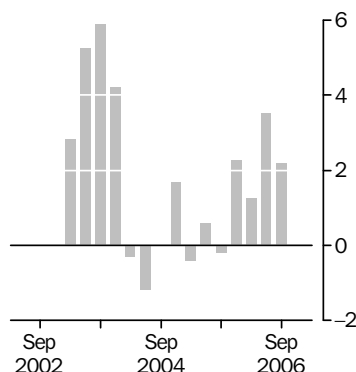


# HOUSE PRICE INDEXES: EIGHT CAPITAL CITIES

EMBARGO: 11.30AM (CANBERRA TIME) WED 15 NOV 2006

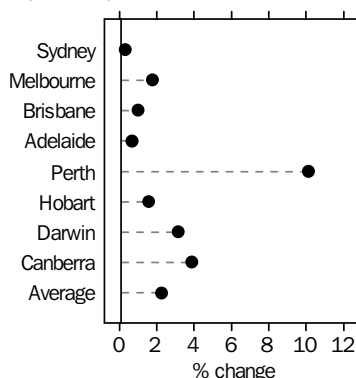
## Established house prices

Weighted average of eight capital cities  
Quarterly % change



## Established house prices

Quarterly % change  
September quarter 2006



## INQUIRIES

For further information about these and related statistics, contact Mark King on Canberra (02) 6252 5342 or the National Information and Referral Service on 1300 135 070.

## KEY FIGURES

### ESTABLISHED HOUSE PRICES

	<i>Jun Qtr 06 to Sep Qtr 06 % change</i>	<i>Sep Qtr 05 to Sep Qtr 06 % change</i>
<b>Weighted average of eight capital cities</b>	<b>2.2</b>	<b>9.5</b>
Sydney	0.2	1.4
Melbourne	1.7	7.5
Brisbane	0.9	6.5
Adelaide	0.6	6.4
Perth	10.1	45.9
Hobart	1.5	9.4
Darwin	3.1	17.3
Canberra	3.8	10.5

## KEY POINTS

### ESTABLISHED HOUSE PRICES

#### QUARTERLY CHANGES

- Preliminary estimates show the price index for established houses in Australia increased 2.2% in the September quarter 2006, compared with the movement of 3.5% in the June quarter 2006.
- House prices rose in all cities: Perth (+10.1%), Canberra (+3.8%), Darwin (+3.1%), Melbourne (+1.7%), Hobart (+1.5%), Brisbane (+0.9%), Adelaide (+0.6%) and Sydney (+0.2%).

#### ANNUAL CHANGES (SEPTEMBER QUARTER 2005 TO SEPTEMBER QUARTER 2006)

- Over the twelve months to September quarter 2006, preliminary estimates show that established house prices rose 9.5%.
- Annually, house prices rose in all cities: Perth (+45.9%), Darwin (+17.3%), Canberra (+10.5%), Hobart (+9.4%), Melbourne (+7.5%), Brisbane (+6.5%), Adelaide (+6.4%) and Sydney (+1.4%).

## NOTES

### FORTHCOMING ISSUES

*ISSUE (Quarter)*

*RELEASE DATE*

December 2006

15 February 2007

March 2007

9 May 2007

.....

### CHANGES IN THIS ISSUE

There are no changes in this issue.

Dennis Trewin

Australian Statistician

## ESTABLISHED HOUSE PRICE INDEX NUMBERS (a)(b)

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
<b>2003–04</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>2004–05</b>	96.1	101.9	104.2	106.5	114.4	111.8	115.9	99.9	101.2
<b>2005–06</b>	p93.1	p106.3	p108.4	p111.4	p145.6	p119.5	p137.8	p103.4	p105.0
<b>2003</b>									
March	89.7	90.2	77.1	85.5	85.9	71.9	89.3	84.7	87.4
June	93.7	94.9	83.1	90.5	90.2	79.7	91.3	90.9	92.0
September	98.4	99.0	93.3	97.0	94.0	91.4	93.6	97.7	97.4
December	102.4	102.0	100.6	99.6	98.8	99.3	98.5	101.7	101.5
<b>2004</b>									
March	101.5	99.6	102.3	101.0	102.3	101.6	104.8	100.3	101.2
June	97.7	99.4	103.8	102.4	104.9	107.8	103.0	100.3	100.0
September	97.1	99.7	102.6	104.5	106.9	108.6	108.2	98.7	100.0
December	97.6	102.4	104.0	106.5	111.8	111.4	112.7	100.3	101.7
<b>2005</b>									
March	95.5	102.0	104.8	107.0	116.3	112.5	120.1	100.6	101.3
June	94.2	103.4	105.5	107.8	122.5	114.5	122.6	100.0	101.9
September	92.7	103.4	105.6	108.2	127.7	114.8	128.5	100.2	101.7
December	93.5	105.4	107.8	110.7	137.3	118.5	135.3	102.8	104.0
<b>2006</b>									
March	r92.5	r106.9	r108.6	r112.2	r148.2	r120.8	r141.1	104.0	r105.3
June	p93.8	p109.3	p111.5	p114.4	p169.2	p123.7	p146.2	p106.6	p109.0
September	p94.0	p111.2	p112.5	p115.1	p186.3	p125.6	p150.7	p110.7	p111.4

