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Information Paper

Introduction of the 13th Series Australian Consumer Price Index

1998

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**Introduction of the 13th
Series Australian
Consumer Price Index**

1998

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AUSTRALIAN BUREAU OF STATISTICS

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PREFACE

In *Information Paper: Outcome of the 13th Series Australian Consumer Price Index Review* (Cat. no. 6453.0), released on 12 November 1997, the Australian Bureau of Statistics (ABS) announced decisions that had been taken on the 13th series review of the Consumer Price Index (CPI). Such reviews are undertaken regularly and are used to update item weights, as well as providing an opportunity to reassess the scope and coverage of the index and other methodological issues.

Since the release of that information paper, the ABS has been working on implementation of the decisions, which will be incorporated into the September quarter 1998 CPI, to be released on 28 October 1998 in *Consumer Price Index* (Cat. no. 6401.0).

The present information paper summarises the major changes that arise with the 13th series CPI, including providing details of the new item weights and the revised publication format.

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13TH SERIES CPI

INTRODUCTION

- 1.** To ensure the CPI continues to meet community needs, the ABS reviews the CPI at approximately five yearly intervals. These reviews update item weights and provide an opportunity to reassess the scope and coverage of the index and other methodological issues.
- 2.** The latest review of the CPI has now been completed. For a detailed account of the issues which were considered during this review, refer to *Information Paper: Issues to be Considered During the 13th Series Australian Consumer Price Index Review* (Cat. no. 6451.0). For details of the major decisions arising from the review refer to *Information Paper: Outcome of the 13th Series Australian Consumer Price Index Review* (Cat. no. 6453.0).
- 3.** This information paper provides an overview of the major changes to the CPI arising from this review. It concentrates on providing details of the new CPI structure and weighting pattern. A mock-up of the September quarter 1998 CPI publication is reproduced as Appendix 3 to provide users with advance notice of changes that will be incorporated in *Consumer Price Index* (Cat. no. 6401.0), which will be released on Wednesday, 28 October 1998.

PRINCIPAL PURPOSE OF THE CPI

- 4.** The 13th series CPI has been specifically designed to provide a general measure of price inflation for the household sector as a whole. Accordingly the ABS has adopted the acquisitions approach for the construction of the index: for further information see *Information Paper: Outcome of the 13th Series Australian Consumer Price Index Review* (Cat. no. 6453.0). Compared with the 12th series CPI, the most significant differences are a change in the item coverage of the CPI and a change in the population group covered by the CPI.
- 5.** The most noticeable changes to the item coverage are the exclusion of mortgage interest and consumer credit charges from the index and the inclusion of expenditure on new dwellings (excluding land).
- 6.** In due course the ABS will also develop, and include in the CPI, indexes to measure changes in the prices paid by households for a range of financial services including those incurred in respect of borrowings, savings, maintenance of accounts with financial institutions, accessing investment advice and the purchase of shares etc. These measures will cover both direct fees and charges and indirect costs incorporated in the interest rate margins of financial intermediaries. Due to the conceptual and methodological complexities involved in the construction of these indexes it has not proved possible to introduce these measures concurrently with the other changes in the September quarter 1998. It is expected that these measures will be introduced during 2000.
- 7.** Expansion of the population coverage beyond wage and salary earner households to all private households in the eight capital cities will result in an increase in coverage from 29% to 64% of all Australian private households.

8. In common with previous reviews of the CPI, the ABS has taken the opportunity to update the commodity classification and item coverage of the CPI. A concordance between the current, 12th series, classification and the new, 13th series, classification is incorporated in Table A1 of Appendix 3.

9. The new, 13th series, commodity classification has been developed with a view to:

- reflecting item coverage consistent with the new objective of the CPI;
- classifying items according to utility, whereby items which are close substitutes in terms of use are grouped together;
- adopting titles which best describe the item composition of series;
- dropping, as separately publishable expenditure classes, items where expenditure has declined to a relatively insignificant level;
- introducing, as separately publishable expenditure classes, items for which expenditure has increased to a relatively significant level; and
- accommodating recent and potential technological changes.

10. Several new items have been added to the CPI 'basket' in this review, primarily home computers and software, domestic services (house cleaning, gardening and the like) and tertiary education fees.

11. Where changes to the CPI classification are indicated at Table A1 they are one of the following types:

Dropped series:

where a series is no longer available with the commencement of the 13th series CPI. The items may have been removed from the CPI altogether (eg Mortgage interest charges) or combined with one or more other series to form a new series (eg Butter has been dropped in its own right but included in the new series Fats and oils).

New series:

where a new series is introduced to the CPI for the first time, or an existing series is split from, or merged with another series. In each case there is insufficient data available to recreate the new series. The series will commence with a reference base of June quarter 1998=100.0.

where a new series is created from a combination of two or more previously published series. In these cases there is sufficient information available to calculate a back series and the series will commence with a reference base of 1989–90=100.0.

COMMODITY
CLASSIFICATION AND ITEM
COVERAGE *continued*

Renamed series:

where a series is renamed, and there has been a minor change to its composition (eg Pet foods, pets and supplies). The series will be linked to its 12th series CPI equivalent.

where a series is renamed only, and there have been no changes to its composition (eg Fish and other seafood). The series will be linked to its 12th series CPI equivalent.

Moved series:

where a series has changed its position in the CPI classification (eg Boys' clothing). The series will be linked to its 12th series equivalent.

12. Where a series has been dropped from the 13th series CPI, the ABS will no longer be able to provide the series. For example, the series for Butter will no longer be available. Conversely, where a new series is created in the 13th series CPI (as indicated by (b) in the final column of Table A1) the ABS is unable to provide a history for the series prior to June quarter 1998.

13. The relative significance (or weights) of items in the 13th series CPI are based primarily on expenditures of all private households in the eight capital cities as recorded in the 1993–94 Household Expenditure Survey (HES). The quantities underpinning the 1993–94 expenditures are preserved by revaluing these expenditures to June quarter 1998 prices. The new expenditure weights are provided in Tables A1.1 and A1.2 at Appendix 1. These new items and weights will be used to measure price change from June quarter 1998.

OTHER ISSUES

14. Commencing with the introduction of the 13th series CPI the ABS will also:

- Cease publishing the special index for Selected State and local government charges. Following consultation with the major users of this series, it has been agreed that their data needs would now be better met by the provision of a series for 'utilities'. A Utilities subgroup, comprising Electricity, Gas, Other household fuel and Water and sewerage charges, has been separately recognised in the Housing group.
- Progressively adopt the geometric mean formula, where appropriate, for the calculation of elementary aggregate indexes in the CPI. This will eliminate what is referred to as 'elementary aggregate formula bias' from the CPI. For further details see Appendix 2.

15. In implementing other changes resulting from the 13th series review the ABS will:

- Replace the price index of imported items with an analytical series for 'tradeables' and 'non-tradeables' in September quarter 1999.

OTHER ISSUES *continued*

- Develop analytical indexes specifically designed to measure changes in the cost of living of subgroups in the population. These indexes will be constructed on an outlays basis and will be published at approximately annual intervals. The first such indexes are expected to be published by 2000.
- Review the allocation of the CPI price sample across the capital cities with a view to optimising the national estimate. This is consistent with the decision to change the CPI to provide a better measure of price inflation for the household sector as a whole. The work will be undertaken during 1999, and will involve further consultation with key stakeholders.
- Introduce the facility to compile spatial comparisons of price levels in the eight capital cities, as resources permit.

FURTHER INFORMATION

16. Users requiring further information about the changes outlined above should contact:

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APPENDIX 1

WEIGHTING PATTERNS FOR 12TH AND 13TH SERIES CPI AT JUNE QUARTER 1998

A1.1 WEIGHTING PATTERN, 12TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)

<i>Group, subgroup and expenditure class</i>		<i>Concordance with 13th (New) series</i>	<i>Percentage contribution to the All groups CPI in June quarter 1998</i>		<i>Expenditure class</i>
			<i>Group</i>	<i>Subgroup</i>	
1	FOOD		18.88		
1.1	Dairy products	renamed		1.59	
1.1.1	Milk and cream				1.03
1.1.2	Cheese				0.34
1.1.3	Butter	dropped, in New 1.8.5			0.06
1.1.4	Other dairy products				0.16
1.2	Cereal products			2.26	
1.2.1	Bread				1.03
1.2.2	Cakes and biscuits				0.77
1.2.3	Breakfast cereals				0.25
1.2.4	Other cereal products				0.20
1.3	Meat and seafoods			2.90	
1.3.1	Beef and veal				0.66
1.3.2	Lamb and mutton				0.41
1.3.3	Pork				0.17
1.3.4	Poultry				0.37
1.3.5	Bacon and ham				0.31
1.3.6	Processed meat				0.66
1.3.7	Fish	renamed			0.32
1.4	Fresh fruit and vegetables			1.64	
1.4.1	Fresh fruit				0.73
1.4.2	Fresh potatoes	dropped, in New 1.4.2			0.17
1.4.3	Other fresh vegetables	dropped, in New 1.4.2			0.74
1.5	Processed fruit and vegetables			0.80	
1.5.1	Processed fruit				0.14
1.5.2	Fruit juice	renamed (New 1.5.3)			0.41
1.5.3	Processed vegetables				0.25
1.6	Soft drinks, ice cream and confectionery			3.09	
1.6.1	Soft drinks and cordials				1.23
1.6.2	Ice cream and ice confectionery				0.42
1.6.3	Confectionery	renamed			1.44
1.7	Meals out and take away foods			4.83	
1.7.1	Meals out	renamed			1.85
1.7.2	Take away foods	renamed			2.97
1.8	Other food			1.77	
1.8.1	Eggs				0.16
1.8.2	Sugar	dropped, in New 1.8.4			0.06
1.8.3	Jams, honey and sandwich spreads				0.16
1.8.4	Tea, coffee and food drinks				0.35
1.8.5	Food additives, sauces and spices	dropped, in New 1.8.4			0.24
1.8.6	Margarine	dropped, in New 1.8.5			0.13
1.8.7	Cooking oils and fats	dropped, in New 1.8.5			0.09
1.8.8	Other food	renamed (New 1.8.6)			0.59

For footnotes see end of table.

