



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

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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 over-emphasise 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 September 1983 is \$3,487.3m, 0.4 per cent higher than for August 1983.

Seasonally adjusted, the September 1983 estimate is \$3,545.5m which is 0.2 per cent lower than for August 1983 and 9.0 per cent higher than for September 1982.

The value of retail sales (seasonally adjusted) for the three months ended September 1983 was 2.6 per cent higher than the three months ended June 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 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).

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 \$3,487.3 million for the total value of retail sales of goods in September 1983 has a standard error of about \$26.1 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 \$3,461.2 million to \$3,513.4 million and nineteen chances in twenty that the figure would be within \$3,435.1 million to \$3,539.5 million.
- (b) The estimated increase of \$15.5 million (0.4 per cent) in the total value of retail sales of goods between August 1983 and September 1983 has a standard error of about \$9.7 million (0.3 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 +\$5.8 million to +\$25.2 million (+0.1 per cent to +0.7 per cent) and nineteen chances in twenty that the movement would be within -\$3.9 million to +\$34.9 million (-0.2 per cent to +1.0 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.

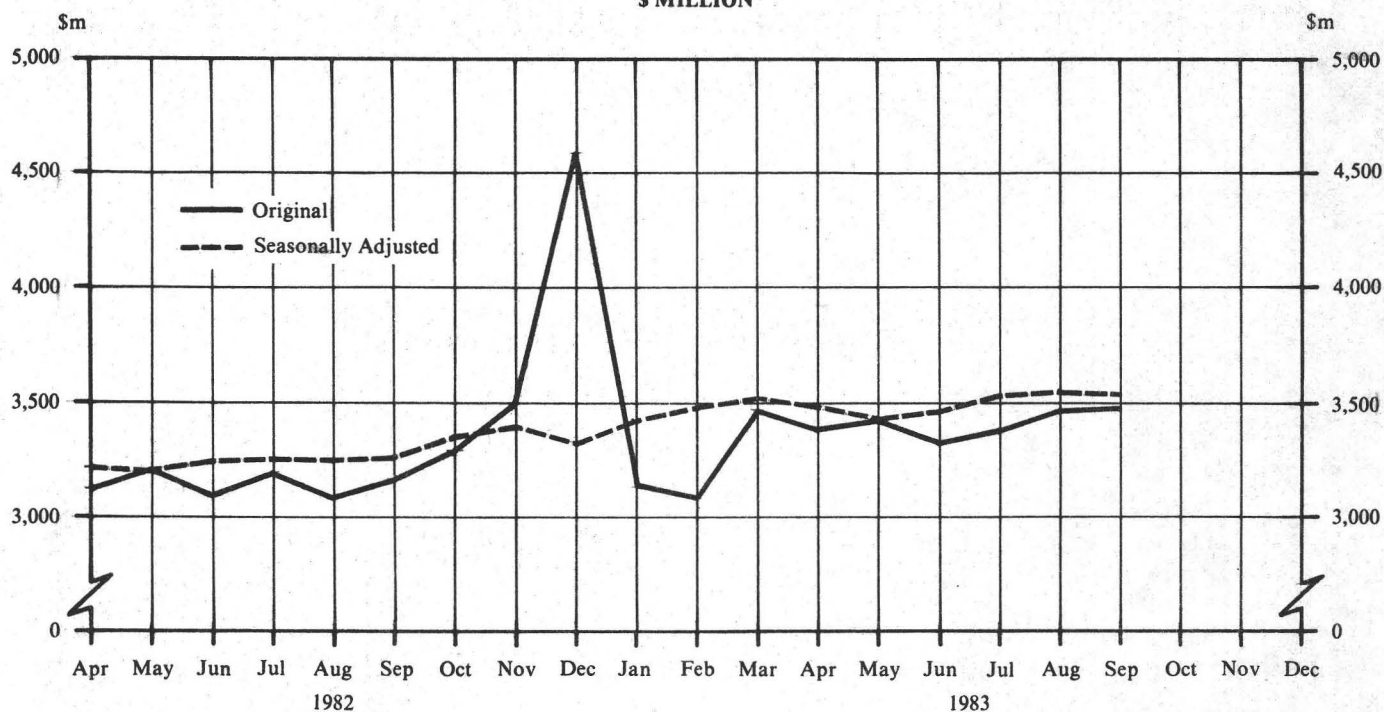
Symbols and other usages

0039n.p. Not available for publication but included in totals

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Australian Statistician

**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)**

Month	Original		Seasonally adjusted	
	\$m	% change from preceding month	\$m	% change from preceding month
1982—				
July	3,189.6	3.4	3,249.1	0.3
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
Standard error(b) of—				
September 1983	26.1			
August 1983—				
September 1983 movement	9.7	0.3		

