

Research Paper

The Cost of Living: An Explainer

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Executive Summary

This research paper examines the cost of living in Melbourne and Victoria through four primary indicators: the consumer price index, selected living cost indexes, wages and housing data. The paper highlights trends and statistics regarding the cost of living in Melbourne, Victoria, Australia and internationally.

The cost of living in Victoria has increased in proportion to wages, which have tended to stagnate since the beginning of the decade. The primary driver for a rise in living costs appears to be housing, which has decoupled from the majority of indicators and left few options for affordable housing— particularly in Melbourne.

The biggest expenditure increases for metropolitan Melbourne households have been recorded in education, and insurance and financial services. The inflation rate in Melbourne has generally kept pace with the national rate set by the Reserve Bank of approximately two to three per cent over the past two decades. Data from the 2017 December quarter shows that Melbourne and Brisbane had the second-highest consumer price index at 112.3, while Sydney had the highest at 113.3.

Low-income households and those on government pensions or Centrelink allowances have faced the largest increases in the cost of living. On the other hand, employee households have experienced the slowest increase in the cost of living. Increases in housing costs, for example, have a substantially higher impact on those with low incomes who have little financial room to manoeuvre.

The weak increase in wages has meant that Australian households have faced lower purchasing power since early 2012. Wage growth fell continually from March 2012 to June 2017, while inflation remained steady. An increase in inflation and prices overall, coupled with wage stagnation, means that consumers must spend more of their wages to acquire the same standard of living that was possible in the past. Real wages have in fact failed to keep up with inflation for a number of quarters over the past three years which essentially means that workers' earnings are declining.

Melbourne has seen a dramatic increase in property prices in the past decade and is ranked the fifth most unaffordable major housing market in the world, which places it in the 'severely unaffordable' category. Housing in Melbourne has an average price-to-income ratio of 9.9, a figure that is considered very high. While the impact has been greatest for low-income earners, mortgage and rental stress is also on the increase across all household types.

What is the cost of living and how do we measure it?

The term ‘cost of living’ refers to the amount of money required to sustain a certain standard of living. This includes most basic expenses such as food, housing and taxes. The cost of living is fixed to wages, as they are measured against the expenses required to maintain a certain standard of living.¹ Cost of living measures are normally used to compare how expensive it is to live in one city or geographic region compared to another and to track changes in costs over time.²

This paper will look at four key indicators to examine the change in cost of living and its effects on households. The four indicators are:

- the consumer price index (CPI);
- selected living cost indexes (SLCIs);
- wages and salaries; and
- housing costs.³

The CPI is valuable in measuring the cost of living as it tracks quarterly changes in prices paid by household for a fixed set—commonly referred to as a ‘basket’—of goods and services.⁴ However, the CPI does not give an inclusive picture of the cost of living, as it does not account for all production and consumption in the economy. It also does not factor in substitution which occurs when a certain item becomes more expensive and consumers will substitute it with a less expensive item.

For a broader and more detailed analysis of the cost of living, the Australian Bureau of Statistics (ABS) uses selected living cost indexes (SLCIs). SLCIs are used to examine changes over time in the purchasing power of households. They measure ‘the impact of changes in prices on the out-of-pocket expenses incurred by households to gain access to a fixed basket of consumer goods and services’.⁵

Wages and salaries, determine—in combination with other factors—the purchasing power of consumers. When wages do not keep pace with other economic indicators, especially inflation, workers as consumers are less able to accommodate the subsequent increased costs for the goods and services needed to maintain their standard of living.

Housing affordability is an important factor in the discussion on the cost of living, particularly in Melbourne. Housing continues to be a major cost faced by many Victorians. The past decade has seen a substantial increase in the percentage of household income spent on housing. Housing affordability disproportionately affects low income earners and those on government statutory incomes.

¹ Investopedia (2018) ‘[Cost of Living](#)’, Investopedia website.

² *ibid.*

³ Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, cat. no. 6401.0, Canberra, ABS.

⁴ Australian Bureau of Statistics (2018) *A guide to the Consumer Price Index: 17th series, 2017*, cat. no. 6440.0, Canberra, ABS.

⁵ Australian Bureau of Statistics (2018) *Selected Living Cost Indexes, Australia, Dec 2017*, cat. no. 6467.0, Canberra, ABS.

Consumer Price Index

Key information

- The biggest expenditure increases for households in Melbourne from 2009-10 to 2015-16 were observed in education, which increased by 55.8 per cent, followed by insurance and financial services with a 32.7 per cent increase.
- CPI in Melbourne has generally tended to fall into the Reserve Bank of Australia (RBA) target rate of inflation increase (two to three per cent) over the past two decades, closely following the national inflation rate.
- In the December 2017 quarter, Melbourne and Brisbane had the second highest CPI at 112.3, while Sydney had the highest at 113.3.
- The highest consumer expenditure continues to be housing.

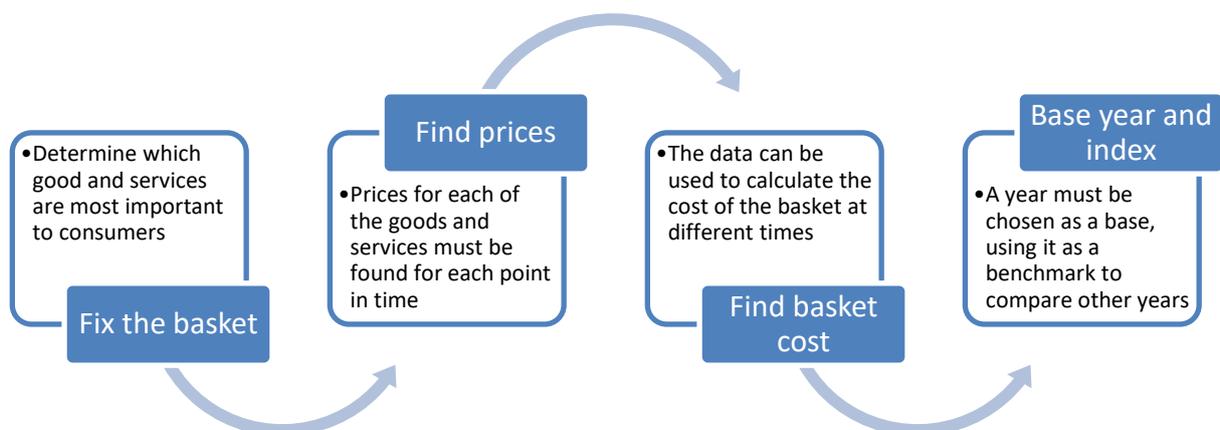
What, how and why?

The consumer price index (CPI) is a key index that is used to measure the change in prices, the overall inflation rate and the real values of salaries and wages. To do this, the CPI measures changes in the price level of a 'basket' of goods and services purchased by consumers. Changes in CPI can then be used to examine price changes associated with the cost of living over time.⁶ When the CPI rises, households need to spend more in order to maintain the same standard of living.

