

BUILDING ACTIVITY

**BUILDING WORK DONE**

AUSTRALIA  
PRELIMINARY

EMBARGO: 11:30AM (CANBERRA TIME) FRI 2 MAR 2001

DECEMBER QTR KEY FIGURES

|                            | Dec qtr 00<br>\$m | Sep qtr 00 to<br>Dec qtr 00<br>% change | Dec qtr 99 to<br>Dec qtr 00<br>% change |
|----------------------------|-------------------|---|---|
| <b>TREND ESTIMATES (a)</b> |                   |   |   |
| Value of work done         | 7 034.9           | -16.2                                   | -25.1                                   |
| Total residential building | 4 235.8           | -20.4                                   | -27.3                                   |
| Non-residential building   | 2 797.5           | -8.9                                    | -21.6                                   |

|                                | Dec qtr 00<br>\$m | Sep qtr 00 to<br>Dec qtr 00<br>% change | Dec qtr 99 to<br>Dec qtr 00<br>% change |
|--------------------------------|-------------------|---|---|
| <b>SEASONALLY ADJUSTED (a)</b> |                   |   |   |
| Value of work done             | 6 888.1           | -10.2                                   | -23.6                                   |
| Total residential building     | 4 143.9           | -12.8                                   | -25.0                                   |
| Non-residential building       | 2 744.1           | -5.8                                    | -21.3                                   |

(a) Chain volume measures, reference year 1998-99.

DECEMBER QTR KEY POINTS

VALUE OF WORK DONE, VOLUME TERMS

TREND ESTIMATES

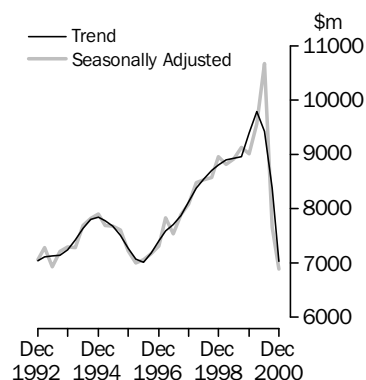
- The trend estimate for building work done fell by 16.2% in the December quarter 2000. This follows an 11.0% fall in the September quarter.
- Recent falls continue to be dominated by the residential sector, which fell by 20.4% in the December quarter, following a 12.7% fall in the September quarter.
- The non-residential sector continued to show a decline, falling by 8.9% in the December quarter.

SEASONALLY ADJUSTED ESTIMATES

- After a record quarterly fall in the September quarter 2000, the seasonally adjusted estimate of building work done fell a further 10.2% in the December quarter to \$6,888.1m. This was the lowest level since the September quarter 1992.
- Following a record fall in the September quarter 2000, work done on residential building fell a further 12.8% to \$4,143.9m, the lowest since the March quarter 1997.
- After a record fall in the September quarter, work done on non-residential building also declined further, by 5.8% to \$2,744.1m, the lowest for six years.

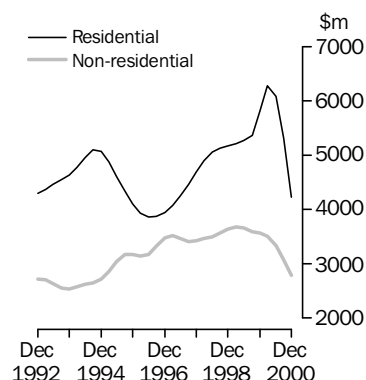
Value of work done

Total building  
Volume terms



Value of 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 Service on 1300 135 070.

## NOTES

### FORTHCOMING ISSUES

| ISSUE (Quarter) | RELEASE DATE     |
|-----------------|------------------|
| March 2001      | 31 May 2001      |
| June 2001       | 6 September 2001 |

### ABOUT THIS ISSUE

This publication provides an early indication of trends in building activity. The data are estimates based on a response rate of approximately 85% of the value of building work done during the quarter. More comprehensive and updated results will be released in *Building Activity, Australia* (Cat. no. 8752.0) on 18 April 2001.