p preliminary figure or series subject to revision

r revised

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

(b) Estimates for the two most recent quarters are experimental  
(see paragraph 12 and 13 of the Explanatory Notes).

## ESTABLISHED HOUSE 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)									
<b>2003-04</b>	12.0	11.2	32.5	20.3	18.5	44.9	14.0	20.9	15.5
<b>2004-05</b>	-3.9	1.9	4.2	6.5	14.4	11.8	15.9	-0.1	1.2
<b>2005-06</b>	p-3.1	p4.3	p4.0	p4.6	p27.3	p6.9	p18.9	p3.5	p3.8
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
<b>2003</b>									
March	18.2	13.7	24.6	22.7	13.8	27.7	9.4	27.4	17.6
June	14.8	12.6	28.8	23.5	16.8	38.4	11.9	28.6	16.8
September	15.2	14.7	34.6	27.5	19.0	51.1	11.3	30.4	18.8
December	15.7	15.5	38.8	24.0	19.9	55.4	14.5	27.0	19.4
<b>2004</b>									
March	13.2	10.4	32.7	18.1	19.1	41.3	17.4	18.4	15.8
June	4.3	4.7	24.9	13.1	16.3	35.3	12.8	10.3	8.7
September	-1.3	0.7	10.0	7.7	13.7	18.8	15.6	1.0	2.7
December	-4.7	0.4	3.4	6.9	13.2	12.2	14.4	-1.4	0.2
<b>2005</b>									
March	-5.9	2.4	2.4	5.9	13.7	10.7	14.6	0.3	0.1
June	-3.6	4.0	1.6	5.3	16.8	6.2	19.0	-0.3	1.9
September	-4.5	3.7	2.9	3.5	19.5	5.7	18.8	1.5	1.7
December	-4.2	2.9	3.7	3.9	22.8	6.4	20.1	2.5	2.3
<b>2006</b>									
March	r-3.1	r4.8	r3.6	r4.9	r27.4	r7.4	r17.5	3.4	r3.9
June	p-0.4	p5.7	p5.7	p6.1	p38.1	p8.0	p19.2	p6.6	p7.0
September	p1.4	p7.5	p6.5	p6.4	p45.9	p9.4	p17.3	p10.5	p9.5
PERCENTAGE CHANGE (from previous quarter)									
<b>2003</b>									
March	1.4	2.2	6.3	6.5	4.2	12.5	3.8	5.7	2.8
June	4.5	5.2	7.8	5.8	5.0	10.8	2.2	7.3	5.3
September	5.0	4.3	12.3	7.2	4.2	14.7	2.5	7.5	5.9
December	4.1	3.0	7.8	2.7	5.1	8.6	5.2	4.1	4.2
<b>2004</b>									
March	-0.9	-2.4	1.7	1.4	3.5	2.3	6.4	-1.4	-0.3
June	-3.7	-0.2	1.5	1.4	2.5	6.1	-1.7	0.0	-1.2
September	-0.6	0.3	-1.2	2.1	1.9	0.7	5.0	-1.6	0.0
December	0.5	2.7	1.4	1.9	4.6	2.6	4.2	1.6	1.7
<b>2005</b>									
March	-2.2	-0.4	0.8	0.5	4.0	1.0	6.6	0.3	-0.4
June	-1.4	1.4	0.7	0.7	5.3	1.8	2.1	-0.6	0.6
September	-1.6	0.0	0.1	0.4	4.2	0.3	4.8	0.2	-0.2
December	0.9	1.9	2.1	2.3	7.5	3.2	5.3	2.6	2.3
<b>2006</b>									
March	r-1.1	r1.4	r0.7	r1.4	r7.9	r1.9	r4.3	1.2	r1.3
June	p1.4	p2.2	p2.7	p2.0	p14.2	p2.4	p3.6	p2.5	p3.5
September	p0.2	p1.7	p0.9	p0.6	p10.1	p1.5	p3.1	p3.8	p2.2

