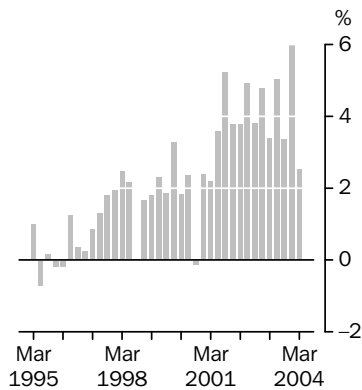


# HOUSE PRICE INDEXES: EIGHT CAPITAL CITIES

EMBARGO: 11.30AM (CANBERRA TIME) THURS 3 JUN 2004

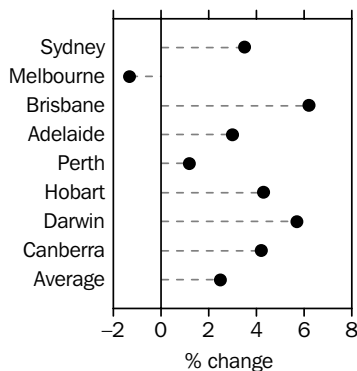
## Established house prices

Quarterly % change



## Established house prices

Quarterly % change  
March quarter 2004



## KEY FIGURES

ESTABLISHED HOUSE PRICES	Dec Qtr 03 to Mar Qtr 04 % change	Mar Qtr 2003 to Mar Qtr 2004 % change
<b>Weighted average of eight capital cities</b>	<b>2.5</b>	<b>17.9</b>
Sydney	3.5	15.8
Melbourne	-1.3	8.9
Brisbane	6.2	36.6
Adelaide	3.0	22.8
Perth	1.2	19.0
Hobart	4.3	18.6
Darwin	5.7	14.3
Canberra	4.2	25.3

## KEY POINTS

### ESTABLISHED HOUSE PRICES

#### QUARTERLY CHANGES

- The price index for established houses in Australia rose 2.5% in the March quarter 2004, compared with an increase of 6.0% in December quarter 2003. This was the lowest quarterly increase since March quarter 2001.
- House prices fell in Melbourne (-1.3%) but rose in each of the other capital cities: Brisbane (+6.2%), Darwin (+5.7%), Hobart (+4.3%), Canberra (+4.2%), Sydney (+3.5%), Adelaide (+3.0%) and Perth (+1.2%).

#### ANNUAL CHANGES

- Over the twelve months to March quarter 2004, established house prices rose 17.9%.
- Annual increases in the capital cities were: Brisbane (+36.6%), Canberra (+25.3%), Adelaide (+22.8%), Perth (+19.0%), Hobart (+18.6%), Sydney (+15.8%), Darwin (+14.3%) and Melbourne (+8.9%).

## INQUIRIES

- For further information about these and related statistics, contact Steve Whennan on Canberra (02) 6252 6251 or the National Information and Referral Service on 1300 135 070.

# NOTES

## FORTHCOMING ISSUES

*ISSUE (Quarter)*

*RELEASE DATE*

June 2004

2 September 2004

September 2004

2 December 2004



## CHANGES IN THIS ISSUE

There are no changes in this issue.

## CONSIDERATIONS WHEN INTERPRETING THE ESTABLISHED HOUSE PRICE INDEX

It is important to note that the established house price index is specifically designed to measure the medium term rate of change in the price of established houses. To ensure the index is based on a sufficiently representative sample of transactions prices, the prices used are for properties which were settled during the quarter rather than those for which contracts were exchanged. One of the effects of this approach is that the date of recording a price will lag the date at which the price was effectively determined. Because of this, there is likely to be a lag in identifying the turning points in the house price cycle.

In addition, as noted in paragraph 9 of the Explanatory Notes of this publication, in order to minimise the effects of compositional change on the measures of price change, the ABS stratifies the sales of established houses by geographic area. Compared with an approach which does not stratify by area, the difference in the measure of aggregate price change for a capital city will be most evident during periods when different geographical areas within a city experience different rates of price change. To varying extents across the capital cities, this is evident in the March quarter 2004 data where house prices in the inner city regions of many of the capital cities have grown less (or fallen) compared with those in some of the outer city regions.

