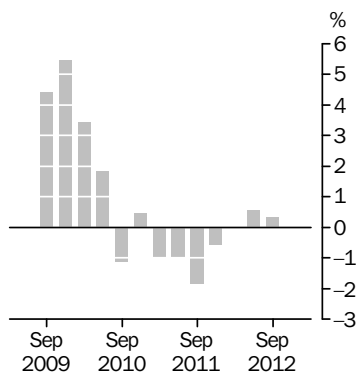


HOUSE PRICE INDEXES: EIGHT CAPITAL CITIES

EMBARGO: 11.30AM (CANBERRA TIME) TUES 6 NOV 2012

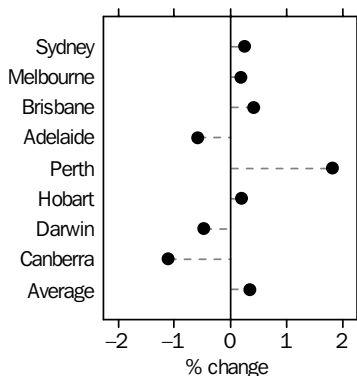
Established house prices

Weighted average of eight capital cities
Quarterly % change



Established house prices

Quarterly % change
September quarter 2012



INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Ben Faulkner on Sydney (02) 9268 4052.

KEY FIGURES

ESTABLISHED HOUSE PRICES

	Jun Qtr 12 to Sep Qtr 12 % change	Sep Qtr 11 to Sep Qtr 12 % change
Weighted average of eight capital cities	0.3	0.3
Sydney	0.3	1.3
Melbourne	0.2	-2.3
Brisbane	0.4	0.3
Adelaide	-0.6	-1.1
Perth	1.8	4.4
Hobart	0.2	-2.2
Darwin	-0.5	8.2
Canberra	-1.1	0.4

KEY POINTS

ESTABLISHED HOUSE PRICES

QUARTERLY CHANGES

- Preliminary estimates show the price index for established houses for the weighted average of the eight capital cities rose 0.3% in the September quarter 2012.
- The capital city indexes rose in Perth (+1.8%), Sydney (+0.3%), Melbourne (+0.2%), Brisbane (+0.4%) and Hobart (+0.2%) and fell in Adelaide (-0.6%), Canberra (-1.1%) and Darwin (-0.5%).

ANNUAL CHANGES (SEPTEMBER QUARTER 2011 TO SEPTEMBER QUARTER 2012)

- Preliminary estimates show that the price index for established houses for the weighted average of the eight capital cities rose 0.3% in the year to the September quarter 2012.
- Annually, house prices rose in Darwin (+8.2%), Perth (+4.4%), Sydney (+1.3%), Canberra (+0.4%) and Brisbane (+0.3%) and fell in Melbourne (-2.3%), Hobart (-2.2%) and Adelaide (-1.1%).

NOTES

FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
December 2012	5 February 2013
March 2013	7 May 2013
June 2013	6 August 2013
September 2013	4 November 2013

CHANGES IN THIS ISSUE

The data series presented in Tables 5 and 6 of this publication are sourced from *Producer Price Indexes, Australia* (PPI) (cat. no. 6427.0). From the September quarter 2012, the Australian Bureau of Statistics (ABS) re-referenced the PPIs to a new index reference period of 2011-12=100.0. However, in order to present all index series consistently in this publication, Tables 5 and 6 will continue to be published on an index reference period of 2003-04=100.0. This requires the PPIs presented in Tables 5 and 6 to be re-scaled and may cause index numbers and period-to-period percentage changes to differ slightly to those previously published in *House Price Index: Eight Capital Cities* (cat. no. 6416.0). These differences do not constitute a revision. For further details, please see paragraph 29 of the Explanatory Notes.

All index series in this publication will continue to be presented with an index reference period of 2003-04=100.0 until the December quarter 2013, when all series will be re-referenced to an index reference period of 2011-12=100.0.

REVISIONS

Estimates for the two most recent quarters of the HPI series are preliminary and subject to revision (see paragraphs 15 to 19 of the Explanatory Notes).

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
CPI	Consumer Price Index
GCCSA	Greater Capital City Statistical Area
HPI	House Price Index
PPI	Producer Price Indexes
SD	statistical division
SEIFA	Socio-Economic Indexes for Areas
VGs	Valuers-General

Brian Pink
Australian Statistician

INTRODUCTION OF CARBON PRICING AND IMPACT ON ABS PRICE INDEXES

INTRODUCTION OF CARBON PRICING AND IMPACT ON ABS PRICE INDEXES

On 1 July 2012, the Australian Government introduced a \$23 per tonne carbon price on greenhouse emissions, to be paid directly by Australia's largest greenhouse gas emitting companies, together with compensation and incentive packages. Carbon pricing changes the relative prices of high and low emission-intensive goods. The extent that any carbon costs translate into general increases in prices depends on a range of factors. Carbon pricing will be occurring at the same time as normal variations in prices are occurring driven by productivity, the terms of trade or changing preferences. The extent to which businesses pass on the carbon price will depend on their consideration of issues such as operating costs, margins, and other economic factors (such as degree of competition).

The Australian Bureau of Statistics (ABS) released an *Information Paper: Recording emissions reduction schemes in ABS statistics* (cat. no. 5257.0.55.001) on 30 July 2012. This information paper summarises the nature of emissions permits measures introduced under the Clean Energy Act 2011, and how the ABS expects to include estimates of various carbon credit schemes in economic and environment statistics, commencing with the September quarter 2012.

