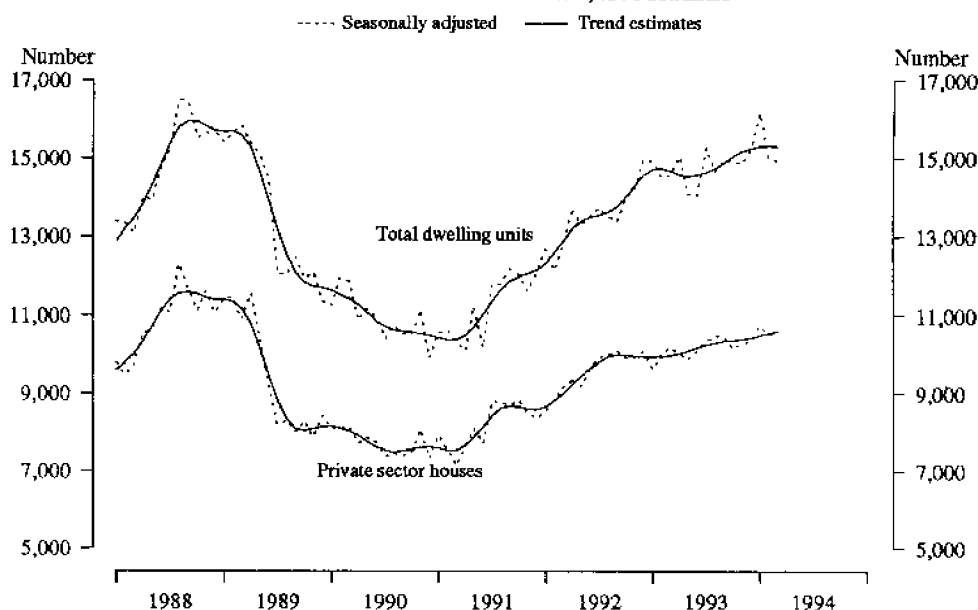


**BUILDING APPROVALS, AUSTRALIA, MARCH 1994**

NOTE: Trend estimates for the most recent months are provisional and can be revised as data for additional months become available. Readers are referred to the "Reliability of Contemporary Trends" on page 3 for assistance with interpreting selected trend estimates.

**SUMMARY OF FINDINGS**

**DWELLING UNITS APPROVED, AUSTRALIA**



**Number of dwelling units approved**

The provisional trend for the *total number of dwelling units* approved has flattened to March 1994, following sustained growth to levels comparable with previous peaks. The trend fell marginally (by 0.2 per cent) in March to 15,300, following small increases in February and January 1994. However, an increase of more than 4 per cent (about the same as the average monthly movement in this series) in the seasonally adjusted number of dwelling units approved in April would see the trend growth resume.

The provisional trend for the *number of private sector houses* approved continued to display moderate growth to March 1994, as it has done since January 1993. The trend rose by 0.5 per cent to 10,603 in March following growth of 0.5 per cent in February and 0.6 per cent in January 1994. There would need to be a fall of more than 3 per cent in the seasonally adjusted number of private sector houses approved in April 1994 to halt this growth.

**DWELLING UNITS APPROVED, MARCH 1994**

	Number	Percentage change	
		From previous month	From corresponding month of previous year
<b>Private sector houses—</b>			
Trend estimate	10,603	0.5	6.3
Seasonally adjusted	10,557	0.2	3.4
Original	11,734	20.7	5.9
<b>Total dwelling units—</b>			
Trend estimate	15,300	-0.2	4.3
Seasonally adjusted	14,919	-0.9	2.4
Original	16,512	18.9	4.8

In seasonally adjusted terms, the *total number of dwelling units* approved fell by 0.9 per cent in March 1994 to 14,919, following a fall of 6.9 per cent in February and a rise of 6.1 per cent in January 1994.

In original terms, the total number of dwelling units approved in March 1994 was 16,512, the highest monthly figure recorded since May 1989. The number of private sector houses approved in March 1994 was 11,734, the

**INQUIRIES**

- for further information about statistics in this publication and the availability of related unpublished statistics, contact Paul Seville on Canberra (06) 252 6067 or any ABS State office.
- about constant price deflators, contact Paul Curran on Canberra (06) 252 6708.
- for information about other ABS statistics and services please refer to the back page of this publication.

highest monthly figure recorded since November 1988. There were 717 public sector dwelling units approved in March 1994, well down on the 997 approvals in March 1993. Public sector approvals for the three months to March 1994 were 35 per cent lower than those for the corresponding period in 1993.

March 1994 trend estimates for dwelling unit approvals are well up on the corresponding figures for 1993 in Victoria, Queensland, Western Australia and Tasmania but down in New South Wales and South Australia.

#### Value of building approved

The provisional trend estimate for the value of *total building* approved continues to grow to March 1994, following a brief period of decline between October and December 1993. However, a fall of about 7 per cent in the seasonally adjusted value of total building approved in April 1994 would see the trend estimates revised to show slow decline over the six months to April 1994. The historical average monthly movement of this series is 9 per cent. New residential building continues to contribute nearly 60 per cent of all building work approved.

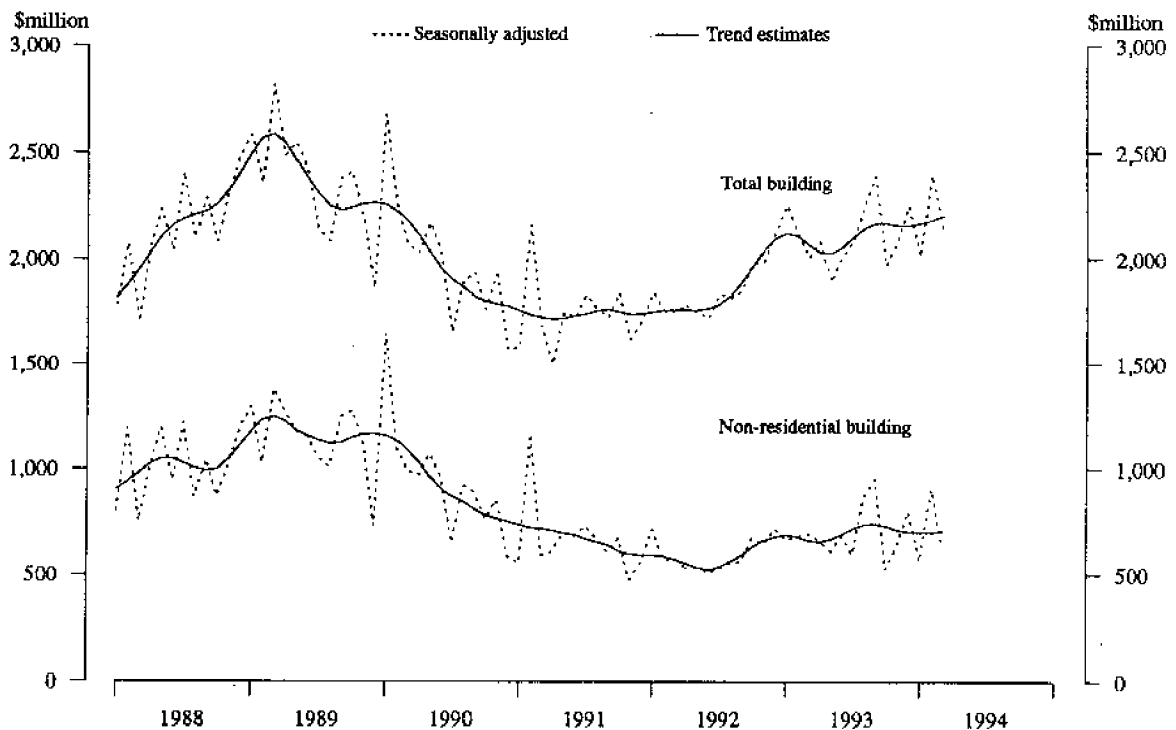
The provisional trend for the value of *new residential building* approved continues to grow as it has done since May 1993. There would need to be a fall of 5 per cent

(slightly more than the average monthly movement) in the seasonally adjusted series in April 1994 to halt this growth.

