



# BUILDING ACTIVITY WESTERN AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) WED 1 MAY 2002

## DECEMBER QTR KEY FIGURES

SEASONALLY ADJUSTED	Dec qtr 01	Sep qtr 01 to	Dec qtr 00 to
		Dec qtr 01	Dec qtr 01
		% change	% change
Value of work done(a) (\$m)	878.5	4.6	13.2
New residential building (\$m)	531.6	8.0	13.9
Alterations and additions(b) (\$m)	60.5	-4.9	16.1
Non-residential building (\$m)	286.4	0.8	11.2
Total dwelling units commenced (no.)	5 069	6.9	45.7
New private sector houses (no.)	4 044	5.1	49.1

(a) Chain volume measures, reference year 1999–2000. (b) To residential buildings.

## DECEMBER QTR KEY POINTS

### VALUE OF WORK DONE, SEASONALLY ADJUSTED, VOLUME TERMS

- The seasonally adjusted estimate of total building work done rose 4.6% in the December quarter 2001 to \$878.5m, the highest level since the June quarter 2000.
- The overall increase was driven by 8.0% growth in the new residential sector, to the highest level since the June quarter 2000. Work done on new houses rose by 7.7% to \$431.8m and on new other residential buildings by 9.2% to \$99.8m. Alterations and additions to residential buildings fell 4.9% to \$60.5m, still the fifth highest level on record.
- Non-residential building work done rose for the fourth successive quarter, up by 0.8% to \$286.4m.

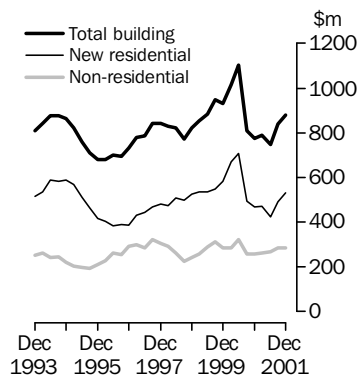
### VALUE OF WORK COMMENCED, ORIGINAL, VOLUME TERMS

- Total building work commenced rose 10.0% in the December quarter to a relatively high \$911.5m.
- New residential commencements rose 7.8% to \$603.8m, a level exceeded only during 1994 and by the four quarters of 1999–2000. New houses were up 6.9% to \$500.4m, a level exceeded only by the first three quarters of 1999–2000. New other dwellings rose 12.8% to \$103.4m, the highest since the June quarter 2000. Alterations and additions rose 16.2% to \$60.9m.
- Non-residential commencements rose by 14.0% to \$246.8m.

### NUMBER OF DWELLING UNITS COMMENCED, SEASONALLY ADJUSTED

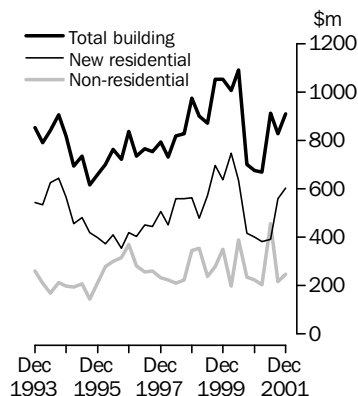
- Following large percentage increases in the September quarter 2001, seasonally adjusted commencements of both new private sector houses and total dwelling units rose in the December quarter by a further 5.1% to 4,044 and 6.9% to 5,069 respectively, the most since the March quarter 2000.

### Value of work done

Volume terms  
Seasonally adjusted

### Value of work commenced

Volume terms



- For further information about these and related statistics, contact Tony Bammann on Adelaide 08 8237 7316, or the National Information and Referral Service on 1300 135 070.

# NOTES

## FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
March 2002	30 July 2002
June 2002	24 October 2002

## ABOUT THIS ISSUE

This publication contains the first detailed estimates for Western Australia from the quarterly Building Activity Survey. The data are subject to revision when returns from the following quarter are processed. Final data for the December quarter 2001 will be released in *Building Activity, Western Australia* (Cat. no. 8752.5) on 30 July 2002.

## SIGNIFICANT REVISIONS THIS ISSUE

The methodology used to seasonally adjust the current price value series in table 3 in this publication has been changed. In this table, the seasonally adjusted components of a series now add to the seasonally adjusted total.

The seasonally adjusted series have been revised as a result of the annual re-analysis of seasonal factors. For more details, see Explanatory Notes 26–28.

## DATA NOTES

Sampling in the Building Activity survey has been extended to include private sector non-residential building jobs (both new and alterations and additions), commencing with the December quarter 2001. See also Explanatory Notes 2, 4, and 23–25.

Information about ABS Building and Construction statistics and other related data is now available from the 'Building and Construction theme page' on the ABS website (go to the website at [www.abs.gov.au](http://www.abs.gov.au), click on the 'Themes' button and then click on 'Building and Construction'). The theme page includes information about:

- the Building and Construction Program's major papers and publications (electronic and hardcopy) and contact details;
- each of our major data collections and examples of uses of building and construction statistics;
- issues of importance to providers and clients, including publication timetables;
- help for providers, including contact details and the survey despatch timetables; and
- alternative sources of Australian building and construction data.

Colin Nagle  
Regional Director  
Western Australia

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**TABLE 1. VALUE OF BUILDING WORK COMMENCED, CHAIN VOLUME MEASURES(a)**  
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
1998-1999	1,887.5	285.0	2,173.7	242.4	963.2	1,158.9	3,579.8
1999-2000	2,207.8	511.6	2,719.4	265.0	709.3	1,219.7	4,204.1
2000-2001	1,280.8	307.6	1,588.3	246.6	891.3	1,124.4	2,959.2
2000 Sep. qtr	333.2	83.3	416.4	47.4	164.4	236.9	700.7
Dec. qtr	336.5	64.2	400.7	50.6	170.4	224.3	675.6
2001 Mar. qtr	285.7	95.4	381.1	82.9	159.6	205.4	669.3
Jun qtr	325.4	64.7	390.1	65.7	396.9	457.8	913.6
Sep. qtr	468.3	91.6	559.9	52.4	177.5	216.6	828.9
Dec. qtr	500.4	103.4	603.8	60.9	164.8	246.8	911.5

(a) Reference year for chain volume measures is 1999-2000. See paragraphs 29 and 30 of the Explanatory Notes.

**TABLE 2. VALUE OF BUILDING WORK DONE, CHAIN VOLUME MEASURES(a)**  
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
ORIGINAL							
1998-1999	1,812.6	278.6	2,090.3	229.3	836.6	1,011.8	3,331.4
1999-2000	2,096.9	409.7	2,506.5	281.8	880.7	1,210.3	3,998.6
2000-2001	1,497.7	357.6	1,855.2	220.3	674.9	1,047.0	3,122.6
2000 Sep. qtr	410.2	80.2	490.4	50.3	159.8	269.7	810.4
Dec. qtr	393.1	88.2	481.3	56.0	159.5	261.1	798.4
2001 Mar. qtr	357.8	100.4	458.2	54.1	157.2	246.1	758.4
Jun qtr	336.6	88.8	425.3	59.9	198.4	270.1	755.4
Sep. qtr	396.0	91.2	487.1	59.9	216.7	296.3	843.4
Dec. qtr	447.9	100.5	548.4	65.1	222.7	289.3	902.8
SEASONALLY ADJUSTED							
2000 Sep. qtr	415.6	79.9	495.5	53.7	150.2	258.6	807.7
Dec. qtr	379.4	87.3	466.7	52.1	159.2	257.5	776.4
2001 Mar. qtr	365.4	104.5	469.9	56.0	170.5	263.1	789.0
Jun qtr	337.4	85.9	423.2	58.5	195.0	267.7	749.5
Sep. qtr	400.8	91.4	492.3	63.6	204.4	284.1	840.0
Dec. qtr	431.8	99.8	531.6	60.5	224.2	286.4	878.5

(a) Reference year for chain volume measures is 1999-2000. See paragraphs 29 to 31 of the Explanatory Notes.

