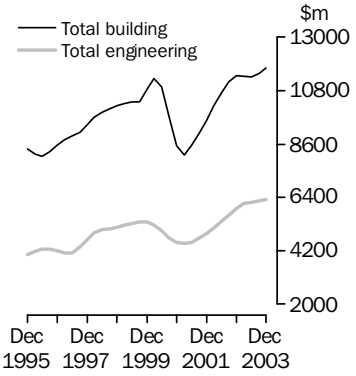
Australian Bureau of Statistics

CONSTRUCTION WORK DONE

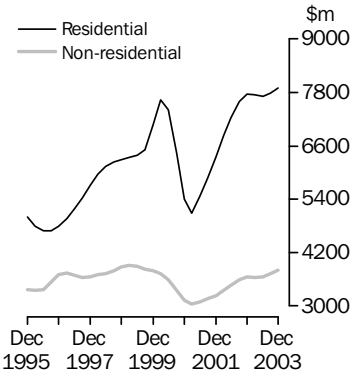
AUSTRALIA
PRELIMINARY

EMBARGO: 11.30AM (CANBERRA TIME) WED 25 FEB 2004

Value of construction work done
Volume terms
Trend estimates



Value of building work done
Volume terms
Trend estimate



KEY FIGURES

	Dec qtr 03 $m	Sep qtr 03 to Dec qtr 03 % change	Dec qtr 02 to Dec qtr 03 % change
TREND ESTIMATES (a)			
Value of work done			
Building	11 720.6	1.9	2.7
Residential	7 908.8	1.7	1.9
Non-residential	3 811.5	2.3	4.4
Engineering	6 312.4	1.1	6.5
Total construction	**18 042.5**	**1.7**	**4.0**
SEASONALLY ADJUSTED ESTIMATES (a)			
Value of work done			
Building	11 928.3	4.2	4.7
Residential	8 026.6	3.3	2.9
Non-residential	3 901.6	6.1	8.7
Engineering	6 448.7	6.1	7.3
Total construction	**18 377.0**	**4.9**	**5.6**

(a) Chain volume measures, reference year 2001–02.

KEY POINTS

VALUE OF CONSTRUCTION WORK DONE, VOLUME TERMS

TREND ESTIMATES

- The trend estimate of building work done rose 1.9% in the December quarter 2003. The latest increase was due to continued strength in both residential (up 1.7%) and non-residential building (up 2.3%).
- Engineering work done rose by 1.1% in the latest quarter. Total construction work rose by 1.7%, the eleventh successive quarterly increase.

SEASONALLY ADJUSTED ESTIMATES

- The seasonally adjusted estimate of building work done rose 4.2% in the December quarter to $11,928.3m, a level exceeded only by the June quarter 2000. Residential building rose 3.3% to $8,026.6m, the second highest level on record, with alterations and additions rising 2.1% to a record $1,279.1m. Non-residential building rose 6.1% to $3,901.6m, the highest for six years.
- Engineering work done rose 6.1% to a record $6,448.7m. Work for the private sector rose 10.5% to a record $3,799.3m. Work for the public sector rose 0.3% (from the previous quarter's lowest level since the December quarter 1997) to $2,649.4m.
- Total construction work done rose 4.9% to a record $18,377.0m.

INQUIRIES

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

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)	*RELEASE DATE*
March 2004	26 May 2004
June 2004	25 August 2004

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 80% of the value of both building and engineering work done during the quarter. More comprehensive and updated results will be released in *Building Activity, Australia* (cat. no. 8752.0) on 19 April 2004 and in *Engineering Construction Activity, Australia* (cat. no. 8762.0) on 16 April 2004.

SIGNIFICANT REVISIONS THIS ISSUE

The seasonally adjusted and trend series have been revised as a result of the annual review of concurrent seasonal factors. See paragraphs 25 to 28 of the Explanatory Notes.

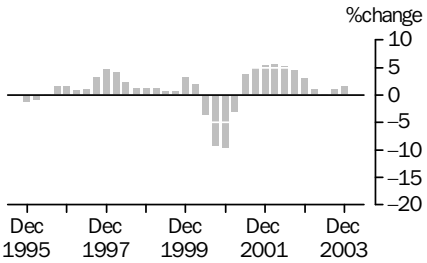
ABBREVIATIONS

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
GST	Goods and Services Tax
qtr	quarter
TAU	type of activity unit
VAT	value added tax

Dennis Trewin
Australian Statistician

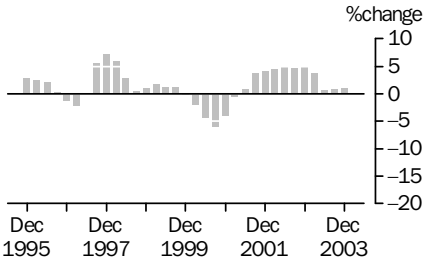
TREND PERCENTAGE CHANGE

TOTAL CONSTRUCTION



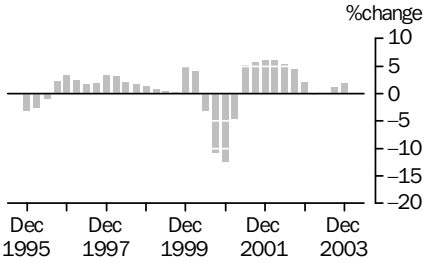
The total value of construction work done has increased for eleven successive quarters. While the rate of growth slowed in the first half of 2003, it has increased over the last two quarters.

ENGINEERING



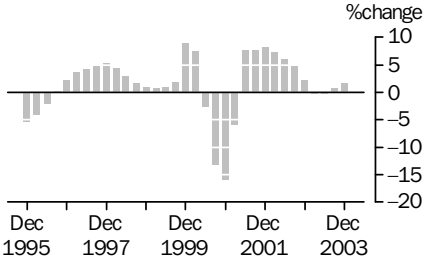
Engineering construction work done has increased for eleven successive quarters. However, the rate of growth for the three most recent quarters has slowed when compared to the earlier quarters.