The provisional trend for the value of *approved alterations and additions to residential buildings* levelled off in March 1994, following sustained growth in this trend series since January 1991. However, any growth in the seasonally adjusted series in April 1994 will see the trend estimates again showing growth.

The seasonally adjusted estimate of the value of *non-residential building* approved in March 1994 was \$624.7m, 31 per cent lower than the February 1994 estimate. This followed an increase of 60 per cent to February and a decline of 29 per cent to January. In fact, over the last nine months, there have been seven occasions when the month to month movement in seasonally adjusted non-residential building approved, regardless of sign, has been greater than 19 per cent, which is the historical average monthly movement in this series. As noted previously, this extreme volatility is caused by the approval of small numbers of very large jobs, and can result in significant revisions to recent trend estimates. At March 1994, the provisional trend estimates for the value of non-residential building approved were flat, but up slightly on the levels observed 12 months ago.

VALUE OF BUILDING APPROVED, AUSTRALIA



### RELIABILITY OF CONTEMPORARY TREND ESTIMATES

The tables below present trend estimates of selected building approvals series for the six months October 1993 to March 1994.

Analysis of building approvals series has shown that the original series can be volatile and that the initial estimates of a month's trend value can be revised substantially. In particular, some months can elapse before a turning point in the trend series is reliably identified. Generally, the size of revisions to the trend estimates tends to be larger, the greater the volatility of the original series. Revisions to trend estimates will also occur with revisions to original data and re-estimation of seasonal adjustment factors. See paragraphs 22 to 24 of the Explanatory Notes for a more detailed explanation.

To illustrate the possible impact of future months' observations on the trend estimates for the latest months, the tables below show the revisions to the trend estimates that would result if the movements in the seasonally adjusted estimates for next month (April 1994) were equal to the average monthly percentage change (regardless of sign) in the series over the last ten years.

For example, if the seasonally adjusted estimate for the number of private houses approved (the first table) were to increase by 4 per cent in April 1994, the trend estimate for that month would be 10,784, a movement of 0.8 per cent. The monthly movements in the trend estimates for January, February and March 1994, which are currently estimated to be 0.6 per cent, 0.5 per cent and 0.5 per cent respectively, would be revised to 0.8 per cent, 0.9 per cent and 0.8 per cent. On the other hand, a 4 per cent seasonally adjusted decline in the number of private houses approved in April 1994 would produce a trend estimate for April of 10,471, a movement of -0.2 per cent, with the movements in the trend estimates for January, February and March 1994 being revised to 0.3 per cent, 0.1 per cent and -0.1 per cent, respectively.

#### NUMBER OF PRIVATE SECTOR HOUSES APPROVED RELIABILITY OF TREND ESTIMATES

	<i>Revised trend estimate if April 1994 seasonally adjusted estimate</i>					
	<i>Trend estimate</i>		<i>is up 4% on March 1994</i>		<i>is down 4% on March 1994</i>	
	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>
<i>1993—</i>						
October	10,377	0.3	10,372	0.2	10,387	0.4
November	10,400	0.2	10,391	0.2	10,416	0.3
December	10,441	0.4	10,436	0.4	10,448	0.3
<i>1994—</i>						
January	10,498	0.6	10,515	0.8	10,481	0.3
February	10,553	0.5	10,607	0.9	10,496	0.1
March	10,603	0.5	10,694	0.8	10,487	-0.1
April	n.y.a.	n.y.a.	10,784	0.8	10,471	-0.2

#### TOTAL NUMBER OF DWELLING UNITS APPROVED RELIABILITY OF TREND ESTIMATES

	<i>Revised trend estimate if April 1994 seasonally adjusted estimate</i>					
	<i>Trend estimate</i>		<i>is up 4% on March 1994</i>		<i>is down 4% on March 1994</i>	
	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>
<i>1993—</i>						
October	15,054	1.1	15,052	1.1	15,074	1.2
November	15,176	0.8	15,177	0.8	15,216	0.9
December	15,256	0.5	15,256	0.5	15,275	0.4
<i>1994—</i>						
January	15,313	0.4	15,322	0.4	15,270	-0.0
February	15,334	0.1	15,352	0.2	15,183	-0.6
March	15,300	-0.2	15,352	0.0	15,031	-1.0
April	n.y.a.	n.y.a.	15,346	-0.0	14,864	-1.1

**VALUE OF NEW RESIDENTIAL BUILDING APPROVED  
RELIABILITY OF TREND ESTIMATES**

	<i>Revised trend estimate if April 1994 seasonally adjusted estimate</i>					
	<i>Trend estimate</i>		<i>is up 4% on March 1994</i>		<i>is down 4% on March 1994</i>	
	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>
<i>1993—</i>						
October	1,261.1	1.0	1,260.2	1.0	1,262.5	1.2
November	1,271.5	0.8	1,270.1	0.8	1,274.1	0.9
December	1,281.6	0.8	1,280.8	0.8	1,282.8	0.7
<i>1994—</i>						
January	1,293.7	0.9	1,296.6	1.2	1,291.3	0.7
February	1,305.4	0.9	1,314.0	1.3	1,296.5	0.4
March	1,312.7	0.6	1,330.1	1.2	1,297.2	0.1
April	n.y.a.	n.y.a.	1,347.1	1.3	1,297.4	0.0

**VALUE OF NON-RESIDENTIAL BUILDING APPROVED  
RELIABILITY OF TREND ESTIMATES**

	<i>Revised trend estimate if April 1994 seasonally adjusted estimate</i>					
	<i>Trend estimate</i>		<i>is up 19% on March 1994</i>		<i>is down 19% on March 1994</i>	
	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>
<i>1993—</i>						
October	731.8	-1.3	731.6	-1.3	736.3	-0.7
November	715.9	-2.2	715.4	-2.2	723.6	-1.7
December	704.5	-1.6	703.9	-1.6	708.0	-2.1
<i>1994—</i>						
January	702.3	-0.3	704.2	0.0	693.5	-2.1
February	702.5	0.0	714.5	1.5	678.9	-2.1
March	708.4	0.8	724.6	1.4	657.6	-3.1
April	n.y.a.	n.y.a.	747.9	3.2	646.9	-1.6

**VALUE OF TOTAL BUILDING APPROVED  
RELIABILITY OF TREND ESTIMATES**

	<i>Revised trend estimate if April 1994 seasonally adjusted estimate</i>					
	<i>Trend estimate</i>		<i>is up 9% on March 1994</i>		<i>is down 9% on March 1994</i>	
	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>	<i>No.</i>	<i>% change on previous month</i>
<i>1993—</i>						
October	2,171.3	0.1	2,169.5	-0.0	2,177.0	0.3
November	2,163.0	-0.4	2,160.0	-0.4	2,173.2	-0.2
December	2,160.6	-0.1	2,158.6	-0.1	2,165.1	-0.4
<i>1994—</i>						
January	2,172.1	0.5	2,178.7	0.9	2,161.3	-0.2
February	2,188.0	0.7	2,213.3	1.6	2,155.7	-0.3
March	2,205.1	0.8	2,248.7	1.6	2,140.2	-0.7
April	n.y.a.	n.y.a.	2,297.4	2.2	2,133.6	-0.3

