

CONSTRUCTION WORK DONE

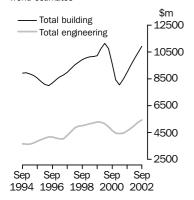
AUSTRALIA

PRELIMINARY

EMBARGO: 11:30AM (CANBERRA TIME) WED 27 NOV 2002

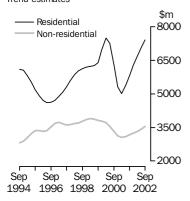
Value of construction work done Volume terms

Trend estimates



Value of building work done

Volume terms
Trend estimates



 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.

SEPTEMBER QTR KEY FIGURES

	Sep qtr 02	Jun qtr 02 to Sep qtr 02	Sep qtr 01 to Sep qtr 02
TREND ESTIMATES(a)	\$ <i>m</i>	% change	% change
Value of work done			
Building	10 941.1	4.1	21.8
Residential	7 408.6	4.7	27.5
Non-residential	3 546.7	3.3	11.9
Engineering	5 431.8	2.7	17.2
Total construction	16 405.9	3.9	20.5

SEASONALLY ADJUSTED(a)	Sep qtr 02 \$m	Jun qtr 02 to Sep qtr 02 % change	Sep qtr 01 to Sep qtr 02 % change
Value of work done			
Building	11 080.3	6.5	22.8
Residential	7 414.0	4.3	26.7
Non-residential	3 666.3	11.4	15.5
Engineering	5 499.3	6.9	19.1
Total construction	16 579.5	6.6	21.5

(a) Chain volume measures, reference year 2000-01.

SEPTEMBER QTR KEY POINTS

VALUE OF CONSTRUCTION WORK DONE, VOLUME TERMS

TREND ESTIMATES

- The trend estimate of building work done rose 4.1% in the September quarter 2002. The overall trend growth continued to be driven by the residential sector, up 4.7% in the latest quarter, but this dominance has been lessening over the last three quarters.
- Engineering work rose for the sixth successive quarter, up 2.7%. As for the previous four quarters, growth was driven by work for the private sector, up 5.0% in the latest quarter.
- Total construction work done rose 3.9%, the sixth successive increase.

SEASONALLY ADJUSTED ESTIMATES

- The seasonally adjusted estimate of building work done rose 6.5% to \$11,080.3m, to be 22.8% above the level of a year earlier. Work done on new residential buildings rose by 4.9% to \$6,287.3m and on alterations and additions by 1.2% to \$1,126.7m, both levels exceeded only by the June quarter 2000. Non-residential building work jumped 11.4% to \$3,666.3m, after a 3.4% decline in the June quarter.
- Engineering work done rose 6.9% to a record \$5,499.3m. Compared with a year earlier, work for the private sector was up 49.2% to \$2,655.6m whereas the public sector was steady at \$2.843.7m.
- Total construction work rose 6.6% to \$16,579.5m, the seventh successive quarterly increase and a level exceeded only by the June quarter 2000.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)

December 2002

March 2003

RELEASE DATE

26 February 2003

28 May 2003

ABOUT THIS ISSUE

This publication provides an early indication of trends in building and engineering construction activity. The data are estimates based on a response rate of approximately 85% of the value of building work done and 80% of the value of engineering work done during the quarter. More comprehensive and updated results will be released in *Building Activity, Australia* (cat. no. 8752.0) on 17 January 2003 and in *Engineering Construction Activity, Australia* (cat. no. 8762.0) on 16 January 2003.

In April 2000, the ABS released an information paper, *ABS Statistics and The New Tax System* (cat. no. 1358.0), which foreshadowed changes in the statistical infrastructure supporting the compilation of ABS economic series. The changes will allow better use of data available from the taxation system to improve efficiency, coverage and sample design.

This issue presents the last release of estimates from the Engineering Construction Survey compiled using the old infrastructure.

In the next release of this publication, estimates for the latest period will be compiled on the new basis. To facilitate comparisons over time, the historical series in that release will be adjusted so that all estimates are presented on the new basis.

An information paper, *Improvements in ABS Economic Statistics [Arising from The New Tax System]* (cat. no. 1372.0), was released on 6 May 2002. That paper described the changes in more detail and provided information about the treatment of statistical impacts of the changes across ABS economic series.

CHANGES IN THIS ISSUE

As foreshadowed in the previous issue, this publication has been expanded to include two additional tables (9 and 10), showing details by states and territories of original data for Building Work Done, Engineering Work Done and Construction Work Done in current prices and the corresponding percentage changes. Users should be aware that figures for the latest quarter are preliminary only and are subject to revisions, typically larger (in percentage terms) than for Australia. Relative standard errors are given in Explanatory Note 22.

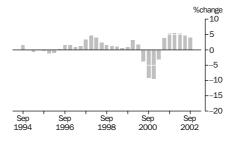
Also, additional time series for Building Work Done by states and territories, by private sector/all sectors and by type of building are available on AusStats.

Rob Edwards Acting Australian Statistician

TREND PERCENTAGE CHANGE

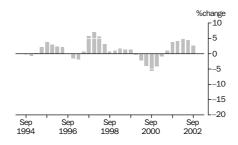
NOTE: Trend estimates are subject to revisions. See Explanatory Notes, paragraph 28.

TOTAL CONSTRUCTION



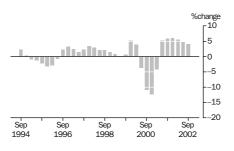
The total value of construction work done rose for the sixth successive quarter, but the rate of growth has slowed over the last three quarters.

Engineering



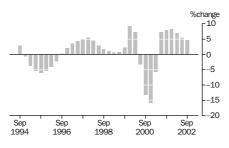
Engineering construction work done has also risen for each of the last six quarters, but the rate of growth has slowed in the last two quarters.

Building



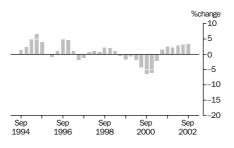
Building work done grew for the sixth successive quarter, but the rate of growth has slowed over the last three quarters.

Residential



The rate of growth in residential building work continues to be strong, but has eased over the last three quarters.

Non-residential



The trend estimate for non-residential building work rose for the sixth successive quarter and the rate of growth has increased over the last three quarters.

(a) Reference year 2000-01.

