# CHAPTER NINETEEN

# **PRICES**

# RETAIL PRICES AND PRICE INDEXES

This section summarises briefly the history of retail price collections and the compilation of retail price indexes by the ABS since Federation. It also describes the present Consumer Price Index (CPI) and mentions briefly other statistics of retail prices currently available.

# Retail price collections: historical perspective

The ABS commenced collecting information on retail prices in 1912, when prices of food and groceries and house rents were collected back to 1901 for the six State capital cities. Those data were used to construct the first retail price index for Australia (in later years called the A Series Index). From 1912 onwards, the collection of retail prices of food and groceries and house rents and the compilation of the (A Series) retail price index was extended to cover 30 'principal towns' (including the six State capital cities).

To supplement the official index relating to the 30 principal towns, between 1913 and the early 1920s, the collection of retail prices of food and groceries and house rents was extended progressively to cover more towns until 200 towns were being covered in 1923. This expanded collection continued annually until 1942 when it was discontinued.

In 1922, collection of retail prices of clothing and a selection of 'miscellaneous goods and services' was commenced in the 30 principal towns, with prices for the six State capital cities being obtained back to 1914. These prices, together with those already being collected for food and groceries and house rents, were used to construct an expanded retail price index (which in later years became known as the C Series Index).

The collection of prices of food and groceries, house rents, clothing and miscellaneous items included in the C Series Index continued on substantially the same basis through the 1920s, 1930s and most of the 1940s. In 1948 the range of items covered in the retail prices collections was expanded considerably in the capital cities and the additional prices were used to construct the new Interim Retail Price Index. The range of items covered in the retail prices collection has been progressively expanded ever since then to support successive expansions of the CPI.

# Australian retail price indexes over the years

Prior to the introduction of the CPI, five series of retail price indexes had been compiled by the ABS:

- The A Series Index, covering only food and groceries and house rents (all houses), which was first compiled for the six State capital cities in 1912, with index numbers going back to 1901. From 1912 it was compiled for 30 'principal towns' until it was discontinued in 1938. A major use of the A Series Index was for wage adjustment purposes between 1913 and 1933.
- The B Series Index, covering only food and groceries and house rents (4 and 5 roomed houses), which was first compiled in 1925 with index numbers for the six State capital cities, being compiled for selected earlier years back to 1907. It was compiled for 30 principal towns from 1922 until it was discontinued in 1953. The B Series Index was introduced to replace the A Series Index for general statistical purposes but was never used for purposes of wage adjustment.
- The C Series Index, covering food and groceries, house rents (4 and 5 roomed houses), clothing, household drapery, household utensils, fuel, lighting, urban transport fares, smoking and some miscellaneous items, which was introduced in 1921 and discontinued in 1961.

- The food and groceries and rent components of the C Series Index were the same as for the B Series Index. The C Series Index was used for the purpose of wage adjustments from 1934 to 1953.
- The D Series Index, which was derived by combining the A Series and C Series Indexes and was compiled especially for wage adjustment purposes for a short period in 1933-34.
- The Interim Retail Price Index, covering food and groceries, house rent, clothing, household drapery, household utensils, fuel, lighting, urban transport fares, smoking and some services and miscellaneous items, which was first compiled in 1954 and discontinued in 1960. The Interim Index was intended to serve as a transitional index, but to some extent it replaced the C Series Index for general statistical purposes for a number of years prior to 1960; it was never used for wage adjustment purposes.

The most significant of these former retail price indexes was the C Series Index, which was the principal retail price index in Australia for close to forty years. It was first compiled in 1921, with index numbers for the six State capital cities being compiled retrospectively to 1914. The C Series Index was compiled for the 30 principal towns from 1925 onwards and in the 1940s some further towns (including Canberra) were added. The C Series Index was subject to a general review in 1936 and a slightly revised regimen was introduced. The C Series Index regimen then remained unchanged until the index was discontinued.

The main reason for the long interval without any review or change in composition of the C Series Index after 1936 was the recurrent changes in consumption patterns which occurred during and after World War II. It was considered impossible at the time to devise a revised weighting pattern which would be any more representative, on a continuous basis, of post-war consumption than was the existing weighting pattern of the C Series Index.

In 1953 the decision was made to continue to compile the C Series Index on its pre-war basis but to also compile the Interim Retail Price Index based as nearly as possible on the post-war pattern of consumer usage and expenditure. Nevertheless, the C Series Index continued to be regarded by the majority of users as the principal official index and was the one used in most indexation and escalation arrangements throughout the 1950s.