Dennis Trewin  
Australian Statistician

## 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>
<b>2000-01</b>	163.8	159.1	149.4	131.1	133.9	134.2	198.7	149.1	152.8
<b>2001-02</b>	192.2	193.7	169.8	150.1	145.5	140.1	204.2	173.1	178.0
<b>2002-03</b>	233.0	216.4	211.8	182.6	164.4	157.1	218.2	207.2	209.9
<b>2000</b>									
September	162.3	143.6	146.5	127.6	130.2	134.3	197.3	143.4	147.1
December	160.4	157.5	149.3	127.2	132.9	133.7	196.8	146.4	150.6
<b>2001</b>									
March	163.9	161.8	149.7	133.1	135.1	133.8	199.3	150.5	153.9
June	168.4	173.3	151.9	136.5	137.2	135.1	201.5	156.0	159.4
September	179.1	187.2	154.5	140.7	139.1	134.9	198.3	161.1	167.7
December	188.0	189.9	163.8	146.5	143.1	138.3	203.4	171.3	174.0
<b>2002</b>									
March	196.7	191.4	176.8	153.4	147.8	142.1	207.0	177.8	180.6
June	204.9	206.2	184.2	159.7	152.0	144.9	208.0	182.1	189.5
September	216.7	207.3	193.8	168.7	155.8	148.9	213.6	190.9	196.7
December	230.2	213.6	205.2	177.4	159.7	150.8	212.7	202.1	206.1
<b>2003</b>									
March	237.8	217.7	215.6	185.0	166.0	160.9	222.6	210.5	213.1
June	247.1	226.9	232.6	199.1	176.0	167.9	223.8	225.4	223.8
September	252.5	231.3	247.6	207.2	185.7	177.4	225.6	237.5	231.3
December	265.9	240.2	277.2	220.4	195.2	183.0	240.7	253.2	245.1
<b>2004</b>									
March	275.3	237.0	294.5	227.1	197.5	190.8	254.4	263.8	251.3

(a) Base of each index 1989-90 = 100.0.

