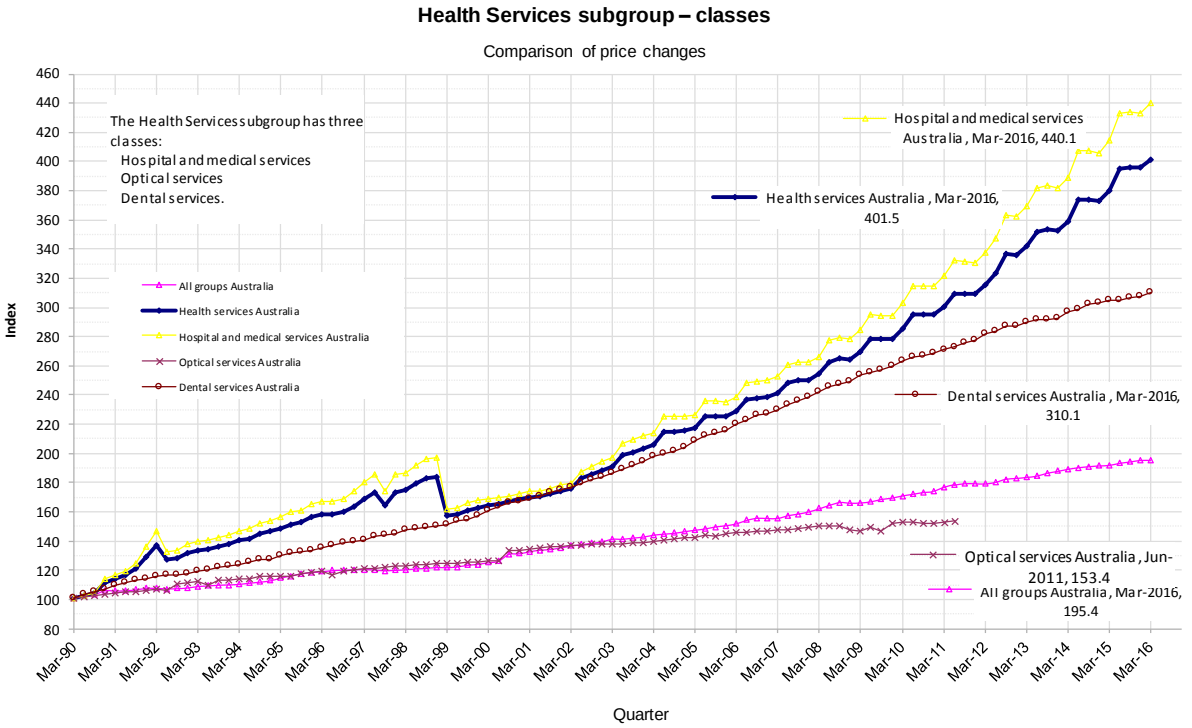

Figure 15: Health Services price change comparison

Since 1990, Australia's Health price index has increased by 234.6%. This is 2.506 times the Australia All Groups increase of 93.6%, and a difference of 141.0%. The increase is largely attributable to the Health Services subgroup which has increased by 3.178 times the All Groups increase. In contrast, Health

Services index has increased by 0.740 of the All Groups increase. The Health price index has increased very substantially more than the All Groups increase, and with a low-to-moderate basket weight, at 5.1% (the eight largest) it is not expected to exert a strong upward pressure on long-term cost trends, for many household groups but could have considerable effect on some.

Health price change table

Group, Subgroup or Class	Quarter	**Health**	Health services	Pharmaceuticals
Price Index, all household types	Mar-2016	341.3	401.5	181.3
	Mar-2015	326.2	380.5	179.5
	Mar-2011	271.9	300.9	177.5
	Mar-1990	102.0	101.0	107.1
Points increase	In last 12 months	15.1	21.1	1.7
	Previous 5 years	69.4	100.6	3.8
	Since Mar-1990	239.3	300.5	74.2
Percent increase	In last 12 months	4.6%	5.5%	1.0%
	Previous 5 years	25.5%	33.4%	2.1%
	Since Mar-1990	234.6%	297.6%	69.2%
Difference from CPI Australia percent increase	In last 12 months	2.8%	3.8%	-0.8%
	Previous 5 years	15.0%	22.9%	-8.4%
	Since Mar-1990	141.0%	203.9%	-24.4%
Ratio to CPI Australia increase	In last 12 months	2.599	3.115	0.539
	Previous 5 years	2.418	3.167	0.201
	Since Mar-1990	2.506	3.178	0.740

Table 14: Health price change analysis

Health Services price change table

Group, Subgroup or Class	Quarter	Health	**Health services**	Hospital and medical services	Optical services	Dental services
Price Index, all household types	Mar-2016	341.3	401.5	440.1	#N/A	310.1
	Mar-2015	326.2	380.5	414.5	#N/A	304.7
	Mar-2011	271.9	300.9	321.5	152.8	271.1
	Mar-1990	102.0	101.0	101.0	100.4	100.8
Points increase	In last 12 months	15.1	21.1	25.6	#N/A	5.3
	Previous 5 years	69.4	100.6	118.6	#N/A	39.0
	Since Mar-1990	239.3	300.5	339.1	#N/A	209.3
Percent increase	In last 12 months	4.6%	5.5%	6.2%	#N/A	1.7%
	Previous 5 years	25.5%	33.4%	36.9%	#N/A	14.4%
	Since Mar-1990	234.6%	297.6%	335.8%	#N/A	207.6%
Difference from CPI Australia percent increase	In last 12 months	2.8%	3.8%	4.4%	#N/A	0.0%
	Previous 5 years	15.0%	22.9%	26.3%	#N/A	3.8%
	Since Mar-1990	141.0%	203.9%	242.2%	#N/A	114.0%
Ratio to CPI Australia increase	In last 12 months	2.599	3.115	3.476	#N/A	0.983
	Previous 5 years	2.418	3.167	3.495	#N/A	1.361
	Since Mar-1990	2.506	3.178	3.587	#N/A	2.217

Table 15: Health Services price change analysis

The individual classes of the Health Services subgroup contrast significantly: the Hospital and Medical Services index has risen by 3.587 times Australia's All Group's index, significantly more than Dental Services which has risen by 2.217 times the All Group's index and in marked contrast to the Optical Services index which reached 153.4 points at Jun- 2011, an increase of only 0.688 of the All Groups increase. The Optical Services index was discontinued with the introduction of the 16th CPI series.

Transport prices

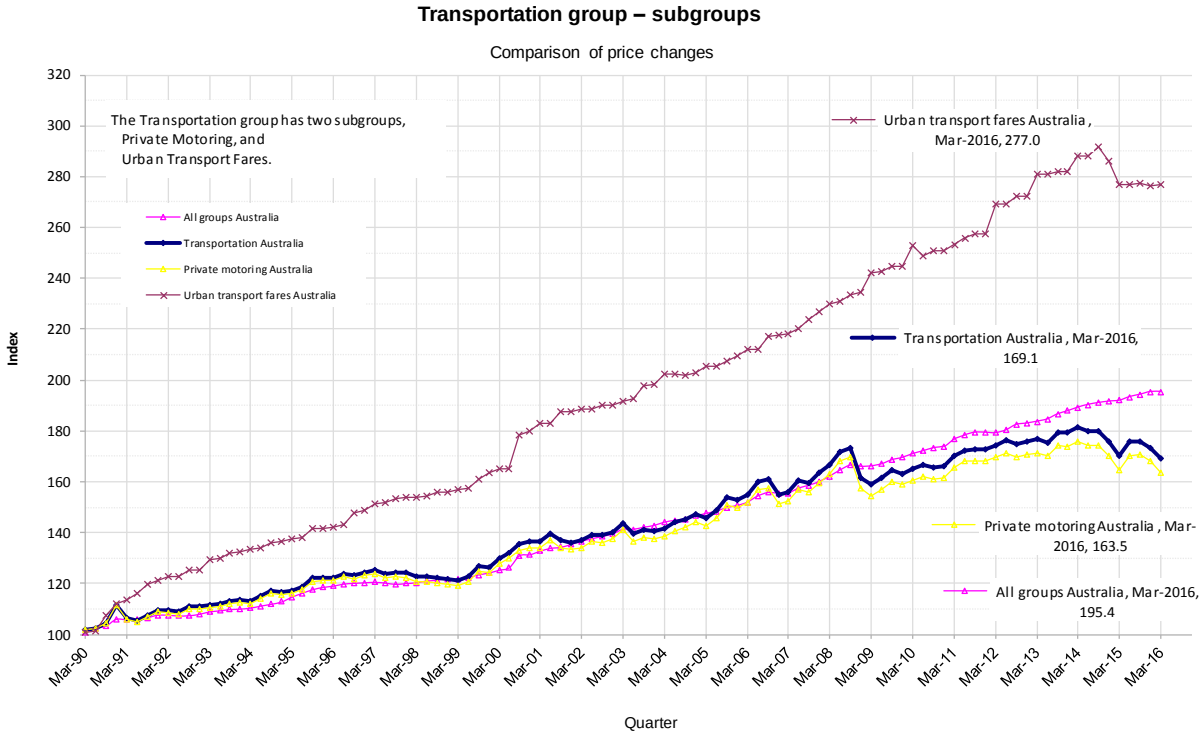

Figure 16: Transport price change comparison

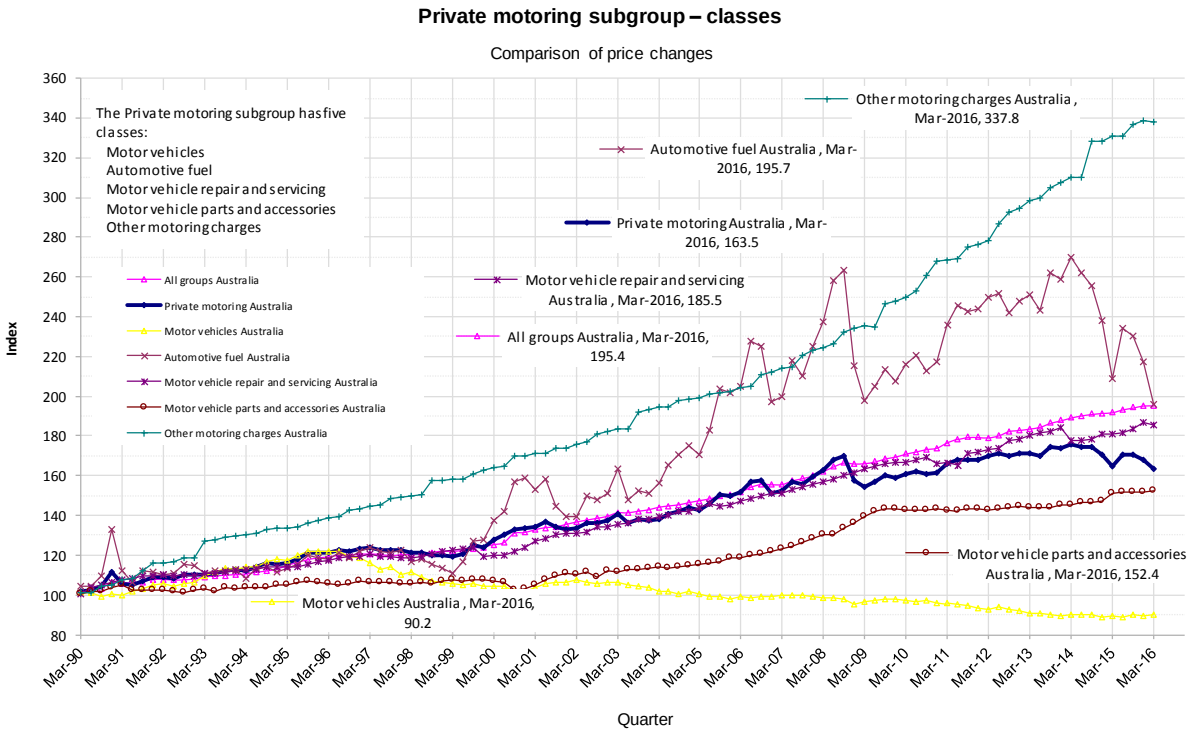

Figure 17: Private motoring price change comparison

Australia's Transportation price index has increased by 66.3%. This is 0.708 of the Australia All Groups increase of 93.6%, or a difference of -27.3%. This is largely attributable to the Private Motoring

subgroup which has increased by 0.647 of the All Groups increase. In contrast, the Urban Transport Fares index has increased by 1.867 times the All Groups increase.

Transport price change table

Group, Subgroup or Class	Quarter	**Transportation**	Private motoring	Urban transport fares
Price Index, all household types	Mar-2016	169.1	163.5	277.0
	Mar-2015	170.0	164.5	276.7
	Mar-2011	170.3	165.8	253.2
	Mar-1990	101.7	101.8	100.8
Points increase	In last 12 months	-0.9	-1.0	0.3
	Previous 5 years	-1.2	-2.3	23.8
	Since Mar-1990	67.4	61.7	176.2
Percent increase	In last 12 months	-0.5%	-0.6%	0.1%
	Previous 5 years	-0.7%	-1.4%	9.4%
	Since Mar-1990	66.3%	60.6%	174.8%
Difference from CPI Australia percent increase	In last 12 months	-2.3%	-2.4%	-1.7%
	Previous 5 years	-11.3%	-11.9%	-1.2%
	Since Mar-1990	-27.3%	-33.0%	81.1%
Ratio to CPI Australia increase	In last 12 months	-0.288	-0.347	0.054
	Previous 5 years	-0.067	-0.131	0.889
	Since Mar-1990	0.708	0.647	1.867

Table 16: Transport price change analysis

Private motoring price change table

Group, Subgroup or Class	Quarter	**Private motoring**	Motor vehicles	Automotive fuel	Motor vehicle repair and servicing	Motor vehicle parts and accessories	Other motoring charges
Price Index, all household types	Mar-2016	163.5	90.2	195.7	185.5	152.4	337.8
	Mar-2015	164.5	89.1	209.0	180.8	150.9	330.9
	Mar-2011	165.8	95.6	236.1	166.8	142.8	268.8
	Mar-1990	101.8	101.0	104.2	100.6	100.6	100.9
Points increase	In last 12 months	-1.0	1.0	-13.3	4.7	1.4	7.0
	Previous 5 years	-2.3	-5.4	-40.4	18.7	9.6	69.0
	Since Mar-1990	61.7	-10.8	91.5	84.9	51.8	236.9
Percent increase	In last 12 months	-0.6%	1.2%	-6.4%	2.6%	0.9%	2.1%
	Previous 5 years	-1.4%	-5.7%	-17.1%	11.2%	6.7%	25.7%
	Since Mar-1990	60.6%	-10.7%	87.8%	84.4%	51.5%	234.8%
Difference from CPI Australia percent increase	In last 12 months	-2.4%	-0.6%	-8.2%	0.8%	-0.8%	0.3%
	Previous 5 years	-11.9%	-16.3%	-27.7%	0.6%	-3.8%	15.1%
	Since Mar-1990	-33.0%	-104.4%	-5.8%	-9.2%	-42.1%	141.2%
Ratio to CPI Australia increase	In last 12 months	-0.347	0.650	-3.591	1.450	0.534	1.186
	Previous 5 years	-0.131	-0.539	-1.621	1.061	0.635	2.432
	Since Mar-1990	0.647	-0.115	0.938	0.901	0.550	2.508

Table 17: Private motoring price change analysis

Although Transportation has the fourth largest basket weight, at 11.2%, its price index has increased only marginally more than the All Groups increase, so it is expected to have a fairly neutral influence on long-term cost trends for most household types. However, the disparity between the increases in the Private Motoring and Urban Transport Fares indices suggests that this effect would not be universal: household groups with a relatively high proportion of transport expenditure on Urban Transport Fares could experience a fairly strong upward cost pressure. For All Households, the Urban Transport Fares weight is 0.8%, much smaller than the Private Motoring weight of 10.4%. However, these weights

reflect the proportions of households using public transport and private motoring as well as the average expenditures on each (see Table 26, page 42).

Communications prices

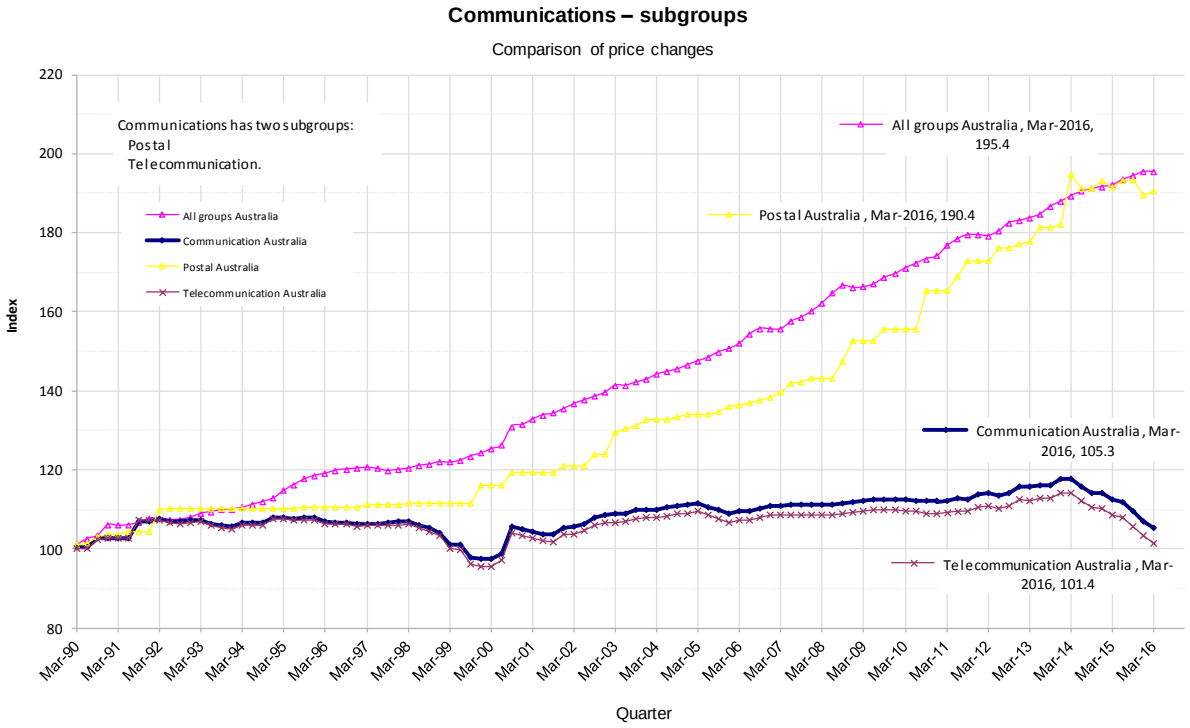

Figure 18: Communications price change comparison

Communications price change table

Group, Subgroup or Class	Quarter	**Communication**	Postal	Telecommunication
Price Index, all household types	Mar-2016	105.3	190.4	101.4
	Mar-2015	112.5	191.5	108.7
	Mar-2011	112.2	165.4	109.2
	Mar-1990	100.3	101.1	100.2
Points increase	In last 12 months	-7.2	-1.0	-7.3
	Previous 5 years	-6.9	25.0	-7.8
	Since Mar-1990	5.0	89.3	1.2
Percent increase	In last 12 months	-6.4%	-0.5%	-6.7%
	Previous 5 years	-6.1%	15.1%	-7.1%
	Since Mar-1990	5.0%	88.4%	1.2%
Difference from CPI Australia percent increase	In last 12 months	-8.1%	-2.3%	-8.5%
	Previous 5 years	-16.7%	4.6%	-17.7%
	Since Mar-1990	-88.6%	-5.2%	-92.4%
Ratio to CPI Australia increase	In last 12 months	-3.577	-0.306	-3.766
	Previous 5 years	-0.580	1.434	-0.673
	Since Mar-1990	0.053	0.944	0.013

Table 18: Communication price change analysis

Since 1990, Australia's Communications price index has increased by 5.0%. This is 0.053 of the Australia All Groups increase of 93.6%, and a difference of -88.6%. The increase is largely attributable to the

Telecommunication subgroup which has increased by 0.013 of the All Groups increase. In contrast, the Postal index has increased by 0.944 of the All Groups increase.

The Communications price index has increased at a significantly lower rate than the All Groups Index but with a basket weight of only 3.0% (the lowest) it is not expected to have a particularly strong downwards influence on long-term cost trends for most households.

Recreation prices

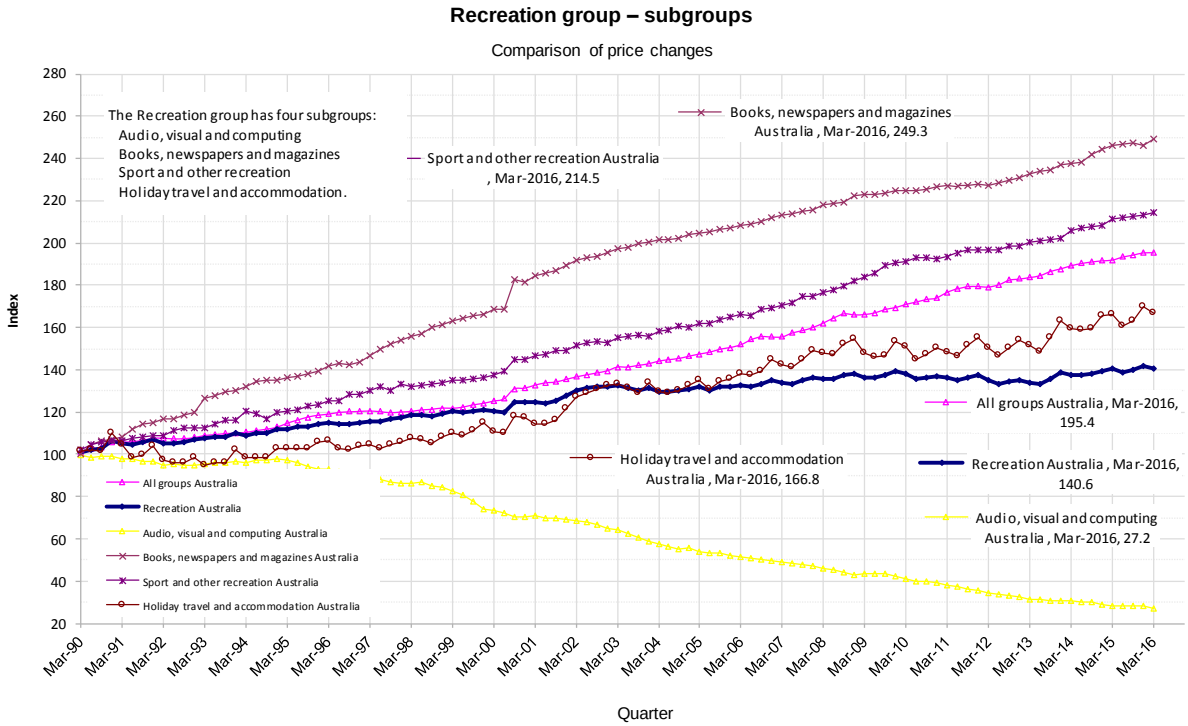

Figure 19: Recreation price change comparison

Recreation price change table

Group, Subgroup or Class	Quarter	**Recreation**	Audio, visual and computing	Books, newspapers and magazines	Sport and other recreation	Holiday travel and accommodation
Price Index, all household types	Mar-2016	140.6	27.2	249.3	214.5	166.8
	Mar-2015	140.5	28.4	246.3	211.1	166.5
	Mar-2011	136.0	37.9	227.5	193.9	148.4
	Mar-1990	100.9	99.5	100.4	102.0	101.4
Points increase	In last 12 months	0.1	-1.2	3.0	3.3	0.3
	Previous 5 years	4.6	-10.7	21.8	20.6	18.4
	Since Mar-1990	39.7	-72.3	148.9	112.5	65.4
Percent increase	In last 12 months	0.1%	-4.3%	1.2%	1.6%	0.2%
	Previous 5 years	3.4%	-28.2%	9.6%	10.6%	12.4%
	Since Mar-1990	39.4%	-72.7%	148.3%	110.3%	64.5%
Difference from CPI Australia percent increase	In last 12 months	-1.7%	-6.1%	-0.6%	-0.2%	-1.6%
	Previous 5 years	-7.2%	-38.8%	-1.0%	0.1%	1.8%
	Since Mar-1990	-54.3%	-166.3%	54.6%	16.7%	-29.1%
Ratio to CPI Australia increase	In last 12 months	0.054	-2.416	0.676	0.891	0.102
	Previous 5 years	0.322	-2.674	0.906	1.006	1.173
	Since Mar-1990	0.420	-0.776	1.584	1.178	0.689

Table 19: Recreation price change analysis

Since 1990, Australia's Recreation price index has increased by 39.4%. This is 0.420 of the Australia All Groups increase of 93.6%, and a difference of -54.3%. The relatively low increase is strongly influenced by the Audio, Visual and Computing subgroup which has increased by -0.776 of the All Groups increase, and Holiday Travel and Accommodation which increased by 0.689 of the All Groups increase. In contrast, the Books, Newspapers and Magazines index has increased by 1.584 times the All Groups increase and Sport and Other Recreation by 1.178 times the All Groups increase.

The Recreation price index has increased at a significantly lower rate than the CPI and with a basket weight of 12.1% – the third largest – it is expected to have a fairly strong downward influence on long-term cost trends, across all households at least. Because a significant proportion of Recreation expenditure may be considered to be discretionary, this effect could be expected to be less pronounced in poorer households.

Education prices

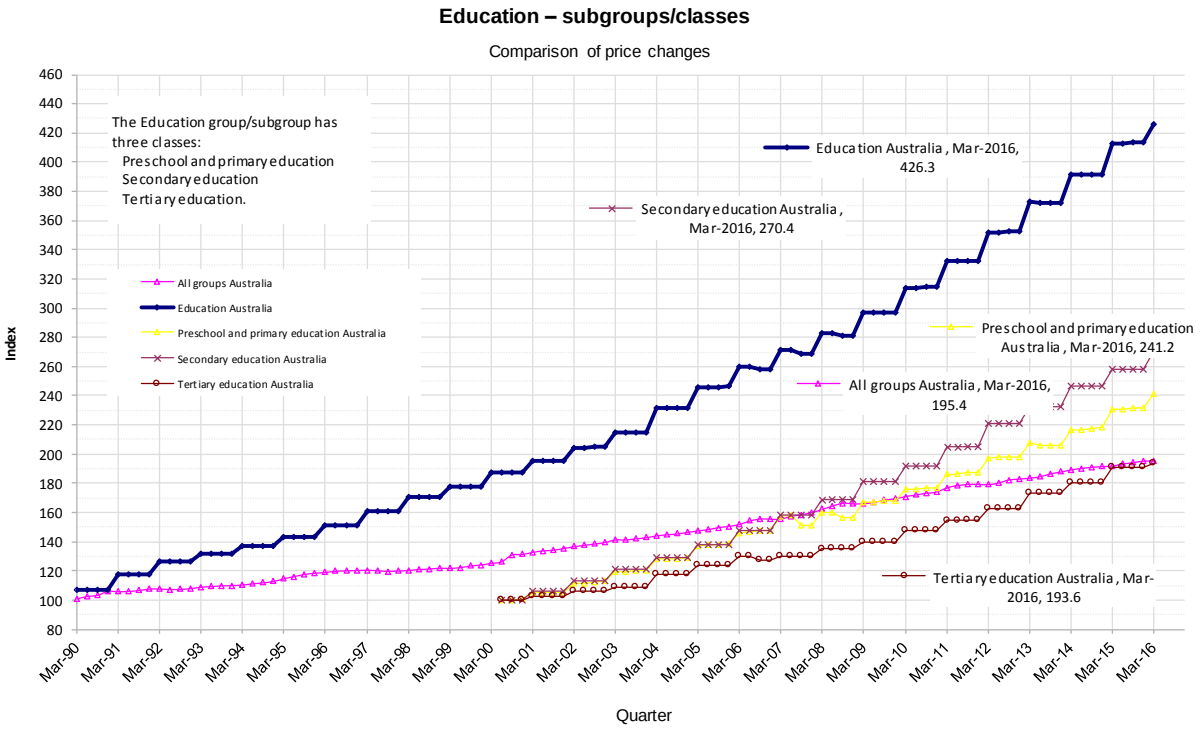

Figure 20: Education price change comparison

Education price change table

Group, Subgroup or Class	Quarter	**Education**	Preschool and primary education	Secondary education	Tertiary education
Price Index, all household types	Mar-2016	426.3	241.2	270.4	193.6
	Mar-2015	412.6	230.3	258.4	190.6
	Mar-2011	332.2	186.6	205.0	154.9
	Mar-1990 (Jun-00)	106.6	100.0 (00)	138.3 (00)	123.9 (00)
Points increase	In last 12 months	13.7	11.0	11.9	3.0
	Previous 5 years	94.1	54.6	65.4	38.7
	Since Mar-1990 (Jun-	319.7	141.2 (00)	132.1 (00)	69.7 (00)
Percent increase	In last 12 months	3.3%	4.8%	4.6%	1.6%
	Previous 5 years	28.3%	29.3%	31.9%	25.0%
	Since Mar-1990 (Jun-	299.9%	141.2% (00)	95.5% (00)	56.2% (00)
Difference from CPI Australia percent increase	In last 12 months	1.5%	3.0%	2.8%	-0.2%
	Previous 5 years	17.8%	18.7%	21.3%	14.4%
	Since Mar-1990 (Jun-	206.3%	47.6% (00)	1.9% (00)	-37.4% (00)
Ratio to CPI Australia increase	In last 12 months	1.866	2.679	2.595	0.889
	Previous 5 years	2.682	2.773	3.019	2.365
	Since Mar-1990 (Jun-	3.203	1.509 (00)	1.020 (00)	0.601 (00)

Table 20: Education price change analysis

Australia's Education price index has increased by 299.9%. This is 3.203 times the Australia All Groups increase of 93.6%, a difference 206.3% between percentage increases.

The price index changes for the Education subgroups are not available from 1990 because they were not introduced as discrete subgroups until June 2000. Since 2000, the three Education subgroups,

Preschool & Primary Education, Secondary Education, and Tertiary Education, have increased by 1.509 (00), 1.020 (00), and 0.601 (00) times Australia's All Groups index increase of 54.8% respectively. The figures in brackets represent the year from which the change is calculated (00 is the year 2000).

The Education price index has increased at a much higher rate than the CPI but with the second lowest of the basket weights, at 3.1%, it is not expected to have a strong influence on long-term cost trends for the majority of household groups.