The ABS uses eleven groups for goods and services to define the 'basket'. These are:

- food and non-alcoholic beverages;
- alcohol and tobacco;
- clothing and footwear;
- housing;
- furnishings, household equipment and services;
- health;
- transport;
- communication;
- recreation and culture;
- education; and
- insurance and financial services.⁷

The following four main steps need to be followed to calculate the CPI: fixing the basket of goods and services; finding their prices; finding the basket cost; and choosing a base year to calculate the index. The diagram below shows the four steps involved.



⁶ Investopedia (2018) 'Consumer Price Index', Investopedia website.

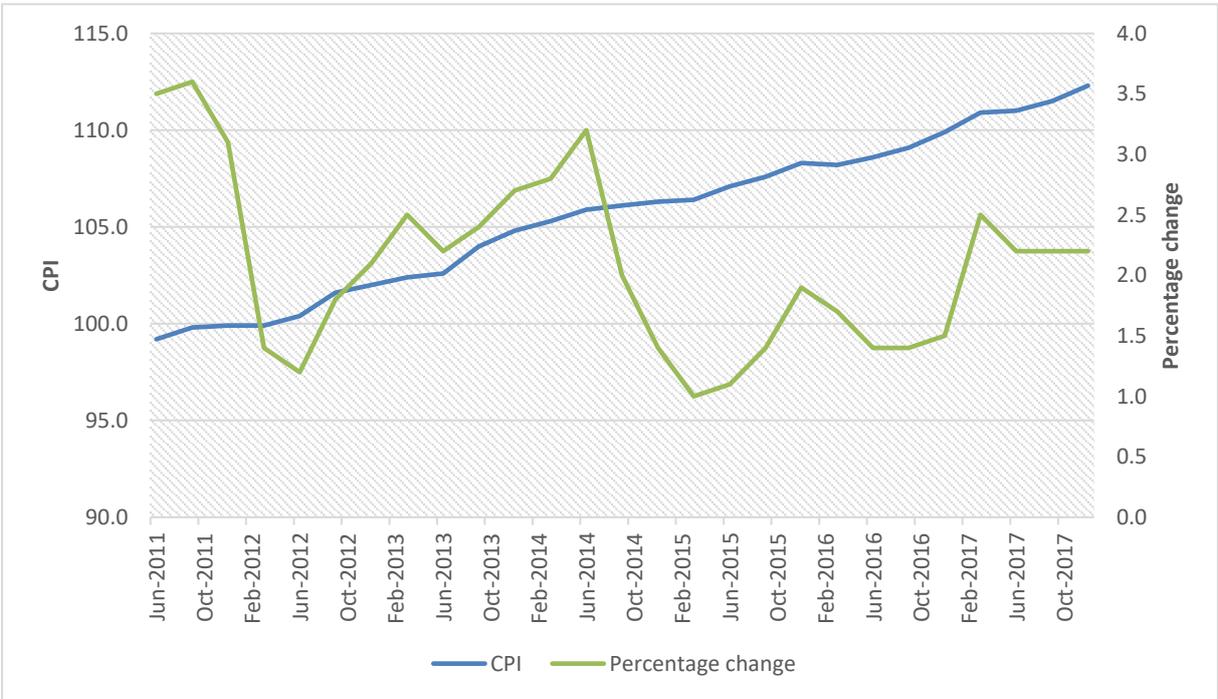
⁷ Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, cat. no. 6401.0, Canberra, ABS.

Once the base year has been allocated and an index calculated, the inflation rate is used to determine the percentage change in the CPI from previous years. Current CPI calculations use 2011-12 as a base year to calculate changes in Australia. For example, the index for Melbourne in 2011-12 was 100, which is the base year index from which other years are benchmarked. CPI data tends to be gathered in capital cities and cannot be applied accurately to the whole state, therefore CPI analysis in this chapter will focus on Melbourne.

A closer look at Melbourne

Since the base index year of 2011–12, Melbourne’s CPI has increased to 112.3, as measured in December 2017.⁸ Since then, the steepest rise occurred in 2013–14, with the CPI increasing by 2.8 per cent, while the lowest increase was in 2014–15, at 1.4 per cent.⁹ The current forecasts estimate that the CPI will grow at two per cent in 2017–18, 2.25 per cent in 2018–19 and 2.5 per cent in both 2019–20 and 2020–21.¹⁰ The decade before 2011–12 saw generally higher rates of CPI growth, peaking in 2000–01 at six per cent, while the lowest figure was recorded in 2004–05 at two per cent. The figure below shows the CPI as an index since June 2011 until December 2017 and corresponding percentage changes represented quarterly.

Figure 1. CPI and quarterly percentage change



Source: Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, cat. no. 6401.0, Canberra, ABS. Compiled by Parliamentary Library.

Over the period shown above, Melbourne’s CPI growth has remained relatively close to the Australian average. The RBA monetary policy seeks to achieve an inflation rate of two to three per cent on average.¹¹ As a result, CPI in Melbourne has generally tended to fall within the target rate over the past two decades, closely following inflation Australia-wide.¹²

⁸ Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, op. cit.

⁹ *ibid.*

¹⁰ Department of Treasury and Finance (2017) ‘*Macroeconomic Indicators*’, DTF website.

¹¹ Reserve Bank of Australia (2018) ‘*Inflation Target*’, RBA website.