The ABS will not be able to quantify the impact of carbon pricing, compensation or other government incentives and will not be producing estimates of price change exclusive of the carbon price or measuring the impact of the carbon price. Any changes in the prices charged by companies for their outputs, paid by companies for their inputs or paid by consumers, will be reflected in the suite of price indexes compiled and published by the ABS. Further information on the expected impacts of the introduction of carbon pricing is available in the publication *Strong Growth, Low Pollution - Modelling a Carbon Price* (The Treasury, 2011).

ANALYSIS

PRELIMINARY:

September Quarter 2012
(+0.3%)

The preliminary price index for established houses for the weighted average of the eight capital cities rose 0.3% in the September quarter 2012. The index rose 0.3% through the year to the September quarter 2012, the first through the year rise since the March quarter 2011.

The positive movement in the September quarter 2012 was the result of rises in Perth (+1.8%), Sydney (+0.3%), Brisbane (+0.4%), Melbourne (+0.2%) and Hobart (+0.2%). This was partially offset by falls in Adelaide (-0.6%), Canberra (-1.1%) and Darwin (-0.5%).

The preliminary estimate for Perth (+1.8%) follows rises in the previous three quarters (+0.5%, +0.9% and +1.2% in the December quarter 2011 and the March and June quarters 2012 respectively). The rise in the September quarter 2012 was driven by clusters with median prices below \$700,000. The index rose 4.4% through the year to the September quarter 2012, the second consecutive through the year rise.

The preliminary estimate for Sydney (+0.3%) follows rises in the March and June quarters 2012 (+0.8% and +1.5% respectively). The rise in the September quarter 2012 was driven by clusters with median prices at the top and bottom of the range of prices. These rises were offset by falls in clusters with median prices between \$650,000 and \$1,000,000. The index rose 1.3% through the year to the September quarter 2012, following falls in the March and June quarters 2012 (-2.1% and -0.9% respectively).

The preliminary estimate for Melbourne (+0.2%) follows falls in the preceding six quarters (-1.4%, -1.1%, -2.0%, -1.2%, -1.1% and -0.2% in the March to December quarters 2011 and the March and June quarters 2012 respectively). The index fell 2.3% through the year to the September quarter 2012, a smaller through the year fall than the preceding five quarters (-2.8%, -3.0%, -5.6%, -5.3% and -4.4% in the June to December quarters 2011 and the March and June quarters 2012 respectively).

REVISED:

June Quarter 2012
(+0.6%)

The preliminary price index for established houses for the weighted average of the eight capital cities rose 0.6% in the June quarter 2012. This was revised from a preliminary estimated rise of 0.5%. The through the year movement has been revised from an estimated fall of 2.1% to an estimated fall of 1.9%.

The positive movement in the June quarter 2012 was the result of rises in Sydney (+1.5%, revised from +1.4%), Perth (+1.2%, revised from +0.6%), Adelaide (+0.4%, revised from +0.5%) and Darwin (+2.5%, revised from +5.1%). This was partially offset by falls in Melbourne (-0.2%, revised from -0.4%), Canberra (-1.2%, revised from -1.3%), Brisbane (-0.2%, revised from +0.1%) and Hobart (-1.0%, revised from -0.4%).

The preliminary estimate for Sydney (+1.5%) follows a rise in the March quarter 2012 (+0.8, unchanged). The increase in Sydney was consistent across all segments of the market with most clusters contributing to the rise. Sydney fell 0.9% through the year to the June quarter 2012.

FINAL:

March Quarter 2012
(0.0%)

The final price index for established houses for the weighted average of the eight capital cities showed no movement in the March quarter 2012. This was revised from a second preliminary estimated fall of 0.1%. The movement through the year to the March quarter 2012 was revised from a fall of 3.5% to a fall of 3.4%.

ANALYSIS *continued*

March Quarter 2012
(0.0%) continued

The March quarter 2012 result was due to rises in Sydney (+0.8%, unchanged), Perth (+0.9%, revised from +0.7%), Darwin (+4.4%, unchanged) and Canberra (+0.7%, revised from +0.3%). This was offset by falls in Melbourne (-1.1%, revised from -1.3%), Adelaide (-0.9%, revised from -1.2%), Hobart (-2.9%, revised from -2.0%) and Brisbane (-0.1%, unchanged).

ABS HOUSE PRICE METHODOLOGY

The ABS uses a stratification approach to control for compositional change in the sample of houses used to compile the House Price Indexes each quarter. This approach stratifies (clusters) houses according to two characteristics: the long-term level of prices for the suburb in which the house is located, and the neighbourhood characteristics of the suburb, as represented by the ABS Socio-Economic Indexes for Areas (SEIFA).

Each cluster of houses in a capital city contributes a proportion of the total value of the housing stock in that capital city. The proportion of the total value is referred to as the cluster's weight. Some clusters have a large weight; some have a small weight.

Each quarter, the clusters are re-valued by applying a price relative which is derived by comparing the current median price of the cluster to the previous median price of the cluster. The current period values of each cluster are then summed to derive the current value of the total housing stock in the capital city. Index numbers are subsequently derived from the total values.

Thus the movement of a particular index is determined by both the movements of the median prices of the clusters and the weights of the clusters in the index structure.

Low numbers of price observations can affect the reliability of the cluster medians, and therefore index movements.