BUILDING



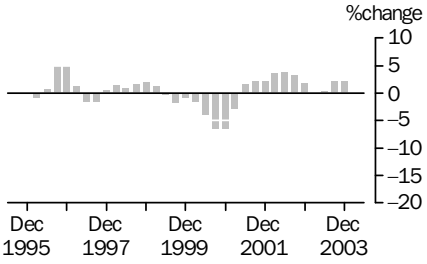
Total building work done has increased for the last two quarters.

Residential



Residential building work has increased for the last two quarters, following marginal declines for the two preceding quarters.

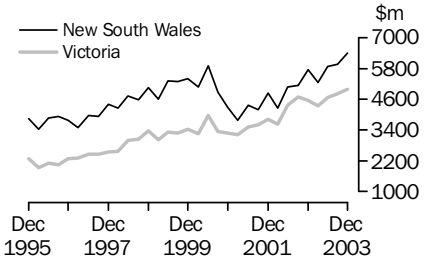
Non-residential



Non-residential building work has increased for the last three quarters.

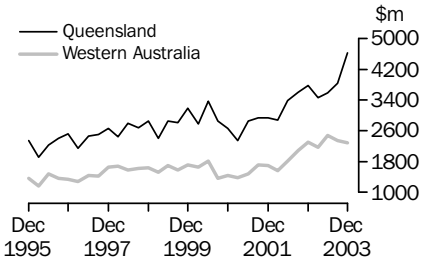
ORIGINAL ESTIMATES

NEW SOUTH WALES
VICTORIA



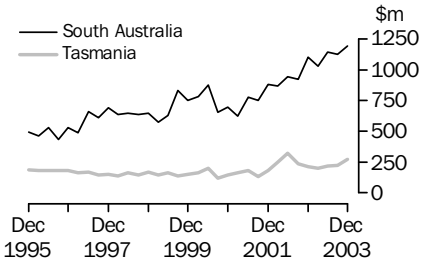
Since early 2001, construction work done has risen strongly in New South Wales and Victoria, with growth in both the building and engineering sectors.

QUEENSLAND
WESTERN AUSTRALIA



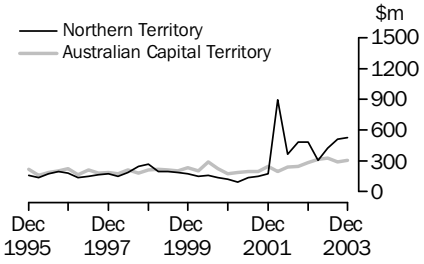
Construction work done has risen strongly in Queensland since early 2001, with growth in recent quarters dominated by building work. In Western Australia, while both sectors were strong in 2002-03, engineering work has levelled off.

SOUTH AUSTRALIA
TASMANIA



Construction work done has risen strongly in South Australia since early 2001. In Tasmania, while engineering work has been flat, building work has been strong over the last year.

NORTHERN TERRITORY
AUSTRALIAN CAPITAL TERRITORY



Growth in the Northern Territory over the last two years has been driven by the engineering sector. Construction work in the Australian Capital Territory is dominated by the building sector which has shown steady growth since early 2001.

LIST OF TABLES

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TABLES

1 CONSTRUCTION WORK DONE, Chain volume measures(a)

	BUILDING WORK DONE			ENGINEERING WORK DONE			CONSTRUCTION WORK DONE		
	Private	*Public*	*Total*	*Private*	*Public*	*Total*	*Private*	*Public*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m	$m	$m
				ORIGINAL					
2000–01	29 927.9	4 109.3	34 041.0	6 813.2	11 657.5	18 474.2	36 744.2	15 763.8	52 511.3
2001–02	35 265.7	4 277.2	39 542.9	8 899.0	11 133.1	20 032.1	44 164.7	15 410.3	59 575.0
2002–03	41 237.0	4 101.8	45 338.8	12 883.8	11 166.9	24 050.7	54 120.8	15 268.7	69 389.5
2002									
Sep Qtr	10 485.5	1 126.6	11 612.0	2 955.1	2 537.0	5 492.1	13 440.5	3 663.6	17 104.1
Dec Qtr	10 764.4	1 087.3	11 851.7	3 238.8	2 911.4	6 150.2	14 003.2	3 998.7	18 001.9
2003									
Mar Qtr	9 823.0	909.2	10 732.2	3 197.3	2 561.5	5 758.8	13 020.3	3 470.6	16 491.0
Jun Qtr	10 164.1	978.8	11 142.9	3 492.6	3 157.0	6 649.6	13 656.7	4 135.8	17 792.5
Sep Qtr	10 890.8	991.1	11 881.9	3 582.8	2 389.6	5 972.4	14 473.7	3 380.6	17 854.3
Dec Qtr	11 379.7	985.5	12 365.3	3 926.8	2 690.8	6 617.6	15 306.6	3 676.3	18 982.9
				SEASONALLY ADJUSTED					
2002									
Sep Qtr	10 143.4	1 098.3	11 241.7	2 816.3	2 818.6	5 634.9	12 959.6	3 916.9	16 876.6
Dec Qtr	10 330.0	1 059.5	11 389.4	3 138.4	2 869.7	6 008.0	13 468.3	3 929.1	17 397.4
2003									
Mar Qtr	10 559.5	998.1	11 557.6	3 440.6	2 716.5	6 157.1	14 000.1	3 714.6	17 714.7
Jun Qtr	10 204.1	945.9	11 150.0	3 488.6	2 762.1	6 250.7	13 692.7	3 708.0	17 400.7
Sep Qtr	10 483.2	962.2	11 446.2	3 438.0	2 642.6	6 080.7	13 921.2	3 604.8	17 526.9
Dec Qtr	10 968.2	958.9	11 928.3	3 799.3	2 649.4	6 448.7	14 767.5	3 608.3	18 377.0
				TREND					
2002									
Sep Qtr	10 096.3	1 085.9	11 182.2	2 873.2	2 772.1	5 645.8	12 969.3	3 857.9	16 827.5
Dec Qtr	10 362.1	1 054.3	11 416.4	3 116.2	2 813.4	5 929.5	13 478.2	3 867.7	17 345.9
2003									
Mar Qtr	10 388.9	1 001.5	11 390.4	3 363.8	2 784.1	6 147.8	13 752.8	3 785.6	17 538.3
Jun Qtr	10 407.8	965.9	11 375.7	3 472.4	2 717.6	6 194.1	13 879.1	3 684.0	17 567.4
Sep Qtr	10 550.4	953.8	11 505.6	3 569.8	2 672.6	6 243.9	14 119.8	3 626.6	17 748.8
Dec Qtr	10 775.5	955.4	11 720.6	3 676.9	2 653.1	6 312.4	14 458.8	3 606.8	18 042.5

(a) Chain volume measures, reference year 2001–02. See paragraphs 32–35 of the Explanatory Notes.