The ABS is planning to expand the content of this publication to include preliminary estimates of engineering construction and additional estimates of building work done. There will be some format changes to the tables to accommodate this expansion. It is proposed that the publication be titled *Construction Work Done, Australia, Preliminary* but it will retain catalogue number 8755.0. A copy of the proposed publication will be available on the ABS web site from 17 May 2001 (see [www.abs.gov.au](http://www.abs.gov.au) and press the publications icon, then go to 8755.0).

### DATA NOTES

#### **Treatment of the Goods and Services Tax (GST)**

ABS statistical series are being impacted to varying degrees as a result of The New Tax System (TNTS), introduced in Australia from 1 July 2000. TNTS included the removal of Wholesale Sales Tax and the introduction of a GST, and as a result, a wide range of ABS data series will reflect significant immediate and subsequent impacts.

This publication shows current price estimates of residential building work done for the September quarter 2000 onwards on a GST inclusive basis and non-residential building work done on a GST exclusive basis (see tables 3 and 4). The conceptual basis for this treatment is that the value of work done is net of deductible GST. The final consumer cannot claim a deduction on residential buildings, while GST paid is deductible for non-residential buildings. An explanation of the treatment and its relationship to the System of National Accounts is given in paragraphs 5 to 8 in the Explanatory Notes.

Chain volume measures enable data comparisons by removing the effects of price changes. Changes in pricing resulting from the introduction of the GST are removed from the volume estimates in tables 1 and 2.

Users should exercise caution in analysing movements in the value series as the series may be affected by the 'bringing forward' of building activity prior to 1 July 2000, and the introduction of the GST and the abolition of the Wholesale Sales Tax.

### SIGNIFICANT REVISIONS THIS ISSUE

The seasonally adjusted and trend series have been revised as a result of the annual re-analysis of seasonal factors. For more details, see Explanatory Notes 17–19.

Dennis Trewin  
Australian Statistician

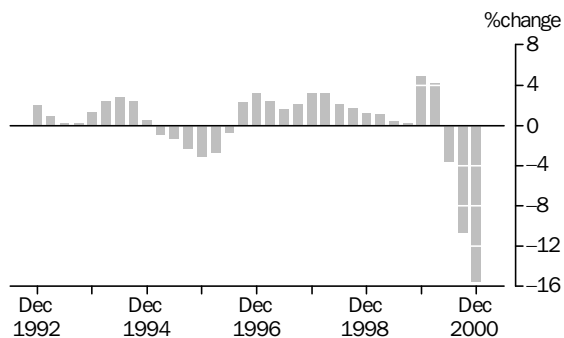
# BUILDING WORK DONE: Chain volume measures(a)

## TREND PERCENTAGE CHANGE

NOTE: Trend estimates are subject to revisions. See Explanatory Notes, paragraph 22.

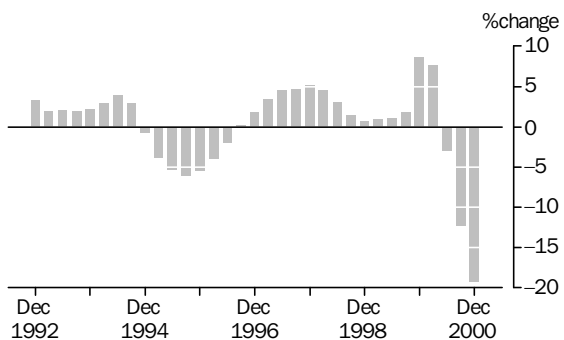
### TOTAL BUILDING

The trend estimate fell by 16.2% in the December quarter, continuing the sharp decline in the September quarter.



