Australian Bureau of Statistics

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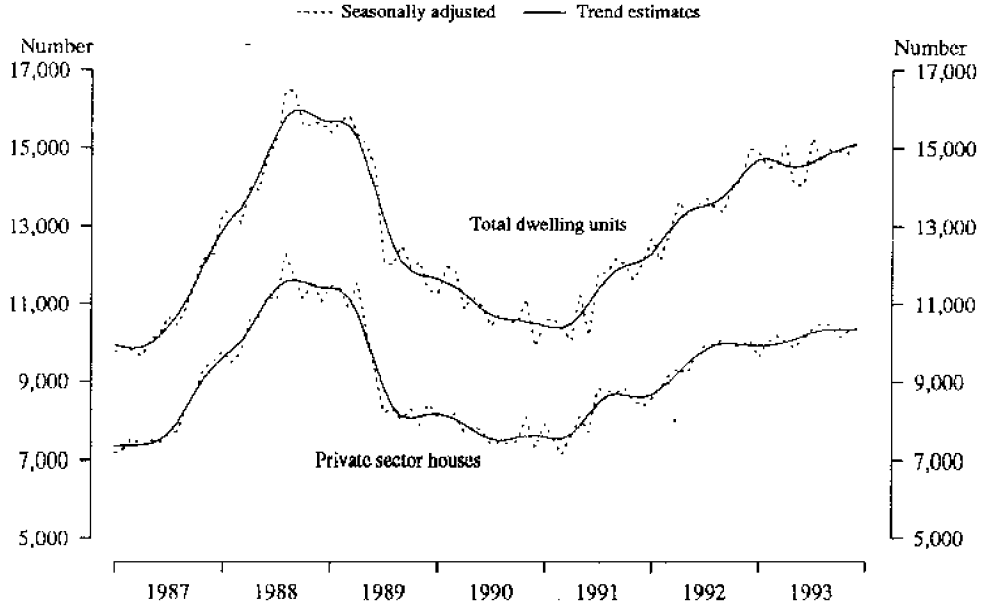
BUILDING APPROVALS, AUSTRALIA, DECEMBER 1993

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 4 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 to December 1993 continues to display weak growth, as it has done since May 1993. The trend rose by 0.3 per cent to 15,107 in December, following growth of 0.6 per cent in both November and October 1993. However, there would only need to be a fall of about 1 per cent in the seasonally adjusted number of dwelling units approved in January 1994, for the trend to flatten. The historical average monthly movement of this series, regardless of sign, is 4 per cent.

The provisional trend for the *number of private sector houses* approved, which had shown gradual growth since January 1993, flattened out in November and is showing a slight decline to December 1993. However, there would only need to be an increase of about 1 per cent in the seasonally adjusted number of private sector houses approved in January 1994 for this trend to again flatten out. The historical average monthly movement of this series, regardless of sign, is 4 per cent.

DWELLING UNITS APPROVED, DECEMBER 1993

		Percentage change	
	Number	*From previous month*	*From corresponding month of previous year*
Private sector houses -			
Trend estimate	10,329	-0.2	3.8
Seasonally adjusted	10,370	0.9	2.9
Original	9,621	-12.2	1.5
Total dwelling units -			
Trend estimate	15,107	0.3	3.7
Seasonally adjusted	15,243	2.4	1.7
Original	13,693	-15.3	-2.5

In seasonally adjusted terms, the *total number of dwelling units* approved rose by 2.4 per cent in December, following falls of 0.3 per cent in November and 0.4 per cent in October 1993. The *number of private sector houses* approved rose by 0.9 per cent in December, following growth of 1.2 per cent in November and a 3.2 per cent decline in October 1993.

The provisional trend estimate for total dwelling unit approvals is displaying growth in Victoria and Western Australia, although the rate of growth has slowed in recent months. After displaying some signs of levelling out last

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month, the revised provisional trend for total dwelling units approved in New South Wales to December 1993 is again showing a consistent decline since January 1993. This was influenced by an 11.1 per cent fall in the seasonally adjusted series in December. The trend in South Australia has also been in decline since January 1993. The trends in Queensland and Tasmania are flat.

In original terms, the total number of dwelling units approved in Australia for the six month period July to December 1993 was 91,500, which was 7.2 per cent above the 85,356 dwelling units approved in the corresponding six month period in 1992.