...continued

A1.1

WEIGHTING PATTERN, 12TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)—continued

Percentage contribution to the
All groups CPI in June quarter 1998

Group, subgroup and expenditure class	Concordance with 13th (New) series	Percentage contribution to the All groups CPI in June quarter 1998		Expenditure class
		Group	Subgroup	
2 CLOTHING		5.54		
2.1 Men's and boys' clothing	dropped, split into New 2.1, 2.3		1.54	
2.1.1 Men's outer clothing	dropped, in New 2.1.1			0.62
2.1.2 Men's knitwear	dropped, in New 2.1.1			0.15
2.1.3 Men's shirts				0.29
2.1.4 Men's underwear, nightwear and socks				0.14
2.1.5 Boys' clothing	moved to New 2.3.1			0.36
2.2 Women's and girls' clothing	dropped, split into new 2.2, 2.3		2.28	
2.2.1 Women's outer clothing	dropped, in New 2.2.1			1.46
2.2.2 Women's knitwear	dropped, in New 2.2.1			0.18
2.2.3 Women's underwear, nightwear and hosiery				0.33
2.2.4 Girls' clothing	moved to New 2.3.2			0.32
2.3 Fabrics and knitting wool	dropped, in New 2.5		0.63	0.63
2.3.1 Fabrics and knitting wool	moved to New 2.5.2			
2.4 Footwear			0.86	
2.4.1 Men's footwear				0.26
2.4.2 Women's footwear				0.40
2.4.3 Children's footwear				0.20
2.5 Dry cleaning and shoe repairs	dropped, in New 2.5		0.23	
2.5.1 Dry cleaning and shoe repairs	moved to New 2.5.3			0.23
3 HOUSING		13.73		
3.1 Rents			4.81	
3.1.1 Privately-owned dwelling rents				4.43
3.1.2 Government-owned dwelling rents				0.38
3.2 Home ownership	renamed (New 3.3)		8.92	
3.2.1 Mortgage interest charges	dropped, removed from index			4.49
3.2.2 Local government rates and charges	dropped, split into New 3.2.4, 3.3.2			2.21
3.2.3 House repairs and maintenance				1.76
3.2.4 House insurance				0.46

For footnotes see end of table.

...continued

A1.1

WEIGHTING PATTERN, 12TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)—continued

Percentage contribution to the
All groups CPI in June quarter 1998

Group, subgroup and expenditure class		Concordance with 13th (New) series	Group	Subgroup	Expenditure class
4	HOUSEHOLD EQUIPMENT AND OPERATION		17.17		
4.1	Fuel and light	renamed (New 3.2)		2.29	
4.1.1	Electricity	moved to New 3.2.1			1.69
4.1.2	Gas	moved to New 3.2.2			0.55
4.1.3	Other fuel	renamed (New 3.2.3)			0.05
4.2	Furniture and floor coverings			4.21	
4.2.1	Furniture				3.39
4.2.2	Floor coverings				0.82
4.3	Appliances	dropped, in New 4.3		1.41	
4.3.1	Appliances				1.41
4.4	Household textiles			0.76	
4.4.1	Bedding				0.34
4.4.2	Towels, linen and curtains				0.42
4.5	Household utensils and tools	dropped, in New 4.3		1.08	
4.5.1	Tableware, glassware and cutlery				0.24
4.5.2	Kitchen and cooking utensils	dropped, in New 4.3.3			0.32
4.5.3	Cleaning utensils	dropped, in New 4.3.3			0.08
4.5.4	Tools				0.44
4.6	Household supplies and services	dropped, split into New 4.4, 4.5		4.04	
4.6.1	Household cleaning agents				0.64
4.6.2	Household paper products	dropped, in New 4.4.3			0.43
4.6.3	Other household non-durables	dropped, in New 4.4.3			0.87
4.6.4	Stationery	moved to New 8.1.3			0.48
4.6.5	Watches and clocks	dropped, in New 2.5.1, 4.1.1			0.14
4.6.6	Veterinary services	renamed (New 4.5.1)			0.13
4.6.7	Pet foods	renamed (New 4.4.2)			0.51
4.6.8	Travel goods	dropped, in New 2.5.1			0.23
4.6.9	House contents insurance				0.43
4.6.10	Repairs to appliances	renamed (New 4.5.3)			0.18
4.7	Postal and telephone services	renamed (New 4.6)		1.50	
4.7.1	Postal services				0.15
4.7.2	Telephone services	renamed (New 4.6.2)			1.35
4.8	Consumer credit charges	dropped, removed from index		1.88	
4.8.1	Consumer credit charges	dropped, removed from index			1.88
5	TRANSPORTATION		16.03		
5.1	Private motoring			14.70	
5.1.1	Motor vehicles				3.70
5.1.2	Automotive fuel				4.47
5.1.3	Vehicle insurance				2.55
5.1.4	Motoring charges	renamed (New 5.1.6)			0.98
5.1.5	Tyres and tubes	renamed, in New 5.1.5			0.32
5.1.6	Vehicle servicing, repairs and parts	renamed, in New 5.1.4, 5.1.5			2.68
5.2	Urban transport fares			1.34	
5.2.1	Urban transport fares				1.34

For footnotes see end of table.

...continued

A1.1 WEIGHTING PATTERN, 12TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)

Percentage contribution to the
All groups CPI in June quarter 1998

Group, subgroup and expenditure class		Concordance with 13th (New) series	Group	Subgroup	Expenditure class
6	TOBACCO AND ALCOHOL	renamed	9.45		
6.1	Alcoholic drinks			5.31	
6.1.1	Beer				3.06
6.1.2	Wine				1.12
6.1.3	Spirits				1.13
6.2	Cigarettes and tobacco			4.14	
6.2.1	Cigarettes and tobacco				4.14
7	HEALTH AND PERSONAL CARE		7.87		
7.1	Health services			4.94	
7.1.1	Hospital and medical services				4.03
7.1.2	Optical services				0.18
7.1.3	Dental services				0.73
7.2	Personal care products			2.11	
7.2.1	Pharmaceuticals				0.85
7.2.2	Toiletries and personal products				1.27
7.3	Hairdressing services	renamed		0.82	
7.3.1	Hairdressing services	renamed			0.82
8	RECREATION AND EDUCATION		11.32		
8.1	Books, newspapers and magazines	dropped, in New 8.1		1.37	
8.1.1	Books, newspapers and magazines	dropped, split into New 8.1.1, 8.1.2			1.37
8.2	Recreational goods	dropped, in New 8.2		2.13	
8.2.1	Video and sound equipment	renamed (New 8.2.1)			0.58
8.2.2	Records, cassettes and tapes	dropped, in New 8.2.2			0.27
8.2.3	Sports and photographic equipment and toys	dropped, split into New 8.2.1, 8.2.3, 8.2.4			1.28
8.3	Holiday travel and accommodation			2.34	
8.3.1	Holiday travel and accommodation in Australia	renamed			1.34
8.3.2	Holiday travel and accommodation overseas	renamed			1.01
8.4	Recreational services	dropped, in New 8.2		3.11	
8.4.1	Photographic services	dropped, in New 8.2.2			0.24
8.4.2	Repairs to recreational goods	moved to New 8.2.5			0.12
8.4.3	Entertainment	dropped, split into New 8.2.6, 8.2.7			2.75
8.5	Education and child care			2.36	
8.5.1	Education fees	renamed			1.88
8.5.2	Child care fees	renamed			0.48
	ALL GROUPS (b)		100.00	100.00	100.00

(a) 12th and 13th series are numbered independently—the numbers are to assist readability only

(b) Percentages may not add due to rounding.

A1.2

WEIGHTING PATTERN, 13TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)

Group, subgroup and expenditure class		Concordance with 12th (Old) series	Percentage contribution to the All groups CPI in June quarter 1998			
			Group	Subgroup	Expenditure class	Base period
1	FOOD		19.19			
1.1	Dairy and related products	renamed, Old 1.1.3 moved to New 1.8.5		1.47		(d)
1.1.1	Milk and cream				0.89	
1.1.2	Cheese				0.33	
1.1.3	Other dairy products				0.25	
1.2	Cereal products			2.44		
1.2.1	Bread				1.01	
1.2.2	Cakes and biscuits				0.94	
1.2.3	Breakfast cereals				0.27	
1.2.4	Other cereal products				0.22	
1.3	Meat and seafoods			2.83		
1.3.1	Beef and veal				0.63	
1.3.2	Lamb and mutton				0.32	
1.3.3	Pork				0.16	
1.3.4	Poultry				0.48	
1.3.5	Bacon and ham				0.29	
1.3.6	Processed meat				0.52	
1.3.7	Fish and other seafood	renamed			0.42	(d)
1.4	Fresh fruit and vegetables			2.27		
1.4.1	Fresh fruit				1.03	
1.4.2	Fresh vegetables	new, combination Old 1.4.2, 1.4.3			1.24	(c)
1.5	Processed fruit and vegetables			0.75		
1.5.1	Processed fruit				0.15	
1.5.2	Processed vegetables				0.26	
1.5.3	Fruit and vegetable juices	renamed (Old 1.5.2)			0.35	(d)
1.6	Soft drinks, ice cream and confectionery			2.42		
1.6.1	Soft drinks and cordials				1.01	
1.6.2	Ice cream and ice confectionery				0.32	
1.6.3	Sweet and savoury snacks	renamed			1.09	(d)
1.7	Meals out and take away foods			5.25		
1.7.1	Restaurant meals	renamed			2.41	(d)
1.7.2	Take away and fast foods	renamed			2.84	(d)
1.8	Other food			1.75		
1.8.1	Eggs				0.15	
1.8.2	Jams, honey and sandwich spreads				0.17	
1.8.3	Tea, coffee and food drinks				0.38	
1.8.4	Food additives and condiments	new, combination Old 1.8.2, 1.8.5			0.31	(c)
1.8.5	Fats and oils	new, combination Old 1.1.3, 1.8.6, 1.8.7			0.25	(c)
1.8.6	Food n.e.c	renamed (Old 1.8.8)			0.49	(d)

For footnotes see end of table.

