## INVENTORIES AND SALES, SELECTED INDUSTRIES

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) MON 11 SEPT 2000

Inventories \% change
Trend Estimates
in volume terms


## JUNE QTR KEY FIGURES

## TREND(b)

|  | Jun 1999 \$m | Mar 2000 $\$ m$ | Jun 2000 \$m | Mar 2000 to <br> Jun 2000 <br> \% change | Jun 1999 to <br> Jun 2000 <br> \% change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inventories | 80270 | 86079 | 86446 | 0.4 | (a) n.p. |
| Sales by |  |  |  |  |  |
| Manufacturers | 52141 | 52417 | 53022 | 1.2 | 1.7 |
| Wholesale trade | 49006 | 53316 | 54067 | 1.4 | (a) n.p. |

SEASONALLY ADJUSTED(b)

|  | Jun 1999 \$m | Mar 2000 \$m | Jun 2000 \$m | Mar 2000 to <br> Jun 2000 <br> \% change | Jun 1999 to <br> Jun 2000 <br> \% change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inventories | 80574 | 85969 | 86537 | 0.7 | (a) n.p. |
| Sales by |  |  |  |  |  |
| Manufacturers | 52139 | 52401 | 53174 | 1.5 | 2.0 |
| Wholesale trade | 48621 | 53444 | 54072 | 1.2 | (a) n.p. |

(a) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.
(b) Estimates for private businesses, in volume terms.

## JUNE QTR KEY POINTS

## I NVENTORIES

- The trend estimate (in volume terms) of inventories held by private businesses has increased by $\$ 367 \mathrm{~m}(0.4 \%)$ from the revised March quarter 2000 estimate of $\$ 86,079 \mathrm{~m}$. The rate of growth has slowed in recent quarters, however care should be taken in assessing the series because of the inclusion of privatised marketing authorities from the September quarter 1999. Refer to page 2 for more information.
- The industries contributing to the increase in inventories in the June quarter 2000 were Wholesale trade (up $\$ 293 \mathrm{~m}, 1.0 \%$ ) and Retail trade (up $\$ 164 \mathrm{~m}, 0.8 \%$ ) whilst Mining, Manufacturing and Other selected industries reported decreases.


## SALES

- The trend estimate of Manufacturers' sales increased by $1.2 \%$ to $\$ 53,022 \mathrm{~m}$ in the June quarter 2000. This continues the increases reported in the previous two quarters. The trend estimate of Wholesale trade sales has continued to grow, increasing by $1.4 \%$ to $\$ 54,067 \mathrm{~m}$ in the June quarter 2000. However, the rate of growth has slowed over the last three quarters.

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REVISIONS TO TREND

## Privatised Marketing Authorities

As advised in the March quarter 2000 issue, the series in this publication have been revised to take account of the privatisation of the Australian Wheat Board, Wool International and the Barley Board on 1 July 1999. These marketing authorities were previously part of the public sector and therefore excluded from the series included in this publication. The revisions apply to the September 1999 to March 2000 quarters estimates for Inventories and, to a lesser extent, Wholesale sales.

The introduction of these privatised marketing authorities results in a break in series between June and September 1999 quarters and comparison of the series over time should be undertaken with care.

The trend series measures the underlying behaviour of the series. The methodology used by the ABS has ensured that the trend series has not been distorted by the introduction of the privatised marketing authorities, although the shift in level is still evident between the June and September quarters 1999. For this reason, the trend estimates of movement have not been published for the Wholesale inventories, Total inventories and Wholesale sales series in respect of the September quarter 1999.

## Experimental Estimates

The appendix to this publication presents experimental estimates on income from sales of goods and services for services industries. These estimates will be included in future issues of this publication.

## Other Changes

The quarterly chain volume data in this issue incorporate a new base year, 1998-99, and introduce improved price indexes for Wholesale inventories and Wholesale sales of motor vehicles which have resulted in revisions, small in most cases, to the growth rates for the last few years. In addition, the reference year has been advanced to 1998-99, which has resulted in revisions to levels, but not growth rates, for all periods.
The issue also incorporates new seasonal factors which take into account the latest available data. Refer to paragraphs 21 to 27 of the Explanatory Notes.
From September quarter 2000, the series in this publication will be recorded exclusive of the Goods and Services Tax.

Readers should exercise care in the interpretation of the trend data as the data for the last three quarters in particular are likely to be revised with the addition of subsequent quarters' data. For further information and examples showing the sensitivity of trend data, refer to Trend Estimates in paragraph 28 of the Explanatory Notes.

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Australian Statistician

ALL SELECTED INDUSTRIES(b)

MINING

MANUFACTURING

The trend estimate (in volume terms) of inventories held by private businesses has continued to grow. However, the rate of growth has slowed in the last three quarters, with an increase of $0.4 \% ~(\$ 367 \mathrm{~m})$ in the June quarter 2000.


Mining inventories have fallen over the last eight quarters with declines between $-1.3 \%$ and $-3.9 \%$ over this period. The current estimate of $\$ 3,710 \mathrm{~m}$ is $\$ 215 \mathrm{~m}(5.5 \%)$ lower than the June quarter 1999 and $\$ 680 \mathrm{~m}(15.5 \%)$ lower than the June quarter 1998.


Manufacturers' inventory levels have decreased for the last three quarters after eight quarters of increases. Actual growth rates have been steadily falling since June quarter 1998. The industry with the largest decrease in the June quarter 2000 was Metal product manufacturing which was down $3.3 \%$ from the revised March quarter 2000, and down $14.9 \%$ from the June quarter 1999.

(a) Reference year for chain volume measures is 1998-1999.
(b) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

## WHOLESALE TRADE(b)

## RETAIL TRADE

OTHER SELECTED INDUSTRIES
(Electricity and gas supply; accommodation, cafes and restaurants)

This is the seventeenth successive quarter of growth in inventories held by the Wholesale trade, with growth rates between $0.4 \%$ and $3.1 \%$ per quarter (excluding September quarter 1999 which is affected by the newly privatised marketing authorities). The current estimate of $\$ 30,884 \mathrm{~m}$ is $\$ 293 \mathrm{~m}$ ( $1.0 \%$ ) higher than March quarter 2000.

TREND


Inventories held by Retail trade have increased for the last eight quarters. However, the growth rates have been declining since the June quarter 1999. The June quarter 2000 estimate of $\$ 19,542 \mathrm{~m}$ is $\$ 164 \mathrm{~m}(0.8 \%)$ higher than the revised March quarter 2000 estimate, and $\$ 1,086 \mathrm{~m}(5.9 \%)$ higher than June quarter 1999 estimate. In current price terms, inventories for Motor vehicle retailing and services increased in June quarter 2000 whereas Food and Personal \& household good retailing fell.


Inventories held by Other selected industries have decreased over the last two quarters. The June quarter estimate of $\$ 975 \mathrm{~m}$ is $\$ 9 \mathrm{~m}(0.9 \%)$ lower than the revised March quarter 2000 estimate and $\$ 5 \mathrm{~m}(0.5 \%)$ higher than June quarter 1999.

(a) Reference year for chain volume measures is 1998-1999.
(b) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of . three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2. . . . 4 ABS. INVENTORIES AND SALES, SELECTED INDUSTRIES • 5629.0 . JUNE QUARTER $2 O O O$

MANUFACTURERS' SALES

WHOLESALE TRADE SALES(b)

The trend estimate of Manufacturers' sales has increased in the last three quarters following two quarters of decreases. The increases have been largely driven by Food, beverage and tobacco manufacturing where the trend estimate is $4.0 \%$ higher than the revised March quarter 2000 estimate and 13.4 \% higher than the June quarter 1999. This has been offset to a small extent by the trend estimate for Petroleum, coal, chemical and associated product manufacturing which is $1.8 \%$ lower than the revised March quarter 2000 estimate and $6.7 \%$ lower than June quarter 1999.


Wholesale trade sales have increased for the last nineteen quarters. The growth rate in the June quarter 2000 estimate is lower than the quarterly growth rates reported in the previous two years.

TREND

(a) Reference year for chain volume measures is 1998-1999.
(b) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

INVENTORIES, By Industry-Current prices

|  | Mining | Manufacturing | Wholesale trade | Retail trade | Other selected industries(a) | Total selected industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At end of | \$m | \$m | \$m | \$m | \$m | \$m |
| ORIGINAL |  |  |  |  |  |  |
| June 1998 | 4508 | 29405 | 23457 | 16418 | 757 | 74546 |
| June 1999 | 3857 | 31185 | 24966 | 18197 | 937 | 79141 |
| June 2000 | 4229 | 33613 | 29757 | 19503 | 996 | 88098 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4508 | 29405 | 23457 | 16418 | 757 | 74546 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4334 | 30270 | 24342 | 16926 | 810 | 76683 |
| December | 4105 | 30280 | 24387 | 17706 | 950 | 77428 |
| March | 3951 | 31015 | 24493 | 18322 | 941 | 78721 |
| June | 3857 | 31185 | 24966 | 18197 | 937 | 79141 |
| 1999-2000 |  |  |  |  |  |  |
| September | 4052 | 31524 | (b) 27750 | 18940 | 981 | (b) 83246 |
| December | 4104 | 31361 | 30686 | 19627 | 1136 | 86914 |
| March | 4195 | 33160 | 30062 | 20031 | 1007 | 88455 |
| June | 4229 | 33613 | 29757 | 19503 | 996 | 88098 |



