## RETAIL SALES OF GOODS : AUSTRALIA MAY 1976 (PROVISIONAL)

## MAIN FEATURES

NOTE: For various reasons, including those discussed below under Reliability and Seasonal Adjustment, care should be taken not to overemphasise the significance of changes in provisional estimates of retail sales between single months.

This bulletin introduces a new monthly series of retail sales estimates which does not form a continuous series with previously published estimates.

- On this new basis the provisional estimate of the value of retail sales (excluding motor vehicles, parts, petrol, etc.) for May 1976 is $\$ 1,692.0 \mathrm{~m}$.

Seasonally adjusted, the May 1976 estimate is 1.6\% higher than April 1976.

On an approximate basis (the relationship of the old and new series at April 1976) the value of retail sales (seasonally adjusted) for the three months ended May 1976 was $4.6 \%$ higher than the three months ended February 1976.

On the same approximate basis the value of retail sales (seasonally adjusted) in May 1976 was $16.6 \%$ higher than in May 1975.

## EXPLANATORY NOTES

## Introduction

This bulletin introduces a new series of monthly estimates of the value of retail sales. The last period for which estimates were made for the old series was April 1976. The new series is of different scope to the previously published series and so does not form a continuous series with the previous figures. The extent of the difference in scope will be explained in the bulletin containing estimates of retail sales for March quarter 1976 which is to be published shortly. Statistics for the new monthly series are available from April 1976 onwards. The table overleaf contains the new series estimates for April and May 1976 together with figures on the old basis for a number of months up to April 1976 and the percentage changes from the preceding month.
2. Attention is drawn to the fact that the details published for the old series in this bulletin have been revised from those previously published. This revision was made necessary when the latest available check on the growth of new businesses showed that over the period July 1973 to December 1975, the value of retail sales was being progressively underestimated.
3. In the revised series a new method of allowing, on a monthly basis, for new businesses has been adopted. This method has resulted in changed seasonal relationships for some months and this together with a re-analysis of all seasonal adjustment data, has resulted in significant changes to some previously published estimates.

## The Monthly Sub-Sample

4. The provisional monthly estimates of retail sales are obtained from a sub-sample of those establishments included in the quarterly sample of retail establishments. The monthly sub-sample is comparatively small since it is designed to provide prompt estimates of the total value of retail sales (excluding motor vehicles, parts, petrol, etc.) without placing an undue burden on either the resources of the Bureau or upon retail establishments.

## Reliability of Estimates

5. As the provisional monthly estimates are derived from returns received from a sample of retail establishments they may differ somewhat from the results which would have been obtained from a comparable complete collection. A measure of the likely difference is given by the standard error of the estimate. The standard error of the month-to-month movement of the provisional estimates of the value of retail sales is generally about 0.3 per cent of the current monthly estimate. Since the proportionate movement in retail sales between April 1976 and May 1976 is 3.9 per cent and this has a standard error of 0.3 percentage points, this means that there are two chances in three that the true proportionate movement (as measured by a complete collection) was between 3.6 per cent and 4.2 per cent and nineteen chances in twenty that it was between 3.3 per cent and 4.5 per cent.
6. Estimates of retail sales are also subject to non-sampling errors. The major source of such possible error is the necessity to make forward estimates for every period to take account of the probable commencement of new retail businesses. These estimates can only be projected forward on the basis of past information obtained at regular annual intervals by new business censuses. However this information is of necessity approximately $11 / 2$ to 2 years out of date before the total estimates of retail sales can finally be adjusted and the adequacy of new business provisions assessed. The difficulty of making proper allowance for the value of retail sales of new businesses is increased in a period of substantial price increases.

## Seasonal Adjustment

7. Seasonally adjusted statistics are also shown in the table overleaf. In the seasonal adjustment, account has been taken of both normal seasonal factors and "trading-day" effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month). While the normal seasonal factors should change only
gradually from year to year the trading-day adjustment for any month will vary from year to year in accordance with the combination of days which occur in the month. Adjustment has also been made for the effects of movement in the date of Easter and Australia Day. It should be noted that the seasonally adjusted figures still reflect the sampling and non-sampling errors to which the original figures are subject and do not remove random influences (e.g. abnormal weather, strikes). Details of the methods used in seasonally adjusting this and other series are given in Seasonally Adjusted

Indicators 1976 (Reference No. 1.10)) and the appendix to Retail Sales of Goods (Reference No. 11.4) December quarter 1975 of 3 May 1976.