For more detailed information, please refer to the Explanatory Notes in this issue, or to *Information Paper: House Price Indexes: Concepts, Sources and Methods* (cat. no. 6464.0).

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ADDITIONAL TABLE AVAILABLE ON ABS WEBSITE

10	Established house price index numbers, pre-September quarter 2005 methodology	
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ESTABLISHED HOUSE PRICE INDEX NUMBERS (a)

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
2009–10	111.7	166.7	151.7	158.0	202.5	155.3	216.6	141.6	143.5
2010–11	116.7	174.3	150.2	160.8	200.2	158.5	219.9	147.6	147.5
2011–12	p114.2	p166.2	p143.5	p155.5	p195.5	p150.7	p223.6	p144.6	p142.7
2009									
March	95.6	136.3	138.3	145.1	181.6	140.0	192.6	122.2	123.8
June	100.3	144.3	142.2	149.0	185.3	145.0	197.5	126.4	129.1
September	104.8	153.6	146.7	151.8	191.0	147.9	204.2	131.9	134.8
December	110.6	163.7	151.9	157.6	202.0	156.8	218.5	140.6	142.2
2010									
March	114.2	172.2	153.8	159.7	208.7	160.1	220.2	147.2	147.1
June	117.3	177.2	154.3	162.8	208.3	156.2	223.6	146.6	149.8
September	117.0	174.0	152.0	162.3	202.8	156.4	222.4	147.0	148.1
December	116.7	176.6	151.9	163.3	202.7	161.7	223.8	148.0	148.8
2011									
March	116.4	174.2	149.1	160.6	200.6	160.6	220.2	147.8	147.3
June	116.6	172.2	147.7	157.1	194.5	155.1	213.2	147.7	145.8
September	114.4	168.7	143.5	156.0	193.3	151.5	214.7	142.3	143.1
December	113.0	166.7	143.7	156.0	194.3	153.8	218.3	145.3	142.3
2012									
March	113.9	r164.9	r143.6	r154.6	r196.0	r149.4	227.8	r146.3	r142.3
June	p115.6	p164.6	p143.3	p155.2	p198.3	p147.9	p233.4	p144.5	p143.1
September	p115.9	p164.9	p143.9	p154.3	p201.9	p148.2	p232.3	p142.9	p143.6

p preliminary figure or series subject to revision
r revised

(a) Reference base of each index: 2003–04 = 100.0.

PROJECT HOME PRICE INDEX NUMBERS (a)

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
2009–10	121.4	118.6	129.9	123.3	156.0	135.9	157.2	121.4	127.2
2010–11	124.9	122.3	132.8	125.4	159.9	140.4	162.5	124.6	130.7
2011–12	127.8	123.4	132.1	124.3	163.0	140.4	165.2	124.7	132.1
2009									
March	116.7	111.1	127.9	120.7	153.4	129.7	154.2	118.2	122.5
June	119.1	113.5	129.1	121.3	153.6	130.4	155.9	119.6	124.3
September	119.9	117.2	129.2	122.3	154.1	135.2	156.2	120.8	125.9
December	120.9	118.3	129.2	122.7	154.5	135.4	156.6	120.8	126.6
2010									
March	122.1	118.9	130.3	123.8	156.6	136.3	157.8	121.2	127.7
June	122.6	120.1	130.8	124.3	158.6	136.8	158.3	122.9	128.6
September	122.8	120.7	131.3	124.8	159.2	140.3	160.1	124.1	129.2
December	124.3	121.6	132.5	125.1	159.6	140.3	162.6	124.1	130.2
2011									
March	125.6	123.2	133.2	126.0	160.0	140.5	163.3	125.1	131.3
June	127.0	123.7	134.1	125.7	160.6	140.6	163.9	125.1	132.1
September	126.7	124.2	132.0	124.4	161.7	140.8	163.7	125.1	131.8
December	127.6	123.8	132.0	124.5	162.4	140.8	163.9	125.1	132.1
2012									
March	127.8	123.6	131.7	124.1	163.3	141.1	165.6	124.5	132.1
June	129.2	122.0	132.7	124.2	164.4	138.7	167.5	124.0	132.4
September	131.3	121.7	136.5	124.5	164.7	134.7	168.8	124.4	133.5

(a) Reference base of each index: 2003–04 = 100.0.