| June 1998 | 4534 | 29332 | 23812 | 16782 | 790 | 75250 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | 3873 | 31110 | 25554 | 18595 | 980 | 80112 |
| June 2000 | 4245 | 33549 | 30739 | 19926 | 1042 | 89501 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4534 | 29332 | 23812 | 16782 | 790 | 75250 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4305 | 30286 | 24252 | 16918 | 831 | 76592 |
| December | 4111 | 30741 | 24339 | 17448 | 879 | 77518 |
| March | 3952 | 30608 | 24811 | 18200 | 954 | 78525 |
| June | 3873 | 31110 | 25554 | 18595 | 980 | 80112 |
| 1999-2000 |  |  |  |  |  |  |
| September | 4026 | 31542 | (b) 28294 | 18946 | 1006 | (b) 83814 |
| December | 4113 | 31849 | 29783 | 19342 | 1049 | 86136 |
| March | 4196 | 32703 | 29360 | 19885 | 1022 | 87166 |
| June | 4245 | 33549 | 30739 | 19926 | 1042 | 89501 |


| TREND ESTIMATES |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 4453 | 29417 | 23796 | 16766 | 808 | 75240 |
| June 1999 | 3925 | 31065 | 25648 | 18581 | 984 | 80203 |
| June 2000 | 4255 | 33405 | 30473 | 20034 | 1040 | 89207 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4453 | 29417 | 23796 | 16766 | 808 | 75240 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4331 | 30145 | 24125 | 17022 | 834 | 76457 |
| December | 4116 | 30586 | 24430 | 17489 | 884 | 77505 |
| March | 3957 | 30832 | 24868 | 18080 | 939 | 78676 |
| June | 3925 | 31065 | 25648 | 18581 | 984 | 80203 |
| 1999-2000 |  |  |  |  |  |  |
| September | 3994 | 31447 | (b) 28529 | 19001 | 1014 | (b) 83985 |
| December | 4103 | 32022 | 29235 | 19381 | 1029 | 85770 |
| March | 4189 | 32692 | 29880 | 19738 | 1037 | 87536 |
| June | 4255 | 33405 | 30473 | 20034 | 1040 | 89207 |

[^0]INVENTORIES, By Industry-Chain volume measures(a)

|  | Mining | Manufacturing | Wholesale trade | Retail trade | Other selected industries(b) | Total selected industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At end of | \$m | \$m | \$m | \$m | \$m | \$m |
| ORIGINAL |  |  |  |  |  |  |
| June 1998 | 4450 | 29243 | 23455 | 16512 | 777 | 74455 |
| June 1999 | 3881 | 31690 | 25245 | 18075 | 925 | 79816 |
| June 2000 | 3708 | 31507 | 29627 | 19030 | 933 | 84805 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4450 | 29243 | 23455 | 16512 | 777 | 74455 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4303 | 29901 | 24005 | 16980 | 821 | 76022 |
| December | 4109 | 30112 | 24260 | 17734 | 945 | 77161 |
| March | 4007 | 31212 | 24527 | 18255 | 931 | 78933 |
| June | 3881 | 31690 | 25245 | 18075 | 925 | 79816 |
| 1999-2000 |  |  |  |  |  |  |
| September | 3923 | 31636 | (c) 28429 | 18744 | 959 | (c) 83690 |
| December | 3801 | 30871 | 31919 | 19360 | 1094 | 87045 |
| March | 3749 | 31746 | 30517 | 19680 | 953 | 86645 |
| June | 3708 | 31507 | 29627 | 19030 | 933 | 84805 |


| SEASONALLY ADJUSTED |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 4475 | 29166 | 23809 | 16878 | 812 | 75159 |
| June 1999 | 3898 | 31608 | 25630 | 18470 | 968 | 80574 |
| June 2000 | 3722 | 31428 | 30967 | 19444 | 977 | 86537 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4475 | 29166 | 23809 | 16878 | 812 | 75159 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4274 | 29917 | 23767 | 16972 | 842 | 75791 |
| December | 4116 | 30573 | 24028 | 17476 | 874 | 77083 |
| March | 4009 | 30801 | 24651 | 18134 | 943 | 78543 |
| June | 3898 | 31608 | 25630 | 18470 | 968 | 80574 |
| 1999-2000 |  |  |  |  |  |  |
| September | 3897 | 31658 | (c) 29809 | 18750 | 984 | (c) 85097 |
| December | 3809 | 31348 | 30455 | 19080 | 1010 | 85700 |
| March | 3750 | 31316 | 30400 | 19536 | 968 | 85969 |
| June | 3722 | 31428 | 30967 | 19444 | 977 | 86537 |

## trend estimates

| June 1998 | 4390 | 29165 | 23680 | 16889 | 825 | 74965 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | 3925 | 31426 | 25494 | 18456 | 970 | 80270 |
| June 2000 | 3710 | 31335 | 30884 | 19542 | 975 | 86446 |
| 1997-1998 |  |  |  |  |  |  |
| June | 4390 | 29165 | 23680 | 16889 | 825 | 74965 |
| 1998-1999 |  |  |  |  |  |  |
| September | 4305 | 29884 | 23819 | 17081 | 843 | 75952 |
| December | 4135 | 30488 | 24129 | 17493 | 884 | 76925 |
| March | 4001 | 31033 | 24720 | 18025 | 930 | 78712 |
| June | 3925 | 31426 | 25494 | 18456 | 970 | 80270 |
| 1999-2000 |  |  |  |  |  |  |
| September | 3867 | 31559 | (c) 29855 | 18809 | 990 | (c) 85080 |
| December | 3815 | 31470 | 30278 | 19115 | 990 | 85668 |
| March | 3761 | 31365 | 30591 | 19378 | 984 | 86079 |
| June | 3710 | 31335 | 30884 | 19542 | 975 | 86446 |

[^1](c) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

|  | Mining | Manufacturing | Wholesale trade | Retail trade | Other selected industries(b) | Total selected industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to/Quarter to | \% | \% | \% | \% | \% | \% |


|  | ORIGINAL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | -0.8 | 4.2 | 8.1 | -5.3 | 7.8 | 2.8 |
| June 1999 | -12.8 | 8.4 | 7.6 | 9.5 | 19.0 | 7.2 |
| June 2000 | -4.5 | -0.6 | 17.4 | 5.3 | 0.9 | 6.3 |
| 1997-1998 |  |  |  |  |  |  |
| June | 1.1 | 1.6 | 0.5 | -3.8 | -4.1 | -0.1 |
| 1998-1999 |  |  |  |  |  |  |
| September | -3.3 | 2.2 | 2.3 | 2.8 | 5.6 | 2.1 |
| December | -4.5 | 0.7 | 1.1 | 4.4 | 15.2 | 1.5 |
| March | -2.5 | 3.7 | 1.1 | 2.9 | -1.6 | 2.3 |
| June | -3.1 | 1.5 | 2.9 | -1.0 | -0.5 | 1.1 |
| 1999-2000 |  |  |  |  |  |  |
| September | 1.1 | -0.2 | (c) 12.6 | 3.7 | 3.6 | (c) 4.9 |
| December | -3.1 | -2.4 | 12.3 | 3.3 | 14.1 | 4.0 |
| March | -1.4 | 2.8 | -4.4 | 1.7 | -12.9 | -0.5 |
| June | -1.1 | -0.8 | -2.9 | -3.3 | -2.1 | -2.1 |

$\qquad$
SEASONALLY ADJUSTED

| June 1998 | -1.0 | 4.3 | 8.1 | -5.3 | 7.9 | 2.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | -12.9 | 8.4 | 7.6 | 9.4 | 19.2 | 7.2 |
| June 2000 | -4.5 | -0.6 | 20.8 | 5.3 | 0.9 | 7.4 |
| 1997-1998 |  |  |  |  |  |  |
| June | 1.7 | 2.6 | 1.6 | -1.1 | -1.1 | 1.3 |
| 1998-1999 |  |  |  |  |  |  |
| September | -4.5 | 2.6 | -0.2 | 0.6 | 3.7 | 0.8 |
| December | -3.7 | 2.2 | 1.1 | 3.0 | 3.8 | 1.7 |
| March | -2.6 | 0.7 | 2.6 | 3.8 | 7.9 | 1.9 |
| June | -2.8 | 2.6 | 4.0 | 1.9 | 2.6 | 2.6 |
| 1999-2000 |  |  |  |  |  |  |
| September | 0.0 | 0.2 | (c) 16.3 | 1.5 | 1.7 | (c) 5.6 |
| December | -2.3 | -1.0 | 2.2 | 1.8 | 2.7 | 0.7 |
| March | -1.5 | -0.1 | -0.2 | 2.4 | -4.2 | 0.3 |
| June | -0.7 | 0.4 | 1.9 | -0.5 | 0.9 | 0.7 |

## TREND ESTIMATES

| June 1998 | -1.2 | 4.3 | 7.1 | -4.0 | 16.5 | 3.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | -10.6 | 7.8 | 7.7 | 9.3 | 17.5 | 7.1 |
| June 2000 | -5.5 | -0.3 | 21.1 | 5.9 | 0.5 | 7.7 |
| 1997-1998 |  |  |  |  |  |  |
| June | 0.6 | 2.8 | 0.9 | -0.2 | 2.3 | 1.4 |
| 1998-1999 |  |  |  |  |  |  |
| September | -1.9 | 2.5 | 0.6 | 1.1 | 2.2 | 1.3 |
| December | -3.9 | 2.0 | 1.3 | 2.4 | 4.9 | 1.3 |
| March | -3.2 | 1.8 | 2.4 | 3.0 | 5.3 | 2.3 |
| June | -1.9 | 1.3 | 3.1 | 2.4 | 4.2 | 2.0 |
| 1999-2000 |  |  |  |  |  |  |
| September | -1.5 | 0.4 | (c) n.p. | 1.9 | 2.1 | (c) n.p. |
| December | -1.3 | -0.3 | 1.4 | 1.6 | 0.0 | 0.7 |
| March | -1.4 | -0.3 | 1.0 | 1.4 | -0.7 | 0.5 |
| June | -1.4 | -0.1 | 1.0 | 0.8 | -0.9 | 0.4 |