	BUILDING WORK DO			ENGINEI WORK D	ERING ONE			CONSTRUCTION WORK DONE		
Period	Private	Public	Total	Private	Public	Total	Private	Public	Total	
• • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • •	• • • • • •	
				ORIGINAL (\$m)					
1999-00	39 412.0	4 416.6	43 770.4	8 043.1	12 545.8	20 589.8	47 412.3	16 962.2	64 260.9	
2000-01	29 547.2	4 106.6	33 653.8	6 682.3	11 462.2	18 144.5	36 229.5	15 568.8	51 798.3	
2001–02	34 867.3	4 211.5	39 078.8	8 741.6	10 965.4	19 707.0	43 608.9	15 176.9	58 785.9	
2001										
Jun qtr	7 387.1	1 068.0	8 456.8	1 692.5	3 381.9	5 073.2	9 080.6	4 449.6	13 543.1	
Sep qtr	8 182.9	1 097.0	9 279.9	1 871.4	2 533.2	4 404.6	10 054.3	3 630.2	13 684.5	
Dec qtr	8 833.4	1 104.3	9 937.7	1 831.0	2 882.6	4 713.6	10 664.4	3 986.9	14 651.3	
2002										
Mar qtr	8 334.7	952.1	9 286.9	2 565.8	2 465.7	5 031.5	10 900.5	3 417.8	14 318.4	
Jun qtr	9 516.3	1 058.1	10 574.4	2 473.4	3 083.9	5 557.3	11 989.7	4 142.0	16 131.7	
Sep qtr	10 258.9	1 132.4	11 391.3	2 774.1	2 543.3	5 317.4	13 033.0	3 675.7	16 708.7	
• • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • •	• • • • • •	
2001			SEAS	ONALLY ADJU	JSTED (\$m	1)				
Jun gtr	7 335.0	1 002.5	8 333.8	1 708.1	2 932.6	4 639.1	9 044.9	3 934.5	12 978.0	
Sep qtr	7 911.5	1 093.4	9 025.5	1 779.4	2 839.5	4 618.9	9 690.9	3 933.0	13 644.4	
Dec qtr	8 513.5	1 072.3	9 582.8	1 729.6	2 909.1	4 638.7	10 243.0	3 981.4	14 221.5	
2002										
Mar gtr	9 032.4	1 050.7	10 069.5	2 760.7	2 542.2	5 302.9	11 793.1	3 593.0	15 372.4	
Jun qtr	9 409.9	995.1	10 401.0	2 472.0	2 674.5	5 146.5	11 881.9	3 669.6	15 547.6	
Sep qtr	9 928.8	1 127.5	11 080.3	2 655.6	2 843.7	5 499.3	12 584.4	3 971.2	16 579.5	
• • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •		• • • • • •	• • • • • •	
			TRI	END ESTIMAT	ES (\$m)					
2001	7 404 0	1.040.0	0.477.5	4.050.5	0.040.4	4 405 0	0.000.0	2.050.5	10.042.5	
Jun qtr	7 431.6	1 046.3	8 477.5	1 653.5	2 813.1	4 465.8	9 086.3	3 859.5	12 943.5	
Sep qtr Dec qtr	7 906.1 8 460.1	1 068.9 1 060.4	8 980.4 9 520.2	1 761.0 2 039.2	2 875.7 2 788.1	4 636.2 4 827.2	9 667.5 10 499.3	3 944.4 3 848.5	13 617.8 14 348.1	
Dec qu	8 400.1	1 000.4	9 520.2	2 039.2	2 / 88.1	4 821.2	10 499.3	3 848.5	14 348.1	
2002										
Mar qtr	8 994.9	1 048.8	10 041.5	2 361.6	2 692.6	5 058.9	11 355.0	3 741.4	15 096.8	
Jun qtr	9 459.2	1 049.1	10 509.9	2 594.6	2 690.4	5 287.1	12 053.1	3 739.5	15 795.1	
Sep qtr	9 882.8	1 071.8	10 941.1	2 725.6	2 740.4	5 431.8	12 624.1	3 812.3	16 405.9	

⁽a) Reference year for chain volume measures is 2000–01. See paragraphs 29–32 of the $\,$ Explanatory Notes.

	BUILDI WORK	NG DONE		ENGINE WORK I	ERING DONE		CONSTRUCTION WORK DONE		
Period	Private	Public	Total	Private	Public	Total	Private	Public	Total
• • • • • • • • • • • • •	• • • • • •			• • • • • • • • • • • • • • • • • • •			• • • • • • • •	• • • • • •	• • • • •
		ORIGIN	AL (% ch	ange from p	receding	g period)			
1999-00	10.6	-4.1	8.8	-11.5	10.0	0.5	5.9	6.0	5.9
2000-01	-25.0	-7.0	-23.1	-16.9	-8.6	-11.9	-23.6	-8.2	-19.4
2001–02	18.0	2.6	16.1	30.8	-4.3	8.6	20.4	-2.5	13.5
2001									
Jun qtr	9.9	9.8	9.9	11.0	32.1	24.2	10.1	25.9	15.0
Sep qtr	10.8	2.7	9.7	10.6	-25.1	-13.2	10.7	-18.4	1.0
Dec qtr	7.9	0.7	7.1	-2.2	13.8	7.0	6.1	9.8	7.1
2002									
Mar qtr	-5.6	-13.8	-6.5	40.1	-14.5	6.7	2.2	-14.3	-2.3
Jun qtr	14.2	11.1	13.9	-3.6	25.1	10.5	10.0	21.2	12.7
Sep qtr	7.8	7.0	7.7	12.2	-17.5	-4.3	8.7	-11.3	3.6
• • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • •	• • • • • • • •	• • • • • •	• • • • • •	• • • • • • • • •	• • • • •	• • • • •
2001	SEAS	ONALLY A	ADJUSTE	D (% change	from pr	eceding	period)		
Jun gtr	0.3	-6.3	-0.4	3.0	11.0	7.9	0.8	6.0	2.5
Sep atr	7.9	-0.3 9.1	8.3	4.2	-3.2	-0.4	7.1	-	5.1
Dec gtr	7.6	-1.9	6.2	-2.8	2.4	0.4	5.7	1.2	4.2
		2.0	0.2	2.0		0	5		
2002									
Mar qtr	6.1	-2.0	5.1	59.6	-12.6	14.3	15.1	-9.8	8.1
Jun qtr	4.2	-5.3	3.3	-10.5	5.2	-2.9	0.8	2.1	1.1
Sep qtr	5.5	13.3	6.5	7.4	6.3	6.9	5.9	8.2	6.6
• • • • • • • • • • •	TDI		NAATEC (% change fr		م م م م	ei o d\	• • • • •	• • • • •
2001	IRI	END ESTI	WATES (% change in	om prec	earing per	100)		
Jun qtr	5.4	2.5	5.1	-0.8	2.2	1.1	4.2	2.3	3.7
Sep qtr	6.4	2.2	5.9	6.5	2.2	3.8	6.4	2.2	5.2
Dec qtr	7.0	-0.8	6.0	15.8	-3.0	4.1	8.6	-2.4	5.4
2002									
Mar qtr	6.3	-1.1	5.5	15.8	-3.4	4.8	8.1	-2.8	5.2
Jun qtr	5.2	_	4.7	9.9	-0.1	4.5	6.1	-0.1	4.6
Sep qtr	4.5	2.2	4.1	5.0	1.9	2.7	4.7	1.9	3.9

⁽a) Reference year for chain volume measures is 2000–01. See paragraphs 29–32 of the $\,$ Explanatory Notes.