p preliminary figure or series subject to revision

r revised

## 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>
<b>2003-04</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>2004-05</b>	105.3	103.3	105.5	103.6	111.9	111.6	109.5	102.0	106.1
<b>2005-06</b>	107.7	105.9	107.4	106.2	130.3	116.8	119.8	105.4	110.3
<b>2003</b>									
March	96.7	96.7	88.4	94.5	91.6	93.7	96.2	92.0	93.5
June	97.2	99.2	91.9	95.2	94.0	96.4	96.3	95.3	95.6
September	98.4	99.6	96.2	96.9	96.9	96.9	96.4	98.7	97.7
December	99.2	99.4	99.6	99.4	98.9	98.2	99.3	99.8	99.3
<b>2004</b>									
March	100.4	100.0	101.1	101.5	100.8	100.9	100.4	100.4	100.7
June	102.0	101.0	103.1	102.2	103.3	104.0	104.0	101.1	102.3
September	103.1	102.4	103.8	102.2	105.7	105.9	106.9	101.6	103.6
December	104.8	102.7	105.6	103.8	109.5	111.5	107.6	101.6	105.4
<b>2005</b>									
March	106.1	104.1	106.0	104.1	114.2	114.0	110.1	101.8	107.1
June	107.0	104.0	106.5	104.4	118.3	115.1	113.2	102.9	108.2
September	107.4	106.2	106.3	105.2	122.7	115.4	114.7	103.7	109.1
December	107.7	106.3	107.2	105.7	127.8	115.4	117.3	104.9	110.0
<b>2006</b>									
March	107.5	105.3	107.2	106.4	132.7	117.7	121.0	105.9	110.4
June	108.0	105.9	108.8	107.3	137.9	118.8	126.0	106.9	111.7
September	107.9	104.2	109.0	107.9	142.0	119.1	130.3	107.6	111.9

(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)									
<b>2003-04</b>	4.1	4.0	13.1	6.4	9.4	8.5	5.5	9.2	7.4
<b>2004-05</b>	5.3	3.3	5.5	3.6	11.9	11.6	9.5	2.0	6.1
<b>2005-06</b>	2.3	2.5	1.8	2.5	16.4	4.7	9.4	3.3	4.0
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
<b>2003</b>									
March	3.4	4.0	6.8	5.0	3.0	11.4	6.7	6.4	4.5
June	2.9	5.9	9.3	4.4	5.4	10.8	4.6	8.2	5.8
September	3.6	6.0	11.9	4.6	8.1	9.2	3.3	10.9	7.0
December	3.9	5.0	14.2	6.0	9.3	9.4	6.4	10.6	7.8
<b>2004</b>									
March	3.8	3.4	14.4	7.4	10.0	7.7	4.4	9.1	7.7
June	4.9	1.8	12.2	7.4	9.9	7.9	8.0	6.1	7.0
September	4.8	2.8	7.9	5.5	9.1	9.3	10.9	2.9	6.0
December	5.6	3.3	6.0	4.4	10.7	13.5	8.4	1.8	6.1
<b>2005</b>									
March	5.7	4.1	4.8	2.6	13.3	13.0	9.7	1.4	6.4
June	4.9	3.0	3.3	2.2	14.5	10.7	8.8	1.8	5.8
September	4.2	3.7	2.4	2.9	16.1	9.0	7.3	2.1	5.3
December	2.8	3.5	1.5	1.8	16.7	3.5	9.0	3.2	4.4
<b>2006</b>									
March	1.3	1.2	1.1	2.2	16.2	3.2	9.9	4.0	3.1
June	0.9	1.8	2.2	2.8	16.6	3.2	11.3	3.9	3.2
September	0.5	-1.9	2.5	2.6	15.7	3.2	13.6	3.8	2.6
PERCENTAGE CHANGE (from previous quarter)									
<b>2003</b>									
March	1.3	2.1	1.4	0.7	1.2	4.3	3.1	2.0	1.5
June	0.5	2.6	4.0	0.7	2.6	2.9	0.1	3.6	2.2
September	1.2	0.4	4.7	1.8	3.1	0.5	0.1	3.6	2.2
December	0.8	-0.2	3.5	2.6	2.1	1.3	3.0	1.1	1.6
<b>2004</b>									
March	1.2	0.6	1.5	2.1	1.9	2.7	1.1	0.6	1.4
June	1.6	1.0	2.0	0.7	2.5	3.1	3.6	0.7	1.6
September	1.1	1.4	0.7	0.0	2.3	1.8	2.8	0.5	1.3
December	1.6	0.3	1.7	1.6	3.6	5.3	0.7	0.0	1.7
<b>2005</b>									
March	1.2	1.4	0.4	0.3	4.3	2.2	2.3	0.2	1.6
June	0.8	-0.1	0.5	0.3	3.6	1.0	2.8	1.1	1.0
September	0.4	2.1	-0.2	0.8	3.7	0.3	1.3	0.8	0.8
December	0.3	0.1	0.8	0.5	4.2	0.0	2.3	1.2	0.8
<b>2006</b>									
March	-0.2	-0.9	0.0	0.7	3.8	2.0	3.2	1.0	0.4
June	0.5	0.6	1.5	0.8	3.9	0.9	4.1	0.9	1.2
September	-0.1	-1.6	0.2	0.6	3.0	0.3	3.4	0.7	0.2

