

# **AUSTRALIAN BUREAU OF STATISTIC**

## CANBERRA

**CATALOGUE NO. 8501.0** 

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 $\$^{8}$  Retail sales of goods (excluding motor vehicles, parts, petrol, etc.),

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PHONE INQUIRIES for more information about these statistics—contact Mr Jack Brzozowski on Canberra

(062) 52 5634 or any of our State offices.

other inquiries including copies of publications—contact Information Services on Canberra

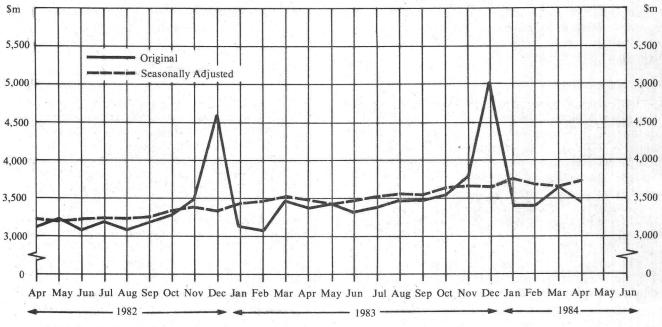
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#### MAIN FEATURES

#### TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.), MONTHLY ESTIMATES, AUSTRALIA(a) \$ MILLION



(a) Excluding Northern Territory

Note: Care should be taken not to overemphasise the significance of changes in estimates of retail sales between single months. Survey estimates are subject to sampling and non-sampling variability as explained in paragraphs 8 to 12 below. Particular attention is directed to paragraphs 11 and 12 concerning interpretation of the seasonally adjusted estimates.

The estimated value of retail sales in Australia (excluding sales of motor vehicles, parts, petrol, etc.,) for April 1984 is \$3,467.0m, 5.0 per cent lower than for March 1984.

After adjustment for seasonal fluctuations and the number of trading days, the estimate for April 1984 is 1.9 per cent higher than that for March 1984, which in turn was 1.0 per cent lower than that for February 1984. Not much significance should be attached to such variations in single month movements.

The seasonally adjusted value of retail sales for the three months ended April 1984 was 0.3 per cent higher than for the corresponding period ended January 1984, and 5.6 per cent higher than for the three months ended April 1983.

#### **EXPLANATORY NOTES**

#### Introduction

This publication presents a series of monthly estimates of the value of retail sales based on the 1979-80 retail census results. April 1982 was the last month for which estimates were made as part of the previous series (based on 1973-74 retail census results). The new series has been seasonally adjusted using factors derived from the old series, on the presumption that the seasonal and other forms of calendar variation in the two series are expected to be similar.

- 2. In addition to total estimates for Australia this publication provides statistics of the value of retail sales classified by broad industry for each State and Australia. It will not be possible to publish seasonally adjusted figures classified by State and industry until estimates on this basis are available for at least four years.
- 3. A quarterly series providing estimates for the value of retail sales for Australia and States classified by commodity groups is published in Catalogue No. 8503.0. Analysis of the quarterly commodity data may lead to revisions in the monthly industry series. For this reason the monthly figures which relate to periods subsequent to the latest quarterly release should be regarded as preliminary.

#### Scope and coverage

- 4. All establishments classified to subdivison 48 of the Australian Standard Industrial Classification, 1978 Edition (ASIC) except motor establishments (ASIC classes 4861-4868), bread and milk vendors (4878-4879), footwear repairers (4846) and electrical appliance repairers n.e.c. (4857) are included in the scope of the survey. Also included are establishments classified to cafes and restaurants (9231), hotels, etc. (mainly drinking places) (9232), licensed clubs (9241-9243) and hairdressers (9351-9352).
- 5. The scope of the survey includes establishments in all States and the Australian Capital Territory but excludes those in the Northern Territory.
- 6. The survey is based on a random sample of retail and service establishments within the scope of the survey as defined above. From the data reported by the sampled establishments aggregates comprising all retail sales in Australia (excluding Northern Territory) are estimated.