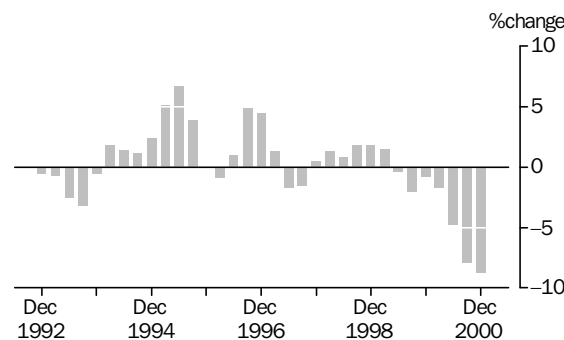
### TOTAL RESIDENTIAL BUILDING

The fall in total building work done continued to be due mainly to the fall in residential building, for which the trend estimate fell a further 20.4% in the December quarter.



### NON-RESIDENTIAL BUILDING

Having now fallen for seven quarters, the rate of decline in non-residential building work done continued to increase (to -8.9%) in the December quarter.



(a) Reference year 1998-99.

# 1

## VALUE OF BUILDING WORK DONE, Chain volume measures(a): All series

| Period                    | RESIDENTIAL BUILDING..... |                      |          | NON-RESIDENTIAL BUILDING..... |          | TOTAL BUILDING..... |          |
|---------------------------|---------------------------|----------------------|----------|-------------------------------|----------|---------------------|----------|
|                           | New private sector        | Total private sector | Total    | Private sector                | Total    | Private sector      | Total    |
| ORIGINAL (\$m)            |                           |                      |          |                               |          |                     |          |
| <b>1997-98</b>            | 15 696.9                  | 18 673.7             | 19 153.8 | 10 111.8                      | 13 851.0 | 28 784.5            | 33 000.6 |
| <b>1998-99</b>            | 16 999.0                  | 20 154.6             | 20 754.3 | 10 824.7                      | 14 534.4 | 30 979.2            | 35 288.8 |
| <b>1999-00</b>            | 20 116.2                  | 23 687.6             | 24 218.9 | 10 575.7                      | 14 179.3 | 34 263.3            | 38 398.1 |
| <b>1999</b>               |                           |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 559.8                   | 5 411.5              | 5 573.8  | 2 872.5                       | 3 759.1  | 8 284.0             | 9 333.0  |
| Dec qtr                   | 4 758.0                   | 5 666.5              | 5 801.1  | 2 787.2                       | 3 716.8  | 8 453.8             | 9 517.9  |
| <b>2000</b>               |                           |                      |          |                               |          |                     |          |
| Mar qtr                   | 4 807.0                   | 5 616.0              | 5 730.0  | 2 321.9                       | 3 096.6  | 7 937.9             | 8 826.6  |
| Jun qtr                   | 5 991.5                   | 6 993.5              | 7 113.9  | 2 594.1                       | 3 606.8  | 9 587.6             | 10 720.7 |
| Sep qtr                   | 4 072.6                   | 4 712.8              | 4 841.5  | 2 132.6                       | 2 983.6  | 6 845.4             | 7 825.2  |
| Dec qtr                   | 3 573.6                   | 4 230.6              | 4 343.0  | 2 059.5                       | 2 926.8  | 6 290.1             | 7 269.8  |