TABLE 1. NUMBER OF DWELLING UNITS APPROVED IN NEW RESIDENTIAL BUILDINGS, AUSTRALIA

Period	Houses			Other residential buildings			Total		
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total
1990-91	90,973	3,082	94,055	26,267	5,724	31,991	117,240	8,806	126,046
1991-92	107,171	3,693	110,864	31,038	8,299	39,337	138,209	11,992	150,201
1992-93	119,846	3,741	123,587	40,319	6,651	46,970	160,165	10,392	170,557
1992-93									
July-March	89,465	2,569	92,034	29,574	4,507	34,081	119,039	7,076	126,115
1993-94									
July-March	93,708	2,115	95,823	35,911	2,936	38,847	129,619	5,051	134,670
1993—									
January	7,636	560	8,196	3,379	382	3,761	11,015	942	11,957
February	9,041	319	9,360	3,186	497	3,683	12,227	816	13,043
March	11,081	458	11,539	3,681	539	4,220	14,762	997	15,759
April	9,475	440	9,915	3,738	502	4,240	13,213	942	14,155
May	10,249	306	10,555	3,625	686	4,311	13,874	992	14,866
June	10,657	426	11,083	3,382	956	4,338	14,039	1,382	15,421
July	10,989	176	11,165	4,128	526	4,654	15,117	702	15,819
August	10,774	153	10,927	4,108	322	4,430	14,882	475	15,357
September	11,152	333	11,485	4,181	169	4,350	15,333	502	15,835
October	10,435	257	10,692	3,801	142	3,943	14,236	399	14,635
November	10,960	295	11,255	4,564	342	4,906	15,524	637	16,161
December	9,621	302	9,923	3,525	245	3,770	13,146	547	13,693
1994—									
January	8,325	220	8,545	3,955	274	4,229	12,280	494	12,774
February	9,718	130	9,848	3,588	448	4,036	13,306	578	13,884
March	11,734	249	11,983	4,061	468	4,529	15,795	717	16,512

NOTE: The number of self-contained dwelling units approved as part of the construction of non-residential building and alterations and additions to existing buildings (including conversions to dwelling units) are excluded from this table. There were 491 such dwelling units approved in March 1994. Of these, 404 were approved in New South Wales, including 186 dwelling units created as the result of the conversion of a motel to apartments.

TABLE 2. VALUE OF BUILDING APPROVED, AUSTRALIA  
(\$ million)

Period	New residential building									Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses			Other residential buildings			Total				Private sector	Total	Private sector	Total
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total					
1990-91	7,792.2	206.6	7,998.8	1,895.1	359.4	2,254.5	9,687.3	566.0	10,253.3	1,894.9	6,232.3	8,957.4	17,793.3	21,105.6
1991-92	9,113.0	275.6	9,388.5	2,060.3	557.1	2,617.4	11,173.3	832.7	12,005.9	1,973.9	4,745.4	7,208.7	17,873.5	21,188.5
1992-93	10,319.3	286.5	10,605.7	3,091.4	424.2	3,515.6	13,410.7	710.7	14,121.4	2,088.6	5,067.7	7,676.5	20,549.8	23,886.4
1993—														
January	655.3	36.9	692.2	505.3	26.4	531.6	1,160.5	63.3	1,223.8	134.5	473.5	690.3	1,765.3	2,048.6
February	786.0	25.0	811.0	236.8	37.0	273.8	1,022.8	62.1	1,084.8	156.0	401.3	585.0	1,579.5	1,825.8
March	953.3	35.0	988.3	249.6	35.8	285.4	1,202.9	70.8	1,273.7	188.3	396.2	652.2	1,785.2	2,114.2
April	811.9	40.3	852.2	305.8	29.0	334.8	1,117.7	69.4	1,187.0	165.3	436.5	605.5	1,717.3	1,957.7
May	891.9	22.6	914.5	254.8	39.6	294.4	1,146.7	62.2	1,208.9	183.3	362.3	725.0	1,688.9	2,117.3
June	920.3	31.5	951.8	239.2	55.5	294.7	1,159.5	87.1	1,246.5	182.8	522.2	701.3	1,863.0	2,130.7
July	963.5	17.3	980.8	313.8	31.5	345.4	1,277.3	48.9	1,326.2	178.2	380.6	560.8	1,834.7	2,065.1
August	946.1	12.0	958.1	276.2	21.7	297.9	1,222.4	33.7	1,256.1	179.9	554.0	850.7	1,956.1	2,286.7
September	984.4	27.3	1,011.7	315.7	10.4	326.1	1,300.1	37.8	1,337.8	223.9	687.5	923.0	2,209.7	2,484.8
October	908.5	20.7	929.2	269.7	9.4	279.1	1,178.1	30.1	1,208.2	195.0	416.4	618.5	1,789.0	2,021.7
November	966.3	19.0	985.3	330.1	22.8	352.9	1,296.4	41.8	1,338.2	198.3	424.5	672.7	1,918.6	2,209.2
December	864.8	22.5	887.3	242.3	15.1	257.4	1,107.1	37.6	1,144.7	168.1	457.5	767.4	1,732.1	2,080.2
1994—														
January	750.2	25.8	776.0	296.8	20.4	317.2	1,047.1	46.2	1,093.3	145.2	302.7	566.0	1,494.5	1,804.5
February	867.0	11.2	878.3	274.4	28.7	303.1	1,141.4	39.9	1,181.3	173.7	492.5	781.0	1,806.6	2,136.0
March	1,061.9	19.7	1,081.6	350.7	30.8	381.6	1,412.6	50.6	1,463.1	203.3	436.0	596.7	2,051.4	2,263.1

TABLE 3. NUMBER AND VALUE OF BUILDING APPROVED, AUSTRALIA  
SEASONALLY ADJUSTED ESTIMATES

Period	Number of dwelling units				Value(\$m)			
	Houses		Total		New residential building	Alterations and additions to residential buildings	Non-residential building(a)	Total building
	Private sector	Total	Private sector	Total				
1993—								
January	9,630	10,401	13,661	14,912	1,496.0	167.7	665.9	2,257.2
February	10,018	10,477	13,403	14,524	1,203.9	173.7	682.7	2,118.6
March	10,207	10,575	13,625	14,573	1,173.0	177.8	694.3	2,006.9
April	10,033	10,406	13,790	15,073	1,224.8	176.9	661.7	2,085.2
May	9,882	10,109	13,329	14,082	1,141.6	179.0	613.4	1,892.7
June	10,097	10,268	13,363	14,048	1,155.9	180.8	683.0	2,013.3
July	10,353	10,765	14,561	15,279	1,270.1	170.0	596.9	2,081.8
August	10,484	10,550	14,048	14,677	1,225.8	172.8	875.7	2,257.3
September	10,495	10,797	14,437	14,981	1,281.5	200.2	955.7	2,394.2
October	10,159	10,563	14,222	14,928	1,242.0	185.3	529.9	1,971.4
November	10,278	10,557	14,539	14,879	1,245.1	181.8	641.8	2,091.5
December	10,370	10,816	14,619	15,243	1,268.9	185.2	803.9	2,254.0
1994—								
January	10,764	10,950	15,666	16,166	1,352.0	183.1	567.4	2,015.4
February	10,536	10,719	14,203	15,047	1,277.6	193.4	910.3	2,400.7
March	10,557	10,837	14,110	14,919	1,317.2	185.4	624.7	2,149.3

(a) Extreme care should be exercised in using the seasonally adjusted series for the value of non-residential building. The highly erratic nature of this data makes reliable estimation of the seasonal pattern very difficult.