#### Retail industry statistics

7. Details of the value of retail sales are available for 15 retail industries. Retail industries consist of individual ASIC classes or combinations of ASIC classes. The ASIC classes which make up each retail industry were described in the May 1982 issue of this publication.

#### Reliability of estimates

8. Since the estimates are based on information obtained from a sample survey of retail establishments, the estimates of levels and movements are subject to

sampling variability; that is, they may differ from the figures that would have been produced if all units had been included in the survey. One measure of the likely difference is given by the standard error which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all units had been included, and about nineteen chances in twenty that the difference will be less than two standard errors.

- 9. Standard errors of estimates for the latest month and of estimates of movement since the previous month are shown in the tables. Examples of the use of these standard errors are given below:
  - (a) The estimate of \$3,467.0 million for the total value of retail sales of goods in April 1984 has a standard error of about \$21.6 million. Therefore there are two chances in three that the figure which would have been obtained if all establishments had been included in the survey would be within the range \$3,445.4 million to \$3,488.6 million and nineteen chances in twenty that the figure would be within \$3,423.8 million to \$3,510.2 million.
  - (b) The estimated decrease of \$182.0 million (5.0 per cent) in the total value of retail sales of goods between March 1984 and April 1984 has a standard error of about \$20.4 million (0.6 per cent). Therefore there are two chances in three that the decrease which would have been obtained if all establishments had been included in the survey would be within the range \$161.6 million to \$202.4 million (4.4 per cent to 5.6 per cent) and nineteen chances in twenty that the decrease would be within \$141.2 million to \$222.8 million (3.8 per cent to 6.2 per cent).
- 10. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and errors made in collection and processing of data. Inaccuracies of this kind are referred to as the non-sampling error and they may occur in any collection, whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of forms, editing of data and efficient operating procedures.

#### Seasonal adjustment

11. Seasonally adjusted statistics are shown in Table 1. In the seasonal adjustment of the estimates, 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 holidays. It should be noted that the technique of seasonal adjustment does not remove from the series the effect of irregular influences (e.g. abnormal weather, industrial disputes) and that the seasonally adjusted figures still reflect the sampling and non-sampling errors to which the original figures are subject. Details of the methods used in seasonally adjusting this and other series are given in Seasonally Adjusted Indicators, Australia (1308.0).

12. The seasonally adjusted retail sales series is substantially influenced by the trading day adjustments that are made prior to the seasonal analysis. Following the substantial changes that have taken place in trading patterns in the retail industry over the past few years, the appropriate trading day 'weights' which should be applied in the adjustment process are being re-examined. The effects of changes in trading patterns are most pronounced in months where seasonal influences are greatest, such as December and January. For example, retail sales are estimated to have increased by 33.1 per cent in December 1983 and to have decreased by 32.6 per cent in January 1984. It is evident from Table 1 below that a very high proportion of this month to month change is seasonal in nature, so that a small degree of uncertainty about how much of the change is seasonal (including trading day effects) makes a large difference to the residual—which is the estimate of the trend plus irregular movement. For this and other reasons outlined in paragraph 11, particular care should be exercised in interpreting monthly movements based on the seasonally adjusted estimates.

#### Related publications

- 13. Other statistics compiled from the retail surveys are published quarterly in *Retail Sales of Goods, Australia* (8503.0).
- 14. Current publications produced by the ABS are listed in the Catalogue of Publications, Australia (1101.0). The ABS also issues, on Tuesdays and Fridays, a Publications Advice (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

### Symbols and other usages

- n.p. Not available for publication but included in totals
  - .. not applicable

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

R. J. CAMERON
Australian Statistician

TABLE 1. TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC). MONTHLY ESTIMATES, AUSTRALIA(a)