## 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>2000-01</b>	7.0	10.0	5.1	6.4	6.4	4.0	-0.3	8.8	7.4
<b>2001-02</b>	17.3	21.7	13.7	14.5	8.7	4.4	2.8	16.1	16.5
<b>2002-03</b>	21.2	11.7	24.7	21.7	13.0	12.1	6.9	19.7	17.9
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
<b>2000</b>									
September	11.3	4.5	3.6	6.2	7.1	7.2	—	10.6	7.5
December	5.9	9.7	5.5	4.3	6.1	4.6	-1.1	7.6	6.6
<b>2001</b>									
March	4.7	11.1	5.9	7.7	6.6	4.0	-0.8	7.5	6.9
June	6.3	14.3	5.3	7.6	5.6	0.7	1.0	9.9	8.2
September	10.4	30.4	5.5	10.3	6.8	0.4	0.5	12.3	14.0
December	17.2	20.6	9.7	15.2	7.7	3.4	3.4	17.0	15.5
<b>2002</b>									
March	20.0	18.3	18.1	15.3	9.4	6.2	3.9	18.1	17.3
June	21.7	19.0	21.3	17.0	10.8	7.3	3.2	16.7	18.9
September	21.0	10.7	25.4	19.9	12.0	10.4	7.7	18.5	17.3
December	22.4	12.5	25.3	21.1	11.6	9.0	4.6	18.0	18.4
<b>2003</b>									
March	20.9	13.7	21.9	20.6	12.3	13.2	7.5	18.4	18.0
June	20.6	10.0	26.3	24.7	15.8	15.9	7.6	23.8	18.1
September	16.5	11.6	27.8	22.8	19.2	19.1	5.6	24.4	17.6
December	15.5	12.5	35.1	24.2	22.2	21.4	13.2	25.3	18.9
<b>2004</b>									
March	15.8	8.9	36.6	22.8	19.0	18.6	14.3	25.3	17.9
PERCENTAGE CHANGE (from previous quarter)									
<b>2000</b>									
September	2.5	-5.3	1.5	0.6	0.2	0.1	-1.1	1.0	-0.1
December	-1.2	9.7	1.9	-0.3	2.1	-0.4	-0.3	2.1	2.4
<b>2001</b>									
March	2.2	2.7	0.3	4.6	1.7	0.1	1.3	2.8	2.2
June	2.7	7.1	1.5	2.6	1.6	1.0	1.1	3.7	3.6
September	6.4	8.0	1.7	3.1	1.4	-0.1	-1.6	3.3	5.2
December	5.0	1.4	6.0	4.1	2.9	2.5	2.6	6.3	3.8
<b>2002</b>									
March	4.6	0.8	7.9	4.7	3.3	2.7	1.8	3.8	3.8
June	4.2	7.7	4.2	4.1	2.8	2.0	0.5	2.4	4.9
September	5.8	0.5	5.2	5.6	2.5	2.8	2.7	4.8	3.8
December	6.2	3.0	5.9	5.2	2.5	1.3	-0.4	5.9	4.8
<b>2003</b>									
March	3.3	1.9	5.1	4.3	3.9	6.7	4.7	4.2	3.4
June	3.9	4.2	7.9	7.6	6.0	4.4	0.5	7.1	5.0
September	2.2	1.9	6.4	4.1	5.5	5.7	0.8	5.4	3.4
December	5.3	3.8	12.0	6.4	5.1	3.2	6.7	6.6	6.0
<b>2004</b>									
March	3.5	-1.3	6.2	3.0	1.2	4.3	5.7	4.2	2.5

— nil or rounded to zero (including null cells)

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>2000-01</b>	138.4	136.9	132.0	141.9	126.2	140.7	156.8	153.5	134.9
<b>2001-02</b>	141.3	142.1	133.5	148.2	128.8	145.1	158.5	161.3	138.1
<b>2002-03</b>	145.2	147.2	142.9	155.9	132.9	158.5	167.2	171.4	144.1
<b>2000</b>									
September	137.8	135.7	131.4	141.7	126.3	140.3	157.6	151.6	134.3
December	138.3	136.4	132.8	140.6	125.9	140.3	157.6	152.5	134.8
<b>2001</b>									
March	138.2	138.0	132.5	141.8	125.8	140.5	156.7	153.5	135.1
June	139.1	137.6	131.4	143.4	126.9	141.8	155.1	156.5	135.4
September	139.8	140.0	131.8	144.9	127.7	142.7	155.3	157.9	136.4
December	140.9	142.6	132.1	147.5	128.5	143.4	156.8	160.8	137.6
<b>2002</b>									
March	141.4	142.4	133.9	149.3	129.2	144.6	159.2	161.8	138.5
June	142.9	143.4	136.0	151.2	129.6	149.7	162.5	164.8	139.9
September	143.6	143.9	139.1	153.6	130.3	152.5	164.5	166.5	141.3
December	144.3	144.9	141.0	155.5	131.6	154.4	164.5	168.6	142.5
<b>2003</b>									
March	146.1	148.1	143.0	156.7	133.1	161.2	169.7	172.1	144.7
June	146.9	151.8	148.6	157.9	136.6	165.7	169.9	178.3	147.9
September	148.7	152.5	155.5	160.7	140.9	166.7	170.0	184.6	151.2
December	150.0	152.2	161.1	164.9	143.8	168.9	175.1	186.7	153.7
<b>2004</b>									
March	151.8	153.0	163.5	168.3	146.5	173.5	177.1	187.7	155.8