| SEASONALLY ADJUSTED (\$m) |                           |                      |          |                               |          |                     |          |
| <b>1999</b>               |                           |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 515.9                   | 5 319.2              | 5 466.9  | 2 738.3                       | 3 664.9  | 8 061.1             | 9 131.8  |
| Dec qtr                   | 4 557.4                   | 5 360.5              | 5 523.5  | 2 589.5                       | 3 488.4  | 7 955.5             | 9 011.8  |
| <b>2000</b>               |                           |                      |          |                               |          |                     |          |
| Mar qtr                   | 5 065.3                   | 6 029.1              | 6 147.1  | 2 579.3                       | 3 427.4  | 8 628.2             | 9 574.5  |
| Jun qtr                   | 5 977.6                   | 6 978.7              | 7 081.4  | 2 668.6                       | 3 598.6  | 9 618.5             | 10 680.1 |
| Sep qtr                   | 4 020.2                   | 4 640.0              | 4 753.1  | 2 036.1                       | 2 913.5  | 6 673.4             | 7 666.6  |
| Dec qtr                   | 3 450.2                   | 4 008.0              | 4 143.9  | 1 913.3                       | 2 744.1  | 5 929.1             | 6 888.1  |
| TREND ESTIMATES (\$m)     |                           |                      |          |                               |          |                     |          |
| <b>1999</b>               |                           |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 415.9                   | 5 218.8              | 5 368.7  | 2 692.3                       | 3 596.2  | 7 905.7             | 8 959.0  |
| Dec qtr                   | 4 814.1                   | 5 684.5              | 5 828.6  | 2 676.6                       | 3 566.3  | 8 365.5             | 9 394.7  |
| <b>2000</b>               |                           |                      |          |                               |          |                     |          |
| Mar qtr                   | 5 229.0                   | 6 160.7              | 6 286.6  | 2 613.1                       | 3 505.1  | 8 777.0             | 9 792.5  |
| Jun qtr                   | 5 105.0                   | 5 979.5              | 6 092.3  | 2 449.5                       | 3 336.2  | 8 423.1             | 9 430.2  |
| Sep qtr                   | 4 476.4                   | 5 204.3              | 5 318.8  | 2 195.2                       | 3 071.2  | 7 392.9             | 8 390.5  |
| Dec qtr                   | 3 568.9                   | 4 108.7              | 4 235.8  | 1 923.1                       | 2 797.5  | 6 051.8             | 7 034.9  |