		Original	Seaso	nally adjusted
Month	\$ <i>m</i>	% change from preceding month	\$ <i>m</i>	% change from preceding month
1983—				
January	3,133.3	-31.8	3,433.0	3.6
February	3,080.8	-1.6	3,482.3	1.4
March	3,473.1	12.7	3,524.5	1.2
April	3,363.8	-3.1	3,476.6	-1.4
May	3,417.3	1.6	3,415.8	-1.7
June	3,314.6	-3.0	3,459.8	1.3
July	3,360.6	1.4	3,520.9	1.8
August	3,455.2	2.8	3,534.8	0.4
September	3,484.5	0.8	3,542.7	0.2
October	3,522.7	1.1	3,637.4	2.7
November	3,780.6	7.3	3,661.0	0.6
December	5,033.6	33.1	3,650.7	-0.3
1984—				
January	3,395.1	-32.6	3,725.4	2.0
February	3,396.8	0.1	3,690.2	-0.9
March	3,649.0	7.4	3,654.3	-1.0
April	3,467.0	-5.0	3,723.5	1.9
Standard error(b) of—				
April 1984	21.6			
March 1984—				
April 1984 movement	20.4	0.6		

<sup>(</sup>a) Excluding Northern Territory. (b) See paragraphs 9 and 10.

TABLE 2. TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) MONTHLY ESTIMATES BY INDUSTRY, AUSTRALIA(a), STATES AND AUSTRALIAN CAPITAL TERRITORY (\$ million)

						H e)	million)						10000000			
Month	Grocers, confect- ioners, tobacc-	Butchers	General	Other food stores	Hotels, liquor stores, licensed clubs	Clothiers	Dept.	Foot- wear stores	Hard- E ware stores	Electrical goods Fi stores	Furniture co	Floor coverings stores C	Chemists	News-	Other	Total
						AUSTI	AUSTRALIA(a)									
1983— January February February March April May June July August September October	987.0 1,024.3 1,111.3 1,066.9 1,063.3 1,063.3 1,076.4 1,118.8 1,118.8 1,118.8	116.1 123.3.7 125.8.8 127.7 127.3 126.4 126.4	32.8 33.1.1 37.0 37.0 37.0 37.0 37.0 37.0 37.0 37.0	234.3 210.6 210.6 203.3 203.3 200.6 212.7 212.8 220.1 212.8	4118.3 398.5 398.5 398.5 396.5 406.7 414.3 441.3 441.3	260.6 236.5 336.4 338.5 341.4 312.9 327.9 327.9 350.8	281.9 376.7 376.7 376.7 376.7 376.7 479.7	2.44.2 6.52.8 6.93.9 6.93.9 6.63.9 6.	