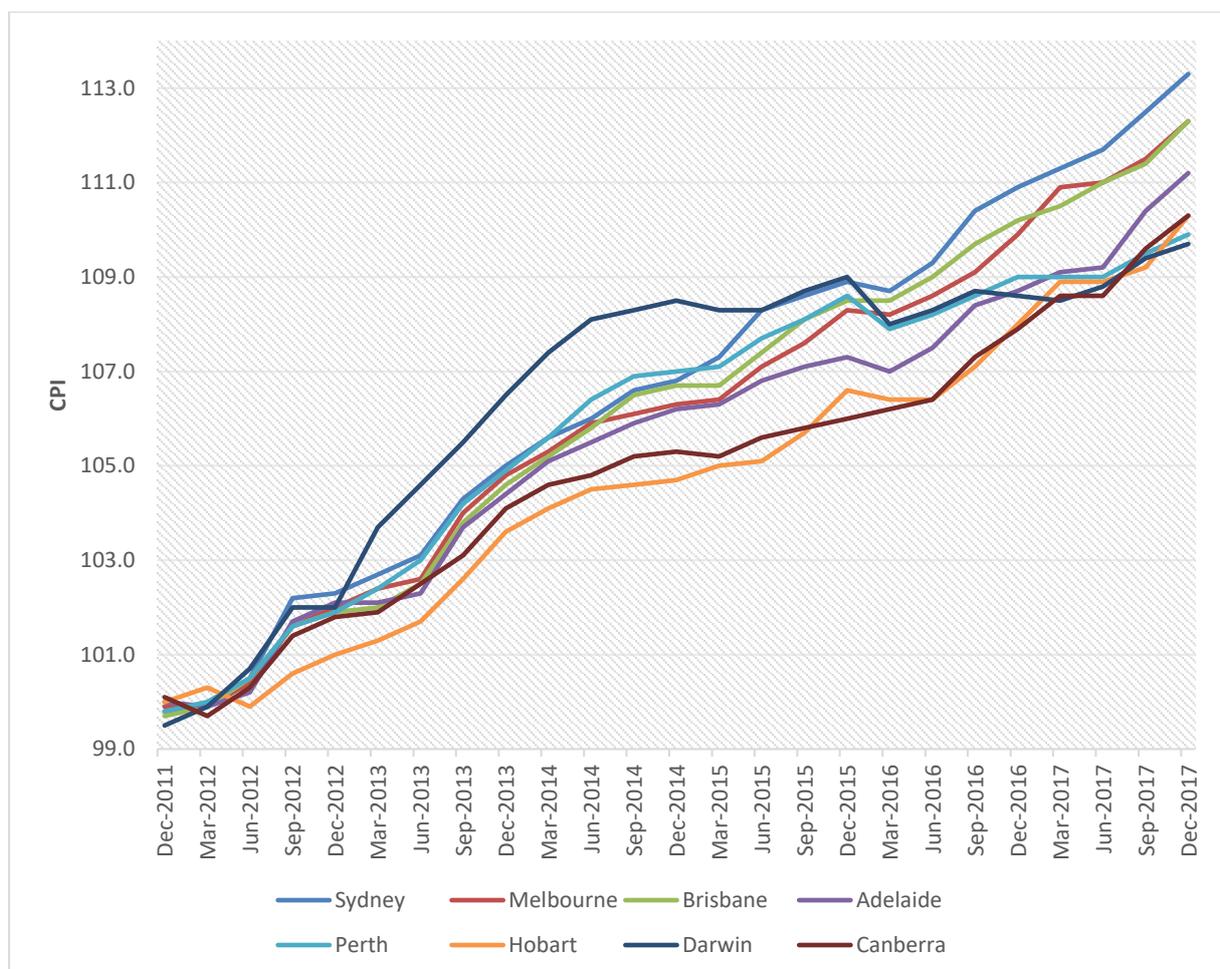
¹² Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, op. cit.

Overall, indexes ranged over a few points but tracked fairly close together, with the weighted average of the eight capital cities recorded at 112.1.¹³ Quarter-on-quarter percentage change, however, tells a different story. Melbourne, Sydney and Canberra were tied for largest CPI growth between the December quarter 2016 and December quarter 2017, at 2.2 per cent. Perth, on the other hand, experienced the smallest change, at 0.8 per cent, while the weighted average for all capital cities was 1.9 per cent.

Looking at data for the latest available quarter—September quarter 2017 to December quarter 2017—it becomes evident that a few specific groups of goods and services were responsible for CPI growth across most of the capital cities. All capitals, with the exception of Darwin, recorded the same top three CPI groups contributing to an overall increase in the CPI. These were automotive fuel, tobacco, and domestic holiday travel and accommodation. The biggest upwards changes recorded in Melbourne were automotive fuel at +10.6 per cent, tobacco at +8.4 per cent, and domestic holiday travel and accommodation at +7.5 per cent. These were partially offset by falls in audio, visual and computing equipment at -3.9 per cent and international travel and accommodation at -1.6 per cent.¹⁴ Overall for the quarter, Melbourne saw a 0.7 per cent rise in the CPI.

The following figure represents the CPI for the eight capital cities since December 2011.

Figure 2. CPI by capital city, quarterly data



Source: Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, cat. no. 6401.0, Canberra, ABS.

¹³ *ibid.*

¹⁴ *ibid.*

What does this mean?

To gain a clear picture of the true cost of living over time, it's important to have a look at specific CPI groups. As the eight capital cities have similar indexes and rates of growth, it is useful to look at their weighted average to examine prices. Shown below is the average weekly expenditure and CPI weight for the September quarter 2017 by CPI group.¹⁵

Table 1. Average weekly household expenditure by CPI groups (2015-16 quantities, September quarter 2017 prices)

CPI group	Avg. weekly expenditure \$	CPI weight %
All CPI groups	1594.18	100
<i>Food and non-alcoholic beverages</i>	256.55	16.09
<i>Alcohol and tobacco</i>	113.02	7.09
<i>Clothing and footwear</i>	56.56	3.55
<i>Housing</i>	361.49	22.68
<i>Furnishings, household equipment and services</i>	149.62	9.39
<i>Health</i>	86.57	5.43
<i>Transport</i>	164.51	10.32
<i>Communication</i>	42.70	2.68
<i>Recreation and culture</i>	202.62	12.71
<i>Education</i>	68.05	4.27
<i>Insurance and financial services</i>	92.50	5.80

The data above sets out the structure of average household spending and allows a useful comparison of expenditure at other points in time. For example, if we look at the same expenditure by CPI group from 2009–10, total household expenditure in the CPI 'basket' increased by 16.3 per cent, while 'all groups CPI' increased 14.3 per cent.¹⁶

The largest expenditure increases from 2009–10 to 2015–16 were observed in education, which increased by 55.8 per cent, followed by insurance and financial services with a 32.7 per cent increase. The next three groups with the largest increases were furnishings, household equipment and services (19.9 per cent), health (19.3 per cent) and housing (18.2 per cent).¹⁷

¹⁵ Australian Bureau of Statistics (2017) *Information Paper: Introduction of the 17th Series Australian Consumer Price Index, 2017*, cat. no. 6470.0.55.001, Canberra, ABS.

¹⁶ *ibid.*

¹⁷ *ibid.*

In terms of trends, consumers continue to spend the most on housing, followed by food and non-alcoholic beverages, and then recreation and culture. Average weekly expenditure on the housing CPI group increased by 18.2 per cent between the two periods, from \$305.75 to \$361.49. Major contributors to the increase were primarily rents and electricity.¹⁸ There was also an increase in the weight of housing as a CPI group—growing 0.38 percentage points—with increasing expenditure in rents slightly offset by a fall in new home purchases by owner-occupiers. The cost of electricity, gas, water and sewerage increased by 30.8 per cent, with the increase being largely price-driven, as prices rose 45.6 per cent between 2009–10 and 2015–16.¹⁹

Weekly expenditure on food and non-alcoholic beverages rose \$25.68; however, the weight of the CPI group fell by 0.75 percentage points, to 16.09 per cent. Expenditure on fruit decreased 22.1 per cent, while the CPI group fell from 1.6 to 1.07 per cent. Partly offsetting the falls was the growth in restaurant meals, which grew 0.51 percentage points, while weekly expenditure increased from \$28.55 to \$52.94.²⁰

The percentage change in CPI groups from the December quarter 2016 to the December quarter 2017, as a weighted average of all capital cities, shows that the biggest increases have been in alcohol and tobacco at 7.3 per cent and health at four per cent. The largest negative movements have been recorded for communication at -3.4 per cent and clothing and footwear at -3 per cent.²¹

¹⁸ *ibid.*

¹⁹ *ibid.*

²⁰ *ibid.*

²¹ Australian Bureau of Statistics (2018) *Consumer Price Index, Australia, Dec 2017*, op. cit.

Selected Living Cost Indexes

Key information

- Government transfer recipient households (e.g. those on a statutory income) have experienced the largest cost of living increase.
- Employee households have experienced the slowest increase in the cost of living.
- All groups are spending more on housing compared to 2011.