(a) Reference year for chain volume measures is 1998-99. See paragraphs 23-26 of the Explanatory Notes.

## 2

VALUE OF BUILDING WORK DONE, Chain volume measures(a): **All series**—Percentage change

| Period  | RESIDENTIAL BUILDING..... |                      |       | NON-RESIDENTIAL BUILDING..... |       | TOTAL BUILDING.. |       |
|---|---------------------------|----------------------|-------|-------------------------------|-------|------------------|-------|
|   | New private sector        | Total private sector | Total | Private sector                | Total | Private sector   | Total |
| ORIGINAL (% change from preceding period)             |                           |                      |       |                               |       |                  |       |
| <b>1997-98</b>  | 20.6                      | 19.9                 | 18.7  | -0.8                          | 0.5   | 11.9             | 10.5  |
| <b>1998-99</b>  | 8.3                       | 7.9                  | 8.4   | 7.0                           | 4.9   | 7.6              | 6.9   |
| <b>1999-00</b>  | 18.3                      | 17.5                 | 16.7  | -2.3                          | -2.4  | 10.6             | 8.8   |
| <b>1999</b>   |                           |                      |       |                               |       |                  |       |
| Sep qtr   | 5.0                       | 5.8                  | 5.9   | 6.2                           | 2.1   | 5.9              | 4.3   |
| Dec qtr   | 4.3                       | 4.7                  | 4.1   | -3.0                          | -1.1  | 2.0              | 2.0   |
| <b>2000</b>   |                           |                      |       |                               |       |                  |       |
| Mar qtr   | 1.0                       | -0.9                 | -1.2  | -16.7                         | -16.7 | -6.1             | -7.3  |
| Jun qtr   | 24.6                      | 24.5                 | 24.2  | 11.7                          | 16.5  | 20.8             | 21.5  |
| Sep qtr   | -32.0                     | -32.6                | -31.9 | -17.8                         | -17.3 | -28.6            | -27.0 |
| Dec qtr   | -12.3                     | -10.2                | -10.3 | -3.4                          | -1.9  | -8.1             | -7.1  |
| SEASONALLY ADJUSTED (% change from preceding quarter) |                           |                      |       |                               |       |                  |       |
| <b>1999</b>   |                           |                      |       |                               |       |                  |       |
| Sep qtr   | 4.5                       | 4.0                  | 4.1   | -1.6                          | -0.2  | 2.6              | 2.4   |
| Dec qtr   | 0.9                       | 0.8                  | 1.0   | -5.4                          | -4.8  | -1.3             | -1.3  |
| <b>2000</b>   |                           |                      |       |                               |       |                  |       |
| Mar qtr   | 11.1                      | 12.5                 | 11.3  | -0.4                          | -1.7  | 8.5              | 6.2   |
| Jun qtr   | 18.0                      | 15.8                 | 15.2  | 3.5                           | 5.0   | 11.5             | 11.5  |
| Sep qtr   | -32.7                     | -33.5                | -32.9 | -23.7                         | -19.0 | -30.6            | -28.2 |
| Dec qtr   | -14.2                     | -13.6                | -12.8 | -6.0                          | -5.8  | -11.2            | -10.2 |
| TREND ESTIMATES (% change from preceding quarter)     |                           |                      |       |                               |       |                  |       |
| <b>1999</b>   |                           |                      |       |                               |       |                  |       |
| Sep qtr   | 2.0                       | 1.7                  | 1.8   | -1.5                          | -2.0  | 0.7              | 0.2   |
| Dec qtr   | 9.0                       | 8.9                  | 8.6   | -0.6                          | -0.8  | 5.8              | 4.9   |
| <b>2000</b>   |                           |                      |       |                               |       |                  |       |
| Mar qtr   | 8.6                       | 8.4                  | 7.9   | -2.4                          | -1.7  | 4.9              | 4.2   |
| Jun qtr   | -2.4                      | -2.9                 | -3.1  | -6.3                          | -4.8  | -4.0             | -3.7  |
| Sep qtr   | -12.3                     | -13.0                | -12.7 | -0.4                          | -7.9  | -12.2            | -11.0 |
| Dec qtr   | -20.3                     | -21.1                | -20.4 | -12.4                         | -8.9  | -18.1            | -16.2 |

(a) Reference year for chain volume measures is 1998-99. See paragraphs 23-26 of the Explanatory Notes.