2 CONSTRUCTION WORK DONE, Chain volume measures(a)—Change from previous period

	BUILDING WORK DONE			ENGINEERING WORK DONE			CONSTRUCTION WORK DONE		
	Private	*Public*	*Total*	*Private*	*Public*	*Total*	*Private*	*Public*	*Total*
Period	%	%	%	%	%	%	%	%	%
				ORIGINAL					
2000–01	–25.1	–7.5	–23.3	–16.9	–8.6	–11.9	–23.7	–8.3	–19.5
2001–02	17.8	4.1	16.2	30.6	–4.5	8.4	20.2	–2.2	13.5
2002–03	16.9	–4.1	14.7	44.8	0.3	20.1	22.5	–0.9	16.5
2002									
Sep Qtr	8.8	–0.2	7.9	17.9	–18.6	–2.4	10.7	–13.7	4.4
Dec Qtr	2.7	–3.5	2.1	9.6	14.8	12.0	4.2	9.1	5.2
2003									
Mar Qtr	–8.7	–16.4	–9.4	–1.3	–12.0	–6.4	–7.0	–13.2	–8.4
Jun Qtr	3.5	7.7	3.8	9.2	23.2	15.5	4.9	19.2	7.9
Sep Qtr	7.2	1.3	6.6	2.6	–24.3	–10.2	6.0	–18.3	0.3
Dec Qtr	4.5	–0.6	4.1	9.6	12.6	10.8	5.8	8.7	6.3
				SEASONALLY ADJUSTED					
2002									
Sep Qtr	5.3	0.8	4.8	13.1	6.1	9.5	6.9	4.6	6.3
Dec Qtr	1.8	–3.5	1.3	11.4	1.8	6.6	3.9	0.3	3.1
2003									
Mar Qtr	2.2	–5.8	1.5	9.6	–5.3	2.5	3.9	–5.5	1.8
Jun Qtr	–3.4	–5.2	–3.5	1.4	1.7	1.5	–2.2	–0.2	–1.8
Sep Qtr	2.7	1.7	2.7	–1.4	–4.3	–2.7	1.7	–2.8	0.7
Dec Qtr	4.6	–0.3	4.2	10.5	0.3	6.1	6.1	0.1	4.9
				TREND					
2002									
Sep Qtr	4.9	0.1	4.4	7.8	1.5	4.6	5.5	1.1	4.5
Dec Qtr	2.6	–2.9	2.1	8.5	1.5	5.0	3.9	0.3	3.1
2003									
Mar Qtr	0.3	–5.0	–0.2	7.9	–1.0	3.7	2.0	–2.1	1.1
Jun Qtr	0.2	–3.5	–0.1	3.2	–2.4	0.8	0.9	–2.7	0.2
Sep Qtr	1.4	–1.3	1.1	2.8	–1.7	0.8	1.7	–1.6	1.0
Dec Qtr	2.1	0.2	1.9	3.0	–0.7	1.1	2.4	–0.5	1.7

(a) Chain volume measures, reference year 2001–02. See paragraphs 32–35 of the Explanatory Notes.

3 CONSTRUCTION WORK DONE, Current prices

	BUILDING WORK DONE(a)			ENGINEERING WORK DONE			CONSTRUCTION WORK DONE(a)		
	Private	*Public*	*Total*	*Private*	*Public*	*Total*	*Private*	*Public*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m	$m	$m
				ORIGINAL					
2000–01	29 507.2	4 087.5	33 594.7	6 682.3	11 461.4	18 143.7	36 189.5	15 548.9	51 738.4
2001–02	35 265.7	4 277.2	39 542.9	8 899.0	11 132.3	20 031.3	44 164.7	15 409.5	59 574.2
2002–03	42 835.9	4 248.2	47 084.2	13 288.3	11 452.5	24 740.9	56 124.3	15 700.8	71 825.0
2002									
Sep Qtr	10 715.4	1 148.7	11 864.1	3 016.6	2 572.4	5 589.0	13 732.0	3 721.1	17 453.1
Dec Qtr	11 091.8	1 119.5	12 211.3	3 323.2	2 973.2	6 296.4	14 415.0	4 092.7	18 507.7
2003									
Mar Qtr	10 237.6	945.6	11 183.2	3 292.3	2 638.8	5 931.2	13 529.9	3 584.5	17 114.4
Jun Qtr	10 791.2	1 034.3	11 825.5	3 656.2	3 268.1	6 924.3	14 447.4	4 302.5	18 749.9
Sep Qtr	11 816.6	1 068.2	12 884.8	3 756.9	2 497.6	6 254.4	15 573.5	3 565.8	19 139.3
Dec Qtr	12 580.9	1 083.6	13 664.5	4 141.8	2 833.0	6 974.8	16 722.8	3 916.5	20 639.3
				SEASONALLY ADJUSTED					
2002									
Sep Qtr	10 383.9	1 119.3	11 503.3	2 891.9	2 859.1	5 751.1	13 275.9	3 978.5	17 254.3
Dec Qtr	10 653.6	1 090.7	11 744.3	3 232.9	2 930.8	6 163.7	13 886.5	4 021.4	17 907.9
2003									
Mar Qtr	11 007.8	1 038.2	12 046.0	3 552.3	2 797.2	6 349.5	14 560.1	3 835.4	18 395.5
Jun Qtr	10 833.5	999.7	11 833.1	3 659.2	2 860.4	6 519.7	14 492.7	3 860.1	18 352.8
Sep Qtr	11 408.6	1 036.7	12 445.4	3 632.8	2 764.1	6 396.9	15 041.5	3 800.8	18 842.3
Dec Qtr	12 163.3	1 054.0	13 217.3	4 038.2	2 791.1	6 829.3	16 201.5	3 845.1	20 046.6
				TREND					
2002									
Sep Qtr	10 325.5	1 106.6	11 432.1	2 895.4	2 813.6	5 709.0	13 220.8	3 920.3	17 141.1
Dec Qtr	10 685.8	1 084.5	11 770.3	3 255.9	2 874.0	6 130.0	13 941.7	3 958.5	17 900.3
2003									
Mar Qtr	10 843.8	1 042.3	11 886.1	3 487.2	2 864.0	6 351.2	14 331.0	3 906.3	18 237.3
Jun Qtr	11 069.3	1 023.0	12 092.4	3 632.8	2 819.5	6 452.3	14 702.1	3 842.5	18 544.7
Sep Qtr	11 462.3	1 028.2	12 490.6	3 769.5	2 794.1	6 563.6	15 231.8	3 822.4	19 054.2
Dec Qtr	11 959.9	1 045.2	13 005.7	3 911.0	2 784.0	6 695.0	15 870.9	3 829.2	19 700.6