Financial and Insurance Services prices

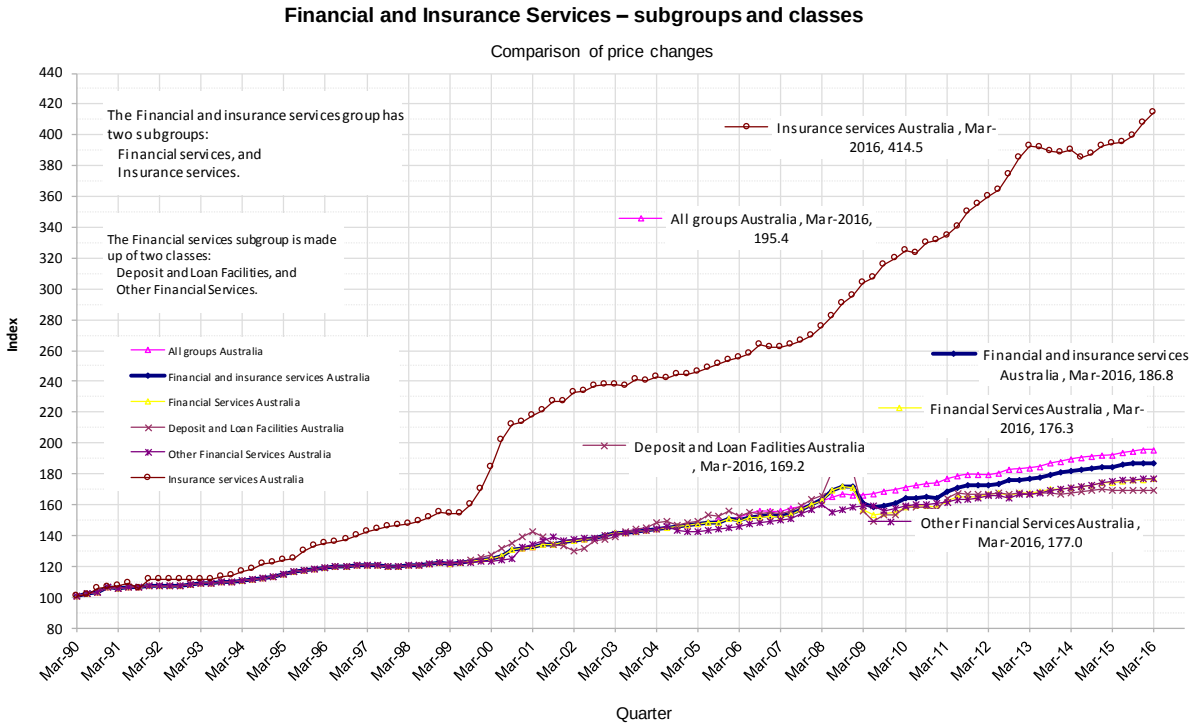

Figure 21: Financial and Insurance Services price change comparison

Financial and Insurance Services price change table

Group, Subgroup or Class	Quarter	**Financial and insurance services 1**	**Financial Services 1**	Deposit and Loan Facilities 1	Other Financial Services 1	**Insurance services**
Price Index, all household types	Mar-2016	186.8	176.3	169.2	177.0	414.5
	Mar-2015	184.4	174.5	169.4	174.7	394.1
	Mar-2011	168.6	162.6	163.9	162.0	335.1
	Mar-1990	100.9	100.9	100.9	100.9	100.5
Points increase	In last 12 months	2.4	1.8	-0.2	2.3	20.4
	Previous 5 years	18.2	13.7	5.4	14.9	79.4
	Since Mar-1990	85.9	75.4	68.3	76.1	314.0
Percent increase	In last 12 months	1.3%	1.0%	-0.1%	1.3%	5.2%
	Previous 5 years	10.8%	8.4%	3.3%	9.2%	23.7%
	Since Mar-1990	85.1%	74.7%	67.7%	75.4%	312.4%
Difference from CPI Australia percent increase	In last 12 months	-0.5%	-0.7%	-1.9%	-0.5%	3.4%
	Previous 5 years	0.2%	-2.2%	-7.3%	-1.3%	13.1%
	Since Mar-1990	-8.5%	-18.9%	-25.9%	-18.2%	218.8%
Ratio to CPI Australia increase	In last 12 months	0.738	0.589	-0.055	0.743	2.908
	Previous 5 years	1.023	0.796	0.311	0.873	2.243
	Since Mar-1990	0.909	0.798	0.723	0.805	3.337

* With Financial Services and its classes re-indexed to 100 points at 1989-90

Table 21: Financial and insurance services price change analysis

The ABS price indices for the Financial and Insurance Services group are only published from June 2005 onwards because this group was not incorporated as a whole group into the CPI until then. For the current RPI the Financial Services subgroup and its classes are re-indexed to a value of 100 points at 1989-90. The re-indexed time series and change tables are shown in Figure 21 and Table 21, above. The

Insurance Services subgroup has been part of the CPI since 1990: its price index has risen by 3.337 times Australia's All Groups index since 1990, or a difference of 218.8% from the All Groups increase (see Table 21, above).

The Financial Services subgroup index has increased by 0.798 of Australia's All Groups index increase since Mar-1990, or a difference of -18.9% from the Groups increase (with the Financial Services subgroup indexed to 1989-90).

Over the last five years, the Financial and Insurance Services group index has increased by 1.023 of Australia's All Groups index compared to the Insurance Services subgroup's increase of 2.243, and the Financial Services subgroup's increase of 0.796, of the All Groups index.

Financial and Insurance Services 2005-base prices

The original time series and change tables indexed to Mar-2005 are shown in Figure 21 and Table 22, above. The original price indices for the Financial and Insurance Services group are only published from June 2005 onwards because it was not incorporated as a whole group into the CPI until then. Since Jun-2005 it has increased by 0.818 of Australia's All Groups index increase of 31.6% since June 2005, or a difference of -5.8% from the All Groups increase.

The Insurance Services subgroup has been part of the CPI since 1990: its price index has risen by 3.337 times Australia's All Groups index since 1990, or a difference of 218.8% from the All Groups increase.

The Financial Services subgroup was introduced in June 2005 and since then it has increased by 0.594 of Australia's All Groups index increase since June 2005, or a difference of -12.8% from the All Groups increase.

Financial and Insurance Services 2005-base price change table

Group, Subgroup or Class	Quarter	**Financial and insurance services**	**Financial Services**	Deposit and Loan Facilities	Other Financial Services
Price Index, all household types	Mar-2016	125.9	118.8	110.2	123.9
	Mar-2015	124.2	117.6	110.3	122.2
	Mar-2011	113.6	109.6	106.7	113.4
	Jun-2005	100.0	100.0	100.0	100.0
Points increase	In last 12 months	1.6	1.2	-0.1	1.6
	Previous 5 years	12.3	9.2	3.5	10.5
	Since Jun-2005	25.9	18.8	10.2	23.9
Percent increase	In last 12 months	1.3%	1.0%	-0.1%	1.3%
	Previous 5 years	10.8%	8.4%	3.3%	9.2%
	Since Jun-2005	25.9%	18.8%	10.2%	23.9%
Difference from CPI Australia percent increase	In last 12 months	-0.5%	-0.7%	-1.9%	-0.5%
	Previous 5 years	0.2%	-2.2%	-7.3%	-1.3%
	Since Jun-2005	-5.8%	-12.8%	-21.4%	-7.8%
Ratio to CPI Australia increase	In last 12 months	0.738	0.589	-0.055	0.743
	Previous 5 years	1.023	0.796	0.311	0.873
	Since Jun-2005	0.818	0.594	0.322	0.754

Table 22: Financial and insurance services 2005-base price change analysis

Over the last 12 months, the Financial and Insurance Services group index has increased by 1.023 of Australia's All Groups index compared to the Insurance Services subgroup's increase of 2.243, and the Financial Services subgroup's increase of 0.796 of the All Groups index, of the All Groups index.

The Financial and Insurance Services group price index is increasing relatively slowly and steadily as at March 2011 but it has fluctuated somewhat over the last six years, since it was introduced. The Financial Services subgroup index has fluctuated markedly since its introduction (also in June 2005). The Insurance Services subgroup has increased much more than the CPI since 1990, but at a highly variable rate. Consequently, there is no clear expectation of the influence of the Financial and Insurance Services group on overall cost trends. It has the sixth largest basket weight, at 8.2%, so it may have some influence, depending on price movements in its subgroups and classes, which have been quite volatile to date.

Summary of price changes

As noted earlier, a summary of changes in commodity group and subgroup price indices as at Mar-2016 is shown in the two tables below, Table 23 (page 39) and Table 24 (page 40).

Results

All Households

Price changes summary

Commodity groups, subgroups and classes with price indices greater than the CPI (195.4 points) are shown in Table 23, below, as at Mar-2016. The prices of these commodities have increased more than the weighted-average price change of all commodities (i.e., from 1990 to Mar-2016).

Commodity prices Australia: indeces greater than CPI – historical indeces and percentage change							
Group, Subgroup or Class	Price Index, All Households group				Percent increase		
Quarter	Mar-2016	Mar-2015	Mar-2011	Mar-1990 (alt. year)	In last 12 months	Previous 5 years	Since Mar-1990
Tobacco	1009.9	891.4	614.5	101.8	13.3%	64.4%	892.1%
Insurance services	414.5	394.1	335.1	100.5	5.2%	23.7%	312.4%
Hospital and medical services	440.1	414.5	321.5	101.0	6.2%	36.9%	335.8%
Education	**426.3**	**412.6**	**332.2**	**106.6**	**3.3%**	**28.3%**	**299.9%**
Health services	401.5	380.5	300.9	101.0	5.5%	33.4%	297.6%
Electricity	320.8	327.8	252.3	100.2	-2.2%	27.1%	220.1%
Alcohol and tobacco	**390.4**	**367.8**	**305.0**	**101.1**	**6.1%**	**28.0%**	**286.2%**
Utilities	**331.0**	**332.4**	**256.1**	**100.4**	**-0.4%**	**29.3%**	**229.7%**
Gas and other household fuels	351.8	347.2	253.5	100.9	1.3%	38.8%	248.6%
Other household services	321.3	315.3	269.3	100.0	1.9%	19.3%	221.3%
Health	**341.3**	**326.2**	**271.9**	**102.0**	**4.6%**	**25.5%**	**234.6%**
Other motoring charges	337.8	330.9	268.8	100.9	2.1%	25.7%	234.8%
Dental services	310.1	304.7	271.1	100.8	1.7%	14.4%	207.6%
Urban transport fares	**277.0**	**276.7**	**253.2**	**100.8**	**0.1%**	**9.4%**	**174.8%**
Household Services	297.9	286.2	237.6	100.0	4.1%	25.4%	197.9%
Water and sewerage	273.4	266.6	216.2	100.0	2.6%	26.5%	173.4%
Automotive fuel	195.7	209.0	236.1	104.2	-6.4%	-17.1%	87.8%
Beer	267.8	258.1	231.8	101.2	3.8%	15.5%	164.7%
Spirits	251.2	247.1	224.9	100.6	1.7%	11.7%	149.7%
Books, newspapers and magazines	249.3	246.3	227.5	100.4	1.2%	9.6%	148.3%
Property rates and charges	259.9	248.4	194.4	100.0 (98)	4.6%	33.7%	159.9%
Secondary education	270.4	258.4	205.0	138.3 (00)	4.6%	31.9%	95.5%
Hairdressing and personal care services	237.7	233.2	212.3	101.0	2.0%	12.0%	135.4%
Meals out and take away foods	228.6	224.4	204.9	100.9	1.9%	11.5%	126.5%
Non-alcoholic drinks and snack food	215.7	217.2	203.9	101.1	-0.7%	5.8%	113.4%
Alcoholic drinks	225.1	221.8	204.2	100.8	1.5%	10.2%	123.3%
Bread and cereal products	207.0	211.2	210.0	101.0	-2.0%	-1.4%	105.0%
Rents	**221.1**	**219.1**	**193.0**	**100.7**	**0.9%**	**14.5%**	**119.5%**
Preschool and primary education	241.2	230.3	186.6	100.0 (00)	4.8%	29.3%	141.2%
Child care	249.0	229.9	166.7	102.5	8.3%	49.4%	142.9%
Sport and other recreation	214.5	211.1	193.9	102.0	1.6%	10.6%	110.3%
Food	**206.0**	**206.0**	**199.6**	**99.5**	**0.0%**	**3.2%**	**107.0%**
All groups Excluding Financial and insurance services Australia	**203.1**	**200.7**	**185.0**	**100.8**	**1.2%**	**9.8%**	**101.5%**
Dairy and related products	195.1	200.5	202.5	101.3	-2.7%	-3.6%	92.6%
House repairs and maintenance	206.4	200.6	184.9	100.4	2.9%	11.6%	105.6%
CPI Australia (eight capital cities)	**195.4**	**191.9**	**176.7**	**100.9**	**1.8%**	**10.6%**	**93.6%**

Table 23: Commodities with price rises greater than the CPI

The price indices for Mar-2016 are shown in the second column, followed by the indices for twelve months ago, five years ago and Mar-1990. Percentage changes over the last twelve months, the last five years, and since March 1990 are shown in the last three columns.

In Table 24, price indices less than the CPI (195.4 points) are also shown (i.e., commodities with lower price increases than the weighted-average price change of all commodities).

Commodity prices Australia: indeces less than CPI – historical indeces and percentage change							
Group, Subgroup or Class	Price Index, All Households group				Percent increase		
Quarter	Mar-2016	Mar-2015	Mar-2011	Mar-1990 (alt. year)	In last 12 months	Previous 5 years	Since Mar-1990
CPI Australia (eight capital cities)	**195.4**	**191.9**	**176.7**	**100.9**	**1.8%**	**10.6%**	**93.6%**
Housing	**195.4**	**192.1**	**166.4**	**101.4**	**1.7%**	**17.4%**	**92.7%**
House Purchase	200.6	195.6	176.2	100.0 (98)	2.5%	13.8%	100.6%
Fruit and vegetables	190.7	201.7	218.9	90.3	-5.4%	-12.9%	111.2%
Motor vehicle repair and servicing	185.5	180.8	166.8	100.6	2.6%	11.2%	84.4%
Postal	190.4	191.5	165.4	101.1	-0.5%	15.1%	88.4%
Financial and insurance services	**125.9**	**124.2**	**113.6**	**100.0 (05)**	**1.3%**	**10.8%**	**25.9%**
Financial and insurance services 1	186.8	184.4	168.6	100.9	1.3%	10.8%	85.1%
Transportation	**169.1**	**170.0**	**170.3**	**101.7**	**-0.5%**	**-0.7%**	**66.3%**
Other food	179.2	178.9	176.0	100.4	0.2%	1.8%	78.5%
Pharmaceuticals	181.3	179.5	177.5	107.1	1.0%	2.1%	69.2%
Private motoring	**163.5**	**164.5**	**165.8**	**101.8**	**-0.6%**	**-1.4%**	**60.6%**
Tertiary education	193.6	190.6	154.9	123.9 (00)	1.6%	25.0%	56.2%
Financial Services 1	176.3	174.5	162.6	100.9	1.0%	8.4%	74.7%
Other Financial Services 1	177.0	174.7	162.0	100.9	1.3%	9.2%	75.4%
Deposit and Loan Facilities 1	169.2	169.4	163.9	100.9	-0.1%	3.3%	67.7%
Meat and seafoods	183.8	177.1	169.0	100.4	3.8%	8.7%	83.0%
Other Housing	**176.7**	**170.6**	**147.2**	**101.7**	**3.5%**	**20.0%**	**73.7%**
Wine	160.2	163.0	156.7	99.9	-1.7%	2.2%	60.3%
Other Household Supplies	156.8	158.4	156.0	99.9	-1.1%	0.5%	56.9%
Holiday travel and accommodation	166.8	166.5	148.4	101.4	0.2%	12.4%	64.5%
Motor vehicle parts and accessories	152.4	150.9	142.8	100.6	0.9%	6.7%	51.5%
Household Supplies	140.1	142.9	144.3	100.6	-2.0%	-2.9%	39.2%
Toiletries and personal care products	133.8	138.0	145.4	100.7	-3.1%	-8.0%	32.8%
Household cleaning agents	131.5	136.1	133.4	100.8	-3.4%	-1.4%	30.5%
Recreation	**140.6**	**140.5**	**136.0**	**100.9**	**0.1%**	**3.4%**	**39.4%**
Household contents and services	**133.6**	**131.1**	**126.2**	**100.7**	**2.0%**	**5.9%**	**32.7%**
Furniture and furnishings	133.4	128.5	128.2	100.8	3.8%	4.1%	32.3%
Other Financial Services	123.9	122.2	113.4	100.0 (05)	1.3%	9.2%	23.9%
Communication	**105.3**	**112.5**	**112.2**	**100.3**	**-6.4%**	**-6.1%**	**5.0%**
Financial Services	118.8	117.6	109.6	100.0 (05)	1.0%	8.4%	18.8%
Telecommunication	101.4	108.7	109.2	100.2	-6.7%	-7.1%	1.2%
Clothing and footwear	**105.0**	**105.9**	**106.1**	**100.0**	**-0.8%**	**-1.1%**	**5.0%**
Deposit and Loan Facilities	110.2	110.3	106.7	100.0 (05)	-0.1%	3.3%	10.2%
Men's clothing	103.1	102.1	101.9	99.5	1.0%	1.2%	3.6%
Children's and infants' clothing	100.4	101.0	104.6	98.7	-0.6%	-4.0%	1.7%
Women's clothing	96.6	97.1	104.0	100.4	-0.5%	-7.1%	-3.8%
Household appliances, utensils and tools	97.9	94.9	100.3	100.4	3.2%	-2.4%	-2.5%
Footwear	86.8	90.3	89.9	100.1	-3.8%	-3.5%	-13.3%
Motor vehicles	90.2	89.1	95.6	101.0	1.2%	-5.7%	-10.7%
Audio, visual and computing	27.2	28.4	37.9	99.5	-4.3%	-28.2%	-72.7%
1. With Financial Services and its classes re-indexed to 100 points at 1989-90							

Table 24: Commodities with price rises less than the CPI

Weights by commodity group

The RPI basket quantity weights are shown in Table 25, below, in order of quantity. These are the weighting factors used for the 16th series in the RPI, which is continuous index from 1990 through the 16th series. In contrast, the CPI has been re-referenced with the introduction of the 16th series, meaning it has been reset to a value of 100 points at 2011-12[5] whereas the RPI continues to be calculated off

the June 2011 index value of 178.4 points (RPI, All Households, Eight Capitals, including indirect financial charges).

The CPI is 178.3 points at Jun-2011 (All Households, Eight Capitals, excluding indirect financial charges) and 179.4 points at Sep-2011, the first CPI release for the 16th series. CPI is 101.8 points at Sep-2012, the first CPI release to be re-indexed to 100.0 points for the financial year 2011–12. Consequently, from Sep-2012 the RPI weights (and points) for All Households are different to the CPI but they make equal percentage points contributions.

For all quarters since Jun-2011, the CPI points values given in this report are re-calculated from the Jun-2011 CPI and the subsequent CPIs which have been re-indexed to 100 points.[6]

Implicit Quantity Factors do not always represent comparable quantities because the price indices of some commodities start after the original reference period (i.e., after 1990). For these commodities, the factors are elevated as an artefact of the splicing process. Notably, the Implicit Quantity Factor for Financial and Insurance Services is normally about 4% greater than its true quantity. For the current RPI the Financial Services subgroup and its classes are re-indexed to a value of 100 points at 1989-90 which removes this effect (as at October 2013).

The "normalised implicit quantity weights", are equivalent to the implicit quantities but normalised to make a total of one hundred percent (i.e., adjusted by a common factor). The "percentage contribution" to the CPI is the percentage of the total CPI points that the group, subgroup or class contributes (or the weight of the points contribution, referred to as "weightings" in various ABS documents). Notably, these do not follow the same rank order as the quantities: commodity groups with higher price indices such as Food and Health have a contribution which is higher than their weight.

CPI Groups ranked by basket quantity weight, June quarter 2011					
Ranked by weight, Group		Implicit Quantities (CPI)	Normalised Implicit Quantities (CPI)	Contribution to CPI at Mar-2016 (percent of total)	Variance, weight to contribution
4	Housing	22.1%	22.0%	22.4%	2.0%
1	Food	15.9%	15.8%	15.6%	-1.2%
9	Recreation	12.2%	12.1%	11.8%	-2.2%
7	Transportation	11.3%	11.2%	11.1%	-0.8%
5	Household contents and services	8.8%	8.8%	8.7%	-1.0%
11	Financial and Insurance Services	8.2%	8.2%	8.2%	0.6%
2	Alcohol and Tobacco	7.0%	6.9%	7.0%	0.7%
6	Health	5.2%	5.1%	5.2%	2.5%
3	Clothing and Footwear	3.9%	3.8%	3.8%	-1.0%
10	Education	3.2%	3.1%	3.2%	0.9%
8	Communication	3.0%	3.0%	2.9%	-0.2%
Total		**100.7%**	**100.0%**	**100.0%**	**-**

Table 25: Commodity group weights and percentage contributions

The "variance, weight to contribution" indicates how much higher or lower the contribution is relative to the quantity weight. This is an indication in broad terms only because not all of the implicit quantity factors are directly comparable (as noted above). The variance values are currently fairly low because the 16th CPI series begins with a new reference period in which weights and indices are reset.[7]

RPI basket quantity weights for selected subgroups are shown in Table 26, below, ordered by subgroup.

CPI basket quantity weights, selected CPI Subgroups, June quarter 2011					
	Group and Region	Implicit Quantities (CPI)	Normalised Implicit Quantities (CPI)	Contribution to CPI at Mar-2016 (percent of total)	Variance, weight to contribution
4.1	Rents	6.0%	6.7%	7.2%	7.9%
4.2	Utilities	3.3%	3.7%	5.9%	61.6%
4.3	Other Housing	10.4%	11.7%	10.0%	-13.8%
Housing Total		**19.7%**	**22.0%**	**23.2%**	**-**
7.1	Private motoring	9.4%	10.4%	9.0%	-14.2%
7.2	Urban transport fares	0.7%	0.8%	1.1%	45.4%
Transport Total		**10.1%**	**11.2%**	**10.1%**	**-**

Table 26: Selected subgroup weights and percentage contributions

Points contributions by commodity group

The points contribution of each commodity group is the product of its price index and weight. The contributions for the Mar-1990 reference period, for Mar-2016 and the differences over the entire period are shown in Table 27, below.

Change in points contribution by commodity group Mar-1990 to Mar-2016				
Commodity Group		Points contribution at Mar-1990	Points contribution at Mar-2016	Change in points contribution
1	Food Australia	18.2	29.7	11.4
2	Alcohol and tobacco Australia	6.9	15.7	8.8
3	Clothing and footwear Australia	6.2	6.6	0.4
4	Housing Australia	20.0	45.4	25.4
5	Household contents and services Australia	14.2	16.4	2.2
6	Health Australia	3.4	11.4	7.9
7	Transportation Australia	13.8	19.6	5.8
8	Communication Australia	1.7	4.9	3.2
9	Recreation Australia	9.1	22.6	13.5
10	Education Australia	1.7	7.1	5.4
11	Financial and insurance services Australia	5.6	16.0	10.4
Total		**101.0**	**195.5**	**94.5**

Table 27: Points contributions by commodity group

All Households RPI

Eight Capital Cities

The Group RPI for All Households, Eight Capital Cities, tracks the CPI closely from 1990 onwards. At Mar-2016, the Group RPI is 195.5 points, a difference of 0.1 points from the CPI of 195.4 points (including indirect financial charges). This difference serves to validate the RPI methods. Excluding indirect financial charges, the CPI is 194.5.

The Pure Price Index is a measure of pure price change – it removes the effects of the expenditure pattern changes which are incorporated periodically into the CPI. The 1990 expenditure pattern remains unchanged throughout the Pure Price Index series.

The Pure Price Index is 191.7 points, 5.0 points greater the CPI, as at Mar-2016 (see Figure 22, below). In other words, expenditure pattern changes are responsible for the CPI being 5.0 points lower than it would be based purely on price changes. This difference equates to 5.5% less growth in the CPI than in the Pure Price Index.

Indirect financial charges have been removed from the 16th series CPI but the estimated CPI with these charges included is 195.4 points, 0.4 points less than the CPI excluding indirect financial charges, which is 194.5 (also see Figure 22, below).

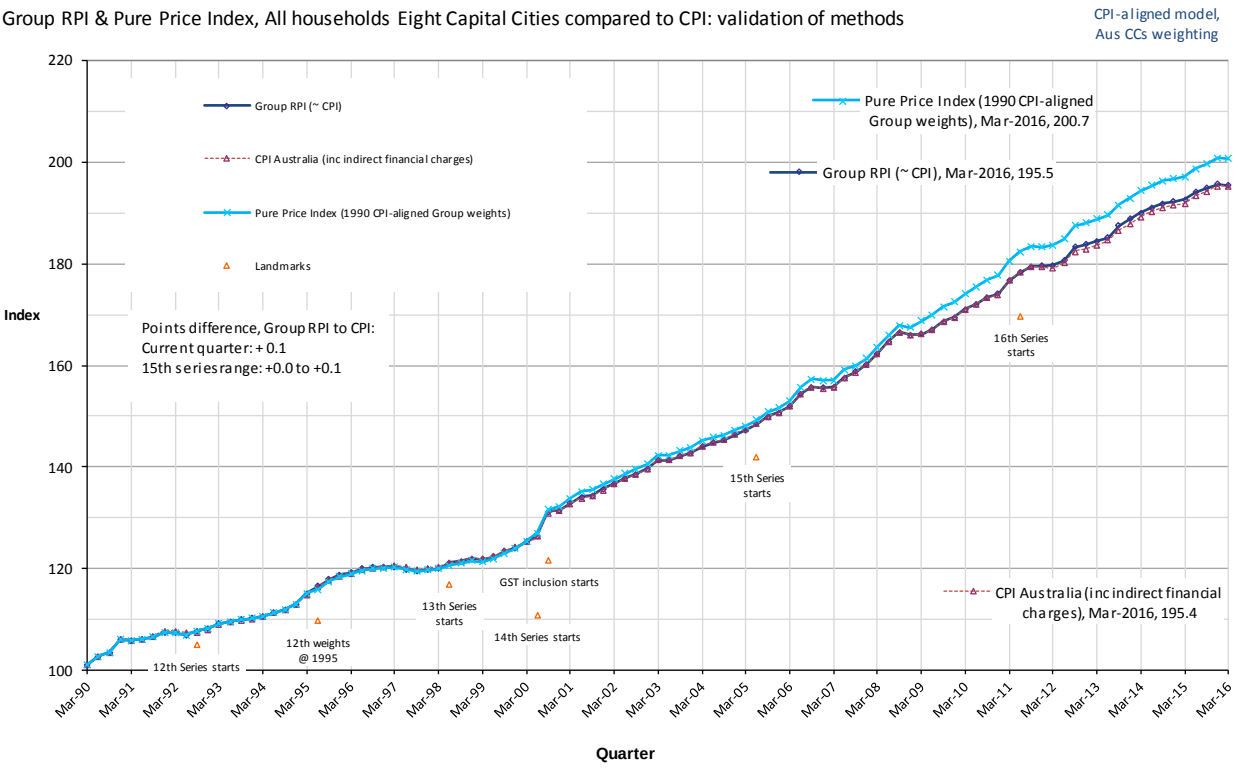

Figure 22: All Households Group RPI, Pure Price Index and CPI

Average weekly household expenditure

With publication of the 16th CPI series, the average weekly household expenditures (AWHEs) underlying the 15th and 16th CPI series have become available for the first time, enabling comparison with the RPI AWHEs and other HES-based AWHEs, albeit for the household sector as a whole, only.

Differences in AWHEs

The AWHE for All Households, Eight Capital Cities is $1,409.73 at June 2011, including indirect charges for financial services (based on the RPI with CPI-aligned weights). The AWHE excluding indirect charges for financial services is $1,371.30 (also based on the RPI). The difference of $+ 38.43 is the

approximate, estimated AWHE on indirect financial services. The AWHE for the CPI is $1,371.30 excluding indirect charges for financial services (see Table 28, below) .

Total average weekly household expenditure (AWHE) at June 2011				
Totals, All Households, Eight Capital Cities	RPI including Indirect Charges	RPI excluding Indirect Charges	All goods & services in HES tables	CPI
CPI-aligned, Aus CCs weighting	$ 1,409.73	$ 1,371.30	$ 1,301.07	$ 1,371.30
Contiguous, Aus CCs weighting	$ 1,053.21	n/a	n/a	n/a

Compared to CPI	Inc. Indirect Charges	Excl. Indirect Charges
Difference ($)	$ + 38.43	$ 0.00
RPI as percent of CPI[9]	102.8%	100.0%

Table 28: Comparison of AWHE totals: RPI and CPI, All Households, Eight Capital Cities

Disposable household income

The average disposable household income (DHI) for 2009−10 is estimated at $1,424.03 per week. This is the mean household-weighted DHI for All Households, Australia, calculated from the HES–SIH Basic CURF, for this report. The equivalent ABS estimate is $1,430.00 per week (i.e., for All Households, Australia, household-weighted).[8]

The ABS estimate of the average total weekly household expenditure (AWHE) for All Households, Australia is $1,363.00 , excluding income tax, or $67.00 less than the average disposable household income of $1,430.00 per week (as above). This difference equates to 4.9% of the AWHE (i.e., the lower estimate). In other words, the income estimate is 4.9% greater than the estimate of expenditure. The corresponding AWHE taken directly from the HES table for Australia is $1,459.36 (that is, without adjustments based on other data sources). This equates to $29.36 more than the average disposable income.

The 2009-10 AWHE total estimate of $1,363.00 is calculated by subtracting the average weekly household income tax of $257.00 from the total AWHE of $1,620.00, which includes income tax and other items not regarded as goods and services. So this AWHE estimate is not just for expenditure on goods and services but all HES expenditure, excluding income tax.