| Period                    | RESIDENTIAL BUILDING(a)..... |                      |          | NON-RESIDENTIAL BUILDING..... |          | TOTAL BUILDING(a).. |          |
|---------------------------|------------------------------|----------------------|----------|-------------------------------|----------|---------------------|----------|
|                           | New private sector           | Total private sector | Total    | Private sector                | Total    | Private sector      | Total    |
| ORIGINAL (\$m)            |                              |                      |          |                               |          |                     |          |
| <b>1997-98</b>            | 15 343.4                     | 18 268.5             | 18 738.9 | 9 721.6                       | 13 328.7 | 27 990.1            | 32 067.6 |
| <b>1998-99</b>            | 16 999.0                     | 20 154.6             | 20 754.3 | 10 824.7                      | 14 534.4 | 30 979.2            | 35 288.7 |
| <b>1999-00</b>            | 21 217.0                     | 24 996.4             | 25 551.7 | 10 962.0                      | 14 690.1 | 35 958.4            | 40 241.9 |
| <b>1999</b>               |                              |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 676.6                      | 5 551.2              | 5 717.3  | 2 938.1                       | 3 843.9  | 8 489.3             | 9 561.2  |
| Dec qtr                   | 4 950.7                      | 5 896.7              | 6 036.3  | 2 877.8                       | 3 836.2  | 8 774.6             | 9 872.5  |
| <b>2000</b>               |                              |                      |          |                               |          |                     |          |
| Mar qtr                   | 5 108.8                      | 5 972.4              | 6 093.0  | 2 420.3                       | 3 225.3  | 8 392.7             | 9 318.3  |
| Jun qtr                   | 6 480.9                      | 7 576.0              | 7 705.1  | 2 725.8                       | 3 784.7  | 10 301.9            | 11 489.8 |
| Sep qtr                   | 4 848.4                      | 5 616.7              | 5 768.3  | 2 253.8                       | 3 144.9  | 7 870.6             | 8 913.2  |
| Dec qtr                   | 4 248.0                      | 5 035.4              | 5 167.0  | 2 181.8                       | 3 092.5  | 7 217.2             | 8 259.5  |
| SEASONALLY ADJUSTED (\$m) |                              |                      |          |                               |          |                     |          |
| <b>1999</b>               |                              |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 627.3                      | 5 462.9              | 5 612.8  | 2 798.3                       | 3 744.6  | 8 268.5             | 9 363.6  |
| Dec qtr                   | 4 733.9                      | 5 588.5              | 5 723.5  | 2 671.8                       | 3 597.1  | 8 270.7             | 9 348.3  |
| <b>2000</b>               |                              |                      |          |                               |          |                     |          |
| Mar qtr                   | 5 371.2                      | 6 426.5              | 6 583.1  | 2 687.0                       | 3 566.2  | 9 141.8             | 10 132.3 |
| Jun qtr                   | 6 449.3                      | 7 579.4              | 7 695.2  | 2 802.8                       | 3 772.2  | 10 359.4            | 11 448.4 |
| Sep qtr                   | 4 788.4                      | 5 530.4              | 5 664.8  | 2 149.5                       | 3 070.0  | 7 670.2             | 8 739.6  |
| Dec qtr                   | 4 103.3                      | 4 770.9              | 4 897.9  | 2 024.7                       | 2 898.5  | 6 800.7             | 7 819.0  |
| TREND ESTIMATES (\$m)     |                              |                      |          |                               |          |                     |          |
| <b>1999</b>               |                              |                      |          |                               |          |                     |          |
| Sep qtr                   | 4 565.5                      | 5 409.1              | 5 546.0  | 2 751.1                       | 3 674.5  | 8 148.1             | 9 182.2  |
| Dec qtr                   | 4 916.2                      | 5 615.1              | 5 739.7  | 2 762.5                       | 3 678.4  | 8 403.3             | 9 487.7  |
| <b>2000</b>               |                              |                      |          |                               |          |                     |          |
| Mar qtr                   | 5 274.1                      | 5 805.5              | 5 933.3  | 2 722.8                       | 3 647.4  | 8 598.1             | 9 827.6  |
| Jun qtr                   | 5 253.9                      | 5 744.0              | 5 882.4  | 2 570.6                       | 3 496.9  | 8 390.0             | 9 695.0  |
| Sep qtr                   | 4 878.6                      | 5 452.7              | 5 597.1  | 2 315.9                       | 3 234.7  | 7 816.6             | 9 063.6  |
| Dec qtr                   | 4 289.0                      | 5 009.6              | 5 152.9  | 2 021.0                       | 2 920.7  | 7 021.2             | 8 121.5  |

(a) From the September quarter 2000 data is inclusive of the non-deductible GST payable on residential buildings.