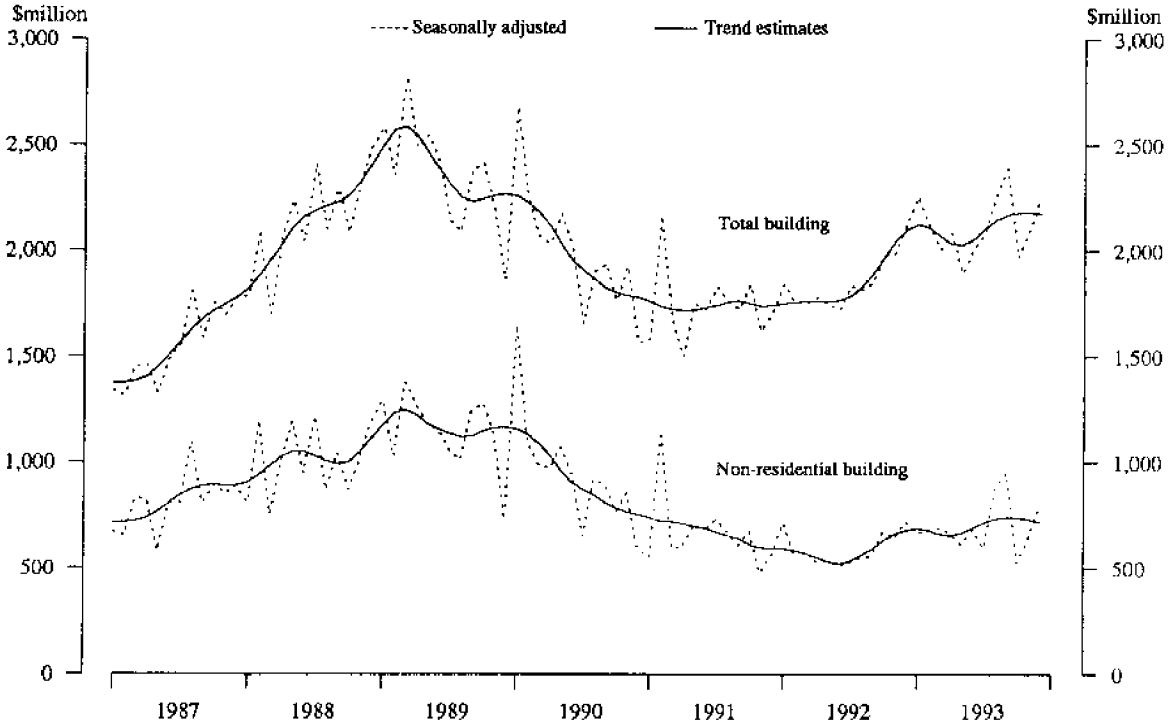
Value of building approved

The provisional trend estimate for the *value of total building* approved has levelled out in December 1993, following a period of growth between May and November. The trend growth will resume unless there is a fall of more than 2 per cent in the seasonally adjusted value of total building approved for January 1994. The historical average monthly movement of this series, regardless of sign, is 9 per cent.

The provisional trend series for the *value of new residential building* approved continues the growth evident since May 1993. However, the rate of growth has slowed considerably in recent months. The trend series will flatten in January 1994 unless there is growth of more than 1 per cent in the seasonally adjusted estimates. The average monthly movement of this series is 5 per cent.

The seasonally adjusted *value of non-residential building* approved has displayed the extreme volatility typical of this series over the last six months. However, the trend series has remained relatively stable during this period. The trend fell by 1.3 per cent in December 1993, following falls of 1.0 per cent in November and 0.5 per cent in October 1993. However, this trend will flatten and begin to display growth unless there is a fall of more than 7 per cent in the seasonally adjusted estimates for January 1994. The average monthly movement of this series is 18 per cent.

VALUE OF BUILDING APPROVED, AUSTRALIA



Other residential building approved

A table was published in the summary of findings of *Building Approvals, Australia (8731.0)* for August 1993, which showed the number of new dwelling units approved in Australia in 1992-93, by type of dwelling, together with the distribution of each dwelling category as a percentage of total dwelling units approved.

Since then, an error has been detected in the way some new other residential buildings had been classified in New South Wales between July 1992 and February 1993. Over this period, duplexes and dual occupancies were coded as flats, units or apartments instead of semi-detached, row or terrace houses, townhouses, etc. This affected the compositional dissection of the other residential building categories shown in the table. The total number of new other residential dwelling units approved remains unchanged. (Refer to the corrigendum to *Building Approvals, New South Wales (8731.1)* released on 5 November 1993 for further detail).

The revised data is shown in the table below.

NEW DWELLING UNIT APPROVALS, BY TYPE OF DWELLING, AUSTRALIA, 1992-93 r

Dwelling type	*Number*	*Per cent*
Houses	123,587	72.5
Semi-detached, row or terrace houses, townhouses, etc. of:		
1 storey	20,552	12.1
2 or more storeys	6,962	4.1
Total semi-detached, etc.	27,514	16.1
Flats, units or apartments in a building of:		
1 or 2 storeys	11,500	6.7
3 storeys	4,169	2.4
4 or more storeys	3,787	2.2
Total flats, units or apartments	19,456	11.4
Total other residential buildings	46,970	27.5
Total residential building	170,557	100.0

Similar data is now available for new dwelling units approved during the six month period July to December 1993. This is shown in the table below. The number of other residential dwelling units approved, as a proportion of total dwelling units approved, which has increased from 25.4 per cent in 1990-91, to 26.2 per cent in 1991-92 and 27.5 per cent in 1992-93, has risen further in the first six months of 1993-94 to 28.5 per cent.

The proportion of semi-detached, row or terrace houses approved rose from 16.1 per cent in 1992-93 to 17.3 per cent in the first six months of 1993-94, more than offsetting a slight fall in the proportion of flats, units and apartments approved (from 11.4 to 11.2 per cent).