Table 2. Change in household expenditure in 2017 compared to 2011

	Employee households	Age pensioner households	Other government transfer recipient households	Self-funded retiree households
<i>Index</i>	108	111.4	112.3	111.3
<i>Annual average percentage change²²</i>	1.9	2.2	2.4	2.1
<i>Largest expenditure group</i>	Food and non-alcoholic beverages	Food and non-alcoholic beverages	Housing	Recreation and culture

What, how and why?

SLCIs are used by the ABS to measure the relative impact of price changes across varying sub-groups of the Australian population. SLCIs are related to—and use the data behind—the CPI, but are more valuable in assessing the real effect price changes have on households' living expenses.

In order to gauge differences across the population, households are categorised based on their primary source of income. The groups are divided into:

- employee households (principal source of income is from wages and salaries);
- age pensioner households (principal income is age or other pension);
- other government transfer recipient households (principal income is government pension or benefit); and
- self-funded retiree households (principal income is superannuation or property income).²³

Using the SLCIs allows for an examination of, and comparison between, different groups in society and how prices affect each group differently. The data also allows us to examine how costs over time affect each of the groups.

²² Percentage change from the corresponding quarter of the previous year, averaged since June 2011.

²³ Australian Bureau of Statistics (2018) *Selected Living Cost Indexes, Australia, Dec, 2017*, op. cit.

A closer look at the data

In order to maintain uniformity, here we'll compare data from 2011 to data from 2017 to determine how price changes have affected each group. To see how different groups allocate their expenditure, and compare how these allocations have changed over time, it's beneficial to break down costs by CPI group and percentage contributions. The percentage increases in the price of groups were addressed in the previous section focusing on CPI; in this section we will focus on proportions of expenditure. The table below shows the percentage expenditure of employee households.²⁴ Data for 2017 has been colour-coded to show where allocations have increased or decreased.

Table 3. Employee household expenditure change

Employee households	Jun-11	Sep-17
<i>Food and non-alcoholic beverages</i>	16.85	16.88
<i>Alcohol and tobacco</i>	7.36	7.55
<i>Clothing and footwear</i>	4.13	3.76
<i>Housing</i>	13.18	14.82
<i>Furnishing, household equipment and services</i>	9.17	9.87
<i>Health</i>	5.18	5.42
<i>Transport</i>	11.7	10.22
<i>Communication</i>	2.98	2.73
<i>Recreation and culture</i>	12.51	13.08
<i>Education</i>	2.9	4.26
<i>Insurance and financial services</i>	14.04	11.41

The data shows that employee households have mainly increased their proportion of expenditure on housing and education, while the proportion allocated for insurance and financial services dropped moderately. The percentage change from corresponding quarters has remained relatively stable in the past decade, with the exception of sharp increases and decreases around 2008–09. Examining the data since 2010—where percentage change stabilises—employee households have experienced a 1.9 per cent average percentage change from the corresponding quarter of the previous year.²⁵ An index of 108 was recorded in the latest data in the December quarter 2017.²⁶

Table 4. Age pensioner household expenditure change

Age pensioner households	Jun-11	Sep-17
<i>Food and non-alcoholic beverages</i>	22.39	19.99
<i>Alcohol and tobacco</i>	6.7	5.77
<i>Clothing and footwear</i>	4.88	3.29
<i>Housing</i>	17.14	19.9
<i>Furnishing, household equipment and services</i>	11.09	9.59

²⁴ Australian Bureau of Statistics (2017) *Selected Living Cost Indexes: 17th Series Weighting Pattern, Sep 2017*, cat. no. 6474.0, Canberra, ABS.

²⁵ Australian Bureau of Statistics (2018) *Selected Living Cost Indexes, Australia*, cat. no. 6467.0, Table 1. All groups, index numbers and percentage changes, by household type, Canberra, ABS.

²⁶ *ibid.*

<i>Health</i>	8.85	10.22
<i>Transport</i>	9.39	9.15
<i>Communication</i>	3.67	3.77
<i>Recreation and culture</i>	11.48	11.31
<i>Education</i>	0.29	0.15
<i>Insurance and financial services</i>	4.12	6.86

Age pensioner households, like employee households, spend the largest proportion of their income on food and non-alcoholic beverages. However, the proportion of expenditure on food and non-alcoholic beverages has decreased since 2011. Age pensioner households have also seen a decreasing proportion of income spent on clothing and footwear, alcohol and tobacco, and transport. On the other hand, they have seen an increase in health, insurance and financial services, and housing. This shows a trend of greater expenditure towards necessary and basic elements of living—such as health and housing—with a relatively smaller proportion being spent on discretionary items. In the December 2017 quarter, age pensioner households recorded an index of 111.4, notably higher than the 108 index recorded by employee households.²⁷ This means that costs have increased more for age pensioner households relative to employee households.

Looking at the most recent period of reporting, the living cost index rose 0.6 per cent for age pensioners in the December quarter 2017. The quarterly increase was mainly caused by a 3.3 per cent increase in transport costs and a 1.4 per cent increase in the cost of food and non-alcoholic beverages. The biggest offset was due to health, which fell -1.7 per cent, primarily due to the cyclical increase in the number of consumers exceeding the Pharmaceutical Benefits Scheme (PBS) safety net.²⁸

Table 5. Other government transfer recipient household expenditure change

Other government transfer recipient households	Jun-11	Sep-17
<i>Food and non-alcoholic beverages</i>	19.32	18.22
<i>Alcohol and tobacco</i>	9.72	9.76
<i>Clothing and footwear</i>	4.88	3.77
<i>Housing</i>	22.87	26.29
<i>Furnishing, household equipment and services</i>	7.71	8.26
<i>Health</i>	3.11	3.9
<i>Transport</i>	9.69	8.73
<i>Communication</i>	4.18	3.67
<i>Recreation and culture</i>	9.45	8.31
<i>Education</i>	2.36	3.18
<i>Insurance and financial services</i>	6.71	5.91

Other government transfer recipient households, which includes those on statutory incomes, saw minor decreases in the proportion of income spent on food and non-alcoholic beverages and a moderate increase in housing. Notably, other government transfer recipient households spent the largest proportion of their income on housing, compared to employee and age pensioner households,

²⁷ *ibid.*

²⁸ Australian Bureau of Statistics (2018) *Selected Living Cost Indexes, Australia*, op. cit.

who spent the largest proportion on food and non-alcoholic beverages. These households recorded a living cost index of 112.3 in the December quarter 2017, higher than all other groups.