	BUILDING WORK DO			ENGINE WORK [ERING DONE			CONSTRUCTION WORK DONE(a)		
Period	Private	Public	Total	Private	Public	Total	Private	Public	Total	
• • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	ORIGINAL (\$m)	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • •	
1999–00	35 958.4	4 283.4	40 241.9	7 786.0	12 121.6	19 907.5	43 744.4	16 405.0	60 149.4	
2000–01 2001–02	29 547.2 35 363.3	4 106.6 4 234.2	33 653.8 39 597.5	6 682.3 8 913.1	11 461.4 11 151.4	18 143.7 20 064.5	36 229.5 44 276.4	15 568.0 15 385.6	51 797.5 59 662.0	
2001										
Jun qtr	7 395.3	1 066.0	8 461.4	1 708.3	3 408.7	5 117.0	9 103.7	4 474.7	13 578.4	
Sep qtr	8 206.6	1 094.0	9 300.6	1 897.7	2 562.0	4 459.8	10 104.3	3 656.0	13 760.4	
Dec qtr	8 917.2	1 104.6	10 021.8	1 863.2	2 918.6	4 781.8	10 780.4	4 023.2	14 803.6	
2002										
Mar qtr	8 474.4	959.0	9 433.5	2 611.4	2 508.8	5 120.2	11 085.8	3 467.8	14 553.7	
Jun qtr	9 765.1	1 076.6	10 841.6	2 540.7	3 162.0	5 702.7	12 305.8	4 238.5	16 544.4	
Sep qtr	10 627.2	1 164.4	11 791.6	2 892.3	2 620.0	5 512.3	13 519.5	3 784.4	17 303.9	
• • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •		• • • • • • •		
			SEASO	NALLY ADJU	STED (\$m)				
2001										
Jun qtr	7 341.0	1 002.7	8 339.8	1 729.7	2 957.2	4 686.9	9 070.7	3 959.9	13 026.7	
Sep qtr Dec gtr	7 941.6 8 606.0	1 092.2 1 073.3	9 052.5 9 673.9	1 816.7 1 776.8	2 874.7 2 949.6	4 691.4 4 726.4	9 758.3 10 382.8	3 966.9 4 022.9	13 743.9 14 400.3	
Dec qu	8 000.0	1073.3	9 073.9	1770.8	2 949.0	4 720.4	10 382.8	4 022.9	14 400.3	
2002										
Mar qtr	9 199.5	1 058.3	10 240.8	2 842.7	2 590.9	5 433.6	12 042.2	3 649.2	15 674.4	
Jun qtr	9 674.1	1 012.0	10 678.6	2 571.5	2 746.8	5 318.4	12 245.6	3 758.9	15 997.0	
Sep qtr	10 284.5	1 162.1	11 470.8	2 769.1	2 931.6	5 700.7	13 053.7	4 093.7	17 171.5	
• • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • •	
			TRE	ND ESTIMAT	ES (\$m)					
2001	- 100 I	4 0 4 0 0	0.404.0	4 070 0	0.00=.4	4 000 0	0.400.0	0.070.0	40.004.0	
Jun qtr	7 432.4	1 046.8	8 481.0	1 676.2	2 927.1	4 603.3	9 108.6	3 973.9	13 084.3	
Sep qtr Dec qtr	7 942.5 8 551.0	1 068.2 1 061.5	9 014.4 9 609.6	1 797.0 2 093.3	2 909.6 2 814.4	4 706.6 4 907.7	9 739.5 10 644.3	3 977.8 3 875.8	13 721.0 14 517.2	
Dec qu	0 001.0	1 001.5	9 009.0	2 093.3	2 014.4	+ 501.1	10 044.3	3 013.0	14 011.2	
2002										
Mar qtr	9 165.1	1 056.9	10 213.4	2 438.5	2 747.2	5 185.6	11 603.5	3 804.1	15 399.1	
Jun qtr	9 719.7	1 068.2	10 785.3	2 692.6	2 760.2	5 452.8	12 412.3	3 828.4	16 238.1	
Sep qtr	10 255.5	1 104.8	11 375.1	2 840.8	2 822.9	5 663.7	13 096.3	3 927.8	17 038.8	

⁽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.