DWELLING UNIT APPROVALS, BY TYPE OF DWELLING, AUSTRALIA, JULY - DECEMBER 1993

Dwelling type	*Number*	*Per cent*
Houses	65,447	71.5
Semi-detached, row or terrace houses, townhouses, etc. of:		
1 storey	10,749	11.7
2 or more storeys	5,038	5.5
Total semi-detached, etc.	15,787	17.3
Flats, units or apartments in a building of:		
1 or 2 storeys	5,231	5.7
3 storeys	2,515	2.7
4 or more storeys	2,520	2.8
Total flats, units or apartments	10,266	11.2
Total other residential buildings	26,053	28.5
Total residential building	91,500	100.0

In addition to the approval for construction of new dwellings, approval was given in the period July to December 1993 for 1,601 dwellings to be created as a result of alterations and additions to existing residential or non-residential buildings. (These dwellings are not included in the table above). This compares with a total of 1,717 such dwelling units approved throughout 1992-93.

RELIABILITY OF CONTEMPORARY TREND ESTIMATES

The tables below present trend estimates of selected building approvals series for the six months July to December 1993.

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 identified reliably. 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 (January 1994) were to equal 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 January 1994, the trend estimate for that month would be 10,478, a movement of 0.4 per cent. The monthly movements in the trend estimates for October, November and December 1993, which are currently estimated to be 0.1 per cent, -0.1 per cent and -0.2 per cent respectively, would be revised to 0.2 per cent, 0.3 per cent and 0.4 per cent. On the other hand, a 4 per cent seasonally adjusted decline in the number of private houses approved in January 1994 would produce a trend estimate for January of 10,160, a movement of -0.7 per cent, with the movements in the trend estimates for October, November and December 1993 being revised to -0.2 per cent, -0.5 per cent and -0.6 per cent, respectively.

NUMBER OF PRIVATE SECTOR HOUSES APPROVED
RELIABILITY OF TREND ESTIMATES

			Revised trend estimate if January 1994 seasonally adjusted estimate			
	Trend estimate		*is up 4% on December 1993*		*is down 4% on December 1993*	
	No.	*% change on previous month*	*No.*	*% change on previous month*	*No.*	*% change on previous month*
1993—						
July	10,265	0.7	10,259	0.7	10,274	0.8
August	10,320	0.5	10,309	0.5	10,334	0.6
September	10,354	0.3	10,348	0.4	10,361	0.3
October	10,359	0.1	10,373	0.2	10,339	-0.2
November	10,352	-0.1	10,399	0.3	10,288	-0.5
December	10,329	-0.2	10,438	0.4	10,227	-0.6
1994—						
January	n.y.a.	n.y.a.	10,478	0.4	10,160	-0.7

TOTAL NUMBER OF DWELLING UNITS APPROVED
RELIABILITY OF TREND ESTIMATES

			Revised trend estimate if January 1994 seasonally adjusted estimate			
	Trend estimate		*is up 4% on December 1993*		*is down 4% on December 1993*	
	No.	*% change on previous month*	*No.*	*% change on previous month*	*No.*	*% change on previous month*
1993-						
July	14,663	0.6	14,647	0.5	14,671	0.7
August	14,774	0.8	14,749	0.7	14,790	0.8
September	14,885	0.7	14,872	0.8	14,893	0.7
October	14,978	0.6	15,011	0.9	14,956	0.4
November	15,061	0.6	15,148	0.9	14,967	0.1
December	15,107	0.3	15,293	1.0	14,953	-0.1
1994—						
January	n.y.a.	n.y.a.	15,399	0.7	14,886	-0.5

VALUE OF NEW RESIDENTIAL BUILDING APPROVED
RELIABILITY OF TREND ESTIMATES

			Revised trend estimate if January 1994 seasonally adjusted estimate			
	Trend estimate	*% change on*	*is up 5% on December 1993*	*% change on*	*is down 5% on December 1993*	*% change on*
	$m	*previous month*	*$m*	*previous month*	*$m*	*previous month*
1993—						
July	1,212.5	1.7	1,210.5	1.6	1,212.7	1.7
August	1,234.6	1.8	1,232.7	1.8	1,236.7	2.0
September	1,248.2	1.1	1,247.4	1.2	1,249.3	1.0
October	1,257.2	0.7	1,259.5	1.0	1,254.3	0.4
November	1,263.7	0.5	1,269.9	0.8	1,252.5	-0.1
December	1,265.2	0.1	1,280.3	0.8	1,247.5	-0.4
1994—						
January	n.y.a.	n.y.a.	1,287.1	0.5	1,237.7	-0.8

VALUE OF NON-RESIDENTIAL BUILDING APPROVED
RELIABILITY OF TREND ESTIMATES

			Revised trend estimate if January 1994 seasonally adjusted estimate			
	Trend estimate		*is up 18% on December 1993*		*is down 18% on December 1993*	
	$m	*% change on previous month*	*$m*	*% change on previous month*	*$m*	*% change on previous month*
1993—						
July	717.9	3.7	713.9	3.2	719.6	4.0
August	735.9	2.5	729.0	2.1	739.0	2.7
September	742.7	0.9	739.3	1.4	744.3	0.7
October	739.0	-0.5	747.7	1.1	734.5	-1.3
November	731.6	-1.0	760.4	1.7	716.8	-2.4
December	722.0	-1.3	781.4	2.8	699.3	-2.4
1994—						
January	n.y.a.	n.y.a.	810.1	3.7	686.3	-1.9

