

# **AUSTRALIAN BUREAU OF STATISTICS**

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RETAIL SALES OF GOODS EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.), OCTOBER 1983

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MAIL INQUIRIES

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#### 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 estimates of retail sales between single months.

The estimated value of retail sales in Australia (excluding sales of motor vehicles, parts, petrol, etc.) for October 1983 is \$3,522.7m, 1.0 per cent higher than for September 1983.

Seasonally adjusted, the October 1983 estimate is \$3,637.4m which is 2.6 per cent higher than for September 1983 and 8.8 per cent higher than for October 1982.

The value of retail sales (seasonally adjusted) for the three months ended October 1983 was 3.1 per cent higher than the three months ended July 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.

- 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.
- 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

- All establishments classified to subdivision 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).
- The scope of the survey includes establishments in all States and the Australian Capital Territory but excludes those in the Northern Territory.
- The survey is based on a random sample of retail 6. 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

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

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 \$3,522.7 million for the total value of retail sales of goods in October 1983 has a standard error of about \$29.6 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 \$3,493.1 million to \$3,552.3 million and nineteen chances in twenty that the figure would be within \$3,463.5 million to \$3,581.9 million.
  - (b) The estimated increase of \$35.4 million (1.0 per cent) in the total value of retail sales of goods between September 1983 and October 1983 has a standard error of about \$22.6 million (0.6 per cent). Therefore there are two chances in three that the movement which would have been obtained if all establishments had been included in the survey would be within the range +\$12.8 million to +\$58.0 million (+0.4 per cent to +1.6 per cent) and nineteen chances in twenty that the movement would be within -\$9.8 million to +\$80.6 million (-0.2 per cent to +2.2 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 random 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).

## Related publications

- 12. Other statistics compiled from the retail surveys are published quarterly in *Retail Sales of Goods, Australia* (8503.0).
- 13. 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

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

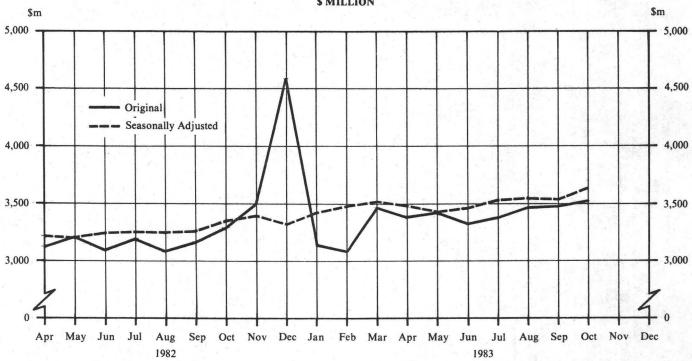


TABLE 1. TOTAL VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC). MONTHLY ESTIMATES, AUSTRALIA(a)

	0	riginal	Seasona	ally adjusted
Month	\$ <i>m</i>	% change from preceding month	\$ <i>m</i>	% change from preceding month
1982—				
August	3,079.9	-3.4	3,241.5	-0.2
September	3,163.0	2.7	3,253.6	0.4
October	3,282.8	3.8	3,344.4	2.8
November	3,494.3	6.4	3,389.3	1.3
December	4,588.8	31.3	3,314.2	-2.2
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	3,375.5	-2.7	3,488.7	-1.0
May	3,417.6	1.2	3,416.1	-2.1
June	3,316.8	-2.9	3,462.1	1.3
July	3,373.4	1.7	3,534.4	2.1
August	3,471.8	2.9	3,551.8	0.5
September	3,487.3	0.4	3,545.5	-0.2
October	3,522.7	1.0	3,637.4	2.6
Standard error(b) of—				
October 1983 September 1983 October 1983	29.6			
movement	22.6	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)