PROJECT HOME PRICE INDEXES, Percentage Changes

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
PERCENTAGE CHANGE (from previous financial year)									
2009-10	3.7	5.1	1.2	2.4	1.7	4.6	2.9	2.4	3.2
2010-11	2.9	3.1	2.2	1.7	2.5	3.3	3.4	2.6	2.8
2011-12	2.3	0.9	-0.5	-0.9	1.9	0.0	1.7	0.1	1.1
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
2009									
March	3.1	-1.6	4.2	5.0	3.1	2.4	6.1	5.1	2.2
June	3.7	0.2	3.6	4.0	2.4	1.6	6.3	5.0	2.6
September	3.5	2.8	1.3	2.8	1.0	4.2	4.7	2.1	2.5
December	3.6	5.2	0.2	1.7	0.3	4.4	3.1	2.2	2.8
2010									
March	4.6	7.0	1.9	2.6	2.1	5.1	2.3	2.5	4.2
June	2.9	5.8	1.3	2.5	3.3	4.9	1.5	2.8	3.5
September	2.4	3.0	1.6	2.0	3.3	3.8	2.5	2.7	2.6
December	2.8	2.8	2.6	2.0	3.3	3.6	3.8	2.7	2.8
2011									
March	2.9	3.6	2.2	1.8	2.2	3.1	3.5	3.2	2.8
June	3.6	3.0	2.5	1.1	1.3	2.8	3.5	1.8	2.7
September	3.2	2.9	0.5	-0.3	1.6	0.4	2.2	0.8	2.0
December	2.7	1.8	-0.4	-0.5	1.8	0.4	0.8	0.8	1.5
2012									
March	1.8	0.3	-1.1	-1.5	2.1	0.4	1.4	-0.5	0.6
June	1.7	-1.4	-1.0	-1.2	2.4	-1.4	2.2	-0.9	0.2
September	3.6	-2.0	3.4	0.1	1.9	-4.3	3.1	-0.6	1.3
PERCENTAGE CHANGE (from previous quarter)									
2009									
March	0.0	-1.2	-0.8	0.1	-0.4	0.0	1.5	0.0	-0.5
June	2.1	2.2	0.9	0.5	0.1	0.5	1.1	1.2	1.5
September	0.7	3.3	0.1	0.8	0.3	3.7	0.2	1.0	1.3
December	0.8	0.9	0.0	0.3	0.3	0.1	0.3	0.0	0.6
2010									
March	1.0	0.5	0.9	0.9	1.4	0.7	0.8	0.3	0.9
June	0.4	1.0	0.4	0.4	1.3	0.4	0.3	1.4	0.7
September	0.2	0.5	0.4	0.4	0.4	2.6	1.1	1.0	0.5
December	1.2	0.7	0.9	0.2	0.3	0.0	1.6	0.0	0.8
2011									
March	1.0	1.3	0.5	0.7	0.3	0.1	0.4	0.8	0.8
June	1.1	0.4	0.7	-0.2	0.4	0.1	0.4	0.0	0.6
September	-0.2	0.4	-1.6	-1.0	0.7	0.1	-0.1	0.0	-0.2
December	0.7	-0.3	0.0	0.1	0.4	0.0	0.1	0.0	0.2
2012									
March	0.2	-0.2	-0.2	-0.3	0.6	0.2	1.0	-0.5	0.0
June	1.1	-1.3	0.8	0.1	0.7	-1.7	1.1	-0.4	0.2
September	1.6	-0.2	2.9	0.2	0.2	-2.9	0.8	0.3	0.8

SELECTED HOUSING PRICE INDEX NUMBERS (a), Australia

<i>Period</i>	<i>Established houses(b)</i>	<i>Project homes(b)</i>	<i>Input to the House construction industry(c)(d)</i>	<i>Construction industry total hourly rates of pay</i>	<i>National accounts private housing investment(b)</i>
2009–10	143.5	127.2	121.8	130.8	128.9
2010–11	147.5	130.7	124.4	135.9	132.5
2011–12	p142.7	132.1	126.2	141.4	134.3
2009					
March	123.8	122.5	121.7	127.2	125.4
June	129.1	124.3	122.2	128.7	125.9
September	134.8	125.9	121.3	129.4	127.3
December	142.2	126.6	121.3	130.2	128.4
2010					
March	147.1	127.7	121.7	131.0	r129.3
June	149.8	128.6	123.0	132.4	130.4
September	148.1	129.2	123.5	134.1	131.2
December	148.8	130.2	124.2	135.4	132.0
2011					
March	147.3	131.3	124.3	136.5	133.0
June	145.8	132.1	125.7	137.6	133.9
September	143.1	131.8	126.0	139.3	134.2
December	142.3	132.1	126.1	140.8	r134.3
2012					
March	r142.3	132.1	126.0	142.2	r134.4
June	p143.1	132.4	126.5	143.4	134.4
September	p143.6	133.5	127.2	nya	nya

nya not yet available

p preliminary figure or series subject to revision

r revised

(a) Reference base of each index: 2003–04 = 100.0.

(b) Weighted average of eight capital cities.

(c) Weighted average of six capital cities.

(d) Previously named Materials used in house building. See paragraph 29 of the Explanatory Notes.