TABLE 4. NUMBER AND VALUE OF BUILDING APPROVED, AUSTRALIA  
TREND ESTIMATES (a)

Period	Number of dwelling units				Value(\$m)			
	Houses		Total		New residential building	Alterations and additions to residential buildings	Non-residential building	Total building
	Private sector	Total	Private sector	Total				
1993—								
January	9,942	10,440	13,590	14,722	1,263.4	173.1	689.9	2,124.2
February	9,952	10,439	13,590	14,746	1,258.3	174.6	681.9	2,108.8
March	9,977	10,408	13,566	14,669	1,233.7	175.4	662.8	2,065.1
April	10,029	10,385	13,575	14,575	1,205.2	176.0	655.1	2,030.8
May	10,104	10,391	13,651	14,537	1,188.8	176.7	668.0	2,028.8
June	10,190	10,430	13,789	14,570	1,192.1	177.8	692.0	2,057.4
July	10,259	10,494	13,949	14,641	1,210.0	179.4	721.3	2,108.0
August	10,309	10,567	14,128	14,747	1,232.5	181.3	737.9	2,149.8
September	10,350	10,637	14,329	14,894	1,248.1	183.3	741.3	2,170.1
October	10,377	10,687	14,510	15,054	1,261.1	185.0	731.8	2,171.4
November	10,400	10,715	14,624	15,176	1,271.5	186.0	715.9	2,163.0
December	10,441	10,744	14,676	15,256	1,281.6	186.5	704.5	2,160.6
1994—								
January	10,498	10,782	14,683	15,313	1,293.7	186.6	702.3	2,172.1
February	10,553	10,819	14,646	15,334	1,305.4	186.8	702.5	2,188.0
March	10,603	10,837	14,552	15,300	1,312.7	186.3	708.4	2,205.1

(a) Seasonally adjusted series smoothed by application of a 13-term Henderson moving average - see Explanatory Notes for a more detailed explanation.

TABLE 5. TOTAL NUMBER OF DWELLING UNITS APPROVED, STATES(a)  
SEASONALLY ADJUSTED AND TREND ESTIMATES

Period	NSW	Vic.	Qld	SA	WA	Tas.
SEASONALLY ADJUSTED						
<i>1993—</i>						
January	4,407	2,667	3,932	1,094	1,909	349
February	4,390	2,489	3,523	1,142	1,698	227
March	4,139	2,557	4,088	986	1,871	353
April	4,167	2,394	4,660	1,101	1,828	345
May	3,897	2,343	4,334	1,010	1,809	321
June	3,692	2,359	4,523	942	2,045	333
July	4,425	2,583	4,641	1,143	1,865	378
August	3,717	2,437	4,316	1,177	2,183	386
September	3,870	2,723	4,798	850	2,145	349
October	3,945	2,591	4,143	924	2,197	342
November	3,999	2,554	4,504	1,005	2,351	364
December	3,556	2,634	4,641	927	2,551	368
<i>1994—</i>						
January	4,348	2,754	4,570	927	1,881	390
February	3,965	2,886	4,061	897	2,174	362
March	3,806	2,636	4,676	906	2,334	297
TREND ESTIMATES						
<i>1993—</i>						
January	4,331	2,565	3,939	1,083	1,880	329
February	4,300	2,540	4,034	1,078	1,846	319
March	4,215	2,489	4,149	1,067	1,826	317
April	4,114	2,439	4,281	1,058	1,833	324
May	4,023	2,418	4,412	1,051	1,870	336
June	3,969	2,433	4,505	1,045	1,925	350
July	3,935	2,473	4,539	1,038	2,008	358
August	3,915	2,520	4,527	1,024	2,101	361
September r	3,907	2,568	4,500	1,001	2,183	363
October r	3,909	2,610	4,484	973	2,237	366
November r	3,918	2,644	4,472	948	2,257	365
December r	3,931	2,676	4,463	929	2,255	363
<i>1994—</i>						
January r	3,948	2,708	4,459	919	2,241	359
February r	3,963	2,737	4,459	911	2,225	352
March	3,953	2,746	4,447	916	2,218	345

(a) Seasonally adjusted and trend estimates are not available for Northern Territory or Australian Capital Territory. NOTE: Analysis of the above State building approvals series has shown that they are subject to varying degrees of volatility. As an indication of this volatility, the average absolute monthly percentage change in the seasonally adjusted estimates over the last ten years, for each State series, is New South Wales, 8%; Victoria, 6%; Queensland, 7%; South Australia, 11%; Western Australia, 8% and Tasmania, 12%. This volatility should also be taken into account in analysis of the trend estimates presented (see "Reliability of Contemporary Trend Estimates" on page 3 of this publication).

TABLE 6. VALUE OF BUILDING APPROVED AT AVERAGE 1989-90 PRICES (a), AUSTRALIA  
ORIGINAL AND SEASONALLY ADJUSTED ESTIMATES  
(\$ million)

Period	New residential building				Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses		Other residential buildings	Total		Private sector	Total	Private sector	Total
	Private sector	Total							
ORIGINAL									
1990-91	7,543.6	7,743.0	2,257.4	10,000.3	1,827.5	6,327.1	9,070.7	17,627.8	20,898.6
1991-92	8,781.7	9,045.2	2,745.7	11,791.0	1,893.9	5,057.2	7,629.9	17,971.3	21,314.8
1992-93	9,875.9	10,151.8	3,720.3	13,872.1	2,000.4	5,466.0	8,206.7	20,726.9	24,079.3
1992—									
Sept. qtr.	2,589.8	2,620.7	750.9	3,371.7	528.0	1,285.8	1,718.2	5,093.3	5,617.9
Dec. qtr.	2,502.9	2,563.9	834.4	3,398.2	508.1	1,396.4	2,265.0	5,147.4	6,171.3
1993—									
Mar. qtr.	2,283.0	2,376.9	1,163.6	3,540.5	457.4	1,371.0	2,056.7	5,197.8	6,054.6
June qtr.	2,500.2	2,590.2	971.5	3,561.7	507.0	1,412.8	2,166.7	5,288.4	6,235.4
Sept. qtr.	2,745.3	2,799.6	1,026.4	3,826.0	552.1	1,741.5	2,514.8	6,035.2	6,892.9
Dec. qtr.	2,569.2	2,626.7	937.6	3,564.3	524.4	1,408.2	2,212.1	5,431.8	6,300.9
SEASONALLY ADJUSTED									
1992—									
Sept. qtr.	2,473.9	2,512.2	n.a.	3,262.1	495.8	n.a.	1,792.2	4,868.7	5,552.2
Dec. qtr.	2,468.7	2,546.3	n.a.	3,424.1	496.9	n.a.	2,169.5	5,264.8	6,141.4
1993—									
Mar. qtr.	2,463.9	2,564.1	n.a.	3,827.6	496.1	n.a.	2,179.9	5,516.2	6,453.1
June qtr.	2,470.9	2,538.0	n.a.	3,444.2	512.0	n.a.	2,088.1	5,152.0	6,019.8
Sept. qtr.	2,608.3	2,673.1	n.a.	3,686.8	515.2	n.a.	2,615.8	5,828.7	6,788.9
Dec. qtr.	2,548.2	2,619.9	n.a.	3,627.0	516.0	n.a.	2,122.9	5,470.7	6,306.7

(a) See paragraphs 25-27 of the Explanatory Notes. Constant price estimates are subject to revision each quarter as more up to date information on prices and commodity compositions becomes available.