**TABLE 3. VALUE OF BUILDING WORK DONE(a):SEASONALLY ADJUSTED SERIES**  
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
2000 Sep. qtr	469.2	89.0	558.1	60.8	152.4	262.5	881.5
Dec. qtr	426.1	97.1	523.2	58.6	162.0	261.9	843.7
2001 Mar. qtr	409.8	116.7	526.6	62.8	173.7	267.6	857.0
Jun qtr	379.9	96.6	476.5	65.8	198.7	272.3	814.6
Sep. qtr	453.5	102.6	556.1	72.5	207.7	289.4	918.1
Dec. qtr	491.4	112.6	604.0	69.4	228.7	292.9	966.3

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**TABLE 4. NUMBER OF DWELLING UNITS COMMENCED AND COMPLETED: SEASONALLY ADJUSTED SERIES**

Period	New houses				Total dwelling units (includes conversions etc)			
	Private sector		Total		Private sector		Total	
	Commenced	Completed	Commenced	Completed	Commenced	Completed	Commenced	Completed
2000 Sep. qtr	2,673	3,734	2,722	n.a.	3,265	4,339	3,613	4,585
Dec. qtr	2,713	3,976	2,875	n.a.	3,224	4,576	3,480	4,811
2001 Mar. qtr	2,539	3,644	2,585	n.a.	3,161	4,255	3,370	4,435
Jun qtr	2,656	2,844	2,700	n.a.	3,144	3,409	3,422	3,791
Sep. qtr	3,846	3,084	3,827	n.a.	4,462	3,814	4,740	4,011
Dec. qtr	4,044	3,325	4,246	n.a.	4,746	3,803	5,069	4,033

**TABLE 5. NUMBER AND VALUE OF BUILDING COMMENCED(a): ORIGINAL**

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1998-1999	15,383	1,982	92	17,457	1,722.5	231.6	1,954.1	221.5	2,175.6	939.2	3,114.8
1999-2000	18,310	3,264	230	21,804	2,169.2	459.4	2,628.6	259.0	2,887.6	709.2	3,596.8
2000-2001	10,590	1,967	234	12,793	1,403.8	272.8	1,676.6	250.0	1,926.6	899.4	2,826.0
2000 Sep. qtr	2,774	488	55	3,317	361.1	59.1	420.2	50.3	470.5	165.1	635.6
Dec. qtr	2,832	527	18	3,378	364.0	62.9	426.9	55.1	482.0	171.2	653.2
2001 Mar. qtr	2,298	576	114	2,988	317.6	98.1	415.6	75.7	491.3	160.9	652.2
Jun qtr	2,686	376	47	3,110	361.2	52.7	413.9	68.9	482.7	402.2	885.0
Sep. qtr	4,005	527	12	4,544	519.4	67.1	586.5	57.7	644.2	181.0	825.2
Dec. qtr	4,223	745	6	4,974	552.2	106.3	658.5	66.8	725.3	169.4	894.7
<b>PUBLIC SECTOR</b>											
1998-1999	565	425	—	990	51.1	33.2	84.2	5.2	89.4	190.7	280.1
1999-2000	340	652	36	1,028	38.6	52.2	90.9	5.9	96.8	510.5	607.2
2000-2001	305	624	170	1,099	35.2	60.3	95.4	26.3	121.7	234.7	356.4
2000 Sep. qtr	141	325	17	483	15.0	30.3	45.3	2.9	48.2	72.8	121.0
Dec. qtr	112	67	—	179	13.4	6.4	19.8	1.4	21.2	54.1	75.3
2001 Mar. qtr	16	46	105	167	2.2	5.6	7.8	16.9	24.7	46.1	70.8
Jun qtr	36	186	48	270	4.5	17.9	22.5	5.1	27.5	61.7	89.2
Sep. qtr	106	350	1	457	11.7	33.2	44.8	1.9	46.8	39.9	86.6
Dec. qtr	123	82	1	206	18.8	7.4	26.1	2.9	29.0	84.3	113.3
<b>TOTAL</b>											
1998-1999	15,948	2,407	92	18,447	1,773.6	264.7	2,038.4	226.7	2,265.0	1,129.9	3,394.9
1999-2000	18,650	3,916	266	22,832	2,207.8	511.6	2,719.4	265.0	2,984.4	1,219.7	4,204.1
2000-2001	10,895	2,591	404	13,892	1,439.0	333.1	1,772.1	276.2	2,048.3	1,134.2	3,182.4
2000 Sep. qtr	2,915	813	72	3,800	376.2	89.4	465.6	53.2	518.8	237.9	756.6
Dec. qtr	2,944	594	18	3,557	377.4	69.3	446.7	56.5	503.2	225.3	728.6
2001 Mar. qtr	2,314	622	219	3,155	319.8	103.7	423.5	92.6	516.0	207.0	723.1
Jun qtr	2,722	562	95	3,380	365.7	70.6	436.3	73.9	510.3	463.9	974.2
Sep. qtr	4,112	877	13	5,002	531.0	100.3	631.4	59.6	691.0	220.9	911.8
Dec. qtr	4,347	827	7	5,180	571.0	113.6	684.6	69.7	754.3	253.7	1,008.0

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**TABLE 6. VALUE OF NON-RESIDENTIAL BUILDING COMMENCED: ORIGINAL**  
(\$ million)