...continued

A1.2

WEIGHTING PATTERN, 13TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)—continued

Group, subgroup and expenditure class	Concordance with 12th (Old) series	Percentage contribution to the All groups CPI in June quarter 1998		
		Group	Subgroup	Expenditure class period
2 CLOTHING		5.72		
2.1 Men's clothing	new, excludes Old 2.1.5		1.19	(c)
2.1.1 Men's outerwear	new, combination Old 2.1.1, 2.1.2			0.65 (c)
2.1.2 Men's shirts				0.34
2.1.3 Men's underwear, nightwear and socks				0.20
2.2 Women's clothing	new, excludes Old 2.2.4		2.35	(c)
2.2.1 Women's outerwear	new, combination Old 2.2.1, 2.2.2			1.95 (c)
2.2.2 Women's underwear, nightwear and hosiery				0.39
2.3 Children's and infants' clothing	new, split from Old 2.1, 2.2		0.53	(c)
2.3.1 Boys' clothing	moved from Old 2.1.5			0.31 (d)
2.3.2 Girls' clothing	moved from Old 2.2.4			0.22 (d)
2.4 Footwear			0.87	
2.4.1 Men's footwear				0.21
2.4.2 Women's footwear				0.51
2.4.3 Children's footwear				0.16
2.5 Clothing accessories, supplies and services	new		0.78	(b)
2.5.1 Clothing accessories	new, Old 4.6.5, 4.6.8, parts 2.1, 2.2, 2.3			0.40 (b)
2.5.2 Fabrics and knitting wool	moved from Old 2.3.1			0.16 (d)
2.5.3 Clothing services and shoe repair	renamed (Old 2.5.1)			0.22 (d)
3 HOUSING	includes Old 4.1	19.35		(d)
3.1 Rents			5.80	
3.1.1 Privately-owned dwelling rents				5.13
3.1.2 Government-owned dwelling rents				0.67
3.2 Utilities	renamed, Old 4.1		3.56	(d)
3.2.1 Electricity	moved from Old 4.1.1			1.78 (d)
3.2.2 Gas	moved from Old 4.1.2			0.69 (d)
3.2.3 Other household fuel	renamed, Old 4.1.3			0.14 (d)
3.2.4 Water and sewerage	new, split from Old 3.2.2			0.96 (b)
3.3 Other housing	renamed, Old 3.2 excludes 3.2.1		9.99	(d)
3.3.1 House purchase	new			6.88 (b)
3.3.2 Property rates and charges	new, split from Old 3.2.2			1.18 (b)
3.3.3 House repairs and maintenance				1.72
3.3.4 House insurance				0.21

For footnotes see end of table.

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A1.2

WEIGHTING PATTERN, 13TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)—continued

Group, subgroup and expenditure class	Concordance with 12th (Old) series	Percentage contribution to the All groups CPI in June quarter 1998			
		Group	Subgroup	Expenditure class	Base period
4	HOUSEHOLD EQUIPMENT AND OPERATION	12.56			
4.1	Furniture and floor coverings		3.58		
4.1.1	Furniture	includes part Old 4.6.5		2.88	(d)
4.1.2	Floor coverings			0.71	
4.2	Household textiles		0.49		
4.2.1	Bedding			0.27	
4.2.2	Towels, linen and curtains			0.23	
4.3	Household appliances, utensils and tools	new, combination Old 4.3, 4.5	2.77		(c)
4.3.1	Appliances			1.60	
4.3.2	Tableware, glassware and cutlery			0.25	
4.3.3	Household utensils	new, combination Old 4.5.2, 4.5.3		0.37	(c)
4.3.4	Tools			0.54	
4.4	Household supplies	new, split from Old 4.6	2.46		(c)
4.4.1	Household cleaning agents			0.60	
4.4.2	Pet foods, pets and supplies	renamed, Old 4.6.7		0.71	(d)
4.4.3	Other household supplies	new, combination Old 4.6.2, 4.6.3		1.14	(c)
4.5	Household services	new, split from Old 4.6	1.23		(c)
4.5.1	Pet services including veterinary	renamed, Old 4.6.6		0.22	(d)
4.5.2	House contents insurance			0.21	
4.5.3	Repairs to household durables	renamed, Old 4.6.10		0.30	(d)
4.5.4	Domestic services	new		0.51	(b)
4.6	Postal and communication services	renamed (Old 4.7)	2.03		(d)
4.6.1	Postal services			0.18	
4.6.2	Communication services	renamed (Old 4.7.2)		1.85	(d)
5	TRANSPORTATION		14.13		
5.1	Private motoring		13.22		
5.1.1	Motor vehicles			3.88	
5.1.2	Automotive fuel			4.04	
5.1.3	Vehicle insurance			0.57	
5.1.4	Motor vehicle repair and servicing	renamed, split from Old 5.1.6		2.59	(d)
5.1.5	Motor vehicle parts and accessories	renamed, combination Old 5.1.5, part 5.1.6		1.12	(d)
5.1.6	Other motoring charges	renamed (Old 5.1.4)		1.02	(d)
5.2	Urban transport fares		0.91		
5.2.1	Urban transport fares			0.91	

For footnotes see end of table.

...continued

A1.2

WEIGHTING PATTERN, 13TH SERIES CPI, JUNE QUARTER 1998, EIGHT CAPITAL CITIES(a)—continued

			Percentage contribution to the All groups CPI in June quarter 1998			
Group, subgroup and expenditure class	Concordance with 12th (Old) series	Group	Subgroup	Expenditure class	Base period	
6	ALCOHOL AND TOBACCO	renamed	8.14		(d)	
6.1	Alcoholic drinks			5.06		
6.1.1	Beer			2.68		
6.1.2	Wine			1.38		
6.1.3	Spirits			1.00		
6.2	Cigarettes and tobacco			3.08		
6.2.1	Cigarettes and tobacco			3.08		
7	HEALTH AND PERSONAL CARE		6.98			
7.1	Health services			3.80		
7.1.1	Hospital and medical services			3.06		
7.1.2	Optical services			0.18		
7.1.3	Dental services			0.56		
7.2	Personal care products			2.41		
7.2.1	Pharmaceuticals			1.09		
7.2.2	Toiletries and personal products			1.33		
7.3	Hairdressing and personal care services	renamed		0.76	(d)	
7.3.1	Hairdressing and personal care services	renamed		0.76	(d)	
8	RECREATION AND EDUCATION		13.93			
8.1	Books, newspapers, magazines and stationery	new, combination Old 8.1, 4.6.4		1.91	(c)	
8.1.1	Books	new, split from Old 8.1.1		0.60	(b)	
8.1.2	Newspapers and magazines	new, split from Old 8.1.1		0.76	(b)	
8.1.3	Stationery	moved from Old 4.6.4		0.55	(d)	
8.2	Recreation	new, combination Old 8.2, 8.4		5.80	(c)	
8.2.1	Audio, visual and computing equipment	renamed, Old 8.2.1, parts 8.2.3, and computers		1.33	(d)	
8.2.2	Audio, visual and computing media and services	new, combination Old 8.2.2, 8.4.1, and software		0.73	(c)	
8.2.3	Sports and recreational equipment	new, split from Old 8.2.3		0.59	(b)	
8.2.4	Toys, games and hobbies	new, split from Old 8.2.3		0.35	(b)	
8.2.5	Repairs to recreational goods	moved from Old 8.4.2		0.13	(d)	
8.2.6	Sports participation	new, split from Old 8.4.3		0.84	(b)	
8.2.7	Other recreational activities	new, split from Old 8.4.3		1.83	(b)	
8.3	Holiday travel and accommodation			3.89		
8.3.1	Domestic holiday travel and accommodation	renamed		2.19	(d)	
8.3.2	Overseas holiday travel and accommodation	renamed		1.70	(d)	
8.4	Education and child care			2.32		
8.4.1	Education	renamed, Old 8.5.1, includes tertiary		1.82	(d)	
8.4.2	Child care	renamed (Old 8.5.2)		0.50	(d)	
ALL GROUPS (e)			100.00	100.00	100.00	

(a) 12th and 13th series are numbered independently—the numbers are to assist readability only.

(b) New series will have a reference base of June quarter 1998 = 100.0.

(c) New series calculated with a reference base of 1989–90 = 100.0.

(d) Continuous series linked to the 12th series equivalent with a reference base of 1989–90 = 100.0.

(e) Percentages may not add due to rounding.

APPENDIX 2

INTRODUCTION

ELEMENTARY AGGREGATE FORMULA IN THE CPI

1. Appendix 2 to *Information Paper: Issues to be Considered During the 13th Series Australian Price Index Review* (Cat. no. 6451.0) addressed the issue of sources of bias that might arise in compiling a consumer price index. It described five major sources of possible bias:

- item substitution bias
- outlet substitution bias
- new goods bias
- quality adjustment bias
- elementary aggregate formula bias

and steps that the ABS was taking to minimise such biases in the Australian CPI.

2. The appendix noted that the ABS was researching the problem of elementary aggregate formula bias, defined as the bias arising from the use of an inappropriate method for aggregating price quotations at the very lowest levels of aggregation (Diewert 1995a). The appendix foreshadowed that the ABS intended to implement new elementary aggregate formulae as appropriate. In the June quarter 1998 *Consumer Price Index* (Cat. no. 6401.0) it was announced that, with the implementation of the 13th series CPI, the ABS would progressively adopt the geometric mean formula for the calculation of elementary aggregates in the CPI. This appendix sets out the ABS plans in this regard. Further details will be published in a technical working paper which is expected to be released in the first half of 1999.

Background

3. Construction of the Australian CPI can be viewed as being undertaken in four stages:

- micro—the collection of price data for specific *items* from specific *outlets*;
- elementary aggregation—the calculation of *elementary aggregate* indexes for *representative items* by reference to the sample price data for identical or nearly identical items separately for each of the eight capital cities;
- intermediate aggregation—the calculation of price indexes for each CPI *expenditure class* in each city by weighting together the elementary aggregate indexes; and
- upper level aggregation—the process of weighting together the expenditure class indexes to derive the subgroup, group and All groups indexes respectively.

4. Elementary aggregates represent the lowest level for which reliable weighting information is available. That is to say that, while it is possible to determine a weight for each representative item (eg apples in Sydney) it is not possible to calculate weights for the individual price observations. The particular problem this presents is that the statistician must choose a method for calculating price change for the elementary

aggregate based on the observed price data alone. The three most used or commonly advocated methods are:

- to take the arithmetic average of the individual price relatives (where a price relative refers to the ratio of the current period price to the base period price for an individual observation, ie a particular good or service at a selected outlet)—the arithmetic mean of price relatives (APR) approach, also referred to as the Carli formula;
- to construct a ratio of the arithmetic average of the prices in the current period to the arithmetic average of the prices in the base period—the relative of arithmetic mean prices (RAP) approach, also referred to as the Dutot formula; and
- to take the geometric average of the individual price relatives—the geometric mean (GM) approach, also referred to as the Jevons formula.