Income and expenditure difference

The ABS warns against interpreting differences in HES income and expenditure estimates as measures of saving or dissaving:

> The HES provides information about both the income and the expenditure of households, but it would be misleading to regard the difference between average weekly income and the sum of the items of average weekly expenditure as a measure of saving.[9]

There are two key reasons for this. Firstly, to measure savings, all forms of income and expenditure need to be measured and classified consistently in relation to the concepts of household savings, investments and wealth, which the HES does not attempt to do. Secondly, there are significant timing differences between the different components of income and expenditure collected in the HES, so they

will not necessarily match up over a given period. These two reasons are discussed in more detail in the *Household Expenditure Survey, Australia, User Guide*.[10]

Equivalised disposable household income

The concept of Equivalised Disposable Household Income (EDHI) is used to standardise the incomes of different sized households to enable direct comparison of incomes in dollar values. The EDHI is equivalent to the income that a single person household would require to maintain the same standard of living as the "average person" living in all private dwellings in Australia.[11]

The EDHI of multiple-person households is calculated with a formula which effectively distributes the household income among the household members, in fixed proportions, whereby a greater share is allocated to one adult person (effectively, the "average person"). The formula takes the first adult in the household as having a weight of 1 point, each additional person who is 15 years or older is allocated 0.5 points, and each child under the age of 15 is allocated 0.3 points. The sum of the points allocated to the household members is called the *equivalence factor*. Equivalised household income can be derived by dividing total household income by the equivalence factor. [12]

The average equivalised disposable household income (EDHI) estimate for 2009–10 is $834.17 per week. This is the mean household-weighted EDHI for All Households, Australia (calculated from the HES–SIH Basic CURF, for this report). The equivalent ABS estimates are $834.00 (household weighted) and $848.00 (person weighted) per week (for all persons living in private dwellings).[13]

Income and expenditure changes since 1990

Income changes

The change in average disposable household income (DHI) from Mar-1990 to Mar-2016 is estimated by inflating the DHI estimate from the 1988-89 HES Basic CURF to Mar-2016 dollars by the RPI and comparing it to the current DHI estimate, with both estimates adjusted against ASNA measures and adjusted for changes in scope and measurement between the 1988-89 HES and the 2009-10 HES–SIH.

The estimated mean 1990 DHI for All Households, Australia is $693.17 per week, in 1990 dollars. This is equivalent to $1,354.16 in Mar-2016 dollars. The Mar-2016 DHI estimate is $1,633.57 per week, which represents an increase of $279.41 or 20.6% over the 1990 DHI. The corresponding estimates in equivalised terms are a mean 1990 EDHI of $394.78 per week (for All Households Australia) which is equivalent to $771.24 in Mar-2016 dollars (when inflated and adjusted, as above). The Mar-2016 EDHI is $956.91 per week, which represents an increase of $185.67 or 24.1% over the 1990 EDHI.

The increase in real disposable household income estimates points to an overall reduction in cost of living pressures, in so far as the CPI and RPIs can be taken as a real cost of living indices. It is a pronounced increase, certainly worthy of examination in terms of where additional income is spent and whether there is a similar increase in income for different household groups. For the All Households group, the distribution of expenditure changes across commodity groups is examined below (see *Expenditure change by commodity group*, page 47). Income changes for the selected household groups are shown to be quite different to the All Households group (see *Income change by household group*, page 55).

The 24.1% increase in the average EDHI is substantially greater than the DHI increase of 20.6%. Analysis of this difference is beyond the scope of this report but could simply be the result of a decrease in the average household size. The average household size (i.e., persons per household) has fallen

considerably over this period, which normally results in lower DHIs, relatively, because smaller household have lower incomes per-household, other factors being equal.

However, there are a number of other factors which need to be analysed to explain the difference fully. These include changes in the demographic characteristics of different sized households and changes in the diversity of income sources within households and the attributes of the equivalising scale (i.e., the OECD equivalence scale in this case). This is beyond the scope of this analysis, at present.

Expenditure changes

Historical expenditure changes are estimated by methods similar to those used for income change (as above). For AWHEs in aggregate, this is achieved simply by inflating the 1990 AWHE (based primarily on the 1988-89 HES Basic CURF) with the CPI or Group RPI, to Mar-2016 dollars and then comparing it with the Mar-2016 AWHE, after adjusting for changes in scope and measurement between the 1988-89 HES and the 2009-10 HES.

Eight Capital Cities

The estimated AWHE for All Households, Eight Capital Cities in 1990 is $599.19 per week. This is equivalent to $1,170.57 in Mar-2016 dollars. In fact, the estimated AWHE in Mar-2016 is $1,535.91 per week, which represents an increase of $364.81 or 31.2% over the 1990 AWHE, in real terms.

Australia

The estimated AWHE for All Households, Australia in 1990 is $563.23 per week. This is equivalent to $1,100.31 in Mar-2016 dollars. The estimated AWHE in Mar-2016 is $1,465.65 per week, which represents an increase of $365.34 or 33.2% over the 1990 AWHE, in real terms.

This expenditure increase is much greater than the average disposable household income increase of $279.41 or 20.6% over the same period for Australia as a whole (see above). This suggests that the average expenditure on goods and services has increased by approximately $85.93 per week or 12.6% more than the average income has increased.

Notably, there are differences between the increase determined in this way and that given in Table 29, below, which is based on the RPI Pure Price model.[14]

Pure Price model

Changes in household expenditure since 1990 can be examined in detail, with reference to the pure price model. By comparing expenditures under the CPI-aligned model with those expected under a pure price model, changes in expenditure patterns across commodity groups can be shown, as well as aggregate changes by household group. The ultimate effect of chain-linking the CPI series can be seen in the differences between the CPI-aligned and Pure Price model expenditures, weights and indices.

The expected AWHE at Mar-2016 under the Pure Price model represents the AWHE currently required to purchase the same quantity and quality of commodities which made up the 1990 CPI basket of goods and services. This is compared with the CPI-aligned AWHE at Mar-2016 to estimate expenditure change since Mar-1990, in real dollar terms (see *Real dollar expenditure values*, page 5). For All Households, Australia, the expected Pure Price AWHE for Mar-2016 is $1,165.85 (see Table 29, below). The Mar-2016 CPI-aligned AWHE is $1,465.65, which is $+ 299.80 or + 25.7 % greater than expected for the same basket of commodities as in 1990 (in real terms).

Expenditure change by commodity group

The estimated changes in total expenditure on goods and services shown in Table 29, above, are broken down by commodity group in Table 30, below.

Of the $+ 299.80 increase in total expenditure, $+ 116.11 or 38.7% is spent on Housing the biggest single contribution of the commodity groups. The AWHE on Financial and Insurance Services has increased by $+ 46.99, 15.7% of the total expenditure increase. There is also an increase of $+ 46.15 in the AWHE on Health, representing 15.4% of the total expenditure increase. Housing, Financial & Insurance Services and Health combined account for $+ 209.25 or 69.8% of the net increase.

Change in expenditure from Mar-1990 to Mar-2016, All households Australia		
RPI Model and geographic weighting	**AWHE**	
CPI-aligned, Australia	$	1,465.65
Pure Price, Australia	$	1,165.85
Comparison of AWHEs		
Difference from Pure Price AWHE	$	299.80
Difference as percent of Pure Price expenditure		25.7%

Table 29: Expenditure change from 1990 to Mar-2016, in real terms.

The second largest increase is in the Recreation group, with an AWHE increase of $+ 66.84 or 22.3% of the net increase. In these four groups combined, expenditure has increased $+ 276.09 per week, 82.4% of the net increase of $+ 299.80. The fifth largest increase is in the Education group, at $+ 36.31 or 12.1% of the net increase.

Expenditure changes are shown as a percentage of Mar-1990 expenditures, i.e., within each commodity group, in the last column of Table 30. The AWHE on Housing has increased by + 47.9 % since Mar-1990. The AWHE on Financial and Insurance Services has increased by + 70.4 %, Health by + 103.5 %, Education by + 192.0 %, Recreation by + 63.8 % and Communication by + 110.0 %, since Mar-1990. See *Expenditure change by household group*, page 58, for the corresponding data on the other household groups.

Expenditure change from 1990 to Mar-2016, All Households, by commodity group				
Commodity group	Expenditure change ($)		Percent of total change	Expenditure change (percent)
Food	$	+ 9.06	3.0%	+ 4.2 %
Alcohol and tobacco	$	+ 33.11	11.0%	+ 27.0 %
Clothing and footwear	$	– 19.20	-6.4%	– 25.1 %
Housing	$	+ 116.11	38.7%	+ 47.9 %
Household contents and services	$	– 38.68	-12.9%	– 24.9 %
Health	$	+ 46.15	15.4%	+ 103.5 %
Transportation	$	– 13.97	-4.7%	– 0.2 %
Communication	$	+ 17.07	5.7%	+ 110.0 %
Recreation	$	+ 66.84	22.3%	+ 63.8 %
Education	$	+ 36.31	12.1%	+ 192.0 %
Financial and insurance services	$	+ 46.99	15.7%	+ 70.4 %
Total	$	+ 299.79	100.0%	25.7%

Table 30: All Households expenditure change by commodity group

Expenditure change for selected commodity subgroups

Expenditure changes in the Housing and Transport subgroups are shown in Table 31, below. The three classes of Utilities (one of the Housing subgroups) are also shown. Among the Housing and Transport

subgroups, the "Other Housing" subgroup (i.e., home ownership or owner-occupied housing) accounts for the greatest percentage of the net expenditure change, at 22.8%, followed by Rents at 11.0% and then Utilities at 4.9%.

Expenditure change in selected commodity subgroups and Utility classes, All Households			
Commodity subgroup	Expenditure change ($)	Percent of total change	Expenditure change (percent)
Housing subgroups			
Rents	$ + 32.91	11.0%	+ 51.2 %
Utilities	$ + 14.79	4.9%	+ 27.8 %
Other Housing	$ + 68.40	22.8%	+ 55.1 %
Transport subgroups			
Private motoring	$ – 4.16	-1.4%	+ 5.9 %
Urban transport fares	$ – 9.81	-3.3%	– 51.2 %
Subtotal, Housing and Transport subgroups	$ + 102.13	34.1%	+ 26.8 %
Utility classes			
Electricity	$ + 9.96	3.3%	+ 32.6 %
Gas and other household fuels	$ + 2.03	0.7%	+ 20.6 %
Water and sewerage	$ + 2.81	0.9%	+ 20.8 %

Table 31: All Households expenditure change, selected commodity subgroups

The Electricity class accounts for 3.3% of the net expenditure change and about two-thirds of the 4.9% increase in expenditure on Utilities. The Water and Sewerage group accounts for 0.9% of the change and Gas and Other Household Fuels, 0.7%.

Private Motoring makes a smaller contribution to the total expenditure increase, at -1.4% of the net change and there is a decrease in the AWHE on Urban Transport Fares at -3.3% of the total.

For the All Households group, as at Mar-2016, the AWHE on Rents has increased by + 51.2 % over the Mar-1990 level, close to the + 55.1 % increase in the AWHE on Other Housing. The AWHE on Utilities has increased by + 27.8 %, and Electricity by + 32.6 %, since Mar-1990. The AWHE on Urban Transport Fares has decreased by − 51.2 % from its Mar-1990 level whereas the AWHE on Private Motoring has increased by + 5.9 % from its Mar-1990 level.

RPI guideline series

Subgroup RPI

The Subgroup RPI is a guide to the maximum price index expected for subsets of households with expenditure patterns weighted heavily towards high price index commodities. It is currently based on a pattern where Transport expenditure is made wholly on Urban Transport Fares and Housing expenditure (excluding Utilities) is made wholly on Rents (see RPI definitions, page 7).

As at Mar-2016, the All Households Subgroup RPI is 212.1 points. It has grown by 18.1% more than the Group RPI, at 195.5 points, since 1990. The Subgroup RPI is significantly higher than the Group RPI and the CPI because it includes the higher index subgroups of Fares and Rents and excludes the lower index subgroups of Private Motoring and Home Ownership.

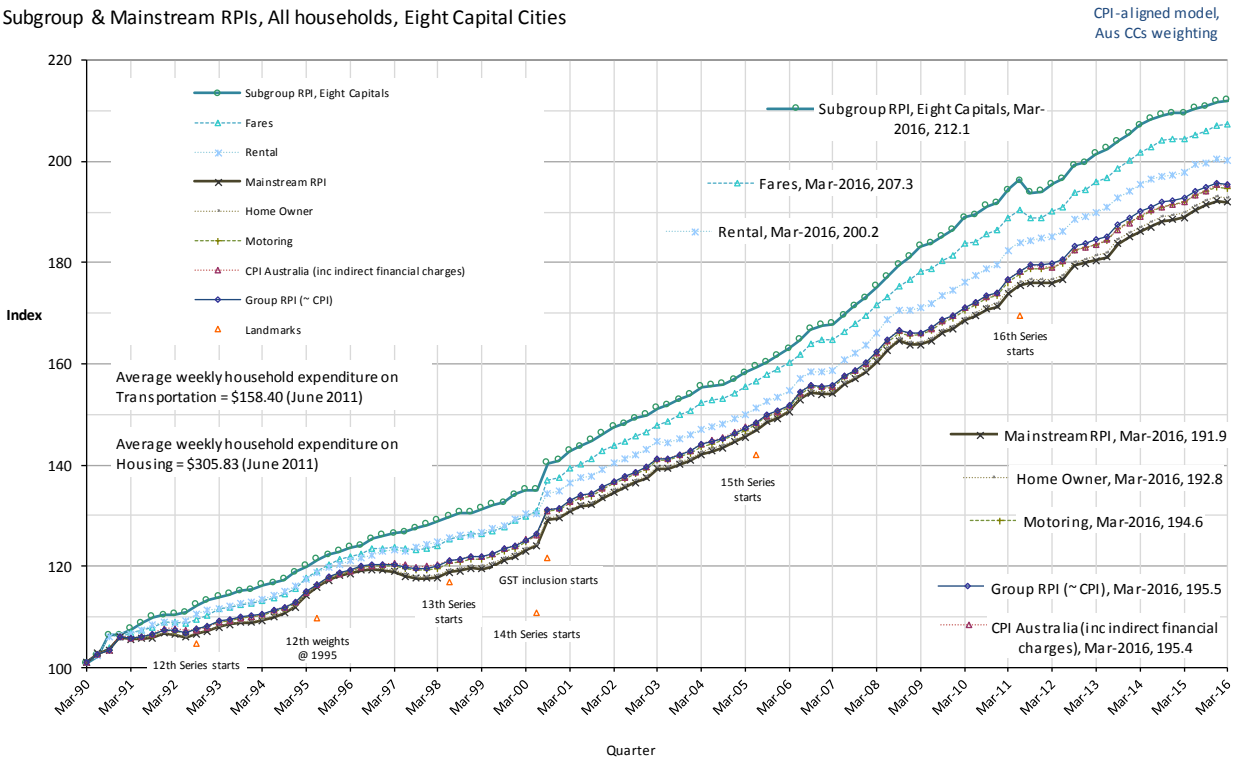

Figure 23: All Households Subgroup and Mainstream guideline RPIs

Subgroup RPI with Fares and Rental components compared to the Group RPI: All households, Australia					
Subgroup RPI and components	Quarter/period	Subgroup RPI	With Fares component only	With Rental component only	Group RPI
Price Index, All CPI Groups	Mar-2016	212.1	207.3	200.2	195.5
	Mar-2015	209.6	204.5	197.9	192.8
	Mar-2011	194.5	188.8	182.4	176.7
	Mar-1990	100.8	100.9	100.9	101.0
Points increase	In last 12 months	2.4	2.9	2.3	2.7
	Previous 5 years	17.6	18.5	17.8	18.8
	Since Mar-1990	111.3	106.4	99.4	94.5
Percent increase	In last 12 months	1.2%	1.4%	1.2%	1.4%
	Previous 5 years	9.0%	9.8%	9.8%	10.6%
	Since Mar-1990	110.5%	105.5%	98.5%	93.5%
Difference from Group RPI Australia percent increase	In last 12 months	-0.3%	0.0%	-0.3%	0.0%
	Previous 5 years	-1.6%	-0.8%	-0.8%	0.0%
	Since Mar-1990	16.9%	12.0%	4.9%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	-18.1%	-1.1%	-18.1%	0.0%
	Previous 5 years	-14.8%	-7.7%	-7.8%	0.0%
	Since Mar-1990	18.1%	12.8%	5.3%	0.0%

Table 32: Subgroup RPI, Fares and Rents, All Households Australia

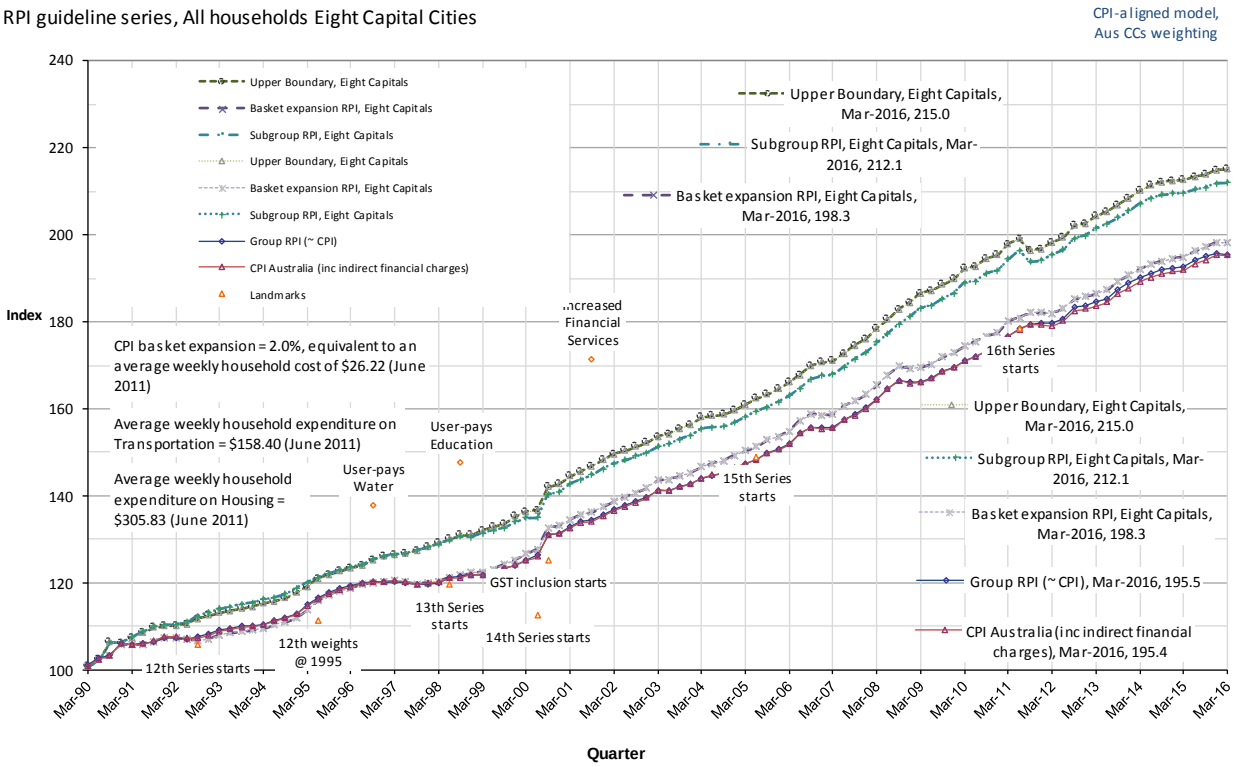

Figure 24: All Households basket expansion and upper boundary guideline RPIs

Upper Boundary and Basket Expansion RPIs compared to the Group RPI and CPI: All households, Australia

Upper Boundary & Basket Expansion	Quarter/period	Upper Boundary	Basket expansion	Group RPI	CPI Australia (inc indirect financial charges)
Price Index, All CPI Groups	Mar-2016	215.0	198.3	195.5	195.4
	Mar-2015	212.6	194.9	192.8	191.9
	Mar-2011	198.0	180.2	176.7	176.7
	Mar-1990	100.8	100.9	101.0	100.9
Points increase	In last 12 months	2.5	3.5	2.7	3.4
	Previous 5 years	17.1	18.1	18.8	18.7
	Since Mar-1990	114.3	97.4	94.5	94.5
Percent increase	In last 12 months	1.2%	1.8%	1.4%	1.8%
	Previous 5 years	8.6%	10.1%	10.6%	10.6%
	Since Mar-1990	113.4%	96.6%	93.5%	93.6%
Difference from Group RPI Australia percent increase	In last 12 months	-0.3%	0.4%	0.0%	0.4%
	Previous 5 years	-2.0%	-0.5%	0.0%	-0.1%
	Since Mar-1990	19.9%	3.0%	0.0%	0.1%
Difference as % of Group RPI Australia increase	In last 12 months	-17.9%	25.5%	0.0%	25.9%
	Previous 5 years	-18.7%	-5.1%	0.0%	-0.5%
	Since Mar-1990	21.2%	3.2%	0.0%	0.1%

Table 33: RPI Upper Boundary and Basket Expansion, All Households Australia

The Subgroup RPI is an aggregation of the Fares and Rents components. As at Mar-2016, the Fares RPI is 207.3 points and Rents RPI is 200.2 points, increases of 12.8% and 5.3% greater than the Group RPI, respectively, since 1990 (for details, see Table 32, above).

The Mainstream RPI is 191.9 points at Mar-2016, an increase of 3.9% less than the Group RPI, since 1990. The Mainstream RPI is significantly lower than the CPI because it includes the lower index subgroups of Private Motoring and Home Ownership and excludes the higher index subgroups of Rents and Fares (see *RPI definitions*, page 7).

RPI Upper Boundary and basket expansion

The RPI Upper Boundary is a guide to the maximum RPI expected for any subset of households. It's an aggregation of the Subgroup RPI and the Basket Expansion RPI. At Mar-2016 the RPI Upper Boundary is 215.0 points, compared to the Group RPI of 195.5 points, a 21.2% greater increase than the Group RPI increase, since 1990 (see Figure 24 and Table 33, above).

The Basket Expansion RPI is an aggregation of the Group RPI and the estimated contribution of the net change in basket weight, when the underlying items are incorporated as additional expenditure weight rather than being spliced in.

As at Mar-2016, the weight of the expanded basket of commodities is conservatively estimated to be 2.0% greater than the Group RPI basket weight. The Basket Expansion RPI has grown 3.2% more than the Group RPI, since 1990 (see Table 33, above). The weight of the expanded basket was marginally greater prior to the recent global financial crisis and the introduction of the 16th series CPI.

Household group comparisons

Weight differences

Analysis of commodity weights shows evidence of significant variations in the expenditure patterns of a number of household groups (i.e., by household type). The differences in weights between selected household groups and the CPI are shown by commodity group in Table 34, below.

Difference in quantity weight from CPI, by commodity and household type, June 2011[1]

Household group and RPI model	Food	Alcohol and tobacco	Clothing and footwear	Housing	Household contents and services	Health	Transport-ation	Communi-cation	Recreat-ion	Educat-ion	Financial and insurance services
Couple with three or more dependent children only											
CPI-aligned	+ 2.8 %	− 0.8 %	− 0.5 %	− 0.1 %	− 0.5 %	− 0.6 %	+ 0.7 %	+ 0.2 %	+ 1.0 %	+ 1.6 %	− 3.8 %
Pure Price	+ 3.1 %	− 3.5 %	− 0.1 %	− 0.0 %	− 1.2 %	+ 0.5 %	+ 0.1 %	− 0.1 %	− 0.3 %	+ 2.5 %	− 0.9 %
Renter											
CPI-aligned	− 1.2 %	+ 2.1 %	− 0.7 %	+ 6.2 %	− 1.8 %	− 1.6 %	+ 0.2 %	+ 0.5 %	− 2.0 %	− 0.3 %	− 1.5 %
Pure Price	− 1.6 %	+ 4.5 %	− 0.7 %	+ 5.5 %	− 2.3 %	− 1.7 %	− 0.3 %	+ 0.0 %	− 1.1 %	− 1.1 %	− 1.3 %
Unemployment and student allowances											
CPI-aligned	+ 1.2 %	+ 3.2 %	− 0.4 %	+ 9.9 %	− 3.8 %	− 2.1 %	− 4.2 %	+ 2.1 %	− 2.8 %	− 1.1 %	− 2.0 %
Pure Price	+ 3.7 %	+ 5.6 %	− 2.0 %	+ 6.3 %	− 3.3 %	− 2.4 %	− 0.8 %	+ 0.1 %	− 2.0 %	− 2.0 %	− 3.3 %

1. Quantity weights are fixed, as at the beginning of the 16th series (June 2011) so the values are the same at Mar-2016.

Table 34: Difference in quantity weight from CPI, by commodity group and household type

The expenditure pattern of larger family households is typically weighted more heavily towards food, which accounts for 2.8% more of total expenditure than for the CPI, and Education, which accounts for 1.6% more.

The Renter group's expenditure pattern is weighted heavily towards housing, which accounts for 6.2% more of total expenditure than for the CPI. It is weighted away from a number of other commodity groups including Recreation, which accounts for 2.0% less.

The expenditure pattern for households which are primarily dependent on Unemployment and Student Allowances is also weighted heavily towards housing, which accounts for 9.9% more of total expenditure than for the CPI group, and away from Transportation and Household Contents & Services which account for 4.2% and 3.8% less, respectively.

Household Group RPIs

Three household groups with RPIs which are significantly greater than the All Households Group RPI are Couple with Three or More Dependent Children Only, Renter and Unemployment and Student Allowances. For these groups, Household Group RPIs, total AWHEs on goods and services, and comparisons with All Households are shown in Table 35, below.

Household Group RPIs and AWHEs on goods and services, Australia, Mar 2016							
RPI weighting model	Group RPI current quarter	Group RPI difference from CPI	AWHE current quarter	Difference from All Households AWHE[1]	Percent difference from All Households	Price region	Weight region
All households							
CPI-aligned	195.5	0.0	$ 1,535.91	$ 0.00	0.0%	Eight Capitals	Australia
Pure Price	200.7	0.0	$ 1,240.30	$ 0.00	0.0%	Eight Capitals	Australia
Couple with three or more dependent children only							
CPI-aligned	195.2	-0.1	$ 1,650.13	$ +114.22	7.4%	Eight Capitals	Australia
Pure Price	204.8	9.4	$ 1,338.18	$ +97.88	0.0%	Eight Capitals	Australia
Renter							
CPI-aligned	207.6	12.2	$ 1,309.94	$ −225.97	-14.7%	Eight Capitals	Australia
Pure Price	207.0	11.7	$ 1,104.06	$ −136.24	-11.0%	Eight Capitals	Australia
Unemployment and student allowances							
CPI-aligned	200.0	4.7	$ 644.71	$ −891.20	-58.0%	Eight Capitals	Australia
Pure Price	208.3	13.0	$ 716.07	$ −524.23	-42.3%	Eight Capitals	Australia

1. AWHE differences are differences from the AWHE for All Household, Eight Capital Cities (for the CPI-aligned model).

Table 35: Household groups with Group RPIs greater than All Households

The Group RPI differences shown in Table 35 (above) are broken down by commodity group in Table 36, below, showing the differences between the Group RPI points contributions and the CPI points contributions for each commodity group (the two rows of zeros for All Households just validate the calculations, indicating that the reference group is All Households). Each household group has a mix of positive and negative points differences across the commodity groups. The commodity groups with larger positive differences are sources of higher cost pressure relative to the CPI. Conversely, those with larger negative differences are lower cost pressure sources, relative to the CPI. The difference between the Group RPI and the CPI correlate with the overall balance between the positive and negative differences.

Points contribution by commodity group: difference from All Households, Eight Capitals, Mar 2016											
Household group and RPI model	Food	Alcohol and tobacco	Clothing and footwear	Housing	Household contents and services	Health	Transport-ation	Communi-cation	Recreat-ion	Educat-ion	Financial & insurance services
All households											
CPI-aligned	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pure Price	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Couple with three or more dependent children only											
CPI-aligned	+5.2	−1.8	−0.9	−0.3	−0.9	−1.3	+1.3	+0.4	+1.8	+3.6	−7.4
Pure Price	+6.0	−7.7	−0.1	+0.3	−2.1	+1.3	+0.3	−0.1	−0.5	+6.1	+0.6
Renter											
CPI-aligned	−0.7	+6.0	−0.8	+16.0	−2.7	−3.2	+1.5	+1.2	−2.6	−0.2	−2.2
Pure Price	−2.1	+11.0	−1.1	+12.5	−3.9	−3.6	−0.1	+0.1	−1.8	−2.7	−2.0
Unemployment and student allowances											
CPI-aligned	+2.7	+7.7	−0.6	+21.3	−7.1	−4.6	−7.2	+3.5	−5.0	−2.4	−3.8
Pure Price	+8.4	+14.1	−3.2	+15.3	−5.6	−5.1	−0.6	+0.3	−3.3	−4.7	−8.1

Table 36: Difference in points contributions by commodity group

Average weekly household expenditure (AWHE) by commodity group, Mar-2016					
Household group	All households, Eight Capital Cities	All households, Australia	Couple with three or more dependent children only	Renter	Unemployment and student allowances
Group RPI	195.5	195.3	195.2	207.6	200.0
AWHE	$ 1,535.91	$ 1,466.16	$ 1,650.13	$ 1,309.94	$ 644.71
Difference from Eight Capitals	$ 0.00	$ – 69.75	$ + 114.22	$ – 225.97	$ – 891.20
Weight model	CPI-aligned	CPI-aligned	CPI-aligned	CPI-aligned	CPI-aligned
Price region	Eight Capitals	Eight Capitals	Eight Capitals	Eight Capitals	Eight Capitals
Weight region	Eight Capitals	Australia	Australia	Australia	Australia
Commodity group					
Food	$ 235.01	$ 224.34	$ 297.71	$ 188.35	$ 107.11
Alcohol and tobacco	$ 123.13	$ 117.54	$ 110.48	$ 131.19	$ 71.79
Clothing and footwear	$ 52.72	$ 50.32	$ 50.78	$ 39.43	$ 21.03
Housing	$ 357.59	$ 341.35	$ 385.35	$ 400.28	$ 221.11
Household contents and services	$ 130.18	$ 124.27	$ 127.69	$ 85.85	$ 29.85
Health	$ 89.26	$ 85.21	$ 81.34	$ 50.42	$ 21.32
Transportation	$ 155.36	$ 148.31	$ 165.48	$ 127.58	$ 38.24
Communication	$ 39.09	$ 37.32	$ 43.27	$ 37.98	$ 26.91
Recreation	$ 179.16	$ 171.02	$ 207.61	$ 129.77	$ 58.17
Education	$ 55.96	$ 53.42	$ 101.55	$ 49.79	$ 17.27
Financial and insurance services	$ 118.44	$ 113.06	$ 78.86	$ 69.29	$ 31.90
Selected subgroups					
Rents	$ 102.91	$ 93.21	$ 85.10	$ 339.19	$ 136.75
Utilities	$ 64.86	$ 63.00	$ 88.07	$ 47.42	$ 42.28
Other Housing	$ 189.82	$ 185.14	$ 212.19	$ 13.68	$ 42.08
Private motoring	$ 143.85	$ 140.37	$ 162.29	$ 117.25	$ 33.90
Urban transport fares	$ 11.51	$ 7.94	$ 3.19	$ 10.33	$ 4.33
Utility classes					
Electricity	$ 36.38	$ 37.72	$ 53.60	$ 34.83	$ 27.50
Gas and other household fuels	$ 11.83	$ 10.66	$ 15.31	$ 8.91	$ 7.15
Water and sewerage	$ 16.65	$ 14.62	$ 19.16	$ 3.68	$ 7.63

Table 37: AWHE by household group and commodity

The Group RPIs would be higher if the positive differences were not offset by the negative differences to the extent they are. Thus, where the Group RPIs are not much higher than the CPI, the lack of difference depends very much on the relatively low contributions from commodity groups with low price indices. Likewise, the CPI itself would be higher but for the offsetting effect of the relatively small contributions from low-index commodity groups.