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1998-1999	50.7	377.9	85.9	74.7	155.9	47.8	5.5	37.1	84.0	19.8	939.2
1999-2000	41.5	171.5	94.6	85.7	122.6	61.5	30.1	47.9	33.0	20.8	709.2
2000-2001	21.6	182.6	67.4	268.0	102.1	100.4	5.5	33.3	69.2	49.2	899.4
2000 Sep. qtr	3.2	61.6	20.1	22.1	15.9	21.9	1.6	3.3	8.3	7.0	165.1
Dec. qtr	4.5	59.0	15.7	15.3	31.7	31.6	1.2	1.7	3.0	7.4	171.2
2001 Mar. qtr	7.9	23.5	14.7	22.0	15.9	8.2	1.9	5.9	56.8	4.1	160.9
Jun qtr	5.9	38.5	16.9	208.6	38.6	38.8	0.8	22.3	1.1	30.7	402.2
Sep. qtr	2.8	59.7	22.1	43.8	16.9	13.6	1.2	5.1	9.0	6.7	181.0
Dec. qtr	17.5	28.6	27.4	19.5	39.4	18.9	6.1	8.1	3.6	0.3	169.4
<b>PUBLIC SECTOR</b>											
1998-1999	0.6	2.4	4.1	26.9	7.2	60.9	—	20.3	32.0	36.2	190.7
1999-2000	0.6	2.6	5.3	34.4	7.6	200.0	—	69.1	23.5	167.2	510.5
2000-2001	0.2	0.8	2.4	37.3	15.1	71.4	—	22.5	56.5	28.6	234.7
2000 Sep. qtr	0.2	0.2	—	3.7	8.9	26.5	—	5.5	24.5	3.2	72.8
Dec. qtr	—	0.5	—	17.3	3.3	7.1	—	1.3	12.7	11.9	54.1
2001 Mar. qtr	—	0.1	2.3	7.6	1.0	8.4	—	14.9	7.5	4.3	46.1
Jun qtr	—	—	0.1	8.8	1.8	29.3	—	0.7	11.9	9.2	61.7
Sep. qtr	0.4	0.6	3.7	7.7	0.3	15.1	—	2.3	2.2	7.6	39.9
Dec. qtr	—	1.2	0.2	22.2	1.0	43.8	—	3.1	10.6	2.2	84.3
<b>TOTAL</b>											
1998-1999	51.3	380.3	90.0	101.6	163.0	108.7	5.5	57.5	116.0	56.0	1,129.9
1999-2000	42.2	174.1	99.9	120.1	130.3	261.5	30.1	117.0	56.5	188.0	1,219.7
2000-2001	21.9	183.4	69.8	305.3	117.2	171.8	5.5	55.8	125.8	77.7	1,134.2
2000 Sep. qtr	3.5	61.8	20.1	25.8	24.8	48.5	1.6	8.9	32.8	10.2	237.9
Dec. qtr	4.5	59.5	15.7	32.6	35.0	38.7	1.2	3.1	15.7	19.3	225.3
2001 Mar. qtr	7.9	23.6	17.0	29.6	17.0	16.5	1.9	20.8	64.3	8.3	207.0
Jun qtr	5.9	38.5	17.0	217.4	40.3	68.1	0.8	23.0	13.0	39.9	463.9
Sep. qtr	3.1	60.3	25.8	51.5	17.2	28.8	1.2	7.4	11.1	14.3	220.9
Dec. qtr	17.5	29.9	27.6	41.6	40.4	62.7	6.1	11.2	14.3	2.5	253.7

**TABLE 7. NUMBER AND VALUE OF BUILDING UNDER CONSTRUCTION AT END OF PERIOD(a): ORIGINAL**

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1998-1999	6,300	1,307	59	7,666	860.2	178.0	1,038.2	110.0	1,148.2	622.6	1,770.8
1999-2000	8,285	2,240	122	10,647	1,175.2	373.8	1,548.9	110.2	1,659.1	447.7	2,106.8
2000-2001	4,597	1,963	180	6,740	757.2	417.7	1,175.0	124.7	1,299.6	616.0	1,915.6
2000 Sep. qtr	7,471	2,193	153	9,817	1,137.2	371.3	1,508.6	116.6	1,625.2	354.1	1,979.2
Dec. qtr	6,098	2,058	130	8,286	962.5	365.5	1,328.0	107.4	1,435.4	364.0	1,799.4
2001 Mar. qtr	4,910	2,055	200	7,165	824.8	407.0	1,231.8	132.7	1,364.4	378.3	1,742.7
Jun qtr	4,597	1,963	180	6,740	757.2	417.7	1,175.0	124.7	1,299.6	616.0	1,915.6
Sep. qtr	5,642	1,837	163	7,642	871.2	362.7	1,233.9	122.5	1,356.4	672.0	2,028.4
Dec. qtr	6,361	2,049	141	8,551	985.6	414.2	1,399.8	138.0	1,537.7	650.3	2,188.0
<b>PUBLIC SECTOR</b>											
1998-1999	187	304	—	491	17.7	20.7	38.4	2.4	40.8	137.1	177.9
1999-2000	90	410	10	510	11.1	37.9	49.0	2.1	51.1	433.4	484.5
2000-2001	59	315	153	527	8.1	31.0	39.0	21.9	60.9	279.4	340.3
2000 Sep. qtr	164	588	15	767	18.9	57.8	76.7	1.7	78.3	474.8	553.2
Dec. qtr	158	482	—	640	19.1	43.2	62.2	1.6	63.9	433.6	497.5
2001 Mar. qtr	100	385	105	590	12.0	36.0	48.0	18.4	66.5	365.2	431.6
Jun qtr	59	315	153	527	8.1	31.0	39.0	21.9	60.9	279.4	340.3
Sep. qtr	94	549	150	793	10.3	52.1	62.4	21.2	83.5	275.1	358.7
Dec. qtr	143	418	150	711	19.4	39.4	58.8	21.9	80.7	298.7	379.5
<b>TOTAL</b>											
1998-1999	6,487	1,611	59	8,157	877.9	198.8	1,076.6	112.5	1,189.1	759.7	1,948.8
1999-2000	8,375	2,650	132	11,157	1,186.3	411.6	1,597.9	112.3	1,710.2	881.1	2,591.3
2000-2001	4,656	2,278	333	7,266	765.3	448.7	1,214.0	146.5	1,360.5	895.4	2,256.0
2000 Sep. qtr	7,635	2,781	168	10,584	1,156.1	429.1	1,585.2	118.3	1,703.5	828.9	2,532.4
Dec. qtr	6,256	2,540	130	8,926	981.5	408.7	1,390.2	109.0	1,499.2	797.6	2,296.8
2001 Mar. qtr	5,010	2,440	305	7,755	836.8	443.0	1,279.8	151.1	1,430.9	743.4	2,174.4
Jun qtr	4,656	2,278	333	7,266	765.3	448.7	1,214.0	146.5	1,360.5	895.4	2,256.0
Sep. qtr	5,737	2,386	313	8,436	881.5	414.8	1,296.2	143.7	1,439.9	947.1	2,387.1
Dec. qtr	6,504	2,467	291	9,262	1,005.0	453.6	1,458.6	159.9	1,618.5	949.0	2,567.5

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.