5. Although these three approaches do not require weights to be explicitly assigned to the individual observations, they implicitly assign different underlying weights. As a result the three approaches can produce different measures of price change. The APR approach assumes that each item-outlet combination within an aggregate accounts for an equal share of base period expenditures (and therefore that quantities purchased are inversely proportional to base period prices). The RAP approach assumes that equal quantities of the item-outlet combinations are purchased in the base period (and therefore that base period expenditure shares are proportional to base period prices). The GM approach assumes that each item-outlet combination accounts for an equal share of expenditure in both periods (and therefore that the quantities purchased vary from period to period in order to maintain constant expenditure shares).

6. It is not possible to provide a simple guide to the extent to which the alternative measures will differ. However, useful insights can be gained by considering those circumstances under which alternative approaches will deliver identical outcomes. The three approaches deliver identical outcomes when all price movements within an elementary aggregate are equal (regardless of the dispersion of price levels); the APR and RAP methods deliver identical outcomes when all base period prices are equal (regardless of the dispersion of subsequent price movements); the RAP and GM approaches deliver identical outcomes (of no change) under conditions of 'price bouncing' (ie where the same set of prices are observable in the current period as in the base period with the difference being that they are observed at different outlets).

7. The ABS, in common with the majority of statistical agencies, currently uses the APR approach for the substantial majority of elementary aggregate indexes. The RAP approach is used for those small number of elementary aggregates for which zero prices can be observed (generally items subject to subsidies such as medical services and urban transport fares).

Background *continued*

8. Diewert (1995b) developed a suite of tests (referred to as axiomatic tests) against which to compare the performance of various index formulae and concluded that the APR formula was the least satisfactory, being inherently upwardly biased, while there was little to choose between the RAP and GM formula. Woolford (1994) used data for fresh fruit and vegetables in Canberra to demonstrate that, under certain data conditions, the choice of formula can result in significantly different outcomes. However he concluded that:

after taking account of some of the practical aspects of index construction, the evidence does not point to the clear superiority of a single formula in all circumstances ... and that the final choice (of formula for individual elementary aggregates) should ... be left to the judgement of the prices statistician.

Outcome of ABS Research

9. The ABS has recently completed a major research study into elementary aggregate formulae. The outcome has been a decision to adopt the geometric mean (GM) formula extensively in the CPI. The GM approach has a number of desirable properties:

- The weights are not implicitly determined as a function of base period prices alone. As such the 'equality' accorded to each observation aligns better with the sample selection processes actually employed in the CPI.
- It allows for some substitution among outlets in response to changes in relative prices. This attribute of the geometric mean is considered to more accurately reflect the behaviour of consumers as they alter their purchasing patterns in favour of those outlets whose prices fall, or rise less quickly, relative to other outlets.
- The geometric mean of price relatives equals the ratio of geometric mean prices. This enables the derivation of 'average' prices which are consistent with movements in the index. Of the arithmetic variants, only the RAP approach shares this characteristic.
- The composition of these low level price samples changes frequently in response to changes in outlets and commodities. It can be shown that the APR approach leads to bias in these circumstances whereas the GM approach does not.
- Compared to the APR approach, the GM approach provides a better estimator of aggregate price change under conditions of 'price bouncing' (ie where prices are subject to a continuous cycle of coming on and off 'special' prices such that the prices appear to bounce among outlets). This phenomenon is most noticeable for items like fresh fruit and vegetables and softdrinks.

10. Although the geometric mean approach is generally preferred to either of the arithmetic approaches, it is not suitable in all circumstances. Use of the geometric mean is inappropriate for elementary aggregates for which a zero price may legitimately be observed and for elementary aggregates covering items between which consumers are unable to substitute.

Outcome of ABS Research
continued

11. The inclusion of a zero in any set of numbers results in a geometric mean of zero. As the CPI is concerned with measuring the actual amounts paid by households for goods and services, legitimate zero prices can be encountered for items subject to government subsidies, an example being the amount paid for medical services when the service provider bulk bills. Indexes for elementary aggregates for which there is a reasonable risk of observing a zero price will therefore continue to be calculated using the ratio of arithmetic mean prices (RAP) approach.

12. A number of elementary aggregates in the CPI cover items for which there exist institutional barriers that effectively prohibit consumers substituting one supplier for another. An example here is local government rates—it is not possible to switch from a high rate area to a low rate area without physically moving location. As the geometric mean approach implicitly allows for such substitution to occur, indexes for elementary aggregates for which there exist reasonable barriers to substitution will continue to be calculated using the arithmetic mean of price relatives (ARP) approach.

13. The main areas where geometric means will not be applied are:

- Rents
- Electricity tariffs
- Gas tariffs
- Postal services
- Communication services
- Urban transport fares
- Medical practitioner's fees
- Education fees
- Child care fees

Implementation Plans **14.** Implementation of the geometric means formula will be undertaken progressively. All new price samples introduced into the CPI in September quarter 1998 will be processed using the geometric means formula. All the other elementary aggregates that have been assessed as suitable for geometric means will be changed over during the course of the December 1998 and March 1999 quarters.

Impact of the Formula Change **15.** The impact of changing to geometric means, where appropriate, cannot be quantified precisely. Simply recalculating the previous periods' indexes by changing the formula mis-states the impact of the change as it does not allow for the other index processing decisions made by CPI staff that would have been made differently if they had been basing their assessments on indexes calculated with a geometric mean. The main alternative to this approach is to process data under both methods, the cost of which would be prohibitive.

- Impact of the Formula Change *continued* **16.** However, based on empirical research that has been undertaken and the best judgement of ABS prices statisticians, it might be expected that the adoption of geometric means will result in a lowering of the annual growth rate of the CPI by between 0.1% and 0.2% per year. This would be consistent with the experience in other countries that have adopted geometric means, as appropriate, in their consumer price indexes over recent years.
- Further Information **17.** A technical paper will be published in 1999 describing this work in considerably more detail. Clients wanting more information before the publication of the working paper should contact Mr Keith Woolford, Director, Prices Development Section—see page 4 for contact details.
- References Diewert, W. E. 1995a, *Written Testimony for the United States Senate Committee on Finance*, April 6 1995.
- Diewert, W. E. 1995b, *Axiomatic and Economic Approaches to Elementary Price Indexes*, Discussion Paper no. 95-02, Department of Economics, University of British Columbia, Vancouver, Canada.
- Woolford, K. 1994, *A Pragmatic Approach to the Selection of Appropriate Index Formulae*, paper presented at the International Conference on Price Indices (31 October–2 November, 1994), Statistics Canada, Ottawa.

APPENDIX 3

REVISED FORMAT FOR THE CPI PUBLICATION (ABS Cat. no. 6401.0)

INTRODUCTION

1. The introduction of the 13th series Australian Consumer Price Index has necessitated some changes to the quarterly *Consumer Price Index Australia* (Cat. no. 6401.0).
2. To illustrate the changes, this appendix presents a mock-up of the September quarter 1998 publication, which will be released on 28 October 1998.

DETAILS OF CHANGES

(Note: page numbers refer to those in the publication)

- | | |
|-----------------|--|
| Page 4 | The table at the end of the Analyses and Comments now includes an additional column showing the All groups index numbers for each of the eight capital cities. |
| Pages 9 and 10 | Table 5 is a new table and shows the main CPI Group index numbers for each of the eight capital cities. |
| Pages 11 to 13 | Table 6 is comparable to the old Table 5, but is based on the 13th series classification. The last row in the old table 'Selected State and local government charges' has been dropped. |
| Pages 14 to 16 | Table 7 is comparable to the old Table 6, but is based on the 13th series classification. |
| Page 17 | Table 8 is comparable to the old Table 7, but rows in the old table relating to Mortgage interest and consumer credit charges, and Selected State and local government charges have been dropped. |
| Pages 18 and 19 | The International Comparison Tables 9 and 10 are comparable to the old Tables 8 and 9, however, the ordering of the countries has changed. |
| Pages 20 and 21 | Tables 11 and 12, are comparable with the old Tables 10 and 11 but are now titled 'Analytical Series'. The analytical series shown are based on the 13th series classification. |
| Pages 22 to 25 | The Explanatory Notes have been updated to incorporate changes arising from the 13th series CPI review. |
| Pages 26 to 29 | The concordance between the 12th and 13th series CPI, shown in the Appendix to the June quarter 1998 issue of Cat. no. 6401.0 is to be reproduced in the September quarter 1998 issue, but will not appear in subsequent issues. |

CONSUMER PRICE INDEX AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) WED 28 OCT 1998

SEPTEMBER QTR KEY FIGURES

	<i>% change Jun Qtr 1998 to Sep Qtr 1998</i>	<i>% change Sep Qtr 1997 to Sep Qtr 1998</i>
Weighted average of eight capital cities		
Food		
Clothing		
Housing		
Household equipment and operation		
Transportation		
Alcohol and tobacco		
Health and personal care		
Recreation and education		

All groups

All groups excluding housing

SEPTEMBER QTR KEY POINTS

THE ALL GROUPS CPI

-
-

OVERVIEW OF CPI MOVEMENTS

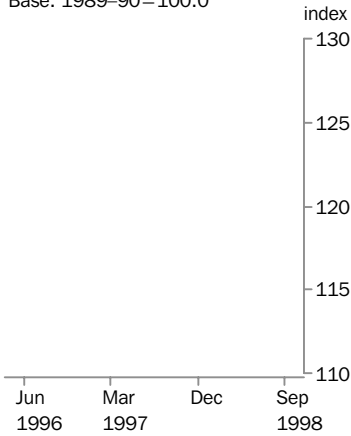
-
-
-

NOTE:
13th Series CPI commences this quarter - see page 2 for details.

Treasury's Measure of Underlying Inflation

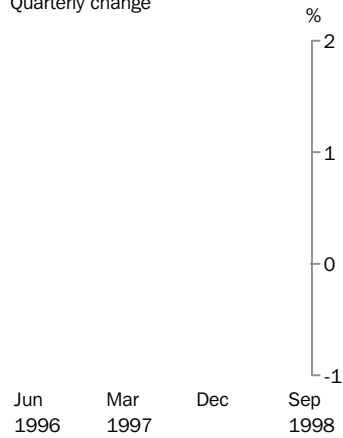
All Groups

Base: 1989-90=100.0



All Groups

Quarterly change



- For further information about these and related statistics, contact Steve Whennan on Canberra 02 6252 6251, or any ABS office shown on the back cover of this publication.