TABLE 7. NEW DWELLING UNITS APPROVED, BY TYPE AND STATE, MARCH 1994

State	Other residential building								Total residential building	
	Houses	Semi-detached, row or terrace houses, townhouses, etc. of			Flats, units or apartments in a building of			Total		
		1 storey	2 or more storeys	Total	1-2 storeys	3 storeys	4 or more storeys			
NUMBER OF DWELLING UNITS										
NSW	2,975	482	163	645	427	172	97	696	1,341	4,316
Vic.	2,594	169	65	234	—	14	63	77	311	2,905
Qld	3,365	254	431	685	339	228	400	967	1,652	5,017
SA	834	166	31	197	—	—	—	—	197	1,031
WA	1,732	517	42	559	16	—	115	131	690	2,422
Tas.	266	64	—	64	—	—	—	—	64	330
NT	86	10	4	14	33	—	—	33	47	133
ACT	131	50	7	57	32	138	—	170	227	358
<b>Australia</b>	<b>11,983</b>	<b>1,712</b>	<b>743</b>	<b>2,455</b>	<b>847</b>	<b>552</b>	<b>675</b>	<b>2,074</b>	<b>4,529</b>	<b>16,512</b>
VALUE (\$m)										
NSW	303.8	34.4	16.2	50.6	30.0	11.5	8.5	50.0	100.6	404.4
Vic.	234.3	10.6	5.2	15.9	—	1.0	6.6	7.6	23.5	257.8
Qld	301.4	13.7	31.6	45.3	20.7	17.5	89.7	127.9	173.2	474.7
SA	61.3	7.9	2.3	10.1	—	—	—	—	10.1	71.5
WA	136.1	30.3	3.5	33.8	1.4	—	15.0	16.4	50.2	186.3
Tas.	22.1	3.4	—	3.4	—	—	—	—	3.4	25.5
NT	7.5	0.6	0.3	0.8	2.0	—	—	2.0	2.9	10.4
ACT	15.0	4.3	0.7	5.0	2.2	10.5	—	12.7	17.7	32.7
<b>Australia</b>	<b>1,081.6</b>	<b>105.0</b>	<b>59.8</b>	<b>164.9</b>	<b>56.4</b>	<b>40.4</b>	<b>119.8</b>	<b>216.7</b>	<b>381.6</b>	<b>1,463.1</b>



TABLE 8. DETAILS OF BUILDING APPROVED, MARCH 1994

State	New residential building										Value (\$m)									
	Houses					Other residential buildings					Total		Non-residential building							
	Number of dwelling units		Value (\$m)		Alterations and additions to residential buildings	Number of dwelling units		Value (\$m)		Hotels, etc.	Shops	Factories	Offices	Miscellaneous	Educational	Religious	Health	Entertainment and recreation	Miscellaneous	Total building
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)		Offices	Miscellaneous	Educational	Religious											
PRIVATE SECTOR																				
NSW	2,878	295.8	1,255	94.3	90.7	2.4	212	15.5	20.7	18.4	30.5	0.1	7.1	3.0	12.3	131.2	612.0			
Vic.	2,558	231.7	1,677	122	53.7	1.0	56.0	11.4	8.6	11.3	1.8	0.9	1.9	3.8	7.5	104.2	401.9			
Qld	3,330	298.3	1,598	170.3	20.8	5.7	58.2	10.4	10.9	13.3	1.3	1.0	4.7	6.0	7.5	119.1	608.5			
SA	773	57.3	145	7.6	10.3	0.2	1.3	0.2	3.1	3.0	1.8	—	5.0	0.1	8.1	22.8	98.1			
WA	1,724	135.3	573	43.5	14.8	1.9	12.4	5.6	2.6	8.7	4.3	0.3	2.4	0.9	2.4	41.5	235.0			
Tas.	261	21.7	53	2.5	4.1	0.1	0.7	0.6	0.7	0.3	0.2	—	0.6	—	—	3.1	31.4			
NT	79	6.8	43	2.6	1.9	—	1.4	0.1	—	0.7	—	—	0.5	—	0.1	2.7	14.0			
ACT	131	15.0	227	17.7	6.5	—	2.2	0.4	1.3	2.8	0.1	0.2	0.5	—	3.7	11.2	50.5			
<b>Australia</b>	<b>11,734</b>	<b>1,061.9</b>	<b>4,061</b>	<b>350.7</b>	<b>202.8</b>	<b>11.3</b>	<b>153.4</b>	<b>44.1</b>	<b>48.0</b>	<b>58.6</b>	<b>39.9</b>	<b>2.4</b>	<b>22.8</b>	<b>14.0</b>	<b>41.5</b>	<b>436.0</b>	<b>2,051.4</b>			
PUBLIC SECTOR																				
NSW	97	8.0	86	6.3	0.4	—	1.5	1.8	9.6	0.4	21.5	—	0.3	1.3	1.7	38.0	52.7			
Vic.	36	2.6	144	11.3	—	—	0.1	36.0	1.2	4.1	8.7	—	1.0	7.9	2.1	61.1	75.0			
Qld	35	3.1	54	2.9	—	—	0.3	0.5	3.5	1.2	4.0	—	—	5.7	2.2	17.4	23.4			
SA	61	4.1	52	2.5	0.1	—	0.1	6.5	1.8	0.3	3.3	—	0.4	0.3	0.6	6.8	13.5			
WA	8	0.8	117	6.7	—	—	0.1	—	0.2	0.7	5.7	—	—	0.8	0.7	8.2	15.7			
Tas.	5	0.5	11	0.9	—	—	—	—	—	0.2	2.3	—	0.4	—	0.1	3.6	4.9			
NT	7	0.7	4	0.3	—	—	—	—	3.7	3.9	5.4	—	0.3	0.2	9.6	23.2	24.1			
ACT	—	—	—	—	—	—	—	—	0.5	1.1	0.5	—	—	—	0.3	2.4	2.4			
<b>Australia</b>	<b>249</b>	<b>19.7</b>	<b>468</b>	<b>30.8</b>	<b>0.5</b>	<b>—</b>	<b>2.0</b>	<b>42.0</b>	<b>21.2</b>	<b>15.4</b>	<b>44.1</b>	<b>—</b>	<b>2.4</b>	<b>16.2</b>	<b>17.4</b>	<b>160.7</b>	<b>211.7</b>			
TOTAL																				
NSW	2,975	303.8	1,341	100.6	91.1	2.4	22.7	17.2	30.3	18.8	52.0	0.1	7.4	4.3	14.1	169.3	664.7			
Vic.	2,594	234.3	311	23.5	53.7	1.0	56.1	47.4	9.8	15.4	10.5	0.9	2.9	11.7	9.6	165.3	476.8			
Qld	3,365	301.4	1,652	173.2	20.8	5.7	58.5	10.9	14.5	14.4	5.3	1.0	4.7	11.7	9.7	136.5	632.0			
SA	834	61.3	197	10.1	10.4	0.2	1.3	0.2	4.9	3.4	5.1	—	5.4	0.4	8.7	29.6	111.5			
WA	1,732	136.1	690	50.2	14.8	1.9	12.4	5.6	2.8	9.4	10.0	0.3	2.4	1.8	3.1	49.7	250.7			
Tas.	266	22.1	64	3.4	4.1	0.1	0.7	0.6	1.1	2.6	0.5	—	1.1	—	0.1	6.7	96.3			
NT	86	7.5	47	2.9	1.9	—	1.4	3.8	3.9	6.1	0.1	—	0.8	0.2	9.7	25.9	38.2			
ACT	131	15.0	227	17.7	6.5	—	2.2	0.4	1.9	3.9	0.6	0.2	0.5	—	3.9	13.6	52.9			
<b>Australia</b>	<b>11,983</b>	<b>1,061.6</b>	<b>4,529</b>	<b>381.6</b>	<b>203.3</b>	<b>11.3</b>	<b>155.4</b>	<b>86.1</b>	<b>69.2</b>	<b>74.0</b>	<b>84.1</b>	<b>2.4</b>	<b>25.2</b>	<b>30.2</b>	<b>58.8</b>	<b>596.7</b>	<b>2,263.1</b>			