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and 12 of the Explanatory Notes.

4 CONSTRUCTION WORK DONE, Current prices—Change from previous period

	BUILDING WORK DONE(a)			ENGINEERING WORK DONE			CONSTRUCTION WORK DONE(a)		
	Private	*Public*	*Total*	*Private*	*Public*	*Total*	*Private*	*Public*	*Total*
Period	%	%	%	%	%	%	%	%	%
				ORIGINAL					
2000–01	–17.9	–4.6	–16.5	–14.2	–5.4	–8.9	–17.3	–5.2	–14.0
2001–02	19.5	4.6	17.7	33.2	–2.9	10.4	22.0	–0.9	15.1
2002–03	21.5	–0.7	19.1	49.3	2.9	23.5	27.1	1.9	20.6
2002									
Sep Qtr	9.9	0.7	8.9	19.4	–18.2	–1.4	11.9	–13.1	5.4
Dec Qtr	3.5	–2.5	2.9	10.2	15.6	12.7	5.0	10.0	6.0
2003									
Mar Qtr	–7.7	–15.5	–8.4	–0.9	–11.2	–5.8	–6.1	–12.4	–7.5
Jun Qtr	5.4	9.4	5.7	11.1	23.8	16.7	6.8	20.0	9.6
Sep Qtr	9.5	3.3	9.0	2.8	–23.6	–9.7	7.8	–17.1	2.1
Dec Qtr	6.5	1.4	6.1	10.2	13.4	11.5	7.4	9.8	7.8
				SEASONALLY ADJUSTED					
2002									
Sep Qtr	6.2	1.6	5.7	14.2	6.7	10.4	7.8	5.2	7.2
Dec Qtr	2.6	–2.6	2.1	11.8	2.5	7.2	4.6	1.1	3.8
2003									
Mar Qtr	3.3	–4.8	2.6	9.9	–4.6	3.0	4.9	–4.6	2.7
Jun Qtr	–1.6	–3.7	–1.8	3.0	2.3	2.7	–0.5	0.6	–0.2
Sep Qtr	5.3	3.7	5.2	–0.7	–3.4	–1.9	3.8	–1.5	2.7
Dec Qtr	6.6	1.7	6.2	11.2	1.0	6.8	7.7	1.2	6.4
				TREND					
2002									
Sep Qtr	5.7	1.0	5.2	16.8	2.2	9.1	8.0	1.9	6.5
Dec Qtr	3.5	–2.0	3.0	12.5	2.1	7.4	5.5	1.0	4.4
2003									
Mar Qtr	1.5	–3.9	1.0	7.1	–0.3	3.6	2.8	–1.3	1.9
Jun Qtr	2.1	–1.9	1.7	4.2	–1.6	1.6	2.6	–1.6	1.7
Sep Qtr	3.6	0.5	3.3	3.8	–0.9	1.7	3.6	–0.5	2.7
Dec Qtr	4.3	1.6	4.1	3.8	–0.4	2.0	4.2	0.2	3.4

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and 12 of the Explanatory Notes.

