



## RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.), JULY 1982

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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 July 1982 is \$3,218.7m, 2.3 per cent higher than for June 1982.

Seasonally adjusted, the July 1982 estimate is \$3,284.4m which is 0.5 per cent lower than for June 1982.

The seasonally adjusted total retail sales series has been revised in this issue (see paragraph 12).

### 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 scope of the new series differs from that of the previous series (see paragraphs 3-7 below). Statistics for the new series are available from April 1982. Comparisons between the old and the new series are assisted by the publication of original and seasonally adjusted Australian estimates for April 1982 on both bases. 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 the new series 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.

#### Scope and coverage

3. The comparability of the value of sales derived from the new survey with estimates for earlier periods is affected by the differences in scope between the new and previous surveys.

4. In the new series, all establishments included in the Australian Standard Industrial Classification, 1978 Edition (ASIC) subdivision 48 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. The following establishments are also included: cafes and restaurants (9231), hotels, etc. (mainly drinking places) (9232), licensed clubs (9241-9243) and hairdressers (9351-9352).

5. The previous survey included licensed hotels and motels predominantly engaged in providing accommodation. These businesses are excluded from the new survey and it is not possible to reliably estimate the contribution of these businesses to the results of the previous survey.

6. The scope of the new survey includes establishments in all States and the Australian Capital Territory but excludes those in the Northern Territory. The former survey excluded establishments in both the Australian Capital Territory and Northern Territory.

7. 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

8. 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

9. 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.

10. 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 \$3,218.7 million for the total value of retail sales of goods in July 1982 has a standard error of about \$22.8 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 \$3,195.9 million to \$3,241.5 million and nineteen chances in twenty that the figure would be within \$3,173.1 million to \$3,264.3 million.

(b) The estimate of movement of \$72.2 million (2.3 per cent) in the total value of retail sales of goods between June and July 1982 has a standard error of about \$16.0 million (0.5 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 \$56.2 million to \$88.2 million (1.8 per cent to 2.8 per cent) and nineteen chances in twenty that the movement would be within \$40.2 million to \$104.2 million (1.3 per cent to 3.3 per cent).

11. 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

12. Seasonally adjusted statistics are shown in Table 1. The series shown in this publication has been revised following the annual re-analysis of data. 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

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  
 r revised

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

Month	Original				Seasonally adjusted			
	\$m		% change from preceding month		\$m		% change from preceding month	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
1981—								
May	2,935.9		7.6		2,879.9		1.7	
June	2,752.7		-6.2		2,894.5		0.5	
July	2,880.2		4.6		2,926.5		1.1	
August	2,852.3		-1.0		2,984.4		2.0	
September	2,937.1		3.0		3,030.1		1.5	
October	3,056.5		4.1		3,024.9		-0.2	
November	3,053.4		-0.1		3,034.7		0.3	
December	4,222.4		38.3		3,106.4		2.4	
1982—								
January r	2,918.2		-30.9		3,128.0		0.7	
February r	2,736.9		-6.2		3,132.4		0.1	
March r	3,079.4		12.5		3,150.2		0.6	
April r	3,123.9	3,152.7	1.4		3,207.2	3,236.7	1.8	
May r		3,249.8		3.1		3,232.6		-0.1
June r		3,146.5		-3.2		3,302.5		2.2
July		3,218.7		2.3		3,284.4		-0.5
Standard error(c) of—								
July 1982		22.8						
June-July 1982 movement		16.0		0.5				