**TABLE 8. VALUE OF NON-RESIDENTIAL BUILDING UNDER CONSTRUCTION AT END OF PERIOD: ORIGINAL**  
**(\$ million)**

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1998-1999	58.0	290.7	42.9	38.0	68.5	15.9	3.8	29.5	58.9	16.4	622.6
1999-2000	23.9	164.8	43.4	47.8	50.5	29.4	22.7	36.8	17.9	10.5	447.7
2000-2001	14.9	101.1	26.7	220.3	51.2	75.6	3.5	29.8	57.6	35.4	616.0
2000 Sep. qtr	11.3	97.2	33.5	42.7	46.7	41.2	16.0	33.5	19.8	12.2	354.1
Dec. qtr	12.6	121.7	30.3	30.3	36.7	64.3	12.7	26.2	13.2	16.0	364.0
2001 Mar. qtr	16.2	117.0	26.7	29.3	31.7	41.1	14.2	23.8	63.5	14.7	378.3
Jun qtr	14.9	101.1	26.7	220.3	51.2	75.6	3.5	29.8	57.6	35.4	616.0
Sep. qtr	12.2	113.2	41.8	244.5	36.5	86.7	3.5	32.8	60.2	40.7	672.0
Dec. qtr	21.7	103.5	49.4	229.9	45.4	63.2	8.4	37.6	60.8	30.4	650.3
<b>PUBLIC SECTOR</b>											
1998-1999	—	0.1	0.3	16.9	4.8	46.3	—	17.6	26.7	24.5	137.1
1999-2000	—	—	4.7	22.6	6.5	161.5	—	64.7	17.6	155.7	433.4
2000-2001	—	—	2.5	33.6	4.9	73.3	—	52.5	41.0	71.5	279.4
2000 Sep. qtr	0.2	0.2	1.9	22.8	14.8	177.5	—	61.1	40.4	156.0	474.8
Dec. qtr	—	0.2	1.9	37.7	5.3	143.3	—	55.6	35.5	154.2	433.6
2001 Mar. qtr	—	—	4.0	26.8	4.3	76.9	—	64.7	42.2	146.3	365.2
Jun qtr	—	—	2.5	33.6	4.9	73.3	—	52.5	41.0	71.5	279.4
Sep. qtr	0.4	—	6.1	35.4	0.1	79.8	—	50.4	42.2	60.6	275.1
Dec. qtr	0.4	0.3	0.1	53.9	0.9	113.1	—	48.5	27.0	54.6	298.7
<b>TOTAL</b>											
1998-1999	58.0	290.8	43.2	54.9	73.3	62.2	3.8	47.1	85.6	40.8	759.7
1999-2000	23.9	164.8	48.1	70.4	57.1	190.9	22.7	101.6	35.5	166.1	881.1
2000-2001	14.9	101.1	29.2	254.0	56.1	148.9	3.5	82.3	98.7	106.9	895.4
2000 Sep. qtr	11.6	97.4	35.4	65.5	61.5	218.7	16.0	94.7	60.2	168.2	828.9
Dec. qtr	12.6	121.9	32.2	68.0	42.0	207.6	12.7	81.7	48.8	170.1	797.6
2001 Mar. qtr	16.2	117.0	30.6	56.1	36.0	118.1	14.2	88.5	105.7	161.0	743.4
Jun qtr	14.9	101.1	29.2	254.0	56.1	148.9	3.5	82.3	98.7	106.9	895.4
Sep. qtr	12.6	113.2	47.9	279.9	36.6	166.5	3.5	83.2	102.4	101.3	947.1
Dec. qtr	22.0	103.9	49.4	283.9	46.3	176.3	8.4	86.1	87.8	85.0	949.0

**TABLE 9. NUMBER AND VALUE OF BUILDING COMPLETED(a): ORIGINAL**

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1998-1999	14,764	1,876	134	16,774	1,606.7	208.6	1,815.4	196.6	2,011.9	737.8	2,749.8
1999-2000	16,284	2,312	167	18,763	1,871.2	279.7	2,150.9	266.3	2,417.2	926.2	3,343.4
2000-2001	14,179	2,234	164	16,577	1,825.5	272.1	2,097.6	244.2	2,341.8	733.3	3,075.1
2000 Sep. qtr	3,578	537	21	4,136	412.7	72.3	485.0	47.4	532.4	251.6	784.0
Dec. qtr	4,185	653	41	4,879	535.2	80.5	615.7	67.7	683.4	163.5	846.9
2001 Mar. qtr	3,447	575	43	4,065	452.4	61.4	513.7	52.0	565.8	144.5	710.2
Jun qtr	2,969	469	59	3,497	425.3	57.9	483.2	77.0	560.2	173.7	733.9
Sep. qtr	2,946	651	29	3,626	411.0	129.3	540.3	60.5	600.8	141.9	742.6
Dec. qtr	3,498	533	24	4,055	447.3	57.6	504.9	56.2	561.1	193.2	754.2
<b>PUBLIC SECTOR</b>											
1998-1999	542	477	—	1,019	47.8	29.7	77.4	3.9	81.3	247.3	328.6
1999-2000	436	513	26	975	45.0	36.0	81.0	6.1	87.1	219.2	306.3
2000-2001	334	698	27	1,059	38.3	67.1	105.5	7.0	112.4	388.0	500.4
2000 Sep. qtr	67	144	12	223	7.8	11.5	19.3	3.4	22.6	24.2	46.9
Dec. qtr	118	173	15	306	13.1	21.8	34.9	1.7	36.6	99.9	136.5
2001 Mar. qtr	74	125	—	199	9.2	10.7	19.9	0.2	20.1	118.1	138.1
Jun qtr	75	256	—	331	8.3	23.2	31.4	1.7	33.1	145.8	179.0
Sep. qtr	71	110	4	185	9.4	11.5	21.0	2.3	23.3	44.4	67.7
Dec. qtr	75	213	1	289	9.7	20.0	29.7	2.1	31.8	63.2	95.0
<b>TOTAL</b>											
1998-1999	15,306	2,353	134	17,793	1,654.5	238.3	1,892.8	200.5	2,093.3	985.1	3,078.4
1999-2000	16,720	2,825	193	19,738	1,916.2	315.7	2,231.9	272.4	2,504.3	1,145.5	3,649.8
2000-2001	14,513	2,932	191	17,636	1,863.8	339.2	2,203.1	251.1	2,454.2	1,121.3	3,575.5
2000 Sep. qtr	3,645	681	33	4,359	420.5	83.7	504.2	50.8	555.0	275.8	830.9
Dec. qtr	4,303	826	56	5,185	548.3	102.3	650.6	69.4	720.0	263.4	983.4
2001 Mar. qtr	3,521	700	43	4,264	461.5	72.1	533.6	52.2	585.8	262.5	848.4
Jun qtr	3,044	725	59	3,828	433.5	81.1	514.6	78.7	593.3	319.5	912.9
Sep. qtr	3,017	761	33	3,811	420.4	140.8	561.2	62.8	624.1	186.3	810.3
Dec. qtr	3,573	746	25	4,344	457.1	77.6	534.6	58.2	592.9	256.4	849.2

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**TABLE 10. VALUE OF NON-RESIDENTIAL BUILDING COMPLETED: ORIGINAL**  
(\$ million)