[^2](c) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

INVENTORIES, By Manufacturing industries-Current prices

|  | Food, beverage and tobacco | Textiles, clothing, footwear and leather(a) | Wood and paper products | Printing, publishing and recorded media | Petroleum, coal, chemical and assoc. products | Non- <br> metallic mineral product | Metal product | Machinery and equipment | Other manufacturing | Total manufacturing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At end of | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |


| ORIGINAL |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 6528 | 1803 | 2015 | 882 | 5569 | 1138 | 4427 | 6330 | 714 | 29405 |
| June 1999 | 6990 | 1719 | 2200 | 843 | 6000 | 1320 | 4787 | 6643 | 682 | 31185 |
| June 2000 | 7542 | 1533 | 2169 | 951 | 6993 | 1169 | 4334 | 8164 | 757 | 33613 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6528 | 1803 | 2015 | 882 | 5569 | 1138 | 4427 | 6330 | 714 | 29405 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6290 | 1947 | 2045 | 954 | 5858 | 1257 | 4588 | 6551 | 782 | 30270 |
| December | 6321 | 1835 | 2009 | 952 | 5691 | 1276 | 4688 | 6669 | 840 | 30280 |
| March | 6489 | 1831 | 2204 | 948 | 6068 | 1295 | 4701 | 6685 | 794 | 31015 |
| June | 6990 | 1719 | 2200 | 843 | 6000 | 1320 | 4787 | 6643 | 682 | 31185 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6811 | 1646 | 2100 | 922 | 6137 | 1094 | 4622 | 7415 | 777 | 31524 |
| December | 6670 | 1729 | 2125 | 865 | 6243 | 980 | 4308 | 7716 | 725 | 31361 |
| March | 7249 | 1708 | 2135 | 900 | 6922 | 1082 | 4441 | 7917 | 808 | 33160 |
| June | 7542 | 1533 | 2169 | 951 | 6993 | 1169 | 4334 | 8164 | 757 | 33613 |
| SEASONALLY ADJUSTED(a) |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 6278 | 1811 | 1989 | 902 | 5601 | 1129 | 4483 | 6408 | 731 | 29332 |
| June 1999 | 6719 | 1728 | 2172 | 864 | 6042 | 1309 | 4845 | 6729 | 702 | 31110 |
| June 2000 | 7247 | 1540 | 2140 | 977 | 7046 | 1160 | 4386 | 8272 | 781 | 33549 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6278 | 1811 | 1989 | 902 | 5601 | 1129 | 4483 | 6408 | 731 | 29332 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6337 | 1954 | 2064 | 947 | 5837 | 1249 | 4560 | 6563 | 775 | 30286 |
| December | 6579 | 1838 | 2032 | 949 | 5795 | 1305 | 4700 | 6691 | 852 | 30741 |
| March | 6445 | 1812 | 2188 | 935 | 5942 | 1285 | 4660 | 6572 | 769 | 30608 |
| June | 6719 | 1728 | 2172 | 864 | 6042 | 1309 | 4845 | 6729 | 702 | 31110 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6863 | 1655 | 2118 | 915 | 6116 | 1087 | 4595 | 7425 | 768 | 31542 |
| December | 6948 | 1729 | 2151 | 863 | 6358 | 1003 | 4322 | 7738 | 737 | 31849 |
| March | 7195 | 1691 | 2119 | 885 | 6775 | 1073 | 4399 | 7785 | 781 | 32703 |
| June | 7247 | 1540 | 2140 | 977 | 7046 | 1160 | 4386 | 8272 | 781 | 33549 |

TREND ESTIMATES

| June 1998 | 6274 | 1811 | 1993 | 927 | 5641 | 1177 | 4461 | 6390 | 743 | 29417 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | 6680 | 1726 | 2161 | 899 | 6007 | 1236 | 4721 | 6892 | 743 | 31065 |
| June 2000 | 7268 | 1599 | 2136 | 940 | 7039 | 1124 | 4351 | 8169 | 779 | 33405 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6274 | 1811 | 1993 | 927 | 5641 | 1177 | 4461 | 6390 | 743 | 29417 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6388 | 1876 | 2034 | 940 | 5738 | 1227 | 4579 | 6571 | 792 | 30145 |
| December | 6467 | 1877 | 2092 | 940 | 5852 | 1293 | 4671 | 6592 | 802 | 30586 |
| March | 6563 | 1799 | 2140 | 924 | 5928 | 1310 | 4747 | 6643 | 778 | 30832 |
| June | 6680 | 1726 | 2161 | 899 | 6007 | 1236 | 4721 | 6892 | 743 | 31065 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6835 | 1705 | 2151 | 879 | 6158 | 1121 | 4587 | 7277 | 734 | 31447 |
| December | 7000 | 1690 | 2132 | 883 | 6409 | 1058 | 4444 | 7651 | 755 | 32022 |
| March | 7138 | 1656 | 2132 | 907 | 6721 | 1067 | 4364 | 7936 | 771 | 32692 |
| June | 7268 | 1599 | 2136 | 940 | 7039 | 1124 | 4351 | 8169 | 779 | 33405 |

(a) In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

INVENTORIES, By Manufacturing industries-Chain volume measures(a)


| ORIGINAL |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 6477 | 1804 | 2032 | 909 | 5503 | 1135 | 4352 | 6318 | 730 | 29243 |
| June 1999 | 7124 | 1734 | 2228 | 846 | 6098 | 1339 | 4949 | 6686 | 684 | 31690 |
| June 2000 | 7433 | 1514 | 2032 | 951 | 5645 | 1150 | 4097 | 7943 | 742 | 31507 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6477 | 1804 | 2032 | 909 | 5503 | 1135 | 4352 | 6318 | 730 | 29243 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6220 | 1944 | 2031 | 953 | 5747 | 1248 | 4484 | 6514 | 775 | 29901 |
| December | 6314 | 1826 | 1985 | 938 | 5675 | 1269 | 4640 | 6652 | 830 | 30112 |
| March | 6507 | 1826 | 2212 | 941 | 6146 | 1300 | 4789 | 6708 | 790 | 31212 |
| June | 7124 | 1734 | 2228 | 846 | 6098 | 1339 | 4949 | 6686 | 684 | 31690 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6910 | 1684 | 2124 | 930 | 5900 | 1103 | 4782 | 7426 | 777 | 31636 |
| December | 6661 | 1777 | 2111 | 872 | 5701 | 984 | 4383 | 7659 | 721 | 30871 |
| March | 7202 | 1729 | 2041 | 906 | 5850 | 1073 | 4357 | 7789 | 800 | 31746 |
| June | 7433 | 1514 | 2032 | 951 | 5645 | 1150 | 4097 | 7943 | 742 | 31507 |


| SEASONALLY ADJUSTED(b) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 6230 | 1812 | 2007 | 929 | 5535 | 1126 | 4406 | 6396 | 744 | 29166 |
| June 1999 | 6847 | 1743 | 2199 | 868 | 6141 | 1328 | 5010 | 6772 | 700 | 31608 |
| June 2000 | 7142 | 1522 | 2005 | 977 | 5688 | 1141 | 4146 | 8047 | 760 | 31428 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6230 | 1812 | 2007 | 929 | 5535 | 1126 | 4406 | 6396 | 744 | 29166 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6267 | 1951 | 2050 | 946 | 5726 | 1240 | 4457 | 6526 | 770 | 29917 |
| December | 6571 | 1828 | 2008 | 935 | 5779 | 1298 | 4651 | 6674 | 844 | 30573 |
| March | 6463 | 1807 | 2195 | 928 | 6019 | 1290 | 4747 | 6594 | 766 | 30801 |
| June | 6847 | 1743 | 2199 | 868 | 6141 | 1328 | 5010 | 6772 | 700 | 31608 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6963 | 1693 | 2142 | 924 | 5879 | 1095 | 4754 | 7436 | 771 | 31658 |
| December | 6939 | 1777 | 2137 | 869 | 5805 | 1007 | 4397 | 7681 | 735 | 31348 |
| March | 7148 | 1712 | 2025 | 891 | 5726 | 1064 | 4316 | 7660 | 774 | 31316 |
| June | 7142 | 1522 | 2005 | 977 | 5688 | 1141 | 4146 | 8047 | 760 | 31428 |
| TREND ESTIMATES |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 6222 | 1806 | 2005 | 953 | 5531 | 1174 | 4367 | 6374 | 752 | 29165 |
| June 1999 | 6774 | 1744 | 2186 | 900 | 6036 | 1249 | 4874 | 6925 | 742 | 31426 |
| June 2000 | 7156 | 1604 | 2007 | 937 | 5684 | 1102 | 4146 | 7948 | 762 | 31335 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 6222 | 1806 | 2005 | 953 | 5531 | 1174 | 4367 | 6374 | 752 | 29165 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 6338 | 1872 | 2024 | 942 | 5677 | 1219 | 4496 | 6544 | 792 | 29884 |
| December | 6449 | 1871 | 2079 | 930 | 5860 | 1289 | 4647 | 6582 | 796 | 30488 |
| March | 6611 | 1798 | 2144 | 916 | 6000 | 1316 | 4820 | 6663 | 773 | 31033 |
| June | 6774 | 1744 | 2186 | 900 | 6036 | 1249 | 4874 | 6925 | 742 | 31426 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 6916 | 1742 | 2170 | 886 | 5951 | 1133 | 4740 | 7285 | 736 | 31559 |
| December | 7020 | 1726 | 2107 | 891 | 5816 | 1059 | 4499 | 7597 | 753 | 31470 |
| March | 7088 | 1674 | 2051 | 912 | 5728 | 1058 | 4286 | 7804 | 762 | 31365 |
| June | 7156 | 1604 | 2007 | 937 | 5684 | 1102 | 4146 | 7948 | 762 | 31335 |