NOTES

FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
December 1998	27 January 1999
March 1999	28 April 1999

CHANGES IN THIS ISSUE

This issue introduces the 13th Series Australian Consumer Price Index which, among other things, incorporates an updated commodity classification and weighting pattern. For more details of changes resulting from the introduction of the 13th Series CPI, refer to the Appendix to the June quarter 1998 issue of this publication and also to *Information Paper: Introduction of the 13th Series Australian Consumer Price Index* (Cat. no. 6454.0) which was released on 29 September 1998. That Information Paper contains details of the new expenditure weights for the 13th Series CPI.

Commencing with this issue, index numbers for the main CPI Groups for each of the eight capital cities are included in a new Table 5 on pages 9 and 10. The inclusion of this table has meant that the table number for subsequent tables has increased by one when compared with previous issues. For example, old Table 5 in the June quarter issue will now be Table 6, old Table 6 will now be Table 7, etc.

Special series relating to mortgage interest and consumer credit charges and Selected State and local government charges have been dropped from Table 7 (old Table 6) on page 17.

The list of countries shown in the International Comparisons Tables 9 and 10 on pages 18 and 19 has been reordered.

Tables 11 and 12 (old Tables 10 and 11) have been re-titled.

The Explanatory Notes have been updated to incorporate changes arising from the 13th Series CPI review.

The concordance between the 12th and 13th Series CPI, shown in the Appendix to the June quarter 1998 issue of this publication, is repeated on pages 26 to 29.

ROUNDING

Any discrepancies between totals and sums of components in this publication are due to rounding. For similar reasons quarterly movements shown by sub-group or group index numbers in Table 7 do not necessarily correspond exactly with those shown by the relevant index points.

W. McLennan
Australian Statistician

ANALYSES AND COMMENTS



MAIN CONTRIBUTIONS TO CHANGE

ANALYSES AND COMMENTS

MAIN CONTRIBUTIONS TO CHANGE *continued*

CONSUMER PRICE INDEX, All groups index numbers(a) and percentage changes

	INDEX NUMBER(a)	PERCENTAGE CHANGE BETWEEN	
	<i>Sep Qtr 1998</i>	<i>Jun Qtr 1998 and Sep Qtr 1998</i>	<i>Sep Qtr 1997 and Sep Qtr 1998</i>
Sydney			
Melbourne			
Brisbane			
Adelaide			
Perth			
Hobart			
Darwin			
Canberra			

Weighted average of eight capital cities

(a) Base of each index: 1989-90=100.0



ALL GROUPS, Index Numbers(a)

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
1994-95									
1995-96									
1996-97									
1997-98									
1994									
September									
December									
1995									
March									
June									
September									
December									
1996									
March									
June									
September									
December									
1997									
March									
June									
September									
December									
1998									
March									
June									
September									

(a) Base of each index: 1989-90 = 100.0

ALL GROUPS, Percentage Changes

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
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PERCENTAGE CHANGE (from previous financial year)

- 1994-95**
- 1995-96**
- 1996-97**
- 1997-98**

PERCENTAGE CHANGE (from corresponding quarter of previous year)

- 1994**
- September
- December
- 1995**
- March
- June
- September
- December
- 1996**
- March
- June
- September
- December
- 1997**
- March
- June
- September
- December
- 1998**
- March
- June
- September

PERCENTAGE CHANGE (from previous quarter)

- 1994**
- September
- December
- 1995**
- March
- June
- September
- December
- 1996**
- March
- June
- September
- December
- 1997**
- March
- June
- September
- December
- 1998**
- March
- June
- September

3

CPI GROUPS, Weighted Average of Eight Capital Cities—Index Numbers(a)

<i>Period</i>	<i>Food</i>	<i>Clothing</i>	<i>Housing</i>	<i>Household equipment and operation</i>	<i>Trans- portation</i>	<i>Alcohol and tobacco</i>	<i>Health and personal care</i>	<i>Recreation and education</i>	<i>All groups</i>
1994-95									
1995-96									
1996-97									
1997-98									
1994									
September									
December									
1995									
March									
June									
September									
December									
1996									
March									
June									
September									
December									
1997									
March									
June									
September									
December									
1998									
March									
June									
September									

(a) Base of each index: 1989-90 = 100.0

4

CPI GROUPS, Weighted Average of Eight Capital Cities—Percentage Changes

<i>Period</i>	<i>Food</i>	<i>Clothing</i>	<i>Housing</i>	<i>Household equipment and operation</i>	<i>Trans- portation</i>	<i>Alcohol and tobacco</i>	<i>Health and personal care</i>	<i>Recreation and education</i>	<i>All groups</i>
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PERCENTAGE CHANGE (from previous financial year)

1994-95
1995-96
1996-97
1997-98

PERCENTAGE CHANGE (from corresponding quarter of previous year)

1994
 September
 December
1995
 March
 June
 September
 December
1996
 March
 June
 September
 December
1997
 March
 June
 September
 December
1998
 March
 June
 September

PERCENTAGE CHANGE (from previous quarter)

1994
 September
 December
1995
 March
 June
 September
 December
1996
 March
 June
 September
 December
1997
 March
 June
 September
 December
1998
 March
 June
 September

5

CPI GROUPS, Index Numbers(a)

Quarters	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
FOOD									
1997									
June									
September									
December									
1998									
March									
June									
September									
CLOTHING									
1997									
June									
September									
December									
1998									
March									
June									
September									
HOUSING									
1997									
June									
September									
December									
1998									
March									
June									
September									
HOUSEHOLD EQUIPMENT AND OPERATION									
1997									
June									
September									
December									
1998									
March									
June									
September									
TRANSPORTATION									
1997									
June									
September									
December									
1998									
March									
June									
September									

CPI GROUPS, Index Numbers(a) *continued*

Quarters	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
ALCOHOL AND TOBACCO									
1997									
June									
September									
December									
1998									
March									
June									
September									
HEALTH AND PERSONAL CARE									
1997									
June									
September									
December									
1998									
March									
June									
September									
RECREATION AND EDUCATION									
1997									
June									
September									
December									
1998									
March									
June									
September									

(a) Base of each index: 1989-90 = 100

Group, sub-group and expenditure class	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
Food									
Dairy and related products (b)									
Milk and cream									
Cheese									
Other dairy products									
Cereal products									
Bread									
Cakes and biscuits									
Breakfast cereals									
Other cereal products									
Meat and seafoods									
Beef and veal									
Lamb and mutton									
Pork									
Poultry									
Bacon and ham									
Processed meat									
Fish and other seafood (c)									
Fresh fruit and vegetables									
Fresh fruit									
Fresh vegetables (d)									
Processed fruit and vegetables									
Processed fruit									
Processed vegetables									
Fruit and vegetable juices (c)									
Soft drinks, ice cream and confectionery									
Soft drinks and cordials									
Ice cream and ice confectionery									
Sweet and savoury snacks (c)									
Meals out and take away foods									
Restaurant meals (c)									
Take away and fast foods (c)									
Other food									
Eggs									
Jams, honey and sandwich spreads									
Tea, coffee and food drinks									
Food additives and condiments (d)									
Fats and oils (d)									
Food n.e.c. (c)									
Clothing									
Men's clothing (d)									
Men's outerwear (d)									
Men's shirts									
Men's underwear, nightwear and socks									
Women's clothing (d)									
Women's outerwear (d)									
Women's underwear, nightwear and hosiery									
Children's and infants' clothing (d)									
Boys' clothing (f)									
Girls' clothing (f)									
Footwear									
Men's footwear									
Women's footwear									
Children's footwear									
Clothing accessories, supplies and services (e)									
Clothing accessories (e)									
Fabrics and knitting wool (f)									
Clothing services and shoe repair (c)									

<i>Group, sub-group and expenditure class</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>	<i>Weighted average of eight capital cities</i>
Housing									
Rents									
Privately-owned dwelling rents									
Government-owned dwelling rents									
Utilities (b)									
Electricity (f)									
Gas (f)									
Other household fuel (f)									
Water and sewerage (e)									
Other housing (b)									
House purchase (e)									
Property rates and charges (e)									
House repairs and maintenance									
House insurance									
Household equipment and operation									
Furniture and floor coverings									
Furniture									
Floor coverings									
Household textiles									
Bedding									
Towels, linen and curtains									
Household appliances, utensils and tools (d)									
Appliances (f)									
Tableware, glassware and cutlery									
Household utensils (d)									
Tools									
Household supplies (d)									
Household cleaning agents									
Pet foods, pets and supplies (c)									
Other household supplies (d)									
Household services (d)									
Pet services including veterinary (c)									
House contents insurance									
Repairs to household durables (c)									
Domestic services (e)									
Postal and communication services (c)									
Postal services									
Communication services (c)									
Transportation									
Private motoring									
Motor vehicles									
Automotive fuel									
Vehicle insurance									
Motor vehicle repair and servicing (d)									
Motor vehicle parts and accessories (d)									
Other motoring charges (c)									
Urban transport fares									
Alcohol and tobacco (c)									
Alcoholic drinks									
Beer									
Wine									
Spirits									
Cigarettes and tobacco									

Group, sub-group and expenditure class	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
Health and personal care									
Health services									
Hospital and medical services									
Optical services									
Dental services									
Personal care products									
Pharmaceuticals									
Toiletries and personal products									
Hairdressing and personal care services (c)									
Recreation and education									
Books, newspapers, magazines and stationery (d)									
Books (e)									
Newspapers and magazines (e)									
Stationery (f)									
Recreation (d)									
Audio, visual and computing equipment (b)									
Audio, visual and computing media and services (d)									
Sports and recreational equipment (e)									
Toys, games and hobbies (e)									
Repairs to recreational goods									
Sports participation (e)									
Other recreational activities (e)									
Holiday travel and accommodation									
Domestic holiday travel and accommodation (c)									
Overseas holiday travel and accommodation (c)									
Education and child care									
Education (b)									
Child care (c)									