	BUILDII WORK	NG DONE(a).		ENGINE WORK [ERING DONE		CONSTRUCTION WORK DONE(a)		
Period	Private	Public	Total	Private	Public	Total	Private	Public	Total
• • • • • • • • • •	• • • • • •	ORIGINA		nge from pi			• • • • • • •	• • • • •	• • • • •
1999-00 2000-01 2001-02	16.1 -17.8 19.7	-0.6 -4.1 3.1	14.0 -16.4 17.7	-7.6 -14.2 33.4	12.7 -5.4 -2.7	3.8 -8.9 10.6	11.0 -17.2 22.2	8.9 -5.1 -1.2	10.4 -13.9 15.2
2001 Jun qtr Sep qtr Dec qtr	9.8 11.0 8.7	9.5 2.6 1.0	9.8 9.9 7.8	11.2 11.1 -1.8	32.4 -24.8 13.9	24.4 -12.8 7.2	10.1 11.0 6.7	26.1 -18.3 10.0	14.9 1.3 7.6
2002 Mar qtr Jun qtr Sep qtr	-5.0 15.2 8.8	-13.2 12.3 8.2	-5.9 14.9 8.8	40.2 -2.7 13.8	-14.0 26.0 -17.1	7.1 11.4 –3.3	2.8 11.0 9.9	-13.8 22.2 -10.7	-1.7 13.7 4.6
2001	SEASO	NALLY A	DJUSTED	(% change	from pre	ceding pe	eriod)		
Jun qtr Sep qtr Dec qtr	0.4 8.2 8.4	-6.6 8.9 -1.7	-0.4 8.5 6.9	3.4 5.0 –2.2	11.3 -2.8 2.6	8.3 0.1 0.7	0.9 7.6 6.4	6.2 0.2 1.4	2.6 5.5 4.8
2002 Mar qtr Jun qtr Sep qtr	6.9 5.2 6.3	-1.4 -4.4 14.8	5.9 4.3 7.4	60.0 -9.5 7.7	-12.2 6.0 6.7	15.0 -2.1 7.2	16.0 1.7 6.6	-9.3 3.0 8.9	8.8 2.1 7.3
2001	TRE	ND ESTI	MATES (%	change fro	m prece	ding perio	od)	• • • • •	• • • • •
Jun qtr Sep qtr Dec qtr	3.6 6.9 7.7	2.2 2.0 –0.6	3.5 6.3 6.6	7.2 16.5	-0.4 -0.6 -3.3	-0.3 2.2 4.3	2.9 6.9 9.3	0.3 0.1 -2.6	2.1 4.9 5.8
2002 Mar qtr Jun qtr Sep qtr	7.2 6.1 5.5	-0.4 1.1 3.4	6.3 5.6 5.5	16.5 10.4 5.5	-2.4 0.5 2.3	5.7 5.2 3.9	9.0 7.0 5.5	-1.9 0.6 2.6	6.1 5.4 4.9

⁽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.

	NEW RESIDEN	TIAL	ALTERAT AND ADI TO RESI BUILDIN	DITIONS	TOTAL RESIDEN	TIAL	NON- RESIDEN	TIAL	TOTAL BUILDING	G(a)
Period	Private	Total	Private	Total	Private	Total	Private	Total	Private	Total
• • • • • • • • •			• • • • • • • • •	• • • • • •		• • • • • • •	• • • • • • • • • • •	• • • • • • •	• • • • • • • • •	
				0	RIGINAL (\$m)					
1999-00	23 980.5	24 471.7	4 300.9	4 430.3	28 282.4	28 903.4	11 201.7	14 995.9	39 412.0	43 770.4
2000-01		17 811.6	3 255.3	3 395.0	20 645.0	21 206.6		12 447.2	29 547.2	
2001–02	21 460.3	21 923.5	3 894.2	4 058.9	25 354.5	25 982.4	9 512.8	13 096.4	34 867.3	39 078.8
2001										
Jun qtr	4 311.2	4 410.5	880.4	931.2	5 191.2	5 341.2	2 197.2	3 115.7	7 387.1	8 456.8
Sep qtr	4 930.9	5 046.6	935.3	978.7	5 866.2	6 025.3	2 316.7	3 254.6	8 182.9	9 279.9
Dec qtr	5 342.0	5 477.5	1 031.6	1 065.8	6 373.6	6 543.2	2 459.8	3 394.5	8 833.4	9 937.7
2002										
Mar qtr	5 177.5	5 283.5	873.9	911.8	6 051.4	6 195.3	2 283.4	3 091.5	8 334.7	9 286.9
Jun qtr	6 009.8	6 115.9	1 053.5	1 102.7	7 063.3	7 218.6	2 453.0	3 355.8	9 516.3	10 574.4
Sep qtr	6 390.6	6 496.0	1 107.8	1 140.3	7 498.4	7 636.2	2 760.5	3 755.0	10 258.9	11 391.3
• • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •				• • • • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • •
2001				SEASON	ALLY ADJUSTED) (\$m)				
Jun gtr	4 241.6	4 338.3	888.6	937.9	5 129.9	5 275.8	2 204.7	3 058.9	7 335.0	8 333.8
Sep qtr	4 774.9	4 881.5	920.0	968.8	5 694.9	5 850.2	2 216.6	3 175.3	7 911.5	9 025.5
Dec gtr	5 230.3	5 352.3	970.8	1 008.8	6 201.1	6 361.2		3 221.6	8 513.5	9 582.8
2002	F FC4 2	F 600 0	020.4	000.0	C 400 4	0.004.0	0.522.0	2 407 0	0.020.4	40.000 5
Mar qtr	5 561.3	5 693.3	938.1	968.2	6 499.4	6 661.6	2 533.0	3 407.9	9 032.4	10 069.5
Jun qtr Sep atr	5 893.8 6 192.2	5 996.3 6 287.3	1 065.2 1 087.4	1 113.1 1 126.7	6 959.1 7 279.7	7 109.4 7 414.0	2 450.9 2 649.1	3 291.6 3 666.3		10 401.0 11 080.3
Sep qu	0 192.2	0 201.3	1 007.4	1 120.7	1 219.1	7 414.0	2 049.1	3 000.3	9 920.0	11 060.3
• • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	TRFNI	D ESTIMATES (\$	Sm)	• • • • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • •
2001					,	. ,				
Jun qtr	4 351.3	4 454.5	885.0	928.3	5 236.1	5 382.7	2 193.9	3 093.3	7 431.6	8 477.5
Sep qtr	4 734.0	4 844.9	921.0	965.8	5 655.0	5 810.5	2 250.7	3 169.8	7 906.1	8 980.4
Dec qtr	5 176.1	5 296.0	948.4	988.9	6 124.5	6 284.9	2 335.8	3 235.7	8 460.1	9 520.2
2002										
Mar qtr	5 567.8	5 688.1	986.4	1 023.7	6 553.2	6 711.2	2 442.4	3 328.4	8 994.9	10 041.5
Jun qtr	5 891.0	6 001.1	1 035.5	1 074.8	6 926.0	7 075.7	2 533.6	3 433.4	9 459.2	10 509.9
Sep qtr	6 182.7	6 279.0	1 077.6	1 123.0	7 269.8	7 408.6	2 607.2	3 546.7	9 882.8	10 941.1

⁽a) Reference year for chain volume measures is 2000–01. See paragraphs 29–32 of the Explanatory Notes.