TABLE 9. VALUE OF BUILDING APPROVED, BY CLASS OF BUILDING AND OWNERSHIP  
(\$ million)

Class of building	1991-92	1992-93	July-March		1994		
			1992-93	1993-94	January	February	March
PRIVATE SECTOR							
New houses	9,113.0	10,319.3	7,695.3	8,312.7	750.2	867.0	1,061.9
New other residential buildings	2,060.3	3,091.4	2,291.6	2,669.7	296.8	274.4	350.7
<i>Total new residential building</i>	<i>11,173.3</i>	<i>13,410.7</i>	<i>9,986.9</i>	<i>10,982.4</i>	<i>1,047.1</i>	<i>1,141.4</i>	<i>1,412.6</i>
Alterations and additions to residential buildings	1,954.8	2,071.4	1,546.9	1,658.8	144.8	172.7	202.8
Hotels, etc.	399.0	226.3	164.4	396.7	8.1	30.7	11.3
Shops	787.7	1,114.7	786.9	1,041.6	48.9	131.5	153.4
Factories	651.9	716.2	548.2	383.6	31.8	40.9	44.1
Offices	1,196.0	943.4	716.0	607.6	79.1	72.1	48.0
Other business premises	566.6	697.3	490.2	488.9	34.7	78.3	58.6
Educational	237.2	277.4	209.9	263.2	21.0	20.6	39.9
Religious	79.4	88.0	65.0	60.0	3.6	5.3	2.4
Health	249.4	318.7	239.7	385.4	28.8	70.6	22.8
Entertainment and recreational	371.0	441.9	348.0	261.1	27.9	25.3	14.0
Miscellaneous	207.3	243.8	178.4	263.3	18.7	17.2	41.5
<i>Total non-residential building</i>	<i>4,745.4</i>	<i>5,067.7</i>	<i>3,746.7</i>	<i>4,151.5</i>	<i>302.7</i>	<i>492.5</i>	<i>436.0</i>
<b>Total</b>	<b>17,873.5</b>	<b>20,549.8</b>	<b>15,280.6</b>	<b>16,792.8</b>	<b>1,494.5</b>	<b>1,806.6</b>	<b>2,051.4</b>
PUBLIC SECTOR							
New houses	275.6	286.5	191.9	175.6	25.8	11.2	19.7
New other residential buildings	557.1	424.2	300.1	190.9	20.4	28.7	30.8
<i>Total new residential building</i>	<i>832.7</i>	<i>710.7</i>	<i>492.0</i>	<i>366.5</i>	<i>46.2</i>	<i>39.9</i>	<i>50.6</i>
Alterations and additions to residential buildings	19.1	17.1	10.2	6.8	0.5	1.0	0.5
Hotels, etc.	7.3	7.7	4.5	5.4	0.5	—	—
Shops	97.6	30.5	24.2	25.9	1.2	1.8	2.0
Factories	53.0	18.3	14.0	62.6	0.6	0.5	42.0
Offices	549.7	543.9	369.1	407.1	94.5	25.4	21.2
Other business premises	208.1	129.6	108.3	444.9	6.3	129.1	15.4
Educational	693.1	750.7	581.0	584.8	61.2	58.2	44.1
Religious	—	—	—	—	—	—	—
Health	248.2	535.1	471.4	397.2	84.9	36.2	2.4
Entertainment and recreational	305.6	342.0	139.7	117.6	3.1	17.2	16.2
Miscellaneous	300.7	251.1	185.7	139.8	11.0	20.2	17.4
<i>Total non-residential building</i>	<i>2,463.3</i>	<i>2,608.8</i>	<i>1,898.0</i>	<i>2,185.2</i>	<i>263.3</i>	<i>288.5</i>	<i>160.7</i>
<b>Total</b>	<b>3,315.1</b>	<b>3,336.6</b>	<b>2,400.1</b>	<b>2,558.5</b>	<b>309.9</b>	<b>329.4</b>	<b>211.7</b>
TOTAL							
New houses	9,388.5	10,605.7	7,887.2	8,488.3	776.0	878.3	1,081.6
New other residential buildings	2,617.4	3,515.6	2,591.7	2,860.6	317.2	303.1	381.6
<i>Total new residential building</i>	<i>12,005.9</i>	<i>14,121.4</i>	<i>10,478.9</i>	<i>11,348.9</i>	<i>1,093.3</i>	<i>1,181.3</i>	<i>1,463.1</i>
Alterations and additions to residential buildings	1,973.9	2,088.6	1,557.1	1,665.6	145.2	173.7	203.3
Hotels, etc.	406.3	234.0	168.8	402.1	8.7	30.7	11.3
Shops	885.2	1,145.1	811.1	1,067.5	50.1	133.3	155.4
Factories	704.9	734.5	562.2	446.3	32.4	41.5	86.1
Offices	1,745.7	1,487.3	1,085.1	1,014.7	173.6	97.5	69.2
Other business premises	774.7	826.9	598.5	933.9	41.0	207.3	74.0
Educational	930.3	1,028.1	790.9	848.0	82.2	78.8	84.1
Religious	79.4	88.0	65.0	60.0	3.6	5.3	2.4
Health	497.5	853.8	711.1	782.6	113.7	106.8	25.2
Entertainment and recreational	676.6	783.9	487.7	378.7	31.0	42.5	30.2
Miscellaneous	508.0	494.9	364.1	403.2	29.7	37.4	58.8
<i>Total non-residential building</i>	<i>7,208.7</i>	<i>7,676.5</i>	<i>5,644.7</i>	<i>6,336.8</i>	<i>566.0</i>	<i>781.0</i>	<i>596.7</i>
<b>Total</b>	<b>21,188.5</b>	<b>23,886.4</b>	<b>17,680.7</b>	<b>19,351.2</b>	<b>1,804.5</b>	<b>2,136.0</b>	<b>2,263.1</b>