(a) Base of each index 1989-90 = 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>2000-01</b>	12.4	12.2	11.7	11.6	9.9	11.5	9.5	16.4	11.8
<b>2001-02</b>	2.1	3.8	1.1	4.4	2.1	3.1	1.1	5.1	2.4
<b>2002-03</b>	2.8	3.6	7.0	5.2	3.2	9.2	5.5	6.3	4.3
PERCENTAGE CHANGE (from corresponding quarter of previous year)									
<b>2000</b>									
September	15.3	15.5	14.3	16.4	13.3	13.1	11.4	19.1	14.8
December	12.6	12.3	13.1	11.0	8.3	11.9	10.0	17.1	11.8
<b>2001</b>									
March	10.9	11.0	10.4	9.1	8.7	10.2	9.4	14.6	10.4
June	10.7	10.3	9.3	10.0	9.8	10.9	7.3	15.0	10.2
September	1.5	3.2	0.3	2.3	1.1	1.7	-1.5	4.2	1.6
December	1.9	4.5	-0.5	4.9	2.1	2.2	-0.5	5.4	2.1
<b>2002</b>									
March	2.3	3.2	1.1	5.3	2.7	2.9	1.6	5.4	2.5
June	2.7	4.2	3.5	5.4	2.1	5.6	4.8	5.3	3.3
September	2.7	2.8	5.5	6.0	2.0	6.9	5.9	5.4	3.6
December	2.4	1.6	6.7	5.4	2.4	7.7	4.9	4.9	3.6
<b>2003</b>									
March	3.3	4.0	6.8	5.0	3.0	11.5	6.6	6.4	4.5
June	2.8	5.9	9.3	4.4	5.4	10.7	4.6	8.2	5.7
September	3.6	6.0	11.8	4.6	8.1	9.3	3.3	10.9	7.0
December	4.0	5.0	14.3	6.0	9.3	9.4	6.4	10.7	7.9
<b>2004</b>									
March	3.9	3.3	14.3	7.4	10.1	7.6	4.4	9.1	7.7
PERCENTAGE CHANGE (from previous quarter)									
<b>2000</b>									
September	9.7	8.7	9.3	8.7	9.3	9.7	9.0	11.4	9.3
December	0.4	0.5	1.1	-0.8	-0.3	—	—	0.6	0.4
<b>2001</b>									
March	-0.1	1.2	-0.2	0.9	-0.1	0.1	-0.6	0.7	0.2
June	0.7	-0.3	-0.8	1.1	0.9	0.9	-1.0	2.0	0.2
September	0.5	1.7	0.3	1.0	0.6	0.6	0.1	0.9	0.7
December	0.8	1.9	0.2	1.8	0.6	0.5	1.0	1.8	0.9
<b>2002</b>									
March	0.4	-0.1	1.4	1.2	0.5	0.8	1.5	0.6	0.7
June	1.1	0.7	1.6	1.3	0.3	3.5	2.1	1.9	1.0
September	0.5	0.3	2.3	1.6	0.5	1.9	1.2	1.0	1.0
December	0.5	0.7	1.4	1.2	1.0	1.2	—	1.3	0.8
<b>2003</b>									
March	1.2	2.2	1.4	0.8	1.1	4.4	3.2	2.1	1.5
June	0.5	2.5	3.9	0.8	2.6	2.8	0.1	3.6	2.2
September	1.2	0.5	4.6	1.8	3.1	0.6	0.1	3.5	2.2
December	0.9	-0.2	3.6	2.6	2.1	1.3	3.0	1.1	1.7
<b>2004</b>									
March	1.2	0.5	1.5	2.1	1.9	2.7	1.1	0.5	1.4

— nil or rounded to zero (including null cells)