			ALTERAT							
	NEW		AND ADD TO RESID		TOTAL		NON-		TOTAL	
	RESIDEN	ITIAL	BUILDING		RESIDEN	ITIAL	RESIDE	ENTIAL	BUILDI	٧G
Period	Private	Total	Private	Total	Private	Total	Private	Total	Private	Total
			ORIGINAI		from precedir	ng period)				
1999-00	18.3	17.3	13.2	13.2	17.5	16.7	-2.3	-2.4	10.6	8.8
2000-01	-27.5	-27.2	-24.3	-23.4	-27.0	-26.6	-20.5	-17.0	-25.0	-23.1
2001–02	23.4	23.1	19.6	19.6	22.8	22.5	6.9	5.2	18.0	16.1
2001										
Jun qtr	9.4	9.3	13.4	14.7	10.1	10.2	9.4	9.2	9.9	9.9
Sep qtr	14.4	14.4	6.2	5.1	13.0	12.8	5.4	4.5	10.8	9.7
Dec qtr	8.3	8.5	10.3	8.9	8.6	8.6	6.2	4.3	7.9	7.1
2002										
Mar qtr	-3.1	-3.5	-15.3	-14.4	-5.1	-5.3	-7.2	-8.9	-5.6	-6.5
Jun qtr	16.1	15.8	20.5	20.9	16.7	16.5	7.4	8.5	14.2	13.9
Sep qtr	6.3	6.2	5.2	3.4	6.2	5.8	12.5	11.9	7.8	7.7
• • • • • • • • • •	• • • • • • • • •	QE.	ASONALIV AD	IIISTED (%	change from p		ortor)	• • • • • • •	• • • • • • • • •	• • • • •
2001		3L/	ASONALLI AD	JUSTED (% C	mange mom p	receding qua	arter)			
Jun gtr	_	-0.4	6.9	9.0	1.1	1.1	-1.2	-2.7	0.3	-0.4
Sep qtr	12.6	12.5	3.5	3.3	11.0	10.9	0.5	3.8	7.9	8.3
Dec qtr	9.5	9.6	5.5	4.1	8.9	8.7	4.3	1.5	7.6	6.2
2002										
Mar qtr	6.3	6.4	-3.4	-4.0	4.8	4.7	9.5	5.8	6.1	5.1
Jun qtr	6.0	5.3	13.5	15.0	7.1	6.7	-3.2	-3.4	4.2	3.3
Sep qtr	5.1	4.9	2.1	1.2	4.6	4.3	8.1	11.4	5.5	6.5
• • • • • • • • • •	• • • • • • • • •		TREND ESTIM	ΔTES (% cha	nge from pred		er)	• • • • • • •	• • • • • • • • •	• • • • •
2001			INCIND COTION	71120 (70 OHA	inge from prec	Journa quart	31)			
Jun qtr	6.9	6.7	10.1	10.6	7.4	7.3	1.2	1.6	5.4	5.1
Sep qtr	8.8	8.8	4.1	4.0	8.0	7.9	2.6	2.5	6.4	5.9
Dec qtr	9.3	9.3	3.0	2.4	8.3	8.2	3.8	2.1	7.0	6.0
2002										
Mar qtr	7.6	7.4	4.0	3.5	7.0	6.8	4.6	2.9	6.3	5.5
Jun qtr	5.8	5.5	5.0	5.0	5.7	5.4	3.7	3.2	5.2	4.7
Sep qtr	5.0	4.6	4.1	4.5	5.0	4.7	2.9	3.3	4.5	4.1

⁽a) Reference year for chain volume measures is 2000–01. See paragraphs 29–32 of the Explanatory Notes.

	NEW RESIDEN	TIAL(a)	ALTERAT AND ADI TO RESII BUILDIN	DITIONS DENTIAL	TOTAL RESIDEN	TIAL(a)	NON- RESIDEN	ITIAL	TOTAL BUILDING	G(a)
Period	Private	Total	Private	Total	Private	Total	Private	Total	Private	Total
• • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • •	• • • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • •
				0	RIGINAL (\$m)					
1999-00	21 217.0	21 658.8	3 779.4	3 892.9	24 996.4	25 551.7	10 962.0	14 690.1	35 958.4	40 241.9
2000-01	17 389.7	17 811.5	3 255.3	3 395.0	20 645.0	21 206.6	8 902.2	12 447.2	29 547.2	33 653.8
2001–02	21 811.4	22 279.7	3 982.4	4 150.8	25 793.8	26 430.5	9 569.5	13 167.1	35 363.3	39 597.5
2001										
Jun qtr	4 315.0	4 413.6	883.9	934.8	5 198.9	5 348.5	2 196.4	3 112.9	7 395.3	8 461.4
Sep qtr	4 949.0	5 064.2	943.8	987.6	5 892.7	6 051.8	2 313.9	3 248.8	8 206.6	9 300.6
Dec qtr	5 402.9	5 539.2	1 051.4	1 086.1	6 454.3	6 625.3	2 462.9	3 396.5	8 917.2	10 021.8
2002										
Mar qtr	5 277.5	5 385.2	897.5	936.4	6 175.0	6 321.6	2 299.5	3 111.9	8 474.4	9 433.5
Jun qtr	6 182.1	6 291.0	1 089.8	1 140.7	7 271.8	7 431.8	2 493.3	3 409.9	9 765.1	10 841.6
Sep qtr	6 639.6	6 749.3	1 155.9	1 189.7	7 795.5	7 939.0	2 831.7	3 852.7	10 627.2	11 791.6
• • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • •	CEACON	ALLY ADJUCTED	(¢m)	• • • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • •
2001				SEASON	ALLY ADJUSTED	(\$m)				
Jun gtr	4 242.3	4 338.5	893.2	942.5	5 135.5	5 281.0	2 205.5	3 058.9	7 341.0	8 339.8
Sep gtr	4 794.5	4 901.2	928.8	977.8	5 723.4	5 879.0	2 218.3	3 173.5	7 941.6	9 052.5
Dec qtr	5 295.2	5 418.7	989.4	1 027.9	6 284.6	6 446.6	2 321.4	3 227.3	8 606.0	9 673.9
2002										
Mar qtr	5 677.6	5 812.7	963.1	993.8	6 640.8	6 806.5	2 558.8	3 434.3	9 199.5	10 240.8
Jun qtr	6 073.3	6 179.5	1 101.4	1 150.6	7 174.7	7 330.1	2 499.4	3 348.5	9 674.1	10 678.6
Sep qtr	6 430.3	6 529.6	1 136.5	1 177.0	7 566.8	7 706.6	2 717.7	3 764.2	10 284.5	11 470.8
• • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	TDENE	COLLANTEC (4		• • • • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • •
2001				IKENL	D ESTIMATES (\$	5111)				
Jun gtr	4 353.9	4 456.7	883.0	929.7	5 236.9	5 386.5	2 195.5	3 094.5	7 432.4	8 481.0
Sep qtr	4 758.4	4 869.4	931.0	976.0	5 689.4	5 845.4	2 253.1	3 169.0	7 942.5	9 014.4
Dec qtr	5 239.5	5 360.8	965.3	1 006.3	6 204.8	6 367.1	2 346.2	3 242.5	8 551.0	9 609.6
2002										
Mar qtr	5 685.0	5 807.9	1 011.8	1 050.4	6 696.5	6 858.0	2 469.0	3 356.0	9 165.1	10 213.4
Jun qtr	6 067.9	6 181.7	1 071.8	1 112.4	7 139.5	7 293.9	2 580.4	3 491.7	9 719.7	10 785.3
Sep qtr	6 433.6	6 533.8	1 132.4	1 176.2	7 570.3	7 714.5	2 680.1	3 653.7	10 255.5	11 375.1

⁽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.