TABLE 10. NON-RESIDENTIAL BUILDING JOBS APPROVED, BY CLASS OF BUILDING  
AND VALUE SIZE GROUPS

Period	\$50,000 to less than \$200,000		\$200,000 to less than \$500,000		\$500,000 to less than \$1m		\$1m to less than \$5m		\$5m and over		Total	
	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)
HOTELS, ETC.												
1994 January	22	2.2	9	2.9	2	1.3	1	2.2	—	—	34	8.7
February	19	1.7	10	2.8	5	3.2	4	7.0	1	16.0	39	30.7
March	20	1.7	7	1.7	2	1.7	3	6.1	—	—	32	11.3
SHOPS												
1994 January	140	12.7	40	12.1	10	7.2	9	18.0	—	—	199	50.1
February	145	12.8	46	14.0	15	9.8	7	14.0	4	82.7	217	133.3
March	187	16.1	46	13.7	16	10.1	19	34.0	4	81.5	272	155.4
FACTORIES												
1994 January	76	7.4	30	8.5	7	4.5	7	12.0	—	—	120	32.4
February	91	9.6	29	9.2	12	7.7	5	8.9	1	6.1	138	41.5
March	94	9.6	51	14.9	19	12.4	7	13.4	1	35.8	172	86.1
OFFICES												
1994 January	133	13.1	32	9.3	17	12.1	14	24.5	2	114.5	198	173.6
February	123	11.7	34	9.6	17	12.8	15	31.2	4	32.2	193	97.5
March	143	14.1	52	16.0	18	11.6	12	22.0	1	5.5	226	69.2
OTHER BUSINESS PREMISES												
1994 January	84	8.1	42	12.0	15	10.6	6	10.3	—	—	147	41.0
February	98	10.1	45	12.3	17	11.5	9	21.3	4	152.2	173	207.3
March	106	9.8	50	14.8	21	14.3	14	29.8	1	5.4	192	74.0
EDUCATIONAL												
1994 January	51	4.5	26	8.0	15	9.6	18	37.9	3	22.3	113	82.2
February	49	5.0	25	8.0	15	11.0	19	41.7	1	13.2	109	78.8
March	37	3.9	29	8.6	16	11.4	18	36.2	1	24.0	101	84.1
RELIGIOUS												
1994 January	6	0.5	3	1.1	3	2.0	—	—	—	—	12	3.6
February	9	1.1	6	1.8	4	2.4	—	—	—	—	19	5.3
March	6	0.6	5	1.3	1	0.5	—	—	—	—	12	2.4
HEALTH												
1994 January	37	3.8	11	3.4	5	3.3	11	22.9	2	80.3	66	113.7
February	21	2.3	10	3.3	6	4.2	9	22.3	2	74.6	48	106.8
March	31	3.4	19	5.8	13	8.7	5	7.3	—	—	68	25.2
ENTERTAINMENT AND RECREATIONAL												
1994 January	37	3.3	13	4.0	6	4.1	7	12.6	1	7.0	64	31.0
February	40	3.9	13	3.9	10	6.3	7	15.7	2	12.7	72	42.5
March	33	2.9	21	5.6	3	1.8	7	14.2	1	5.7	65	30.2
MISCELLANEOUS												
1994 January	44	4.7	15	4.3	6	3.5	9	17.2	—	—	74	29.7
February	36	3.7	19	6.3	7	4.6	10	22.8	—	—	72	37.4
March	72	6.7	15	5.1	9	6.0	13	25.5	2	15.5	111	58.8
TOTAL NON-RESIDENTIAL BUILDING												
1994 January	630	60.5	221	65.7	86	58.2	82	157.6	8	224.1	1,027	566.0
February	631	61.7	237	71.4	108	73.4	85	184.8	19	389.7	1,080	781.0
March	729	68.8	295	87.5	118	78.5	98	188.5	11	173.4	1,251	596.7

TABLE 11. SUMMARY OF BUILDING APPROVED

<i>Period</i>	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Australia</i>
NUMBER OF DWELLING UNITS									
1992-93	48,497	29,571	47,785	12,312	22,479	4,094	1,480	4,339	170,557
<i>1993—</i>									
March	4,571	2,762	4,484	1,136	1,971	391	117	327	15,759
December	3,257	2,436	4,090	925	2,289	371	60	265	13,693
<i>1994—</i>									
January	3,570	2,183	3,565	732	1,543	344	152	685	12,774
February	3,535	2,716	3,953	851	2,100	344	144	241	13,884
March	4,316	2,905	5,017	1,031	2,422	330	133	358	16,512
VALUE OF NEW RESIDENTIAL BUILDING (\$m)									
1992-93	4,632.2	2,494.1	3,829.6	840.9	1,519.4	275.3	127.2	402.7	14,121.4
<i>1993—</i>									
March	401.4	235.1	354.8	79.3	135.4	26.6	10.7	30.4	1,273.7
December	307.1	213.9	337.0	66.5	164.3	26.7	5.4	23.8	1,144.7
<i>1994—</i>									
January	334.1	203.2	292.9	51.5	111.9	26.0	20.4	53.3	1,093.3
February	323.8	237.6	334.7	60.4	162.6	23.8	13.9	24.6	1,181.3
March	404.4	257.8	474.7	71.5	186.3	25.5	10.4	32.7	1,463.1
VALUE OF ALTERATIONS AND ADDITIONS TO RESIDENTIAL BUILDINGS (\$m)									
1992-93	965.0	533.0	212.9	132.6	137.1	33.1	19.2	55.7	2,088.6
<i>1993—</i>									
March	83.9	46.1	19.9	13.6	14.7	2.8	1.3	6.0	188.3
December	67.5	53.6	18.7	9.3	11.7	3.5	1.0	2.7	168.1
<i>1994—</i>									
January	66.6	36.5	13.6	9.7	10.4	3.1	0.7	4.7	145.2
February	83.1	44.1	16.6	7.9	13.0	2.7	1.6	4.7	173.7
March	91.1	53.7	20.8	10.4	14.8	4.1	1.9	6.5	203.3
VALUE OF NON-RESIDENTIAL BUILDING (\$m)									
1992-93	3,178.2	1,406.3	1,383.9	418.4	889.6	103.1	81.1	216.0	7,676.5
<i>1993—</i>									
March	246.2	158.7	90.6	21.0	71.9	9.6	7.3	46.9	652.2
December	205.8	120.4	308.8	27.4	67.2	10.4	10.3	17.1	767.4
<i>1994—</i>									
January	258.8	65.3	61.3	28.0	37.4	11.8	5.6	97.7	566.0
February	199.7	363.4	105.1	40.0	42.7	6.2	4.4	19.6	781.0
March	169.3	165.3	136.5	29.6	49.7	6.7	25.9	13.6	596.7
VALUE OF TOTAL BUILDING (\$m)									
1992-93	8,775.4	4,433.4	5,426.3	1,391.9	2,546.1	411.4	227.5	674.4	23,886.4
<i>1993—</i>									
March	731.5	439.9	465.3	113.9	222.1	39.0	19.3	83.3	2,114.2
December	580.4	388.0	664.6	103.1	243.2	40.6	16.7	43.6	2,080.2
<i>1994—</i>									
January	659.5	304.9	367.8	89.2	159.6	40.9	26.7	155.7	1,804.5
February	606.5	645.1	456.3	108.2	218.4	32.7	19.9	49.0	2,136.0
March	664.7	476.8	632.0	111.5	250.7	36.3	38.2	52.9	2,263.1

## EXPLANATORY NOTES

### Scope and coverage

This publication contains monthly details of building work approved. Statistics of building work approved are compiled from:

- (a) Permits issued by local government authorities in areas subject to building control by those authorities; and
- (b) Contracts let or day labour work authorised by Commonwealth, State, semi-government and local government authorities.

Major building activity which takes place in areas not subject to the normal administrative approval processes (e.g. buildings on remote mine sites) is also included.

2. The statistics relate to building activity which includes construction of new buildings and alterations and additions to existing buildings. Construction activity not defined as building (e.g. construction of roads, bridges, railways, earthworks, etc.) is excluded from this publication, but can be found in *Engineering Construction Activity, Australia* (8762.0).

3. In relation to work carried out on existing buildings, the statistics include details of non-structural renovation and refurbishment work and the installation of integral building fixtures, for which building approval was obtained.

4. From July 1990, the statistics cover:

- (a) all approved new residential building jobs valued at \$10,000 or more.
- (b) approved alterations and additions to residential buildings valued at \$10,000 or more.
- (c) all approved non-residential building jobs valued at \$50,000 or more.

### Definitions

5. A *building* is defined as a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock. An integral feature of a building's design, to satisfy its intended use, is the provision for regular access by persons.