(a) Reference year for chain volume measures is 1998-1999.
(b) In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

|  | Food, beverage and tobacco | Textiles, clothing, footwear and leather | Wood and paper products | Printing, publishing and recorded media | Petroleum, coal, chemical and assoc. products | Nonmetallic mineral product | Metal product | Machinery and equipment | Other manufacturing | Total manufacturing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to/Quarter to | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% |

ORIGINAL

| June 1998 | 8.1 | 3.3 | 5.6 | 4.6 | 1.4 | -14.9 | 5.9 | 5.0 | 15.1 | 4.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | 10.0 | -3.9 | 9.7 | -6.9 | 10.8 | 17.9 | 13.7 | 5.8 | -6.3 | 8.4 |
| June 2000 | 4.3 | -12.7 | -8.8 | 12.4 | -7.4 | -14.1 | -17.2 | 18.8 | 8.4 | -0.6 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 5.0 | 8.0 | 0.9 | -7.7 | 0.7 | -4.9 | 1.8 | 0.6 | -2.8 | 1.6 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | -4.0 | 7.8 | 0.0 | 4.9 | 4.4 | 9.9 | 3.0 | 3.1 | 6.1 | 2.2 |
| December | 1.5 | -6.1 | -2.3 | -1.7 | -1.2 | 1.7 | 3.5 | 2.1 | 7.2 | 0.7 |
| March | 3.1 | 0.0 | 11.4 | 0.4 | 8.3 | 2.5 | 3.2 | 0.8 | -4.8 | 3.7 |
| June | 9.5 | -5.0 | 0.8 | -10.1 | -0.8 | 3.0 | 3.3 | -0.3 | -13.4 | 1.5 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | -3.0 | -2.9 | -4.7 | 10.0 | -3.3 | -17.6 | -3.4 | 11.1 | 13.6 | -0.2 |
| December | -3.6 | 5.5 | -0.6 | -6.2 | -3.4 | -10.8 | -8.3 | 3.1 | -7.2 | -2.4 |
| March | 8.1 | -2.7 | -3.3 | 3.9 | 2.6 | 9.0 | -0.6 | 1.7 | 10.9 | 2.8 |
| June | 3.2 | -12.4 | -0.4 | 5.0 | -3.5 | 7.2 | -6.0 | 2.0 | -7.3 | -0.8 |
| SEASONALLY ADJUSTED |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 7.9 | 3.5 | 5.6 | 5.1 | 1.5 | -14.8 | 5.9 | 5.1 | 15.7 | 4.3 |
| June 1999 | 9.9 | -3.8 | 9.6 | -6.6 | 10.9 | 18.0 | 13.7 | 5.9 | -5.9 | 8.4 |
| June 2000 | 4.3 | -12.7 | -8.8 | 12.6 | -7.4 | -14.1 | -17.2 | 18.8 | 8.7 | -0.6 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 1.5 | 9.6 | 0.5 | -4.9 | 3.3 | -5.0 | 3.9 | 3.8 | 1.8 | 2.6 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 0.6 | 7.7 | 2.2 | 1.9 | 3.5 | 10.1 | 1.1 | 2.0 | 3.6 | 2.6 |
| December | 4.9 | -6.3 | -2.1 | -1.2 | 0.9 | 4.7 | 4.4 | 2.3 | 9.6 | 2.2 |
| March | -1.6 | -1.1 | 9.3 | -0.7 | 4.1 | -0.6 | 2.1 | -1.2 | -9.2 | 0.7 |
| June | 6.0 | -3.6 | 0.2 | -6.5 | 2.0 | 2.9 | 5.5 | 2.7 | -8.7 | 2.6 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 1.7 | -2.8 | -2.6 | 6.5 | -4.3 | -17.6 | -5.1 | 9.8 | 10.2 | 0.2 |
| December | -0.3 | 5.0 | -0.2 | -5.9 | -1.3 | -8.1 | -7.5 | 3.3 | -4.7 | -1.0 |
| March | 3.0 | -3.7 | -5.2 | 2.5 | -1.4 | 5.7 | -1.8 | -0.3 | 5.3 | -0.1 |
| June | -0.1 | -11.1 | -1.0 | 9.7 | -0.7 | 7.2 | -3.9 | 5.1 | -1.7 | 0.4 |

TREND ESTIMATES

| June 1998 | 7.8 | 2.0 | 5.4 | 8.2 | 1.6 | -11.2 | 3.7 | 5.6 | 21.7 | 4.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1999 | 8.9 | -3.5 | 9.0 | -5.5 | 9.1 | 6.4 | 11.6 | 8.7 | -1.4 | 7.8 |
| June 2000 | 5.6 | -8.0 | -8.2 | 4.1 | -5.8 | -11.7 | -14.9 | 14.8 | 2.7 | -0.3 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |
| June | 2.5 | 3.8 | -0.3 | -0.8 | 2.3 | 0.0 | 3.8 | 4.6 | 5.6 | 2.8 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| September | 1.9 | 3.6 | 1.0 | -1.1 | 2.6 | 3.8 | 2.9 | 2.7 | 5.2 | 2.5 |
| December | 1.7 | 0.0 | 2.7 | -1.3 | 3.2 | 5.7 | 3.4 | 0.6 | 0.6 | 2.0 |
| March | 2.5 | -3.9 | 3.1 | -1.5 | 2.4 | 2.1 | 3.7 | 1.2 | -2.9 | 1.8 |
| June | 2.5 | -3.0 | 1.9 | -1.8 | 0.6 | -5.1 | 1.1 | 3.9 | -4.0 | 1.3 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 2.1 | -0.1 | -0.7 | -1.6 | -1.4 | -9.3 | -2.7 | 5.2 | -0.9 | 0.4 |
| December | 1.5 | -1.0 | -2.9 | 0.6 | -2.3 | -6.5 | -5.1 | 4.3 | 2.3 | -0.3 |
| March | 1.0 | -3.0 | -2.7 | 2.4 | -1.5 | -0.1 | -4.7 | 2.7 | 1.2 | -0.3 |
| June | 1.0 | -4.2 | -2.2 | 2.7 | -0.8 | 4.2 | -3.3 | 1.8 | 0.0 | -0.1 |

(a) Reference year for chain volume measures is 1998-1999.

## MANUFACTURING

WHOLESALE TRADE

|  | Food, beverage and tobacco | Textiles, clothing, footwear and leather | Wood and paper products | Printing, publishing and recorded media | Petroleum, coal,chemical and assoc. products | Nonmetallic mineral product | Metal product | Machinery and equipment | Other <br> manufacturing | Total <br> manufacturing | Total wholesale |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |


| ORIGINAL |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 46348 | 8991 | 13851 | 11083 | 36019 | 9508 | 29994 | 39010 | 6753 | 201556 | 178534 |
| June 1999 | 47110 | 9494 | 14462 | 11206 | 35681 | 11097 | 31019 | 41615 | 7067 | 208750 | 189811 |
| June 2000 | 49892 | 8353 | 16315 | 12226 | 35748 | 10402 | 32164 | 41980 | 6444 | 213524 | 214688 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11198 | 2232 | 3679 | 2766 | 9308 | 2348 | 7736 | 10037 | 1679 | 50982 | 46303 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 12161 | 2552 | 3720 | 2752 | 9015 | 2707 | 7978 | 10472 | 1666 | 53021 | 47088 |
| December | 12930 | 2427 | 3731 | 2794 | 9171 | 2900 | 7990 | 11034 | 2063 | 55040 | 49724 |
| March | 11209 | 2257 | 3335 | 2775 | 8450 | 2657 | 7168 | 9818 | 1726 | 49394 | 45085 |
| June | 10811 | 2259 | 3676 | 2885 | 9044 | 2833 | 7883 | 10291 | 1612 | 51295 | 47915 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11561 | 2327 | 3889 | 3185 | 8803 | 2587 | 7996 | 10656 | 1726 | 52731 | (a) 51408 |
| December | 13403 | 2116 | 4235 | 3191 | 9144 | 2492 | 8113 | 10597 | 1724 | 55015 | 54735 |
| March | 12152 | 1960 | 4038 | 2827 | 8587 | 2578 | 7714 | 9961 | 1335 | 51152 | 51980 |
| June | 12775 | 1950 | 4154 | 3022 | 9214 | 2745 | 8341 | 10766 | 1659 | 54626 | 56566 |