SELECTED HOUSING PRICE INDEX NUMBERS, Australia—Percentage Changes

<i>Period</i>	<i>Established houses(a)</i>	<i>Project homes(a)</i>	<i>Input to the House construction industry(b)(c)</i>	<i>Construction industry total hourly rates of pay</i>	<i>National accounts private housing investment(a)</i>
PERCENTAGE CHANGE (from previous financial year)					
2009–10	13.8	3.2	0.9	3.2	2.9
2010–11	2.8	2.8	2.1	3.9	2.8
2011–12	p-3.3	1.1	1.4	4.0	1.4
PERCENTAGE CHANGE (from corresponding quarter of previous year)					
2009					
March	-5.5	2.2	7.0	4.9	3.6
June	-0.6	2.6	5.8	4.5	2.7
September	6.6	2.5	2.3	3.6	2.4
December	13.9	2.8	0.9	3.4	2.4
2010					
March	18.8	4.2	0.0	3.0	r3.1
June	16.0	3.5	0.7	2.9	3.6
September	9.9	2.6	1.8	3.6	3.1
December	4.6	2.8	2.4	4.0	2.8
2011					
March	0.1	2.8	2.1	4.2	r2.9
June	-2.7	2.7	2.2	3.9	2.7
September	-3.4	2.0	2.0	3.9	2.3
December	-4.4	1.5	1.5	4.0	1.7
2012					
March	r-3.4	0.6	1.4	4.2	r1.1
June	p-1.9	0.2	0.6	4.2	0.4
September	p0.3	1.3	1.0	nya	nya
PERCENTAGE CHANGE (from previous quarter)					
2009					
March	-0.8	-0.5	1.2	1.0	0.0
June	4.3	1.5	0.4	1.2	0.4
September	4.4	1.3	-0.7	0.5	1.1
December	5.5	0.6	0.0	0.6	0.9
2010					
March	3.4	0.9	0.3	0.6	r0.7
June	1.8	0.7	1.1	1.1	r0.9
September	-1.1	0.5	0.4	1.3	0.6
December	0.5	0.8	0.6	1.0	0.6
2011					
March	-1.0	0.8	0.1	0.8	0.8
June	-1.0	0.6	1.1	0.8	0.7
September	-1.9	-0.2	0.2	1.2	0.2
December	-0.6	0.2	0.1	1.1	r0.1
2012					
March	r0.0	0.0	-0.1	1.0	0.1
June	p0.6	0.2	0.4	0.8	0.0
September	p0.3	0.8	0.6	nya	nya

nya not yet available

p preliminary figure or series subject to revision

r revised

(a) Weighted average of eight capital cities.

(b) Weighted average of six capital cities.

(c) Previously named Materials used in house building. See paragraph 29 of the Explanatory Notes.

MEDIAN PRICE OF ESTABLISHED HOUSE TRANSFERS (UNSTRATIFIED) (a)

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<i>Period</i>	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
2009								
March	448.0	375.0	400.0	353.5	439.0	296.5	455.0	459.5
June	490.0	400.0	420.0	363.0	455.0	310.0	465.0	455.0
September	500.0	422.0	430.0	370.0	473.0	310.1	490.0	456.0
December	595.0	477.5	455.0	398.8	505.0	350.0	520.0	509.0
2010								
March	583.0	468.0	460.0	402.0	518.0	350.5	529.0	530.0
June	r612.5	500.0	465.0	410.0	510.0	r343.8	530.0	r516.2
September	r598.0	r487.5	460.0	400.0	500.0	340.0	535.0	r532.0
December	620.0	520.0	460.0	410.0	500.0	345.0	545.0	535.0
2011								
March	575.0	485.0	450.0	400.0	500.0	r338.0	510.0	530.0
June	595.0	r503.0	442.0	395.0	485.0	330.0	500.0	r537.5
September	565.0	480.0	r434.0	387.0	470.0	335.0	507.8	r530.0
December	527.0	r487.0	r432.7	r385.0	r482.0	340.0	505.0	530.0
2012								
March	605.0	467.8	433.9	384.0	488.8	348.0	547.3	535.0
June	nya	nya	nya	nya	nya	nya	nya	nya
September	nya	nya	nya	nya	nya	nya	nya	nya

nya not yet available
r revised

(a) See paragraphs 32 to 35 of the Explanatory Notes.

NUMBER OF ESTABLISHED HOUSE TRANSFERS (a)

<i>Period</i>	<i>Sydney</i> no.	<i>Melbourne</i> no.	<i>Brisbane</i> no.	<i>Adelaide</i> no.	<i>Perth</i> no.	<i>Hobart</i> no.	<i>Darwin</i> no.	<i>Canberra</i> no.
2009-10	r51 303	r62 688	r31 421	16 897	r25 801	r3 771	1 448	r4 883
2010-11	r44 015	r49 566	r25 125	r15 493	r20 887	r3 227	1 140	r4 506
2011-12	nya	nya	nya	nya	nya	nya	nya	nya
2009								
March	12 259	13 091	9 329	4 585	5 916	1 100	425	1 122
June	14 318	15 315	8 806	4 877	7 148	1 001	469	1 319
September	14 816	16 313	9 068	4 473	7 701	1 033	436	1 381
December	12 786	16 586	7 844	4 234	6 635	921	363	1 297
2010								
March	11 091	14 148	7 640	3 993	6 401	976	339	971
June	r12 610	r15 641	r6 869	4 197	r5 064	r841	310	r1 234
September	r11 327	r13 581	r6 930	r4 122	r5 130	r839	278	r1 037
December	r11 691	r12 988	r6 379	r4 005	4 958	836	277	r1 317
2011								
March	r9 894	r10 586	r5 870	r3 709	r5 659	r849	270	r993
June	r11 103	r12 411	r5 946	r3 657	r5 140	r703	315	r1 159
September	r10 839	r11 235	r6 355	r3 557	r5 435	r670	326	r978
December	r13 299	r11 996	r6 088	r3 589	r5 763	r743	397	r1 009
2012								
March	9 015	10 650	6 391	3 595	5 922	709	394	903
June	nya	nya	nya	nya	nya	nya	nya	nya
September	nya	nya	nya	nya	nya	nya	nya	nya

nya not yet available

r revised

(a) See paragraphs 32 to 35 of the Explanatory Notes.