	NEW	. .	ALTERAT AND ADD TO RESID	DITIONS DENTIAL	TOTAL	IT. A. ()	NON-		TOTAL	10()
	RESIDEN	NIIAL(a)	BUILDIN	G(a)	RESIDEN	IIIAL(a)	RESIDE	ENIIAL	BUILDIN	NG(a)
Period	Private	Total	Private	Total	Private	Total	Private	Total	Private	Total
• • • • • • • • •	• • • • • • • • •	• • • • • • • •			from precedi		• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • •
1999-00	24.8	23.7	19.8	19.8	24.0	23.1	1.3	1.1	16.1	14.0
2000-01	-18.0	-17.8	-13.9	-12.8	-17.4	-17.0	-18.8	-15.3	-17.8	-16.4
2001–02	25.4	25.1	22.3	22.3	24.9	24.6	7.5	5.8	19.7	17.7
2001										
Jun qtr	9.4	9.3	13.8	15.0	10.1	10.3	9.2	9.0	9.8	9.8
Sep qtr	14.7	14.7	6.8	5.6	13.3	13.1	5.3	4.4	11.0	9.9
Dec qtr	9.2	9.4	11.4	10.0	9.5	9.5	6.4	4.5	8.7	7.8
2002										
Mar qtr	-2.3	-2.8	-14.6	-13.8	-4.3	-4.6	-6.6	-8.4	-5.0	-5.9
Jun qtr	17.1	16.8	21.4	21.8	17.8	17.6	8.4	9.6	15.2	14.9
Sep qtr	7.4	7.3	6.1	4.3	7.2	6.8	13.6	13.0	8.8	8.8
• • • • • • • • • •	• • • • • • • • •	•••••						• • • • • • •	• • • • • • • •	• • • • •
2001		SEA	ASONALLY AD	JUSTED (% C	change from p	receaing qua	arter)			
Jun gtr	_	-0.4	7.1	9.2	1.2	1.2	-1.4	-2.9	0.4	-0.4
Sep gtr	13.0	13.0	4.0	3.7	11.4	11.3	0.6	3.7	8.2	8.5
Dec qtr	10.4	10.6	6.5	5.1	9.8	9.7	4.6	1.7	8.4	6.9
2002										
Mar qtr	7.2	7.3	-2.7	-3.3	5.7	5.6	10.2	6.4	6.9	5.9
Jun qtr	7.0	6.3	14.4	15.8	8.0	7.7	-2.3	-2.5	5.2	4.3
Sep qtr	5.9	5.7	3.2	2.3	5.5	5.1	8.7	12.4	6.3	7.4
• • • • • • • • • •	• • • • • • • • •	• • • • • • • • •	TDENID FOTIM	ATEC (0/ abo	inge from pred		• • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • •
2001			IKEND ESIIM	ATES (% CIId	inge nom pred	bearing quart	er <i>)</i>			
Jun gtr	4.3	4.2	6.5	7.5	4.7	4.7	1.1	1.4	3.6	3.5
Sep qtr	9.3	9.3	5.4	5.0	8.6	8.5	2.6	2.4	6.9	6.3
Dec qtr	10.1	10.1	3.7	3.1	9.1	8.9	4.1	2.3	7.7	6.6
2002										
Mar qtr	8.5	8.3	4.8	4.4	7.9	7.7	5.2	3.5	7.2	6.3
Jun qtr	6.7	6.4	5.9	5.9	6.6	6.4	4.5	4.0	6.1	5.6
Sep qtr	6.0	5.7	5.7	5.7	6.0	5.8	3.9	4.6	5.5	5.5

⁽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.



Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • •				• • • • • •					
		BUILI	DING WO	RK DONE	(a) (\$m)				
1999-00	15 488.9	10 520.1	6 956.8	1 824.8	3 998.6	398.9	393.8	660.0	40 241.9
2000-01	11 222.2	10 210.0	5 962.2	1 630.9	3 395.8	340.6	313.8	578.4	33 653.8
2001–02	12 897.8	12 117.8	7 379.0	2 034.8	3 690.6	430.5	362.3	684.6	39 597.5
2001									
Jun qtr	2 668.6	2 682.0	1 562.5	412.5	820.7	85.6	88.7	140.8	8 461.4
Sep qtr	2 888.6	2 927.6	1 779.6	450.5	920.3	90.3	84.6	159.0	9 300.6
Dec qtr	3 333.3	2 966.9	1 791.6	527.7	993.1	113.1	101.7	194.4	10 021.8
2002									
Mar qtr	3 093.1	2 806.3	1 833.2	500.4	869.0	93.9	93.3	144.3	9 433.5
Jun qtr	3 582.8	3 416.9	1 974.6	556.2	908.2	133.2	82.8	186.9	10 841.6
Sep qtr	3 791.2	3 701.9	2 241.2	607.0	1 051.0	121.4	92.6	185.3	11 791.6
• • • • • • • • • • • • •	• • • • • • •		• • • • • •	• • • • • •	• • • • • • •	• • • • •		• • • • • •	• • • • • • • •
		ENGIN	NEERING	WORK D	ONE (\$m))			
2001									
Jun qtr	1 746.7	850.6	1 293.1	366.9	660.0	95.6	47.6	56.5	5 117.0
Sep qtr	1 341.2	710.9	1 149.1	306.4	800.4	42.4	69.6	39.8	4 459.8
Dec qtr	1 526.9	849.4	1 145.4	355.7	710.4	65.6	73.3	55.1	4 781.8
2002									
Mar qtr	1 163.4	852.5	1 027.7	369.8	701.2	157.3	800.7	47.5	5 120.2
Jun qtr	1 570.4	977.9	1 306.7	385.9	932.0	188.5	283.9	57.4	5 702.7
Sep qtr	1 369.1	967.5	1 321.6	318.7	993.7	111.8	384.1	45.9	5 512.3
• • • • • • • • • • • •				• • • • • •					
		CONSTR	UCTION	WORK DO)NE(a) (\$	m)			
2001									
Jun qtr	4 415.3	3 532.6	2 855.6	779.4	1 480.7	181.2	136.3	197.3	13 578.4
Sep qtr	4 229.9	3 638.6	2 928.6	757.0	1 720.7	132.7	154.1	198.9	13 760.4
Dec qtr	4 860.2	3 816.3	2 937.1	883.4	1 703.4	178.7	175.0	249.4	14 803.6
2002									
Mar qtr	4 256.5	3 658.8	2 860.9	870.2	1 570.2	251.2	894.0	191.9	14 553.7
Jun qtr	5 153.1	4 394.8	3 281.3	942.0	1 840.2	321.7	366.7	244.3	16 544.4
Sep qtr	5 160.3	4 669.4	3 562.8	925.7	2 044.7	233.2	476.7	231.2	17 303.9