## SELECTED HOUSING PRICE INDEX NUMBERS (a), Australia

<i>Period</i>	<i>Established houses(b)</i>	<i>Project homes</i>	<i>Materials used in house building</i>	<i>Construction industry total hourly rates of pay</i>	<i>National accounts private housing investment</i>
<b>2003–04</b>	100.0	100.0	100.0	100.0	100.0
<b>2004–05</b>	101.2	106.1	103.4	105.1	105.8
<b>2005–06</b>	p105.0	110.3	105.8	110.3	110.6
<b>2003</b>					
March	87.4	93.5	97.5	96.9	93.9
June	92.0	95.6	98.4	97.4	95.7
September	97.4	97.7	99.0	98.8	97.7
December	101.5	99.3	99.5	99.1	99.4
<b>2004</b>					
March	101.2	100.7	100.1	100.3	100.8
June	100.0	102.3	101.4	101.7	102.2
September	100.0	103.6	102.2	103.2	103.6
December	101.7	105.4	103.0	104.6	105.0
<b>2005</b>					
March	101.3	107.1	103.8	105.9	106.6
June	101.9	108.2	104.7	106.7	107.8
September	101.7	109.1	105.0	108.1	109.0
December	104.0	110.0	105.4	109.3	110.2
<b>2006</b>					
March	r105.3	110.4	105.8	111.2	111.0
June	p109.0	111.7	106.9	112.6	112.0
September	p111.4	111.9	108.5	113.5	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) Estimates for the two most recent quarters are experimental (see paragraph 12 and 13 of the Explanatory Notes)

# SELECTED HOUSING PRICE INDEX NUMBERS, Australia—Percentage Changes

<i>Period</i>	<i>Established houses</i>	<i>Project homes</i>	<i>Materials used in house building</i>	<i>Construction industry total hourly rates of pay</i>	<i>National accounts private housing investment</i>
---------------	-------------------------------	--------------------------	-----------------------------------------------------	--------------------------------------------------------------------	---------------------------------------------------------------------

## PERCENTAGE CHANGE (from previous financial year)

<b>2003–04</b>	15.5	7.4	2.9	3.8	6.8
<b>2004–05</b>	1.2	6.1	3.4	5.1	5.8
<b>2005–06</b>	p3.8	4.0	2.3	4.9	4.5

## PERCENTAGE CHANGE (from corresponding quarter of previous year)

<b>2003</b>					
March	17.6	4.5	3.8	3.6	3.9
June	16.8	5.8	3.4	3.8	5.2
September	18.8	7.0	3.2	3.9	6.2
December	19.4	7.8	2.7	3.6	7.1
<b>2004</b>					
March	15.8	7.7	2.7	3.5	7.3
June	8.7	7.0	3.0	4.4	6.8
September	2.7	6.0	3.2	4.5	6.0
December	0.2	6.1	3.5	5.5	5.6
<b>2005</b>					
March	0.1	6.4	3.7	5.6	5.8
June	1.9	5.8	3.3	4.9	5.5
September	1.7	5.3	2.7	4.7	5.2
December	2.3	4.4	2.3	4.5	5.0
<b>2006</b>					
March	r3.9	3.1	1.9	5.0	4.1
June	p7.0	3.2	2.1	5.5	3.9
September	p9.5	2.6	3.3	5.0	nya