Expenditure by commodity and household group

Estimated average weekly household expenditures (AWHEs) are shown by commodity for selected household groups, as at March 2016, in Table 37, above. AWHEs are given for all of the main commodity groups, selected subgroups and Utility classes.

The AWHEs for March 2016 are calculated by inflating the June 2011 AWHEs to March 2016 values with the corresponding commodity price indices. This assumes that incomes rise sufficiently over the same period to maintain expenditure patterns. The same assumption is made in the CPI for estimating the June 2011 expenditures based on the 2009-10 HES.

Percentage of total average weekly household expenditure (AWHE) by commodity group, Mar-2016					
Household group	All households, Eight Capital Cities	All households, Australia	Couple with three or more dependent children only	Renter	Unemployment and student allowances
Group RPI	195.5	195.3	195.2	207.6	200.0
AWHE	$ 1,535.91	$ 1,466.16	$ 1,650.13	$ 1,309.94	$ 644.71
Difference from Eight Capitals	0.0%	-4.5%	7.4%	-14.7%	-58.0%
Weight model	CPI-aligned	CPI-aligned	CPI-aligned	CPI-aligned	CPI-aligned
Price region	Eight Capitals	Eight Capitals	Eight Capitals	Eight Capitals	Eight Capitals
Weight region	Eight Capitals	Australia	Australia	Australia	Australia
Commodity group					
Food	15.3%	15.3%	18.0%	14.4%	16.6%
Alcohol and tobacco	8.0%	8.0%	6.7%	10.0%	11.1%
Clothing and footwear	3.4%	3.4%	3.1%	3.0%	3.3%
Housing	23.3%	23.3%	23.4%	30.6%	34.3%
Household contents and services	8.5%	8.5%	7.7%	6.6%	4.6%
Health	5.8%	5.8%	4.9%	3.8%	3.3%
Transportation	10.1%	10.1%	10.0%	9.7%	5.9%
Communication	2.5%	2.5%	2.6%	2.9%	4.2%
Recreation	11.7%	11.7%	12.6%	9.9%	9.0%
Education	3.6%	3.6%	6.2%	3.8%	2.7%
Financial and insurance services	7.7%	7.7%	4.8%	5.3%	4.9%
Selected subgroups					
Rents	6.7%	6.4%	5.2%	25.9%	21.2%
Utilities	4.2%	4.3%	5.3%	3.6%	6.6%
Other Housing	12.4%	12.6%	12.9%	1.0%	6.5%
Private motoring	9.4%	9.6%	9.8%	9.0%	5.3%
Urban transport fares	0.7%	0.5%	0.2%	0.8%	0.7%
Utility classes					
Electricity	2.4%	2.6%	3.2%	2.7%	4.3%
Gas and other household fuels	0.8%	0.7%	0.9%	0.7%	1.1%
Water and sewerage	1.1%	1.0%	1.2%	0.3%	1.2%

Table 38: Percentage of total AWHE by household group and commodity

Income change by household group

Disposable household income by household group

Estimates of mean disposable household income (DHI) for Mar-1990 and Mar-2016 are shown for selected household groups in Table 39, below, in Mar-2016 dollars. The change in real income is calculated by inflating the Mar-1990 estimate at the Group RPI and subtracting the result from the Mar-2016 estimate, as shown in the fourth column. The percentage change in real income is shown in the last column (i.e., as a percent of the Mar-1990 estimate).

The All Households, Eight Capital Cities, DHI estimate is inflated at the CPI because its Group RPI is the same as the CPI.

These results indicate that the disposable household incomes of several household groups have increased at approximately half the rate of the average increase of All Households, in real terms. The percentage increase in real DHI is estimated at 14.1% for Renter households and 10.2% for the Unemployment and Student Allowances group.

Disposable income change, Mar-1900 to Mar-2016, by household group				
Mean Disposable Household Income (DHI) Mar-2016 dollars				
Household group	Mar-1990	Mar-2016	Real income increase @ Group RPI	Real income percent increase @ Group RPI
All Households, Eight Capital Cities	$ 1,446.03	$ 1,755.88	$ 309.85	21.4%
All Households, Australia	$ 1,354.16	$ 1,633.57	$ 279.41	20.6%
Couple with three or more dependent children only	$ 1,426.65	$ 1,672.44	$ 259.10	18.2%
Renter	$ 1,212.99	$ 1,444.78	$ 170.91	14.1%
Unemployment and student allowances	$ 734.51	$ 822.30	$ 74.94	10.2%

Table 39: DHI change by household group

Equivalised disposable household income by household group

Estimates of mean equivalised disposable household income (EDHI) for Mar-1990 and Mar-2016 are shown for selected household groups in Table 40, below (in Mar-2016 dollars). Changes in real equivalised income are shown in the fourth column (calculated in the same way as for disposable income, above). The percentage change in real equivalised income is shown in the last column (i.e., as a percent of the Mar-1990 estimate).

For the All Household groups and the Unemployment and Student Allowances group, average EDHIs have increased substantially more than average DHIs. As noted earlier, it is not clear why this is the case for the All Households groups (see *Income and expenditure changes* since 1990, page 45).

For the Couple with Three or More Dependent Children Only group, the EDHI increase is very marginally less than the DHI increase. This is to be expected, as there should be little or no difference for a homogenous household group based on family type, as it equivalisation factor is constant. That is, if there is only one type of family composition in the group and it doesn't change with time, neither does the equivalisation factor, so there should be no difference between the EDHI and DHI averages.

For Renters, the average EDHI has increased marginally more than the DHI.

Equivalised disposable income change, Mar-1900 to Mar-2016, by household group				
Mean Equivalised Disposable Household Income (EDHI) Mar-2016 dollars				
Household group	Mar-1990	Mar-2016	Real income increase @ Group RPI	Real income percent increase @ Group RPI
All Households, Eight Capital Cities	$ 816.49	$ 1,024.83	$ 208.34	25.5%
All Households, Australia	$ 771.24	$ 956.91	$ 185.67	24.1%
Couple with three or more dependent children only	$ 553.98	$ 645.46	$ 96.61	17.4%
Renter	$ 749.95	$ 905.34	$ 117.25	15.6%
Unemployment and student allowances	$ 391.53	$ 481.52	$ 82.46	21.1%

Table 40: EDHI change by household group

The EDHI increase for the Unemployment and Student Allowances group is about twice the DHI increase, a much greater difference than for the All Households groups. This perhaps points to greater changes in the family/ household composition and/or the income structure of the Unemployment and Student Allowances group. For example, this group could now contain more households with multiple sources of income and/or a greater diversity of income sources of within households.

The Mar-2016 EDHI for the Unemployment and Student Allowances group is $481.52. The fact that this is much greater than the current allowances for singles – even including rent allowance etc.[15] – suggests that the income structure of this household group is more complex than might be assumed.

Unemployment, low supplementary income cohort

To examine this anomaly, the Unemployment and Student Allowances group was refined to exclude households with high levels of supplementary income (i.e., substantial levels of additional income not from Australian Government benefits and allowances) and to exclude households with unusually low total income.[16]

The refined "low supplementary income" cohort is a much smaller number of households and has much lower income estimates. As at 2009-10, the DHI for this cohort is $375.38 and the EDHI is $279.10.

As at Mar-2016, the estimated DHI for this cohort is $430.62 , which is $184.81 less per week than in Mar-1990, in real terms, a decrease of -30.4%. The Mar-2016 EDHI estimate of $320.17 for this cohort is $20.53 less per week than Mar-1990, a decrease of -6.1%, in real terms.

It is evident that expenditure and income estimates for the Unemployment and Student Allowances group are heavily influenced by levels of supplementary household income. Where the Unemployment and Student Allowances group is taken as a whole, ie, including the subgroup with high supplementary household income, the estimates are difficult to interpret and use in policy settings.

Couple with three-plus Children, low EDHI subgroup

A low EDHI subgroup of the Couple with Three or More Dependent Children Only group has also been examined. The sampling techniques for this subgroup are similar to those used for the low supplementary income subgroup of the Unemployment and Student Allowances group. It is also a much smaller number of households than the original group but is still a reasonable sample size.

As at 2009-10, the disposable household income (DHI) for this cohort is $839.27 and the EDHI is $320.30 . The preliminary estimate of the Group RPI for this low EDHI subgroup is 193.8 points, 0.0 points difference from the Group RPI of 193.8 for the main group and -1.5 points less than CPI inc. indirect financial charges).

The Mar-2016 DHI estimate for this group is no different to the DHI estimate for Mar-1990, in real terms ($10.81 difference per week) or no decrease (1.1%). The EDHI estimate for this cohort is $9.92 per week greater in Mar-2016 than in Mar-1990, a 2.8% increase, in real terms.

For the Couple with Three or More Dependent Children Only group, the estimated increase in income since Mar-1990 is much lower for the low EDHI cohort than for the main cohort.

Expenditure change by household group

Changes in AWHEs on goods and services from 1990 to Mar-2016 are shown for three household groups, by commodity group, in the following three tables. See *Expenditure change by commodity group*, page 47, for the corresponding data on the All Household group.

Couple with Three or More Dependent Children households

Currently, the AWHE for Couple with Three or More Dependent Children Only households is $+ 311.60 greater than in Mar-1990, in real terms (see Table 41, below). This represents an increase of + 18.9 % over the Mar-1990 AWHE.

Of the $+ 311.60 increase, 38.3% or $+ 119.44 per week is spent in the Housing group, the second largest contribution to the net increase among the commodity groups, behind Recreation. This is similar to All Households, Australia, which has an increase of $+ 116.11 in Housing expenditure, at 38.7% of its net increase (see *Expenditure change by commodity group*, page 47).

Expenditure in the Health group has increased by $+ 31.53 or 10.1% of the net increase. In the Financial and Insurance Services group there is a $+ 15.77 per week increase, or 5.1% of the net increase. Housing, Health and Financial & Insurance Services combined account for $+ 166.74 or 53.5% of the net increase.

Expenditure in the Education group has increased by $+ 60.68 or 19.5% of the net increase.

In these four groups combined, expenditure has increased $+ 249.37 per week, 80.0% of the net increase of $+ 311.60. In absolute terms, this is less than the corresponding increase for All Households, Eight Capital Cities ($+ 276.09 per week) and, in percentage terms, it is less than the increase for All Households, Eight Capital Cities (82.4% of the $+ 299.80 net increase).

The second largest increase is in the Recreation group, at $+ 91.89 or 29.5% of the net increase. The fourth largest increase is in Communication, at $+ 22.27 or 7.1% of the net increase.

Expenditure changes per commodity group are shown as a percentage of Mar-1990 expenditures, in real terms (see the last column of Table 41). For Couple with Three or More Dependent Children Only households, the AWHE on Housing has increased by + 41.4 % since Mar-1990, in real terms. The AWHE on Health has increased by + 52.3 %, Financial and Insurance Services by + 24.2 %, Recreation by + 79.0 % and Communication by + 134.8 %, since Mar-1990.

For Couple with Three or More Dependent Children Only households, expenditure on Housing has increased proportionately less than for All Households since Mar-1990 (+ 41.4 % versus + 47.9 %) and the increase is a smaller percentage of the total increase, at 38.3%, versus 38.7% for All Households.

Changes in selected commodity subgroups

Expenditure changes in the Housing and Transport subgroups are shown for the Couple with Three or More Dependent Children Only group in Table 42, below. The three classes of Utilities (one of the Housing subgroups) are also shown. Among the Housing and Transport subgroups, the Other Housing subgroup (i.e., home ownership or owner-occupied housing) accounts for the greatest percentage of the net expenditure change, at + 17.9 %, followed by Rents at + 11.8 % and Utilities at + 8.7 %.

The Electricity class accounts for + 5.7 % of the net expenditure change and for most of the + 8.7 % contribution from Utilities. The Water and Sewerage group accounts for + 1.6 % of the change and Gas and Other Household Fuels, + 1.4 %. Private Motoring and Urban Transport Fares make almost equal

and opposite contributions to total expenditure change, at − 1.9 % and − 4.0 % of the net change, respectively.

Expenditure change since 1990, Couple with three or more dependent children only, by commodity group				
Commodity group	Expenditure change ($)		Percent of total change	Expenditure change (percent)
Food	$	+ 13.99	4.5%	+ 4.9 %
Alcohol and tobacco	$	+ 45.55	14.6%	+ 55.2 %
Clothing and footwear	$	– 31.28	-10.0%	− 36.0 %
Housing	$	+ 119.44	38.3%	+ 41.4 %
Household contents and services	$	– 39.91	-12.8%	− 25.0 %
Health	$	+ 31.53	10.1%	+ 52.3 %
Transportation	$	– 18.35	-5.9%	− 1.7 %
Communication	$	+ 22.27	7.1%	+ 134.8 %
Recreation	$	+ 91.89	29.5%	+ 79.0 %
Education	$	+ 60.68	19.5%	+ 132.4 %
Financial and insurance services	$	+ 15.77	5.1%	+ 24.2 %
Total	$	+ 311.58	100.0%	18.9%

Table 41: Expenditure change, Couple with Three or More Dependent Children Only

Expenditure change in selected commodity subgroups and Utility classes, Couple with three or more dependent children only, by commodity group				
Commodity subgroup	Expenditure change ($)		Percent of total change	Expenditure change (percent)
Housing subgroups				
Rents	$	+ 36.62	11.8%	+ 71.0 %
Utilities	$	+ 27.10	8.7%	+ 40.7 %
Other Housing	$	+ 55.73	17.9%	+ 32.1 %
Transport subgroups				
Private motoring	$	– 5.90	-1.9%	+ 5.1 %
Urban transport fares	$	– 12.45	-4.0%	− 77.7 %
Subtotal, Housing and Transport subgroups	$	+ 101.10	32.4%	− 15.6 %
Utility classes				
Electricity	$	+ 17.77	5.7%	+ 45.5 %
Gas and other household fuels	$	+ 4.37	1.4%	+ 36.1 %
Water and sewerage	$	+ 4.97	1.6%	+ 31.3 %

Table 42: Couple with Three… expenditure change, selected commodity subgroups

As at Mar-2016, the Couple with Three or More Dependent Children Only households AWHE on Rents has increased by + 71.0 % over the Mar-1990 AWHE. The AWHE on Utilities has increased by + 40.7 %, Other Housing by + 32.1 % and Electricity by + 45.5 %, over Mar-1990 levels.

The + 71.0 % increase in AWHE on Rents is much greater than it is for All Households, at + 51.2 %, but as a percentage of net expenditure, the difference is smaller, at + 11.8 % for Couple with Three or More Dependent Children Only households and 11.0% for All Households.

Renter households

Currently, the AWHE for Renter households is $+ 205.57 greater than in Mar-1990, in real terms (see Table 43, below). This represents an increase of + 18.6 % over the Mar-1990 AWHE.

Of the $+ 205.57 total increase, $+ 111.96 or 54.5% extra is spent in the Housing group, the largest increase among the commodity groups. This is a much higher percentage of the net increase than for All Households, Eight Capital Cities, at 38.7% but, in absolute terms, slightly lower than the $+ 116.11 increase for All Households, Australia (see *Expenditure change by commodity group*, page 47).

Expenditure in the Health group has increased by $+ 24.97 or 12.1% of the net increase. Increased expenditure in the Financial and Insurance Services group accounts for $+ 21.13 or 10.3% of the net increase. Housing, Health and Financial & Insurance Services combined account for $+ 158.06 or 76.9% of the net increase.

Expenditure in the Education group has increased by $+ 38.70 or 18.8% of the net increase.

In these four groups combined, expenditure has increased $+ 196.38 per week, which is 95.5% of the net increase of $+ 205.57. In absolute terms, this is a much smaller increase than for All Households, Eight Capital Cities, which has a $+ 276.09 per week increase, but it is a greater percentage increase (compared to 82.4% of the net increase of $+ 299.80 for All Households, Eight Capital Cities).

The second largest increase is in the Recreation group at $+ 44.74 or 21.8% of the net increase. The fourth largest increase is in Communication, at $+ 18.55 or 9.0% of the net increase.

Expenditure changes as a percentage of Mar-1990 expenditures are shown in the last column of Table 43. For Renter households, the AWHE on Housing has increased by + 35.5 % since Mar-1990, in real terms. The AWHE on Financial and Insurance Services has increased by + 43.0 %, Recreation by + 52.3 % and Communication by + 122.6 %, since Mar-1990.

For Renter households, expenditure on Housing has increased proportionately less than All Households since Mar-1990 (+ 35.5 % versus + 47.9 %) but the increase is a greater percentage of the total expenditure increase for Renter households (54.5% versus 38.7%).

Expenditure change since 1990, Renter, by commodity group

Commodity group	Expenditure change ($)	Percent of total change	Expenditure change (percent)
Food	$ – 2.48	-1.2%	– 1.3 %
Alcohol and tobacco	$ + 24.94	12.1%	+ 12.6 %
Clothing and footwear	$ – 17.74	-8.6%	– 28.7 %
Housing	$ + 111.96	54.5%	+ 35.5 %
Household contents and services	$ – 37.87	-18.4%	– 31.7 %
Health	$ + 24.97	12.1%	+ 84.8 %
Transportation	$ – 21.33	-10.4%	– 6.4 %
Communication	$ + 18.55	9.0%	+ 122.6 %
Recreation	$ + 44.74	21.8%	+ 52.3 %
Education	$ + 38.70	18.8%	+ 319.8 %
Financial and insurance services	$ + 21.13	10.3%	+ 43.0 %
Total	$ + 205.57	100.0%	18.6%

Table 43: Expenditure change by commodity group, Renter

Changes in selected commodity subgroups

Expenditure changes in the Housing and Transport subgroups are shown for the Renter group in Table 44, below. The three classes of Utilities (one of the Housing subgroups) are also shown. Among the Housing and Transport subgroups, the Rents subgroup accounts for the greatest percentage of the net expenditure change, at + 45.9 %, followed by Utilities at + 8.5 % and then Private Motoring at − 3.4 % of the net expenditure change.

The Electricity class accounts for + 5.7 % of the net expenditure change and thus most of the contribution of + 8.5 % from Utilities. The Water and Sewerage group accounts for + 1.6 % of the change and Gas and Other Household Fuels, + 1.2 %.

The AWHE on Urban Transport Fares has decreased, accounting for − 6.9 % of the net expenditure change.

For Renter households, as at Mar-2016, the AWHE on Rents has increased by + 34.9 % over the Mar-1990 AWHE, in real terms. The AWHE on Utilities has increased by + 53.9 % and Electricity by + 47.2 %, over Mar-1990 levels.

The + 34.9 % increase in the AWHE on Rents is less than for All Households, at + 51.2 %. However, the increased AWHE on Rents is a much larger percentage of the net expenditure increase, at + 45.9 % for Renter households, compared to 11.0% for All Households. For the Housing group as a whole – rather than on Rents alone – the percentage increases in AWHEs are somewhat closer at + 35.5 % for the Renter group versus + 47.9 % for All Households (where Rents are one of the alternate subgroups).

Expenditure change in selected commodity subgroups and Utility classes, Renter, by commodity group

Commodity subgroup	Expenditure change ($)	Percent of total change	Expenditure change (percent)
Housing subgroups			
Rents	$ + 94.26	45.9%	+ 34.9 %
Utilities	$ + 17.40	8.5%	+ 53.9 %
Other Housing	$ + 0.31	0.2%	− 0.3 %
Transport subgroups			
Private motoring	$ – 7.05	-3.4%	+ 2.7 %
Urban transport fares	$ – 14.28	-6.9%	− 54.3 %
Subtotal, Housing and Transport subgroups	$ + 90.64	44.1%	+ 23.1 %
Utility classes			
Electricity	$ + 11.74	5.7%	+ 47.2 %
Gas and other household fuels	$ + 2.39	1.2%	+ 33.4 %
Water and sewerage	$ + 3.28	1.6%	+ 794.9 %

Table 44: Renter expenditure change, selected commodity subgroups

Unemployment and Student Allowances households

The estimated AWHE for the Unemployment and Student Allowances group in Mar-2016 is $– 71.51 less than in Mar-1990, in real terms (see Table 45, below). This represents a decrease of − 5.4 % from the Mar-1990 AWHE.

Despite the overall decrease in expenditure, Housing expenditure increased by $+ 23.96 or -33.5% of the net decrease (the largest increase). This is a much lower percentage of the net change than for All Households, Australia, at 38.7% All Households, Australia, at 42.4% (see *Expenditure change by*

commodity group, page 47) but is high relative to the net decrease in the Unemployment and Student Allowances group expenditure.

Expenditure in the Financial and Insurance Services group increased by $+ 15.28 or -21.4% of the net decrease (the third largest increase). Expenditure in the Health group increased by $+ 8.02 or -11.2% of the net decrease.

In Housing, Health and Financial & Insurance Services combined, expenditure increased $+ 52.70 or -73.7% of the net increase.

Expenditure in the Education group increased by $+ 13.46 or -18.8% of the net decrease.

In the Housing, Health, Financial & Insurance Services and Education groups combined, expenditure has increased $+ 65.25 per week, which is greater than the net decrease of $– 71.51 (obviously). In absolute terms, this is lower than the related increase for All Households, Eight Capital Cities ($+ 276.09 per week) but it is a greater percentage increase than for All Households, Eight Capital Cities (82.4% of the $+ 299.80 net increase).

The second largest increase is in the Communications group at $+ 12.55 or -17.5% of the net decrease. Expenditure in the Recreation group increased by $+ 10.40 or -14.5% of the net decrease.

Since Mar-1990, the AWHE on Housing has increased by + 9.4 % for the Unemployment and Student Allowances group (in real terms). Since Mar-1990, the AWHE on Financial and Insurance Services has increased by + 91.2 %, Education by + 324.1 %, Recreation by + 21.5 % and Communication by + 113.5 % (see the last column of Table 45, below, which shows expenditure changes as a percentage of Mar-1990 expenditures, per commodity group).

For Unemployment and Student Allowances households, expenditure on Housing has increased proportionately less than All Households since Mar-1990 (+ 9.4 % versus + 47.9 %) and the increase is a smaller percentage of the total expenditure increase, at -33.5%, versus 38.7% for All Households). However, the increase for the Unemployment and Student Allowances group is effectively a much greater proportion of the group's overall expenditure change because the overall change is in the opposite direction, i.e., negative.

Expenditure change since 1990, Unemployment and student allowances, by commodity group

Commodity group	Expenditure change ($)	Percent of total change	Expenditure change (percent)
Food	$ – 53.31	74.5%	– 33.2 %
Alcohol and tobacco	$ – 2.97	4.2%	– 12.4 %
Clothing and footwear	$ – 1.67	2.3%	– 4.2 %
Housing	$ + 23.96	-33.5%	+ 9.4 %
Household contents and services	$ – 41.12	57.5%	– 58.6 %
Health	$ + 8.02	-11.2%	+ 49.7 %
Transportation	$ – 56.12	78.5%	– 55.8 %
Communication	$ + 12.55	-17.5%	+ 113.5 %
Recreation	$ + 10.40	-14.5%	+ 21.5 %
Education	$ + 13.46	-18.8%	+ 324.1 %
Financial and insurance services	$ + 15.28	-21.4%	+ 91.2 %
Total	$ – 71.52	100.0%	-5.4%

Table 45: Expenditure change, Unemployment and Student Allowances

For Unemployment and Student Allowances households, expenditure in the Food group has decreased by $– 53.31 which accounts for 74.5% of the net decrease of $– 71.51. The second largest expenditure decrease is in Transportation, with a decrease of $– 56.12 which accounts for 78.5% of the net decrease. Expenditure in the Alcohol and Tobacco group is markedly lower, with a decrease of $– 2.97 which accounts for 4.2% of the net decrease.

In real terms, the current AWHE estimate for the Food group is − 33.2 % lower than the Mar-1990 estimate, for the Transportation group it is − 55.8 % lower, and for the Alcohol and Tobacco group, − 12.4 % lower, than the Mar-1990 estimates.

Changes in selected commodity subgroups

Expenditure changes in the Housing and Transport subgroups are shown for the Unemployment and Student Allowances group in Table 46, below. The three classes of Utilities (one of the Housing subgroups) are also shown. Among the Housing and Transport subgroups, the Rents subgroup accounts for the greatest percentage of the net expenditure change, at -18.1% (upwards) followed by Utilities at -8.4% (upwards) and Private Motoring at 69.2% of the net expenditure change (downwards).

The Electricity class accounts for -3.6% of the net expenditure change (upwards) and thus less than half of the contribution of -8.4% from Utilities. The Water and Sewerage group accounts for -5.0% of the change (upwards) and Gas and Other Household Fuels, 0.2% (slightly downward).

The AWHE on Urban Transport Fares has decreased, making a contribution of 9.3% to the net downward expenditure change.

For Unemployment and Student Allowances, as at Mar-2016, the AWHE on Rents has increased by + 7.7 % over the Mar-1990 AWHE, in real terms. The AWHE on Utilities has increased by + 13.8 %, Other Housing by + 10.6 % and Electricity by + 7.9 %, over Mar-1990 levels.

The + 7.7 % increase in the AWHE on Rents is less than for All Households, at + 51.2 %. However, the increased AWHE on Rents makes a relatively larger percentage contribution in the Unemployment and Student Allowances group expenditure change, at -18.1%, than in the All Households group, at 11.0%, because the net expenditure has decreased in Unemployment and Student Allowances group.

Expenditure change in selected commodity subgroups and Utility classes, Unemployment and student allowances, by commodity group				
Commodity subgroup	Expenditure change ($)		Percent of total change	Expenditure change (percent)
Housing subgroups				
Rents	$	+ 12.95	-18.1%	+ 7.7 %
Utilities	$	+ 6.03	-8.4%	+ 13.8 %
Other Housing	$	+ 4.99	-7.0%	+ 10.6 %
Transport subgroups				
Private motoring	$	– 49.46	69.2%	− 55.6 %
Urban transport fares	$	– 6.67	9.3%	− 57.0 %
Subtotal, Housing and Transport subgroups	$	– 32.16	45.0%	− 8.0 %
Utility classes				
Electricity	$	+ 2.58	-3.6%	+ 7.9 %
Gas and other household fuels	$	– 0.14	0.2%	− 4.0 %
Water and sewerage	$	+ 3.59	-5.0%	+ 84.1 %

Table 46: Unemployment… expenditure change, selected commodity subgroups

RPI guideline series by household group

The patterns of Upper Boundary, Basket Expansion, Subgroup and Mainstream RPIs for each household group are broadly similar to the All Households group, relative to the respective Group RPIs but there are notable dissimilarities as well. The differences between each Group RPI and the various guideline RPIs are shown in Table 47 (below) for the All Households, Couple with Three or More Dependent Children Only, Renter and the Unemployment and Student Allowances groups.

In some cases, the dissimilarity between household groups is due to a pre-existing pattern within one of the household groups. For example, there is less difference between the Renter Group RPI and the Renter Subgroup RPI than between the All Households Group and Subgroup RPIs because the weight on rents in the Renter group is already at a maximum, so the additional weight normally ascribed to rents in the Subgroup RPI doesn't alter the weight or points contribution of the Rents component of the Subgroup RPI. Consequently, there is less difference between the notional subgroup and the group as a whole because one of the key components of the Subgroup RPI is the Rents RPI (i.e., where all Housing expenditure is ascribed to the Rents subgroup).

For the Couple with Three or More Dependent Children Only group and the All Households group, there is less difference between the Mainstream RPI and the Group RPI than there is for the Renter and the Unemployment and Student Allowances groups, because the former already have greater weights on Private Motoring and Home Ownership.

RPI Guideline Series: differences from Group RPI, Australia, Mar 2014									
Household group	Group RPI	RPI upper boundary	Basket Expansion from CPI	Subgroup RPI	Fares RPI	Rents RPI	Main-stream RPI	Private motoring RPI	Home ownership RPI
All households									
CPI-aligned	194.0	+ 19.9	+ 3.3	+ 16.6	− 3.6	+ 11.8	+ 4.7	− 0.9	− 193.9
Pure Price	200.7	+ 22.1	+ 1.1	+ 21.0	− 3.8	+ 15.6	+ 5.5	− 1.5	− 200.6
Couple with three or more dependent children only									
CPI-aligned	193.8	+ 21.6	+ 3.4	+ 18.2	− 2.3	+ 13.3	+ 4.9	− 0.2	− 193.6
Pure Price	204.8	+ 29.2	+ 6.6	+ 22.6	− 2.4	+ 16.4	+ 6.2	− 0.9	− 204.7
Renter									
CPI-aligned	204.0	+ 19.6	+ 7.2	+ 12.3	− 10.8	+ 12.0	+ 0.4	− 0.9	− 203.7
Pure Price	213.8	+ 17.8	+ 1.9	+ 15.9	− 12.1	+ 15.2	+ 0.7	− 1.8	− 213.5
Unemployment and student allowances									
CPI-aligned	198.5	+ 11.3	+ 1.7	+ 9.5	− 9.1	+ 7.1	+ 2.4	− 0.8	− 198.2
Pure Price	208.3	+ 16.9	− 1.5	+ 18.4	− 9.2	+ 15.4	+ 3.0	− 1.2	− 208.1

Table 47: RPI guideline series: points differences from All Households

Household groups: detailed RPI data

In this section, detailed RPI data are shown for each of the selected household groups. This includes RPI time series charts, historical RPI comparison tables, weights variance tables and expenditure comparison tables. Each chart or table compares a selected household group with the All Households group and/or the CPI. The household guideline RPIs are also compared to the household group RPI. Comparisons are made for the main commodity groups and selected subgroups. The expenditure split

between each of the two subgroups in the Housing and Transport groups is given in the last table. This shows the proportions of Housing expenditure (excluding Utilities) which are made on Home Ownership and Rents and the proportions of Transport expenditure which are made on Private Motoring and Urban Transport Fares.