VALUE OF TOTAL BUILDING APPROVED
RELIABILITY OF TREND ESTIMATES

			Revised trend estimate if January 1994 seasonally adjusted estimate			
	Trend estimate		*is up 9% on December 1993*		*is down 9% on December 1993*	
	$m	*% change on previous month*	*$m*	*% change on previous month*	*$m*	*% change on previous month*
1993—						
July	2,105.1	2.3	2,099.5	2.1	2,107.2	2.4
August	2,148.2	2.1	2,139.6	1.9	2,153.2	2.2
September	2,172.2	1.1	2,168.3	1.3	2,175.1	1.0
October	2,180.9	0.4	2,191.3	1.1	2,173.3	-0.1
November	2,183.9	0.1	2,215.9	1.1	2,156.6	-0.8
December	2,176.7	-0.3	2,247.5	1.4	2,135.8	-1.0
1994—						
January	n.y.a.	n.y.a.	2,282.1	1.5	2,113.6	-1.0

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-December	61,707	1,232	62,939	19,328	3,089	22,417	81,035	4,321	85,356
1993-94									
July-December	63,931	1,516	65,447	24,307	1,746	26,053	88,238	3,262	91,500
1992—									
October	10,700	187	10,887	3,187	318	3,505	13,887	505	14,392
November	10,157	335	10,492	3,397	711	4,108	13,554	1,046	14,600
December	9,476	371	9,847	3,427	777	4,204	12,903	1,148	14,051
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

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 505 such dwelling units approved in December 1993. This includes 173 dwelling units created as the result of the conversion of a hotel to apartments in New South Wales and 158 dwelling units created as the result of the conversion of a hospital to apartments in Victoria.

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	*Public sector*	*Total*	*Private sector*	*Public sector*	*Total*	*Private sector*	*Public sector*	*Total*		*Private sector*	*Total*	*Private 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
1992—														
October	918.6	13.4	932.1	202.6	18.8	221.4	1,121.3	32.2	1,153.5	187.0	303.5	785.0	1,611.2	2,125.5
November	872.6	23.4	896.0	238.3	42.7	280.9	1,110.9	66.1	1,176.9	178.0	423.5	658.6	1,711.0	2,013.5
December	821.8	26.6	848.5	231.5	53.5	285.0	1,053.3	80.2	1,133.5	164.0	571.4	690.2	1,788.0	1,987.7
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

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

	Number of dwelling units				*Value($m)*			
	Houses		*Total*					
Period	*Private sector*	*Total*	*Private sector*	*Total*	*New residential building*	*Alterations and additions to residential buildings*	*Non-residential building(a)*	*Total building*
1992—								
October	9,930	10,312	13,355	13,981	1,129.0	168.5	674.0	1,984.1
November	9,933	10,198	13,249	14,219	1,158.0	174.0	647.9	1,986.5
December	10,079	10,491	13,855	14,988	1,203.3	174.9	722.0	2,126.5
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

(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)

	Number of dwelling units				*Value($m)*			
	Houses		*Total*					
Period	*Private sector*	*Total*	*Private sector*	*Total*	*New residential building*	*Alterations and additions to residential buildings*	*Non-residential building*	*Total building*
1992—								
October	10,000	10,260	13,306	14,012	1,160.2	171.7	630.8	1,968.0
November	9,973	10,337	13,438	14,299	1,204.9	172.1	662.1	2,044.2
December	9,948	10,404	13,543	14,564	1,244.1	172.2	682.2	2,101.1
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 r	10,190	10,430	13,789	14,570	1,192.1	177.8	692.0	2,057.4
July r	10,265	10,498	13,969	14,663	1,212.5	179.3	717.9	2,105.1
August r	10,320	10,573	14,143	14,774	1,234.6	181.3	735.9	2,148.1
September r	10,354	10,636	14,297	14,885	1,248.2	183.4	742.7	2,172.2
October r	10,359	10,675	14,420	14,978	1,257.2	185.1	739.0	2,180.9
November r	10,352	10,703	14,521	15,061	1,263.7	186.3	731.6	2,183.9
December	10,329	10,711	14,584	15,107	1,265.2	187.0	722.0	2,176.7

(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			
1992—						
October	3,995	2,412	3,671	1,038	2,086	344
November	4,191	2,561	3,756	940	1,800	381
December	4,372	2,585	4,345	1,149	2,045	359
1993—						
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
			TREND ESTIMATES			
1992—						
October	4,038	2,490	3,775	1,018	1,907	363
November	4,175	2,535	3,812	1,045	1,920	355
December	4,287	2,563	3,869	1,070	1,907	342
1993—						
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 r	3,969	2,433	4,505	1,045	1,925	350
July r	3,948	2,477	4,536	1,038	1,998	358
August r	3,938	2,529	4,510	1,023	2,079	360
September r	3,916	2,573	4,487	999	2,168	361
October r	3,878	2,603	4,484	974	2,262	362
November r	3,834	2,622	4,494	952	2,352	362
December	3,784	2,632	4,497	934	2,427	361