## 4

VALUE OF BUILDING WORK DONE, Current prices: **All series**—Percentage change

| Period  | RESIDENTIAL BUILDING(a)..... |                      |       | NON-RESIDENTIAL BUILDING..... |       | TOTAL BUILDING(a) |       |
|---|------------------------------|----------------------|-------|-------------------------------|-------|-------------------|-------|
|   | New private sector           | Total private sector | Total | Private sector                | Total | Private sector    | Total |
| ORIGINAL (% change from preceding period)             |                              |                      |       |                               |       |                   |       |
| <b>1997-98</b>  | 22.0                         | 21.2                 | 20.0  | 3.3                           | 4.5   | 14.3              | 13.0  |
| <b>1998-99</b>  | 10.8                         | 10.3                 | 10.8  | 11.3                          | 9.0   | 10.7              | 10.0  |
| <b>1999-00</b>  | 24.8                         | 24.0                 | 23.1  | 1.3                           | 1.1   | 16.1              | 14.0  |
| <b>1999</b>   |                              |                      |       |                               |       |                   |       |
| Sep qtr   | 6.2                          | 7.0                  | 7.1   | 7.2                           | 3.0   | 7.1               | 5.4   |
| Dec qtr   | 5.9                          | 6.2                  | 5.6   | -2.1                          | -0.2  | 3.4               | 3.3   |
| <b>2000</b>   |                              |                      |       |                               |       |                   |       |
| Mar qtr   | 3.2                          | 1.3                  | 0.9   | -15.9                         | -15.9 | -4.4              | -5.6  |
| Jun qtr   | 26.9                         | 26.8                 | 26.5  | 12.6                          | 17.3  | 22.7              | 23.3  |
| Sep qtr   | -25.2                        | -25.9                | -25.1 | -17.3                         | -16.9 | -23.6             | -22.4 |
| Dec qtr   | -12.4                        | -10.3                | -10.4 | -3.2                          | -1.7  | -8.3              | -7.3  |
| SEASONALLY ADJUSTED (% change from preceding quarter) |                              |                      |       |                               |       |                   |       |
| <b>1999</b>   |                              |                      |       |                               |       |                   |       |
| Sep qtr   | 5.6                          | 5.3                  | 5.3   | -0.7                          | 0.7   | 3.8               | 3.6   |
| Dec qtr   | 2.3                          | 2.3                  | 2.0   | -4.5                          | -3.9  | —                 | -0.2  |
| <b>2000</b>   |                              |                      |       |                               |       |                   |       |
| Mar qtr   | 13.5                         | 15.0                 | 15.0  | 0.6                           | -0.9  | 10.5              | 8.4   |
| Jun qtr   | 20.1                         | 17.9                 | 16.9  | 4.3                           | 5.8   | 13.3              | 13.0  |
| Sep qtr   | -25.8                        | -27.0                | -26.4 | -23.3                         | -18.6 | -26.0             | -23.7 |
| Dec qtr   | -14.3                        | -13.7                | -13.5 | -5.8                          | -5.6  | -11.3             | -10.5 |
| TREND ESTIMATES (% change from preceding quarter)     |                              |                      |       |                               |       |                   |       |
| <b>1999</b>   |                              |                      |       |                               |       |                   |       |
| Sep qtr   | 3.9                          | 3.2                  | 2.8   | -0.6                          | -1.2  | 1.9               | 0.9   |
| Dec qtr   | 7.7                          | 3.8                  | 3.5   | 0.4                           | 0.1   | 3.1               | 3.3   |
| <b>2000</b>   |                              |                      |       |                               |       |                   |       |
| Mar qtr   | 7.3                          | 3.4                  | 3.4   | -1.4                          | -0.8  | 2.3               | 3.6   |
| Jun qtr   | -0.4                         | -1.1                 | -0.9  | -5.6                          | -4.1  | -2.4              | -1.3  |
| Sep qtr   | -7.1                         | -5.1                 | -4.9  | -9.9                          | -7.5  | -6.8              | -6.5  |
| Dec qtr   | -12.1                        | -8.1                 | -7.9  | -12.7                         | -9.7  | -10.2             | -10.4 |

(a) From the September quarter 2000 data is inclusive of the non-deductible GST payable on residential buildings.

# EXPLANATORY NOTES

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## INTRODUCTION

**1** This publication contains preliminary estimates from the quarterly Building Activity Survey of the value of building work done during the quarter. The data contained in this publication are early estimates based on a response rate of approximately 85% of the value of building work done during the quarter. More comprehensive and updated results for the last two quarters will be available shortly in *Building Activity, Australia* (Cat. no. 8752.0).

**2** The statistics were compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. The quarterly survey consists of two components:

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

## SCOPE AND COVERAGE

**3** The statistics relate to *building* activity which includes construction of new buildings and alterations and additions to existing buildings. Construction activity not defined as building (e.g. construction of roads, bridges, railways, earthworks, etc.) is excluded.