REVISIONS TO ESTABLISHED HOUSE PRICE INDEX SERIES, Weighted average of eight capital cities(a)(b)(c)

Period	1st estimate	2nd estimate	Final estimate	DIFFERENCE BETWEEN FINAL ESTIMATE AND:	
				1st estimate	2nd estimate
INDEX NUMBER (a)			INDEX POINTS		
2010					
September	150.3	149.4	148.1	-2.2	-1.3
December	150.5	149.3	148.8	-1.7	-0.5
2011					
March	146.8	147.1	147.3	0.5	0.2
June	147.0	146.5	145.8	-1.2	-0.7
September	144.8	143.1	143.1	-1.7	0.0
December	141.6	142.1	142.3	0.7	0.2
2012					
March	140.6	142.1	142.3	1.7	0.2
June	142.8	143.1	nya	nya	nya
September	143.6	nya	nya	nya	nya
ANNUAL PERCENTAGE CHANGE (b)			PERCENTAGE POINTS		
2010					
September	11.5	10.8	9.9	-1.6	-0.9
December	5.8	5.0	4.6	-1.2	-0.4
2011					
March	-0.2	0.0	0.1	0.3	0.1
June	-1.9	-2.2	-2.7	-0.8	-0.5
September	-2.2	-3.4	-3.4	-1.2	0.0
December	-4.8	-4.5	-4.4	0.4	0.1
2012					
March	-4.5	-3.5	-3.4	1.1	0.1
June	-2.1	-1.9	nya	nya	nya
September	0.3	nya	nya	nya	nya
QUARTERLY PERCENTAGE CHANGE (c)			PERCENTAGE POINTS		
2010					
September	0.1	-0.3	-1.1	-1.2	-0.8
December	0.7	0.8	0.5	-0.2	-0.3
2011					
March	-1.7	-1.1	-1.0	0.7	0.1
June	-0.1	-0.5	-1.0	-0.9	-0.5
September	-1.2	-1.9	-1.9	-0.7	0.0
December	-1.0	-0.7	-0.6	0.4	0.1
2012					
March	-1.1	-0.1	0.0	1.1	0.1
June	0.5	0.6	nya	nya	nya
September	0.3	nya	nya	nya	nya

nya not yet available

(a) Reference base of each index: 2003-04 = 100.0.

(b) Percentage change from corresponding quarter of previous year.

(c) Percentage change from previous quarter.

EXPLANATORY NOTES

INTRODUCTION

1 This publication provides estimates of changes in house prices for each of the eight capital cities of Australia. The information is presented in the form of price indexes constructed separately for Established Houses and for Project Homes (see below for definitions). It is calculated on an index reference period of 2003–04 = 100.0 for each of the eight capital cities as well as a weighted average of them. The capital city indexes measure price movements over time in each city individually. They do not measure differences in price levels between cities.

2 The index for Project Homes is compiled for use in calculating the New dwelling purchase by owner-occupiers expenditure class of the Consumer Price Index (CPI). The index for Established Houses (referred to from now on as the HPI), while not contributing to the CPI, is compiled and published along with the Project Homes index in recognition of the widespread interest in information specifically relating to housing prices.

3 To assist in the analysis of housing price movements at the national level, aggregated series have also been compiled and are presented in Tables 5 and 6 along with series for prices of input to the house construction industry, construction industry hourly rates of pay and private housing investment. For information on the derivation of series in these tables see paragraphs 25–31.

4 Table 7 presents a city-wide median price (unstratified) of house sales data available from the State/Territory Land Titles Office or Valuers-General (VGs) Office in each capital city. These median prices are ‘raw’ medians from the available data set and quarterly changes in them will not concord with the published HPIs for each city which are compiled in strata and weighted by the value of housing stock. Numbers of established house transfers recorded each quarter by the VGs are presented in Table 8.

5 For more detailed information on house price indexes than is provided in these explanatory notes refer to *Information Paper, House Price Indexes: Concepts, Sources and Methods, Australia, 2009* (cat. no. 6464.0).

DEFINITIONS

Capital City

6 Capital City Statistical Divisions (SDs) are predominantly urban in character and represent the State/Territory capital cities in the wider sense. A Capital City SD is defined to contain the anticipated urban development of a capital city and it delimits an area which is stable for general statistical purposes.

7 Currently, HPI Capital City SDs are based on the *2006 Australian Standard Geographical Classification (ASGC)* (cat. no. 1216.0). The ASGC will be replaced by the *Australian Statistical Geography Standard (ASGS)* (Vol 1, cat. no. 1270.0.55.001) from July 2011. HPI geographic coverage will be defined by the ASGS Greater Capital City Statistical Areas (GCCSA) during the next index review in 2012. The December quarter 2013 HPI publication is expected to be the first release of the HPI series based on the ASGS.

Established houses

8 The HPI covers transactions in detached residential dwellings on their own block of land regardless of age (i.e. including new houses sold as a house/land package as well as second-hand houses). Price changes therefore relate to changes in the total price of dwelling and land.

Project homes

9 Project homes are dwellings available for construction on an existing block of land. Price changes therefore relate only to the price of the dwelling (i.e. excluding land).

PRICE INDEXES

10 A price index is concerned with measuring pure price change – that is, it is concerned with isolating and measuring that element of price change which is not brought about by any change to either the quantity or the quality of the goods or services for which the index is required.

EXPLANATORY NOTES *continued*

PRICE INDEXES *continued*

11 The techniques used to construct a price index for project homes are similar to those used for most other goods. A representative sample of project home models is selected in each city, prices are obtained each quarter and the price movements for each model are weighted together. Constant quality is preserved by calculating price movements on a matched sample basis (i.e. the price movements between adjacent quarters are based on the same models in each quarter). If the specification of an individual model changes substantially or a price is unable to be obtained then that model is excluded from the calculation of price movement. Adjustments are made to raw prices to compensate for any minor changes in specifications.