(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- onists	Butchers	General stores	Other food stores	Hotels, liquor stores, licensed clubs	Clothing	Dept. stores	Foot- wear stores	Hard- ware stores	Electrical goods stores	Furniture stores	Floor coverings stores	Chemists	News- agents	Other	Total
AUSTRALIA(a)																
1983—																
April	1,074.1	120.8	41.1	203.3	399.9	338.6	379.4	66.0	72.0	202.2	78.1	31.9	130.9	105.4	131.8	3,375.5
May	1,041.6	125.4	39.3	211.8	393.9	341.4	385.3	69.2	79.4	217.5	95.6	34.7	138.2	114.4	130.0	3,417.6
June	1,064.1	128.1	37.8	200.6	386.1	313.1	346.7	59.6	73.2	210.1	90.7	34.1	139.4	109.5	123.5	3,316.8
July	1,076.1	136.0	37.5	212.1	396.1	313.4	360.7	56.8	75.1	208.5	85.0	34.4	140.1	113.6	128.0	3,373.4
August	1,113.6	128.6	38.9	217.8	406.5	309.6	359.7	51.3	80.1	224.9	93.6	38.0	145.0	124.0	140.0	3,471.8
September	1,104.7	129.2	38.6	219.8	414.3	328.4	363.3	59.0	85.5	210.2	91.0	36.1	143.0	122.7	141.3	3,487.3
Standard Error— Level(b)	11.9	5.1	0.4	7.4	10.9	8.4	0.0	1.7	3.7	9.4	4.2	2.0	4.7	5.6	6.3	26.1
Movement(c)	2.2	1.8	0.1	2.6	5.8	3.5	0.0	0.7	1.5	4.0	1.4	1.0	1.1	2.2	2.0	9.7
NEW SOUTH WALES																
1983—																
August	340.3	52.6	10.3	87.3	145.2	108.2	144.9	16.4	28.8	73.7	30.1	11.8	64.1	54.9	50.2	1,219.0
September	333.6	53.6	10.6	87.3	146.9	119.7	145.8	19.9	30.8	67.4	29.7	11.1	63.7	54.9	50.4	1,225.6
Standard Error— Level(b)	6.4	4.0	0.2	4.6	6.2	5.7	0.0	1.4	2.8	8.1	3.3	1.2	3.2	4.5	4.2	17.9
Movement(c)	0.8	1.5	0.1	1.7	2.1	2.1	0.0	0.6	1.2	3.3	0.7	0.5	0.8	1.5	1.0	5.8
VICTORIA																
1983—																
August	322.1	33.0	9.9	54.8	102.9	93.4	74.8	14.7	28.0	61.2	23.1	9.6	34.6	30.5	33.9	926.5
September	325.0	33.8	9.8	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)	8.3	2.6	0.1	4.4	7.6	5.2	0.0	0.7	2.0	3.4	1.6	0.9	2.6	3.1	3.2	15.6
Movement(c)	1.7	0.6	0.0	1.0	5.2	1.9	0.0	0.2	0.7	1.7	0.9	0.5	0.4	1.2	0.7	6.5
QUEENSLAND																
1983—																
August	184.7	18.6	6.7	33.7	76.3	45.2	49.7	8.0	10.8	40.2	16.3	5.5	18.7	18.1	23.8	556.4
September	181.3	18.0	6.8	32.8	80.0	45.8	57.0	10.0	11.8	36.6	15.8	5.1	18.3	17.7	25.0	562.2
Standard Error— Level(b)	3.4	1.2	0.1	2.6	3.9	2.9	0.0	0.4	0.8	2.0	1.7	0.8	2.1	0.8	2.7	8.1
Movement(c)	0.9	0.6	0.0	0.8	1.1	1.9	0.0	0.1	0.2	0.8	0.6	0.3	0.5	0.3	1.5	3.3