5 VALUE OF BUILDING WORK DONE, Chain volume measures(a)

	NEW RESIDENTIAL BUILDING		ALTERATIONS AND ADDITIONS		RESIDENTIAL BUILDING		NON-RESIDENTIAL BUILDING		TOTAL BUILDING(a)	
	Private	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
					ORIGINAL					
2000–01	17 661.5	18 087.0	3 323.7	3 466.0	20 984.6	21 552.4	8 933.4	12 474.8	29 927.9	34 041.0
2001–02	21 820.8	22 285.6	3 953.1	4 122.1	25 773.9	26 407.7	9 491.7	13 135.1	35 265.7	39 542.9
2002–03	25 719.6	26 149.6	4 412.5	4 588.6	30 132.1	30 738.2	11 104.8	14 600.6	41 237.0	45 338.8
2002										
Sep Qtr	6 532.6	6 638.8	1 124.0	1 157.2	7 656.6	7 796.0	2 828.9	3 816.1	10 485.5	11 612.0
Dec Qtr	6 737.0	6 858.7	1 152.4	1 191.3	7 889.4	8 050.0	2 875.0	3 801.7	10 764.4	11 851.7
2003										
Mar Qtr	6 188.3	6 282.8	1 033.6	1 078.2	7 221.9	7 360.9	2 601.2	3 371.3	9 823.0	10 732.2
Jun Qtr	6 261.8	6 369.4	1 102.5	1 161.9	7 364.3	7 531.3	2 799.7	3 611.5	10 164.1	11 142.9
Sep Qtr	6 633.7	6 763.5	1 232.7	1 273.6	7 866.4	8 037.1	3 024.5	3 844.8	10 890.8	11 881.9
Dec Qtr	6 827.0	6 951.7	1 308.6	1 339.1	8 135.6	8 290.8	3 244.1	4 074.5	11 379.7	12 365.3
					SEASONALLY ADJUSTED					
2002										
Sep Qtr	6 311.5	6 412.1	1 088.6	1 122.8	7 400.2	7 534.9	2 743.2	3 706.8	10 143.4	11 241.7
Dec Qtr	6 540.3	6 651.1	1 101.0	1 148.9	7 641.2	7 800.0	2 688.7	3 589.4	10 330.0	11 389.4
2003										
Mar Qtr	6 598.2	6 703.8	1 115.4	1 163.0	7 713.6	7 866.8	2 846.0	3 690.9	10 559.5	11 557.6
Jun Qtr	6 269.7	6 382.7	1 107.5	1 153.8	7 377.2	7 536.5	2 826.9	3 613.5	10 204.1	11 150.0
Sep Qtr	6 393.9	6 516.5	1 210.4	1 252.9	7 604.2	7 769.3	2 879.0	3 676.9	10 483.2	11 446.2
Dec Qtr	6 633.8	6 747.5	1 241.8	1 279.1	7 875.6	8 026.6	3 092.6	3 901.6	10 968.2	11 928.3
					TREND					
2002										
Sep Qtr	6 360.7	6 466.3	1 088.2	1 128.0	7 449.0	7 594.4	2 647.6	3 588.0	10 096.3	11 182.2
Dec Qtr	6 514.3	6 619.4	1 101.6	1 145.5	7 616.0	7 764.9	2 746.2	3 651.5	10 362.1	11 416.4
2003										
Mar Qtr	6 481.8	6 591.1	1 107.8	1 155.2	7 589.6	7 746.2	2 799.3	3 644.1	10 388.9	11 390.4
Jun Qtr	6 421.6	6 535.4	1 140.8	1 186.9	7 561.9	7 721.7	2 846.4	3 653.9	10 407.8	11 375.7
Sep Qtr	6 431.4	6 548.1	1 188.4	1 230.6	7 619.5	7 778.4	2 931.2	3 727.3	10 550.4	11 505.6
Dec Qtr	6 511.2	6 630.1	1 233.9	1 272.8	7 751.5	7 908.8	3 019.1	3 811.5	10 775.5	11 720.6

(a) Chain volume measures, reference year 2001–02. See paragraphs 32–35 of the Explanatory Notes.

6 VALUE OF BUILDING WORK DONE, Chain volume measures(a)—Change from previous period

	NEW RESIDENTIAL BUILDING		ALTERATIONS AND ADDITIONS		RESIDENTIAL BUILDING		NON-RESIDENTIAL BUILDING		TOTAL BUILDING	
	Private	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*
Period	%	%	%	%	%	%	%	%	%	%
					ORIGINAL					
2000–01	–27.5	–27.3	–24.4	–23.5	–27.1	–26.7	–20.7	–17.3	–25.1	–23.3
2001–02	23.5	23.2	18.9	18.9	22.8	22.5	6.3	5.3	17.8	16.2
2002–03	17.9	17.3	11.6	11.3	16.9	16.4	17.0	11.2	16.9	14.7
2002										
Sep Qtr	6.5	6.4	4.9	3.1	6.2	5.9	16.5	12.2	8.8	7.9
Dec Qtr	3.1	3.3	2.5	2.9	3.0	3.3	1.6	–0.4	2.7	2.1
2003										
Mar Qtr	–8.1	–8.4	–10.3	–9.5	–8.5	–8.6	–9.5	–11.3	–8.7	–9.4
Jun Qtr	1.2	1.4	6.7	7.8	2.0	2.3	7.6	7.1	3.5	3.8
Sep Qtr	5.9	6.2	11.8	9.6	6.8	6.7	8.0	6.5	7.2	6.6
Dec Qtr	2.9	2.8	6.2	5.1	3.4	3.2	7.3	6.0	4.5	4.1
					SEASONALLY ADJUSTED					
2002										
Sep Qtr	3.1	2.9	1.3	0.8	2.8	2.6	12.3	9.5	5.3	4.8
Dec Qtr	3.6	3.7	1.1	2.3	3.3	3.5	–2.0	–3.2	1.8	1.3
2003										
Mar Qtr	0.9	0.8	1.3	1.2	0.9	0.9	5.8	2.8	2.2	1.5
Jun Qtr	–5.0	–4.8	–0.7	–0.8	–4.4	–4.2	–0.7	–2.1	–3.4	–3.5
Sep Qtr	2.0	2.1	9.3	8.6	3.1	3.1	1.8	1.8	2.7	2.7
Dec Qtr	3.8	3.5	2.6	2.1	3.6	3.3	7.4	6.1	4.6	4.2
					TREND					
2002										
Sep Qtr	5.3	5.1	3.6	3.6	5.1	4.9	4.4	3.4	4.9	4.4
Dec Qtr	2.4	2.4	1.2	1.6	2.2	2.2	3.7	1.8	2.6	2.1
2003										
Mar Qtr	–0.5	–0.4	0.6	0.8	–0.3	–0.2	1.9	–0.2	0.3	–0.2
Jun Qtr	–0.9	–0.8	3.0	2.7	–0.4	–0.3	1.7	0.3	0.2	–0.1
Sep Qtr	0.2	0.2	4.2	3.7	0.8	0.7	3.0	2.0	1.4	1.1
Dec Qtr	1.2	1.3	3.8	3.4	1.7	1.7	3.0	2.3	2.1	1.9

(a) Chain volume measures, reference year 2001–02. See paragraphs 32–35 of the Explanatory Notes.