Couple with three or more children

Group RPI and Pure Price Index

Long term trends

The Couple with Three or More Children Australia Group RPI tracks the CPI fairly closely from 1990 to 2000. It runs below the CPI from 2000, after re-weighting for the 14th series CPI, until Mar-2005 (the end of the 14th series). It tracks the CPI closely through the 15th and 16th series to Mar-2016 when it reaches 195.2 points, 0.10 points below the CPI at 195.4 points (see Figure 27, below).

The Pure Price Index (PPI) for the Couple with Three or More Children Australia group tracks the Group RPI closely from 1990 to 1998. During several periods, from 1998 to 2001, 2006-07 and mid-2008 through to Mar-2016, it grows faster than the CPI and the Group RPI. The difference between the PPI and the Group RPI reflects the degree to which price increases are offset by the movement of expenditure patterns towards lower priced goods and services (see Table 41, page 59).[17]

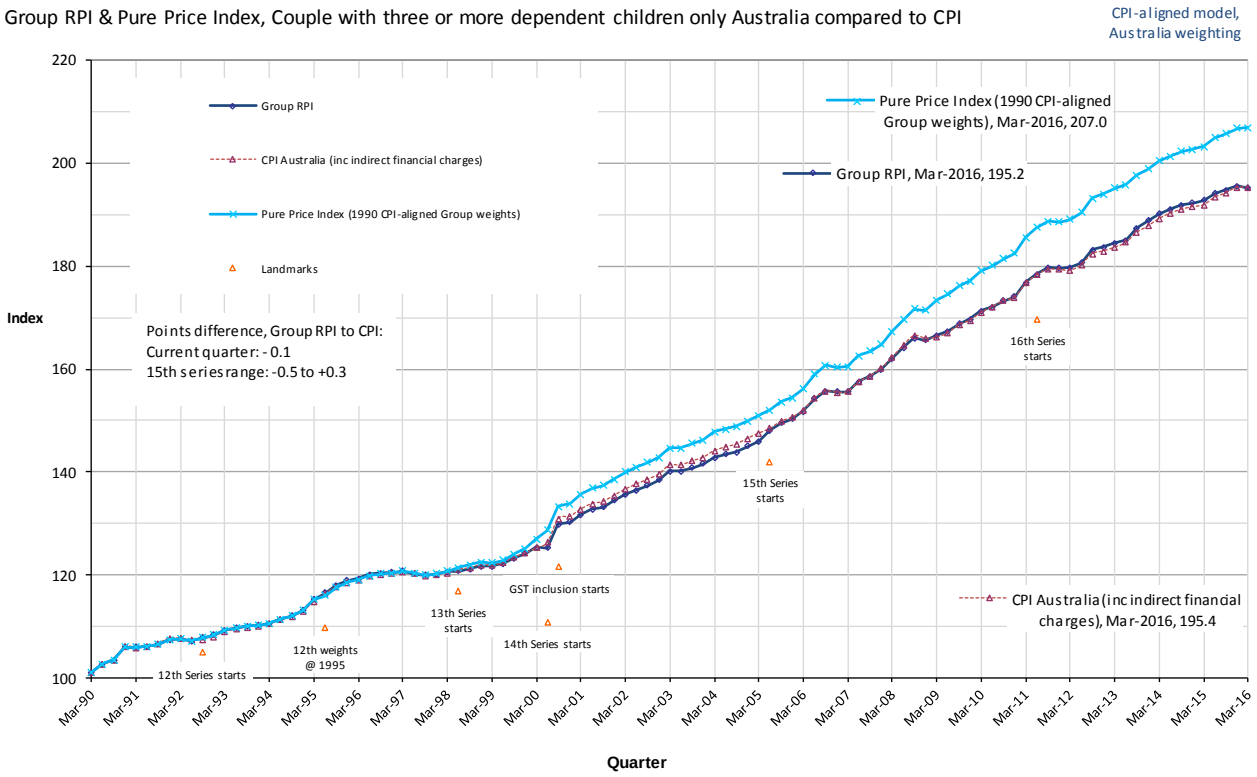

Figure 25: Group RPI, Couple with Three or More Children

RPI guideline series

Subgroup and Mainstream RPI trends

The Couple with Three or More Children Subgroup RPI grows faster than the Group RPI during most of the early 1990s and the late 1990s but during the mid-1990s the two growth rates are similar. For the whole of the 1990s, the difference between the Subgroup and Group RPIs is generally split fairly evenly between the two Subgroup components, Rents and Fares. In other words, Rents and Fares make fairly even contributions to the Subgroup RPI (see Figure 26, below).

From 2000 to 2008, the Subgroup RPI grows marginally faster than the Group RPI. The Fares component grows faster than the Group RPI and the Rents component grows slower than the Group RPI. The Fares component accounts for about twice as much of the difference between the Subgroup RPI and the Group RPI than the Rents component does.

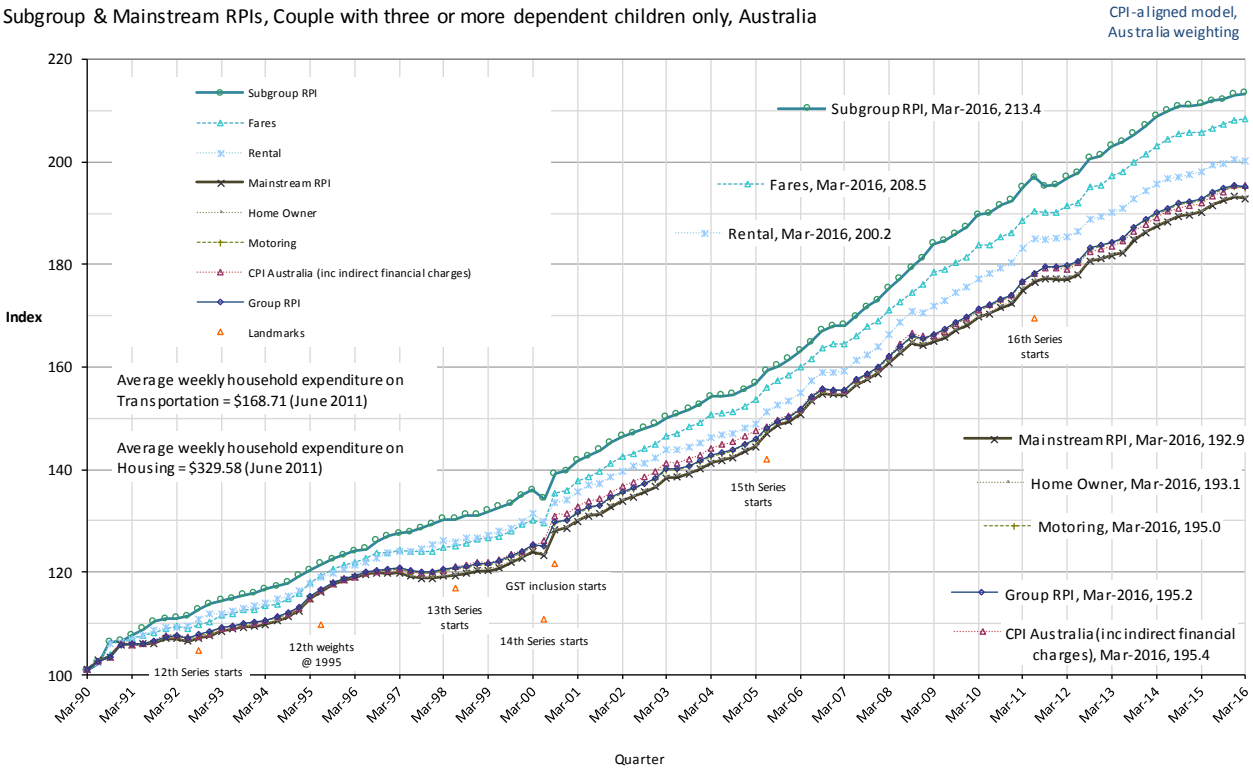

Figure 26: Subgroup and Mainstream RPIs, Couple with Three or More Children

Subgroup RPI with Fares and Rental components compared to the Group RPI: Couple with three or more dependent children only, Australia					
Subgroup RPI and components	Quarter/period	Subgroup RPI	With Fares component only	With Rental component only	Group RPI
Price Index, All CPI Groups	Mar-2016	213.4	208.5	200.2	195.2
	Mar-2015	211.3	205.9	198.1	192.8
	Mar-2011	195.2	188.7	183.3	176.8
	Mar-1990	100.8	100.9	100.9	101.0
Points increase	In last 12 months	2.2	2.6	2.0	2.5
	Previous 5 years	18.2	19.8	16.9	18.4
	Since Mar-1990	112.6	107.6	99.2	94.2
Percent increase	In last 12 months	1.0%	1.3%	1.0%	1.3%
	Previous 5 years	9.3%	10.5%	9.2%	10.4%
	Since Mar-1990	111.8%	106.6%	98.4%	93.2%
Difference from Group RPI Australia percent increase	In last 12 months	-0.3%	0.0%	-0.3%	0.0%
	Previous 5 years	-1.1%	0.1%	-1.2%	0.0%
	Since Mar-1990	18.5%	13.4%	5.1%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	-19.8%	-0.7%	-20.4%	0.0%
	Previous 5 years	-10.4%	0.6%	-11.7%	0.0%
	Since Mar-1990	19.9%	14.4%	5.5%	0.0%

Table 48: Subgroup RPI and components, Couple with Three or More Children

From 2008 to Mar-2016 the Subgroup RPI grows considerably faster than the Group RPI. Both the Fares and Rents components grow faster than the Group RPI but the contribution of Rents generally grows faster than Fares for this period.

The Mainstream RPI for the Couple with Three or More Children group runs at or slightly below the Group RPI for most of the period from 1990 through the mid-90s when it begins to grow more slowly than the Group RPI. It runs at one to two points below the group RPI until the start of the 15th series (Mar-2005) when it begins to track the Group RPI more closely. From 2008 it grows marginally but consistently more slowly than the Group RPI (and CPI) until it reaches 192.9 points at Mar-2016, 2.5% less than the Group RPI (see Figure 26, above).

The relative contributions of Private Motoring and Home Ownership to the Mainstream RPI are also illustrated in Figure 26. The differences between these components and the Group RPI are fairly small because they heavily outweigh the contributions of the alternative Fares and Rents subgroups, in two of the groups (tenure and transport) which have great enough weights to strongly influence Group RPI and CPI trends (as for All Households).

The Private Motoring RPI runs consistently at – or almost at – the Group RPI and closer to it than Home Ownership RPI. The Couple with Three or More Children Home Ownership RPI runs closer to the Mainstream RPI than the Private Motoring RPI does – it has a stronger influence on the Mainstream RPI because of the heavier weighting on Home Ownership (see Table 51, page 71). It also runs marginally closer to the Group RPI than the All Households Home Ownership RPI does, especially during the 15th series (see Figure 23, page 49, for comparison).

Mainstream RPI with Private Motoring and Home Ownership components compared to the Group RPI: Couple with three or more dependent children only, Australia

Mainstream RPI components	Quarter/period	Mainstream RPI	With Private Motoring component only	With Home Ownership component only	Group RPI
Price Index, All CPI Groups	Mar-2016	192.9	195.0	193.1	195.2
	Mar-2015	190.3	192.5	190.5	192.8
	Mar-2011	175.1	176.6	175.3	176.8
	Mar-1990	101.1	101.1	101.1	101.0
Points increase	In last 12 months	2.6	2.5	2.7	2.5
	Previous 5 years	17.8	18.4	17.8	18.4
	Since Mar-1990	91.8	93.9	92.1	94.2
Percent increase	In last 12 months	1.4%	1.3%	1.4%	1.3%
	Previous 5 years	10.2%	10.4%	10.2%	10.4%
	Since Mar-1990	90.8%	93.0%	91.1%	93.2%
Difference from Group RPI Australia percent increase	In last 12 months	0.1%	0.0%	0.1%	0.0%
	Previous 5 years	-0.2%	0.0%	-0.2%	0.0%
	Since Mar-1990	-2.4%	-0.2%	-2.1%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	9.0%	0.0%	9.0%	0.0%
	Previous 5 years	-2.2%	0.2%	-2.4%	0.0%
	Since Mar-1990	-2.5%	-0.3%	-2.3%	0.0%

Table 49: Mainstream RPI and components, Couple with Three or More Children

Subgroup and Mainstream RPI comparisons

The Couple with Three or More Children Subgroup RPI is 213.4 points at Mar-2016. It has grown 19.9% more than the Group RPI at 195.2 points. This is similar to the corresponding growth difference of 19.1% for All Households, Australia. The Fares RPI is 208.5 points and the Rents RPI is 200.2 points, at Mar-2016, representing growth of 14.4% and 5.5% greater than the Group RPI, respectively. The Fares subgroup thus contributes substantially more to the Subgroup RPI than Rents (see Table 48, above).

The Couple with Three or More Children Mainstream RPI is 192.9 points at Mar-2016. It has grown 2.5% less than the Group RPI (195.2 points). This is similar to the corresponding difference of 3.5% lower growth for All Households, Australia.

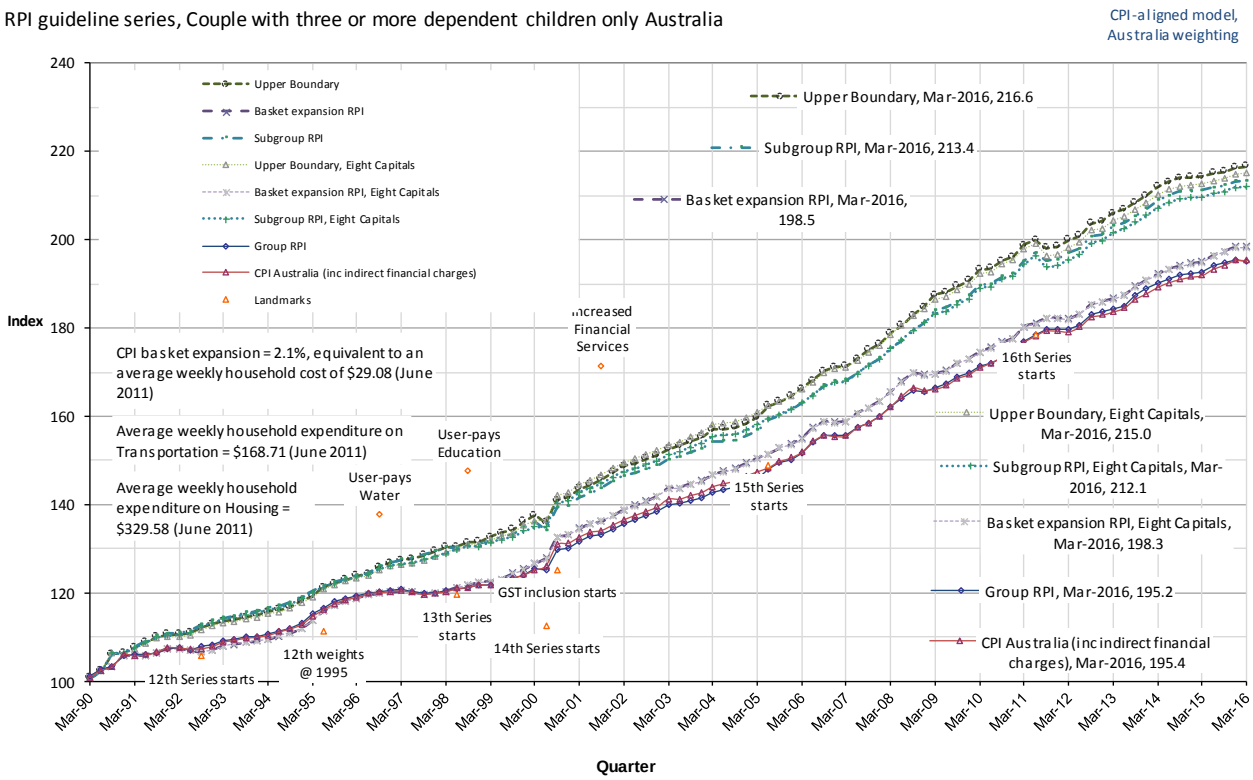

Figure 27: RPI guideline series, Couple with Three or More Children

Upper Boundary and Basket Expansion RPIs compared to the Group RPI and CPI: Couple with three or more dependent children only, Australia					
Upper Boundary & Basket Expansion	Quarter/period	Upper Boundary	Basket expansion	Group RPI	CPI Australia (inc indirect financial charges)
Price Index, All CPI Groups	Mar-2016	216.6	198.5	195.2	195.4
	Mar-2015	214.4	195.0	192.8	191.9
	Mar-2011	198.8	180.3	176.8	176.7
	Mar-1990	100.8	100.9	101.0	100.9
Points increase	In last 12 months	2.2	3.5	2.5	3.4
	Previous 5 years	17.7	18.2	18.4	18.7
	Since Mar-1990	115.8	97.6	94.2	94.5
Percent increase	In last 12 months	1.0%	1.8%	1.3%	1.8%
	Previous 5 years	8.9%	10.1%	10.4%	10.6%
	Since Mar-1990	114.9%	96.7%	93.2%	93.6%
Difference from Group RPI Australia percent increase	In last 12 months	-0.2%	0.5%	0.0%	0.5%
	Previous 5 years	-1.5%	-0.3%	0.0%	0.1%
	Since Mar-1990	21.7%	3.5%	0.0%	0.4%
Difference as % of Group RPI Australia increase	In last 12 months	-19.5%	38.6%	0.0%	39.2%
	Previous 5 years	-14.5%	-3.3%	0.0%	1.4%
	Since Mar-1990	23.2%	3.8%	0.0%	0.4%

Table 50: Upper Boundary and Basket Expansion, Couple with Three or More Children

At Mar-2016, the Private Motoring RPI is 195.0 points and the Home Ownership RPI is 193.1 points, 0.3% and 2.3% lower growth than the Group RPI, respectively. The Home Ownership subgroup thus contributes more to the difference between the Mainstream RPI and the Group RPI than Private Motoring does (see Table 49, above).

Upper boundary and basket expansion trends

The RPI Upper Boundary for the Couple with Three or More Children Australia group runs consistently above the Group RPI from the early 1990s onwards, generally by a wide and steadily increasing margin. The main exception is during 1995 and early 1996 when the Group RPI grows at a more similar rate and briefly at a marginally faster rate. It tracks the All Households (Eight Capitals) RPI Upper Boundary fairly closely but it grows marginally more during 1997-98 and 1999-2000 and marginal less during the 14th series. It grows marginally more during 2009 and at the start of the 16th series in June 2011 (see Figure 27, above).

The Couple with Three or More Children Basket Expansion RPI tracks its Group RPI fairly closely from 1990 through 1998 apart from falling slightly below it during 1993 and 1994. From 1998 to 2005-06 it grows faster than the Group RPI and maintains a substantial margin over it through to Mar-2016. As for All Households, the weight of the expanded basket was marginally greater prior to the recent global financial crisis and the introduction of the 16th series CPI.

Upper boundary and basket expansion comparisons

The Couple with Three or More Children RPI Upper Boundary is 216.6 points at Mar-2016. It has grown 23.2% more than the Group RPI (195.2 points). This is similar to the corresponding growth difference of 22.3% for All Households, Australia. At Mar-2016, the Basket Expansion RPI is 198.5 points. It has grown 3.8% more than the Group RPI (see Table 50, above) although the difference has been greater in previous years (see Figure 27, above). The Basket Expansion RPI contributes much less to the difference between the RPI Upper Boundary and the Group RPI than the Subgroup RPI (i.e., Fares and Rents).

Weights and points comparisons

Weights variance by commodity group

Quantity weights for the Couple with Three or More Children group are compared with All Households, Australia in Table 51, below. The differences in the points contributions associated with these weights at Mar-2016 are shown in the last column. The net difference (or total) is equal to the difference between the Group RPI for this group and All Households, Australia (both at Mar-2016).

For comparison of points contributions with other household groups, see Table 36 (*Difference in points contributions by commodity group*, page 53). The differences shown in Table 36 are not the same as in Table 51 because Table 36 shows the group's difference from the CPI (All Households, Eight Capital Cities, excluding indirect financial charges). Table 51 shows the differences from the All Households Group RPI, Australia, including indirect financial charges.

Points contributions by commodity group

The points contributions for the Couple with Three or More Children group are compared with All Households, Australia, by commodity group, in Table 52, below.

June 2011 Quantity weights: variance of the "Couple with three or more dependent children only" group from "All Households", Australia, by commodity group						Points contribution
	Commodity group	All Households group (Australia)	Group: Couple with three or more dependent children only	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
1	Food	15.6%	18.6%	3.0%	19.5%	5.7
2	Alcohol and Tobacco	7.3%	6.2%	-1.1%	-15.4%	-2.5
3	Clothing and Footwear	3.6%	3.3%	-0.3%	-9.2%	-0.6
4	Housing	21.5%	21.8%	0.4%	1.6%	0.7
5	Household contents and services	9.0%	8.3%	-0.7%	-7.5%	-1.3
6	Health	5.3%	4.5%	-0.7%	-14.1%	-1.6
7	Transportation	11.9%	11.9%	0.1%	0.5%	0.1
8	Communication	3.0%	3.2%	0.1%	4.4%	0.2
9	Recreation	12.0%	13.1%	1.1%	9.3%	2.1
10	Education	2.8%	4.7%	2.0%	71.1%	4.5
11	Financial and Insurance Services	8.2%	4.4%	-3.8%	-46.4%	-7.5
	Total	**100.0%**	**100.0%**	**0.0%**	**0.0%**	**-0.1**

Table 51: Weights variance by commodity group, Couple with Three or More Children

Note: The difference between each percentage weight is shown in the "Difference" column. The "Variance" column shows the difference in relation to the reference weight, i.e., the difference as a percent of the All Households weight.

The commodity groups which typically make greater points contributions than average in Couple with Three or More Children households are Housing and Education and, to a lesser extent, Food.[18] At Mar-2016, under the current RPI model, the points differences are 0.7 for Housing, 4.5 for Education and 5.7 points for Food. Currently, Food and Education make substantially greater contributions but Housing does not. Notably, there is a 2.1 points greater contribution in the Recreation group.

Points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Couple with three or more dependent children only Australia	
	Commodity group	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
1	Food	29.2	34.9	5.7
2	Alcohol and Tobacco	16.5	14.0	-2.5
3	Clothing and Footwear	6.3	5.7	-0.6
4	Housing	44.4	45.1	0.7
5	Household contents and services	16.8	15.6	-1.3
6	Health	11.7	10.1	-1.6
7	Transportation	20.7	20.8	0.1
8	Communication	5.0	5.3	0.2
9	Recreation	22.4	24.4	2.1
10	Education	6.3	10.8	4.5
11	Financial and Insurance Services	16.1	8.6	-7.5
	Total	**195.4**	**195.2**	**-0.1**

Table 52: Points contribution by commodity group, Couple with Three or More Children

Typically, the greater contributions in these commodity groups are largely negated in Alcohol & Tobacco, Health, Transportation and Financial and Insurance Services. At Mar-2016, under the current RPI model, the points differences in these groups are -2.5 in Alcohol & Tobacco, -1.6 in Health, 0.1 in

Transportation and -7.5 in Financial and Insurance Services. Currently, the difference in Transportation is marginally positive but there is also a marginal negative difference of 0.2 points in Communications (see Table 52, above).

Because the positive differences in points are completely negated by the negative ones with a fraction of a negative point spare, the Couple with Three or More Children group has a fractionally lower Group RPI than the All Households group.

Evidently, there is no significant difference between the weighted-average price change for this household group and All Households, notwithstanding methodological limitations tend to minimise the differences between household Group RPIs.

Although the positive differences do not outweigh the negative differences in this group as a whole, there may be definable household subsets which have significantly different expenditure patterns, in which the relatively high contributions are not balanced out as much by relatively low ones. This would be expected, for example, in subsets with higher relative expenditures on fares and rent (i.e., the alternative subgroups of tenure and transport).

Percentage contribution by commodity group

Commodity group points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 53, below. This is the points data shown in Table 52, above, normalised to show the percentage contribution of each commodity group.

Percentage points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Couple with three or more dependent children only Australia	
	Commodity group	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
1	Food	14.9%	17.9%	2.9%
2	Alcohol and Tobacco	8.4%	7.1%	-1.3%
3	Clothing and Footwear	3.2%	2.9%	-0.3%
4	Housing	22.7%	23.1%	0.4%
5	Household contents and services	8.6%	8.0%	-0.6%
6	Health	6.0%	5.2%	-0.8%
7	Transportation	10.6%	10.7%	0.1%
8	Communication	2.6%	2.7%	0.1%
9	Recreation	11.4%	12.5%	1.1%
10	Education	3.2%	5.5%	2.3%
11	Financial and Insurance Services	8.2%	4.4%	-3.8%
	Total	**100.0%**	**100.0%**	**0.0%**

Table 53: Percentage contribution by commodity group, Couple with Three or More Children

Weights variance by commodity subgroup

The corresponding data for the Housing and Transportation subgroups is shown in Table 54, below. The differences in points contribution of -2.2 points for Rents, 2.9 for Utilities and 0.7 for home ownership (Other Housing) indicate relatively greater expenditure on home ownership, the subgroup with the lower price index (of the alternative tenure types).

In relation to the expenditure pattern of the All Households group, Couple with Three or More Children household expenditure is weighted significantly towards the home ownership subgroup (Other Housing) and slightly away from the Utilities subgroup. Transport expenditure is weighted slightly more towards Motoring than the All Households group is (away from Fares).

Points contribution by commodity subgroup

The points contributions for the Couple with Three or More Children group are compared with All Households, Australia, by commodity subgroup, in Table 55, below.

June 2011 Quantity weights: variance of the "Couple with three or more dependent children only" group from "All Households", Australia, by commodity subgroup						Points contribution
	Commodity subgroup	All Households group (Australia)	Group: Couple with three or more dependent children only	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
4.1	Rents	6.2%	5.1%	-1.1%	-17.3%	-2.2
4.2	Utilities	3.6%	4.6%	1.0%	26.7%	2.9
4.3	Other Housing	11.6%	12.1%	0.4%	3.9%	0.7
	Total	**21.5%**	**21.8%**	**0.4%**	**1.6%**	**1.5**
7.1	Private motoring	11.3%	11.7%	0.4%	3.7%	0.7
7.2	Urban transport fares	0.6%	0.2%	-0.4%	-63.9%	-1.0
	Total	**11.9%**	**11.9%**	**0.1%**	**0.5%**	**-0.3**

Table 54: Subgroup weights variance, Couple with Three or More Children

Points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Couple with three or more dependent children only Australia	
	Commodity subgroup	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.1	Rents	13.1	10.6	-2.5
4.2	Utilities	11.5	14.4	2.8
4.3	Other Housing	19.7	20.1	0.4
	Total	**44.4**	**45.1**	**0.7**
7.1	Private motoring	19.1	20.2	1.1
7.2	Urban transport fares	1.6	0.6	-1.0
	Total	**20.7**	**20.8**	**0.1**

Table 55: Points contribution by commodity subgroup, Couple with Three or More Children

Percentage contribution by commodity subgroup

Commodity subgroup points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 56, below. This is the points data shown in Table 55, above, normalised to show the percentage contribution of each commodity subgroup.

Points contribution by Utility classes

The points contributions for the Couple with Three or More Children group are compared with All Households, Australia, by Utility classes, in Table 57, below. Utilities points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 58, below. This is the points data shown in Table 57, below, normalised to show the percentage contribution of each Utility class.

Percentage points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Couple with three or more dependent children only Australia**	
	Commodity subgroup	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.1	Rents	6.7%	5.5%	-1.3%
4.2	Utilities	5.9%	7.4%	1.4%
4.3	Other Housing	10.1%	10.3%	0.2%
	Total	**22.7%**	**23.1%**	**0.4%**
7.1	Private motoring	9.8%	10.4%	0.6%
7.2	Urban transport fares	0.8%	0.3%	-0.5%
	Total	**10.6%**	**10.7%**	**0.1%**

Table 56: Percentage contribution by commodity subgroup, Couple with Three or More Children

Points contribution by Utility classes at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Couple with three or more dependent children only Australia**	
4.2	**Utility classes**	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.2.1	Electricity	7.0	8.8	1.8
4.2.2	Gas and other household fuels	2.3	2.9	0.6
4.2.3	Water and sewerage	2.3	2.6	0.4
	Total	**11.5**	**14.4**	**2.8**

Table 57: Points contribution by utility classes, Couple with Three or More Children

Percentage points contributions by Utility classes at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Couple with three or more dependent children only Australia**	
4.2	**Utility classes**	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.2.1	Electricity	3.6%	4.5%	0.9%
4.2.2	Gas and other household fuels	1.2%	1.5%	0.3%
4.2.3	Water and sewerage	1.2%	1.3%	0.2%
	Total	**5.9%**	**7.4%**	**1.4%**

Table 58: Percentage contribution by utility classes, Couple with Three or More Children

Expenditure comparisons

Average weekly household expenditures (AWHEs) at June 2011 are shown by commodity group and selected subgroups in the following three tables. Percentage differences are given as a percentage of the All Households group expenditure.

Expenditure estimates are given for Jun-2011 rather than Mar-2016 because the expenditure pattern for the latest series (the 16th series) is established as at Jun-2011. At the beginning of a series, expenditure estimates are based more directly on expenditure measures, i.e., on the HES and other sources, rather than being based the same expenditure measures inflated or deflated by price index changes over the ensuing period. For subsequent quarters, expenditures have to be calculated on the assumptions that AWHEs change in proportion to price changes and that, if there is a consequent increase in net AWHE, the average disposable household income increases sufficiently to cover it.

Expenditure differences by commodity group are shown in Table 59 (below). The Couple with Three or More Children group spends a total of $1,515.52 per week, $+ 206.50 or + 15.8 % more than the All Households group expenditure of $1,309.03.