⁽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

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • •	DILLI DINO V	JODK D		(0/ aban	of from	nroodi		۰ ۰ ۰ ۰ ۰ ۰ ۰	• • • • • •
	BUILDING V	VURN DI	JNE(a)	(% cnar	ige irom	precea	ing perio	oa)	
1999-00	10.7	18.4	11.8	25.2	26.4	11.2	-29.7	1.8	14.0
2000–01 2001–02	–27.5 14.9	-2.9 18.7	-14.3 23.8	-10.6 24.8	-15.1 8.7	-14.6 26.4	-20.3 15.5	-12.4 18.4	-16.4 17.7
2001 Jun gtr	7.8	10.8	18.3	8.0	-0.4	-2.8	51.5	1.3	9.8
Sep qtr	8.2	9.2	13.9	9.2	12.1	5.6	-4.7	13.0	9.9
Dec qtr	15.4	1.3	0.7	17.1	7.9	25.2	20.2	22.2	7.8
2002									
Mar qtr	-7.2	-5.4	2.3	-5.2	-12.5	-17.0	-8.2	-25.8	-5.9
Jun qtr	15.8	21.8	7.7	11.1	4.5	41.8	-11.2	29.5	14.9
Sep qtr	5.8	8.3	13.5	9.1	15.7	-8.9	11.8	-0.9	8.8
• • • • • • •	• • • • • • • • • • • •	• • • • •	• • • • •	• • • • •	• • • • • •	• • • • • •	• • • • •	• • • • •	• • • • • •
2224	ENGINEERIN	G WORI	K DONE	(% cha	nge fron	n preced	ling peri	od)	
2001	22.4	2.0	07.0	F0 F	10.0	07.4	40.0	40.0	04.4
Jun qtr Sep qtr	33.1 -23.2	3.0 -16.4	27.0 -11.1	50.5 -16.5	19.2 21.3	27.4 -55.7	48.2 46.2	10.6 -29.5	24.4 -12.8
Dec atr	-23.2 13.8	19.5	-0.3	-16.5 16.1	-11.2	-55.7 54.8	46.2 5.4	-29.5 38.2	-12.8 7.2
Dec qu	13.6	19.5	-0.3	10.1	-11.2	54.6	5.4	36.2	1.2
2002									
Mar qtr	-23.8	0.4	-10.3	3.9	-1.3	139.9	992.2	-13.6	7.1
Jun qtr	35.0	14.7	27.2	4.4	32.9	19.8	-64.5	20.8	11.4
Sep qtr	-12.8	-1.1	1.1	-17.4	6.6	-40.7	35.3	-20.2	-3.3
• • • • • • •	• • • • • • • • • • •	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	• • • • • •
0004	CONSTRUCTIO	N WORK	(DONE	(a) (% c	hange fr	om pred	eding pe	eriod)	
2001 Jun qtr	16.6	8.9	22.1	24.5	7.4	11.1	50.4	3.8	14.9
Sep atr	-4.2	3.0	2.6	-2.9	16.2	-26.8	13.1	0.8	1.3
Dec qtr	14.9	4.9	0.3	16.7	-1.0	34.6	13.5	25.4	7.6
2002									
Mar qtr	-12.4	-4.1	-2.6	-1.5	-7.8	40.6	411.0	-23.1	-1.7
Jun qtr	21.1	20.1	14.7	8.3	17.2	28.1	-59.0	27.3	13.7
Sep qtr	0.1	6.2	8.6	-1.7	11.1	-27.5	30.0	-5.4	4.6

⁽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.

INTRODUCTION

1 This publication contains preliminary estimates of building and engineering construction work done during the quarter. The estimates of building work done are from the quarterly Building Activity Survey and are based upon a response of approximately 85% of the value of work done during the quarter. The estimates of engineering work done are from the quarterly Engineering Construction Survey and are based upon a response of approximately 80% of the value of work done during the quarter. More comprehensive and updated results will be available shortly in *Building Activity, Australia* (cat. no. 8752.0) and *Engineering Construction Activity, Australia* (cat. no. 8762.0).

SCOPE AND COVERAGE

- **2** The scope of the Building Activity Survey is building activity which includes construction of new building, and alterations and additions to existing buildings. Value of building activity includes the costs of materials fixed in place, labour, and architects fees. It excludes the value of land and landscaping and non-building components such as fencing, paving, roadworks, tennis courts, outdoor pools and car parks.
- **3** The building statistics were compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. From the March quarter 2002, the quarterly survey consists of a sample survey of private sector building jobs involving residential building jobs valued at \$10,000 or more and non-residential building jobs valued at \$50,000 or more and a complete enumeration of all such public sector buildings jobs.
- **4** The scope of the Engineering Construction Survey is the value of all engineering construction work undertaken in Australia. For the Engineering Construction Survey all management units recorded on the ABS central register of businesses and classified to the construction industry and all other units known to be undertaking engineering construction work (from trade journals, newspapers, etc.), are included in the survey framework.
- **5** The cost of land and the value of building construction is excluded from the scope of the Engineering Construction Survey. Where projects include elements of both building and engineering construction every effort is taken to exclude the building component from the engineering construction statistics. Repair and maintenance activity is also excluded as are the value of any transfers of existing assets, the value of installed machinery and equipment not integral to the structure and the expenses for relocation of utility services. A contract for the installation of machinery and equipment which is an integral part of a construction project is included.