Month	Grocers, confect- ioners, tobacc-	Butchers	General	Other food stores	Hotels, liquor stores, licensed clubs	Clothiers	Dept.	Foot- wear stores	Hard- Electrical ware goods stores stores	lectrical goods Fi stores	ctrical goods Furniture coverings stores stores		Chemists	News- agents	Other	Total
				75		AUSTR	AUSTRALIA(a)					×				
1983— May June July	1,041.6		39.3 37.8 37.5	211.8 200.6 212.1	393.9 386.1 396.1	341.4 313.1 313.4	385.3 346.7 360.7	69.2 59.6 56.8	79.4 73.2 75.1	217.5 210.1 208.5	95.6 90.7 85.0	34.7 34.1 34.4	138.2	114.4 109.5 113.6	130.0 123.5 128.0	3,417.6 3,316.8 3,373.4
August September October	1,113.0 1,104.7 1,132.6	129.2 129.2 126.4	38.6 37.8	219.8 212.9	414.3	328.4 317.1	363.3 364.0	59.0 57.6	85.5 92.2	210.2	93.6 91.0 87.3	36.1 37.8	143.0 143.0 145.8	122.7 119.5	141.3	3,471.8 3,487.3 3,522.7
Standard Error— Level(b) Movement(c)	24.1	4.5	0.3	7.9	12.3	7.8	0.0	1.7	7.2	9.6	3.2	2.1	6.6	5.8	6.7	29.6
						NEW SOUTH WALES	TH WALE	SS				- 27				
1983— September October	333.6 355.4	53.6 51.7	10.6	87.3 82.5	146.9 154.8	119.7	145.8 153.4	19.9	30.8	67.4	29.7	11.11	63.7	54.9 51.0	50.4	1,225.6
Standard Error— Level(b) Movement(c)	22.0	3.4	0.2	4.7	7.1	5.2	0.0	1.3	6.5	8.2	1.9	33	5.5	4.5	2.3	22.2
						VICT	VICTORIA									
1983— September October	325.0 329.7	33.8	9.8 8.9	56.2	102.3	96.9	72.5	15.3	28.8	59.3	22.8	8.8	33.8	30.1	34.4	929.6
Standard Error— Level(b) Movement(c)	4.7	2.4	0.0	4.5 4.5	8.7	5.0	0.0	0.0	2.5	3.8	1.5	1.2	2.7	3.4	3.7	15.7
						QUEEN	QUEENSLAND	160								
1983— September October	181.3	18.0	8.9	32.8	80.0	45.8	57.0 49.9	10.0	11.8	36.6	15.8	5.1	18.3	17.7 17.9	25.0	\$62.2 \$50.3
Standard Error— Level(b) Movement(c)	3.7	1.2 1.1	0.1	3.3	4.0	2.2 2.0	0.0	0.3	13	2.1	1.7	0.9	2.1	0.7	2.7	8.7
					1	For footnotes see end of table.	see end of ta	ble.								

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	Clothiers	Dept.	Foot- wear stores	Hard- E ware stores	Hard- Electrical ware goods F stores stores	ctrical goods Furniture coverings stores stores		Chemists	News-agents	Other	Total
							SOUTH A	SOUTH AUSTRALIA	IA								
1983— September October		108.4	10.2	5.2	18.3	30.1	27.6	38.9	4.4	6.3	18.4	10.8	5.8	11.5	7.3	12.4	316.2
Standard Error— Level(b) Movement(c)		3.7	0.8	0.1	2.2 0.6	1.7	1.2	0.0	0.3	0.9	1.5	0.7	0.7	0.5	0.3	1.3	5.5
						Λ	VESTERN	WESTERN AUSTRALIA	LIA								
1983— September October		110.1	8.3	4.6	16.0	40.1	27.1	29.5 29.1	6.3	5.2	20.6	7.0	3.5	10.5	6.6	=======================================	306.7
Standard Error— Level(b) Movement(c)		2.5	1.0	0.0	1.2	1.8	1.2	0.0	0.1	0.8	1.5	0.6	0.4	0.6	1.0	9.0	3.6
							TASI	TASMANIA									
1983— September October		31.0	3.4	n.p.	2.4. 2.4.	10.2	6.8	10.2 9.6	1.7	1.7 1.7	4.5	2.9	1.2	3.2	2.8	n.p.	88.9
Standard Error— Level(b) Movement(c)		0.8	0.0	::	0.4	0.4	0.2	0.0	0.0	0.2	0.2	0.1	0.0	0.2	0.2	::	1.3
	J.					AUSTR/	ALIAN CA	AUSTRALIAN CAPITAL TERRITORY	RRITOR	Y							
1983— September October		15.3	4.1	n p.	5.8	4.8	2.4	9.4	1.2	1.4	3.4	9.1	0.7	2.0	3.1	n.p.	58.1
Standard Error— Level(b) Movement(c)		1.5	0.2		1.7	0.5	0.4	0.0	0.2	0.3	0.2	0.1	0.0	0.0	0.1	. 44	2.6
								100				The second second					

<sup>(</sup>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.