The biggest difference in absolute terms is in the Food group, where The Couple with Three or More Children group spends $+ 72.10 per week or + 32.7 % more than the All Households group. The biggest percentage difference is in Education, where The Couple with Three or More Children group spends $+ 37.51 or + 90.1 % more than the All Households group.

AWHEs are given as percentages of total AWHE by household group and commodity group, selected subgroups and selected classes in Table 38, page 55.

The Housing subgroup expenditures are $182.63 on home ownership (Other Housing), $77.30 on Rents and $69.65 on Utilities. The Transport subgroup expenditures are $165.78 on Private Motoring and $2.93 on Fares (see Table 60, below).

June 2011: Average weekly household expenditure: comparison of the Couple with three or more dependent children only group and All Households, Australia

	Commodity group	All Households group (Australia)	Group: Couple with three or more dependent children only	Difference	Percent difference
1	Food	$220.46	$292.57	$ + 72.10	+ 32.7 %
2	Alcohol and Tobacco	$92.43	$86.88	$ – 5.55	− 6.0 %
3	Clothing and Footwear	$52.10	$52.57	$ + 0.47	+ 0.9 %
4	Housing	$291.94	$329.58	$ + 37.64	+ 12.9 %
5	Household contents and services	$119.13	$122.41	$ + 3.28	+ 2.8 %
6	Health	$69.25	$66.11	$ – 3.15	− 4.5 %
7	Transportation	$151.21	$168.71	$ + 17.51	+ 11.6 %
8	Communication	$39.93	$46.31	$ + 6.38	+ 16.0 %
9	Recreation	$164.43	$199.61	$ + 35.18	+ 21.4 %
10	Education	$41.63	$79.14	$ + 37.51	+ 90.1 %
11	Financial and Insurance Services	$66.51	$71.63	$ + 5.13	+ 7.7 %
	Total	$1,309.03	$1,515.52	$ + 206.50	+ 15.8 %

Table 59: Expenditure comparison – Couple with Three or More Children

Expenditures in the alternative subgroups of Housing and Transport are compared within the Couple with Three or More Children group in Table 61, below. Home ownership (Other Housing) expenditure is approximately 2.36 times Rents expenditure, much higher than the corresponding ratio for All Households Australia (1.88). Private Motoring expenditure is approximately 56.50 times Fares expenditure, also much higher than the corresponding ratio for All Households Australia (19.65).

June 2011: Average weekly household expenditure: comparison of the Couple with three or more dependent children only group and All Households, Australia					
	Commodity subgroup	All Households group (Australia)	Group: Couple with three or more dependent children only	Difference	Percent difference
4.1	Rents	$84.12	$77.30	$ – 6.82	− 8.1 %
4.2	Utilities	$49.50	$69.65	$ + 20.15	+ 40.7 %
4.3	Other Housing	$158.32	$182.63	$ + 24.31	+ 15.4 %
	Housing group total	$291.94	$329.58	$ + 37.64	+ 12.9 %
7.1	Private motoring	$143.89	$165.78	$ + 21.89	+ 15.2 %
7.2	Urban transport fares	$7.32	$2.93	$ – 4.39	− 59.9 %
	Transport group total	$151.21	$168.71	$ + 17.51	+ 11.6 %

Table 60: Subgroup expenditure comparison – Couple with Three or More Children

June 2011: Average weekly household expenditure: comparison of Housing and Transport subgroup expenditures, Couple with three or more dependent children only, Australia					
	Commodity subgroup	All Households group (Australia)	Group: Couple with three or more dependent children only	Percent, Group: Couple with three or mor…	Ratio, Group: Couple with three or mor…
4.3	Other Housing	$158.32	$182.63	70.3%	2.36
4.1	Rents	$84.12	$77.30	29.7%	
	Total	$242.44	$259.93	100.0%	
7.1	Private motoring	$143.89	$165.78	98.3%	56.50
7.2	Urban transport fares	$7.32	$2.93	1.7%	
	Total	$151.21	$168.71	100.0%	

Table 61: Expenditure comparison within subgroups – Couple with Three or More Children

For Transport, the relatively high expenditure on Motoring would result from some combination of the following factors: a smaller proportion of households using public transport; a higher proportion of discounted public transport fares; a greater proportion of households using private vehicles; and, in the private motoring households, the average motoring expenditure being greater, relative to total expenditure.

Utility class expenditures for the Couple with Three or More Children group are compared with All Households in Table 62, below.

June 2011, Utility classes: Average weekly household expenditure: comparison of the Couple with three or more dependent children only group and All Households, Australia					
4.2	**Utility classes**	All Households group (Australia)	Group: Couple with three or more dependent children only	Difference	Percent difference
4.2.1	Electricity	$29.41	$42.03	$ + 12.63	42.9%
4.2.2	Gas and other household fuels	$8.89	$12.85	$ + 3.96	44.5%
4.2.3	Water and sewerage	$11.20	$14.77	$ + 3.56	31.8%
	Total	$49.50	$69.65	$ + 20.15	40.7%

Table 62: Utility class expenditure comparison – Couple with Three or More Children

AWHEs are given as percentages of total AWHE by household group and commodity group, selected subgroups and selected classes in Table 38, page 55.

Renter households

Renter

Group RPI and Pure Price Index

Long term trends

The Renter Australia Group RPI rises faster than the CPI in three distinct periods: 1991-94, 1996-99 and most of the period from mid-2006 to Mar-2016 when it reaches 207.6 points, 12.2 points above the CPI of 195.4 points (see Figure 28, below).

The Pure Price Index (PPI) for the Renter Australia group tracks the Group RPI fairly closely from 1990 to 2000 when it rises marginally faster than the Group RPI and CPI for about four quarters. It runs above the Group RPI until mid-2008, rising at about the same rate as the CPI. From mid-2008 it rises substantially faster than both the CPI and the Group RPI, through to Mar-2016. The difference between the Renter PPI and the Renter Group RPI reflects the degree to which price increases are offset by the movement of expenditure patterns towards lower priced goods and services (see Table 43, page 60).[19]

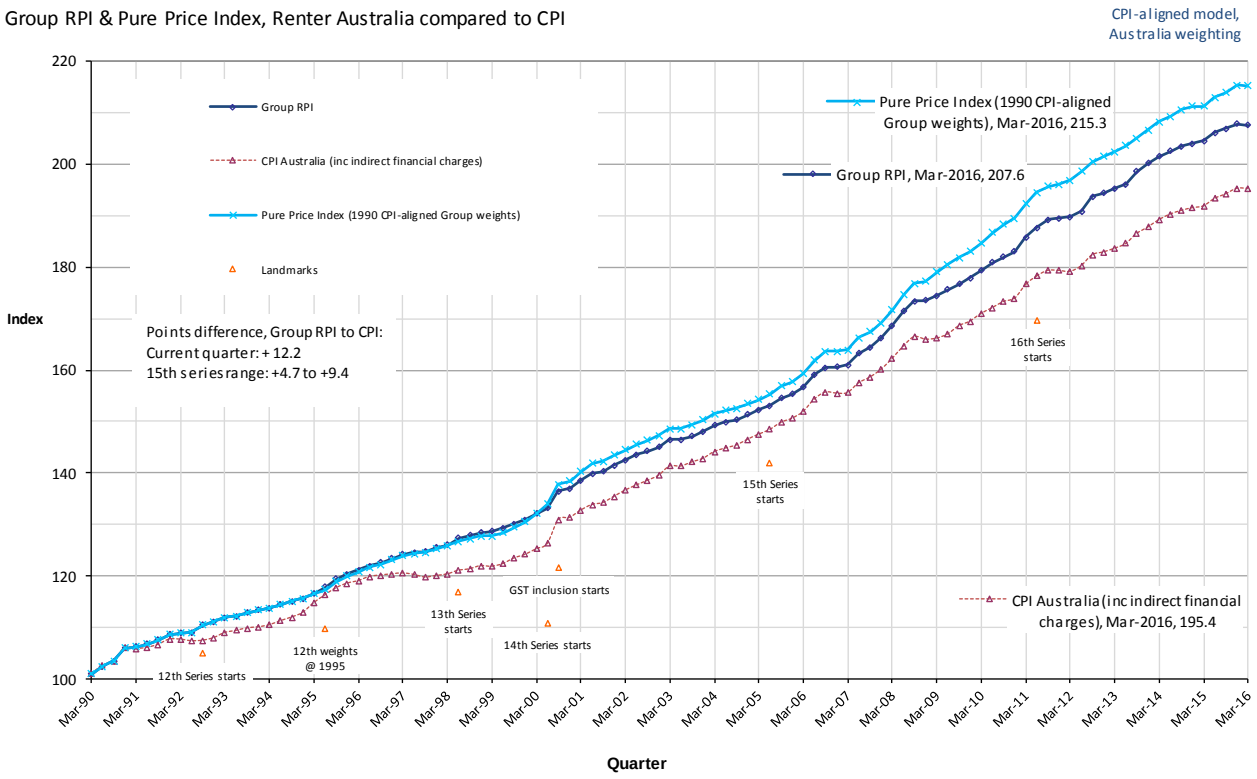

Figure 28: Group RPI, Renter

RPI guideline series

Subgroup and Mainstream RPI trends

The Renter Subgroup RPI grows faster than the Group RPI during most of the early 1990s and the late 1990s but during the mid-1990s the two growth rates are similar. The difference between the Subgroup and Group RPIs is generally attributable to the Fares component because the Group RPI is already at the Rents level (see Figure 29, below).

The Subgroup RPI grows faster than the Group RPI for three main periods: from 1990 to 1993, Sep-1996 to 2000 and Jun-2003 to Mar-2016. Otherwise they generally rise at similar rates.

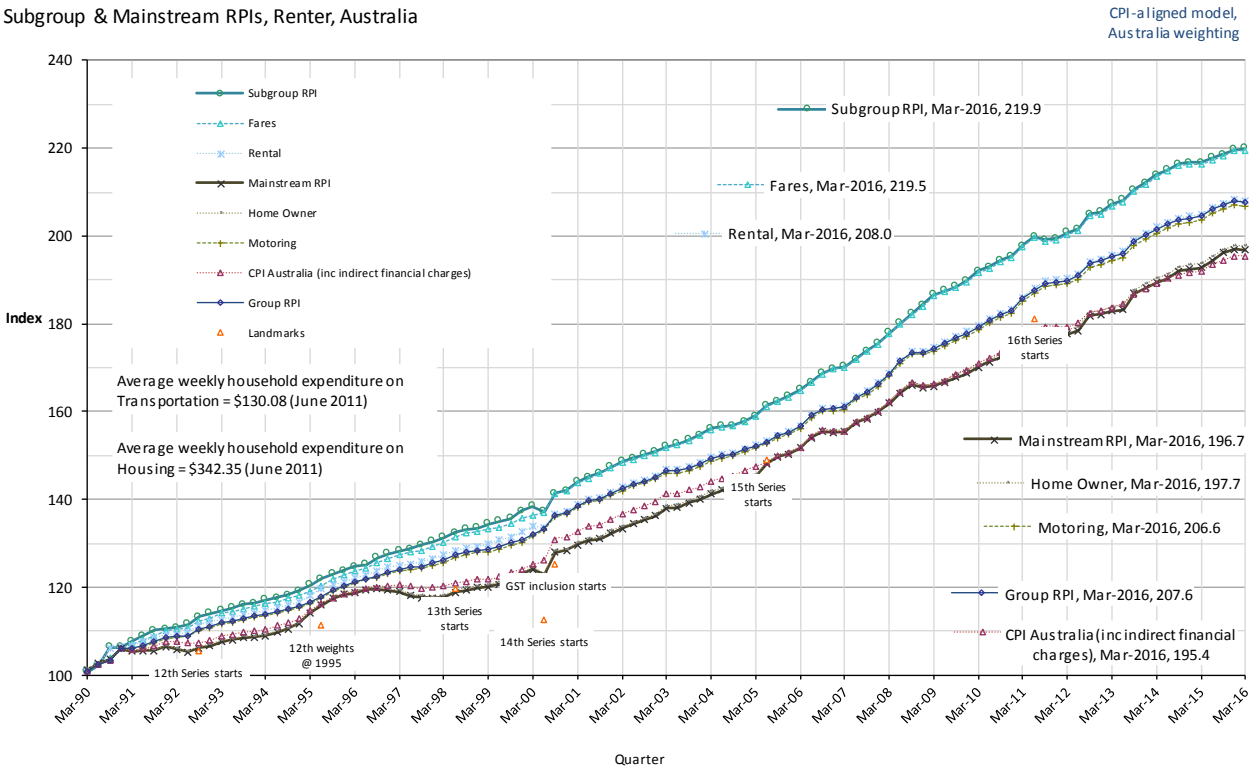

Figure 29: Subgroup and Mainstream RPIs, Renter

Subgroup RPI with Fares and Rental components compared to the Group RPI: Renter, Australia					
Subgroup RPI and components	Quarter/period	Subgroup RPI	With Fares component only	With Rental component only	Group RPI
Price Index, All CPI Groups	Mar-2016	219.9	219.5	208.0	207.6
	Mar-2015	216.8	216.4	205.0	204.6
	Mar-2011	197.9	197.6	186.1	185.8
	Mar-1990	100.7	100.7	100.8	100.8
Points increase	In last 12 months	3.1	3.2	3.0	3.0
	Previous 5 years	22.0	22.0	21.8	21.8
	Since Mar-1990	119.2	118.8	107.1	106.7
Percent increase	In last 12 months	1.4%	1.5%	1.5%	1.5%
	Previous 5 years	11.1%	11.1%	11.7%	11.7%
	Since Mar-1990	118.4%	118.0%	106.3%	105.8%
Difference from Group RPI Australia percent increase	In last 12 months	0.0%	0.0%	0.0%	0.0%
	Previous 5 years	-0.6%	-0.6%	0.0%	0.0%
	Since Mar-1990	12.5%	12.1%	0.4%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	-2.5%	-1.2%	-1.3%	0.0%
	Previous 5 years	-5.3%	-5.2%	-0.1%	0.0%
	Since Mar-1990	11.8%	11.5%	0.4%	0.0%

Table 63: Subgroup RPI and components, Renter

The Mainstream RPI for the Renter group runs close to the CPI for much of the period since 1990, but significantly below it for several periods. It is essentially an inverted reflection of the Group RPI around the CPI axis (in the negative direction) but the absolute difference from the CPI is much less. The

Mainstream RPI runs at two to three points below the CPI in two periods, from 1997 to 1998 and 2000 to 2005. During two other periods it runs at one to two points below the CPI: 1992 to 1994 and Sep-2011 to June-2013. It rises to 196.7 points at Mar-2016, one point or 1.1% less than the CPI and 10.6% less than the Group RPI (see Figure 29, above).

The relative contributions of Private Motoring and Home Ownership to the Mainstream RPI are also illustrated in Figure 26. The difference between the Private Motoring component and the Group RPI is fairly small because Private Motoring heavily outweighs the contribution of the alternative subgroup, Fares. The Home Ownership component is not really relevant in the Renter group – in this group there is only a very small amount of residual data on Home Ownership, which creates the RPI component nonetheless. It is equivalent to the Group RPI less the large contribution in Rents, plus the Home Ownership contribution, so it runs close to the CPI (between the CPI and the Mainstream RPI).

The Private Motoring RPI runs consistently at – or almost at – the Group RPI (much closer to it than Home Ownership RPI).

Mainstream RPI with Private Motoring and Home Ownership components compared to the Group RPI: Renter, Australia

Mainstream RPI components	Quarter/period	Mainstream RPI	With Private Motoring component only	With Home Ownership component only	Group RPI
Price Index, All CPI Groups	Mar-2016	196.7	206.6	197.7	207.6
	Mar-2015	192.8	203.6	193.8	204.6
	Mar-2011	175.7	185.1	176.3	185.8
	Mar-1990	101.1	100.9	101.1	100.8
Points increase	In last 12 months	3.9	3.0	3.9	3.0
	Previous 5 years	21.1	21.5	21.4	21.8
	Since Mar-1990	95.7	105.8	96.6	106.7
Percent increase	In last 12 months	2.0%	1.5%	2.0%	1.5%
	Previous 5 years	12.0%	11.6%	12.1%	11.7%
	Since Mar-1990	94.6%	104.9%	95.6%	105.8%
Difference from Group RPI Australia percent increase	In last 12 months	0.6%	0.0%	0.5%	0.0%
	Previous 5 years	0.3%	-0.1%	0.4%	0.0%
	Since Mar-1990	-11.2%	-1.0%	-10.2%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	37.3%	0.1%	37.0%	0.0%
	Previous 5 years	2.2%	-1.1%	3.3%	0.0%
	Since Mar-1990	-10.6%	-0.9%	-9.7%	0.0%

Table 64: Mainstream RPI and components, Renter

Subgroup and Mainstream RPI comparisons

The Renter Subgroup RPI is 219.9 points at Mar-2016. It has grown 11.8% more than the Group RPI of 207.6 points. This is much less than the corresponding growth difference of 19.1% for All Households, Australia because the Renter Group RPI already contains the higher contribution of Rents in the Housing group. The Fares RPI is 219.5 points and the Rents RPI is 208.0 points, at Mar-2016, representing growth of 11.5% and 0.4% greater than the Group RPI, respectively. The Fares subgroup thus contributes substantially more to the Subgroup RPI than Rents (see Table 63, page 79).

The Renter Mainstream RPI is 196.7 points at Mar-2016. It has grown 10.6% less than the Group RPI of 207.6 points. This difference in growth is lower than the corresponding difference of 3.5% lower growth for All Households, Australia (because the Renter Group RPI is higher, containing the higher contribution of Rents in the Housing group).

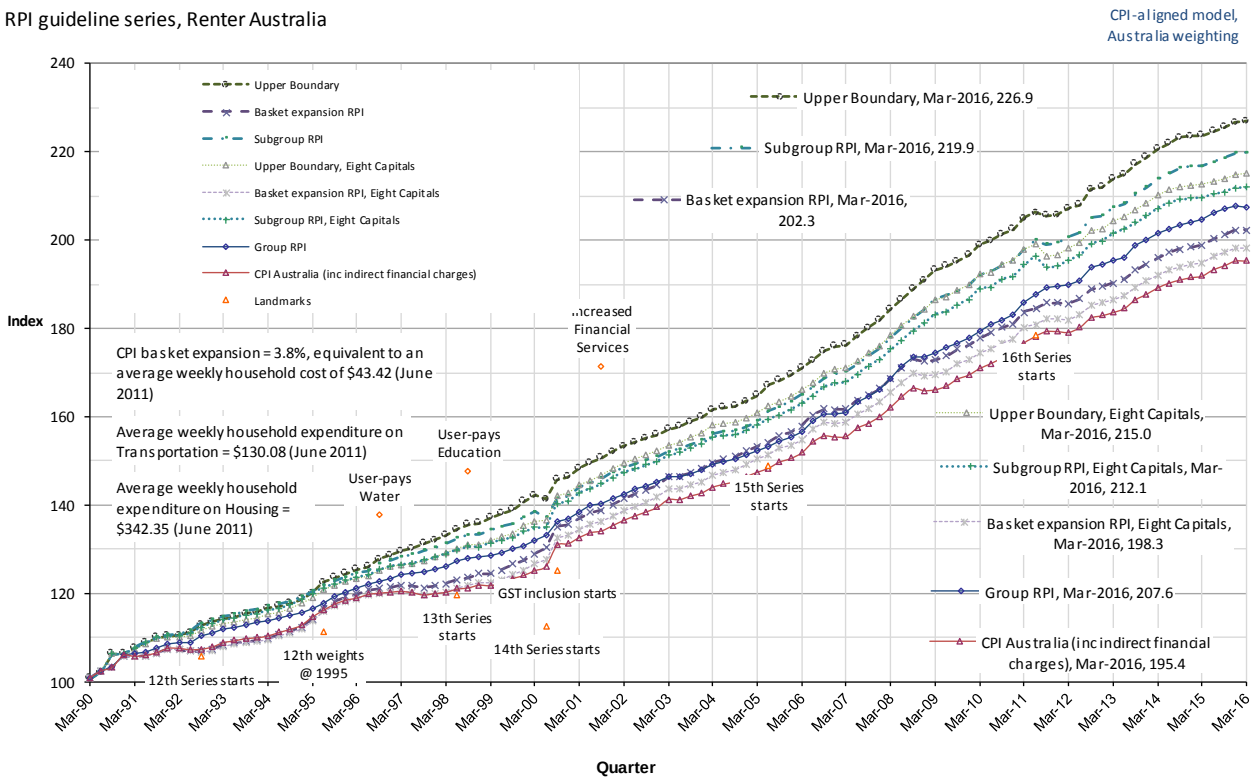

Figure 30: RPI guideline series, Renter

Upper Boundary and Basket Expansion RPIs compared to the Group RPI and CPI: Renter, Australia					
Upper Boundary & Basket Expansion	Quarter/period	Upper Boundary	Basket expansion	Group RPI	CPI Australia (inc indirect financial charges)
Price Index, All CPI Groups	Mar-2016	226.9	202.3	207.6	195.4
	Mar-2015	223.7	198.8	204.6	191.9
	Mar-2011	205.0	183.8	185.8	176.7
	Mar-1990	100.7	100.9	100.8	100.9
Points increase	In last 12 months	3.2	3.5	3.0	3.4
	Previous 5 years	21.9	18.6	21.8	18.7
	Since Mar-1990	126.2	101.4	106.7	94.5
Percent increase	In last 12 months	1.4%	1.8%	1.5%	1.8%
	Previous 5 years	10.7%	10.1%	11.7%	10.6%
	Since Mar-1990	125.3%	100.5%	105.8%	93.6%
Difference from Group RPI Australia percent increase	In last 12 months	0.0%	0.3%	0.0%	0.3%
	Previous 5 years	-1.1%	-1.6%	0.0%	-1.2%
	Since Mar-1990	19.5%	-5.3%	0.0%	-12.2%
Difference as % of Group RPI Australia increase	In last 12 months	-2.4%	19.7%	0.0%	20.4%
	Previous 5 years	-9.0%	-14.0%	0.0%	-10.0%
	Since Mar-1990	18.4%	-5.0%	0.0%	-11.6%

Table 65: Upper Boundary and Basket Expansion, Renter

At Mar-2016, the Private Motoring RPI is 206.6 points and the Home Ownership RPI is 197.7 points, 0.9% and 9.7% lower growth than the Group RPI, respectively. The contribution of the Home Ownership subgroup is not really relevant in the Renter group (see Table 64, page 80).

Upper boundary and basket expansion trends

Generally, the RPI Upper Boundary for the Renter Australia group rises moderately but consistently faster than the Group RPI from 1990 onwards, with the margin steadily increasing. The increase in the margin is more moderate from 1990 until 1995 but the rate of increase of the Upper Boundary RPI is greater through to 2000. The margin begins to widen more noticeably again from Sep-2008 through to 2010-11.

The Renter Upper Boundary RPI generally rises substantially faster than the All Households (Eight Capitals) Upper Boundary RPI but it grows at a similar rate during several periods including 1990 through 1991, Sep-1992 through 1995, 2000 to 2005, Jun-2007 through 2008 and from 2010 to the beginning of the 16th series at Jun-2011, when the margin between the two widens (see Figure 27, above).

The Renter Basket Expansion RPI runs below the Renter Group RPI for most of the period from 1990 to 2003. From 2004 to 2007 is rises marginally above the Group RPI and from Dec-2008 to Mar-2016 it rises more slowly than the Group RPI. Essentially, the Renter Basket Expansion RPI rises faster from 1999 to 2007-08 and the Group RPI rises faster from 2007-08 to 2013.

The Renter Basket Expansion RPI generally rises faster than the All Households (Eight Capitals) Basket Expansion RPI and maintains a substantial margin over it through to Mar-2016. The weight of the expanded basket was marginally greater prior to the recent global financial crisis and the introduction of the 16th series CPI (as for All Households).

Upper boundary and basket expansion comparisons

The Renter RPI Upper Boundary is 226.9 points at Mar-2016. It has grown 18.4% more than the Group RPI (207.6 points). This difference is smaller than the corresponding growth difference of 22.3% for All Households, Australia. At Mar-2016, the Basket Expansion RPI is 202.3 points. It has grown 5.0% less than the Group RPI (see Table 65, above) although the difference has been less in previous years (see Figure 30, above). The Basket Expansion RPI contributes much less than the Subgroup RPI (i.e., Fares) to the difference between the Upper Boundary and Group RPIs.

Weights and points comparisons

Weights variance by commodity group

Quantity weights for the Renter group are compared with All Households, Australia in Table 66, below. The differences in the points contributions associated with these weights at Mar-2016 are shown in the last column. The net difference (or total) is equal to the difference between the Group RPI for this group and All Households, Australia (both at Mar-2016).

For comparison of points contributions with other household groups, see Table 36 (*Difference in points contributions by commodity group*, page 53). The differences shown in Table 36 are not the same as in Table 51 because Table 36 shows the group's difference from the CPI (All Households, Eight Capital Cities, excluding indirect financial charges). Table 51 shows the differences from the All Households Group RPI, Australia, including indirect financial charges.

Points contributions by commodity group

The points contributions for the Renter group are compared with All Households, Australia, by commodity group, in Table 52, above.

June 2011 Quantity weights: variance of the "Renter" group from "All Households", Australia, by commodity group						Points contribution
	Commodity group	All Households group (Australia)	Group: Renter	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
1	Food	15.6%	14.6%	-1.0%	-6.2%	-0.3
2	Alcohol and Tobacco	7.3%	9.1%	1.8%	24.8%	5.2
3	Clothing and Footwear	3.6%	3.2%	-0.5%	-12.4%	-0.5
4	Housing	21.5%	28.2%	6.7%	31.1%	17.0
5	Household contents and services	9.0%	6.9%	-2.0%	-22.8%	-3.1
6	Health	5.3%	3.5%	-1.8%	-33.9%	-3.5
7	Transportation	11.9%	11.4%	-0.5%	-3.8%	0.3
8	Communication	3.0%	3.5%	0.4%	13.8%	1.0
9	Recreation	12.0%	10.1%	-1.8%	-15.2%	-2.3
10	Education	2.8%	2.9%	0.1%	4.2%	0.6
11	Financial and Insurance Services	8.2%	6.7%	-1.5%	-18.3%	-2.2
	Total	**100.0%**	**100.0%**	**0.0%**	**0.0%**	**12.2**

Table 66: Weights variance by commodity group, Renter

Note: The difference between each percentage weight is shown in the "Difference" column. The "Variance" column shows the difference in relation to the reference weight, i.e., the difference as a percent of the All Households weight.

The commodity groups which typically make greater points contributions than average in Renter households are Housing and Education and, to a lesser extent, Food.[18] At Mar-2016, under the current RPI model, the points differences are 17.0 for Housing, 0.6 for Education and -0.3 points for Food. Currently, Food and Education make substantially greater contributions but Housing does not. Notably, there is a 0.6 points greater contribution in the Recreation group.

Points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
	Commodity group	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
1	Food	29.2	28.9	-0.3
2	Alcohol and Tobacco	16.5	21.7	5.2
3	Clothing and Footwear	6.3	5.8	-0.5
4	Housing	44.4	61.4	17.0
5	Household contents and services	16.8	13.7	-3.1
6	Health	11.7	8.2	-3.5
7	Transportation	20.7	21.0	0.3
8	Communication	5.0	6.1	1.0
9	Recreation	22.4	20.0	-2.3
10	Education	6.3	6.9	0.6
11	Financial and Insurance Services	16.1	13.9	-2.2
	Total	**195.4**	**207.6**	**12.2**

Table 67: Points contribution by commodity group, Renter

Typically, the greater contributions in these commodity groups are largely negated in Alcohol & Tobacco, Health, Transportation and Financial and Insurance Services. At Mar-2016, under the current RPI model, the points differences in these groups are 5.2 in Alcohol & Tobacco, -3.5 in Health, 0.3 in

Transportation and -2.2 in Financial and Insurance Services. Currently, the difference in Transportation is marginally positive but there is a marginal negative difference of 1.0 points in Communications (see Table 52, above). The is a positive difference of 5.2 points in Alcohol & Tobacco, rather than a negative one, making the second highest positive difference, after Housing (albeit much less than Housing).

Because the positive points differences are far from negated by the negative ones, the Renter group has a much greater Group RPI than the All Households group.

Evidently, there is a very significant difference between the weighted-average price change for this household group and All Households, in spite of the methodological limitations which tend to minimise the differences between household Group RPIs. This difference would potentially be greater in a subset of the Renter group with higher relative expenditures on Fares than on Private Motoring (i.e., the alternative subgroups of Transportation).

Percentage contribution by commodity group

Commodity group points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 68, below. This is the points data shown in Table 67, above, normalised to show the percentage contribution of each commodity group.

Percentage points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
	Commodity group	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
1	Food	14.9%	13.9%	-1.0%
2	Alcohol and Tobacco	8.4%	10.5%	2.0%
3	Clothing and Footwear	3.2%	2.8%	-0.4%
4	Housing	22.7%	29.6%	6.9%
5	Household contents and services	8.6%	6.6%	-2.0%
6	Health	6.0%	3.9%	-2.1%
7	Transportation	10.6%	10.1%	-0.5%
8	Communication	2.6%	2.9%	0.3%
9	Recreation	11.4%	9.6%	-1.8%
10	Education	3.2%	3.3%	0.1%
11	Financial and Insurance Services	8.2%	6.7%	-1.6%
	Total	**100.0%**	**100.0%**	**0.0%**

Table 68: Percentage contribution by commodity group, Renter

Weights variance by commodity subgroup

The corresponding data for the Housing and Transportation subgroups is shown in Table 69, below. The differences in points contribution of 36.7 points for Rents, -2.1 for Utilities and -17.4 for home ownership (Other Housing) indicate relatively greater expenditure on Rents, the subgroup with the higher price index, of the alternative tenure types.

In relation to the expenditure pattern of the All Households group, Renter household expenditure is weighted significantly towards the Rents subgroup (naturally) and slightly away from the Utilities subgroup. Transport expenditure is weighted towards Fares compared to the All Households group.

June 2011 Quantity weights: variance of the "Renter" group from "All Households", Australia, by commodity subgroup						Points contribution
	Commodity subgroup	All Households group (Australia)	Group: Renter	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
4.1	Rents	6.2%	24.3%	18.1%	292.2%	36.7
4.2	Utilities	3.6%	3.0%	-0.7%	-18.9%	-2.1
4.3	Other Housing	11.6%	0.9%	-10.7%	-92.0%	-17.4
	Total	**21.5%**	**28.2%**	**6.7%**	**31.1%**	**17.2**
7.1	Private motoring	11.3%	10.6%	-0.7%	-6.4%	-1.2
7.2	Urban transport fares	0.6%	0.8%	0.3%	45.9%	0.7
	Total	**11.9%**	**11.4%**	**-0.5%**	**-3.8%**	**-0.4**

Table 69: Subgroup weights variance, Renter

Points contribution by commodity subgroup

The points contributions for the Renter group are compared with All Households, Australia, by commodity subgroup, in Table 70, below.