7 VALUE OF BUILDING WORK DONE, Current prices

	NEW RESIDENTIAL BUILDING(a)		ALTERATIONS AND ADDITIONS(a)		RESIDENTIAL BUILDING(a)		NON-RESIDENTIAL BUILDING		TOTAL BUILDING(a)	
	Private	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*
Period	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
					ORIGINAL					
2000–01	17 376.7	17 797.4	3 250.0	3 389.2	20 626.7	21 186.6	8 880.5	12 408.1	29 507.2	33 594.7
2001–02	21 820.8	22 285.6	3 953.1	4 122.1	25 773.9	26 407.7	9 491.7	13 135.1	35 265.7	39 542.9
2002–03	26 776.0	27 224.6	4 578.2	4 761.8	31 354.2	31 986.4	11 481.8	15 097.7	42 835.9	47 084.2
2002										
Sep Qtr	6 682.9	6 791.7	1 147.9	1 181.8	7 830.8	7 973.5	2 884.5	3 890.6	10 715.4	11 864.1
Dec Qtr	6 953.0	7 079.2	1 186.4	1 226.5	8 139.4	8 305.7	2 952.4	3 905.6	11 091.8	12 211.3
2003										
Mar Qtr	6 464.5	6 563.5	1 076.3	1 122.7	7 540.8	7 686.2	2 696.8	3 497.0	10 237.6	11 183.2
Jun Qtr	6 675.5	6 790.2	1 167.6	1 230.8	7 843.1	8 021.0	2 948.1	3 804.5	10 791.2	11 825.5
Sep Qtr	7 231.4	7 373.2	1 328.1	1 372.4	8 559.5	8 745.6	3 257.1	4 139.2	11 816.6	12 884.8
Dec Qtr	7 585.5	7 723.6	1 431.8	1 465.3	9 017.3	9 188.9	3 563.6	4 475.6	12 580.9	13 664.5
					SEASONALLY ADJUSTED					
2002										
Sep Qtr	6 468.0	6 570.8	1 110.7	1 145.7	7 578.7	7 716.5	2 805.2	3 786.8	10 383.9	11 503.3
Dec Qtr	6 754.7	6 869.6	1 131.4	1 180.8	7 886.1	8 050.3	2 767.5	3 693.9	10 653.6	11 744.3
2003										
Mar Qtr	6 892.8	7 003.5	1 158.6	1 208.1	8 051.4	8 211.6	2 956.5	3 834.5	11 007.8	12 046.0
Jun Qtr	6 681.7	6 802.3	1 169.7	1 218.8	7 851.3	8 021.1	2 982.1	3 812.0	10 833.5	11 833.1
Sep Qtr	6 991.0	7 124.5	1 306.2	1 352.3	8 297.2	8 476.7	3 111.4	3 968.6	11 408.6	12 445.4
Dec Qtr	7 393.0	7 518.4	1 360.9	1 402.0	8 753.9	8 920.4	3 409.4	4 297.0	12 163.3	13 217.3
					TREND					
2002										
Sep Qtr	6 512.1	6 620.1	1 109.2	1 149.9	7 621.4	7 770.0	2 704.1	3 662.1	10 325.5	11 432.1
Dec Qtr	6 727.8	6 836.6	1 131.8	1 177.0	7 859.6	8 013.6	2 826.2	3 756.7	10 685.8	11 770.3
2003										
Mar Qtr	6 781.4	6 896.2	1 152.0	1 201.4	7 933.4	8 097.6	2 910.4	3 788.5	10 843.8	11 886.1
Jun Qtr	6 852.6	6 974.2	1 206.8	1 255.6	8 059.0	8 229.4	3 010.8	3 863.3	11 069.3	12 092.4
Sep Qtr	7 018.4	7 145.2	1 280.5	1 326.1	8 298.6	8 471.0	3 164.0	4 019.8	11 462.3	12 490.6
Dec Qtr	7 263.3	7 394.6	1 356.0	1 398.4	8 624.9	8 798.4	3 328.2	4 200.2	11 959.9	13 005.7

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and12 of the Explanatory Notes.

8 VALUE OF BUILDING WORK DONE, Current Prices—Change from previous period

	NEW RESIDENTIAL BUILDING(a)		ALTERATIONS AND ADDITIONS(a)		RESIDENTIAL BUILDING(a)		NON-RESIDENTIAL BUILDING		TOTAL BUILDING(a)	
	Private	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*	*Private*	*Total*
Period	%	%	%	%	%	%	%	%	%	%
					ORIGINAL					
2000–01	–18.1	–17.8	–14.0	–12.9	–17.5	–17.1	–19.0	–15.5	–17.9	–16.5
2001–02	25.6	25.2	21.6	21.6	25.0	24.6	6.9	5.9	19.5	17.7
2002–03	22.7	22.2	15.8	15.5	21.7	21.1	21.0	14.9	21.5	19.1
2002										
Sep Qtr	7.6	7.5	5.9	4.0	7.3	7.0	17.6	13.2	9.9	8.9
Dec Qtr	4.0	4.2	3.4	3.8	3.9	4.2	2.4	0.4	3.5	2.9
2003										
Mar Qtr	–7.0	–7.3	–9.3	–8.5	–7.4	–7.5	–8.7	–10.5	–7.7	–8.4
Jun Qtr	3.3	3.5	8.5	9.6	4.0	4.4	9.3	8.8	5.4	5.7
Sep Qtr	8.3	8.6	13.7	11.5	9.1	9.0	10.5	8.8	9.5	9.0
Dec Qtr	4.9	4.8	7.8	6.8	5.3	5.1	9.4	8.1	6.5	6.1
					SEASONALLY ADJUSTED					
2002										
Sep Qtr	4.1	3.8	2.2	1.6	3.8	3.5	13.3	10.5	6.2	5.7
Dec Qtr	4.4	4.5	1.9	3.1	4.1	4.3	–1.3	–2.5	2.6	2.1
2003										
Mar Qtr	2.0	1.9	2.4	2.3	2.1	2.0	6.8	3.8	3.3	2.6
Jun Qtr	–3.1	–2.9	1.0	0.9	–2.5	–2.3	0.9	–0.6	–1.6	–1.8
Sep Qtr	4.6	4.7	11.7	10.9	5.7	5.7	4.3	4.1	5.3	5.2
Dec Qtr	5.8	5.5	4.2	3.7	5.5	5.2	9.6	8.3	6.6	6.2
					TREND					
2002										
Sep Qtr	6.2	6.0	4.3	4.3	5.9	5.7	5.2	4.2	5.7	5.2
Dec Qtr	3.3	3.3	2.0	2.4	3.1	3.1	4.5	2.6	3.5	3.0
2003										
Mar Qtr	0.8	0.9	1.8	2.1	0.9	1.0	3.0	0.8	1.5	1.0
Jun Qtr	1.0	1.1	4.8	4.5	1.6	1.6	3.5	2.0	2.1	1.7
Sep Qtr	2.4	2.5	6.1	5.6	3.0	2.9	5.1	4.1	3.6	3.3
Dec Qtr	3.5	3.5	5.9	5.5	3.9	3.9	5.2	4.5	4.3	4.1

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and 12 of the Explanatory Notes.