## RELATIONSHIP WITH NATIONAL ACCOUNTS

**4** 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 (from the Building Activity Survey) and the value of engineering construction activity (from Cat. no. 8762.0) are the major source 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 Activity 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 GST

**5** Statistics on value of building work (current prices) show residential building work done on a GST inclusive basis and non-residential 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).



**6** 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.

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

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

### DEFINITIONS

**9** 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.

**10** 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.

**11** 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.).

## EXPLANATORY NOTES *continued*

### DEFINITIONS *continued*

**12** *Total residential building work done* is included for the private sector, split between 'new private' and 'total private'. The latter series includes work done on alterations and additions jobs valued at \$10,000 or more.

**13** The *value of building work done during the period* represents the estimated value of building work actually carried out during the quarter on jobs which have commenced.

### BUILDING CLASSIFICATION

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

### RELIABILITY OF THE ESTIMATES

**15** The estimates in this publication are based on a sample survey of private sector house building activity (including alterations and additions to private sector houses), and a complete enumeration of other building activity. Because data are not collected for all private sector house 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.

**16** Relative standard errors for the value of work done in the December quarter 2000 for residential building (new and total private, total) and total building (private and total) 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.

|                                    |            |
|------------------------------------|------------|
|                                    | %          |
| New private residential building   | 0.9        |
| Total private residential building | 0.8        |
| Total residential building         | 0.8        |
| Private non-residential building   | ..         |
| Total non-residential building     | ..         |
| Private total building             | 0.6        |
| <b>Total building</b>              | <b>0.5</b> |

### SEASONAL ADJUSTMENT

**17** Seasonally adjusted building statistics are shown in tables 1–4. In the seasonally adjusted series, account has been taken of normal seasonal factors and the effect of movement in the date of Easter which may, in successive years, affect figures for different quarters. Details regarding the methods used in seasonally adjusting the series are available on request.

## EXPLANATORY NOTES *continued*

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### SEASONAL ADJUSTMENT *continued*

**18** 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. Each of the component series shown has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series shown add to the totals, the adjusted components may not add to the adjusted totals.

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

### TREND ESTIMATES

**20** 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.

**21** 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.

**22** While the smoothing technique described in paragraphs 20 and 21 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

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

**24** 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 of the national accounts aggregate 'Gross fixed capital formation'.

### CHAIN VOLUME MEASURES *continued*

**25** The chain volume measures of building work done appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in a chosen reference year (currently 1998–99). The reference year is updated annually in the June quarter publication. Each year's data in the value of building 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. 1998–99). 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).

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

### ACKNOWLEDGMENT

**27** 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*.

### UNPUBLISHED DATA

**28** The ABS can also make available certain building approvals and activity data which are not published. Where the data cannot be provided by telephone, it can be provided via fax, photocopy, computer print-out, floppy disk and email. A charge may be made for providing unpublished information in these forms.

### RELATED PUBLICATIONS

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

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

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

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

*Private Sector Construction Industry, Australia, 1996–97* (Cat. no. 8772.0)

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

*House Price Indexes: Eight Capital Cities* (Cat. no. 6416.0)—issued quarterly

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

*Price Index of Materials Used in Building Other Than House Building, Six State Capital Cities* (Cat. no. 6407.0)—issued quarterly

*Price Index of Materials Used in House Building, Six State Capital Cities* (Cat. no. 6408.0)—issued quarterly

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

## EXPLANATORY NOTES *continued*

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### SYMBOLS AND OTHER USAGES

|     |                                 |
|-----|---------------------------------|
| ABS | Australian Bureau of Statistics |
| \$m | million dollars                 |
| ..  | not applicable                  |
| —   | nil or rounded to zero          |

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





## FOR MORE INFORMATION...

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- 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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