(a) Series based on 1973-74 Retail Census; excludes Northern Territory and Australian Capital Territory. (b) Series based on 1979-80 Retail Census; excludes Northern Territory, but includes Australian Capital Territory. (c) 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, tobacco- onists	Butchers	General stores	Other food stores	Hotels, liquor stores, licensed clubs	Clothing stores	Dept. stores	Foot- wear stores	Hard- ware stores	Electrical goods stores	Furniture stores	Floor coverings stores	Chemists	News- agents	Other	Total
NEW SOUTH WALES																
1982—																
April r	964.1	130.1	38.0	204.6	372.7	299.1	350.1	53.7	77.6	177.3	85.7	36.9	121.0	107.0	134.7	3,152.7
May r	946.3	130.8	37.2	206.1	375.1	324.9	389.1	62.8	78.1	201.4	88.9	38.9	124.9	108.0	137.5	3,249.8
June r	960.8	134.2	37.5	198.4	364.3	294.6	347.5	52.1	75.4	201.4	85.5	38.5	122.5	103.3	130.6	3,146.5
July	996.5	138.8	37.8	200.8	372.6	298.9	344.0	53.4	76.8	202.3	93.6	36.3	132.6	103.4	130.7	3,218.7
Standard Error— Level(b)	9.3	4.8	0.4	9.0	9.4	7.3	0.0	1.3	2.5	8.3	3.6	2.2	3.7	4.4	6.0	22.8
Movement(c)	5.4	3.5	0.4	4.4	6.4	5.5	0.0	1.2	2.4	4.4	3.0	1.7	2.2	2.7	6.7	16.0
VICTORIA																
1982—																
June r	302.9	51.4	11.7	84.7	139.9	111.2	140.5	18.4	23.4	68.2	29.9	10.9	51.9	43.1	48.6	1,136.9
July	311.1	55.0	12.4	87.0	141.5	110.6	134.2	19.4	23.9	70.8	34.9	10.4	54.8	43.0	46.5	1,155.6
Standard Error— Level(b)	5.2	3.9	0.3	7.6	5.7	5.0	0.0	1.0	1.3	7.3	3.0	1.1	2.9	3.1	3.4	16.3
Movement(c)	3.5	2.0	0.1	2.8	2.7	4.1	0.0	0.9	2.0	2.7	2.0	0.8	1.4	1.5	4.7	10.3
QUEENSLAND																
1982—																
June r	157.0	22.2	6.7	31.7	74.9	37.4	47.3	8.3	10.8	35.4	16.9	7.0	18.9	15.0	20.1	509.7
July	163.3	22.2	6.5	30.6	73.6	35.9	51.8	7.8	11.2	34.0	16.9	6.7	20.2	15.5	26.1	522.4
Standard Error— Level(b)	3.4	1.5	0.0	1.9	3.4	2.4	0.0	0.2	0.6	1.3	1.1	0.7	0.9	1.3	2.7	7.1
Movement(c)	1.2	0.8	0.0	1.2	3.1	1.4	0.0	0.2	0.6	1.1	1.7	0.7	0.7	0.7	2.5	5.7

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, confect- ioners, tobacco- merchants	Butchers	General stores	Other food stores	Hotels, liquor stores, licensed clubs	Clothing stores	Dept. stores	Foot- wear stores	Hard- ware stores	Electrical goods stores	Furniture stores	Floor coverings stores	Chemists	News- agents	Other	Total
SOUTH AUSTRALIA																
1982—																
June	88.0	11.3	4.2	11.7	23.3	21.2	37.6	3.7	4.3	15.1	8.1	2.9	10.5	5.4	8.0	255.4
July	95.9	12.2	4.3	13.1	24.4	21.9	36.2	3.7	5.4	16.9	8.2	3.6	11.1	6.2	8.7	271.8
Standard Error—																
Level(b)	3.6	0.6	0.1	1.6	1.2	1.2	0.0	0.3	0.4	0.6	0.5	0.2	0.5	0.4	0.8	4.7
Movement(c)	1.2	0.5	0.0	0.8	0.4	0.8	0.0	0.1	0.3	0.4	0.4	0.2	0.2	0.2	0.7	2.1
WESTERN AUSTRALIA																
1982—																
June	95.2	9.4	4.2	14.2	30.5	23.5	29.6	4.7	3.1	18.9	7.0	4.1	9.9	8.9	8.5	271.8
July	99.8	9.7	3.8	14.2	32.3	23.9	31.2	4.3	3.4	19.7	7.0	3.9	9.9	7.5	9.2	279.9
Standard Error—																
Level(b)	1.4	0.8	0.2	0.9	1.9	0.6	0.0	0.1	0.3	1.7	0.6	0.3	0.6	1.4	0.5	3.7
Movement(c)	0.6	0.7	0.3	0.5	1.1	0.6	0.0	0.0	0.3	0.8	0.8	0.2	0.3	1.3	0.4	2.7
TASMANIA																
1982—																
June	27.0	3.2	n.p.	2.8	8.0	7.6	8.8	1.8	1.1	4.6	3.3	1.0	3.0	2.8	n.p.	79.2
July	29.3	3.1	n.p.	3.1	9.0	8.2	9.2	1.6	1.5	4.6	2.5	1.1	3.3	3.0	n.p.	83.4
Standard Error—																
Level(b)	0.7	0.1	..	0.3	0.3	0.3	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.2	..	1.1
Movement(c)	0.6	0.0	..	0.2	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	..	0.8
AUSTRALIAN CAPITAL TERRITORY																
1982—																
June	14.2	1.8	n.p.	2.8	4.1	3.9	9.0	0.8	1.4	4.3	1.3	0.5	2.1	2.3	n.p.	50.9
July	14.8	1.4	n.p.	2.8	4.5	4.1	8.2	1.0	1.2	4.5	1.3	0.5	2.3	2.5	n.p.	51.7
Standard Error—																
Level(b)	0.4	0.1	..	0.2	0.3	0.2	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.1	..	0.8
Movement(c)	0.1	0.1	..	0.1	0.3	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	..	0.6

(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.