9 CONSTRUCTION WORK DONE, States and territories—Current prices: **Original**

Period	NSW $m	Vic. $m	Qld $m	SA $m	WA $m	Tas. $m	NT $m	ACT $m	**Aust.** $m
BUILDING WORK DONE(a)									
2000–01	11 189.9	10 189.4	5 964.7	1 629.7	3 391.7	340.2	311.1	578.0	**33 594.7**
2001–02	12 783.7	12 062.9	7 508.7	2 032.7	3 686.1	429.2	358.1	681.5	**39 542.9**
2002–03	15 594.8	14 050.0	8 881.5	2 436.5	4 335.0	504.2	366.3	915.8	**47 084.2**
2002									
Sep Qtr	3 760.8	3 738.3	2 265.9	607.4	1 078.2	126.8	92.2	194.4	**11 864.1**
Dec Qtr	4 132.9	3 548.0	2 330.5	607.8	1 118.7	133.2	108.4	231.8	**12 211.3**
2003									
Mar Qtr	3 701.2	3 307.3	2 092.8	578.0	1 067.5	116.0	72.8	247.8	**11 183.2**
Jun Qtr	4 000.0	3 456.4	2 192.4	643.3	1 070.6	128.2	92.9	241.8	**11 825.5**
Sep Qtr	4 175.1	3 710.1	2 615.7	672.3	1 216.3	158.1	99.8	237.4	**12 884.8**
Dec Qtr	4 470.5	3 707.2	3 059.6	748.2	1 140.9	182.1	109.8	246.2	**13 664.5**
ENGINEERING WORK DONE									
2000–01	6 156.5	3 216.4	4 744.4	1 129.5	2 256.6	264.2	168.3	207.9	**18 143.7**
2001–02	5 597.6	3 389.0	4 627.5	1 417.4	3 119.3	453.8	1 226.7	199.9	**20 031.3**
2002–03	6 489.4	4 246.5	5 560.3	1 768.7	4 735.3	364.0	1 331.6	245.0	**24 740.9**
2002									
Sep Qtr	1 383.4	977.5	1 347.9	316.5	1 015.3	109.9	389.1	49.3	**5 589.0**
Dec Qtr	1 647.1	1 009.4	1 445.5	495.0	1 192.3	80.2	375.9	51.1	**6 296.4**
2003									
Mar Qtr	1 576.6	1 043.3	1 369.9	451.8	1 111.1	82.2	233.8	62.4	**5 931.2**
Jun Qtr	1 882.4	1 216.3	1 396.9	505.3	1 416.7	91.7	332.8	82.2	**6 924.3**
Sep Qtr	1 793.4	1 114.2	1 225.3	456.4	1 138.2	63.8	412.5	50.5	**6 254.4**
Dec Qtr	1 956.1	1 281.6	1 571.4	448.4	1 153.8	89.4	418.3	55.7	**6 974.8**
CONSTRUCTION WORK DONE(a)									
2000–01	17 346.4	13 405.8	10 709.1	2 759.2	5 648.3	604.5	479.4	785.9	**51 738.4**
2001–02	18 381.3	15 451.9	12 136.2	3 450.1	6 805.4	883.0	1 584.9	881.4	**59 574.2**
2002–03	22 084.3	18 296.6	14 441.8	4 205.3	9 070.3	868.2	1 697.9	1 160.7	**71 825.0**
2002									
Sep Qtr	5 144.2	4 715.8	3 613.9	924.0	2 093.5	236.7	481.4	243.7	**17 453.1**
Dec Qtr	5 780.0	4 557.5	3 775.9	1 102.9	2 311.0	213.3	484.3	282.9	**18 507.7**
2003									
Mar Qtr	5 277.8	4 350.6	3 462.7	1 029.8	2 178.6	198.2	306.6	310.2	**17 114.4**
Jun Qtr	5 882.4	4 672.7	3 589.3	1 148.6	2 487.3	219.9	425.7	324.0	**18 749.9**
Sep Qtr	5 968.5	4 824.3	3 841.0	1 128.8	2 354.5	221.9	512.3	287.9	**19 139.3**
Dec Qtr	6 426.6	4 988.8	4 631.0	1 196.6	2 294.7	271.5	528.1	301.9	**20 639.3**

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and 12 of the Explanatory Notes.