SEASONALLY ADJUSTED

| Year to |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 46346 | 8999 | 13852 | 11117 | 36031 | 9516 | 29961 | 39027 | 6762 | 201612 | 178645 |
| June 1999 | 47140 | 9517 | 14465 | 11196 | 35630 | 11064 | 31064 | 41640 | 7077 | 208796 | 190403 |
| June 2000 | 49842 | 8314 | 16297 | 12212 | 35688 | 10403 | 32040 | 41907 | 6450 | 213155 | 215210 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11830 | 2261 | 3721 | 2821 | 9084 | 2357 | 7651 | 9987 | 1756 | 51468 | 46504 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 12000 | 2482 | 3634 | 2684 | 8967 | 2623 | 7833 | 10181 | 1596 | 52000 | 46818 |
| December | 11633 | 2345 | 3567 | 2668 | 9133 | 2864 | 7754 | 10693 | 1896 | 52553 | 47594 |
| March | 12067 | 2401 | 3548 | 2903 | 8704 | 2737 | 7693 | 10526 | 1896 | 52475 | 47856 |
| June | 11441 | 2289 | 3716 | 2942 | 8827 | 2840 | 7783 | 10240 | 1690 | 51768 | 48135 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11282 | 2212 | 3800 | 3168 | 8902 | 2572 | 7787 | 10361 | 1666 | 51750 | (a) 51261 |
| December | 12232 | 2094 | 4048 | 3021 | 8968 | 2429 | 7860 | 10262 | 1580 | 52494 | 52466 |
| March | 12796 | 2031 | 4251 | 2943 | 8825 | 2652 | 8165 | 10572 | 1462 | 53697 | 54596 |
| June | 13532 | 1978 | 4199 | 3081 | 8993 | 2750 | 8228 | 10712 | 1741 | 55214 | 56887 |


| TREND ESTIMATES |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 46239 | 9105 | 13814 | 11050 | 35982 | 9592 | 30078 | 39080 | 6700 | 201638 | 178347 |
| June 1999 | 47009 | 9455 | 14483 | 11294 | 35698 | 10946 | 31006 | 41679 | 7157 | 208723 | 190768 |
| June 2000 | 49989 | 8322 | 16332 | 12128 | 35630 | 10462 | 32066 | 41851 | 6403 | 213183 | 214731 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11771 | 2324 | 3593 | 2787 | 9097 | 2465 | 7662 | 9939 | 1677 | 51315 | 46111 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11881 | 2382 | 3627 | 2722 | 9064 | 2619 | 7758 | 10292 | 1743 | 52088 | 46994 |
| December | 11894 | 2406 | 3597 | 2726 | 8948 | 2766 | 7768 | 10507 | 1815 | 52427 | 47427 |
| March | 11710 | 2372 | 3583 | 2846 | 8855 | 2829 | 7744 | 10508 | 1831 | 52278 | 47806 |
| June | 11523 | 2295 | 3675 | 3000 | 8831 | 2732 | 7735 | 10371 | 1768 | 51930 | 48541 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11590 | 2206 | 3850 | 3064 | 8865 | 2596 | 7800 | 10278 | 1632 | 51881 | (a) 50870 |
| December | 12088 | 2109 | 4031 | 3043 | 8913 | 2551 | 7929 | 10371 | 1571 | 52606 | 52706 |
| March | 12805 | 2033 | 4173 | 3019 | 8919 | 2600 | 8087 | 10523 | 1578 | 53737 | 54665 |
| June | 13506 | 1974 | 4278 | 3001 | 8934 | 2715 | 8249 | 10680 | 1622 | 54959 | 56490 |

(a) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

12 ABS • INVENTORIES AND SALES, SELECTED INDUSTRIES • 5629.0 •JUNE QUARTER 2000

|  | Food, beverage and tobacco | Textiles, clothing, footwear and leather | Wood and paper products | Printing, publishing and recorded media | Petroleum, coal, chemical and assoc. products | Non- <br> metallic mineral product | Metal product | Machinery <br> and <br> equipment | Other manufacturing | Total manufacturing | Total wholesale |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |


| ORIGINAL |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 46703 | 8964 | 14038 | 11451 | 35146 | 9563 | 29492 | 39107 | 6851 | 201304 | 176433 |
| June 1999 | 47110 | 9494 | 14462 | 11206 | 35680 | 11097 | 31020 | 41614 | 7067 | 208750 | 189811 |
| June 2000 | 49391 | 8310 | 15985 | 11812 | 34128 | 10360 | 31192 | 41515 | 6298 | 208992 | 211133 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11187 | 2241 | 3692 | 2840 | 9111 | 2350 | 7607 | 9999 | 1705 | 50751 | 45591 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 12062 | 2559 | 3721 | 2758 | 8909 | 2701 | 7799 | 10427 | 1666 | 52608 | 46052 |
| December | 12911 | 2421 | 3735 | 2798 | 9074 | 2897 | 7964 | 11038 | 2064 | 54891 | 49520 |
| March | 11191 | 2254 | 3339 | 2771 | 8560 | 2658 | 7248 | 9845 | 1731 | 49593 | 45577 |
| June | 10946 | 2260 | 3667 | 2880 | 9138 | 2841 | 8008 | 10303 | 1606 | 51658 | 48663 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11623 | 2336 | 3848 | 3082 | 8654 | 2582 | 8035 | 10627 | 1701 | 52487 | (b) 51602 |
| December | 13286 | 2118 | 4193 | 3086 | 8881 | 2489 | 7995 | 10494 | 1703 | 54246 | 54360 |
| March | 12012 | 1933 | 3936 | 2736 | 8123 | 2561 | 7362 | 9836 | 1302 | 49801 | 51072 |
| June | 12470 | 1923 | 4009 | 2909 | 8471 | 2727 | 7800 | 10558 | 1592 | 52458 | 54099 |


| SEASONALLY ADJUSTED |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 46703 | 8964 | 14038 | 11451 | 35146 | 9563 | 29492 | 39107 | 6851 | 201304 | 176433 |
| June 1999 | 47110 | 9494 | 14462 | 11206 | 35680 | 11097 | 31020 | 41614 | 7067 | 208750 | 189811 |
| June 2000 | 49391 | 8310 | 15985 | 11812 | 34128 | 10360 | 31192 | 41515 | 6298 | 208992 | 211133 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11819 | 2266 | 3735 | 2891 | 8892 | 2358 | 7521 | 9944 | 1781 | 51205 | 45538 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11894 | 2481 | 3633 | 2689 | 8868 | 2623 | 7643 | 10129 | 1594 | 51560 | 45722 |
| December | 11603 | 2331 | 3569 | 2674 | 9047 | 2870 | 7710 | 10687 | 1893 | 52389 | 47373 |
| March | 12035 | 2392 | 3552 | 2903 | 8831 | 2748 | 7764 | 10548 | 1898 | 52662 | 48096 |
| June | 11578 | 2290 | 3708 | 2941 | 8934 | 2856 | 7902 | 10251 | 1681 | 52139 | 48621 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11347 | 2226 | 3763 | 3069 | 8765 | 2571 | 7842 | 10343 | 1641 | 51566 | (b) 51396 |
| December | 12139 | 2106 | 4014 | 2925 | 8724 | 2426 | 7777 | 10180 | 1560 | 51850 | 52222 |
| March | 12670 | 2015 | 4150 | 2851 | 8359 | 2633 | 7834 | 10462 | 1426 | 52401 | 53444 |
| June | 13234 | 1963 | 4059 | 2967 | 8280 | 2730 | 7739 | 10531 | 1671 | 53174 | 54072 |


| TREND ESTIMATES |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 46571 | 9069 | 13998 | 11372 | 35098 | 9638 | 29593 | 39159 | 6783 | 201274 | 175930 |
| June 1999 | 46983 | 9439 | 14477 | 11294 | 35695 | 10975 | 30987 | 41652 | 7151 | 208652 | 190262 |
| June 2000 | 49482 | 8323 | 16010 | 11763 | 34160 | 10419 | 31221 | 41465 | 6258 | 209156 | 210811 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 11743 | 2325 | 3614 | 2840 | 8913 | 2468 | 7511 | 9905 | 1696 | 51017 | 45078 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11813 | 2379 | 3630 | 2745 | 8948 | 2621 | 7625 | 10255 | 1750 | 51769 | 46167 |
| December | 11842 | 2398 | 3599 | 2735 | 8936 | 2772 | 7718 | 10495 | 1815 | 52310 | 47087 |
| March | 11732 | 2364 | 3582 | 2843 | 8926 | 2839 | 7800 | 10522 | 1827 | 52432 | 48001 |
| June | 11596 | 2298 | 3666 | 2971 | 8886 | 2743 | 7844 | 10381 | 1759 | 52141 | 49006 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 11640 | 2216 | 3825 | 2996 | 8795 | 2599 | 7849 | 10256 | 1615 | 51789 | (b) 51121 |
| December | 12045 | 2112 | 3980 | 2950 | 8637 | 2545 | 7819 | 10299 | 1543 | 51929 | 52307 |
| March | 12644 | 2027 | 4082 | 2915 | 8441 | 2585 | 7788 | 10401 | 1536 | 52417 | 53316 |
| June | 13153 | 1968 | 4125 | 2902 | 8287 | 2690 | 7765 | 10509 | 1564 | 53022 | 54067 |

(a) Reference year for chain volume measures is 1998-1999.
(b) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

## MANUFACTURING

WHOLESALE
TRADE

| Food, | Textiles, |  | Printing, | Petroleum, | Non- |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| beverage | clothing, | Wood | publishing | coal, chemical | metallic |  | Machinery | Other | Total |  |  |
| and | footwear | and paper | and recorded | and assoc. | mineral | Metal | and | manu- | manu- | Total |  |
| tobacco | and leather | products | media | products | product | product | equipment | facturing | facturing | wholesale |  |
| $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |  | $\%$ |  |