## PERCENTAGE CHANGE (from previous quarter)

<b>2003</b>					
March	2.8	1.5	0.6	1.3	1.2
June	5.3	2.2	0.9	0.5	1.9
September	5.9	2.2	0.6	1.4	2.1
December	4.2	1.6	0.5	0.3	1.7
<b>2004</b>					
March	–0.3	1.4	0.6	1.2	1.4
June	–1.2	1.6	1.3	1.4	1.4
September	0.0	1.3	0.8	1.5	1.4
December	1.7	1.7	0.8	1.4	1.4
<b>2005</b>					
March	–0.4	1.6	0.8	1.2	1.5
June	0.6	1.0	0.9	0.8	1.1
September	–0.2	0.8	0.3	1.3	1.1
December	2.3	0.8	0.4	1.1	1.1
<b>2006</b>					
March	r1.3	0.4	0.4	1.7	0.7
June	p3.5	1.2	1.0	1.3	0.9
September	p2.2	0.2	1.5	0.8	nya

nya not yet available

p preliminary figure or series subject to revision

r revised



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

	<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>Period</i>	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>2003</b>								
March	434.0	270.0	225.0	208.0	216.0	144.3	198.0	300.0
June	460.0	287.4	240.0	219.0	225.0	148.0	195.0	330.0
September	480.0	295.0	269.0	230.0	236.0	165.0	208.0	355.0
December	520.0	320.0	297.0	245.0	250.0	182.8	220.9	373.0
<b>2004</b>								
March	523.0	305.0	302.0	250.0	255.0	200.0	221.5	375.0
June	498.7	r307.5	305.0	255.0	262.0	225.0	225.0	374.3
September	500.0	r302.0	305.0	257.5	259.0	r227.5	235.0	351.0
December	515.0	320.1	310.0	265.0	280.0	240.0	247.0	372.0
<b>2005</b>								
March	486.0	310.0	310.8	267.0	290.0	240.0	255.0	375.0
June	r500.0	320.0	310.0	270.0	300.0	250.0	260.0	374.0
September	490.0	320.0	r314.0	269.0	315.0	247.5	275.0	365.0
December	r500.0	r332.5	320.0	280.0	340.0	r250.5	295.0	r386.8
<b>2006</b>								
March	470.0	328.5	325.0	278.0	365.0	260.0	315.0	385.0
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 paragraph 27 of the Explanatory Notes.

## NUMBER OF ESTABLISHED HOUSE TRANSFERS (a)

	<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>Period</i>	no.	no.	no.	no.	no.	no.	no.	no.
<b>2003-04</b>	50 885	r57 496	41 247	19 354	29 544	5 154	2 671	4 621
<b>2004-05</b>	r40 222	r56 426	r33 520	18 449	33 374	r3 644	2 735	4 024
<b>2005-06</b>	nya	nya	nya	nya	nya	nya	nya	nya
<b>2003</b>								
March	13 700	14 558	13 566	5 438	9 434	1 595	497	1 352
June	16 386	16 438	13 083	5 521	9 889	1 553	605	1 549
September	16 993	17 073	14 480	5 117	8 237	1 584	680	1 363
December	11 809	14 383	9 196	4 771	6 876	1 246	668	1 181
<b>2004</b>								
March	10 183	12 609	9 161	4 800	7 667	1 246	644	987
June	11 900	r13 431	8 410	4 666	6 764	1 078	679	1 090
September	r10 220	r13 814	8 524	4 591	8 509	r965	693	814
December	10 798	r14 738	8 238	4 763	7 671	978	672	1 158
<b>2005</b>								
March	8 960	r13 064	8 649	4 529	8 605	r866	699	995
June	r10 244	r14 810	r8 109	4 566	8 589	r835	671	1 057
September	r10 805	r13 857	r8 915	4 673	8 926	949	718	1 031
December	r9 692	r15 420	r8 380	4 631	r9 123	r981	682	r1 200
<b>2006</b>								
March	10 256	12 258	9 836	4 671	8 408	1 164	707	1 124
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 paragraph 27 of the Explanatory Notes.