## Further Information

8. For further information redating to the-basis of compilation of retail sales statistics see the quarterly bulletin Retail Sales of Goods (Reference No. 11.4) December quarter 1975 of 3 May 1976.

TOTAL VALUE OF RETAIL SALES OF GOODS
(EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) MONTHLY ESTIMATES : AUSTRALIA (a)(b)

|  | 1973-74 | 1974.75 | 1975-76 |  | $1973-74$ | 1974-75 | 1975-76 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ million |  |  |  | Percentage change from preceding month |  |  |  |
|  | (c) | (c) | (c) | (d) | (c) | (c) | (c) | (d) |
| ORIGINAL |  |  |  |  |  |  |  |  |
| July | 1,021.1 | 1,278.6 | 1,484.4 |  | -1.1 | 5.7 | 5.7 |  |
| August | 1,111.0 | 1,334.8 | 1,494.3 |  | 8.8 | 4.4 | 0.7 |  |
| September | 1,063.9 | 1,273.3 | 1,512.1 |  | -4.2 | $-4.6$ | 1.2 |  |
| October | 1,163.7 | 1,379.9 | 1,644.2 |  | 9.4 | 8.4 | 8.7 |  |
| November | 1,239.4 | 1,429.4 | 1,637.3 |  | 6.5 | 3.6 | -0.4 |  |
| December | 1,495.5 | 1,756.5 | 2,149.1 |  | 20.7 | 22.9 | 31.3 |  |
| January | 1,157.3 | 1,354.6 | 1,576.1 |  | -22.6 | -22.9 | -26.7 |  |
| February | 1,087.4 | 1,263.6 | 1,486.5 |  | -6.0 | $-6.7$ | -5.7 |  |
| March | 1,177.6 | 1,354.1 | 1,645.9 |  | 8.3 | 7.2 | 10.7 |  |
| April | 1,214.7 | 1,442.0 | 1,674.6 | (e) $1,628.0$ | 3.2 | 6.5 | 1.7 |  |
| May | 1,341.1 | 1,548.0 |  | (e) $1,692.0$ | 10.4 | 7.4 |  | 3.9 |
| June | 1,209.4 | 1,404.2 |  |  | -9.8 | -9.3 |  |  |
| Total for years | 14,282.1 | 16,819.0 |  |  |  |  |  |  |
| SEASONALLY ADJUSTED (f) |  |  |  |  |  |  |  |  |
| July | 1,082.5 | 1,325.9 | 1,533.2 |  | 0.5 | 1.7 | 1.7 |  |
| August | 1,114.2 | 1,341.3 | 1,537.8 |  | 2.9 | 1.2 | 0.3 |  |
| September | 1,127.7 | 1,344.6 | 1,567.9 |  | 1.2 | 0.3 | 2.0 |  |
| October | 1,149.6 | 1,358.0 | 1,593.6 |  | 1.9 | 1.0 | 1.6 |  |
| November | 1,172.1 | 1,362.1 | 1,614.8 |  | 2.0 | 0.3 | 1.3 |  |
| December | 1,153.9 | 1,356.4 | 1,625.6 |  | -1.5 | -0.4 | 0.7 |  |
| January | 1,217.0 | 1,404.0 | 1,639.0 |  | 5.5 | 3.5 | 0.8 |  |
| February | 1,229.5 | 1,429.5 | 1,657.9 |  | 1.0 | 1.8 | 1.2 |  |
| March | 1,235.3 | 1,449.5 | 1,712.6 |  | 0.5 | 1.4 | 3.3 |  |
| April | 1,263.2 | 1,486.7 | 1,705.2 | (e) $1,658.0$ | 2.3 | 2.6 | -0.4 |  |
| May | 1,282.2 | 1,485.2 |  | (e) $1,684.0$ | 1.5 | -0.1 |  | 1.6 |
| June | 1,304.1 | 1,508.1 |  |  | 1.7 | 1.5 |  |  |

(a) Excludes Northern Territory and Australian Capital Territory. (b) Figures from April 1975 are subject to revision when more precise information is available relating to trading by new businesses. (c) Based on 1968-69 Census. (d) Based on 1973-74 Census. (e) Provisional estimate. (f) See paragraph 7, page 1.

Notes on sampling aspects and on seasonal adjustment are shown overleaf.

## Australian Bureau of Statistics

Belconnen. A.C.T. 2616

R. W. COLE<br>Australian Statistician

NOTE: Inquiries concerning these statistics may be made in Canberra by telephoning Mr Jack Brzozowski on 525649 or, in each State capital, by telephoning the office of the Australian Bureau of Statistics.