12 This standard procedure for constructing price indexes is not viable in the case of established houses as the observable prices in each period relate to a different set of dwellings for each period. The challenge is how to utilise prices for a heterogeneous set of dwellings to construct measures of price change for characteristic or homogeneous dwellings.

Controlling for the compositional change effect

13 The ABS uses stratification to control for this 'compositional' effect by grouping (or 'clustering') houses according to a set of characteristics. The finer the level of stratification available, the more similar or homogenous the cluster of houses will be. However, the finer the level of stratification, the fewer the property sales in the period. Therefore, the clusters defined have to balance the homogeneity of housing characteristics and the number of observations required to produce a reliable median price. The lowest level geographical classification that is commonly available across data sets is the suburb. Therefore, suburbs are the building blocks on which the clusters are based.

14 Analysis by the ABS has found that the most effective stratification approach uses two characteristics: the long term level of prices for the suburb in which the house is located, and neighbourhood characteristics of the suburb, as represented by the ABS produced Socio-Economic Indexes for Areas (SEIFA). A new set of clusters produced with this stratification method was introduced in the December quarter 2008 issue of 6416.0, together with updated housing stock weights derived using quantity data from the 2006 Census of Population and Housing. The link period for these changes was the March quarter 2008. Therefore, only the index numbers from the June quarter 2008 onwards reflect the new weights and stratification. The new approach is a refinement of the previous stratification method, which was based on structural attributes of dwellings within suburbs, the physical location of the dwelling, and neighbourhood characteristics of suburbs.

Benchmark and Leading Indicator series

15 Though more comprehensive coverage of property sales data is eventually obtained from the State/Territory Land Titles Office or Valuers-General (VGs) Office in each capital city, this data is not available on a timely basis for the most recent quarters. As a result, the ABS has adopted a two-stage approach to produce the HPI to allow the compilation and publication of a more timely estimate of price change. The first stage is to compile the benchmark series based on the complete, or near complete, VGs dataset for each quarter. This will be the third most recent quarter in any publication. The second stage, referred to as the leading indicator series, involves compiling price indexes for the two most recent quarters based on a combination of mortgage lenders' data and the VGs data available at that point in time. It should be noted that for Darwin, mortgage lenders' data is combined with VGs data for the most recent quarter only.

16 The index numbers for the leading indicator series are preliminary estimates and are revised as more data are progressively received from VGs. These index numbers are labelled with a "p" indicating a preliminary estimate. The benchmark series (labelled with an "r" if it has been revised since the previous quarter's leading indicator estimate) are final estimates and will not be subject to further revision once published.

EXPLANATORY NOTES *continued*

*Benchmark and Leading
Indicator series continued*

17 The revisions to price indexes and percentage changes are reported in Table 9, Revisions to Established House Price Index Series, Australia. This table displays, for each time period, the preliminary and final estimates, and the corresponding annual and quarterly percentage changes. The table also displays the size of the revisions made to preliminary estimates of house price index movements.

18 The columns titled 'Difference between final estimate and first and second estimate' are calculated by subtracting the initial estimates from the final estimate. Consequently, no revisions information will be available until a final estimate has been published. As the HPI series was first published with respect to the September quarter 2005, the first period for which preliminary data can be compared with final data is the June quarter 2005. No preliminary estimates exist prior to this period.

19 Revisions to the weighted average of the eight capital cities are included in this publication. Revisions made to each of the individual capital cities are available on the ABS website <<http://www.abs.gov.au>> (refer to the time series spreadsheets under the 'Downloads' tab for *House Price Indexes: Eight Capital Cities* (cat. no. 6416.0)).

Available data

20 Price information for project homes is obtained each month from a sample of project home builders in each capital city. Sales prices of established houses are obtained from VGs and home mortgage lenders, and are based on the exchange date of the sales. The exchange date most closely approximates the time at which the market price is determined. Exchange date information is available for all cities except Adelaide and Darwin. For these cities, a modelled exchange date is used.

21 The delivery of VGs data relating to exchange date is delayed by the normal contract settlement and reporting processes. It is only possible to publish reliable house price movements based solely on VGs data after approximately six months.

LIMITATIONS OF HOUSE
PRICE INDEXES

22 The reliability of each index is largely dependent upon the availability of sufficient pricing information each quarter. While not a problem for project homes, difficulties are sometimes encountered when compiling the HPI. Although the HPI clusters have been defined to balance the homogeneity of housing characteristics and the number of observations required to produce a reliable median price, the number of price observations available depends on market activity in each quarter and there may be occasions when clusters have low numbers of price observations. This is most apparent in the established house price indexes for the smaller capital cities (Hobart, Darwin and Canberra).

23 The series most affected by limited market scope is the Darwin established house price index. As can be seen from the data in Table 8, the series for Darwin is affected by a relatively low number of transactions in any quarter. Rather than suppress publication, the series are included here because it is believed that the long term trends are reliable. However, because of the limitations in the reliability of individual quarter-to-quarter movements, users are advised to exercise due care when analysing such movements.

24 It should be noted that when the number of price observations available for a cluster is nil or extremely low in a quarter, a price movement for the cluster is derived using imputation methods based on price movements of other clusters.