All groups

- (a) All groups index points
- (b) Series renamed and minor change to composition (linked to 12th series equivalent), see Appendix A1 for further information
- (c) Series renamed only (linked to 12th series equivalent), see Appendix A1 for further information
- (d) New series, combination of previously published series, see Appendix A1 for further information
- (e) New series, see Appendix A1 for further information
- (f) Change of position in classification, see Appendix A1 for further information

Group, sub-group and expenditure class	INDEX NUMBERS(a).....			PERCENTAGE CHANGE BETWEEN.....		CONTRIBUTION TO TOTAL CPI (ALL GROUPS INDEX POINTS)		
	Sep Qtr	Jun Qtr	Sep Qtr	Jun Qtr	Sep Qtr	Jun Qtr	Sep Qtr	Change between
	1997	1998	1998	1998 and	1997 and	1998(g)	1998	Jun Qtr 1998 and Sep Qtr 1998

Food

Dairy and related products (b)
Milk and cream
Cheese
Other dairy products
Cereal products
Bread
Cakes and biscuits
Breakfast cereals
Other cereal products
Meat and seafoods
Beef and veal
Lamb and mutton
Pork
Poultry
Bacon and ham
Processed meat
Fish and other seafood (c)
Fresh fruit and vegetables
Fresh fruit
Fresh vegetables (d)
Processed fruit and vegetables
Processed fruit
Processed vegetables
Fruit and vegetable juices (c)
Soft drinks, ice cream and confectionery
Soft drinks and cordials
Ice cream and ice confectionery
Sweet and savoury snacks (c)
Meals out and take away foods
Restaurant meals (c)
Take away and fast foods (c)
Other food
Eggs
Jams, honey and sandwich spreads
Tea, coffee and food drinks
Food additives and condiments (d)
Fats and oils (d)
Food n.e.c. (c)

Clothing

Men's clothing (d)
Men's outerwear (d)
Men's shirts
Men's underwear, nightwear and socks
Women's clothing (d)
Women's outerwear (d)
Women's underwear, nightwear and hosiery
Children's and infants' clothing (d)
Boys' clothing (f)
Girls' clothing (f)
Footwear
Men's footwear
Women's footwear
Children's footwear
Clothing accessories, supplies and services (e)
Clothing accessories (e)
Fabrics and knitting wool (f)
Clothing services and shoe repair (c)



GROUP, SUB-GROUP & EXPENDITURE CLASS, Weighted Average of Eight Capital Cities *continued*

Group, sub-group and expenditure class	INDEX NUMBERS(a).....			PERCENTAGE CHANGE BETWEEN.....		CONTRIBUTION TO TOTAL CPI (ALL GROUPS INDEX POINTS)		
	Sep Qtr 1997	Jun Qtr 1998	Sep Qtr 1998	Jun Qtr 1998 and	Sep Qtr 1997 and	Jun Qtr 1998(g)	Sep Qtr 1998	Change between Jun Qtr 1998 and Sep Qtr 1998
				Sep Qtr 1998	Sep Qtr 1998			
Housing								
Rents								
Privately-owned dwelling rents								
Government-owned dwelling rents								
Utilities (b)								
Electricity (f)								
Gas (f)								
Other household fuel (f)								
Water and sewerage (e)								
Other housing (b)								
House purchase (e)								
Property rates and charges (e)								
House repairs and maintenance								
House insurance								
Household equipment and operation								
Furniture and floor coverings								
Furniture								
Floor coverings								
Household textiles								
Bedding								
Towels, linen and curtains								
Household appliances, utensils and tools (d)								
Appliances (f)								
Tableware, glassware and cutlery								
Household utensils (d)								
Tools								
Household supplies (d)								
Household cleaning agents								
Pet foods, pets and supplies (c)								
Other household supplies (d)								
Household services (d)								
Pet services including veterinary (c)								
House contents insurance								
Repairs to household durables (c)								
Domestic services (e)								
Postal and communication services (c)								
Postal services								
Communication services (c)								
Transportation								
Private motoring								
Motor vehicles								
Automotive fuel								
Vehicle insurance								
Motor vehicle repair and servicing (d)								
Motor vehicle parts and accessories (d)								
Other motoring charges (c)								
Urban transport fares								
Alcohol and tobacco (c)								
Alcoholic drinks								
Beer								
Wine								
Spirits								
Cigarettes and tobacco								

Group, sub-group and expenditure class	INDEX NUMBERS(a).....			PERCENTAGE CHANGE BETWEEN.....		CONTRIBUTIONS TO TOTAL CPI (ALL GROUPS INDEX POINTS)		
	Sep Qtr	Jun Qtr	Sep Qtr	Jun Qtr	Sep Qtr	Jun Qtr	Sep Qtr	Change between
	1997	1998	1998	1998 and Sep Qtr 1998	1997 and Sep Qtr 1998	1998(g)	1998	Jun Qtr 1998 and Sep Qtr 1998
Health and personal care								
Health services								
Hospital and medical services								
Optical services								
Dental services								
Personal care products								
Pharmaceuticals								
Toiletries and personal products								
Hairdressing and personal care services (c)								
Recreation and education								
Books, newspapers, magazines and stationery (d)								
Books (e)								
Newspapers and magazines (e)								
Stationery (f)								
Recreation (d)								
Audio, visual and computing equipment (b)								
Audio, visual and computing media and services (d)								
Sports and recreational equipment (e)								
Toys, games and hobbies (e)								
Repairs to recreational goods								
Sports participation (e)								
Other recreational activities (e)								
Holiday travel and accommodation								
Domestic holiday travel and accommodation (c)								
Overseas holiday travel and accommodation (c)								
Education and child care								
Education (b)								
Child care (c)								

All groups

- a) Unless otherwise specified, base of each index: 1989-90 = 100.0
- (e) New series, base June quarter 1998 = 100.0, see Appendix A1 for further information
- (b) Series renamed and minor change to composition (linked to 12th series equivalent), see Appendix A1 for further information
- (f) Change of position in classification, see Appendix A1 for further information
- (c) Series renamed only (linked to 12th series equivalent), see Appendix A1 for further information
- (g) Differs from previously published June quarter 1998 due to 13th Series CPI reweighting
- (d) New series, combination of previously published series, see Appendix A1 for further information

8

SPECIAL SERIES, Weighted Average of Eight Capital Cities

INDEX NUMBERS(a).....			PERCENTAGE CHANGE BETWEEN.....		CONTRIBUTION TO TOTAL CPI (ALL GROUPS INDEX POINTS)		
<i>Sep Qtr</i> 1997	<i>Jun Qtr</i> 1998	<i>Sep Qtr</i> 1998	<i>Jun Qtr</i> 1998 and <i>Sep Qtr</i> 1998	<i>Sep Qtr</i> 1997 and <i>Sep Qtr</i> 1998	<i>Jun Qtr</i> 1998(c)	<i>Sep Qtr</i> 1998	<i>Change between</i> <i>Jun Qtr 1998</i> <i>and</i> <i>Sep Qtr 1998</i>

All groups

Selected components

- Goods component (b)
- Services component (b)

All groups excluding

- Food
- Clothing
- Housing
- Household equipment and operation
- Transportation
- Alcohol and tobacco
- Health and personal care
- Recreation and education
- Hospital and medical services

(a) Base of each index: 1989-90 = 100.0

(b) Refer to paragraph 13 of the Explanatory Notes for a description of this series

(c) Differs from previously published June quarter 1998 due to 13th Series CPI reweighting.

INTERNATIONAL COMPARISONS, All Groups Excluding Housing—Index Numbers(a)(b)

Period	Australia	New Zealand	Hong Kong	Indonesia	Japan	Korea, Republic of	Singapore	Taiwan	Canada	United States of America	Germany	United Kingdom
--------	-----------	-------------	-----------	-----------	-------	--------------------	-----------	--------	--------	--------------------------	---------	----------------

1994-95
1995-96
1996-97
1997-98

1994
 September
 December

1995
 March
 June
 September
 December

1996
 March
 June
 September
 December

1997
 March
 June
 September
 December

1998
 March
 June
 September

(a) Base of each index: Year 1989-90 = 100.0

(b) Refer to paragraphs 14-18 of the Explanatory Notes for further information

INTERNATIONAL COMPARISONS, All Groups Excluding Housing—Percentage Changes(a)

Period	Australia	New Zealand	Hong Kong	Indonesia	Japan	Korea, Republic of	Singapore	Taiwan	Canada	United States of America	Germany	United Kingdom
--------	-----------	-------------	-----------	-----------	-------	--------------------	-----------	--------	--------	--------------------------	---------	----------------

PERCENTAGE CHANGE (from previous financial year)

1994-95
1995-96
1996-97
1997-98

PERCENTAGE CHANGE (from corresponding quarter of previous year)

1994
 September
 December
1995
 March
 June
 September
 December
1996
 March
 June
 September
 December
1997
 March
 June
 September
 December
1998
 March
 June
 September

PERCENTAGE CHANGE (from previous quarter)

1994
 September
 December
1995
 March
 June
 September
 December
1996
 March
 June
 September
 December
1997
 March
 June
 September
 December
1998
 March
 June
 September

(a) Refer to paragraphs 14-18 of the Explanatory Notes for further information

ANALYTICAL SERIES, Index Numbers(a)(b)

PRIVATE SECTOR GOODS
AND SERVICES(c).....

<i>Period</i>	<i>All groups</i>	<i>All groups excluding Housing</i>	<i>All groups excluding 'volatile items'(c)</i>	<i>Goods</i>	<i>Services</i>	<i>Total</i>	<i>Treasury Underlying Rate(c)</i>
1994-95							
1995-96							
1996-97							
1997-98							
1994							
September							
December							
1995							
March							
June							
September							
December							
1996							
March							
June							
September							
December							
1997							
March							
June							
September							
December							
1998							
March							
June							
September							

(a) Base of each index: Year 1989-90 = 100.0

(b) Refer to paragraph 20 of the Explanatory Notes for further information

(c) Refer to paragraph 13 of the Explanatory Notes for a description of this series

ANALYTICAL SERIES, Percentage Changes(a)

PRIVATE SECTOR GOODS
AND SERVICES(b).....