In the December quarter 2017, the living cost index rose by one per cent, with the main contributors being alcohol and tobacco (5.6 per cent) and transport (3.5 per cent). These two rises can be attributed to: the flow on effects of the federal excise tax increase; and the rise of automotive fuel prices in the December quarter.²⁹

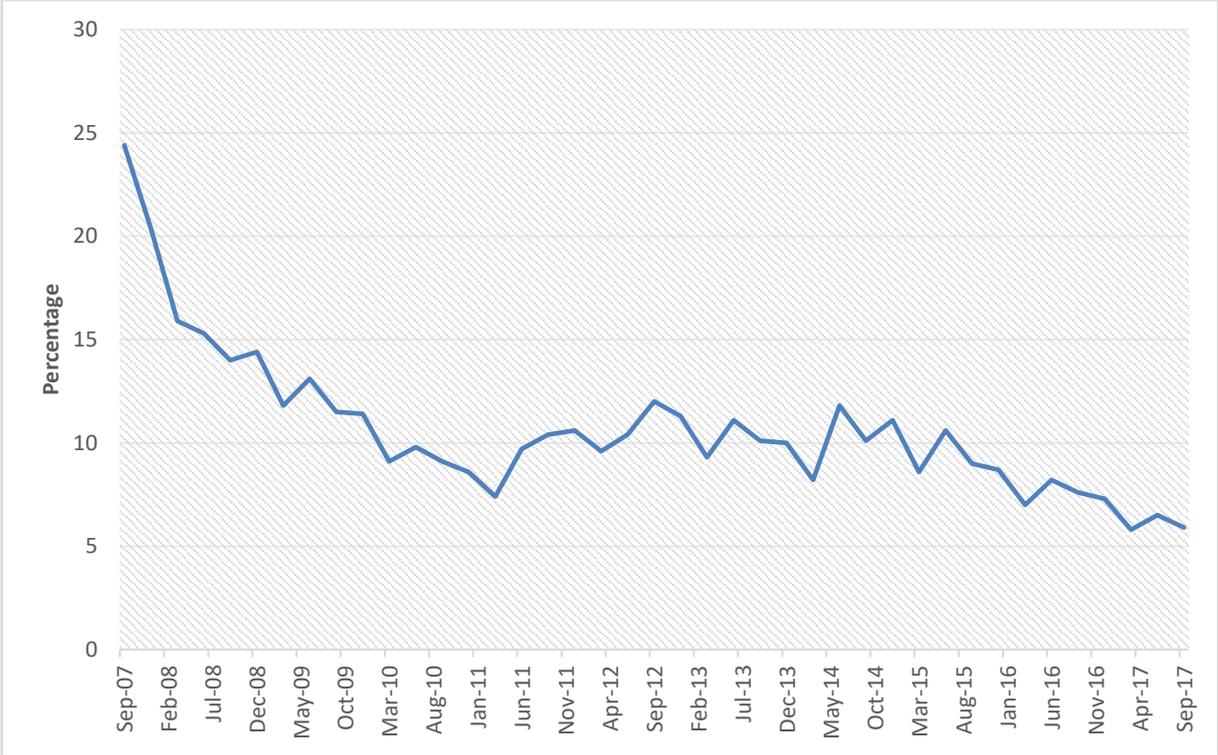
Partial offsets were driven by a fall in health at -2.5 per cent, as with the age pensioner group, because of the increase in the number of consumers exceeding the PBS safety net.³⁰

The past year has seen the living cost index for other government recipient households rise by 2.4 per cent, which is moderately higher than the CPI rise of 1.9 per cent for the same period.

Is housing unaffordable for those on Centrelink incomes?

Housing consistently ranks as the number one cost for Victorians and Australians. Housing costs affect low-income and statutory income households the most. An example, is the percentage of Melbourne rental properties that are affordable to low income earners. The September 2017 *Rental Report*, indicates that in metropolitan Melbourne, 5.9 per cent of properties are affordable to those on Centrelink incomes.³¹ The figure below shows how this figure has changed over time.

Figure 3. Percentage of Melbourne rental properties affordable to low-income earners



Source: Department of Health and Human Services (2017) *Rental Report: September 2017*, Victoria State Government.

²⁹ *ibid.*

³⁰ *ibid.*

³¹ Department of Health and Human Services (2017) *Rental report: September quarter 2017*, Melbourne, DHHS, p. 17

For singles on Newstart, only 0.3 per cent of properties in metropolitan Melbourne are affordable. For single parents with 1 child, 1.9 per cent of rental properties in metropolitan Melbourne are affordable.³² Expenditure on housing as a measure of the cost of living will be looked at in the next section.

Table 6. Self-funded retiree household expenditure change

Self-funded retiree households	Jun-11	Sep-17
<i>Food and non-alcoholic beverages</i>	17.27	16.24
<i>Alcohol and tobacco</i>	6.66	7.15
<i>Clothing and footwear</i>	4.23	2.99
<i>Housing</i>	11.4	12.05
<i>Furnishing, household equipment and services</i>	11.72	10.18
<i>Health</i>	8.53	10.31
<i>Transport</i>	11.55	10.63
<i>Communication</i>	3.11	3.03
<i>Recreation and culture</i>	21.05	20.72
<i>Education</i>	0.89	1.18
<i>Insurance and financial services</i>	3.85	5.53

Self-funded retiree households have experienced the second-lowest rise in the cost of living, with the latest index recorded at 111.3. For these households, the biggest proportional increases came from housing, health, and insurance and financial services. Notably, self-funded retiree households spend a significantly larger proportion of income on recreation and culture, compared to the other groups.

In the December quarter 2017, the living cost index for this group rose by 0.6 per cent. The main contributors were transport, at 2.3 per cent, and food and non-alcoholic beverages, at 1.2 per cent. The rise in the living cost index was the same as the rise in CPI for the December quarter.³³

³² Ibid., p. 17.

³³ Australian Bureau of Statistics (2018) *Selected Living Cost Indexes, Australia*, op. cit.