81.0 77.0 77.0 77.0 77.0 77.0 77.0 77.0 7	181.3 224.7 202.2 217.5 207.4 207.4 209.9 219.9	843 78.0 97.9 90.7 90.7 90.5 90.5 90.5 90.5	2000 2000 2000 2000 2000 2000 2000 200	126.4 130.2 130.2 130.2 130.2 145.0 145.0 145.0 145.0 145.0	1123.9 1026.4 1035.4 1035.5 1133.8 1233.9 1233.9 1233.9	138.7 136.5 136.5 131.7 123.5 123.5 141.2 141.2 141.2	3,3,4,3,0,3,3,3,3,3,3,4,3,3,3,4,3,3,3,4,3,3,3,3
December	1,377.9		64.3	247.6	576.8	507.7	737.3	74.2	211.0	347.4	111.9	41.5	192.3	162.6	232.6	5,033.
1964— January February March April	1,096.8 1,128.4 1,162.0 1,130.2	115.0 119.1 124.8 120.8	33.7 33.1 36.6 37.6	242.3 226.7 237.3 224.2	435.7 413.1 435.8 408.9	279.8 271.9 343.6 326.8	309.7 311.0 364.6 367.0	62.0 52.7 63.6 68.4	89.8 88.0 97.4 84.6	198.7 204.7 214.4 184.0	91.1 96.4 99.2 79.1	33.8 37.0 43.7 31.9	143.0 140.5 148.9 135.6	124.1 141.3 131.9 124.6	139.6 132.9 145.0 143.5	3,395.1 3,396.8 3,649.0 3,467.0
Standard Error— Level(b) Movement(c)	5.8	4.9 3.5	0.3	6.2	7.4	7.0	0.0	4.2	5.6	5.1	4.2	3.4	3.0	3.4	6.3	21.6
	,					NEW SOUTH	JTH WALE	ES								
1983— October November December	355.4 365.3 436.5	51.7 50.9 63.6	11.0	82.5 85.0 92.1	154.8 158.3 196.8	108.7 123.0 174.3	153.4 178.7 309.7	18.9 19.1 25.1	38.3 45.9 89.2	72.3 85.8 119.9	29.6 32.0 40.6	11.7 12.8 15.1	65.7 67.9 84.9	51.0 52.5 63.1	51.1 57.1 75.4	1,256.1 1,345.6 1,805.9
1984— January February March April	335.9 347.3 358.0 346.0	47.9 49.3 51.5 48.6	8.1 9.2 10.6 10.9	101.1 92.8 97.7 91.7	167.9 160.0 167.4 156.5	92.5 93.1 125.2 112.7	109.9 126.0 148.4 143.1	21.6 18.3 22.9 24.6	33.1 30.9 34.8 30.1	60.6 65.9 67.3 56.0	33.2 36.2 32.2 26.5	9.4 10.7 12.9 10.7	65.6 62.3 68.2 59.2	49.6 66.4 55.2 49.2	48.9 47.1 51.8 56.6	1,185.3 1,215.5 1,304.1 1,222.3
Standard Error— Level(b) Movement(c)	3.8	3.1	0.2	3.8	5.7	5.9	0.0	4.0	4.2	4.0	3.0	2.0	3.1	3.1	4.7	15.9
														15.30		