$\qquad$

| ORIGINAL |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 3.3 | -1.9 | 5.5 | 13.5 | 5.0 | -3.5 | -8.5 | -0.2 | 3.8 | 1.1 | 8.3 |
| June 1999 | 0.9 | 5.9 | 3.0 | -2.1 | 1.5 | 16.0 | 5.2 | 6.4 | 3.1 | 3.7 | 7.6 |
| June 2000 | 4.8 | -12.5 | 10.5 | 5.4 | -4.4 | -6.6 | 0.6 | -0.2 | -10.9 | 0.1 | 11.2 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 2.9 | 3.3 | 15.4 | 3.3 | 6.3 | 0.9 | 9.6 | 11.1 | 12.0 | 7.1 | 9.3 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 7.8 | 14.2 | 0.8 | -2.9 | -2.2 | 15.0 | 2.5 | 4.3 | -2.3 | 3.7 | 1.0 |
| December | 7.0 | -5.4 | 0.4 | 1.5 | 1.8 | 7.2 | 2.1 | 5.9 | 23.8 | 4.3 | 7.5 |
| March | -13.3 | -6.9 | -10.6 | -0.9 | -5.7 | -8.3 | -9.0 | -10.8 | -16.1 | -9.7 | -8.0 |
| June | -2.2 | 0.3 | 9.8 | 3.9 | 6.8 | 6.9 | 10.5 | 4.7 | -7.2 | 4.2 | 6.8 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 6.2 | 3.4 | 4.9 | 7.0 | -5.3 | -9.1 | 0.3 | 3.1 | 5.9 | 1.6 | (b) 6.0 |
| December | 14.3 | -9.3 | 9.0 | 0.1 | 2.6 | -3.6 | -0.5 | -1.2 | 0.1 | 3.4 | 5.3 |
| March | -9.6 | -8.8 | -6.1 | -11.3 | -8.5 | 2.9 | -7.9 | -6.3 | -23.5 | -8.2 | -6.0 |
| June | 3.8 | -0.5 | 1.9 | 6.3 | 4.3 | 6.5 | 5.9 | 7.3 | 22.2 | 5.3 | 5.9 |


| SEASONALLY ADJUSTED |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year to |  |  |  |  |  |  |  |  |  |  |  |
| June 1998 | 3.3 | -1.9 | 5.5 | 13.5 | 5.0 | -3.5 | -8.5 | -0.2 | 3.8 | 1.1 | 8.3 |
| June 1999 | 0.9 | 5.9 | 3.0 | -2.1 | 1.5 | 16.0 | 5.2 | 6.4 | 3.1 | 3.7 | 7.6 |
| June 2000 | 4.8 | -12.5 | 10.5 | 5.4 | -4.4 | -6.6 | 0.6 | -0.2 | -10.9 | 0.1 | 11.2 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 1.9 | 0.7 | 9.6 | -1.6 | -1.0 | -4.4 | 1.9 | 3.2 | 5.7 | 1.7 | 3.5 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 0.6 | 9.5 | -2.7 | -7.0 | -0.3 | 11.2 | 1.6 | 1.9 | -10.5 | 0.7 | 0.4 |
| December | -2.4 | -6.0 | -1.8 | -0.6 | 2.0 | 9.4 | 0.9 | 5.5 | 18.8 | 1.6 | 3.6 |
| March | 3.7 | 2.6 | -0.5 | 8.6 | -2.4 | -4.3 | 0.7 | -1.3 | 0.3 | 0.5 | 1.5 |
| June | -3.8 | -4.3 | 4.4 | 1.3 | 1.2 | 3.9 | 1.8 | -2.8 | -11.4 | -1.0 | 1.1 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | -2.0 | -2.8 | 1.5 | 4.4 | -1.9 | -10.0 | -0.8 | 0.9 | -2.4 | -1.1 | (b) 5.7 |
| December | 7.0 | -5.4 | 6.7 | -4.7 | -0.5 | -5.6 | -0.8 | -1.6 | -5.0 | 0.6 | 1.6 |
| March | 4.4 | -4.3 | 3.4 | -2.5 | -4.2 | 8.5 | 0.7 | 2.8 | -8.6 | 1.1 | 2.3 |
| June | 4.4 | -2.6 | -2.2 | 4.1 | -1.0 | 3.7 | -1.2 | 0.7 | 17.2 | 1.5 | 1.2 |

TREND ESTIMATES

| Year to |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 1998 | 3.1 | -0.2 | 5.1 | 12.3 | 4.4 | -2.6 | -7.6 | 0.1 | 3.7 | 1.2 | 7.9 |
| June 1999 | 0.9 | 4.1 | 3.4 | -0.7 | 1.7 | 13.9 | 4.7 | 6.4 | 5.4 | 3.7 | 8.1 |
| June 2000 | 5.3 | -11.8 | 10.6 | 4.1 | -4.3 | -5.1 | 0.8 | -0.5 | -12.5 | 0.2 | 10.8 |
| 1997-1998 |  |  |  |  |  |  |  |  |  |  |  |
| June | 0.3 | 3.1 | 2.3 | -2.6 | 1.0 | 4.2 | 2.1 | 2.2 | 0.1 | 1.3 | 1.9 |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |  |
| September | 0.6 | 2.4 | 0.5 | -3.4 | 0.4 | 6.2 | 1.5 | 3.5 | 3.2 | 1.5 | 2.4 |
| December | 0.2 | 0.8 | -0.9 | -0.3 | -0.1 | 5.8 | 1.2 | 2.3 | 3.7 | 1.0 | 2.0 |
| March | -0.9 | -1.4 | -0.5 | 4.0 | -0.1 | 2.4 | 1.1 | 0.3 | 0.7 | 0.2 | 1.9 |
| June | -1.2 | -2.8 | 2.4 | 4.5 | -0.4 | -3.4 | 0.6 | -1.3 | -3.7 | -0.6 | 2.1 |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |  |
| September | 0.4 | -3.6 | 4.3 | 0.8 | -1.0 | -5.2 | 0.1 | -1.2 | -8.2 | -0.7 | (b) n.p. |
| December | 3.5 | -4.7 | 4.1 | -1.5 | -1.8 | -2.1 | -0.4 | 0.4 | -4.5 | 0.3 | 2.3 |
| March | 5.0 | -4.0 | 2.6 | -1.2 | -2.3 | 1.6 | -0.4 | 1.0 | -0.5 | 0.9 | 1.9 |
| June | 4.0 | -2.9 | 1.1 | -0.4 | -1.8 | 4.0 | -0.3 | 1.0 | 1.8 | 1.2 | 1.4 |

(a) Reference year for chain volume measures is 1998-1999.
(b) A break in series occurred between the June and September 1999 quarters as a result of the inclusion of three newly privatised marketing authorities from September quarter 1999. Refer to notes on page 2.

## -



| INTRODUCTION | 1 Key Figures/Points and Tables 1 to 10 in this publication contain estimates of the book value of inventories, income from sales of goods and services by wholesalers and sales of goods manufactured or assembled by manufacturers in Australia. The series have been compiled from data collected by the Australian Bureau of Statistics (ABS) in its quarterly Survey of Inventories, Sales and Services. The survey collects data from private businesses only. |
| :---: | :---: |
| SCOPE AND COVERAGE | 2 The scope of the survey for the collection of inventories plus sales from Manufacturers and Wholesalers includes the following industries classified according to the Australian and New Zealand Standard Industrial Classification 1993: |
|  | Mining (Division B) |
|  | Manufacturing (Division C) |
|  | Food, beverages and tobacco (21) |
|  | Textiles, clothing, footwear and leather (22) |
|  | Wood and paper products (23) |
|  | Printing, publishing and recorded media (24) |
|  | Petroleum, coal, chemical and associated products (25) |
|  | Non-metallic mineral products (26) |
|  | Metal products (27) |
|  | Machinery and equipment (28) |
|  | Other manufacturing (29) |
|  | Wholesale Trade (Division F) |
|  | Basic materials (45) |
|  | Machinery and motor vehicles (46) |
|  | Personal and household goods (47) |
|  | Retail Trade (Division G excluding 5322, 5323 and 5329) |
|  | Food (51) |
|  | Personal and household goods (52) |
|  | Motor vehicle retailing and services (53 excluding 5322, 5323 and 5329) |
|  | Other Selected Industries |
|  | Electricity and gas supply (36) |
|  | Accommodation, cafes and restaurants (Division H) |

- In addition the scope excludes public sector business units (i.e. all departments, authorities and other organisations owned and/or controlled by Commonwealth, State and Local Governments).

3 The survey is conducted by mail on a quarterly basis. It is based on a stratified random sample of approximately 10,000 private businesses selected from the ABS register of businesses. The sample is stratified by industry and number of employees. All business units with over 250 employees, and other statistically significant units, such as many joint venture partners, are included. The figures obtained from these businesses are also supplemented by adjustments for new businesses not yet included in the sample framework.

4 Respondents are asked to provide data on the same basis as their own management accounts. Where a selected business unit does not respond in a given survey, an estimate is substituted. If data are subsequently provided, the estimate is replaced with the reported data. Aggregates are calculated from original data using the 'number raised' estimation technique. Data are edited at both individual unit level and at aggregate level.

5 Adjustments are included in the estimates to allow for lags in processing new businesses to the ABS business register, and the omission of some businesses from the business register. The majority of businesses affected and to which the adjustments apply are small in size. The adjustments contributed $3.8 \%$ to the current quarter's estimate of reported inventories and $3.7 \%$ to reported sales. These adjustments were introduced in the June quarter 1997 publication and have been made back to the June quarter 1984. For further information see the June quarter 1997 publication or an Information Paper-Improvements to ABS Economic Statistics 1997 (Cat. no. 1357.0) issued on 22 August 1997.