REVISIONS TO ESTABLISHED HOUSE PRICE INDEX SERIES : **Australia** (a)(b)(c)(d)(e)

				DIFFERENCE BETWEEN FINAL ESTIMATE AND: .....	
Period	1st estimate	2nd estimate	Final estimate	1st estimate	2nd estimate
.....					
INDEX NUMBER (c)			INDEX POINTS		
2005					
June	. .	102.0	101.9	. .	-0.1
September	101.0	101.9	101.7	0.7	-0.2
December	104.0	103.9	104.0	0.0	0.1
2006					
March	104.9	105.1	105.3	0.4	0.2
June	108.4	109.0	nya	nya	nya
September	111.4	nya	nya	nya	nya
.....					
ANNUAL PERCENTAGE CHANGE (d)			PERCENTAGE POINTS		
2005					
June	. .	2.0	1.9	. .	-0.1
September	1.0	1.9	1.7	0.7	-0.2
December	2.3	2.2	2.3	0.0	0.1
2006					
March	3.6	3.8	3.9	0.3	0.1
June	6.4	7.0	nya	nya	nya
September	9.5	nya	nya	nya	nya
.....					
QUARTERLY PERCENTAGE CHANGE (e)			PERCENTAGE POINTS		
2005					
June	. .	0.7	0.6	. .	-0.1
September	-1.0	0.0	-0.2	0.8	-0.2
December	2.1	2.2	2.3	0.2	0.1
2006					
March	1.0	1.1	1.3	0.3	0.2
June	3.1	3.5	nya	nya	nya
September	2.2	nya	nya	nya	nya

. . not applicable

nya not yet available

(a) Weighted average of eight capital cities.

(b) Series commence in June quarter 2005. See paragraphs 13-15 of the Explanatory Notes.

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

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

(e) 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 the reference base 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 House purchase expenditure class of the Consumer Price Index (CPI). The index for Established Houses, 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 materials used in house building, construction industry hourly rates of pay and private housing investment (from the Australian National Accounts). For information on the derivation of series in these tables see paragraphs 20-26.

**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 Established house price indexes 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.

### DEFINITIONS

#### *Established houses*

**5** The price index for established houses 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*

**6** Project homes are dwellings available for construction on a client's block of land. Price changes relate only to the cost of constructing the dwelling (excluding land).

### PRICE INDEXES

**7** 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.

**8** 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.

**9** This standard procedure for constructing price indexes is not viable in the case of established houses as the observable prices in each period invariably relate to a different set of dwellings. The issue is how to utilise prices for an essentially heterogeneous set of dwellings to construct measures of price change for characteristic or homogeneous dwellings? The ABS *Information Paper: Renovating the Established House Price Index* (cat. no. 6417.0) provides a more detailed background.

## EXPLANATORY NOTES *continued*

### *Controlling for the 'quality' effect*

**10** The ABS uses regional stratification to control for the 'quality' effect and compositional change. The approach uses location (suburb or postcode) to define regional strata that group together (or 'cluster') houses that are 'similar' in terms of their price determining characteristics. Apart from their physical characteristics, houses that are close share the same neighbourhood characteristics and so 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 observed property sales will occur. So 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. Ideally, each suburb would form its own cluster as this would maximise the homogeneity of the cluster. However, there are insufficient numbers of observations from quarter to quarter to support this methodology. The ABS has grouped similar suburbs to form clusters with sufficient ongoing observations to determine a reliable median price.

**11** Analysis has been undertaken by the ABS to identify which characteristics were the most significant determinants of price. Many of the primary determinants of price were highly correlated with the Socio-Economic Indexes for Areas (SEIFA) index, meaning that the variability in price was largely described by this index. The result was that clusters could be most effectively compiled using the SEIFA index, the percentage of three bedroom houses and the geographical location of the suburb.

### *'Leading Indicator'*

**12** 'Leading indicator' terms are compiled for the most recent two quarters using early VGs' data combined with mortgage lenders' data. These terms are labelled with a 'p' indicating a preliminary estimate. These terms are initially considered 'experimental' until the ABS has sufficient historical data to fully analyse the relationship between these preliminary data and the benchmark series that they are being used to project.