Points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
	Commodity subgroup	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.1	Rents	13.1	50.6	37.5
4.2	Utilities	11.5	9.2	-2.3
4.3	Other Housing	19.7	1.5	-18.2
	Total	**44.4**	**61.4**	**17.0**
7.1	Private motoring	19.1	18.5	-0.5
7.2	Urban transport fares	1.6	2.5	0.8
	Total	**20.7**	**21.0**	**0.3**

Table 70: Points contribution by commodity subgroup, Renter

Percentage contribution by commodity subgroup

Commodity subgroup points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 71, below. This is the points data shown in Table 70, above, normalised to show the percentage contribution of each commodity subgroup.

Points contribution by Utility classes

The points contributions for the Renter group are compared with All Households, Australia, by Utility classes, in Table 72, below. Utilities points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 73, below. This is the points data shown in Table 72, normalised to show the percentage contribution of each Utility class.

Percentage points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
	Commodity subgroup	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.1	Rents	6.7%	24.4%	17.7%
4.2	Utilities	5.9%	4.4%	-1.5%
4.3	Other Housing	10.1%	0.7%	-9.3%
	Total	**22.7%**	**29.6%**	**6.9%**
7.1	Private motoring	9.8%	8.9%	-0.8%
7.2	Urban transport fares	0.8%	1.2%	0.4%
	Total	**10.6%**	**10.1%**	**-0.5%**

Table 71: Percentage contribution by commodity subgroup, Renter

Points contribution by Utility classes at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
4.2	**Utility classes**	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.2.1	Electricity	7.0	6.6	-0.3
4.2.2	Gas and other household fuels	2.3	2.0	-0.3
4.2.3	Water and sewerage	2.3	0.6	-1.7
	Total	**11.5**	**9.2**	**-2.3**

Table 72: Points contribution by utility classes, Renter

Percentage points contributions by Utility classes at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Renter Australia	
4.2	**Utility classes**	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.2.1	Electricity	3.6%	3.2%	-0.4%
4.2.2	Gas and other household fuels	1.2%	1.0%	-0.2%
4.2.3	Water and sewerage	1.2%	0.3%	-0.9%
	Total	**5.9%**	**4.4%**	**-1.5%**

Table 73: Percentage contribution by utility classes, Renter

Expenditure comparisons

Average weekly household expenditures (AWHEs) at June 2011 are shown by commodity group and selected subgroups and classes in the four tables on pages 87 and 87 (Table 74 to Table 77).

Percentage differences are given as a percentage of the All Households group expenditure. Expenditure estimates are given for Jun-2011 rather than Mar-2016 because the expenditure pattern for the 16th series is based on Jun-2011 expenditures (as explained on page 75, above).

Expenditure differences by commodity group are shown in Table 74 (below). The Renter group spends a total of $1,169.82 per week, a difference of $– 139.20 or − 10.6 % from the All Households group expenditure of $1,309.03.

The biggest difference in absolute terms is in the Housing group, in which the Renter group spends $+ 50.40 per week or + 17.3 % more than the All Households group. The biggest percentage difference is − 40.8 %, in the Health group, where the absolute difference is $– 28.28. Notably, the Renter AWHE in the Food group is $– 35.37 less than All Households, a percentage difference of − 16.0 %.

AWHEs are also given as percentages of the total AWHE by household group and commodity group, selected subgroups and selected classes in Table 38, page 55.

June 2011: Average weekly household expenditure: comparison of the Renter group and All Households, Australia						
	Commodity group	All Households group (Australia)	Group: Renter	Difference		Percent difference
1	Food	$220.46	$185.09	$	– 35.37	− 16.0 %
2	Alcohol and Tobacco	$92.43	$103.16	$	+ 10.73	+ 11.6 %
3	Clothing and Footwear	$52.10	$40.82	$	– 11.28	− 21.6 %
4	Housing	$291.94	$342.35	$	+ 50.40	+ 17.3 %
5	Household contents and services	$119.13	$82.30	$	– 36.83	− 30.9 %
6	Health	$69.25	$40.98	$	– 28.28	− 40.8 %
7	Transportation	$151.21	$130.08	$	– 21.13	− 14.0 %
8	Communication	$39.93	$40.64	$	+ 0.71	+ 1.8 %
9	Recreation	$164.43	$124.77	$	– 39.66	− 24.1 %
10	Education	$41.63	$38.80	$	– 2.83	− 6.8 %
11	Financial and Insurance Services	$66.51	$40.82	$	– 25.68	− 38.6 %
	Total	$1,309.03	$1,169.82	$	– 139.20	− 10.6 %

Table 74: Expenditure comparison – Renter

June 2011: Average weekly household expenditure: comparison of the Renter group and All Households, Australia						
	Commodity subgroup	All Households group (Australia)	Group: Renter	Difference		Percent difference
4.1	Rents	$84.12	$295.14	$	+ 211.02	+ 250.9 %
4.2	Utilities	$49.50	$35.93	$	– 13.58	− 27.4 %
4.3	Other Housing	$158.32	$11.28	$	– 147.04	− 92.9 %
	Housing group total	$291.94	$342.35	$	+ 50.40	+ 17.3 %
7.1	Private motoring	$143.89	$120.52	$	– 23.37	− 16.2 %
7.2	Urban transport fares	$7.32	$9.55	$	+ 2.23	+ 30.5 %
	Transport group total	$151.21	$130.08	$	– 21.13	− 14.0 %

Table 75: Subgroup expenditure comparison – Renter

The Renter group's Housing and Transport subgroup AWHEs are compared to All Households in Table 75, above. The Renter group 's expenditures are $11.28 on home ownership (Other Housing), $295.14 on Rents and $35.93 on Utilities. Its Transport subgroup expenditures are $120.52 on Private Motoring and $9.55 on Fares.

Expenditures in the alternative subgroups of Housing and Transport are compared within the Renter group in Table 76, below. Home ownership (Other Housing) expenditure is approximately 4% of Rents expenditure, naturally much less than the corresponding ratio for All Households Australia (188%). Private Motoring expenditure is approximately 12.61 times Fares expenditure, also considerably less than the corresponding ratio for All Households Australia (19.65).

June 2011: Average weekly household expenditure: comparison of Housing and Transport subgroup expenditures, Renter, Australia					
	Commodity subgroup	All Households group (Australia)	Group: Renter	Percent, Group: Renter	Ratio, Group: Renter
4.3	Other Housing	$158.32	$11.28	3.7%	0.04
4.1	Rents	$84.12	$295.14	96.3%	
	Total	$242.44	$306.42	100.0%	
7.1	Private motoring	$143.89	$120.52	92.7%	12.61
7.2	Urban transport fares	$7.32	$9.55	7.3%	
	Total	$151.21	$130.08	100.0%	

Table 76: Expenditure comparison within subgroups – Renter

For Transport, the relatively high expenditure on Fares would result from some combination of the following factors: a larger proportion of households using public transport; a lower proportion of discounted public transport fares (unlikely, if the Renters group includes a much greater percentage of students, unemployed and other on government pensions and allowances); a lower proportion of households using private vehicles (likely, if the Renters group includes more inner city rentals); and – in private motoring households – the average motoring expenditure being lower, relative to total expenditure.

Utility class expenditures for the Renter group are compared with All Households in Table 77, below.

June 2011, Utility classes: Average weekly household expenditure: comparison of the Renter group and All Households, Australia					
4.2	**Utility classes**	All Households group (Australia)	Group: Renter	Difference	Percent difference
4.2.1	Electricity	$29.41	$26.08	$ – 3.33	-11.3%
4.2.2	Gas and other household fuels	$8.89	$7.14	$ – 1.75	-19.7%
4.2.3	Water and sewerage	$11.20	$2.71	$ – 8.50	-75.8%
	Total	$49.50	$35.93	$ – 13.58	-27.4%

Table 77: Utility class expenditure comparison – Renter

AWHEs are also given as percentages of total AWHE by household group and selected subgroups and selected classes in Table 38, page 55.

Unemployment and Student Allowances households

Unemployment and Student Allowances

Group RPI and Pure Price Index

Long term trends

The Unemployment and Student Allowances Australia Group RPI tracks the CPI closely from 1990 to Mar-1997, apart from 1992 when it slows more than the CPI and dips below it briefly. From Mar-1997 the Group RPI growth slows more than the CPI and it runs marginally below the CPI to Mar-2000. With re-weighting for the 14th series, the CPI rises while the Group RPI falls to a significant margin below the CPI, which is maintained for most of the 14th series but closes slightly towards Mar-2005. At the start of the 15th series (June-2005) the Group RPI rises more than the CPI and tracks it closely to Dec-2008 when CPI growth slows more than Group RPI growth. The Group RPI grows faster than the CPI for most of the remainder of the 15th series and through the 16th series to Mar-2016 when it reaches 200.0 points, 4.7 points above the CPI at 195.4 points (see Figure 31, below).

The Pure Price Index (PPI) for the Unemployment and Student Allowances Australia group tracks the Group RPI closely from 1990 to Mar-1997, then runs marginally below the CPI to 1998 and then grows faster than the CPI and the Group RPI – particularly from 2008 – through to Mar-2016 when it reaches 208.3 points, 13.0 points above the CPI. The PPI solely reflects price changes and the difference between the Group RPI and the PPI reflects the degree to which price increases are offset by the movement of expenditure weights towards lower priced goods and services (see Table 45, page 62).[20]

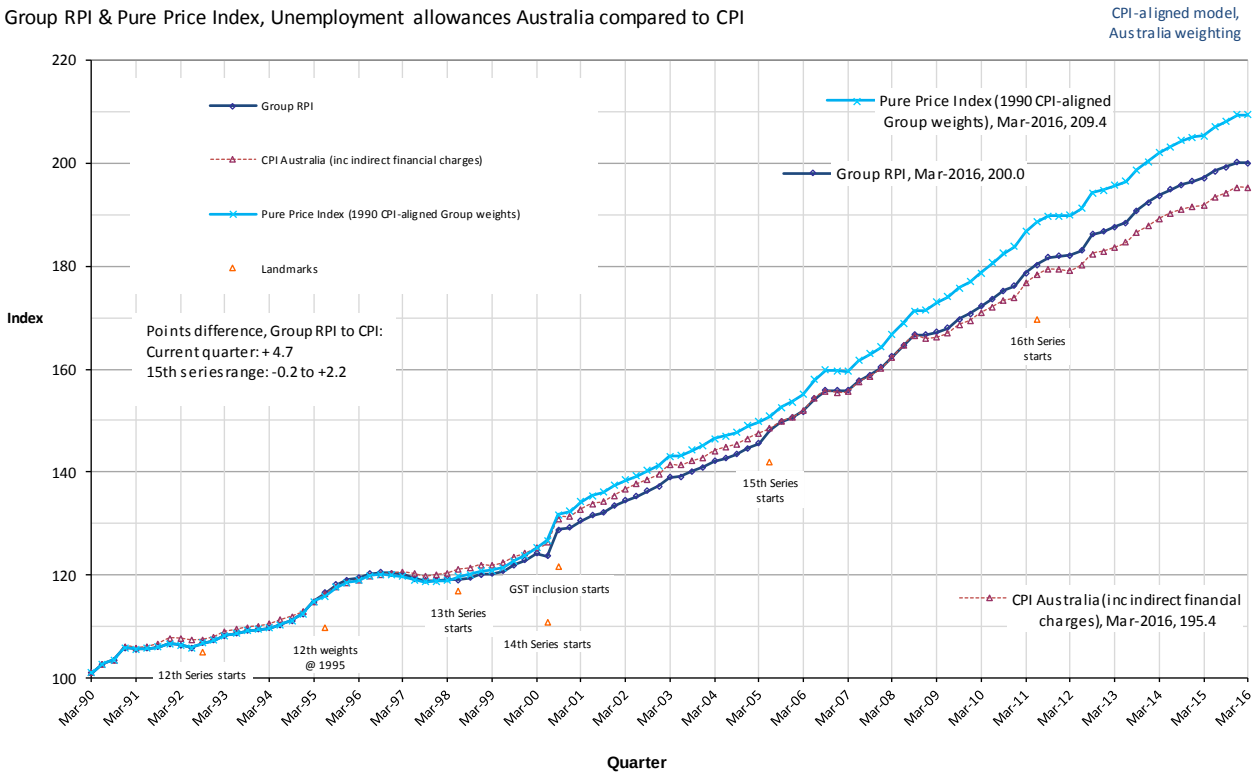

Figure 31: Group RPI, Unemployment and Student Allowances

RPI guideline series

Subgroup and Mainstream RPI trends

The Unemployment and Student Allowances Subgroup RPI grows faster than the Group RPI during the early and late 1990s but at a similar rate in the mid-1990s. The difference between the Subgroup and Group RPIs is split fairly evenly between the Subgroup components, Rents and Fares, during most of the 1990s, except for 1996-97 when Fares accounts for more of the difference (see Figure 32, below).

From 2000 to Sep-2008, the Subgroup RPI grows at a similar rate to the Group RPI. The Fares component grows marginally faster than the Rents component and the Group RPI from Jun-2000 until Mar-2004 and from Sep-2008 to Sep-2009. Otherwise the growth rates are similar, until the start of the 16th series (Jun-2011). The Fares component accounts for about 75% of the difference between the Subgroup RPI and the Group RPI during this period.

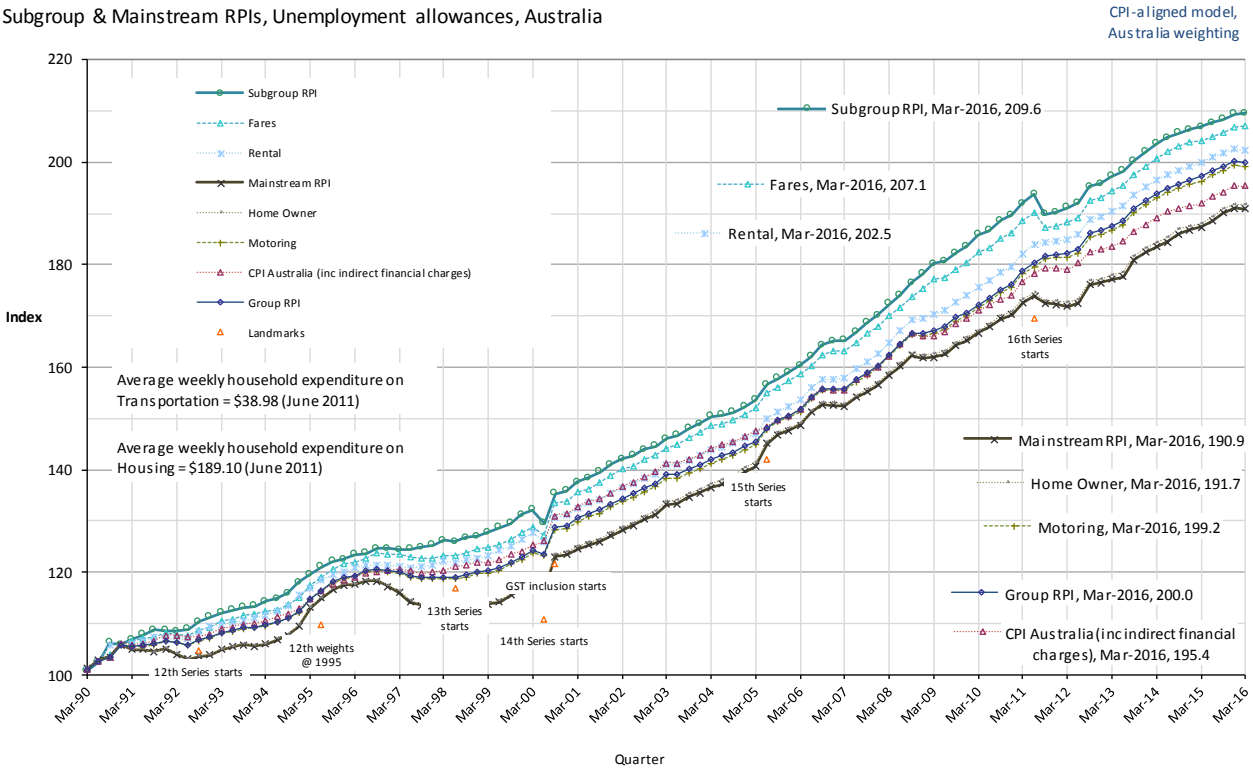

Figure 32: Subgroup and Mainstream RPIs, Unemployment and Student Allowances

After Sep-2008, Group RPI growth slows but the Subgroup RPI continues to grow at a fairly consistent rate until Jun-2011 when the Subgroup RPI falls with re-weighting for the 16th series. The margin between the two falls considerably and is more-or-less maintained through to Mar-2016. The contribution of Fares falls at the start of this period, to about twice that of Rents. Both the Fares and Rents components grow at similar rates to the Group RPI for this period.

The Mainstream RPI for the Unemployment and Student Allowances group runs well below the Group RPI for most of the period from 1990 to Mar-2016 but with smaller margins in the three periods, 1990, 1995-96 and 2005-2008. From 2008 it grows marginally but consistently more slowly than the Group RPI but falls to a wider margin at Jun-2011 with re-weighting for the 16th series, before growing at a

similar rate to the Group RPI from Sep-2012 until Mar-2016 when it reaches 190.9 points, 9.6% less than the Group RPI (see Figure 32, above).

Subgroup RPI with Fares and Rental components compared to the Group RPI: Unemployment and student allowances, Australia					
Subgroup RPI and components	Quarter/period	Subgroup RPI	With Fares component only	With Rental component only	Group RPI
Price Index, All CPI Groups	Mar-2016	209.6	207.1	202.5	200.0
	Mar-2015	206.9	204.2	199.9	197.2
	Mar-2011	192.2	188.6	182.4	178.8
	Mar-1990	100.8	100.8	100.9	101.0
Points increase	In last 12 months	2.7	2.9	2.6	2.8
	Previous 5 years	17.4	18.6	20.1	21.3
	Since Mar-1990	108.8	106.3	101.6	99.1
Percent increase	In last 12 months	1.3%	1.4%	1.3%	1.4%
	Previous 5 years	9.1%	9.9%	11.0%	11.9%
	Since Mar-1990	108.0%	105.4%	100.7%	98.1%
Difference from Group RPI Australia percent increase	In last 12 months	-0.1%	0.0%	-0.1%	0.0%
	Previous 5 years	-2.8%	-2.0%	-0.9%	0.0%
	Since Mar-1990	9.8%	7.3%	2.5%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	-9.4%	-0.7%	-9.0%	0.0%
	Previous 5 years	-23.9%	-17.2%	-7.4%	0.0%
	Since Mar-1990	10.0%	7.4%	2.6%	0.0%

Table 78: Subgroup RPI and components, Unemployment and Student Allowances

The relative contributions of Private Motoring and Home Ownership to the Mainstream RPI are also illustrated in Figure 32. The difference between the Private Motoring component and the Group RPI is fairly small because Private Motoring heavily outweighs the contribution of the alternative subgroup, Fares but has a low to moderate overall weight, so it doesn't moderate the Group RPI much (even though its price index is closer to the CPI).

Mainstream RPI with Private Motoring and Home Ownership components compared to the Group RPI: Unemployment and student allowances, Australia					
Mainstream RPI components	Quarter/period	Mainstream RPI	With Private Motoring component only	With Home Ownership component only	Group RPI
Price Index, All CPI Groups	Mar-2016	190.9	199.2	191.7	200.0
	Mar-2015	187.3	196.4	188.1	197.2
	Mar-2011	172.7	178.2	173.3	178.8
	Mar-1990	101.1	101.0	101.1	101.0
Points increase	In last 12 months	3.6	2.8	3.6	2.8
	Previous 5 years	18.2	21.1	18.4	21.3
	Since Mar-1990	89.8	98.3	90.6	99.1
Percent increase	In last 12 months	1.9%	1.4%	1.9%	1.4%
	Previous 5 years	10.5%	11.8%	10.6%	11.9%
	Since Mar-1990	88.8%	97.3%	89.6%	98.1%
Difference from Group RPI Australia percent increase	In last 12 months	0.5%	0.0%	0.5%	0.0%
	Previous 5 years	-1.4%	-0.1%	-1.3%	0.0%
	Since Mar-1990	-9.4%	-0.8%	-8.6%	0.0%
Difference as % of Group RPI Australia increase	In last 12 months	33.1%	0.1%	32.9%	0.0%
	Previous 5 years	-11.5%	-0.7%	-10.7%	0.0%
	Since Mar-1990	-9.6%	-0.8%	-8.7%	0.0%

Table 79: Mainstream RPI and components, Unemployment and Student Allowances

The Home Ownership component runs close the Mainstream RPI but well below the CPI and Group RPI because, in the Unemployment and Student Allowances group, the Housing group is very heavily weighted but with a low weight on Home Ownership (see Table 83, page 97 and Table 84, page 97). With the Rents weight transferred to Home Ownership – which has a low price index – the Mainstream and Home Ownership RPIs are pushed strongly downward from the Group RPI level.

To compare the relationships of these RPIs and components with those for All Households, see Figure 23, page 49.

Subgroup and Mainstream RPI comparisons

The Unemployment and Student Allowances Subgroup RPI is 209.6 points at Mar-2016. It has grown 10.0% more than the Group RPI at 200.0 points. This is similar to the corresponding growth difference of 19.1% for All Households, Australia. The Fares RPI is 207.1 points and the Rents RPI is 202.5 points, at Mar-2016, representing growth of 7.4% and 2.6% greater than the Group RPI, respectively. The Fares subgroup thus contributes substantially more to the Subgroup RPI than Rents (see Table 79, above).

The Unemployment and Student Allowances Mainstream RPI is 190.9 points at Mar-2016. It has grown 9.6% less than the Group RPI (200.0 points). This is similar to the corresponding difference of 3.5% lower growth for All Households, Australia.

At Mar-2016, the Private Motoring RPI is 199.2 points and the Home Ownership RPI is 191.7 points, 0.8% and 8.7% lower growth than the Group RPI, respectively. The Home Ownership subgroup thus contributes more to the difference between the Mainstream RPI and the Group RPI than Private Motoring does (see Table 79, above).

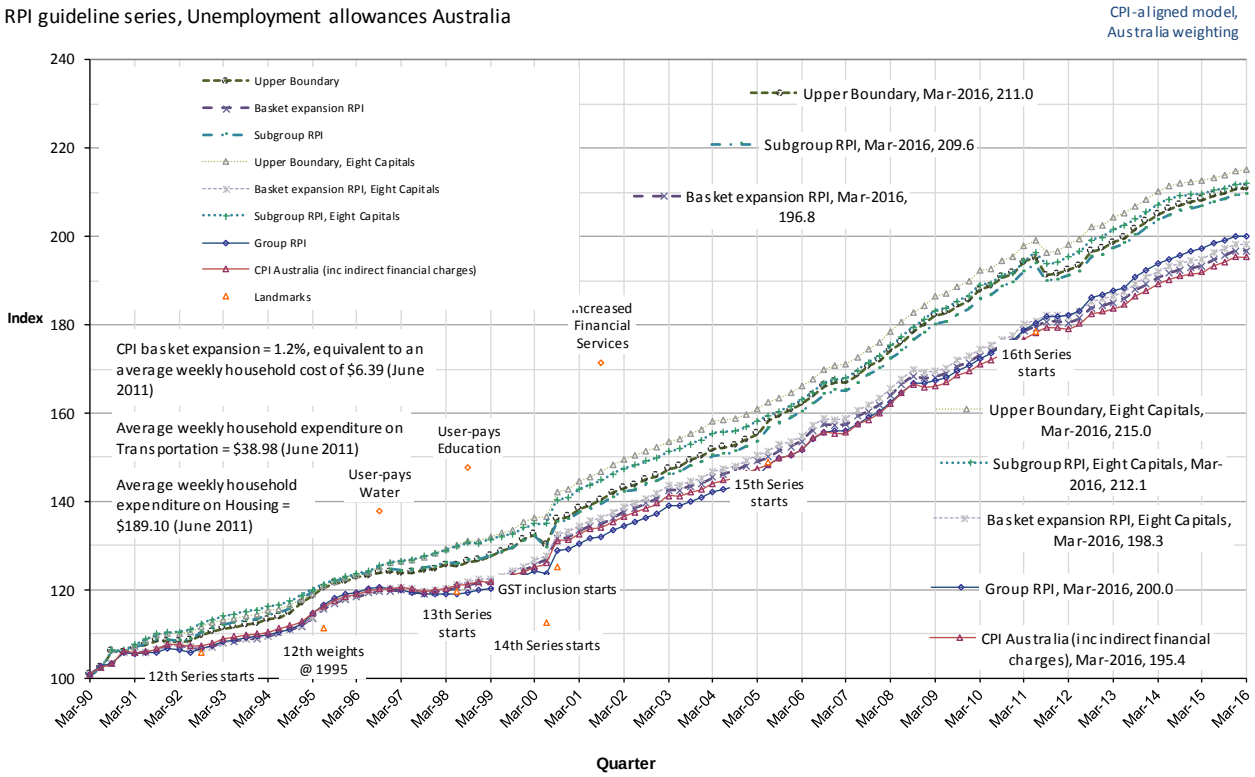

Figure 33: RPI guideline series, Unemployment and Student Allowances

Upper Boundary and Basket Expansion RPIs compared to the Group RPI and CPI: Unemployment and student allowances, Australia					
Upper Boundary & Basket Expansion	Quarter/period	Upper Boundary	Basket expansion	Group RPI	CPI Australia (inc indirect financial charges)
Price Index, All CPI Groups	Mar-2016	211.0	196.8	200.0	195.4
	Mar-2015	208.3	193.3	197.2	191.9
	Mar-2011	194.2	178.8	178.8	176.7
	Mar-1990	100.8	100.9	101.0	100.9
Points increase	In last 12 months	2.7	3.4	2.8	3.4
	Previous 5 years	16.8	18.0	21.3	18.7
	Since Mar-1990	110.2	95.9	99.1	94.5
Percent increase	In last 12 months	1.3%	1.8%	1.4%	1.8%
	Previous 5 years	8.6%	10.1%	11.9%	10.6%
	Since Mar-1990	109.4%	95.0%	98.1%	93.6%
Difference from Group RPI Australia percent increase	In last 12 months	-0.1%	0.3%	0.0%	0.3%
	Previous 5 years	-3.3%	-1.8%	0.0%	-1.3%
	Since Mar-1990	11.2%	-3.1%	0.0%	-4.5%
Difference as % of Group RPI Australia increase	In last 12 months	-9.4%	24.1%	0.0%	24.3%
	Previous 5 years	-27.5%	-15.4%	0.0%	-11.3%
	Since Mar-1990	11.4%	-3.2%	0.0%	-4.6%

Table 80: Upper Boundary and Basket Expansion, Unemployment and Student Allowances

Upper boundary and basket expansion trends

The RPI Upper Boundary for the Unemployment and Student Allowances Australia group runs consistently above the Group RPI from the early 1990s onwards, generally by a wide and steadily increasing margin but with several exceptions. The Group RPI grows at either a marginally faster rate or a similar rate for some quarters in 1990 and the periods of Dec-1991 to Mar-1992, 1995-96, 1999-2000 and 2004-2006, Jun-2007 to Sep-2008 and from Sep-2011 to Mar-2016.

It runs below the All Households (Eight Capitals) RPI Upper Boundary, generally by a substantial margin, but runs closer to it during 1990 and 1995-96. It grows marginally faster than All Households during 1995-96 and 2005. From Jun-2005 the margin is significantly reduced and the margin is maintained until the start of the 16th series in June 2011 when the Unemployment and Student Allowances group Upper Boundary RPI falls more than All Households (see Figure 33, above).

The Unemployment and Student Allowances group Basket Expansion RPI tracks its Group RPI fairly closely from 1990 through 1998 apart from growing more slowly during 1995-96 and with the Group RPI falling slightly below it during 1992. From 1998 through 2000 it grows faster than the Group RPI and maintains a substantial margin over it until Jun-2005 (the start of the 15th series) when the Group RPI rises steeply and the margin almost halves. The Basket Expansion RPI grows marginally but consistently slower than the Group RPI from Sep-2005 through to Mar-2016 to reach 196.8, a growth of 3.2% less than the Group RPI. As for All Households, the weight of the expanded basket was greater prior to the recent global financial crisis and the introduction of the 16th series CPI.

Upper boundary and basket expansion comparisons

The Unemployment and Student Allowances RPI Upper Boundary is 211.0 points at Mar-2016. It has grown 11.4% more than the Group RPI (200.0 points). This is similar to the corresponding growth difference of 22.3% for All Households, Australia. At Mar-2016, the Basket Expansion RPI is 196.8 points. It has grown -3.2% more than the Group RPI (see Table 80, above) although the difference has been greater in previous years (see Figure 33, above). The Basket Expansion RPI contributes much less to the difference between the RPI Upper Boundary and the Group RPI than the Subgroup RPI (i.e., Fares and Rents).

Weights and points comparisons

Weights variance by commodity group

Quantity weights for the Unemployment and Student Allowances group are compared with All Households, Australia in Table 81, below. The differences in the points contributions associated with these weights at Mar-2016 are shown in the last column. The net difference (or total) is equal to the difference between the Group RPI for this group and All Households, Australia (both at Mar-2016).

For comparison of points contributions with other household groups, see Table 36 (*Difference in points contributions by commodity group*, page 53). The differences shown in Table 36 are not the same as in Table 81 because Table 36 shows the group's difference from the CPI (All Households, Eight Capital Cities, excluding indirect financial charges). Table 81 shows the differences from the All Households Group RPI, Australia, including indirect financial charges.

Points contributions by commodity group

The points contributions for the Unemployment and Student Allowances group are compared with All Households, Australia, by commodity group, in Table 82, below.