For footnotes see end of table.

TABLE 2. TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.)
MONTHLY ESTIMATES BY INDUSTRY, AUSTRALIA(a), STATES AND AUSTRALIAN CAPITAL TERRITORY—continued
(\$ million)

		12.5					(4)	mmom)						1			
Мопін		Grocers, confect- ioners, tobacc- onists	Butchers	General	Other food stores	Hotels, liquor stores, licensed clubs	Clothiers	Dept.	Foot- wear stores	Hard- E ware stores	Electrical goods Fi	ctrical Floor goods Furniture coverings stores stores stores		Chemists	News- agents	Other	Total
							VIC	VICTORIA									
1983— October November December		329.7 353.8 396.2	32.8 34.0 39.6	8.9 9.9 15.8	53.3 55.2 65.9	104.9 109.7 154.2	104.8 113.5 168.4	73.1 85.3 153.4	17.4 16.1 23.2	29.0 35.7 65.1	62.2 66.4 98.1	20.9 23.8 26.9	10.6 10.8 10.1	33.9 36.1 50.4	30.6 31.8 42.3	40.6 43.1 64.8	952.9 1,025.3 1,374.4
1984— Jannary February March April		320.4 332.3 334.0 335.2	30.2 29.9 31.3 32.1	9.1 9.5 9.3 9.3	56.0 56.3 58.6 56.2	100.9 94.2 99.9 92.7	94.6 90.4 113.2 109.9	73.1 66.6 79.9 79.5	18.7 16.5 18.6 19.7	29.9 31.2 32.7 27.9	58.0 56.4 61.1 51.8	26.1 27.4 31.9 23.7	10.6 11.4 14.2 8.3	30.0 31.8 32.1 31.2	30.0 31.5 32.2 35.5	40.3 40.3 42.6 39.7	927.9 924.8 991.8 952.7
Standard Error— Level(b) Movement(c)		3.8	2.8	0.0	3.5	3.4	3.9	0.0	0.7	2.7	2.2	5.4	0.9	2.3	2.8	3.0	11.3
	*						QUEE	QUEENSLAND									
1983— October November December		179.9 189.0 214.3	19.1 18.7 21.6	6.4 7.0 11.4	34.6 34.6 40.6	83.1 83.7 107.9	41.1 46.9 63.2	49.9 58.7 100.9	8.2 8.2 9.9	11.3 13.0 28.9	34.8 41.3 57.6	16.9 17.6 19.9	6.5.9 6.8.8	17.9 18.8 21.1	17.9 20.0 26.0	23.0 26.4 37.6	550.3 589.5 766.9
1984— January February March April		182.7 179.3 191.2 181.7	17.2 19.1 20.0 19.9	6.78 6.78 6.79	37.4 32.8 34.4 34.0	77.2 71.1 77.8 76.2	38.0 33.6 38.1 40.5	50.5 40.8 47.4 53.3	9.5.4.8 8.4.5.4.8	12.4 11.1 15.5 10.2	35.7 36.9 36.6 33.3	12.2 11.9 13.8 11.7	8.4.8 8.6.9 9.9.9	19.5 18.7 20.0 18.2	21.9 20.1 20.5 18.7	22.8 18.8 21.5 21.0	548.2 511.5 556.7 538.8
Standard Error— Level(b) Movement(c)		2.6	2.3	0.0	2.8	2.6	2.3	0.0	0.8	4.2	1.5	1.0	1.0	1.8	1.1	2.5	7.3
							SOUTH A	AUSTRALIA	(A								
1983— October November December		105.8 110.5 131.9	9.6 9.2 10.3	5.0 5.2 7.5	16.5 16.6 20.2	31.2 32.5 43.9	25.6 28.0 39.9	38.8 48.5 73.4	444 458	5.0 5.9 10.7	18.6 22.0 30.0	9.0 10.1 10.5	6.3 5.3 5.6	12.1 12.0 14.1	6.7	12.1 13.2 19.9	305.6 330.4 433.1
1984— January February March April		103.5 104.9 111.2 105.2	9.1 9.7 9.8 9.0	4444 7.2.7.6.	19.2 17.6 17.9 16.1	32.4 30.1 32.4 29.8	21.5 21.5 26.5 25.9	34.1 34.6 39.7 39.6	3.8 5.7 6.5	8.8.8.8 6.4.2.2	18.1 17.6 20.2 15.9	2.9 4.8 4.4 7.0	8.44.6. 8.6.00.	12.2 11.9 12.2 12.1	6.9 4.7 6.6 6.6	10.4 9.8 10.8 10.3	293.3 291.6 317.6 297.2
Standard Error— Level(b) Movement(c)		1.4 0.7	0.5	0.0	1.1	1.3	1.2	0.0	0.7	0.9	1.1	1.0	0.7	0.8	0.5	1.0	3.7
							For footnotes see end of table.	see end of t	able.								

TABLE 2. TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) MONTHLY ESTIMATES BY INDUSTRY, AUSTRALIA(a), STATES AND AUSTRALIAN CAPITAL TERRITORY—continued (\$ million)