A quick word on wages

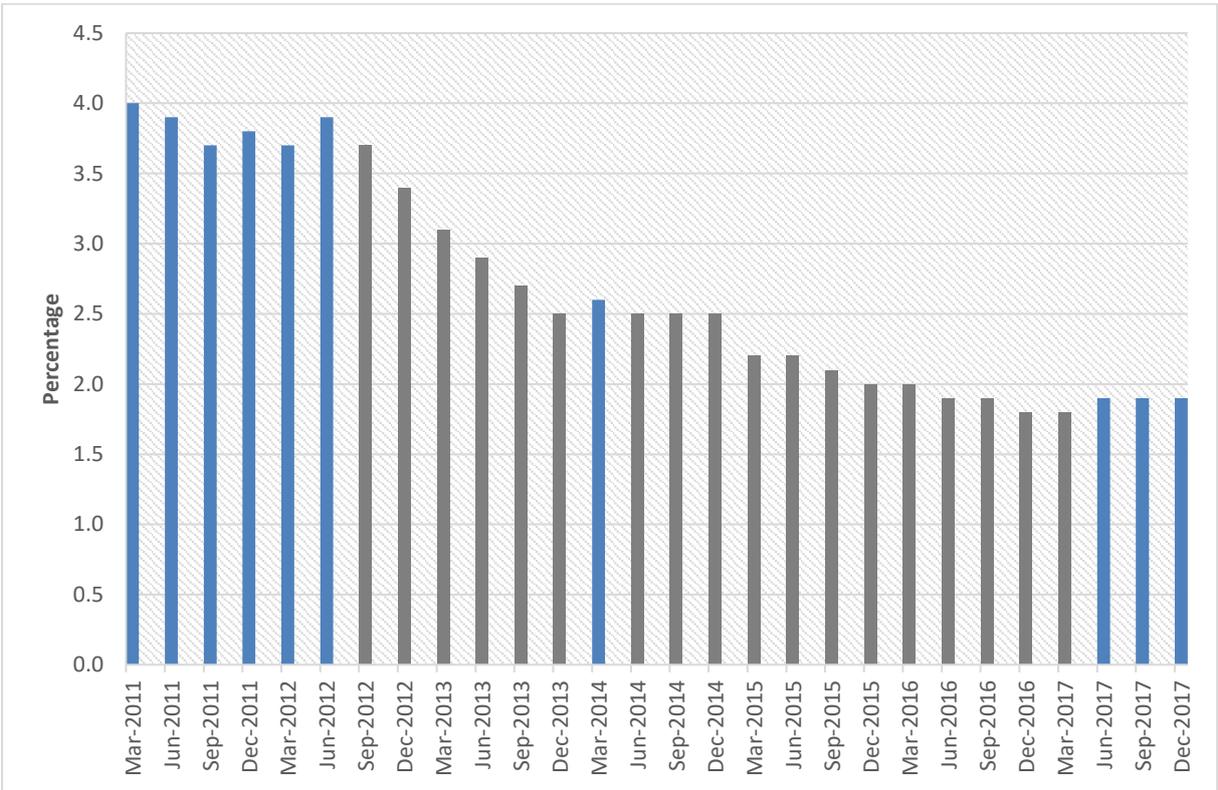
Why wages and how to measure them?

Wages are important to examining the cost of living. If wages do not rise to match inflation, workers will be worse off and face higher living costs. Wages are generally recorded as a mean average of a group of (or all) Australian workers. Nominal wages and real wages differ in that nominal wages measure the amount of money received by the worker, while real wages account for inflation and are a more effective measure of the cost of living.

Wage stagnation

Wages in Australia have been generally fixed using enterprise bargaining agreements since the early 1990s, transitioning from the previous system of centralised wage fixing.³⁴ Collective bargaining in Australia’s economy has tended to work because of the continued economic growth, which meant unemployment fell and thus wage growth increased. From 1998 to 2012, wage growth averaged at 3.5 per cent. If we take into account the RBA’s average inflation rate of 2.5 per cent over the same period, workers were experiencing a one per cent increase in real wages. However, the period from 2012 until 2017—with the exception of March 2014, where a 0.1 per cent increase was recorded—saw wage growth percentages continually fall (see Figure 4 below). For example, in mid-2012, private sector wages were growing at 3.8 per cent; this figure then fell until June 2017, when wage growth increased from 1.8 to 1.9 per cent.³⁵

Figure 4. Wage price index – annual growth



Source: Australian Bureau of Statistics (2018) *Wage Price Index, Australia*, cat. no. 6345.0, Table 1. Canberra, ABS.

³⁴ G. Gericho & G. Hutchens (2018) ‘The pay paradox: Whatever happened to wage rises in Australia?’, *The Guardian*, 1 March.

³⁵ *ibid.*

The former average wage growth average of 3.5 per cent has not been seen since September 2012. Different organisations have given different forecasts as to when wage increases will reach these levels again. The federal budget, for example, forecasts that this level of growth will be once again achieved in 2021, but the International Monetary Fund has predicted that Australian wages will not grow above 2.9 per cent until 2023 at the earliest.³⁶

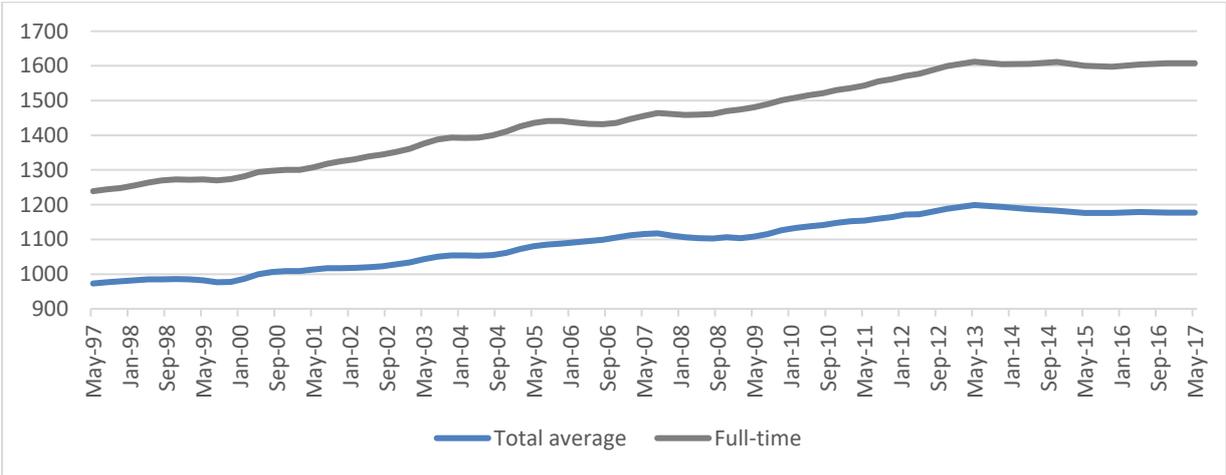
Prices going up, wages staying down

While wages have been stagnant for the majority of workers, companies have recorded record profits.³⁷ Company profits from the December quarter 2015 to the December quarter 2016 grew by 26.2 per cent, while wages for the same period grew by 1 per cent. Similarly, from the September quarter 2016 to the September quarter 2017, company profits grew by 20 per cent, while wages recorded 2.5 per cent growth. While a proportion of these profits can be attributed to a rebound in commodity prices, there are other factors at play, as JP Morgan economist Tom Kennedy points out:

Outside of the terms of trade rebound, some of the support for profits in the non-mining economy seems to be from weaker wage payments, which fell 0.5 per cent quarter-on-quarter (annual run rate slowed further to 1 per cent year-on-year) on the precarious combination of weaker wage growth, fewer hours, and elevated underemployment.³⁸

These extremely high rates of company profits—the second-fastest annual growth in the past 30 years—have been completely decoupled from real wages increases.³⁹ Further, a number of traditionally associated indicators, which have typically moved in harmony with wages, have recently also outpaced wage growth. In March 2017, nominal GDP growth was recorded at 6.8 per cent, while at the same time wages and salaries grew 1.7 per cent in trend terms. Furthermore, indexing GDP per hour worked and real wages shows how decoupled the two have become. In September 2006, GDP per hour worked and real wages were almost indexed identically at 104. Fast-forward to March 2017 and the GDP per hour worked was at approximately 119, while real wages were recorded at just over 108.⁴⁰ In real terms—as figure 5 below shows—wages have actually fallen over the past four years.

Figure 5. Real weekly average earnings



Source: Compiled by the Parliamentary library, data from G. Jericho (2018) *The Guardian*; Australian Bureau of Statistics (2017) *Consumer Price Index Australia*, cat. no. 6401.0 and *Average Weekly Earnings, Australia*, cat. no. 6302.0, derived, Canberra, ABS.