The Interim Retail Price Index was compiled only for the six State capital cities and Canberra. It was based on post-war consumption weights and retained the same weighting pattern throughout the period of its compilation, no attempt being made to revise its weights to take account of major changes in expenditure patterns and lifestyles that were occurring during the 1950s. During that decade, house renting was substantially replaced by home ownership, the use of motor cars partially replaced the use of public transport, and a variety of electrical appliances, and subsequently television, became widely used in households. During the same period, widely disparate movements occurred in the prices of different items of household consumer expenditure. It was considered that the combined impact of these factors made it impracticable to successfully introduce a comprehensive new retail price index during the period to 1960.

In 1960 a new approach was implemented. In place of the former long-term fixed-weight indexes, it was decided to compile series of shorter-term indexes which would be chain linked together to form long-term series. The Consumer Price Index, described later in this chapter, was the first price index of this kind constructed in Australia.

# Long-term linked series

To provide an approximate long-term measure of retail price change for the period since the first Australian retail price index was compiled, a single series of index numbers has been constructed by linking together selected retail price index series from amongst those described above. The index numbers are expressed on a reference base 1945=100.0, which was the end of a period of relative price stability during World War II. The successive series linked together to produce this long-term series of index numbers are:

- from 1901 to 1914, the A Series Index;
- from 1914 to 1946-47, the C Series Index;
- from 1946-47 to 1948-49, a combination of the C Series Index (excluding rent) and the housing group of the CPI;
- from 1948-49 onwards, the CPI.

A considerable range of information on retail prices both in the form of index numbers and average retail prices, for various localities in Australia (in some cases back to 1901) is available in the *Labour Report*, published by the ABS continuously from 1912 to 1973. Various editions of the *Labour Report* also contained detailed descriptions of the methodology used in compiling the various indexes and details of their composition and weighting. A

comprehensive description of the C Series Index, including details of its composition and weighting, was last published in *Labour Report* No. 41 in 1952. Descriptive material on the Interim Retail Price Index was last published in *Labour Report* No. 46 in 1958.

# RETAIL PRICE INDEX NUMBERS—AUSTRALIA (a) LONG TERM LINKED SERIES

(Base: Year 1945=100)

Index number Year	Index number Year	Index numbe
	47 1931	252
	50 1932	<b>25</b> 1
71 1963	49 1933	253
	46 1934	258
	48 1935	269
	48 1936	270
	48 1937	280
80 1968	51 1938	29:
82 1969	51 1939	, 30:
	52 1940	, 31
	53 1941	33
97 1972	59 1942	35
101 1973	59 1943	38:
100 1974	61 1944	44:
100 1975	70 1945	510
102 1976	71 1946	579
106 1977	75 1947	650
	80 1948	70:
128 1979	91 1949	760
140 1980	103 1950	<i></i> 84
167 1981	90 1951	92
196 1982	87 1952	1,02
205 1983	89 1953	1,13
206 1984	88 1954	1,17
	88 1955	1,25
	90 1956	1,37
229	89 1957	ŕ
233	89 1958	
237	91 1959	
245	87 1960	

<sup>(</sup>a) The index numbers relate to the weighted average of six State capital cities up to 1980; from 1981 they relate to the weighted average of eight capital cities.

#### Consumer Price Index

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 expenditures by metropolitan wage and salary earner 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; tobacco and alcohol; health and personal care; and recreation and education. The eight groups in turn are divided into 35 sub-groups and 107 expenditure classes.

From its inception in 1960, the CPI covered the six State capital cities. In 1964 the geographical coverage of the CPI was extended to include Canberra. From June quarter 1982 geographic coverage was further extended to include Darwin.

Index numbers at the Group and All Groups levels are published for each capital city and for the weighted average of eight capital cities. Sub-group index numbers are published for the weighted average of eight capital cities.

# Conceptual basis for measuring price changes

The CPI is a quarterly measure of the change in average retail price levels. It provides a method of comparing the average price level for a quarter with the average price level of the reference base year or changes in the average price level from one quarter to the next. In measuring price changes, the CPI aims to measure only pure price changes (i.e. price changes excluding the effects of any changes in the quality or quantity of the goods or services concerned)—in other words to measure, each quarter, the change in the cost of purchasing an identical basket of goods and services. The CPI is a measure of changes in transaction prices—the prices actually paid by consumers for the goods and services they buy. It is not concerned with nominal, recommended or list prices (unless they are the prices consumers actually pay).

The CPI is often loosely, and incorrectly, referred to as a cost-of-living index. However, a true cost-of-living index (if such a measure could be compiled) would not be the same thing as a fixed-weight retail price index like the CPI. A cost-of-living index would need to take account of changes in standards of living and the substitutions that consumers make in response to changing market conditions, such as changes in supply, or in response to disparate price movements.