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1998-1999	44.8	177.1	78.6	73.0	150.9	44.1	5.2	94.2	48.6	21.4	737.8
1999-2000	82.0	315.4	97.9	78.8	144.4	49.1	11.7	42.8	77.2	26.9	926.2
2000-2001	29.8	256.5	84.7	93.0	99.9	52.3	25.2	39.6	27.0	25.4	733.3
2000 Sep. qtr	14.6	130.1	29.3	23.7	18.5	9.8	8.2	5.4	6.6	5.4	251.6
Dec. qtr	3.5	39.6	18.2	28.5	40.4	8.0	5.0	9.9	6.8	3.7	163.5
2001 Mar. qtr	4.6	27.5	19.1	22.8	21.1	28.7	0.4	7.8	6.2	6.2	144.5
Jun qtr	7.1	59.3	18.1	18.0	19.8	5.8	11.6	16.5	7.3	10.1	173.7
Sep. qtr	5.9	48.1	7.9	25.9	31.9	5.6	1.2	2.2	6.8	6.4	141.9
Dec. qtr	7.2	47.3	21.8	30.6	24.3	43.2	1.3	3.4	3.3	10.8	193.2
<b>PUBLIC SECTOR</b>											
1998-1999	1.3	2.3	3.8	38.2	5.2	65.9	—	70.5	43.0	17.1	247.3
1999-2000	0.6	2.8	0.9	29.3	6.2	88.9	—	20.8	31.2	38.6	219.2
2000-2001	0.2	0.8	4.7	26.8	16.5	162.6	—	32.3	32.1	112.1	388.0
2000 Sep. qtr	—	—	2.8	3.4	0.6	8.3	—	5.2	1.1	2.9	24.2
Dec. qtr	0.2	0.5	—	2.1	12.4	45.0	—	10.0	16.9	12.9	99.9
2001 Mar. qtr	—	0.3	0.2	19.5	2.4	75.5	—	6.1	2.2	11.9	118.1
Jun qtr	—	—	1.7	1.9	1.1	33.9	—	10.9	12.0	84.3	145.8
Sep. qtr	—	0.6	0.1	6.1	5.1	7.8	—	5.0	0.8	18.9	44.4
Dec. qtr	—	0.9	6.4	3.8	0.3	11.5	—	5.2	25.9	9.3	63.2
<b>TOTAL</b>											
1998-1999	46.1	179.4	82.3	111.2	156.1	110.0	5.2	164.7	91.6	38.5	985.1
1999-2000	82.6	318.1	98.8	108.1	150.6	138.0	11.7	63.6	108.4	65.5	1,145.5
2000-2001	30.0	257.2	89.4	119.8	116.3	214.9	25.2	71.9	59.1	137.5	1,121.3
2000 Sep. qtr	14.6	130.1	32.0	27.1	19.1	18.1	8.2	10.7	7.7	8.4	275.8
Dec. qtr	3.7	40.0	18.2	30.6	52.7	52.9	5.0	19.9	23.7	16.6	263.4
2001 Mar. qtr	4.6	27.8	19.3	42.3	23.5	104.2	0.4	13.9	8.4	18.1	262.5
Jun qtr	7.1	59.3	19.9	19.9	20.9	39.7	11.6	27.4	19.3	94.5	319.5
Sep. qtr	5.9	48.8	8.0	32.0	37.0	13.3	1.2	7.2	7.5	25.3	186.3
Dec. qtr	7.2	48.2	28.2	34.4	24.5	54.7	1.3	8.6	29.2	20.1	256.4

**TABLE 11. VALUE OF BUILDING WORK DONE(a): ORIGINAL  
(\$ million)**

<i>Period</i>	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>							
1998-1999	1,646.7	233.8	1,880.5	211.1	2,091.5	815.7	2,907.3
1999-2000	2,055.8	362.1	2,417.9	275.0	2,692.9	880.7	3,573.5
2000-2001	1,645.5	336.9	1,982.4	240.5	2,222.9	686.1	2,909.0
2000 Sep. qtr	452.4	72.1	524.5	53.7	578.2	162.3	740.5
Dec. qtr	428.6	77.2	505.8	61.6	567.4	162.3	729.7
2001 Mar. qtr	392.5	99.7	492.2	59.7	551.9	159.8	711.7
Jun qtr	372.0	87.8	459.9	65.6	525.4	201.7	727.1
Sep. qtr	440.1	82.7	522.8	65.0	587.7	221.2	808.9
Dec. qtr	493.9	93.5	587.4	71.7	659.2	228.1	887.3
<b>PUBLIC SECTOR</b>							
1998-1999	50.9	31.3	82.2	4.4	86.6	170.0	256.7
1999-2000	41.0	47.7	88.7	6.8	95.5	329.6	425.1
2000-2001	39.3	61.9	101.2	7.3	108.5	378.3	486.7
2000 Sep. qtr	10.6	17.1	27.7	3.1	30.8	111.6	142.5
Dec. qtr	12.9	20.6	33.5	1.3	34.8	103.3	138.1
2001 Mar. qtr	8.8	12.3	21.1	1.0	22.1	90.4	112.5
Jun qtr	7.0	11.8	18.8	1.9	20.7	72.9	93.6
Sep. qtr	7.6	19.8	27.4	3.0	30.4	81.0	111.4
Dec. qtr	15.6	20.0	35.6	2.6	38.2	68.0	106.2
<b>TOTAL</b>							
1998-1999	1,697.6	265.0	1,962.7	215.5	2,178.2	985.8	3,164.0
1999-2000	2,096.8	409.7	2,506.5	281.8	2,788.3	1,210.3	3,998.6
2000-2001	1,684.8	398.8	2,083.6	247.8	2,331.4	1,064.4	3,395.8
2000 Sep. qtr	463.0	89.3	552.2	56.8	609.0	274.0	883.0
Dec. qtr	441.5	97.9	539.3	62.9	602.3	265.5	867.8
2001 Mar. qtr	401.3	112.0	513.3	60.7	574.0	250.3	824.2
Jun qtr	379.0	99.7	478.7	67.4	546.1	274.6	820.7
Sep. qtr	447.7	102.4	550.1	68.0	618.1	302.2	920.3
Dec. qtr	509.5	113.5	623.0	74.3	697.4	296.2	993.5

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**TABLE 12. VALUE OF NON-RESIDENTIAL BUILDING WORK DONE: ORIGINAL**  
**(\$ million)**

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1998-1999	56.7	265.6	83.5	72.1	159.3	46.4	6.1	43.7	63.8	18.6	815.7
1999-2000	62.3	302.3	101.6	85.6	129.9	51.5	18.6	45.7	58.8	24.3	880.7
2000-2001	19.5	197.8	70.2	111.4	97.6	72.3	17.3	26.2	38.9	34.8	686.1
2000 Sep. qtr	4.2	49.1	19.9	24.2	22.1	14.9	6.1	8.7	7.5	5.7	162.3
Dec. qtr	4.6	46.8	17.9	24.1	25.9	19.1	5.8	8.6	4.8	4.6	162.3
2001 Mar. qtr	5.5	52.4	19.1	18.4	20.1	18.3	4.1	3.5	11.6	6.8	159.8
Jun qtr	5.2	49.5	13.3	44.8	29.5	20.0	1.3	5.4	15.0	17.8	201.7
Sep. qtr	6.0	60.4	16.5	39.3	24.2	24.6	1.5	9.3	20.4	19.0	221.2
Dec. qtr	6.7	54.4	27.3	45.6	23.5	28.8	3.0	10.8	18.3	9.7	228.1
<b>PUBLIC SECTOR</b>											
1998-1999	1.0	2.4	4.0	31.8	6.4	58.2	—	15.9	28.0	22.3	170.0
1999-2000	0.6	2.7	4.3	29.0	7.6	138.1	—	29.2	31.0	87.1	329.6
2000-2001	0.2	0.8	2.3	36.8	15.9	118.3	—	59.6	40.5	104.0	378.3
2000 Sep. qtr	0.2	—	0.6	10.4	6.2	44.1	—	12.8	8.9	28.4	111.6
Dec. qtr	—	0.6	0.2	8.5	5.4	35.6	—	14.2	11.0	27.7	103.3
2001 Mar. qtr	—	0.2	0.8	9.0	2.0	24.9	—	17.7	10.3	25.6	90.4
Jun qtr	—	—	0.7	8.9	2.3	13.5	—	14.9	10.2	22.3	72.9
Sep. qtr	0.1	0.6	3.1	12.1	1.3	25.8	—	7.9	14.6	15.5	81.0
Dec. qtr	0.2	1.1	2.0	8.2	0.7	27.0	—	4.7	12.2	11.9	68.0
<b>TOTAL</b>											
1998-1999	57.7	268.0	87.5	103.9	165.6	104.7	6.1	59.6	91.7	40.9	985.8
1999-2000	63.0	304.9	105.9	114.6	137.5	189.6	18.6	74.9	89.8	111.5	1,210.3
2000-2001	19.7	198.6	72.5	148.2	113.4	190.5	17.3	85.8	79.4	138.8	1,064.4
2000 Sep. qtr	4.4	49.2	20.5	34.6	28.3	59.0	6.1	21.5	16.3	34.1	274.0
Dec. qtr	4.7	47.4	18.1	32.6	31.3	54.8	5.8	22.8	15.9	32.3	265.5
2001 Mar. qtr	5.5	52.6	19.9	27.4	22.1	43.2	4.1	21.3	22.0	32.3	250.3
Jun qtr	5.2	49.5	14.1	53.7	31.8	33.5	1.3	20.3	25.2	40.1	274.6
Sep. qtr	6.1	61.0	19.6	51.4	25.5	50.4	1.5	17.2	35.0	34.5	302.2
Dec. qtr	6.9	55.5	29.3	53.9	24.2	55.8	3.0	15.4	30.6	21.5	296.2