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)

Month	Grocers, confectioners, tobacco- onists	Butchers	General stores	Other food stores	Hotels, liquor stores, licensed clubs	Clothers	Dept. stores	Foot- wear stores	Hard- ware stores	Electrical goods stores	Furniture stores	Floor coverings stores	Chemists	News- agents	Other	Total
1983— August	110.9	10.4	5.2	18.7	28.8	26.0	41.1	4.4	5.4	19.6	12.0	5.8	11.9	7.1	12.8	320.1
September	108.4	10.2	5.2	18.3	30.1	27.6	38.9	4.7	6.3	18.4	10.8	5.8	11.5	7.3	12.4	316.2
Standard Error— Level(b)	3.9	0.8	0.1	2.1	1.6	1.2	0.0	0.2	0.8	0.7	0.6	0.9	0.4	0.3	1.4	5.4
Movement(c)	0.4	0.3	0.0	0.8	0.7	0.7	0.0	0.0	0.4	0.5	0.3	0.6	0.3	0.1	0.3	1.8
WESTERN AUSTRALIA																
1983— August	108.8	9.2	5.3	15.8	38.4	25.3	30.4	5.2	4.3	21.6	7.2	3.4	10.5	7.5	11.0	303.8
September	110.1	8.7	4.6	16.0	40.1	27.1	29.5	6.3	4.8	20.6	7.0	3.5	10.5	6.6	11.1	306.7
Standard Error— Level(b)	1.9	1.0	0.0	1.1	1.8	1.0	0.0	0.1	0.5	2.2	0.6	0.4	0.6	0.7	0.8	4.3
Movement(c)	0.4	0.1	0.0	0.3	0.5	0.4	0.0	0.0	0.1	0.8	0.1	0.1	0.1	0.9	0.2	1.6
TASMANIA																
1983— August	31.3	3.6	n.p.	4.0	9.9	7.2	9.8	1.5	1.5	5.0	3.0	1.2	3.1	2.9	n.p.	89.3
September	31.0	3.4	n.p.	4.2	10.2	6.8	10.2	1.7	1.7	4.5	2.9	1.2	3.2	2.8	n.p.	88.9
Standard Error— Level(b)	0.6	0.2	..	0.3	0.4	0.2	0.0	0.1	0.1	0.3	0.1	0.0	0.2	0.1	..	1.2
Movement(c)	0.2	0.1	..	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	..	0.4
AUSTRALIAN CAPITAL TERRITORY																
1983— August	15.4	1.2	n.p.	3.5	4.8	4.4	9.0	1.1	1.3	3.5	1.9	0.7	2.2	3.0	n.p.	56.7
September	15.3	1.4	n.p.	5.1	4.7	4.5	9.4	1.2	1.4	3.4	1.9	0.7	2.0	3.1	n.p.	58.1
Standard Error— Level(b)	0.5	0.3	..	0.9	0.3	0.3	0.0	0.2	0.2	0.1	0.1	0.0	0.1	0.3	..	1.5
Movement(c)	0.0	0.1	..	0.9	0.1	0.2	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	..	1.1

(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.