³⁶ G. Jericho (2018) ‘The IMF doesn’t share the government’s heroic growth prediction’, *The Guardian*, 22 February.

³⁷ Australian Bureau of Statistics (2017) *Business Indicators, Australia, Sep 2017*, cat. no. 5676.0, Canberra, ABS.

³⁸ M. Janda (2017) *Company profits surge as wages fall*, *ABC News*, 27 February.

³⁹ G. Gericho & G. Hutchens (2018) op. cit.

⁴⁰ *ibid.*

What does housing data tell us?

Key information

- Housing in Melbourne has a very high average price-to-income ratio, at 9.9.
- Melbourne is ranked the fifth most unaffordable major housing market in the world and as ‘severely unaffordable’.
- Everyone is affected: both mortgage stress and renting stress are on the rise.
- Low-income households are the worst affected and have less access to affordable housing.

How do we measure housing costs?

Housing is a significant factor in any measure of the cost of living. Beyond its importance economically, housing is also essential to people’s safety, health and wellbeing. Housing is included as one of the four indicators in this guide as Victorians have been steadily spending a greater percentage of their income on housing, while property prices in the past decade have soared. Typically, housing affordability is defined as the relationship between a household’s income and the household’s expenditure on housing.⁴¹ This price-to-income ratio is a commonly adopted measure of housing affordability.⁴²

The *Demographia International Housing Affordability Survey* organises the price-to-income ratio into a series of affordability ratings.⁴³ Each rating establishes a ‘median multiple’, which numerically states the percentage of income allocated to housing.⁴⁴

- affordable – median multiple of 3.0 & under
- moderately unaffordable – median multiple of 3.1 to 4.0
- seriously unaffordable – median multiple of 4.1 to 5.0
- severely unaffordable – median multiple of 5.1 and over

What is the true cost of housing?

The most recent *Survey* records Melbourne as the fifth most unaffordable major housing market in the world, with a ‘severely unaffordable’ median multiple of 9.9 (up from 9.5 in 2016).⁴⁵ The *Survey* also records the median of all major housing markets in Australia as severely unaffordable.⁴⁶ Sydney’s median multiple was also notable at a severely unaffordable rate of 12.9—the second highest recorded after Hong Kong, at 19.4.⁴⁷

Housing stress is a concept which is related to affordability. Housing stress is a helpful metric in that it identifies housing as a cost which has the potential to have a greater impact on households with less

⁴¹ M. Thomas (2016) *Housing Affordability in Australia*, Canberra, Parliamentary Library, Commonwealth of Australia.

⁴² K. Raynor, C. Otter and I. Dosen (2017) *Housing Affordability in Victoria*, Victoria, Parliamentary Library, Parliament of Victoria.

⁴³ Demographia (2017) *13th Annual Demographia International Housing Affordability Survey: 2016*, 3rd Quarter, Belleville, Ill., Demographia.

⁴⁴ *ibid.*, p. 1.

⁴⁵ Demographia (2018) *14th Annual Demographia International Housing Affordability Survey: 2017*, 3rd Quarter, Belleville, Demographia, p. 2; Demographia (2017) *13th Annual Demographia International Housing Affordability Survey*, *op. cit.*, p. 2.

⁴⁶ Demographia (2018) *14th Annual Demographia International Housing Affordability Survey: 2017*, *op. cit.*, p. 2.

⁴⁷ *ibid.*

income. This is because of an assumption that households on higher incomes have the choice to spend more of their income on housing, whereas households on lower incomes have less choice, as they have less disposable income. One measure of housing stress is therefore the 30:40 indicator, which defines households as being in housing stress when the household is both in the bottom 40 per cent of Australia's income distribution and is paying more than 30 per cent of its income on housing costs.⁴⁸

Ownership

House price trends in Victoria demonstrate that housing is becoming less affordable and that more households are experiencing housing stress. Between 2006 and 2016, the median house price in Victoria rose 73 per cent.⁴⁹ Recent data puts Melbourne's median house price at around \$880,000, with prices increasing by 13.8 per cent from the June quarter 2016–2017.⁵⁰ House prices in regional Victoria are increasing much more slowly, at less than 2 per cent year-on-year.⁵¹

Incomes have not matched these increases. In Melbourne, the median dwelling price is 7.1 times the median annual income (an increase from the 4.7 times median annual income of 2001). In regional Victoria, the median dwelling price is 5.6 times the median annual household income (an increase from the 3.4 times median annual income of 2001). These trends are reflected in data collected by the ABS, which suggests that just under half of all households in Australia with a mortgage were over-indebted in 2015–16.⁵²

Renting

In terms of housing affordability and stress, both Greater Melbourne and regional Victoria have seen rents increase at substantially higher rates than income. Between 2006 and 2016, median weekly rent in Greater Melbourne grew by 75 per cent. Over the same time frame, median weekly total personal income grew only 39.9 per cent. This indicates that rents have increased at almost double the rate of incomes.⁵³ In 2016, median rent accounted for 52 per cent of median weekly total personal income.⁵⁴ In the rest of Victoria in 2016, median rent accounted for 40.5 per cent of median weekly total personal income.⁵⁵ Finally, in a 2017 quarterly report, DHHS reported that just 17.3 per cent of rentals in Victoria were affordable to lower income households.⁵⁶ This is down 10 per cent on the same figures from 2007.⁵⁷

Inequality

The data indicates that housing stress and housing affordability are major concerns in Victoria. Trends in the data indicate that housing stress and housing affordability are set to worsen if measures are not

⁴⁸ Australian Housing and Urban Research Institute (2016) 'Understanding the 30:40 indicator of housing affordability stress', *AHURI Brief*, AHURI website, 14 June.

⁴⁹ Valuer-General Victoria (2016) *A Guide to Property Values: Annual data and analysis from Valuer-General Victoria 2016*, Melbourne, Department of Environment, Land, Water and Planning, p. 1.

⁵⁰ Australian Bureau of Statistics (2017) *Residential Property Prices Indexes: Eight Capital Cities, Sep 2017*, cat. no. 6416.0, Canberra, ABS; Domain (2017), 'State of the Market Report', Domain website, September.

⁵¹ Real Estate Institute of Victoria (2017) 'Victorian Insights', REIV website.

⁵² Australian Bureau of Statistics (2017) *Property driving rise in over-indebted households*, media release, 13 September.

⁵³ K. Raynor, C. Otter and I. Dosen (2017) op. cit. p. 12.

⁵⁴ Australian Bureau of Statistics (2017) *2016 Census of Population and Housing: Time Series Profile, Greater Melbourne*, Canberra, ABS.

⁵⁵ Australian Bureau of Statistics (2017) *2016 Census of Population and Housing: Time Series Profile, Rest of Vic.*, Canberra, ABS.

⁵⁶ Department of Health and Human Services (2017) *Rental Report: June quarter 2017*, Melbourne, DHHS, p. 18. Table 9.