**TABLE 13. VALUE OF BUILDING WORK YET TO BE DONE AT END OF PERIOD(a): ORIGINAL  
(\$ million)**

<i>Period</i>	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>							
1998-1999	448.5	89.0	537.4	52.0	589.5	305.0	894.4
1999-2000	579.8	206.4	786.2	44.4	830.6	176.0	1,006.7
2000-2001	346.4	185.7	532.1	63.7	595.8	394.5	990.3
2000 Sep. qtr	502.5	204.5	707.1	45.1	752.1	175.1	927.2
Dec. qtr	435.3	202.3	637.6	42.0	679.6	186.7	866.3
2001 Mar. qtr	359.0	204.8	563.9	59.7	623.6	185.7	809.3
Jun qtr	346.4	185.7	532.1	63.7	595.8	394.5	990.3
Sep. qtr	430.8	179.2	610.0	57.4	667.3	371.0	1,038.3
Dec. qtr	499.0	194.8	693.8	57.6	751.3	314.8	1,066.1
<b>PUBLIC SECTOR</b>							
1998-1999	8.5	10.5	19.0	1.5	20.5	75.2	95.7
1999-2000	5.9	16.6	22.5	0.6	23.1	261.1	284.2
2000-2001	1.8	16.1	17.9	19.9	37.8	116.4	154.2
2000 Sep. qtr	10.9	31.1	42.0	0.3	42.3	215.1	257.5
Dec. qtr	11.3	17.6	28.9	0.6	29.5	170.4	200.0
2001 Mar. qtr	4.5	9.8	14.3	16.6	30.9	128.6	159.5
Jun qtr	1.8	16.1	17.9	19.9	37.8	116.4	154.2
Sep. qtr	5.9	28.9	34.8	18.5	53.3	75.6	128.9
Dec. qtr	9.2	16.2	25.5	18.8	44.3	94.3	138.6
<b>TOTAL</b>							
1998-1999	456.9	99.5	556.4	53.6	610.0	380.1	990.1
1999-2000	585.7	223.0	808.7	45.0	853.7	437.1	1,290.8
2000-2001	348.2	201.8	550.0	83.6	633.6	510.9	1,144.5
2000 Sep. qtr	513.4	235.6	749.1	45.4	794.5	390.2	1,184.7
Dec. qtr	446.6	219.9	666.5	42.6	709.1	357.1	1,066.2
2001 Mar. qtr	363.6	214.6	578.2	76.3	654.5	314.3	968.8
Jun qtr	348.2	201.8	550.0	83.6	633.6	510.9	1,144.5
Sep. qtr	436.7	208.1	644.8	75.9	720.7	446.6	1,167.3
Dec. qtr	508.2	211.0	719.2	76.4	795.6	409.1	1,204.7

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**TABLE 14. VALUE OF NON-RESIDENTIAL BUILDING WORK YET TO BE DONE AT END OF PERIOD: ORIGINAL**  
**(\$ million)**

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1998-1999	20.9	163.5	18.1	18.2	25.3	7.7	1.1	13.1	30.8	6.2	305.0
1999-2000	6.5	50.8	15.1	21.3	22.0	18.8	13.0	17.5	8.1	2.9	176.0
2000-2001	8.5	45.4	13.0	177.9	25.0	44.3	1.7	23.9	36.1	18.6	394.5
2000 Sep. qtr	5.1	64.2	14.6	18.2	14.5	25.5	8.4	11.0	9.2	4.4	175.1
Dec. qtr	5.2	81.6	11.8	10.4	19.3	37.5	4.3	4.6	4.8	7.3	186.7
2001 Mar. qtr	8.0	51.6	8.2	13.8	15.4	24.7	2.0	6.9	49.6	5.5	185.7
Jun qtr	8.5	45.4	13.0	177.9	25.0	44.3	1.7	23.9	36.1	18.6	394.5
Sep. qtr	5.6	45.8	19.7	188.4	17.8	36.3	1.4	19.8	25.1	11.1	371.0
Dec. qtr	15.7	29.0	21.9	158.8	27.5	27.3	4.6	17.2	10.6	2.0	314.8
<b>PUBLIC SECTOR</b>											
1998-1999	—	0.1	—	8.5	1.7	21.5	—	10.9	16.9	15.5	75.2
1999-2000	—	—	1.0	14.5	2.1	87.5	—	49.6	8.1	98.2	261.1
2000-2001	—	—	1.2	15.5	1.1	43.2	—	9.9	23.5	22.0	116.4
2000 Sep. qtr	—	0.1	0.4	7.6	4.8	67.6	—	38.5	23.1	73.0	215.1
Dec. qtr	—	0.1	0.2	16.3	2.5	42.5	—	28.4	24.0	56.5	170.4
2001 Mar. qtr	—	—	1.7	15.7	1.6	26.5	—	25.9	22.2	35.0	128.6
Jun qtr	—	—	1.2	15.5	1.1	43.2	—	9.9	23.5	22.0	116.4
Sep. qtr	0.2	—	1.8	11.4	0.1	31.9	—	4.8	11.1	14.4	75.6
Dec. qtr	—	0.2	0.1	25.5	0.4	49.6	—	3.3	9.5	5.7	94.3
<b>TOTAL</b>											
1998-1999	20.9	163.5	18.1	26.7	27.1	29.2	1.1	24.0	47.8	21.7	380.1
1999-2000	6.5	50.8	16.1	35.8	24.0	106.3	13.0	67.2	16.3	101.1	437.1
2000-2001	8.5	45.4	14.2	193.5	26.1	87.5	1.7	33.8	59.6	40.6	510.9
2000 Sep. qtr	5.2	64.3	14.9	25.8	19.3	93.1	8.4	49.5	32.3	77.4	390.2
Dec. qtr	5.2	81.6	11.9	26.7	21.7	80.0	4.3	32.9	28.8	63.9	357.1
2001 Mar. qtr	8.0	51.6	9.9	29.5	17.0	51.3	2.0	32.7	71.8	40.5	314.3
Jun qtr	8.5	45.4	14.2	193.5	26.1	87.5	1.7	33.8	59.6	40.6	510.9
Sep. qtr	5.9	45.8	21.4	199.8	17.9	68.2	1.4	24.6	36.1	25.5	446.6
Dec. qtr	15.7	29.2	22.0	184.3	27.9	76.9	4.6	20.6	20.1	7.8	409.1