(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, 8%; South Australia, 11%; Western Australia, 9% 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: Houses: Private sector	New residential building: Houses: Total	New residential building: Other residential buildings	New residential building: Total	Alterations and additions to residential buildings	Non-residential building: Private sector	Non-residential building: Total	Total building: Private sector	Total building: 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	3,721.8	13,873.6	2,000.4	5,471.9	8,215.5	20,734.5	24,089.5
1992—									
June qtr.	2,328.5	2,409.8	827.4	3,237.2	475.5	1,090.0	1,759.0	4,501.7	5,471.7
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	1,373.1	2,059.6	5,200.1	6,057.5
June qtr.	2,500.2	2,590.2	973.0	3,563.2	507.0	1,416.6	2,172.6	5,293.7	6,242.7
Sept. qtr.	2,745.3	2,799.6	1,030.8	3,830.4	552.1	1,750.3	2,528.4	6,050.9	6,911.0
SEASONALLY ADJUSTED									
1992—									
June qtr.	2,298.3	2,359.8	n.a.	3,128.4	480.9	n.a.	1,671.6	4,374.5	5,273.5
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.	2,183.0	5,518.6	6,456.2
June qtr.	2,470.9	2,538.0	n.a.	3,445.7	512.0	n.a.	2,093.7	5,157.2	6,026.9
Sept. qtr.	2,608.3	2,673.1	n.a.	3,691.1	515.2	n.a.	2,630.0	5,843.8	6,806.7

(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, DECEMBER 1993

State	Houses	Other residential building: Semi-detached, row or terrace houses, townhouses, etc. of: 1 storey	Other residential building: Semi-detached, row or terrace houses, townhouses, etc. of: 2 or more storeys	Other residential building: Semi-detached, row or terrace houses, townhouses, etc. of: Total	Other residential building: Flats, units or apartments in a building of: 1-2 storeys	Other residential building: Flats, units or apartments in a building of: 3 storeys	Other residential building: Flats, units or apartments in a building of: 4 or more storeys	Other residential building: Flats, units or apartments in a building of: Total	Other residential building: Total	Total residential building
NUMBER OF DWELLING UNITS										
NSW	2,103	479	250	729	202	119	104	425	1,154	3,257
Vic.	2,170	84	148	232	—	34	—	34	266	2,436
Qld	2,780	258	482	740	220	227	123	570	1,310	4,090
SA	758	125	42	167	—	—	—	—	167	925
WA	1,645	607	37	644	—	—	—	—	644	2,289
Tas.	276	95	—	95	—	—	—	—	95	371
NT	56	4	—	4	—	—	—	—	4	60
ACT	135	63	6	69	61	—	—	61	130	265
Australia	**9,923**	**1,715**	**965**	**2,680**	**483**	**380**	**227**	**1,090**	**3,770**	**13,693**
VALUE ($m)										
NSW	225.5	31.5	21.3	52.9	12.9	9.4	6.4	28.7	81.6	307.1
Vic.	193.5	5.4	13.3	18.6	—	1.8	—	1.8	20.4	213.9
Qld	246.0	14.4	34.6	48.9	12.6	19.8	9.8	42.1	91.0	337.0
SA	56.7	7.3	2.5	9.7	—	—	—	—	9.7	66.5
WA	125.0	36.0	3.3	39.3	—	—	—	—	39.3	164.3
Tas.	21.6	5.2	—	5.2	—	—	—	—	5.2	26.7
NT	4.9	0.4	—	0.4	—	—	—	—	0.4	5.4
ACT	14.1	5.0	0.6	5.5	4.2	—	—	4.2	9.7	23.8
Australia	**887.3**	**105.2**	**75.4**	**180.6**	**29.7**	**31.0**	**16.2**	**76.8**	**257.4**	**1,144.7**