**13** It is important to note that the price indexes, and therefore the percentage changes, for the two most recent quarters are subject to revision as more complete data sets are obtained from the VGs. Table 9, Revisions to Established House Price Index Series, Australia displays, for each time period, these 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. Until greater experience has been gained with these data sets, the ABS is unable to provide any indication of the likely magnitudes of the revisions.

**14** 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 this series was first published with respect to September quarter 2005, the first period for which preliminary data can be compared with final data is June quarter 2005. No preliminary estimates exist prior to this period.

**15** Revisions to the weighted average of 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 data cube under the 'Details' tab for *House Price Index: Eight Capital Cities* (cat. no. 6416.0).)

### *Available data*

**16** 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.

## EXPLANATORY NOTES *continued*

### *Available data continued*

**17** The delivery of government agency 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 on government agency data after approximately six months.

### LIMITATIONS OF HOUSE PRICE INDEXES

**18** 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 indexes for established houses as the number of price observations available depends on market activity in each quarter. This is most apparent in the established house price indexes for the smaller capital cities (Hobart, Darwin and Canberra).

**19** 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.

### NATIONAL HOUSE PRICE AND OTHER INDEXES

**20** 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*

**21** 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. The values were obtained by combining 2001 Population Census house counts with March quarter 2002 mean prices.

#### *Project homes*

**22** The series for project homes is derived by weighting together the indexes for each of the eight capital cities. In September quarter 2005, data on housing finance collected by the Australian Prudential Regulatory Authority was used to update the aggregate expenditure on secured finance commitments for the purchase of new dwellings by owner occupiers in 2004-05. The city weights were allocated using data from the Building Activity survey and census data. From June quarter 1996 to June quarter 2005 the value of commitments in 1994-95 was used. The source of weighting information was unpublished data from the ABS survey of Housing Finance for Owner Occupation. Between 1985-86 and June quarter 1996 the value of secured finance commitments to individuals in each of the states and territories for the construction of houses was used.

**23** 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 respective series at the national level are not directly comparable. The weighting pattern used in the CPI House purchase index differs from that described above for the project homes index. The weights used for CPI purposes relate to the net acquisition of dwellings (excluding land) by private households in each of the eight capital cities (i.e. they include dwellings acquired from the government and business sectors and alterations and additions to existing dwellings).

#### *Materials used in house building*

**24** The series for materials used in house building is based on that published for the weighted average of the six state capital cities in *Producer Price Indexes, Australia* (cat. no. 6427.0), re-referenced to 2003-04 = 100.0.

#### *Construction industry total hourly rates of pay*

**25** The index for the construction industry total hourly rates of pay excluding bonuses, private and public, is that published in *Labour Price Index, Australia* (cat. no. 6345.0).

## EXPLANATORY NOTES *continued*

### Private Housing Investment

**26** This series for the 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.

### ACTIVITY BASED SERIES

**27** Included in this publication are two activity based tables for unstratified (city-wide) median prices and sales counts for established houses. Table 7 presents unstratified median prices by city by quarter. Table 8 presents the number of established house sales by city by quarter. Both of these tables use VGs' data only, and there is a delay of several months in obtaining final data. Consequently the data presented in tables 7 and 8 do not include data for the most recent two quarters. As the ABS receives more data, these figures will be revised as necessary. The data on median prices are not directly comparable with the established house price indexes (which are compiled in strata and weighted by the value of housing stock).

### ANALYSIS OF CHANGES IN INDEX NUMBERS

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

**29** 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.

**30** 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 2006	142.0 (see table 3)
less June Quarter 2006	137.9 (see table 3)
Change in index points	4.1
Percentage change	$4.1/137.9 \times 100 = 3.0\%$

**31** 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.

### RELATED PUBLICATIONS

**32** Users may also wish to refer to the following publications which are available from the ABS website:

- *Information Paper: Renovating the Established House Price Index*, cat. no. 6417.0
- *Australian National Accounts: National Income, Expenditure and Product*, cat. no. 5206.0 – issued quarterly
- *Building Activity, Australia*, cat. no. 8752.0 – issued quarterly
- *Building Approvals, Australia*, cat. no. 8731.0 – issued monthly
- *Consumer Price Index Australia*, cat. no. 6401.0 – issued quarterly
- *Housing Finance for Owner Occupation, Australia*, cat. no. 5609.0 – issued monthly
- *Producer Price Indexes, Australia*, cat. no. 6427.0 – issued quarterly.

**33** Current publications and other products by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

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