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, DECEMBER QUARTER 2001  
(Percentage)**

<i>Stage of construction</i>	<i>New residential building</i>				<i>Value</i>		
	<i>Houses</i>		<i>Total</i>		<i>Alterations and additions to residential buildings</i>	<i>Non- residential</i>	<i>Total building</i>
	<i>Number</i>	<i>Value</i>	<i>Number of dwelling units</i>	<i>Value</i>			
Commenced	3.3	3.5	2.8	2.9	4.6	0.7	2.0
Under construction at end of period	3.0	2.8	2.1	1.9	3.0	0.2	1.1
Completed	4.2	4.7	3.4	4.0	6.6	1.0	2.6
Value of work done	..	2.8	..	2.3	3.4	0.6	1.4
Value of work yet to be done	..	3.5	..	2.5	3.3	0.2	1.5

**TABLE 16. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, NON-RESIDENTIAL: DECEMBER QUARTER 2001  
(Percentage)**

<i>State of construction</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
Value of work commenced	2.3	5.3	2.3	2.4	2.6	—	14.8	—	6.3	—	0.7
Value of work under construction	1.4	1.4	1.3	0.2	2.3	—	10.9	—	1.0	—	0.2
Value of work completed	3.6	3.3	1.3	2.7	—	3.0	—	3.4	3.1	2.0	1.0
Value of work done	5.8	2.7	1.9	1.8	3.0	0.4	24.6	0.3	3.0	0.3	0.6
Value of work yet to be done	0.1	1.7	0.7	0.1	2.4	—	6.3	—	0.3	—	0.2



# EXPLANATORY NOTES

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## INTRODUCTION

**1** This publication contains detailed estimates from the quarterly Building Activity Survey. Each issue includes revisions to the previous quarter. Therefore data for the latest quarter should be considered to be preliminary only.

**2** The statistics were compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. From the December quarter 2001, the quarterly survey consists of:

- a sample survey of private sector jobs involving new house construction or alterations and additions valued at \$10,000 or more to houses;
- a sample survey of private sector jobs involving new non-residential buildings or alterations and additions valued at \$50,000 or more to non-residential buildings; and
- a complete enumeration of jobs involving construction of new residential buildings other than private sector houses, all alterations and additions to residential buildings (other than private sector houses) with an approval value of \$10,000 or more, and all public sector non-residential building jobs with an approval value of \$50,000 or more.

**3** From the September quarter 1990, only non-residential building jobs (both new and alterations and additions) with an approval value of \$50,000 (previously \$30,000) or more are included in the survey.

**4** The use of sample survey techniques in the Building Activity Survey means that reliable estimates of private sector building activity are generally available only at State, Territory and Australia levels. Although subject to higher relative standard errors (refer to paragraphs 23–25), a range of sub-State estimates of building activity may be available. For further information on the availability of Building Activity estimates, contact the ABS in Adelaide on 08 8237 7316. Detailed data on building approvals, based on information reported by local government and other reporting authorities, are available for regions below State and Territory level from the Building Approvals series compiled by the ABS.

## SCOPE AND COVERAGE

**5** 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.

**6** Building jobs included in each quarter in the Building Activity Survey comprise those jobs selected in previous quarters which have not been completed (or commenced) by the end of the previous quarter and those jobs newly selected in the current quarter. The population list from which jobs are selected for inclusion comprises all approved building jobs which were notified to the ABS (refer paragraph 2) up to but not including the last month of the reference quarter (e.g. up to the end of August in respect of the September quarter survey). This introduces a lag to the statistics in respect of those jobs notified and commenced in the last month of the reference quarter (e.g. for the month of September in respect of the September quarter survey). For example, jobs which were notified as approved in the month of June and which actually commenced in that month are shown as commencements in the September quarter. Similarly, building jobs which were notified in the month of September and which actually commenced in that month are shown as commencements in the December quarter.

### TREATMENT OF GST

**7** Statistics on value of building work (current prices) show residential building on a GST inclusive basis and non-residential building on a GST exclusive basis. This approach is consistent with that adopted in the Australian National Accounts which is based on the conceptual framework described in the 1993 edition of the international statistical standard *System of National Accounts* (SNA93).

**8** SNA93 requires value added taxes (VAT), such as the GST, to be recorded on a net basis where:

- (a) both outputs of goods and services and imports are valued excluding invoiced VAT;
- (b) purchases of goods and services are recorded including non-deductible VAT.

Under the net system, VAT is recorded as being payable by purchasers, not sellers, and then only by those purchasers who are not able to deduct it. Almost all VAT is therefore recorded in the SNA93 as being paid on final uses—mainly on household consumption. Small amounts of VAT, may however, be paid by businesses in respect of certain kinds of purchases on which VAT may not be deductible.

**9** Within building activity statistics, purchasers of residential structures are unable to deduct GST from the purchase price. For non-residential structures, the reverse is true. While the ABS collects all building activity data on a GST inclusive basis, it publishes value data inclusive of GST in respect of residential construction and exclusive of GST in respect of non-residential construction.

**10** It is appropriate to add the residential and non-residential components to derive total building activity. Valuation of the components of the total is consistent, since, for both components, the value data is recorded inclusive of non-deductible GST paid by the purchaser. As such, total building activity includes the non-deductible GST payable on residential building.

### DEFINITIONS

**11** 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.

**12** 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.

**13** 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*.

- 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.
- 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.).

## EXPLANATORY NOTES *continued*

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### DEFINITIONS *continued*

**14** From the June quarter 1996 issue of this publication, the number of dwelling units created as part of alterations and additions to, or conversions of, existing residential or non-residential buildings, and as part of the construction of non-residential building is shown separately in tables 5, 7, and 9 under the heading of 'Conversions, etc.', and is included in the total number of dwelling units shown in these tables. Previously, such dwellings were only included as a footnote.

**15** In addition, the seasonally adjusted estimates for the total number of dwelling units commenced and completed, shown in table 4, include these conversions, etc. Previously, only dwelling units created as part of the construction of new residential buildings were included in these estimates.

**16** *Commenced.* A building job is regarded as commenced when the first physical building activity has been performed on site in the form of materials fixed in place and/or labour expended (this includes site preparation but excludes delivery of building materials, the drawing of plans and specifications and the construction of non-building infrastructures such as roads).

**17** *Under construction.* A building job is regarded as being under construction at the end of a period if it has been commenced but has not been completed, and work on it has not been abandoned.

**18** *Completed.* A building job is regarded as completed when building activity has progressed to the stage when the building can fulfil its intended function. In practice, the ABS regards buildings as completed when notified as such by respondents to the survey.