Period	All groups	All groups excluding Housing	All groups excluding 'volatile items'(b)	Goods	Services	Total	Treasury Underlying Rate(b)
--------	------------	------------------------------	--	-------	----------	-------	-----------------------------

PERCENTAGE CHANGE (from previous financial year)

1994-95
1995-96
1996-97
1997-98

PERCENTAGE CHANGE (from corresponding quarter of previous year)

1994
September
December
1995
March
June
September
December
1996
March
June
September
December
1997
March
June
September
December
1998
March
June
September

PERCENTAGE CHANGE (from previous quarter)

1994
September
December
1995
March
June
September
December
1996
March
June
September
December
1997
March
June
September
December
1998
March
June
September

(a) Refer to paragraph 20 of the Explanatory Notes for further information

(b) Refer to paragraph 13 of the Explanatory Notes for a description of this series

EXPLANATORY NOTES

BRIEF DESCRIPTION OF THE CPI

1 The Consumer Price Index (CPI) measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditure by the CPI population group (i.e. metropolitan households). This 'basket' covers a wide range of goods and services, arranged in the following eight groups:

- food
- clothing
- housing
- household equipment and operation
- transportation
- alcohol and tobacco
- health and personal care and recreation and education.

The inclusion in the CPI of a ninth group, financial services, has been announced, and it is expected to be introduced into the CPI during 2000.

2 The capital city indexes measure price movements over time in each city individually. They do not measure differences in retail price levels between cities.

3 In *Information Paper: Outcome of the 13th Series Australian Consumer Price Index Review* (Cat no. 6453.0), the purpose of the CPI is explained, while the current weighting pattern is given in *Information Paper: Introduction of the 13th Series Australian Consumer Price Index* (Cat. no. 6454.0).

PRICES

4 Prices of goods and services included in the CPI are generally collected quarterly. However, some important items are priced monthly or more frequently (e.g. bread, fresh meat and fish, fresh fruit and vegetables, petrol, alcohol and tobacco) and a small number annually (e.g. seasonal clothing).

5 In order to facilitate a more even spread of field collection workload the bulk of the items for which prices are collected quarterly are priced in the first two months of each quarter (i.e. July/August, October/November, January/February, April/May). With a few exceptions items priced in the third month are those subject to price changes at discrete points of time (e.g. electricity and postal charges); in these cases information about any changes in price during the quarter is obtained so that an average price for the whole quarter can be calculated.

WEIGHTING PATTERN

6 There are 101 expenditure classes (that is, groupings of like items) in the thirteenth series CPI and each expenditure class has its own weight, or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

7 Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI now comprises thirteen series of price indexes which have been linked to form a continuous series.

EXPLANATORY NOTES

ANALYSIS OF CPI CHANGES

8 Movements in indexes from one period to another can be expressed either as changes in index points or as percentage changes. The following example illustrates the method of calculating changes in index points and percentage changes between any two periods:

All groups CPI: Weighted average of eight capital cities.

	Index numbers:	
September Quarter 1998	xxx.x (see Table 1)	
less June Quarter 1998	xxx.x (see Table 1)	
Change in index points	x.x	
Percentage change =	$\frac{x.x}{xxx.x} \times 100 =$	x.x%

9 Percentage changes are calculated to illustrate three different kinds of movements in index numbers:

- movements between consecutive financial years (where the index numbers for financial years are simple averages of the quarterly index numbers),
- movements between corresponding quarters of consecutive years, and
- movements between consecutive quarters.

10 Table 7 provides a detailed analysis, for the weighted average of eight capital cities, of movements in the CPI since the previous quarter, including information on movements for groups, subgroups and expenditure classes. It also shows the contribution which each makes to the total CPI. For instance, the dairy products subgroup contributed x.xx index points to the total All groups index number of xxx.x for September Quarter 1998. The final column shows contributions to the change in All Groups index points by each group, subgroup and expenditure class.

11 Table 8 provides summary information about a range of Special series in a similar format to that provided in Table 7.

SPECIAL SERIES

12 Various series are presented in this publication which are helpful for analytical purposes. These series are compiled by taking subsets of the CPI basket. A complete list of CPI groups, subgroups and expenditure classes is contained in Tables 6 and 7.

13 Some of the compiled series are self explanatory, such as 'All groups, excluding food'. Other series and their composition are described below:

All Groups, goods component: comprises the Food group (except Restaurant meals), Clothing group (except Clothing services and shoe repair), Household equipment and operation group (except Household services and Postal and communication services), Alcohol and tobacco group, House purchase, Motor vehicles, Automotive fuel, Motor vehicle parts and accessories, Personal care products, Books, newspapers, magazines and stationery, Audio, visual and computing equipment, Audio, visual and computing media and services, Sports and recreational equipment and Toys, games and hobbies.

All Groups, services component: comprises all items not included in the 'All groups, goods component'.

All groups excluding 'volatile items': comprises the All groups CPI excluding: Fresh fruit and vegetables and Automotive fuel.

Private sector goods and services: in addition to the items excluded from the series "All groups excluding 'volatile items'", also excludes: Government-owned dwelling rents, Utilities, Property rates and charges, Postal and communication services, Other motoring charges, Urban transport fares, Health services, Pharmaceuticals, and Education and child care.

EXPLANATORY NOTES

SPECIAL SERIES *continued*

Treasury underlying rate: excludes items from the CPI basket whose prices are highly volatile, exhibit marked seasonal patterns or are largely affected by policy decisions—in addition to the items excluded from the series ‘Private sector goods and services’, the Treasury underlying rate also excludes Meat and seafoods, Clothing group, Alcohol and tobacco group; and Holiday travel and accommodation; but includes Other motoring charges.

INTERNATIONAL COMPARISONS

14 In analysing price movements in Australia, an important consideration is Australia's performance relative to other countries. However, due to the many differences in the structure of the housing sector in different countries and in the way that housing is treated in their CPIs, a simple comparison of All groups (or headline) CPIs is often inappropriate. To provide a better basis for international comparisons, the Fourteenth International Conference of Labour Statisticians adopted a resolution which called for countries to ‘provide for dissemination at the international level of an index which excludes shelter, in addition to the all-items index’.

15 Table 9 presents indexes for selected countries on a basis consistent with the above resolution and comparable to the Australian series ‘All groups excluding housing’. To facilitate comparisons all indexes in this table have, where necessary, been converted to a quarterly basis and re-referenced to a base of 1989-90 = 100.0.

16 The statistics for Germany refer to Western Germany (Federal Republic of Germany) before the unification of Germany.

17 From March quarter 1994 the statistics for New Zealand refer to ‘all groups excluding housing and credit services’.

18 From 1 July 1997, Hong Kong became part of China. It is now known as: The Hong Kong Special Administrative Region of the People's Republic of China. Taiwan is now officially referred to as: Taiwan (Province of China)

19 In producing Table 9, the ABS is grateful for the assistance of the relevant national statistical agencies which have either directly supplied indexes for all items excluding shelter or data to enable their derivation.

ANALYTICAL SERIES

20 Table 11 presents the All groups CPI, All groups excluding housing (the series recommended for international comparisons), and a number of other analytical series, including the Treasury measure of underlying inflation. The measures in this table have been defined to be as consistent as possible with those presented in Table 10 of the 12th Series publication. A description of the Treasury ‘underlying’ inflation rate was published in the Appendix to the September quarter 1994 issue of this publication.

RELATED PUBLICATIONS

21 Current publications produced by the ABS are listed in the Catalogue of Publications and Products, Australia (1101.0). The ABS also issues, on Tuesdays and Fridays, a Release Advice (1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

22 Users may also wish to refer to the following publications:

- *Average Retail Prices of Selected Items Eight Capital Cities* (6403.0)
- *House Price Indexes: Eight Capital Cities* (6416.0)
- *Information Paper: Issues to be Considered During the 13th Series Australian Consumer Price Index Review* (6451.0)
- *Information Paper: Outcome of the 13th Series Australian Consumer Price Index Review* (6453.0)
- *Information Paper: Introduction of the 13th Series Australian Consumer Price Index* (6454.0)

EXPLANATORY NOTES

UNPUBLISHED STATISTICS

23 As well as the statistics included in this and related publications, the ABS may have other relevant unpublished data available. Inquiries should be made to Steve Whennan on 02 6252 6251 or to any ABS office.

SYMBOLS AND OTHER USAGES

— nil or rounded to zero
n.a. not available
n.y.a. not yet available
r revised
n.e.c. not elsewhere classified

CONCORDANCE BETWEEN 12TH AND 13TH SERIES CPI(a)

continued

12TH SERIES (Old)	Group, subgroup, and expenditure class	Concordance with 13th series	13TH SERIES (New)	Group, subgroup, and expenditure class	Concordance with 12th series	Base period
2	CLOTHING		2	CLOTHING		
2.1	Men's and boys' clothing		2.1	Men's clothing	new, excludes Old 2.1.5	(c)
2.1.1	Men's outer clothing	dropped, split into New 2.1, 2.3	2.1.1	Men's outerwear	new, combination Old 2.1.1, 2.1.2	(c)
2.1.2	Men's knitwear	dropped, in New 2.1.1	2.1.2	Men's shirts		
2.1.3	Men's shirts	dropped, in New 2.1.1	2.1.3	Men's underwear, nightwear and socks		
2.1.4	Men's underwear, nightwear and socks					
2.1.5	Boys' clothing	moved to New 2.3.1				
2.2	Women's and girls' clothing		2.2	Women's clothing	new, excludes Old 2.2.4	(c)
2.2.1	Women's outer clothing	dropped, split into new 2.2, 2.3	2.2.1	Women's outerwear	new, combination Old 2.2.1, 2.2.2	(c)
2.2.2	Women's knitwear	dropped, in New 2.2.1	2.2.2	Women's underwear, nightwear and hosiery		
2.2.3	Women's underwear, nightwear and hosiery					
2.2.4	Girls' clothing	moved to New 2.3.2				
2.3	Fabrics and knitting wool		2.3	Children's and infants' clothing	new, split from Old 2.1, 2.2	(c)
2.3.1	Fabrics and knitting wool	dropped, in New 2.5	2.3.1	Boys' clothing	moved from Old 2.1.5	(d)
2.3.2	Fabrics and knitting wool	moved to New 2.5.2	2.3.2	Girls' clothing	moved from Old 2.2.4	(d)
2.4	Footwear		2.4	Footwear		
2.4.1	Men's footwear		2.4.1	Men's footwear		
2.4.2	Women's footwear		2.4.2	Women's footwear		
2.4.3	Children's footwear		2.4.3	Children's footwear		
2.5	Dry cleaning and shoe repairs		2.5	Clothing accessories, supplies and services	new	(b)
2.5.1	Dry cleaning and shoe repairs	dropped, in New 2.5	2.5.1	Clothing accessories	new, Old 4.6.5, 4.6.8, parts 2.1, 2.2, 2.3	(b)
		moved to New 2.5.3	2.5.2	Fabrics and knitting wool	moved from Old 2.3.1	(d)
			2.5.3	Clothing services and shoe repair	renamed (Old 2.5.1)	(d)
3	HOUSING		3	HOUSING	includes Old 4.1	(d)
3.1	Rents		3.1	Rents		
3.1.1	Privately-owned dwelling rents		3.1.1	Privately-owned dwelling rents		
3.1.2	Government-owned dwelling rents		3.1.2	Government-owned dwelling rents		
3.2	Home ownership		3.2	Utilities	renamed, Old 4.1	(d)
3.2.1	Mortgage interest charges	renamed (New 3.3)	3.2.1	Electricity	moved from Old 4.1.1	(d)
3.2.2	Local government rates and charges	dropped, removed from index	3.2.2	Gas	moved from Old 4.1.2	(d)
3.2.3	House repairs and maintenance	dropped, split into New 3.2.4, 3.3.2	3.2.3	Other household fuel	renamed, Old 4.1.3	(d)
3.2.4	House insurance		3.2.4	Water and sewerage	new, split from Old 3.2.2	(b)
			3.3	Other housing	renamed, Old 3.2 excludes 3.2.1	(d)
			3.3.1	House purchase	new	(b)
			3.3.2	Property rates and charges	new, split from Old 3.2.2	(b)
			3.3.3	House repairs and maintenance		
			3.3.4	House insurance		