TABLE 8. DETAILS OF BUILDING APPROVED, DECEMBER 1993

State	New residential building						Value ($m)											
	Houses		Other residential buildings		Total		Alterations and additions to residential buildings	Non-residential building										
	Number of dwelling units	Value ($m)	Number of dwelling units	Value ($m)	Number of dwelling units	Value ($m)		Hotels, etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total	Total building
PRIVATE SECTOR																			
NSW	2,067	221.9	1,114	79.9	3,181	301.8	67.4	6.1	18.5	10.4	24.1	27.2	1.7	1.7	75.9	7.3	5.0	177.8	547.0
Vic.	2,102	189.5	266	20.4	2,368	209.9	53.6	2.1	20.4	9.8	7.1	8.9	6.5	0.7	3.4	38.9	1.6	99.4	363.0
Qld	2,740	242.3	1,290	89.5	4,030	331.9	18.7	0.8	52.8	12.1	11.5	12.9	5.7	0.9	11.0	10.4	6.3	124.3	474.9
SA	739	55.8	132	7.9	871	63.6	8.9	0.3	6.3	2.7	3.3	0.5	2.3	0.3	1.1	0.4	0.4	17.7	90.2
WA	1,585	121.3	518	31.2	2,103	152.5	11.7	0.9	3.3	4.0	3.4	5.2	3.0	0.5	4.2	1.2	0.1	25.8	190.0
Tas.	251	19.3	95	5.2	346	24.5	3.5	0.1	0.5	0.7	0.1	0.5	0.3	0.3	—	0.1	2.1	4.5	32.5
NT	49	4.1	4	0.5	53	4.6	1.0	2.0	0.6	0.1	0.1	1.0	—	—	—	0.1	0.2	4.0	9.7
ACT	88	10.5	106	7.8	194	18.3	2.7	—	—	—	3.0	—	0.3	0.5	—	—	0.1	3.9	24.8
Australia	*9,621*	*864.8*	*3,525*	*242.3*	*13,146*	*1,107.1*	*167.5*	*12.2*	*102.5*	*39.8*	*52.6*	*56.2*	*19.7*	*4.9*	*95.5*	*58.3*	*15.9*	*457.5*	*1,732.1*
PUBLIC SECTOR																			
NSW	36	3.6	40	1.7	76	5.3	0.1	—	0.3	—	7.8	1.9	15.3	—	0.5	1.3	1.0	28.0	33.4
Vic.	68	4.0	—	—	68	4.0	—	—	—	1.5	5.5	0.4	9.2	—	1.5	0.5	2.3	21.0	25.0
Qld	40	3.6	20	1.5	60	5.1	—	2.0	0.1	0.5	5.6	170.0	3.4	—	0.3	1.5	1.1	184.5	189.7
SA	19	1.0	35	1.8	54	2.8	0.4	0.1	0.7	0.1	0.8	—	6.2	—	0.9	0.1	0.8	9.7	12.9
WA	60	3.7	126	8.1	186	11.8	—	—	—	0.1	14.3	5.9	19.5	—	—	0.7	0.9	41.3	53.2
Tas.	25	2.2	—	—	25	2.2	—	—	—	—	0.5	0.4	5.0	—	0.1	—	—	5.9	8.1
NT	7	0.8	—	—	7	0.8	—	—	—	—	0.1	0.2	5.4	—	—	0.6	—	6.3	7.1
ACT	47	3.6	24	1.9	71	5.5	—	—	—	—	3.2	0.4	7.5	—	—	0.5	1.7	13.2	18.8
Australia	*302*	*22.5*	*245*	*15.1*	*547*	*37.6*	*0.5*	*2.1*	*1.0*	*2.2*	*37.7*	*179.1*	*71.7*	—	*3.3*	*5.1*	*7.7*	*310.0*	*348.1*
TOTAL																			
NSW	2,103	225.5	1,154	81.6	3,257	307.1	67.5	6.1	18.8	10.4	31.8	29.0	17.1	1.7	76.4	8.5	5.9	205.8	580.4
Vic.	2,170	193.5	266	20.4	2,436	213.9	53.6	2.1	20.4	11.3	12.7	9.4	15.8	0.7	4.9	39.4	3.9	120.4	388.0
Qld	2,780	246.0	1,310	91.0	4,090	337.0	18.7	2.8	52.9	12.6	17.1	182.9	9.1	0.9	11.3	11.9	7.4	308.8	664.6
SA	758	56.7	167	9.7	925	66.5	9.3	0.3	7.0	2.8	4.2	0.5	8.5	0.3	2.0	0.5	1.2	27.4	103.1
WA	1,645	125.0	644	39.3	2,289	164.3	11.7	0.9	3.3	4.1	17.7	11.1	22.5	0.5	4.2	1.9	1.0	67.2	243.2
Tas.	276	21.6	95	5.2	371	26.7	3.5	0.1	0.5	0.7	0.5	0.8	5.3	0.3	0.1	0.1	2.1	10.4	40.6
NT	56	4.9	4	0.5	60	5.4	1.0	2.0	0.6	0.1	0.1	1.2	5.4	—	—	0.7	0.2	10.3	16.7
ACT	135	14.1	130	9.7	265	23.8	2.7	—	—	—	6.2	0.4	7.8	0.5	—	0.5	1.8	17.1	43.6
Australia	**9,923**	**887.3**	**3,770**	**257.4**	**13,693**	**1,144.7**	**168.1**	**14.3**	**103.5**	**41.9**	**90.3**	**235.3**	**91.5**	**4.9**	**98.8**	**63.4**	**23.6**	**767.4**	**2,080.2**