### VALUATION OF BUILDING JOBS

**19** The value series in this publication are derived from estimates reported on survey returns as follows.

- *Value of building commenced or under construction* represents the anticipated completion value based, where practicable, on estimated market or contract price of building jobs excluding the value of land and landscaping. Site preparation costs are included. Where jobs proceed over several quarters, the anticipated completion value reported on the return for the first (commencement) quarter may be amended on returns for subsequent (under construction) quarters as the job nears completion.
- *Value of building completed* represents the actual completion value based, where practicable, on the market or contract price of jobs including site preparation costs but excluding the value of land and landscaping.
- *Value of building work done during the period* represents the estimated value of building work actually carried out during the quarter on jobs which have commenced.
- *Value of building work yet to be done* represents the difference between the anticipated completion value and the estimated value of work done up to the end of the period on jobs commenced but not completed.

### BUILDING CLASSIFICATION

**20** *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.

**21** *Functional classification of buildings.* A building is classified according to its intended major function. Hence, 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.

**22** Examples of the types of buildings included under each main functional heading are shown in the following list.

- *Houses.* Includes cottages, bungalows, detached caretakers'/managers' cottages, rectories.
- *Other residential buildings.* Includes blocks of flats, home units, attached townhouses, villa units, terrace houses, semi-detached houses, maisonettes.
- *Hotels, etc.* Includes motels, hostels, boarding houses, guest houses, holiday apartment buildings.
- *Shops.* Includes retail shops, restaurants, cafes, taverns, dry cleaners, laundromats, hair salons, shopping arcades.
- *Factories.* Includes paper mills, oil refinery buildings, brickworks, foundries, powerhouses, manufacturing laboratories, workshops as part of a manufacturing process.
- *Offices.* Includes banks, post offices, council chambers, head and regional offices.
- *Other business premises.* Includes warehouses, storage depots, service stations, transport depots and terminals, car parks, electricity substation buildings, pumping station buildings, telephone exchanges, mail sorting centres, broadcasting stations, film studios.
- *Educational.* Includes schools, colleges, universities, kindergartens, libraries, museums, art galleries, research and teaching laboratories, theological colleges.
- *Religious.* Includes churches, chapels, temples.
- *Health.* Includes hospitals, nursing homes, surgeries, clinics, medical centres.
- *Entertainment and recreational.* Includes clubs, theatres, cinemas, public halls, gymnasiums, grandstands, squash courts, sports and recreation centres.
- *Miscellaneous.* Includes law courts, homes for the aged (where medical care is not provided as a normal service), orphanages, gaols, barracks, mine buildings, glasshouses, livestock sheds, shearing sheds, fruit and skin drying sheds, public toilets, and ambulance, fire and police stations.

### RELIABILITY OF THE ESTIMATES

**23** Since the figures for private sector house building activity (including alterations and additions to private sector houses) and private sector non-residential building are derived from information obtained from a sample of approved building jobs, they are subject to sampling error; that is, they may differ from the figures that would have been obtained if information for all approved jobs for the relevant period had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of approved jobs was included. There are about two chances in three that a sample estimate will differ by less than one SE from the figure that would have been obtained if all approved jobs had been included, and about nineteen chances in twenty that the difference will be less than two SEs. Another measure of sampling variability is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate to which it refers. The RSEs of estimates provide an indication of the percentage errors likely to have occurred due to sampling, and are shown in tables 15 and 16.

**24** An example of the use of RSEs is as follows. Assume that the estimate of the number of new private sector houses commenced during the latest quarter is 2,000 (for actual estimate see table 5) and that the associated RSE is 2.5% (for actual percentage see table 15). There would then be about two chances in three that the number which would have been obtained if information had been collected about all approved private sector house jobs would have been within the range 1,950 to 2,050 (2.5% of 2,000 is 50) and about nineteen chances in twenty that the number would have been within the range 1,900 to 2,100.

**25** The imprecision due to sampling variability, which is measured by the RSE, should not be confused with inaccuracies that may occur because of inadequacies in the source of building approval information, imperfections in reporting by respondents, and errors made in the coding and processing of data. Inaccuracies of this kind are referred to as non-sampling error, and may occur in any enumeration whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by the careful design of questionnaires, efforts to obtain responses for all selected jobs, and efficient operating procedures.

### SEASONAL ADJUSTMENT

**26** Seasonally adjusted building statistics are shown in tables 2 to 4. In the seasonally adjusted series, account has been taken of normal seasonal factors and the effect of movement in the date of Easter which may, in successive years, affect figures for different quarters. Further information about seasonal adjustment can be obtained from the Assistant Director of Time Series Analysis on Canberra 02 6252 6076.

### SEASONAL ADJUSTMENT *continued*

**27** Since seasonally adjusted statistics reflect both irregular and trend movements, an upward or downward movement in a seasonally adjusted series does not necessarily indicate a change of trend. Particular care should therefore be taken in interpreting individual quarter-to-quarter movements. Some of the component series shown have 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. Figures which can be derived, for example, 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. In table 3, the components of the current price value series have, however, been seasonally adjusted dependently, and the seasonally adjusted components of series in that table add to the seasonally adjusted total.

**28** As happens with all seasonally adjusted series, the seasonal factors are reviewed annually to take account of each additional year's data. For the Building Activity Survey, the results of the latest review are shown in the December quarter issue each year.

### CHAIN VOLUME MEASURES

**29** Chain volume estimates of the value of commencements and work done are shown in tables 1 and 2. While current price estimates of the value of commencements and work done reflect both price and volume changes, chain volume estimates measure changes in value after the direct effects of price changes have been eliminated and therefore only reflect volume changes. The direct impact of the GST is a price change, and hence is removed from chain volume estimates. 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 new other building components of the national accounts aggregate 'Gross fixed capital formation'.

**30** The chain volume measures of commencements and work done appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in a chosen reference year (currently 1999–2000). The reference year is updated annually in the June quarter publication. Each year's data in the value of commencements and work done series are based on the prices of the previous year, except for the quarters of the latest incomplete year which are based upon the current reference year (i.e. 1999–2000). Comparability with previous years is achieved by linking (or chaining) the series together to form a continuous time series. Further information on the nature and concepts of chain volume measures is contained in the *ABS Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0).

**31** The factors used to seasonally adjust the chain volume series are identical to those used to adjust the corresponding current price series.

## EXPLANATORY NOTES *continued*

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### ACKNOWLEDGMENT

**32** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

### RELATED PRODUCTS

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

*Building Activity, Australia* (Cat. no. 8752.0)—issued quarterly

*Construction Work Done, Australia, Preliminary* (Cat. no. 8755.0)—issued quarterly

*Building Activity, Australia: Dwelling Unit Commencements, Preliminary* (Cat. no. 8750.0)—issued quarterly

*Building Approvals, Australia* (Cat. no. 8731.0)—issued monthly

*Building Approvals, Western Australia* (Cat. no. 8731.5)—issued quarterly

*Engineering Construction Activity, Australia* (Cat. no. 8762.0)—issued quarterly

*Housing Finance for Owner Occupation, Australia* (Cat. no. 5609.0)—issued monthly

**34** Current publications and other products produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists products to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

### ABA DATA AVAILABLE ON REQUEST

**35** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

### SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
RSE	relative standard error
SE	standard error
..	not applicable
—	nil or rounded to zero

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

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