Month	Grocers, confect- ioners, tobacc-	Butchers	General	Other food stores	Hotels, liquor stores, licensed clubs C	Clothiers	Dept. stores	Foot- wear stores	Hard- Electrical ware goods stores stores	lectrical goods Fun stores	ctrical Floor goods Furniture coverings stores stores stores	60	Chemists	News-agents	Other	Total
		٥		B 2	W	WESTERN A	AUSTRALIA	LIA					84	3,		
1983— October November December	111.3 114.1 135.5	88.3 8.3 8.3	4.9 5.7 7.5	15.8 15.9 18.0	40.6 41.4 52.8	25.4 27.2 42.4	29.1 34.8 56.3	5.9 5.8 7.4	5.2 6.2 10.5	18.1 21.1 27.1	6.3 6.6 7.9	3.0 3.0 3.2	11.0 11.4 14.5	7.2 7.8 11.6	11.2 13.1 20.9	303.4 322.4 423.8
1984— January February March April	107.1 114.3 115.8 112.4	6.3 7.0 6.5	8.8.4.4. 9.8.4.4.	19.1 18.0 19.1 17.6	41.5 42.4 42.1 38.0	22.6 22.6 27.0 23.5	25.2 24.8 28.2 29.0	5.7 5.0 5.5 5.7	5.9 6.7 8.6 8.6	18.3 18.7 19.2 17.3	7.5 8.2 7.9 6.0	8.2.2.2 8.7.7.4	10.9 11.0 11.5 10.4	9.6 9.8 9.3 7.8	10.7 10.2 10.4 9.5	297.5 304.5 316.7 300.3
Standard Error— Level(b) Movement(c)	1.5	0.6	0.0	1.3	1.2 0.8	0.8	0.0	0.0	1.7	0.8	0.6	0.4	0.6	0.7	6.0	3.6
		\$ D	V. 1			TASM	TASMANIA	9							i is	
1983— October November December	31.8 33.5 39.0	3.5 4.3 4.3	n.p. n.p. n.p.	4.4.4 7.4	10.7 10.7 15.3	7.2 7.7 13.1	9.6 12.1 23.5	1.6 1.8 2.3	1.7 1.7 3.4	4.1 5.3 8.7	2.9 3.4 3.9	<u> </u>	3.1 4.3	3.3.1 1.8.7.4	n.p. n.p.	90.5 97.9 135.9
1984— January February March April	31.5 32.2 33.3 31.4	3.4.8 4.2.8 7.7.		4.4.4.5. 3.8.0 8.8.0	11.1 10.6 11.5	6.5 6.7 8.1 8.6	9.8 9.8 11.1 11.0	1.6 2.1 2.3	4.2.2.E.	4444 6682	2.5 2.7 3.1 2.8	12.8.2	3.0 3.0 2.8 2.8	www. 4.2.2.5	n n n n n n n n	88.8 90.6 97.4 91.9
Standard Error— Level(b) Movement(c)	0.4	0.4		0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3		1.0
5 //		a.	3		AUSTRALIAN	LIAN CAI	PITAL TE	CAPITAL TERRITORY	Y							
1983— October November December	18.8 19.4 24.6	1.3	n.p. n.p. n.p.	5.8 5.6 6.1	4.8 5.2 5.9	4.3	10.1 11.5 20.1	1.0	1.5	4.2 4.6 5.9	1.6 2.2 2.2	0.6 0.6 0.5	32.0	3.0	n.p. n.p.	64.0 69.5 93.7
1984— January February March April	15.7 18.2 18.4 18.4	0.9 1.0 1.0 0.9		5.2 5.2 5.5 4.7	4.4.4. 8.7.7.8.	4.1 4.1 5.5 6.6	7.1 8.2 9.9 11.6	1.0 0.9 1.2 1.3	25.55	6.4.8.8. 4.8.6.4.	1.7 1.6 1.9 7.1	0.6 0.9 0.9	1.8 1.9 7.1	2.7 3.0 2.7 2.7	n.p. p.p. p.	54.1 58.3 64.7 63.9
Standard Error— Level(b) Movement(c)	0.7 0.2 0.1	0.2		0.9	0.5	0.6	0.0	0.1	0.1	0.9	0.3	0.0	0.1	0.3	::	8:-:

(a) Excludes Northern Territory. (b) The standard error of the estimate for the current month—see paragraphs 9 and 10 of Explanatory notes. (c) The standard error of the movement between the current and previous month—see paragraphs 9 and 10 of Explanatory notes.