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

Class of building	*1991-92*	*1992-93*	*July-December*		*1993*		
			1992-93	*1993-94*	*October*	*November*	*December*
PRIVATE SECTOR							
New houses	9,113.0	10,319.3	5,300.8	5,633.6	908.5	966.3	864.8
New other residential buildings	2,060.3	3,091.4	1,299.9	1,747.8	269.7	330.1	242.3
Total new residential building	*11,173.3*	*13,410.7*	*6,600.6*	*7,381.4*	*1,178.1*	*1,296.4*	*1,107.1*
Alterations and additions to residential buildings	1,954.8	2,071.4	1,074.1	1,138.5	194.6	197.7	167.5
Hotels, etc.	399.0	226.3	128.1	346.6	14.6	20.8	12.2
Shops	787.7	1,114.7	479.1	707.8	184.6	64.8	102.5
Factories	651.9	716.2	391.8	266.8	48.0	61.2	39.8
Offices	1,196.0	943.4	534.9	408.4	48.3	79.7	52.6
Other business premises	566.6	697.3	363.4	317.3	45.7	66.5	56.2
Educational	237.2	277.4	155.0	181.7	17.9	35.5	19.7
Religious	79.4	88.0	51.0	48.6	5.3	5.5	4.9
Health	249.4	318.7	158.4	263.3	13.0	37.9	95.5
Entertainment and recreational	371.0	441.9	122.2	193.9	18.4	26.0	58.3
Miscellaneous	207.3	243.8	91.8	186.0	20.5	26.6	15.9
Total non-residential building	*4,745.4*	*5,067.7*	*2,475.8*	*2,920.4*	*416.4*	*424.5*	*457.5*
Total	**17,873.5**	**20,549.8**	**10,150.5**	**11,440.3**	**1,789.0**	**1,918.6**	**1,732.1**
PUBLIC SECTOR							
New houses	275.6	286.5	95.0	118.9	20.7	19.0	22.5
New other residential buildings	557.1	424.2	200.9	110.9	9.4	22.8	15.1
Total new residential building	*832.7*	*710.7*	*295.9*	*229.8*	*30.1*	*41.8*	*37.6*
Alterations and additions to residential buildings	19.1	17.1	4.3	4.8	0.4	0.6	0.5
Hotels, etc.	7.3	7.7	2.8	4.8	0.8	0.7	2.1
Shops	97.6	30.5	19.5	20.9	6.8	1.3	1.0
Factories	53.0	18.3	7.7	19.5	6.4	4.6	2.2
Offices	549.7	543.9	178.8	266.1	109.4	15.8	37.7
Other business premises	208.1	129.6	76.2	294.1	23.2	24.6	179.1
Educational	693.1	750.7	383.6	421.2	25.7	61.6	71.7
Religious	—	—	—	—	—	—	—
Health	248.2	535.1	368.1	273.7	6.7	113.7	3.3
Entertainment and recreational	305.6	342.0	89.2	81.2	11.2	13.3	5.1
Miscellaneous	300.7	251.1	115.5	91.3	11.9	12.5	7.7
Total non-residential building	*2,463.3*	*2,608.8*	*1,241.5*	*1,472.7*	*202.1*	*248.1*	*310.0*
Total	**3,315.1**	**3,336.6**	**1,541.6**	**1,707.4**	**232.7**	**290.5**	**348.1**
TOTAL							
New houses	9,388.5	10,605.7	5,395.7	5,752.4	929.2	985.3	887.3
New other residential buildings	2,617.4	3,515.6	1,500.8	1,858.7	279.1	352.9	257.4
Total new residential building	*12,005.9*	*14,121.4*	*6,896.5*	*7,611.2*	*1,208.2*	*1,338.2*	*1,144.7*
Alterations and additions to residential buildings	1,973.9	2,088.6	1,078.4	1,143.4	195.0	198.3	168.1
Hotels, etc.	406.3	234.0	131.0	351.5	15.4	21.5	14.3
Shops	885.2	1,145.1	498.7	728.7	191.4	66.1	103.5
Factories	704.9	734.5	399.5	286.3	54.4	65.8	41.9
Offices	1,745.7	1,487.3	713.7	674.4	157.8	95.5	90.3
Other business premises	774.7	826.9	439.6	611.5	68.9	91.1	235.3
Educational	930.3	1,028.1	538.6	602.9	43.6	97.2	91.5
Religious	79.4	88.0	51.0	48.6	5.3	5.5	4.9
Health	497.5	853.8	526.5	536.9	19.7	151.6	98.8
Entertainment and recreational	676.6	783.9	211.4	275.0	29.7	39.4	63.4
Miscellaneous	508.0	494.9	207.3	277.2	32.4	39.2	23.6
Total non-residential building	*7,208.7*	*7,676.5*	*3,717.2*	*4,393.1*	*618.5*	*672.7*	*767.4*
Total	**21,188.5**	**23,886.4**	**11,692.1**	**13,147.7**	**2,021.7**	**2,209.2**	**2,080.2**