6 Surveys are conducted in respect of each quarter and returns are completed during the 8 or 9 week period after the end of the quarter to which survey data relate e.g. December quarter survey returns are completed during January and February.

7 Prior to the June quarter 1996 survey, the survey frames and samples were revised annually to ensure that they remained representative of the survey population. Adjustments were made to the survey estimates each quarter to reflect changes in the size of the survey frame throughout the year. From the June quarter 1996 survey, the survey frames and samples are being revised each quarter. The aim is to further improve the quality of the survey estimates by selecting a sample which will be more representative of the business population. The timing of sample selection will now be consistent with other ABS surveys. This will lead to greater consistency when comparing data across these surveys.

8 With these revisions to the sample, some of the business units are rotated out of the survey and are replaced by others to spread the reporting workload equitably. The rate of rotation under quarterly sample selection is slightly higher than one quarter of the previous annual rate of rotation.

9 When frames and samples were updated annually some data would be revised as a consequence. No data revisions of this nature will be needed given quarterly updates to frames and samples. Data may be revised however on the basis of further processing.

10 This survey uses the management unit as the statistical unit. The management unit is the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts are maintained. In nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is defined where separate and comprehensive accounts are compiled for it. Prior to 1989 , the survey was on a different business unit basis. Further details are available on request.

11 The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both countries for the production and analysis of industry statistics. It replaces the Australian Standard Industrial Classification (ASIC) and the New Zealand Standard Industrial Classification (NZSIC).
12 For more information, users are referred to Australian $\&$ New Zealand Standard Industrial Classification, 1993, ANZSIC, ABS (Cat. no. 1292.0) and Statistics New Zealand (Cat. no. 19.005.0092).

13 In order to classify inventories and sales data by industry, each statistical unit (as defined above) is classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry in which it mainly operates.
14 All of the inventories and sales of each statistical unit are classified to that unit's industry even though it may have activities in other industries.

15 Manufacturers' Sales. All sales of goods manufactured by the business or manufactured for it on commission. Excludes commission earned by the business for manufacturing work done on customers' materials and sales of goods not manufactured (e.g. merchanted goods) by the business.
16 Wholesale Trade Sales. From September quarter 1999, Wholesale Trade Sales comprises all income from sales of goods and services by businesses classified to the Wholesale Trade Industry. Prior to September quarter 1999, only the sales of goods by wholesalers was collected. No break in series was identified with this change.

17 Inventories. All inventories of materials etc., work in progress and finished goods owned by the business, whether held at locations of the business or elsewhere.

18 The chain volume measures appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in the chosen reference year (currently 1998-1999). Chain volume measures were introduced in September quarter 1998, replacing constant price estimates. Chain volume measures can be thought of as current price values re-expressed in (i.e. based on) the prices of the previous year and linked together to form continuous time series. Each year's quarter-to-quarter growth rates in the chain volume series are based on the prices of the previous year, except for those of the quarters of the latest incomplete year which are based upon the second most recent financial year. With each release of the June quarter of this publication, a new base year will be introduced and the reference year will be advanced one year to coincide with it. This means that with the release of the June quarter 2000 issue of this publication, the chain volume measures for 1999-2000 have 1998-1999 (the previous financial year) as their base year rather than 1997-1998, and the reference year is 1998-1999. A change in reference year changes levels but not growth rates.

CHAIN VOLUME MEASURES continued 19 Chain volume measures are not generally additive. In other words, component chain volume measures do not, in general, sum to a total in the way original current price components do. For inventories and sales this means that the original chain volume estimates for industry groups will not add to total inventories and sales for Australia. However, by using the latest base year as the reference year, non-additivity does not exist for the quarters following the reference year and is relatively small for the quarters in the reference year and those immediately preceding it. For further information on chain volume measures refer to the information paper Introduction of Chain Volume Measures in the Australian National Accounts (Cat. no. 5248.0).

20 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error. Sampling error is explained and quantified on pages 21 and 22 .

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. The major errors of concern and which may affect the data are:

- misreporting of data by respondents; and
- deficiencies in the register of economic units, particularly in respect of small units.

Every effort is made to minimise the non-sampling error by careful design of questionnaires, efficient operating procedures, and appropriate methodology.

21 The quarterly inventories and sales series in this publication are affected to some extent by seasonal influences and it is useful to recognise and take account of this element of variation.

22 Seasonal adjustment may be carried out by various methods and the results may vary slightly depending on the procedure adopted. Accordingly, seasonally adjusted statistics are only indicative and should not be regarded as in any way definitive. In interpreting seasonally adjusted data it is important therefore to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject.

23 Seasonal adjustment is a means of reassessing the estimated effects of normal seasonal variations for the series so that the effects of other influences can be more clearly recognised.

24 In the seasonal adjustment of the series, account has been taken of both normal seasonal factors and 'trading' day effects (arising from the varying length of each quarter) and the varying numbers of Sundays, Mondays, Tuesdays etc. in the quarter. Seasonal adjustment does not remove from the series the effect of irregular or non-seasonal influences (e.g. change in interest rates).

25 At least once each year the seasonally adjusted series are revised to take account of the latest available data. The most recent reanalysis takes into account data collected up to and including the March quarter 2000 survey. Data for periods after March 2000 are seasonally adjusted on the basis of extrapolation of historical patterns. The nature of the seasonal adjustment is such that the magnitude of some revisions resulting from reanalysis may be quite significant especially for data for more recent quarters. Care should be exercised when interpreting quarter to quarter movements in the seasonally adjusted series in the publication, particularly for recent quarters.

SEASONAL ADJUSTMENT continued

TREND ESTIMATES

COMPARISON WITH OTHER ABS STATISTICS

RELATED PUBLICATIONS

SYMBOLS AND OTHER USAGES

26 It should be noted that the seasonally adjusted figures necessarily reflect the sampling and other errors to which the original figures are subject.

27 Details of the seasonal adjustment methods used for inventories and sales, together with selected measures of variability for these series are available on request.

28 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 the weights of the standard 7-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series. While the asymmetric weights enable trend estimates for recent quarters to be produced, 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 A Guide to Interpreting Time Series-Monitoring 'Trend' An Overview (Cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis.

29 The data collected in the Survey of Inventories and Sales are used to compile estimates of the increase in book value of non-farm inventories in the quarterly and annual national accounts. For further details see Australian National Accounts: Concepts, Sources and Methods (Cat. no. 5216.0).

30 The statistics shown for the movement in the book value of inventories in this publication will differ from corresponding data for private non-farm inventories shown in the national accounts publications because the national accounts estimates include estimates for the construction and transport industries.

31 Users may also wish to refer to the following publications:

- Australian Business Expectations (Cat. no. 5250.0)
- Australian National Accounts: Concepts, Sources and Methods (Cat. no. 5216.0)
- Australian National Accounts: National Income, Expenditure and Product (Cat. no. 5206.0)
- Business Operations and Industry Performance, Australia (Cat. no. 8140.0).
- Company Profits, Australia (Cat. no. 5651.0)
- Introduction of Cbain Volume Measures in the Australian National Accounts (Cat. no. 5248.0)
- Manufacturing Production, Australia (Cat. no. 8301.0)
- Private New Capital Expenditure and Expected Expenditure, Australia (Cat. no. 5625.0)
- State Estimates of Private New Capital Expenditure (Cat. no. 5646.0)

32 Current publications produced by the ABS are listed in the Catalogue of Publications and Products, Australia (Cat. no. 1101.0). The ABS also issues on Tuesdays and Fridays a Release Advice (Cat. no. 1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.
n.p. not available for publication

## STANDARD ERRORS

INTRODUCTION

LEVEL ESTIMATES

The estimates in this publication are based on a sample drawn from units in the surveyed population. Because the entire population is not surveyed, the published estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic.

To illustrate, let us say that the published level estimate for total inventories is $\$ 77,000 \mathrm{~m}$ and the calculated standard error in this case is $\$ 965 \mathrm{~m}$. The standard error is then used to interpret the level estimate of $\$ 77,000 \mathrm{~m}$

For instance, the standard error of $\$ 965 \mathrm{~m}$ indicates that:

- There are approximately two chances in three that the real value falls within the range $\$ 76,035 \mathrm{~m}$ to $\$ 77,965 \mathrm{~m}$ ( $\$ 77,000 \mathrm{~m} \pm \$ 965 \mathrm{~m}$ )
- There are approximately nineteen chances in twenty that the real value falls within the ranges $\$ 75,070 \mathrm{~m}$ and $\$ 78,930 \mathrm{~m}(\$ 77,000 \mathrm{~m} \pm \$ 1,930 \mathrm{~m})$

The real value in this case is the result we would obtain if we could enumerate the total population.

The following table shows the standard errors for national quarterly level estimates. These are based on a smoothed average of standard errors over a number of quarters.

|  | Inventories \$m | Sales <br> \$m |
| :---: | :---: | :---: |
| Mining | 88 | n.a. |
| Manufacturing | 438 | 865 |
| Wholesale trade | 667 | 1536 |
| Retail trade | 530 | n.a. |
| Other | 75 | n.a. |
| Total selected industries | 965 | n.a. |

## STANDARD ERRORS continued

movement estimates
The following example illustrates how to use the standard error to interpret a movement estimate. Let us say that one quarter the published level estimate for total inventories is $\$ 77,000 \mathrm{~m}$, and the next quarter the published level estimate is $\$ 79,000 \mathrm{~m}$. In this example the calculated standard error for the movement estimate is $\$ 754 \mathrm{~m}$. The standard error is then used to interpret the published movement estimate of $+\$ 2,000 \mathrm{~m}$.