⁵⁷ Office of Housing (2007) *Rental Report, June quarter 2007*, Melbourne, Department of Human Services, p. 1.

taken to address these issues. The DHHS data also indicates that housing stress is being felt most acutely by people on Centrelink incomes, particularly for single people on the Newstart Allowance. In the June quarter of 2017, only 2.8 per cent of rentals in Victoria were affordable for this group. In Metropolitan Melbourne, this number shrank to 0.4 per cent of rentals.⁵⁸ Again, the trends indicate a downward shift. Ten years ago, a single person on the Newstart Allowance could afford 12 per cent of Victorian rentals and 4.2 per cent of rentals in Metropolitan Melbourne.⁵⁹ The cost of housing for people on low incomes, such as the Newstart Allowance, presents significant difficulties economically, but also in terms of people's safety, health and wellbeing.

⁵⁸ Department of Health and Human Services (2017) *Rental Report: June quarter 2017*, op. cit.

⁵⁹ Office of Housing (2007) *Rental Report, June quarter 2007*, op. cit., p. 5, Table 6.

How does Australia compare?

Cost of Living survey

According to the Economist Intelligence Unit (EIU) worldwide cost of living 2017 survey, Melbourne is the 15th most expensive city in the world, second only to Sydney among Australian cities, which ranks 14th in a survey of 133 cities.⁶⁰ Singapore is ranked as the most expensive city, followed by Hong Kong, Switzerland, Zurich, Tokyo and Osaka as the top five.

The ranking is based on a bi-annual survey by the EIU of 400 individual prices across 160 types of products and services, from household consumables—food, clothing, household supplies and personal care items—to home rents, transport costs, utilities, schooling and recreational costs. The item prices are individually weighted against a range of categories. The price data is used to calculate the cost-of-living index allowing city-to-city comparisons.⁶¹ The annual survey report, however, compares all cities with New York as the base city with an index set at 100.⁶² According to the EIU, the high ranking of Australian cities is due to the strength of the Australian dollar relative to the US dollar at the time of the survey.⁶³

Household expenditure

The EIU survey measures the actual cost paid by consumers for products and services in each city. Associated with this would be data on these costs in terms of share of household expenditure. Following is a brief summary of household expenditure for a selection of cities with their EIU ranking status in parenthesis. Collection and reporting of such data relies on varying survey methods as conducted in each country. Comparisons with Australian households (as discussed above) are therefore, only indicative.

Singapore (1)

The survey for Singapore household expenditure is reported at five-year intervals with 2012–13 being the latest available published report.⁶⁴ Housing and related expenditure comprised the highest proportion of monthly household expenditure, at 30.1 per cent.⁶⁵ This included utilities, furnishings and household equipment. Australian households spend approximately 32.1 per cent as a combined average for housing, furnishings, household equipment and service (see Table 1 above). Food was the next highest household expenditure at 20.6 per cent—16.9 per cent for Australian households—followed by transport at 14.1 per cent. Transport costs for Australian households were comparatively lower at 10.3 per cent. Recreation and culture accounted for 6.9 per cent, followed by educational services (5.4 per cent), health (4.5 per cent), communication (3.8 per cent), and clothing and footwear (2.7 per cent). ‘Other expenditure’, such as insurance, personal care services, alcoholic beverages and tobacco, comprised the remaining 12 per cent.

Hong Kong (2)

Data on average monthly household expenditure in Hong Kong is categorised according to housing types; namely, public housing, subsidised housing and private housing. For the reporting year 2014–

⁶⁰ (2017) [Measuring the cost of living worldwide](#), *Daily chart*, The Economist website, 21 March.

⁶¹ The survey is purpose-built for human resource managers to calculate compensation and allowance packages for expatriates and business travellers.

⁶² Economist Intelligence Unit (2017) [Worldwide Cost of Living 2017: A ranking of the world's major cities \(summary\)](#), London, EIU, p. 7.

⁶³ *ibid.*, p. 1.

⁶⁴ Department of Statistics (2014) [Report on the household expenditure survey, 2012-13](#), Singapore, Ministry of Trade & Industry.

⁶⁵ *ibid.*, p. 11-12.

15, food accounted for the highest proportion of household expenditure for the public housing sector, at 46.4 per cent, while the overall percentage for all housing types was 27.3 per cent. This is notably higher than Australian households at 16.1 per cent. Housing comprised the largest share of expenditure for those in private housing, at 40.5 per cent, and the lowest for those in public housing, at 12.1 per cent, with the overall percentage being 35.8 per cent. Utility costs accounted for the smallest percentage in households in all types of housing at an average of 2.7 per cent. Clothing and footwear and household durables averaged around 3 to 4 per cent. Transport costs, including private vehicles, taxis and public transport averaged 7.5 per cent of expenditure for all households. Professional and personal services, including school fees, comprised the next highest expenditure after food and housing, and averaged 15.6 per cent.⁶⁶

London (24)

Average weekly expenditure for a household in London during 2015–17 was £643.70 (approximately A\$1,147.70⁶⁷).⁶⁸ Housing, fuel and power accounted for 19 per cent of total weekly expenditure. Transport costs averaged 11 per cent of expenditure, as did recreation and culture. Food costs averaged 10 per cent, with 9.3 per cent for restaurants and hotels, while alcoholic drinks, tobacco and narcotics accounted for 1.5 per cent. Miscellaneous goods and services accounted for 7 per cent, household goods and services for 6.5 per cent, approximately 4 per cent for clothing and footwear, followed by communication at 2.8 per cent. Education costs comprised 2.1 per cent of weekly expenditure, while health accounted for just 1.3 per cent. Education and health for Australian households comprised 4.3 per cent and 5.4 per cent of weekly expenditure respectively. Other non-categorised expenditure for London households—which includes mortgage interest payments, council tax, rates, holiday spending, gifts and donations—accounted for 14.4 per cent.

Dublin (25)

Average weekly household expenditure for Dublin in 2015–16 was over €837 (approximately A\$1,312.50⁶⁹).⁷⁰ Miscellaneous goods and services and other expenditure, which comprises medical, childcare, education, pensions and telephone, accounted for 33.6 per cent of average weekly household expenditure. Major expenditure included housing at 19.6 per cent, food at 14.7 per cent and transport at 14.9 per cent. Compared with Australian households, where housing expenditure is higher at 22.7 per cent, expenditure on food and transport is slightly lower at 16.1 per cent and 10.3 per cent respectively. Households in Dublin experienced an increase in expenditure for all these categories in this period when compared with 2009–10 figures.

⁶⁶ Census and Statistics Department (2016) *Household expenditure survey: average monthly household expenditure by commodity/service section/group by type of housing (Table E017)*, Hong Kong, CSD, 29 April.

⁶⁷ Exchange rate calculated on 28 February 2018.

⁶⁸ Office of National Statistics (2018) *Detailed household expenditure by countries and regions UK: Table A35*, London, ONS.

⁶⁹ Exchange rate calculated on 28 February 2018.

⁷⁰ Central Statistics Office (Ireland) (2017) 'Household budget survey 2015-16, Household expenditure', CSO website, 21 June.

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