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

<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(b)</i>	<i>National accounts private housing investment</i>
<b>2000-01</b>	152.8	134.9	124.4	112.9	137.7
<b>2001-02</b>	178.0	138.1	126.0	116.6	140.6
<b>2002-03</b>	209.9	144.1	130.5	120.6	146.2
<b>2000</b>					
September	147.1	134.3	124.5	111.5	137.5
December	150.6	134.8	124.4	112.2	137.2
<b>2001</b>					
March	153.9	135.1	124.2	113.3	137.8
June	159.4	135.4	124.4	114.4	138.1
September	167.7	136.4	124.7	115.6	138.7
December	174.0	137.6	125.2	116.3	140.1
<b>2002</b>					
March	180.6	138.5	126.1	117.1	141.2
June	189.5	139.9	127.8	117.5	142.3
September	196.7	141.3	128.8	119.2	143.6
December	206.1	142.5	130.1	119.9	144.9
<b>2003</b>					
March	213.1	144.7	130.9	121.4	146.7
June	223.8	147.9	132.1	122.0	149.4
September	231.3	151.2	132.9	123.8	152.5
December	245.1	153.7	133.6	124.2	155.2
<b>2004</b>					
March	251.3	155.8	134.4	125.8	157.4

(a) Unless otherwise specified, base of each index: 1989-90 = 100.0

(b) Base of index September quarter 1997 = 100.0

## 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>2000-01</b>	7.4	11.8	1.3	4.3	13.7
<b>2001-02</b>	16.5	2.4	1.3	3.3	2.1
<b>2002-03</b>	17.9	4.3	3.6	3.4	4.0
.....					
PERCENTAGE CHANGE (from corresponding quarter of previous year)					
<b>2000</b>					
September	7.5	14.8	3.3	4.4	16.8
December	6.6	11.8	2.4	4.4	14.9
<b>2001</b>					
March	6.9	10.4	0.3	4.1	12.7
June	8.2	10.2	-0.9	4.2	10.4
September	14.0	1.6	0.2	3.7	0.9
December	15.5	2.1	0.6	3.7	2.1
<b>2002</b>					
March	17.3	2.5	1.5	3.4	2.5
June	18.9	3.3	2.7	2.7	3.0
September	17.3	3.6	3.3	3.1	3.5
December	18.4	3.6	3.9	3.1	3.4
<b>2003</b>					
March	18.0	4.5	3.8	3.7	3.9
June	18.1	5.7	3.4	3.8	5.0
September	17.6	7.0	3.2	3.9	6.2
December	18.9	7.9	2.7	3.6	7.1
<b>2004</b>					
March	17.9	7.7	2.7	3.6	7.3
.....					
PERCENTAGE CHANGE (from previous quarter)					
<b>2000</b>					
September	-0.1	9.3	-0.8	1.5	9.9
December	2.4	0.4	-0.1	0.6	-0.2
<b>2001</b>					
March	2.2	0.2	-0.2	1.0	0.4
June	3.6	0.2	0.2	1.0	0.2
September	5.2	0.7	0.2	1.0	0.4
December	3.8	0.9	0.4	0.6	1.0
<b>2002</b>					
March	3.8	0.7	0.7	0.7	0.8
June	4.9	1.0	1.3	0.3	0.8
September	3.8	1.0	0.8	1.4	0.9
December	4.8	0.8	1.0	0.6	0.9
<b>2003</b>					
March	3.4	1.5	0.6	1.3	1.2
June	5.0	2.2	0.9	0.5	1.8
September	3.4	2.2	0.6	1.5	2.1
December	6.0	1.7	0.5	0.3	1.8
<b>2004</b>					
March	2.5	1.4	0.6	1.3	1.4



## 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 1989–90 = 100.0 for the eight capital cities. 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 by the ABS 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.

**3** To assist in the analysis of housing price movements at the national level, Australian series have also been compiled and are presented in tables 5 and 6 along with series for prices of building materials, 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 13–18.

### DEFINITIONS

*Established houses*

**4** 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*

**5** Dwellings available for construction on a client's block of land. Price changes therefore relate only to the price of the dwelling (excluding land).

### PRICE INDEXES

**6** 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.

**7** 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 obtained each quarter and the price movements for each model 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.

**8** The construction of a price index for established houses, on the other hand, poses a number of problems. First, in addition to the physical characteristics of a dwelling (such as outer-wall construction, total overall size and number of rooms) its geographical location is a significant component of quality. Second, the only price data available relates to sales that have actually taken place during each quarter. Movements in the average price derived from total sales data in each period would not provide a measure of pure price change as the measure would be influenced by compositional changes (i.e. the prices from one period to the next would relate to houses of different quality).

