## RETAIL SALES OF GOODS : AUSTRALIA MONTH OF DECEMBER 1971 (PROVISIONAL)

Referenae No. 11.6

A provisional estimate of the total value of retail sales in Australia (excluding motor wehicles, parts, petrol, etc.) for the month of Qicember 1971 is shown in the table overleaf. figurets for some earlier months are also shown for purposes of comparison,
2. $\quad$ The provisional monthly estimates of retall sales are obtalned from a sub-sample of establishments used to provide quarterly estimates of the value of retail sales. The monthly subrsample is comparatively small since It is designed to provide prompt estimates of the total value of retail salesi lexcluding motor vehicles, parts, petrol, etc.) withert placing an undue burden on elther the resources of the Bureau or upon retail establishments.
3. As the provisional monthly éstimates are derived from returns recelved 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. There are about 2 chances in 3 that a sample estimate wili differ from results which would be obtalned, from a comparable complete collection by less than 1 standard error and 19 chances in 20 that the difference would be less than 2 standard errors. If, for example, a sample gives an estimate of $\$ 500$ million and the standard error of this estimate is i per cent, $i, e . \$ 5 \mathrm{million}$, then there are 2 chances in 3 that a comparable complete collection would give a figure within the range of $\$ 495$ million to $\$ 505 \mathrm{million}$ and 19 chances in 20 that the figure would be within the range of $\$ 490$ mililion to $\$ 510$ mililion.
4. The standard error of the provisional estimates of the total value of monthly retail sales lexcluding motor vehicles, parts, petrol, etc.) is about 1.0 per cent. 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. For example, the movement in the value of retail sales between the months of November and December 1971 is shown by the original series in the table overleaf as an increase of $\$ 236.0 \mathrm{million}$. : The standard error of this movement is about 0,3 per cent of the Décember 1971 estimate, i.e, approximately 3.3. million. Therefore, there are 2 chances in 3 that the movement in the value of retail sales between November and December 1971 was between $\$ 232.7$ million and $\$ 239.3$ million and 19 chances in 20 that it was between $\$ 229.4$ million and $\$ 242.6 \mathrm{million}$. Expressed in another way, the estimates show a proportionate movement in the value of retall sales between November and December 1971 of 27,8 per cent and this has a standard error of about 0.3 percentage points, $i_{2} e .$, there are 2 chances in 3 that the proportionate movement was between 27.5 per cent and 28.1 per cent and 19 chances in 20 that it was between 27.2 per cent and 28.4 per cent.
5. The provisional monthly estimates may also differ from those which would be obtained from a sample as large as that used to provide quarterly estimates. Hence, the sum of the provisional estimates for the three months comprising a quarter may differ from the estimate obtained for that quarter from the full quarterly sample. The standard error of this difference is approximately 0.8 per cent of the quarteroly estimate. The monthly estimates are subsequently adjusted in accordance with the preliminary and final quarterly estimates as they become available.
6. 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. However, as the series has been complied only since April 1961 these ad justments are based necessarily on limited.data and could be subject to revision when data for further years become avaliable. it should be noted that the seasonally adjusted figures reflect the sampling errors to which the original figures are subject. Detalls of the methods used in seasonally adjusting this and other series are given in "Seasonally Adjusted Indicators 1971" (Reference No. 1, 10) of 2 July 1971.

All figures in this bulletin are on a basis comparable with the 1961-62 Retail Census. Further information relating to the basis on which the statistics of retail sales of goods are compiled is contained in the quarterly bulletin "Retall Sales of Goods" (Reference No. 11.4) September quarter 1971 of 6 January 1972.
2.

TOTAL VALUE OF RETAIL SALES OF GOODS
(EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.)
MONTHLY ESTIMATES: AUSTRALIA (a) (b)
(All figures are on a basis comparable with the 1961-62 Retail Census)
(\$ million)

| Month | $1967-68$ | $1968-69$ | $1969-70$ | $1970-71$ | $1971-72$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Original |  |  |  |  |  |
| July | 578.6 | 622.8 | 668.9 | 723.8 | 783.7 |
| August | 601.9 | 644.7 | 672.9 | 707.5 | 766.8 |
| September | 609.0 | 603.1 | 668.6 | 718.6 | 783.7 |
| October | 614.1 | 662.2 | 722.4 | 781.0 | (e) 818.0 |
| November | 656.4 | 694.3 | 712.8 | 770.8 | $(\mathrm{c}) 849.0$ |
| December | 825.0 | 866.0 | 955.0 | $1,018.9$ | $(\mathrm{c}) 1,085.0$ |
| January | 595.0 | 650.9 | 698.6 | 728.5 |  |
| February | 584.4 | 595.8 | 649.9 | 683.2 |  |
| March | 605.1 | 645.9 | 681.4 | 758.7 |  |
| April | 604.7 | 644.0 | 706.3 | 767.3 |  |
| May | 666.5 | 708.4 | 749.2 | 796.1 |  |
| June | 593.0 | 643.0 | 696.0 | 757.5 |  |
| Total for year | $7,533.7$ | $7,981.1$ | $8,582.0$ | $9,211.9$ |  |

Seasonally adjusted (d)

| July | 612.3 | 646.2 | 691.7 | 738.1 | 801.1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| August | 614.6 | 651.0 | 696.0 | 742.0 | 804.2 |
| September | 623.7 | 639.5 | 696.5 | 748.2 | 811.9 |
| October | 623.0 | 655.0 | 704.3 | 763.0 | (c) 818.1 |
| November | 627.7 | 658.9 | 699.9 | 756.1 | (c) 817.0 |
| December | 624.9 | 664.0 | 716.3 | 760.6 | (c) 798.2 |
| January | 625.8 | 670.9 | 720.9 | 763.8 |  |
| February | 628.5 | 667.7 | 729.3 | 772.5 |  |
| March | 632.3 | 683.3 | 725.9 | 785.0 |  |
| April | 634.9 | 675.8 | 731.7 | 791.6 |  |
| May | 639.3 | 680.8 | 737.1 | 794.1 |  |
| June | 641.5 | 694.9 | 737.9 | 802.1 |  |

(a) Excludes Northern Territory and Australian Capital Territory. (b) Figures from April 1970 are subject to revision when more precise information is available relating to trading by new businesses. (c) Provisional estimate (see paragraphs 2 to 5, page 1). (d) See paragraph 6, page 1.

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NOTE. Inquiries concerning these statistics may be made in Canberra by telephoning 490211 extension 293 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.