10 CONSTRUCTION WORK DONE, States and territories—Current prices—Change from previous period: **Original**

Period	NSW %	Vic. %	Qld %	SA %	WA %	Tas. %	NT %	ACT %	**Aust.** %
BUILDING WORK DONE(a)									
2000–01	–27.8	–3.1	–14.3	–10.7	–15.2	–14.7	–21.0	–12.4	**–16.5**
2001–02	14.2	18.4	25.9	24.7	8.7	26.2	15.1	17.9	**17.7**
2002–03	22.0	16.5	18.3	19.9	17.6	17.5	2.3	34.4	**19.1**
2002									
Sep Qtr	6.7	9.5	8.7	9.0	18.2	–4.9	13.6	5.0	**8.9**
Dec Qtr	9.9	–5.1	2.8	0.1	3.8	5.0	17.5	19.2	**2.9**
2003									
Mar Qtr	–10.4	–6.8	–10.2	–4.9	–4.6	–12.9	–32.8	6.9	**–8.4**
Jun Qtr	8.1	4.5	4.8	11.3	0.3	10.5	27.6	–2.4	**5.7**
Sep Qtr	4.4	7.3	19.3	4.5	13.6	23.3	7.5	–1.8	**9.0**
Dec Qtr	7.1	–0.1	17.0	11.3	–6.2	15.2	10.0	3.7	**6.1**
ENGINEERING WORK DONE									
2000–01	–1.2	–6.8	–9.1	–20.7	–18.7	4.0	–39.2	–23.8	**–8.9**
2001–02	–9.1	5.4	–2.5	25.5	38.2	71.7	629.1	–3.9	**10.4**
2002–03	15.9	25.3	20.2	24.8	51.8	–19.8	8.5	22.6	**23.5**
2002									
Sep Qtr	–11.7	0.1	3.3	–17.9	11.9	–41.7	37.5	–14.2	**–1.4**
Dec Qtr	19.1	3.3	7.2	56.4	17.4	–27.1	–3.4	3.6	**12.7**
2003									
Mar Qtr	–4.3	3.4	–5.2	–8.7	–6.8	2.6	–37.8	22.2	**–5.8**
Jun Qtr	19.4	16.6	2.0	11.8	27.5	11.6	42.4	31.8	**16.7**
Sep Qtr	–4.7	–8.4	–12.3	–9.7	–19.7	–30.5	23.9	–38.5	**–9.7**
Dec Qtr	9.1	15.0	28.2	–1.8	1.4	40.3	1.4	10.2	**11.5**
CONSTRUCTION WORK DONE(a)									
2000–01	–20.1	–4.0	–12.1	–15.1	–16.6	–7.4	–28.5	–15.8	**–14.0**
2001–02	6.0	15.3	13.3	25.0	20.5	46.1	230.6	12.1	**15.1**
2002–03	20.1	18.4	19.0	21.9	33.3	–1.7	7.1	31.7	**20.6**
2002									
Sep Qtr	1.1	7.4	6.6	–2.0	15.1	–26.5	32.1	0.5	**5.4**
Dec Qtr	12.4	–3.4	4.5	19.4	10.4	–9.9	0.6	16.1	**6.0**
2003									
Mar Qtr	–8.7	–4.5	–8.3	–6.6	–5.7	–7.1	–36.7	9.6	**–7.5**
Jun Qtr	11.5	7.4	3.7	11.5	14.2	10.9	38.9	4.5	**9.6**
Sep Qtr	1.5	3.2	7.0	–1.7	–5.3	0.9	20.3	–11.1	**2.1**
Dec Qtr	7.7	3.4	20.6	6.0	–2.5	22.4	3.1	4.8	**7.8**

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 11 and 12 of the Explanatory Notes.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains preliminary estimates of building and engineering construction work done during the current quarter and revised estimates for the previous two quarters. The estimates of building work done and engineering work done are from the quarterly Building Activity Survey and the quarterly Engineering Construction Survey respectively. Estimates of work done are based upon a response from each survey of approximately 80% of the value of work done during the current 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. 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.

The statistical unit

5 In the Engineering Construction Survey, the statistical unit used to represent businesses, and for which statistics are reported, is the Australian Business Number (ABN) unit, in most cases. The ABN unit is the business unit which has registered for an ABN, and thus appears on the Australian Taxation Office (ATO) administered Australian Business Register. This unit is suitable for ABS statistical needs when the business is simple in structure. For more significant and diverse businesses where the ABN unit is not suitable for ABS statistical needs, the statistical unit used is the Type of Activity Unit (TAU). A TAU is comprised of one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items is available, a TAU is created which covers all the operations within an industry subdivision—and the TAU is classified to the relevant subdivision of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision and the TAU is classified to the predominant ANZSIC subdivision.

6 Further details about the ABS economic statistical units used in the Engineering Construction Survey, and in other ABS economic surveys (both sample surveys and censuses), can be found in Chapter 2 of the *Standard Economic Sector Classifications of Australia (SESCA) 2002* (cat. no. 1218.0).

RELATIONSHIP WITH NATIONAL ACCOUNTS

7 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

8 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).

9 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.

10 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.

11 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.

12 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.

13 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

14 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.

DEFINITIONS *continued*

15 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.

16 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, blocks of flats, apartment buildings, etc.).

17 A *non-residential building* is primarily intended for purposes other than long term residential purposes.

18 *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.

19 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.

20 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

21 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.

22 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

23 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.

24 Relative standard errors for the value of work done in the December quarter 2003 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.

RELIABILITY OF THE ESTIMATES *continued*

Australia	%
New private residential building	1.0
Total private residential building	0.9
Private non-residential building	0.9
Total private building	0.7
Total residential building	0.9
Total non-residential building	0.7
Total building	**0.6**
Engineering for the private sector	3.3
Total engineering	**2.1**

States and territories	*Total building* %	*Total engineering* %
NSW	1.0	4.8
Vic.	1.5	4.2
Qld	1.6	5.2
SA	1.2	5.2
WA	1.3	4.4
Tas.	1.3	4.0
NT	—	1.8
ACT	1.5	7.4

— nil or rounded to zero (including null cells)

SEASONAL ADJUSTMENT

25 In the seasonally adjusted series, account has been taken of normal seasonal factors, 'trading day' effects arising from the varying numbers of working days in a quarter and the effect of movement in the date of Easter which may, in successive years, affect figures for different quarters.

26 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.

27 From the June quarter 2003, the seasonally adjusted estimates are produced by the concurrent seasonal adjustment method which takes account of the latest available original estimates. The concurrent seasonal adjustment methodology replaces the forward factor methodology previously used, when seasonal factors were only revised following an annual re-analysis. The concurrent method improves the estimation of seasonal factors and, therefore, the seasonally adjusted and trend estimates for the current and previous quarters. As a result, revisions to the seasonally adjusted and trend estimates will be observed for recent periods. In most instances, the only noticeable revisions will be to the previous quarter and the same quarter of a year earlier.

28 A more detailed review of concurrent seasonal factors will be conducted annually, generally prior to the release of data for the December quarter.

TREND ESTIMATES

29 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.

TREND ESTIMATES *continued*

30 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.

31 While the smoothing technique described in paragraphs 29 and 30 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. 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 6540 or email <timeseries@abs.gov.au>.

CHAIN VOLUME MEASURES

32 Chain volume estimates of the value of work done are presented in original, seasonally adjusted and trend terms.

33 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'.

34 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 2001–2002). 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. 2001–2002). 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).

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

ACKNOWLEDGMENT

36 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

37 All tables in this publication, plus some additional state and territory series are available in electronic form on the ABS website <http:\\www.abs.gov.au>.

RELATED PRODUCTS *continued*

38 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.

39 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

40 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.

FOR MORE INFORMATION . . .

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

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