6. A *dwelling unit* is defined as a self-contained suite of rooms, including cooking and bathing facilities and intended for *long term* residential use. Units (whether self-contained or not) within buildings offering institutional care, such as hospitals, or temporary accommodation such as motels, hostels and holiday apartments, are not defined as dwelling units. The value of units of this type is included in the appropriate category of non-residential building approved.

7. A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *houses* or *other residential buildings* as follows:

(a) A *house* is defined as a detached building predominantly used for long term residential purposes and consisting of only one dwelling unit. Thus, detached 'granny flats' and detached dwelling units (such as caretakers' residences) associated with non-residential buildings are defined as houses for the purpose of these statistics.

(b) An *other residential building* is defined as a building which is predominantly used for long term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes townhouses, duplexes, apartment buildings etc.).

8. The number of dwelling units created by alterations and additions to existing buildings, and through the construction of new non-residential buildings, is not included in the tables but is shown as a footnote to Table 1.

9. Values data are derived by aggregation of the estimated value (when completed) of building work (excluding value of land and landscaping but including site preparation) *as reported on approval documents*. For 'houses', these estimates are usually a reliable indicator of the completed value of the building. However, for 'other residential buildings' and 'non-residential buildings' these estimates can differ significantly from the completed value of the building.

### Building classification

10. *Ownership*. The ownership of a building is classified as either *public sector* or *private sector* according to the sector of the intended owner of the completed building as evident at the time of approval. Residential buildings being constructed by private sector builders under government housing authority schemes whereby the authority has contracted, or intends to contract, to purchase the buildings on or before completion, are classified as public sector.

11. *Functional classification of buildings*. A building is classified according to its intended major function. A building which is ancillary to other buildings or forms a part of a group of related buildings is classified to the function of the building and not to the function of the group as a whole. An example of this can be seen in the treatment of building work approved for a factory complex. In this case a detached administration building would be classified to Offices, a detached cafeteria building to Shops, while factory buildings would be classified to Factories. An exception to this rule is the treatment of group accommodation buildings where, for example, a student accommodation building on a university campus would be classified to Educational.

12. From July 1992, an expanded functional classification of buildings based on the Dwelling Structure

Classification (DSC) has been introduced by the ABS to provide more detailed information on residential building approvals.

13. The DSC has been developed by the ABS to provide a standard classification of the different types of dwelling structures (houses, flats, townhouses, etc.). The DSC will be implemented across all major collections of housing data in the ABS. The DSC has the same overall scope as the classification used in previous collections but provides more detail than previously available to reflect the current interest in medium to high density housing.

14. In particular, for Building Approvals, DSC allows new *other residential building* to be classified as follows:

(a) *Semi-detached, row or terrace houses, townhouses, etc.* (dwellings having their own private grounds and no other dwellings above or below) with:

- one storey;
- two or more storeys.

(b) *Flats, units or apartments, etc.* dwellings not having their own private grounds and usually sharing a common entrance, foyer or stairwell) in a building of:

- one or two storeys;
- three storeys;
- four or more storeys.

15. More details on the DSC are contained in the ABS Information Paper, *Dwelling Structure Classification (DSC)* (1296.0).

### General

16. For purposes of comparison, it should be noted that statistics of building approvals are affected from month to month by large projects (such as blocks of flats and multi storey office buildings) approved in particular months and also by the administrative arrangements of government authorities.

### Seasonal adjustment

17. Seasonally adjusted building statistics are shown in Tables 3 and 5. In these series, account has been taken of normal seasonal factors and 'trading day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the effect of movement in the date of Easter which may, in successive years, affect figures for different months. Details of the methods used in seasonally adjusting the series are available on request.

18. Each of the component series shown has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series shown add to the totals, the adjusted components may not add to the adjusted totals. Further, the difference between independently seasonally adjusted series does not necessarily produce series which are optimal or even adequate adjustments of the similarly derived original series. Thus the figures which can be derived by subtracting seasonally adjusted private sector dwelling units from the seasonally

adjusted total should not be used to represent seasonally adjusted public sector dwelling units.

19. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject.

20. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognised. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of the approval of large projects or as a consequence of the administrative arrangements of approving authorities. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

21. The seasonally adjusted series can, however, be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate. There are a number of ways of accomplishing this, depending on the intended uses of the trend estimate. If importance is attached to measuring the underlying change in the most recent periods, moving averages employing appropriate weighting patterns should be adopted; the choice of averaging technique will determine in part the degree of smoothness of the derived series. For example, a 23-term moving average will generally even out more of the short term fluctuation in a series (and therefore appear 'smoother') than will a 13-term moving average. However, the longer the term of the moving average the longer the time series affected by revisions resulting from more recent data. In order to ensure that the underlying trend-cycle of a series is reflected in the trend estimate, the degree of smoothness alone cannot always be used as the sole criterion in determining which moving average is appropriate.

22. Trend estimates of building statistics are shown in Tables 4 and 5. Each of the component trend series shown has been derived independently. As with the seasonally adjusted series, the component trend series should not be subtracted from the total to derive unpublished components. The trend estimates have been derived by applying a 13-term Henderson-weighted moving average to all except the last six months of the corresponding seasonally adjusted series.

23. The last six monthly trend estimates are obtained by applying surrogates of the Henderson-weighted averages to the seasonally adjusted series. (Further details concerning trend estimates in general, and the "end-point problem" in particular, can be obtained from the information paper *A Guide to Smoothing Time Series — Estimates of Trend* (1316.0)). As additional observations become

available, the provisional trend estimates for the latest six months will be revised.

24. Revisions to trend estimates will also occur with revisions to original data and as a result of the re-estimation of the seasonal factors.

#### Estimates at constant prices

25. Estimates of the quarterly value of building approvals at average 1989-90 prices are presented in original and seasonally adjusted terms for Australia in Table 6. (Note: monthly value data at constant prices are not available).

26. Constant price estimates measure changes in value after the direct effects of price changes have been eliminated. The deflators used to revalue the current price estimates in this publication are derived from the same price data underlying the deflators compiled for the dwellings and non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

27. Estimates at constant prices are subject to a number of approximations and assumptions. Further information on the nature and concepts of constant price estimates is contained in Chapter 4 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

#### Unpublished data and related publications

28. The ABS can also make available certain building approvals data which are not published. Where it is not practicable to provide the required information by telephone, data can be provided in the following forms: microfiche, photocopy, computer printout, floppy disk and clerically extracted tabulation. A charge may be made for providing unpublished information in these forms.

29. Users may also wish to refer to the following publications which are available on request:

*Building Activity, Australia: Dwelling Unit Commencements, Preliminary* (8750.0) — issued quarterly

*Building Activity, Australia* (8752.0) — issued quarterly

*Engineering Construction Activity, Australia* (8762.0) — issued quarterly

*Construction Activity at Constant Prices, Australia* (8782.0) — issued quarterly

*Housing Finance for Owner Occupation, Australia* (5609.0) — issued monthly

*Price Index of Materials Used in House Building, Six State Capital Cities and Canberra* (6408.0) — issued monthly

*Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities* (6407.0) — issued monthly

*House Price Indexes: Eight Capital Cities* (6416.0) — issued quarterly

30. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The *Catalogue and Publications Advice* are available from any ABS Office.

#### Next release date

31. The expected release date for the April 1994 issue of this publication is 30 May 1994. The date can be confirmed a few days prior to release by telephoning Canberra (06) 252 6067.

#### Symbols and other usages

- nil or rounded to zero.
- r figure or series revised since previous issue.
- n.a. not available
- n.y.a. not yet available

32. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

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