June 2011 Quantity weights: variance of the "Unemployment allowances" group from "All Households", Australia, by commodity group						Points contribution
	Commodity group	All Households group (Australia)	Group: Unemployment and student allowances	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
1	Food	15.6%	17.0%	1.5%	9.3%	3.1
2	Alcohol and Tobacco	7.3%	10.2%	2.9%	39.9%	6.9
3	Clothing and Footwear	3.6%	3.5%	-0.2%	-4.3%	-0.2
4	Housing	21.5%	31.9%	10.4%	48.3%	22.3
5	Household contents and services	9.0%	4.9%	-4.0%	-45.0%	-7.4
6	Health	5.3%	3.0%	-2.3%	-42.7%	-4.9
7	Transportation	11.9%	7.0%	-4.9%	-41.0%	-8.3
8	Communication	3.0%	5.0%	2.0%	65.1%	3.4
9	Recreation	12.0%	9.3%	-2.6%	-22.1%	-4.7
10	Education	2.8%	2.1%	-0.7%	-26.0%	-1.6
11	Financial and Insurance Services	8.2%	6.1%	-2.0%	-25.0%	-3.9
	Total	**100.0%**	**100.0%**	**0.0%**	**0.0%**	**4.7**

Table 81: Weights variance by commodity group, Unemployment and Student Allowances

Note: The difference between each percentage weight is shown in the "Difference" column. The "Variance" column shows the difference in relation to the reference weight, i.e., the difference as a percent of the All Households weight.

The commodity groups which typically make greater points contributions than average in Unemployment and Student Allowances households are Housing and Education and, to a lesser extent, Food.[18] At Mar-2016, under the current RPI model, the points differences are 22.3 for Housing, -1.6 for Education and 3.1 points for Food. Currently, Food and Education make substantially greater contributions but Housing does not. Notably, there is a -1.6 points greater contribution in the Recreation group.

Points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Unemployment and student allowances Australia	
	Commodity group	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
1	Food	29.2	32.3	3.1
2	Alcohol and Tobacco	16.5	23.4	6.9
3	Clothing and Footwear	6.3	6.1	-0.2
4	Housing	44.4	66.7	22.3
5	Household contents and services	16.8	9.4	-7.4
6	Health	11.7	6.8	-4.9
7	Transportation	20.7	12.4	-8.3
8	Communication	5.0	8.4	3.4
9	Recreation	22.4	17.6	-4.7
10	Education	6.3	4.7	-1.6
11	Financial and Insurance Services	16.1	12.2	-3.9
	Total	**195.4**	**200.0**	**4.7**

Table 82: Points contribution by commodity group, Unemployment and Student Allowances

Typically, the greater contributions in these commodity groups are largely negated in Alcohol & Tobacco, Health, Transportation and Financial and Insurance Services. At Mar-2016, under the current RPI model, the points differences in these groups are 6.9 in Alcohol & Tobacco, -4.9 in Health, -8.3 in Transportation and -3.9 in Financial and Insurance Services. Currently, the difference in Transportation is marginally positive but there is also a marginal negative difference of 3.4 points in Communications (see Table 82, above).

Because the positive differences in points are not completely negated by the negative ones, the Unemployment and Student Allowances group has a modestly greater Group RPI than the All Households group.

Evidently, there is no significant difference between the weighted-average price change for this household group and All Households, notwithstanding methodological limitations tend to minimise the differences between household Group RPIs.

Although the positive differences do not outweigh the negative differences in this group as a whole, there may be definable household subsets which have significantly different expenditure patterns, in which the relatively high contributions are not balanced out as much by relatively low ones. This would be expected, for example, in subsets with higher relative expenditures on fares and rent (i.e., the alternative subgroups of tenure and transport).

Percentage contribution by commodity group

Commodity group points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 83, below. This is the points data shown in Table 82 (above) normalised to show the percentage contribution of each commodity group.

Percentage points contributions by commodity group at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Unemployment and student allowances Australia	
	Commodity group	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
1	Food	14.9%	16.2%	1.2%
2	Alcohol and Tobacco	8.4%	11.7%	3.2%
3	Clothing and Footwear	3.2%	3.0%	-0.2%
4	Housing	22.7%	33.3%	10.6%
5	Household contents and services	8.6%	4.7%	-3.9%
6	Health	6.0%	3.4%	-2.6%
7	Transportation	10.6%	6.2%	-4.4%
8	Communication	2.6%	4.2%	1.6%
9	Recreation	11.4%	8.8%	-2.6%
10	Education	3.2%	2.4%	-0.9%
11	Financial and Insurance Services	8.2%	6.1%	-2.1%
	Total	**100.0%**	**100.0%**	**0.0%**

Table 83: Percentage contribution by commodity group, Unemployment and Student Allowances

Weights variance by commodity subgroup

The corresponding data for the Housing and Transportation subgroups is shown in Table 84, below. The differences in points contribution of 28.8 points for Rents, 5.6 for Utilities and -9.2 for home ownership (Other Housing) indicate relatively greater expenditure on home ownership, the subgroup with the lower price index (of the alternative tenure types).

In relation to the expenditure pattern of the All Households group, Unemployment and Student Allowances household expenditure is weighted significantly towards the home ownership subgroup (Other Housing) and slightly away from the Utilities subgroup. Transport expenditure is weighted slightly more towards Motoring than the All Households group is (away from Fares).

Points contribution by commodity subgroup

The points contributions for the Unemployment and Student Allowances group are compared with All Households, Australia, by commodity subgroup, in Table 85, below.

June 2011 Quantity weights: variance of the "Unemployment allowances" group from "All Households", Australia, by commodity subgroup						Points contribution
	Commodity subgroup	All Households group (Australia)	Group: Unemployment and student allowances	Difference	Variance (percent difference)	Difference from All Households, Mar-2016
4.1	Rents	6.2%	20.4%	14.2%	229.8%	28.8
4.2	Utilities	3.6%	5.5%	1.9%	50.9%	5.6
4.3	Other Housing	11.6%	6.0%	-5.7%	-48.9%	-9.2
	Total	**21.5%**	**31.9%**	**10.4%**	**48.3%**	**25.2**
7.1	Private motoring	11.3%	6.3%	-5.0%	-44.4%	-8.2
7.2	Urban transport fares	0.6%	0.7%	0.1%	25.8%	0.4
	Total	**11.9%**	**7.0%**	**-4.9%**	**-41.0%**	**-7.8**

Table 84: Subgroup weights variance, Unemployment and Student Allowances

Points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Unemployment and student allowances Australia**	
	Commodity subgroup	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.1	Rents	13.1	40.7	27.6
4.2	Utilities	11.5	16.4	4.9
4.3	Other Housing	19.7	9.5	-10.2
	Total	**44.4**	**66.7**	**22.3**
7.1	Private motoring	19.1	10.4	-8.7
7.2	Urban transport fares	1.6	2.0	0.4
	Total	**20.7**	**12.4**	**-8.3**

Table 85: Points contribution by commodity subgroup, Unemployment and Student Allowances

Percentage contribution by commodity subgroup

Commodity subgroup points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 86, below. This is the points data shown in Table 85, above, normalised to show the percentage contribution of each commodity subgroup.

Percentage points contributions by selected commodity subgroups at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Unemployment and student allowances Australia**	
	Commodity subgroup	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.1	Rents	6.7%	20.4%	13.7%
4.2	Utilities	5.9%	8.2%	2.3%
4.3	Other Housing	10.1%	4.7%	-5.3%
	Total	**22.7%**	**33.3%**	**10.6%**
7.1	Private motoring	9.8%	5.2%	-4.6%
7.2	Urban transport fares	0.8%	1.0%	0.2%
	Total	**10.6%**	**6.2%**	**-4.4%**

Table 86: Percentage contribution by commodity subgroup, Unemployment and Student Allowances

Points contribution by Utility classes at Mar-2016 (June 2011 quantity weights)		**All Households Australia**	**Group: Unemployment and student allowances Australia**	
4.2	**Utility classes**	Points contribution at Mar-2016, CPI-aligned	Points contribution at Mar-2016, CPI-aligned	Difference from All Households Australia
4.2.1	Electricity	7.0	10.7	3.7
4.2.2	Gas and other household fuels	2.3	3.3	0.9
4.2.3	Water and sewerage	2.3	2.5	0.2
	Total	**11.5**	**16.4**	**4.9**

Table 87: Points contribution by utility classes, Unemployment and Student Allowances

Points contribution by Utility classes

The points contributions for the Unemployment and Student Allowances group are compared with All Households, Australia, by Utility classes, in Table 87, above. Utilities points contributions are shown as a percentage of the total contribution (the Group RPI) in Table 88, below. This is the points data shown in Table 87, normalised to show the percentage contribution of each Utility class.

Percentage points contributions by Utility classes at Mar-2016 (June 2011 quantity weights)		All Households Australia	Group: Unemployment and student allowances Australia	
4.2	Utility classes	Points weight at Mar-2016, CPI-aligned	Points weight at Mar-2016, CPI-aligned	Difference from All Households
4.2.1	Electricity	3.6%	5.3%	1.8%
4.2.2	Gas and other household fuels	1.2%	1.6%	0.4%
4.2.3	Water and sewerage	1.2%	1.2%	0.1%
	Total	**5.9%**	**8.2%**	**2.3%**

Table 88: Percentage contribution by utility classes, Unemployment and Student Allowances

Expenditure comparisons

Average weekly household expenditures (AWHEs) at June 2011 are shown by commodity group and selected subgroups for the Unemployment and Student Allowances group in the following three tables. Percentage differences are given as a percentage of the All Households group expenditure. Expenditure estimates are given for Jun-2011 rather than Mar-2016 because the expenditure pattern for the 16th series is based on Jun-2011 expenditures (as explained on page 75, above).

Expenditure differences by commodity group are shown in Table 89, below. The Unemployment and Student Allowances group spends a total of $576.36 per week, which is $732.66 or 56.0% less than the All Households group expenditure of $1,309.03.

The biggest difference in absolute terms is in the Food group, where The Unemployment and Student Allowances group spends $115.20 per week or 52.3% less than the All Households group. The largest percentage differences are in Household contents and services, Health and Transportation, where the Unemployment and Student Allowances group spends around 75% less than the All Households group.

AWHEs are given as percentages of total AWHE by household group and commodity group, selected subgroups and selected classes in Table 38, page 55.

The Housing subgroup expenditures are $35.32 on home ownership (Other Housing), $121.16 on Rents and $32.62 on Utilities. The Transport subgroup expenditures are $34.96 on Private Motoring and $4.02 on Fares (see Table 90, below).

Expenditures in the alternative subgroups of Housing and Transport are compared within the Unemployment and Student Allowances group in Table 91, below. Home ownership (Other Housing) expenditure is approximately 29% of Rents expenditure, much lower than the corresponding ratio for All Households Australia (188%). Private Motoring expenditure is approximately 8.69 times Fares expenditure, much lower than the corresponding ratio for All Households Australia (19.65).

June 2011: Average weekly household expenditure: comparison of the Unemployment allowances group and All Households, Australia					
	Commodity group	All Households group (Australia)	Group: Unemployment and student allowances	Difference	Percent difference
1	Food	$220.46	$105.26	$ – 115.20	− 52.3 %
2	Alcohol and Tobacco	$92.43	$56.46	$ – 35.97	− 38.9 %
3	Clothing and Footwear	$52.10	$21.77	$ – 30.33	− 58.2 %
4	Housing	$291.94	$189.10	$ – 102.84	− 35.2 %
5	Household contents and services	$119.13	$28.62	$ – 90.52	− 76.0 %
6	Health	$69.25	$17.33	$ – 51.92	− 75.0 %
7	Transportation	$151.21	$38.98	$ – 112.22	− 74.2 %
8	Communication	$39.93	$28.79	$ – 11.13	− 27.9 %
9	Recreation	$164.43	$55.93	$ – 108.50	− 66.0 %
10	Education	$41.63	$13.46	$ – 28.17	− 67.7 %
11	Financial and Insurance Services	$66.51	$20.66	$ – 45.85	− 68.9 %
	Total	$1,309.03	$576.36	$ – 732.66	− 56.0 %

Table 89: Expenditure comparison – Unemployment and Student Allowances

June 2011: Average weekly household expenditure: comparison of the Unemployment allowances group and All Households, Australia					
	Commodity subgroup	All Households group (Australia)	Group: Unemployment and student allowances	Difference	Percent difference
4.1	Rents	$84.12	$121.16	$ + 37.04	+ 44.0 %
4.2	Utilities	$49.50	$32.62	$ – 16.89	− 34.1 %
4.3	Other Housing	$158.32	$35.32	$ – 122.99	− 77.7 %
	Housing group total	$291.94	$189.10	$ – 102.84	− 35.2 %
7.1	Private motoring	$143.89	$34.96	$ – 108.93	− 75.7 %
7.2	Urban transport fares	$7.32	$4.02	$ – 3.30	− 45.1 %
	Transport group total	$151.21	$38.98	$ – 112.22	− 74.2 %

Table 90: Subgroup expenditure comparison – Unemployment and Student Allowances

June 2011: Average weekly household expenditure: comparison of Housing and Transport subgroup expenditures, Unemployment allowances, Australia					
	Commodity subgroup	All Households group (Australia)	Group: Unemployment and student allowances	Percent, Group: Unemployment and student…	Ratio, Group: Unemployment and student…
4.3	Other Housing	$158.32	$35.32	22.6%	0.29
4.1	Rents	$84.12	$121.16	77.4%	
	Total	$242.44	$156.48	100.0%	
7.1	Private motoring	$143.89	$34.96	89.7%	8.69
7.2	Urban transport fares	$7.32	$4.02	10.3%	
	Total	$151.21	$38.98	100.0%	

Table 91: Expenditure comparison within subgroups – Unemployment and Student Allowances

For Transport, the relatively high expenditure on Motoring would result from some combination of the following factors: a smaller proportion of households using public transport; a higher proportion of discounted public transport fares; a greater proportion of households using private vehicles; and, in the

private motoring households, the average motoring expenditure being greater, relative to total expenditure.

Utility class expenditures for the Unemployment and Student Allowances group are compared with All Households in Table 92, below.

June 2011, Utility classes: Average weekly household expenditure: comparison of the Unemployment allowances group and All Households, Australia					
4.2	**Utility classes**	All Households group (Australia)	Group: Unemployment and student allowances	Difference	Percent difference
4.2.1	Electricity	$29.41	$21.03	$ – 8.38	-28.5%
4.2.2	Gas and other household fuels	$8.89	$5.86	$ – 3.04	-34.1%
4.2.3	Water and sewerage	$11.20	$5.73	$ – 5.47	-48.8%
	Total	$49.50	$32.62	$ – 16.89	-34.1%

Table 92: Utility class expenditure comparison – Unemployment and Student Allowances

AWHEs are given as percentages of total AWHE by household group and commodity group, selected subgroups and selected classes in Table 38, page 55.

Discussion

An exhaustive discussion of results is beyond the scope of this report but a brief discussion of several points of interest follows.

Trends in expenditure change

One feature of the trends in long-term expenditure change is particularly interesting: significant expenditure increases, in real terms, are seen consistently in several essential commodity groups, across the selected household groups, even in the lower income groups or cohorts which have evidently had minimal increases – or possibly even decreases – in net expenditure or income, since 1990.

For example, the Unemployment and Student Allowances group AWHE on Housing has increased by 10.4% since Mar-1990 in, broadly in concert with the corresponding AWHE changes in other household groups, but the overall expenditure in the Unemployment and Student Allowances group has fallen. There are several possible explanations for this.

Firstly, the ABS housing price index[21] might not wholly reflect actual, long-term price rises and/or real-world housing cost pressures, particularly for renters.

Secondly, there may be some "spill over" of expenditure patterns between household groups because the variables which are used to define household groups do not necessarily result in clear-cut boundaries between groups. For instance, there is a transitory aspect to some variables, for example, states of unemployment and forms of housing tenure can be relatively short-term – long enough to be defined as such for the purposes of the HES but short enough that uncharacteristic expenditure patterns persist in the survey period.

Thirdly, the demographic makeup of the household group may have changed in ways which correlate with higher housing expenditure. Hypothetically, a number of demographic factors could be behind this. Evidently, the income structure of Unemployment and Student Allowances group has become more complex, such that – within the same nominal group – the average real disposable household income is now greater, in real terms, despite Unemployment and Student Allowances being indexed to the CPI. This is always possible, given the way the variables for main source of household income and government pensions and allowance are usually defined.

The preliminary findings for some other household groups (or subsets of households) tend to support the first explanation. For example, similarities are evident in the expenditure patterns of the Disability Support Pension group and in a subset of the Unemployment and Student Allowances group which is refined to include only longer-term beneficiaries.

Other aspects of the results for the Unemployment and Student Allowances group may point to different explanations, such as the contrast between the changes in income and expenditure levels and the difference between the percentage changes in the average DHI and the average EDHI.

Income and expenditure changes since 1990

The estimates of change in average disposable incomes from 1990 to 2012 vary significantly by household group. The apparent gain in disposable income relative to price increases – which amounts to an average of about twenty percent across all households – is evidently not so significant for a number of household groups.

In any case, to the extent that gains have been made, large proportions of the gains are absorbed by increased expenditure on housing, health and financial and insurance services.

Generally, cost pressures have increased beyond the impact of average price rises, through expansion of the basket of goods and services to accommodate new items and increased volumes of investment fees and charges. Most of this expansion is associated with the additional requirements of contemporary living, increased household participation in investment and other business activities, the transfer of state responsibilities to the household and with the take up of goods and services based on new technology. This suggests that income gains measured only against rising prices are likely to overestimate gains in real income, and underestimate any falls in real income.

There is also the preliminary evidence that price indices for commodities such as rents may not wholly reflect real-world cost pressures, in that household groups with low incomes – which are falling or unchanged in real terms – are paying more for the commodity than in 1990, in real terms (see above).

Cost-of-living indices

It is said to be impractical to construct a true cost-of-living index. Consequently official agencies are forced into second best situations. This analysis has identified a number of ways in which the ABS could improve on the CPI and LCIs as cost-of-living indices, particularly in relation to cost pressures on specific household groups.

The CPI suffers from tension between its purpose as a general measure of price inflation, its function as a cost-of-living index and its use as a long-term price index.

A true, long-term price index would incorporate a greater historical consistency of basket quantities. The RPI analysis shows how significant the historical changes in household expenditures and implicit CPI basket quantities are. Ultimately, these changes are reflected in the substantial difference between the CPI and the pure-price index, for the All Households group, and between the Group RPIs and pure-price indices for other household groups.

Implicit quantity changes arise partly from changes in patterns of expenditure – because quantity weights are adjusted at the beginning of CPI series – and partly from other adjustments. Some of the change in expenditure patterns appears to result from general trends but to some degree it reflects the discretionary expenditure patterns of relatively high-income households. However, changes in expenditure shares and implicit quantities can also reflect consumer reactions to price changes, particularly among lower income households: expenditure is likely to fall off (in real-terms) where price increases are more prohibitive. In turn, lower quantity factors can result in a lower CPI, RPI or LCI than price rises would otherwise dictate.

Notably, some changes in expenditure shares are related to policy settings intended to change consumer behaviour, such as increases in alcohol and tobacco excises or taxes.

So, while some weight changes properly reflect general changes in expenditure patterns, others are likely to result in under-estimation of weighted-average price changes, particularly in the long term.

Quantity shifts

Expenditure shares and quantity weights tend to move upward in areas of increased discretionary spending. At the same time, the share or relative quantity of an essential group like Food, which would normally be reasonably constant, may fall.

Compounding effect

Weight adjustments can be seen to have a compounding effect with each CPI series that re-adjusts weighting away from essential commodity groups, particularly where the adjustment is away from groups with higher price indices (which tend to be groupings of more essential commodities, required in relatively constant quantities). If household incomes are not fully indexed to actual price changes, reduced real incomes result, which may lead to further reduction of expenditure in such groups, compounding the effect on income and, potentially, on the index. In particular, this effect could be expected in lower income groups with relatively fixed incomes, i.e., with incomes growing at the CPI or less. The CPI would grow less than the RPI for such groups, in any case, if expenditure weights for the All Households group continue to shift towards lower priced goods and services (as outlined above).

Conclusions and Recommendations

The CPI is not necessarily an accurate cost-of-living indicator, at least with respect to particular household groups such as low-income households dependent on government pensions and allowances and renter households. Over the long term, the applicability of the CPI is undermined by issues with weighting, in relation to the variability of expenditure shares across household groups, rationing and substitution effects in lower-income groups and the method of chain-linking the CPI series.

As a price index, the CPI significantly underestimates the true increase in the price of the basket of commodities which some household groups typically consume, or would normally consume. As a cost-of-living indicator, it significantly understates the contemporary cost pressures on these household groups.

The magnitude of the problems with the CPI is, in part, due to the increasing historical deviation of some commodity price indices from others. What were once acceptable methods and approximations are less so in the contemporary price-change environment.

In calculating weighted-average indices for specific household groups, problems are also evident with the delineation of household groups, in terms of demographic make-up, true income levels and sources of income. This is primarily an issue for the ABS Living Cost Indexes and RPIs, rather than the CPI, because the CPI treats all households as a group (although the CPI is often used to index specific household group earnings, benefits and allowances).

The CPI and Living Cost Indexes

The adequacy of the ABS Living Cost Indexes (LCIs) should be reviewed, since the LCIs depend on many of the same methods as the CPI and would appear to suffer similar limitations to the CPI.

This report recommends that the CPI and/or the LCIs should be supplemented with additional indices which:

1. Reflect true, long-term price increases based on more stable commodity quantities.
2. Better reflect cost-of-living changes, including the effects of change in commodity quantities resulting from the introduction of new items, fees and charges, and the requirements of contemporary living
3. Extend the range of living cost indexes to cover of more specific household groups, demographically and geographically; and,
4. Refine the cohorts of selected household groups to better reflect the fundamental income structure of household groups for living cost indexes; and,
5. Advise policy and decision-makers more effectively about the purpose and applicability of the CPI and related indices.

Further research

Further research is recommended to refine the analysis of historical income and expenditure changes. In particular, further research into expenditure patterns aggregated at the national level and the bearing of these on specific household groups could improve the accuracy and reliability of estimates.

The number of household groups analysed in this report should be expanded to include a wider variety of household groups, more tightly defined household subsets and a number of geographic areas. The definitions of household groups and subsets should be further refined. Analysis of these subsets would

likely result in more accurate, reliable and specific estimates. If and where there are household groups which experience greater cost-of-living pressures than average, they are more likely to be identified and better-characterised with refined definition of the household group or subset.

Policy analysis and recommendations

Over the past 21 years there have been significant changes in the cost of various good and services within the Australian economy. In particular, many non-discretionary items such as food, gas, electricity and water charges, rents, property rates and charges, household services, health, education, public transport fares, automotive fuel and insurance services have either risen significantly and/or displayed a high degree of price volatility. Both of these factors have impacted upon the ability of many households to manage their finances.

Many non-discretionary items are produced domestically and cost increases in these items may reflect the impact of flood fire and drought, increased cost associated with infrastructure renewal, the cost of domestic labour and other factors.

Conversely, the costs of many other goods and services have remained low. These include: clothing and footwear, electrical appliances, household furnishings, audio visual and computing, telecommunications and motor vehicles. The majority of these items are produced offshore and lower costs may reflect a combination of factors such as cheaper labour costs and the increased purchasing power of the higher Australian dollar. This suggests that for households with greater discretionary income (i.e., “spending money” remaining after having paid for essentials) there are many cost savings.

In developing the Relative Price Index (RPI) for specific households groups this report finds that, since 1990, there has been an increase in cost inequality for various household groups, as defined by income level, source of income, family type, housing tenure, geography and on various domestic consumption patterns.

In addition to this cost pressure inequality, many households have been experiencing “price shock”. Price shock arises from significant increases in the prices of a number of goods and services, especially over the past five years or ten years. This is of particular concern for those whose primary income source is government pensions and allowances. This group spends proportionally more of their income on items that fall in the food, housing and utility groups relative to groups with larger incomes. In addition to this group being over-exposed to these cost pressures, they also appear to under-consume in areas such as food, health and education. This is likely to have a significant detrimental impact on their future wellbeing.

There are also concerns for one parent families and lone person households that are reliant on private rental. Not only have this group seen higher cost pressures, but a significant number of households in this group are in the lower income quintiles and as such have limited ability to adjust to changes in such cost pressures.

To ameliorate these cost pressures it is recommended that:

6. The Federal Government review and adjust where appropriate the adequacy of household incomes. In particular the current level and indexing of government pensions and allowances must be reformed to ensure the ongoing adequacy of payments.
7. State and local governments ensure that the concessions and rebates offered to various groups are appropriately targeted and offer meaningful assistance.

8. Government services offer alternative payment arrangements (e.g. fortnightly payments etc.) to assist vulnerable households mitigate the impact of price increases and price shock. More payment options will provide households with the tools to budget effectively.
9. Finally, governments should review current price index, taxation and concession arrangements, with a view to developing a comprehensive cost-of-living strategy.

Appendices

Appendix 1

References

ABS 2005 (a), A Guide to the Consumer Price Index, 15th Series, ABS Catalogue no. 6440.0

ABS 2011 (f), Household Expenditure Survey and Survey of Income and Housing, User Guide, Australia, 2009–10, ABS Catalogue no. 6503.0 [65030_1.pdf]

ABS 2012 (a), Year Book Australia, No. 92, 2012, ABS Catalogue no. 1301.0 [13010_2012.pdf]
http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Household%20income,%20expenditure%20and%20wealth~193

ABS 2012 (b), 6401.0 Consumer Price Index, Australia (Sep 2012) [64010_sep 2012.pdf]

ABS 2012 (c), 6401.0 Consumer Price Index, Australia, TABLES 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes [640101.xls]

ABS 2012 (d), 6401.0 Consumer Price Index, Australia, TABLES 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes [640101.xls]

ABS 2011 (h), Household Income and Income Distribution, Australia - Detailed tables, 2009-10, ABS Catalogue no. 6523.0, 30 August 2011 [65230_detailed_tables_2009-10.xls]

ABS 2011 (i), Household Income and Income Distribution, Australia, 2009-10, 65230DO001_200910 [65230do001_200910.xls]

ABS 2011 (j), Household Income and Income Distribution, Australia, 2009–10, ABS Catalogue no. 6523.0, 30 August 2011 [65230_2009-10.pdf]

ABS 2011 (k), 6401.0 Consumer Price Index, Australia (Sep 2011) [64010_sep 2012.pdf]

ABS 2000, Household Expenditure Survey, Australia, User Guide, 1998–99, ABS Catalogue no. 6527.0

Endnotes

[1] ABS 2005 (a), p. 20

[2] The Household Expenditure Survey and Survey of Income and Housing; see ABS 2011 (f)

[3] ABS 2011 (k), p. 2: "This issue introduces the 16th Series Australian Consumer Price Index (CPI), that incorporates an updated weighting pattern… As a consequence of reweighting, the points contribution for the June quarter 2011 shown in Tables 7, 8 and 14 differ from that published in the previous issue of this publication…"

[4] ABS 2008, TABLE 13

[5] ABS 2012 (c): The average of the re-indexed CPIs for the Sep-2011, Dec-2011, Mar-2012 and Jun-2012 quarters (99.8, 99.8, 99.9 and 100.4 points, respectively) equals 100.0 points.

[6] ABS 2012 (d): The CPIs for the Sep-2011, Dec-2011, Mar-2012 and Jun-2012 quarters are 179.4, 179.4, 179.5 and 180.4 points, respectively.

CPIs (inc indirect financial charges, given in RPI report):

179.4

179.4

179.2

180.3

Group RPI (~ CPI) (inc indirect financial charges):

178.9

179.0

179.2

180.1

[7] ABS 2012 (b), p. 2: "From the September quarter 2012, all index numbers will be calculated on a new index reference period of 2011–12. This will result in the index numbers for each index series being reset to 100.0 for the financial year 2011–12." See ABS 2012 (c): The average of the CPIs for the Sep-2011, Dec-2011, Mar-2012 and Jun-2012 quarters (99.8, 99.8, 99.9 and 100.4 points, respectively) equals 100.0 points.

[8] ABS 2011 (h), Table 20A, Labour Force Characteristics

[9] ABS 2000, p. 12

[10] ABS 2000, p. 12; ABS 2011 (f)

[11] ABS 2011 (j), p.5 and p.4:
Larger households normally require a greater level of income to maintain the same material standard of living as smaller households, and the needs of adults are normally greater than the needs of children. The income estimates are therefore adjusted by equivalence factors to standardise the income estimates with respect to household size and composition, while taking into account the economies of scale that arise from the sharing of dwellings. The equivalised disposable income estimate for any household in this publication is expressed as the amount of disposable cash income that a single person household would require to maintain the same standard of living as the household in question, regardless of the size or composition of the latter.

[12] ABS 2011 (f), p. 147:

Equivalised disposable household income is disposable household income adjusted using an equivalence scale. For a lone person household it is equal to disposable household income. For a household comprising more than one person, it is an indicator of the disposable household income that would need to be received by a lone person household to enjoy the same level of economic wellbeing as the household in question.

An *equivalising factor* is used to adjust the actual incomes of households in a way that enables analysis of the relative wellbeing of households of different size and composition. The equivalising factor included on the file has been calculated using the 'modified OECD' equivalence scale. The factor is built up by allocating points to each person in a household. Taking the first adult in the household as having a weight of 1 point, each additional person who is 15 years or older is allocated 0.5 points, and each child under the age of 15 is allocated 0.3 points. The equivalence factor is the sum of the equivalence points allocated to the household members. Equivalised household income can be derived by dividing total household income by the equivalence factor.

[13] ABS 2011 (h), Table 20A, Labour Force Characteristics; ABS 2011 (i), Table 1, Equivalised Disposable Household Income; ABS 2012 (a), Table 9.2, Household Characteristics, By Income Group

[14] The inflated 1990 AHWEs and the expenditure increase figures differ because expenditure in the Alcohol and Tobacco group is kept constant under the Pure Price model and the RPI 2016 AWHE includes indirect financial charges.

[15] That is, including rent allowance and extra income earned within the threshold allowed without significantly affecting the allowance level.

[16] For the the 2009-10 HES, this equates to an EDHI of less than $400 and greater than $100, for single person households.

[17] This reflects the degree to which the weighted-average price growth is contained by weighting changes.

[18] “Typically”, as found in the corresponding comparison made in the RPI report for Australia, Mar-2011 (CPI-aligned model).

[19] This reflects the degree to which the weighted-average price growth is contained by weighting changes.

[20] This reflects the degree to which the weighted-average price growth is contained by weighting changes.

[21] That is, the individual price indexes, based on ABS price modelling at the lower levels of aggregation in the CPI hierarchy, which aims to maintain equivalent quantities and qualities.