CONCORDANCE BETWEEN 12TH AND 13TH SERIES CPI(a)

continued

12TH SERIES (Old)	Group, subgroup, and expenditure class	Concordance with 13th series	13TH SERIES (New)	Group, subgroup, and expenditure class	Concordance with 12th series	Base period
4	HOUSEHOLD EQUIPMENT AND OPERATION		4	HOUSEHOLD EQUIPMENT AND OPERATION		
4.1	Fuel and light		4.1	Furniture and floor coverings		(d)
4.1.1	Electricity	renamed (New 3.2)	4.1.1	Furniture	includes part Old 4.6.5	
4.1.2	Gas	moved to New 3.2.1	4.1.2	Floor coverings		
4.1.3	Other fuel	moved to New 3.2.2				
4.2	Furniture and floor coverings	renamed (New 3.2.3)				
4.2.1	Furniture					
4.2.2	Floor coverings	dropped, in New 4.3				
4.3	Appliances					
4.3.1	Appliances					
4.4	Household textiles		4.2	Household textiles		
4.4.1	Bedding		4.2.1	Bedding		
4.4.2	Towels, linen and curtains		4.2.2	Towels, linen and curtains		
4.5	Household utensils and tools	dropped, in New 4.3	4.3	Household appliances, utensils and tools	new, combination Old 4.3, 4.5	(c)
4.5.1	Tableware, glassware and cutlery	dropped, in New 4.3.3	4.3.1	Appliances		
4.5.2	Kitchen and cooking utensils	dropped, in New 4.3.3	4.3.2	Tableware, glassware and cutlery		
4.5.3	Cleaning utensils	dropped, in New 4.3.3	4.3.3	Household utensils	new, combination Old 4.5.2, 4.5.3	(c)
4.5.4	Tools		4.3.4	Tools		
4.6	Household supplies and services	dropped, split into New 4.4, 4.5	4.4	Household supplies	new, split from Old 4.6	(c)
4.6.1	Household cleaning agents		4.4.1	Household cleaning agents		
4.6.2	Household paper products	dropped, in New 4.4.3	4.4.2	Pet foods, pets and supplies	renamed, Old 4.6.7	(d)
4.6.3	Other household non-durables	dropped, in New 4.4.3	4.4.3	Other household supplies	new, combination Old 4.6.2, 4.6.3	(c)
4.6.4	Stationery	moved to New 8.1.3	4.5	Household services	new, split from Old 4.6	(c)
4.6.5	Watches and clocks	dropped, in New 2.5.1, 4.1.1	4.5.1	Pet services including veterinary	renamed, Old 4.6.6	(d)
4.6.6	Veterinary services	renamed (New 4.5.1)	4.5.2	House contents insurance		
4.6.7	Pet foods	renamed (New 4.4.2)	4.5.3	Repairs to household durables	renamed, Old 4.6.10	(d)
4.6.8	Travel goods	dropped, in New 2.5.1	4.5.4	Domestic services	new	(b)
4.6.9	House contents insurance					
4.6.10	Repairs to appliances	renamed (New 4.5.3)	4.6	Postal and communication services		(d)
4.7	Postal and telephone services	renamed (New 4.6)	4.6.1	Postal services	renamed (Old 4.7)	
4.7.1	Postal services		4.6.2	Communication services	renamed (Old 4.7.2)	(d)
4.7.2	Telephone services	dropped, removed from index				
4.8	Consumer credit charges	dropped, removed from index				
4.8.1	Consumer credit charges	dropped, removed from index				
5	TRANSPORTATION		5	TRANSPORTATION		
5.1	Private motoring		5.1	Private motoring		(d)
5.1.1	Motor vehicles	renamed (New 5.1.6)	5.1.1	Motor vehicles	renamed, split from Old 5.1.6	
5.1.2	Automotive fuel	renamed, in New 5.1.5	5.1.2	Automotive fuel	renamed, combination Old 5.1.5, part 5.1.6	(d)
5.1.3	Vehicle insurance	renamed, in New 5.1.4, 5.1.5	5.1.3	Vehicle insurance	renamed (Old 5.1.4)	
5.1.4	Motoring charges		5.1.4	Motor vehicle repair and servicing		
5.1.5	Tyres and tubes		5.1.5	Motor vehicle parts and accessories		
5.1.6	Vehicle servicing, repairs and parts		5.1.6	Other motoring charges		
5.2	Urban transport fares		5.2	Urban transport fares		
5.2.1	Urban transport fares		5.2.1	Urban transport fares		

CONCORDANCE BETWEEN 12TH AND 13TH SERIES CPI(a)

continued

12TH SERIES (Old)	Group, subgroup, and expenditure class	Concordance with 13th series	13TH SERIES (New)	Group, subgroup, and expenditure class	Concordance with 12th series	Base period
6	TOBACCO AND ALCOHOL		6	ALCOHOL AND TOBACCO		(a)
6.1	Alcoholic drinks	renamed	6.1	Alcoholic drinks	renamed	
6.1.1	Beer		6.1.1	Beer		
6.1.2	Wine		6.1.2	Wine		
6.1.3	Spirits		6.1.3	Spirits		
6.2	Cigarettes and tobacco		6.2	Cigarettes and tobacco		
6.2.1	Cigarettes and tobacco		6.2.1	Cigarettes and tobacco		
7	HEALTH AND PERSONAL CARE		7	HEALTH AND PERSONAL CARE		
7.1	Health services		7.1	Health services		
7.1.1	Hospital and medical services		7.1.1	Hospital and medical services		
7.1.2	Optical services		7.1.2	Optical services		
7.1.3	Dental services		7.1.3	Dental services		
7.2	Personal care products		7.2	Personal care products		
7.2.1	Pharmaceuticals		7.2.1	Pharmaceuticals		
7.2.2	Toiletries and personal products		7.2.2	Toiletries and personal products		
7.3	Hairdressing services	renamed	7.3	Hairdressing and personal care services	renamed	(d)
7.3.1	Hairdressing services	renamed	7.3.1	Hairdressing and personal care services	renamed	(a)
8	RECREATION AND EDUCATION		8	RECREATION AND EDUCATION		
8.1	Books, newspapers and magazines	dropped, in New 8.1	8.1	Books, newspapers, magazines and stationery	new, combination Old 8.1, 4.6.4	(c)
8.1.1	Books, newspapers and magazines	dropped, split into New 8.1.1, 8.1.2	8.1.1	Books	new, split from Old 8.1.1	(b)
			8.1.2	Newspapers and magazines	new, split from Old 8.1.1	(b)
			8.1.3	Stationery	moved from Old 4.6.4	(d)
8.2	Recreational goods	dropped, in New 8.2	8.2	Recreation	new, combination Old 8.2, 8.4	(c)
8.2.1	Video and sound equipment	renamed (New 8.2.1)	8.2.1	Audio, visual and computing equipment	renamed, Old 8.2.1, parts 8.2.3, and computers	(d)
8.2.2	Records, cassettes and tapes	dropped, in New 8.2.2	8.2.2	Audio, visual and computing media and services	new, combination Old 8.2.2, 8.4.1, and software	(c)
8.2.3	Sports and photographic equipment and toys	dropped, split into New 8.2.1, 8.2.3, 8.2.4	8.2.3	Sports and recreational equipment	new, split from Old 8.2.3	(b)
			8.2.4	Toys, games and hobbies	new, split from Old 8.2.3	(b)
			8.2.5	Repairs to recreational goods	moved from Old 8.4.2	(d)
			8.2.6	Sports participation	new, split from Old 8.4.3	(b)
			8.2.7	Other recreational activities	new, split from Old 8.4.3	(b)
8.3	Holiday travel and accommodation		8.3	Holiday travel and accommodation		
8.3.1	Holiday travel and accommodation in Australia	renamed	8.3.1	Domestic holiday travel and accommodation	renamed	(d)
8.3.2	Holiday travel and accommodation overseas	renamed	8.3.2	Overseas holiday travel and accommodation	renamed	(a)
8.4	Recreational services	dropped, in New 8.2				
8.4.1	Photographic services	dropped, in New 8.2.2				
8.4.2	Repairs to recreational goods	dropped, in New 8.2.5				
8.4.3	Entertainment	dropped, split into New 8.2.6, 8.2.7				
8.5	Education and child care		8.4	Education and child care		
8.5.1	Education fees	renamed	8.4.1	Education	renamed, Old 8.5.1, includes tertiary	(a)
8.5.2	Child care fees	renamed	8.4.2	Child care	renamed (Old 8.5.2)	(d)

(a) 12th and 13th series are numbered independently - the numbers are to assist readability only

(c) new series calculated with a reference base of 1989-90 = 100.0

(b) new series will have a reference base of June quarter 1998 = 100.0

(d) continuous series linked to the 12th series equivalent with a reference base of 1989-90 = 100.0

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