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.												
1993 October	33	3.2	6	1.6	3	2.2	2	2.9	1	5.5	45	15.4
November	26	2.5	13	3.8	8	5.1	3	5.1	1	5.0	51	21.5
December	18	1.6	8	2.3	3	2.4	4	8.0	—	—	33	14.3
SHOPS												
1993 October	232	21.0	45	12.5	20	12.9	10	19.7	4	125.3	311	191.4
November	246	23.1	51	14.6	13	8.9	12	19.6	—	—	322	66.1
December	172	14.6	54	15.5	11	6.6	14	26.7	2	40.1	253	103.5
FACTORIES												
1993 October	106	10.4	45	12.1	13	8.3	10	17.7	1	6.0	175	54.4
November	97	10.1	50	14.6	16	10.4	10	24.7	1	6.0	174	65.8
December	91	9.2	47	14.2	10	6.6	8	12.0	—	—	156	41.9
OFFICES												
1993 October	161	15.7	51	16.3	17	11.8	12	28.5	3	85.5	244	157.8
November	192	18.6	42	11.3	19	12.9	16	34.0	3	18.7	272	95.5
December	134	12.8	42	12.1	18	11.3	14	33.7	3	20.4	211	90.3
OTHER BUSINESS PREMISES												
1993 October	107	10.4	50	15.6	16	10.9	11	20.5	2	11.5	186	68.9
November	142	13.6	56	16.2	18	12.2	14	25.5	2	23.5	232	91.1
December	122	11.8	36	11.0	12	8.2	10	22.3	2	182.0	182	295.3
EDUCATIONAL												
1993 October	52	5.8	36	11.4	15	9.3	10	17.1	—	—	113	43.6
November	70	8.1	34	10.1	19	13.6	15	26.7	5	38.7	143	97.2
December	81	7.9	26	8.1	19	13.0	13	23.4	5	39.0	144	91.5
RELIGIOUS												
1993 October	11	1.2	9	2.8	2	1.3	—	—	—	—	22	5.3
November	14	1.4	8	2.3	2	1.8	—	—	—	—	24	5.5
December	18	1.9	8	2.4	1	0.7	—	—	—	—	27	4.9
HEALTH												
1993 October	19	1.9	7	2.1	5	3.8	7	11.9	—	—	38	19.7
November	26	3.0	15	4.5	8	6.3	9	17.4	6	120.4	64	151.6
December	30	2.9	11	3.3	7	4.3	10	23.3	2	65.0	60	98.8
ENTERTAINMENT AND RECREATIONAL												
1993 October	55	5.8	31	8.6	7	4.5	5	10.8	—	—	98	29.7
November	59	5.6	18	5.4	6	4.2	11	24.2	—	—	94	39.4
December	32	3.0	17	5.0	9	6.2	7	11.1	1	38.0	66	63.4
MISCELLANEOUS												
1993 October	62	6.4	23	7.3	9	5.7	7	12.9	—	—	101	32.4
November	59	6.0	30	9.2	13	8.9	7	15.2	—	—	109	39.2
December	42	3.7	30	9.5	3	2.1	5	8.3	—	—	80	23.6
TOTAL NON-RESIDENTIAL BUILDING												
1993 October	838	81.8	303	90.4	107	70.9	74	141.7	11	233.7	1,333	618.5
November	931	92.0	317	91.9	122	84.0	97	192.4	18	212.3	1,485	672.7
December	740	69.3	279	83.3	93	61.5	85	168.8	15	384.6	1,212	767.4

TABLE 11. SUMMARY OF BUILDING APPROVED

Period	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Australia*
				NUMBER OF DWELLING UNITS					
1992-93	48,497	29,571	47,785	12,312	22,479	4,094	1,480	4,339	170,557
1992—									
December	4,089	2,488	3,758	1,145	1,841	355	140	235	14,051
1993—									
September	4,262	2,798	4,869	893	2,212	341	197	263	15,835
October	3,799	2,642	4,537	858	2,086	351	129	233	14,635
November	4,541	2,745	4,780	1,014	2,359	410	77	235	16,161
December	3,257	2,436	4,090	925	2,289	371	60	265	13,693
				VALUE OF NEW RESIDENTIAL BUILDING ($m)					
1992-93	4,632.2	2,494.1	3,829.6	840.9	1,519.4	275.3	127.2	402.7	14,121.4
1992—									
December	361.9	209.8	304.2	73.7	125.3	24.7	9.5	24.4	1,133.5
1993—									
September	403.7	242.9	400.3	61.7	156.1	23.8	21.8	27.5	1,337.8
October	336.2	227.3	376.0	57.8	151.5	23.6	12.2	23.7	1,208.2
November	415.0	234.8	384.0	73.4	167.8	33.4	6.7	23.1	1,338.2
December	307.1	213.9	337.0	66.5	164.3	26.7	5.4	23.8	1,144.7
				VALUE OF ALTERATIONS AND ADDITIONS TO RESIDENTIAL BUILDINGS ($m)					
1992-93	965.0	533.0	212.9	132.6	137.1	33.1	19.2	55.7	2,088.6
1992—									
December	73.9	45.8	14.0	10.6	12.0	3.6	1.4	2.7	164.0
1993—									
September	121.1	46.7	22.6	10.3	12.7	3.1	2.2	5.3	223.9
October	87.3	53.5	20.0	9.4	14.0	3.5	1.3	6.0	195.0
November	87.4	55.7	19.5	11.7	13.0	3.3	1.3	6.4	198.3
December	67.5	53.6	18.7	9.3	11.7	3.5	1.0	2.7	168.1
				VALUE OF NON-RESIDENTIAL BUILDING ($m)					
1992-93	3,178.2	1,406.3	1,383.9	418.4	889.6	103.1	81.1	216.0	7,676.5
1992—									
December	334.5	113.5	89.8	24.8	106.3	8.5	8.1	4.8	690.2
1993—									
September	347.1	127.7	260.4	47.1	84.8	19.9	23.6	12.5	923.0
October	261.6	155.8	89.3	29.5	58.9	4.4	7.3	11.8	618.5
November	251.9	174.8	105.5	30.4	64.9	29.7	11.5	4.1	672.7
December	205.8	120.4	308.8	27.4	67.2	10.4	10.3	17.1	767.4
				VALUE OF TOTAL BUILDING ($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
1992—									
December	770.3	369.1	407.9	109.2	243.6	36.8	18.9	32.0	1,987.7
1993—									
September	871.9	417.3	683.3	119.2	253.7	46.8	47.5	45.2	2,484.8
October	685.1	436.6	485.3	96.7	224.4	31.5	20.7	41.5	2,021.7
November	754.3	465.3	508.9	115.5	245.7	66.4	19.5	33.5	2,209.2
December	580.4	388.0	664.6	103.1	243.2	40.6	16.7	43.6	2,080.2

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 January 1994 issue of this publication is 1 March 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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