RELATIONSHIP WITH NATIONAL ACCOUNTS

6 Data on the value of work done on the construction of new residential buildings, alterations and additions to residential buildings, private sector non-residential buildings and the value of total and new engineering construction activity are the major sources of data which are used to compile the national accounts estimates for private gross fixed capital formation on dwellings, and other buildings and structures. However, there are some adjustments to the survey data which are made in the process of compiling these national accounts series. Allowances are made for the value of building activity which is out of scope of the Building Activity Survey and the Engineering Construction Survey. Such activity includes work done on projects which fall below the size cut-offs used for the surveys and also the value of work done which is undertaken without obtaining a building permit, either because such a permit is not required or because the requisite permit is not obtained. The national accounts estimates also make allowances for purchases (less sales) of buildings and other structures from (to) the public sector.

TREATMENT OF THE GST

- **7** Statistics on value of work (current prices) show residential building work done on a GST inclusive basis and non-residential work and engineering construction work done 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** The ABS records value of work done inclusive of GST in respect of residential construction and exclusive of GST in respect of non-residential construction and engineering construction. Purchasers of residential structures are unable to deduct GST from the purchase price. For non-residential structures and engineering construction, the reverse is true in most circumstances.
- **10** Total construction work is derived by adding total building work and total engineering construction work. To derive total building activity it is appropriate to add the residential and non-residential components. Valuation of the components of the total is consistent, since, for both components, the value of work done is recorded inclusive of non-deductible GST paid by the purchaser. As such, total building activity and total construction includes the non-deductible GST payable on residential building.
- **11** As estimates for engineering work are provided on a GST exclusive basis, and the majority of construction materials used were exempt from Wholesale Sales Tax, the introduction of the GST had little direct effect on the estimates of engineering construction.

DEFINITIONS

- **12** 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.
- **13** 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 non-residential building.
- **14** A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *bouses* or *other residential buildings*:
- A *bouse* 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, blocks of flats, apartment buildings, etc.).
- **15** A *non-residential building* is primarily intended for purposes other than long term residential purposes.
- **16** *Alterations and additions* refer to building activity carried out on existing building. It includes adding to or diminishing floor area, altering the structural design of a building and affixing rigid components which are integral to the functioning of the building.
- **17** The *value of engineering work done for the private sector* consists of the value of work done on prime contracts, plus speculative contracts, plus work done on own account.
- **18** The *value* of *building and engineering work done during the period* represents the estimated value of work actually carried out during the quarter on jobs which have commenced.

CLASSIFICATION: OWNERSHIP

- **19** The ownership of a building is classified as either *private sector* or *public sector*, according to the sector of the intended owner of the completed building or project as evident at the time of approval.
- **20** Engineering projects are classified as either *private sector* or *public sector* according to the expected ownership of the project at the time of completion.

RELIABILITY OF THE ESTIMATES

21 The estimates of engineering activity in this publication are based on a sample survey as are the estimates of private sector building activity. A complete enumeration of public sector building activity is done. Because data are not collected for all engineering jobs nor for all building jobs, the published estimates are subject to sampling variability. Relative standard errors give a measure of this variability and therefore indicate the degree of confidence that can be attached to the data.

RELIABILITY OF THE ESTIMATES continued

22 Relative standard errors for the value of work done in the September quarter 2002 are given below. There is 67% confidence that the actual value would be within one standard error of the sample estimate, and 95% confidence that it lies within two standard errors.

Australia	%
• • • • • • • • • • • • • • • • • • • •	• • • • •
New private residential building Total private residential building Private non-residential building Total private building	0.9 0.8 2.0 0.8
Total residential building Total non-residential building Total building	0.8 1.5 0.7
Engineering for the private sector Total engineering	2.0 1.4

	Total building	Total engineering
States	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • • •
NSW	1.6	3.4
Vic.	1.1	4.3
Qld	1.8	2.8
SA	1.3	4.1
WA	1.3	2.8
Tas.	1.6	3.3
NT	_	0.9
ACT	1.1	8.3

SEASONAL ADJUSTMENT

- **23** 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.
- **24** 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. In most instances, the seasonally adjusted components of a series add to the seasonally adjusted total. However, for Building Work Done, the 'Public' series shown in tables 1 and 3 has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series shown add to the totals, the adjusted 'Private' and 'Public' components of both 'Building Work Done' and 'Construction Work Done' may not add to the respective totals.

SEASONAL ADJUSTMENT continued

25 The seasonal factors are reviewed annually to take account of each additional year's data. The results of the latest review for Construction Work Done are reflected in the December quarter issue each year.

TREND ESTIMATES

- **26** Seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate.
- **27** The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. The 7-term Henderson average (like all Henderson averages) is symmetric but, as the end of a time series is approached, asymmetric forms of the average are applied. Unlike weights of the standard 7-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series.
- **28** While the smoothing technique described in paragraphs 26 and 27 enables trend estimates to be produced for recent quarters, it does result in revisions to the estimates for the most recent three quarters as additional observations become available. There may also be revisions because of changes in the original data and as a result of the re-estimation of the seasonal factors. For further information, see *Information Paper: A Guide to Interpreting Time Series Monitoring Trends: an Overview* (cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on Canberra 02 6252 6076.

CHAIN VOLUME MEASURES

- **29** Chain volume estimates of the value of work done are presented in original, seasonally adjusted and trend terms.
- **30** While current price estimates of value of 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, and the new engineering construction component, of the national accounts aggregate 'Gross fixed capital formation'.
- **31** The chain volume measures of work done appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in a chosen reference year (currently 2000–2001). The reference year is updated annually in the June quarter publication. Each year's data in the value of 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. 2000–2001). 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).
- **32** The factors used to seasonally adjust the chain volume series are identical to those used to adjust the corresponding current price series.

ACKNOWLEDGMENT

33 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

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

Building Activity, Australia: Dwelling Unit Commencements, Preliminary (cat. no. 8750.0) Quarterly

Building Activity, Australia (cat. no. 8752.0) Quarterly
Building Approvals, Australia (cat. no. 8731.0) Monthly
Private Sector Construction Industry, Australia, 1996–97 (cat. no. 8772.0)
Engineering Construction Activity, Australia (cat. no. 8762.0) Quarterly
House Price Indexes: Eight Capital Cities (cat. no. 6416.0) Quarterly
Housing Finance for Owner Occupation, Australia (cat. no. 5609.0) Monthly
Producer Price Indexes, Australia (cat. no. 6427.0) Quarterly.

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

ABS DATA AVAILABLE ON REQUEST

36 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

n.a. not available.. 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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