**9** In order to minimise the effects of compositional change on the measures of price change, the ABS stratifies the sales of established houses by geographic region. Each region is also assigned a weight to reflect the total value of dwellings (including land) in the base period. This methodology removes, from the measure of aggregate price change, any changes attributable purely to variations in (say) the number of sales in high price relative to low price regions. In addition, within each geographical area, any properties with unusually low or high sale prices in the quarter are excluded. The overall

## EXPLANATORY NOTES *continued*

### PRICE INDEXES *continued*

movement of the index is calculated from a weighted average of the average price of each stratum.

**10** 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 real estate organisations and government agencies and are, for most capital cities, based on the settlement date of the sales rather than contract date. Generally, the settlement date is several weeks after the contract date, which would most closely relate to the period in which the price was set. In general, this difference in timing has little impact on the series except when there are significant changes in the rates of price change. The effect of using the settlement date rather than the contract date is that there is likely to be a lag in identifying the turning points.

### LIMITATIONS OF HOUSE PRICE INDEXES

**11** 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 States and Territories.

**12** The series most affected by limited market scope is the Darwin established house price index. Rather than suppress publication, the series is included here because it is believed that the long term trend is reliable. However, because of limitations in the reliability of individual quarter to quarter movement, users are advised to exercise due caution when analysing such movements.

### NATIONAL HOUSE PRICE AND OTHER INDEXES

**13** These series are presented to facilitate analysis of price movements at a national level. Although coverage is not, in all cases, strictly national, this is not believed to significantly impair their usefulness. The derivation or source of each series is as follows:

#### *Established houses*

**14** This series is derived by weighting together the indexes for each of the eight capital cities according to the value of secured finance commitments to individuals in each of the States and Territories for the purchase of newly erected and established houses in 1985–86 until June quarter 1996, and thereafter commitments in 1994–95. The source of weighting information is unpublished data from the ABS survey of Housing Finance for Owner Occupation.

#### *Project homes*

**15** This series is derived by weighting together the indexes for each of the eight capital cities according to the value of secured finance commitments to individuals in each of the States and Territories for the construction of houses in 1985–86 until June quarter 1996, and thereafter commitments in 1994–95. The source of weighting information is unpublished data from the ABS survey of Housing Finance for Owner Occupation. 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 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, alterations and additions to existing dwellings and are capital city specific).

#### *Materials used in house building*

**16** The series included here is that published for the weighted average of the six State capital cities in *Producer Price Indexes, Australia* (cat. no. 6427.0).

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

**17** The series included here is that published for the construction industry total hourly rates of pay excluding bonuses, private and public, in *Wage Cost Index, Australia* (cat. no. 6345.0).

## EXPLANATORY NOTES *continued*

### *Private Housing Investment*

**18** This series is the annually-reweighted chain Laspeyres price index for private capital expenditure (houses), as used (but not separately published) in *Australian National Accounts: National Income, Expenditure and Product* (cat. no. 5206.0), referenced to 1989–90 = 100.0.

### ANALYSIS OF CHANGES IN INDEX NUMBERS

**19** Each of the indexes presented in this publication are calculated on a quarterly basis with a reference base of 1989–90=100.0, except for Construction industry total hourly rates of pay, which has a reference base of September quarter 1997 = 100.0. In compiling these indexes quarterly, the objective is to measure the change between average price levels during one quarter and average price levels during the next quarter.

**20** 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.

**21** 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:

Established houses: Sydney index numbers—

March Quarter 2004 275.3 (see Table 1)

less December Quarter 2003 265.9 (see Table1)

Change in index points: 9.4

Percentage Change =  $\frac{9.4}{265.9} \times 100 = 3.5\%$

**22** 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

**23** Users may also wish to refer to the following publications which are available on request:

- *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.

**24** 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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- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

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