NATIONAL HOUSE PRICE AND
OTHER INDEXES

25 These series are presented to facilitate analysis of price movements at a national level. Although coverage is not strictly national in all cases, this does not significantly impair their usefulness. The derivation or source of each series is set out below.

Established houses

26 The series for established houses is derived by weighting together the indexes for each of the eight capital cities according to the relative value of housing stock in each capital city. From the June quarter 2008 onwards, the values were obtained by combining 2006 Population Census house counts with March quarter 2008 mean prices. Prior to

EXPLANATORY NOTES *continued*

- Established houses continued* this, the values were obtained by combining 2001 Population Census house counts with March quarter 2002 mean prices. It is important to understand that in the compilation of this index (and other fixed weighted indexes) it is not the housing stock values that are held constant from period to period. What is held constant is the quantity (e.g. number of houses) underpinning these values.
- Project homes*
- 27** The series for project homes is derived by weighting together the indexes for each of the eight capital cities. The city weights are derived from the value of net additions to the number of owner-occupier households, calculated by applying the average value of private dwelling completions from Building Activity statistics to quantity data calculated from Census 2006 counts of owner-occupied houses moved forward using data from *Household and Family Projections, Australia* (cat. no. 3236.0). As extensions and renovations are conceptually part of the CPI expenditure class, their value is included in the calculation of the weights. No prices specifically relating to these activities are collected as their prices are assumed to move similarly to those of new houses.
- 28** Although the capital city price indexes for project homes are compiled for use in calculating the House purchase expenditure class of the CPI, price movements exhibited in the published CPI series are not comparable to those published with the established house price index because the CPI for house purchase is a broader aggregate which also covers fixed appliances and an adjustment for government subsidies directly related to house purchase.
- Input to the house construction industry*
- 29** The index for input to the house construction industry is that published for the weighted average of the six state capital cities in *Producer Price Indexes, Australia* (PPI) (cat. no. 6427.0), re-referenced to 2003–04 = 100.0. From the September quarter 2012, the PPI was published on a new index reference period of 2011–12 = 100. HPI will continue to publish this index re-referenced to 2003–04 = 100 for ease of comparison with other series. Index and period-to-period percentage changes in this publication may differ slightly to those previously published in this publication. These differences are due to re-referencing and rounding of the PPI series and do not constitute a revision. From the September quarter 2012, this series has also been renamed. It was previously known as the materials used in house building index. For more information on this index refer to *Producer and International Trade Price Indexes: Concepts, Sources and Methods, 2006* (cat. no. 6429.0).
- Construction industry total hourly rates of pay*
- 30** The index for the construction industry total hourly rates of pay excluding bonuses, private and public, is that published in *Wage Price Index, Australia* (cat. no. 6345.0), re-referenced to 2003–04 = 100.0 for ease of comparison with other series. For more information on this index refer to *Labour Price Index: Concepts, Sources and Methods, 2004* (cat. no. 6351.0.55.001).
- Private Housing Investment*
- 31** The index for private housing investment is the annually-reweighted chain Laspeyres price index for private capital expenditure on new and used dwellings, as used (but not separately published) in *Australian National Accounts: National Income, Expenditure and Product* (cat. no. 5206.0), referenced to 2003–04 = 100.0. For more information on this index refer to *Australian System of National Accounts: Concepts Sources and Methods, Edition 2* (cat. no. 5216.0).
- Established house transfer prices and counts*
- 32** As well as the price indexes based on stratified weights for each city, the ABS publishes the median price of all established house transfers, and the number of established house transfers. Both these series are based on the house sales data from the State/Territory Land Titles Office or Valuers-General (VGs) Office in each capital city, and are only available for those quarters for which final index estimates are available.

EXPLANATORY NOTES *continued*

*Established house transfer
prices and counts continued*

33 The median prices presented in Table 7 are calculated using all available VGs records for each city each quarter, with no stratification or weighting applied. These 'raw' medians will not correspond to the published index numbers and will not produce price movements that are consistent with those numbers.

34 The number of transfers of established houses recorded each quarter by the VG in each capital city is presented in Table 8 to provide an indication of the level of sales activity for the capital city each quarter.

35 As the ABS receives more VGs data, the median prices and numbers of house transfers are revised as necessary. The usual practice is to update the most recent eight quarters of published figures. This practice is distinct from the HPI which is not revised once published as a final benchmark estimate, even if additional data are available. Therefore, the HPI, the medians and the numbers of house transfers are calculated from the same set of price information only in the most recent quarter of HPI final benchmark estimates.

ANALYSIS OF CHANGES IN
INDEX NUMBERS

36 Each of the indexes presented in this publication is calculated on a quarterly basis with an index reference period of 2003–04 = 100.0. In compiling these indexes quarterly, the objective is to measure the change in price levels between quarters.

37 Index numbers are also presented for financial years where the index numbers for financial years are simple (arithmetic) averages of the quarterly index numbers. Index numbers for calendar years may be derived in the same way.

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

Project Homes: Perth index numbers —

September Quarter 2012	164.7 (see Table 3)
less June Quarter 2012	164.4 (see Table 3)
<i>equals</i> change in index points	0.3
Percentage change	$0.3/164.4 \times 100 = 0.2\%$ (see Table 4)

39 In this publication, percentage changes are calculated to illustrate three different kinds of movements in index numbers:

- movements between consecutive financial years (change between average price levels during one financial year and average price levels during the next financial year)
- movements between corresponding quarters of consecutive years
- movements between consecutive quarters.

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