For instance, the standard error of $\$ 754 \mathrm{~m}$ indicates that:

- There are approximately two chances in three that the real movement over the two quarter period falls within the range $\$ 1,246 \mathrm{~m}$ to $\$ 2,754 \mathrm{~m}(\$ 2,000 \mathrm{~m} \pm \$ 754 \mathrm{~m})$
- There are approximately nineteen chances in twenty that the real movement falls within the range $\$ 492 \mathrm{~m}$ to $\$ 3,508 \mathrm{~m}(\$ 2,000 \mathrm{~m} \pm \$ 1,508 \mathrm{~m})$

The real value in this case is the result we would obtain if we could enumerate the total population.

The following table shows the standard errors for national quarterly movement estimates. These are based on a smoothed average of standard errors over a number of quarters.

Inventories | Sales |
| :--- |
| \$m |

## INCOME FROM SALES OF GOODS AND SERVICES

1 The ABS conducts a number of sub-annual collections which measure capital expenditure, inventories, sales, company profits, and employment and earnings for private sector businesses in most industries. However, quarterly data on sales have previously only been released in respect of the Manufacturing and Wholesale Trade industries.

2 As part of a strategy to increase the range of information available relating to service industries, the quarterly Survey of Stocks and Sales was expanded in March quarter 1999 to collect income from sales of goods and services for most service industries. The survey is now known as the Survey of Inventories, Sales and Services.

3 Income from sales of goods and services is the most readily available measure of output across different industries. This measure is consistent with that used in the Wholesale Trade sales series currently released in this publication. The Manufacturers' sales series currently released in this publication only includes sales of goods manufactured by the business or manufactured for it on commission. However, additional information on sales of other goods as well as income from services has been collected from Manufacturers since September quarter 1999 and a series consistent with that for other industries is included in the experimental estimates. This new series is expected to replace the current Manufacturers' sales series next year.

4 The table below presents experimental estimates of income from sales of goods and services for the past six quarters for private sector businesses in the newly-measured service industries, as well as comparable data for the Manufacturing and Wholesale Trade industries.

5 The increased range of information is eventually expected to lead to an improvement in the quality of the quarterly national accounts chain volume estimates of gross value added for the service industries involved, after the series have been subject to further analysis.

6 With the expansion of the Survey of Inventories, Sales and Services in March quarter 1999, income from sales of goods and services is now collected for the following industries classified according to the Australian and New Zealand Standard Industrial Classification 1993

```
Manufacturing (Division C)
Wholesale Trade (Division F)
Motor vehicle Retailing and Services (Sub-division 53)
Accommodation (Group 571)
Transport and Storage (Division I)
Communication Services (Division J)
Property and Business Services (Division L)
Cultural and recreational services including:
    Motion picture, radio and television services (Sub-division 91)
    Arts and Services to the arts (Group }924\mathrm{ and Group 925)
    Sport and recreation (Sub-division 93)
Personal Services (Sub-division 95) excluding:
    Video hire outlets (Class 9511)
    Hairdressing and beauty salons (Class 9526)
```

7 The scope excludes public sector business units (i.e. all departments, authorities and other organisations owned and controlled by Commonwealth, State and Local Government).

DATA CONCEPTS

SURVEY METHODOLOGY

STANDARD ERRORS

8 The major components included and excluded from 'Income from sales of goods and services' are:

## Includes

Commission income
Repair and service income and fees
Management fees/charges from related and unrelated businesses
Income from consulting services
Rent, leasing and hiring income
Delivery and installation charges
Royalties income
Sales or transfers to related businesses or to overseas branches of this business
Export sales of goods (f.o.b.)
Export sales of services
Excludes
Government Grants
Donations
Interest Income
Sales tax, excise and duties received (on behalf of Government)
Sales of fixed tangible assets
Export freight charges

9 The sample size of the expanded survey consists of approximately 10,000 private sector businesses of which approximately 5,000 are in service industries. For more information on the survey methodology and the conduct of the survey please refer to the Explanatory Notes on pages 17 and 18.

10 The experimental estimates on income from the sales of goods and services are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate. The following table shows the standard errors for national quarterly level estimates of total income from sales of goods and services. These are based on a smoothed average of standard errors over a number of quarters. For more information on how to interpret standard errors refer to the section on "Standard Errors" on page 21.

## STANDARD ERROR ON INCOME FROM SALES OF GOODS AND SERVICES, by industry

|  | Standard error |
| :---: | :---: |
| Industry | \$m |
| Motor vehicle retailing and services | 117 |
| Accommodation | 100 |
| Transport and storage | 832 |
| Communication services | 84 |
| Property and business services | 797 |
| Cultural and recreational services | 455 |
| Personal services | 46 |
| Total selected industries | 1251 |

## APPENDIX EXPERIMENTAL ESTIMATES, SERVICE INDUSTRIES

11 Users should treat the following estimates with caution. They are experimental at this stage and further analysis is required to ensure that they are robust and reliable indicators for measuring income in the selected services industries over time.

12 The estimates below are provided in current price original terms only. As at least five years of data are required to discern a seasonal pattern, estimates of income from sales of goods and services are not currently available on a seasonally adjusted or trend basis. It is expected that chain volume measures for these services industries will be available in 2001. It is expected that data will eventually be available at State level and at a finer industry level.

13 From September quarter 1999, estimates from the Manufacturing and the Wholesale Trade industries have been included to provide a wider view of the economy.

14 If you have any comments on the usefulness, presentation or possible application of these estimates, please contact Stephen Butcher on (02) 92684241.

INCOME FROM SALES OF GOODS AND SERVICES—Current prices


|  | ORGINAL ESTIMATES (\$million) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998-1999 |  |  |  |  |  |  |  |  |  |  |
| March | n.a. | n.a. | 12573 | 1540 | 11682 | 2421 | 22051 | 4452 | 756 | n.a. |
| June | n.a. | n.a. | 12954 | 1610 | 12039 | 2518 | 23122 | 4745 | 858 | n.a. |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | 57334 | 51408 | 13230 | 1664 | 13380 | 2432 | 26458 | 5240 | 1006 | 172153 |
| December | 61798 | 54735 | 13557 | 1777 | 14202 | 2698 | 24677 | 4985 | 1002 | 179431 |
| March | 57893 | 51980 | 13802 | 1781 | 13747 | 2816 | 23987 | 5011 | 1000 | 172017 |
| June | 62346 | 56566 | 13833 | 1828 | 14444 | 2938 | 26247 | 5322 | 938 | 184462 |


| 1998-1999 | CHANGE FROM PREVIOUS QUARTER (\%) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| June | n.a. | n.a. | 3.0 | 4.5 | 3.1 | 4.0 | 4.9 | 6.6 | 13.5 | n.a. |
| 1999-2000 |  |  |  |  |  |  |  |  |  |  |
| September | n.a. | n.a. | 2.1 | 3.4 | 11.1 | -3.4 | 14.4 | 10.4 | 17.2 | n.a. |
| December | 7.8 | 6.5 | 2.5 | 6.8 | 6.1 | 10.9 | -6.7 | -4.9 | -0.3 | 4.2 |
| March | -6.3 | -5.0 | 1.8 | 0.2 | -3.2 | 4.4 | -2.8 | 0.5 | -0.2 | -4.1 |
| June | 7.7 | 8.8 | 0.2 | 2.6 | 5.1 | 4.3 | 9.4 | 6.2 | -6.2 | 7.2 |

## EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

TREND REVISIONS
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of inventories owned by private businesses and manufacturers' and wholesalers' sales.

1 The September quarter seasonally adjusted estimate of chain volume measures is higher than the June quarter estimate by the percentage shown.

2 The September quarter seasonally adjusted estimate of chain volume measures is lower than the June quarter estimate by the percentage shown.

The percentages chosen are the long term average movements, without regard to sign, in the seasonally adjusted series.


WHOLESALE TRADE SALES


TREND AS PUBLISHED

|  | PUBLISHED |  |
| :--- | ---: | :---: |
|  |  |  |
|  | \$m | \% change |
| 1999 |  |  |
| September | 51121 | 4.3 |
| December | 52307 | 2.3 |
| 2000 |  |  |
| March | 53316 | 1.9 |
| June | 54067 | 1.4 |
| September | - | - |

WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:

| $\mathbf{1}$ <br> rises by 1.7 <br> $\$ m$ | on Jun 2000 <br> \% change | 2 falls by 1.7 <br> $\$ m$ | on Jun 2000 <br> \% change |
| :--- | :---: | :---: | :---: |
| 50829 | 3.1 | 50829 | 3.1 |
| 52296 | 2.9 | 52442 | 3.2 |
|  |  |  |  |
| 53353 | 2.0 | 53302 | 1.6 |
| 54247 | 1.7 | 53544 | 0.5 |
| 55174 | 1.7 | 53507 | -0.1 |

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[^3]
[^0]:    (a) See paragraph 2 of the Explanatory Notes.

[^1]:    (a) Reference year for chain volume measures is 1998-1999.
    (b) See paragraph 2 of the Explanatory Notes.

[^2]:    (a) Reference year for chain volume measures is 1998-1999.
    (b) See paragraph 2 of the Explanatory Notes.

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