The CPI measures price change over time and does not provide comparisons between relative price levels at a particular date. For example, it does not show whether beef is dearer than lamb, or whether bus fares are dearer than train fares. The fact that the index number for any particular component is higher than that for another component in a particular quarter does not mean that the first component is more expensive than the second—it merely means that, since the reference base year, prices for the first component have risen more than prices for the second component. Similarly, the CPI does not provide any basis for measuring relative price levels between the different cities. For example it says nothing about whether prices are higher in Sydney or Perth—it shows only whether prices have changed more in Sydney or in Perth.

# Index population

Because the spending patterns of various groups in the population differ somewhat, the pattern of one large group, fairly homogeneous in its spending habits, is chosen for the purpose of calculating the CPI. The CPI population group is, in concept, metropolitan employee households. For this purpose employee households are defined as those households which obtain the major part of their household income from wages and salaries; metropolitan means the eight capital city Statistical Divisions.

### Weighting pattern

Each of the 107 expenditure classes in the current CPI has a fixed weight (i.e. the measure of its relative importance). Details of the weighting pattern are shown in the table on page 683. More detailed information on weighting is published in *The Australian Consumer Price Index: Concepts, Sources and Methods* (6461.0).

Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI, in fact, comprises eleven separate series which have been linked to form a continuous series. The eleventh series (i.e. the current series) was introduced in the March quarter 1987, with a weighting pattern based on estimated household expenditure in 1984.

The CPI 'basket of goods and services' covers items which are considered representative of metropolitan households' spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. Income taxes and personal savings, on the other hand, do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quantity of any goods or services.

# Collecting prices

Since the CPI is designed to measure the impact of changing prices on metropolitan wage and salary earner households, price movements are monitored in the kinds of retail outlets or other establishments where such households normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores,

footwear stores, restaurants, motor vehicle dealers and service stations, dental surgeries, hotels and clubs, schools, hairdressers, travel agents, airlines, bus operators, house builders, real estate developers, electricians and plumbers. Items such as bus, rail and air fares, electricity and gas charges, telephone charges and local authority rates are collected from the appropriate authorities. Information on rents is obtained from property management companies and government housing authorities. In total, around 100,000 separate price quotations are collected each quarter.

Prices of the 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 are collected annually (e.g. seasonal clothing, local government rates and charges).

The bulk of items for which prices are collected quarterly are priced at the middle of the mid-month of the quarter (i.e. in August, November, February and May), but, to facilitate a more even spread of the field collection workload, some goods and services are priced in the first or third months of each quarter. Items priced in the third month are generally those subject to price changes at discrete points of time (e.g. electricity and postal charges); in these cases information is obtained of any changes in price during the quarter so that an average price for the whole quarter can be calculated.

The prices used in the CPI are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included in the CPI price. Sale prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (i.e. not damaged or shop soiled) and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in greatest volume.

# Changes in quality

Since the CPI aims to measure the price change of a constant basket of goods and services over time it is necessary to ensure that identical or equivalent items are priced in successive time periods. This involves evaluating changes in the quality of goods and services included in the index and removing the effects of such changes so that the index reflects only the price change.

# Treatment of home ownership costs

Although various changes have been made in the composition of the CPI since it was first introduced, for most of this time the index has remained fundamentally the same. However, a significant change in the basis of compilation of the CPI was made in 1987 when a new method of representing home ownership costs was introduced.

Up to the end of 1986, the main item included in the CPI to represent home ownership costs was the cost of purchasing houses—which was represented by new house prices. Other items included were local government rates and charges, house repairs and maintenance and house insurance. From March quarter 1987 the cost of purchasing houses was deleted from the CPI regimen and the cost of housing mortgage interest charges was included. The other three items continued to be included on the same basis as previously. A detailed explanation of the reasons for this significant change in the composition of the CPI is given in a special ABS information paper, The Australian Consumer Price Index: Treatment of Home Ownership Costs (6441.0), published in March 1987.

### Periodic revision of the CPI

The CPI is periodically revised in order to ensure it continues to reflect current conditions. CPI revisions have usually been carried out at approximately five-yearly intervals, the most recent having been completed in March 1987. Previous revisions of the CPI were introduced at: December quarter 1963; December quarter 1968; December quarter 1973; September quarter 1974; September quarter 1976; and March quarter 1982. Following each revision, the

new series with its changed composition and weighting pattern, is linked to the previous series to form one continuous series. The process of linking ensures that the continuous series reflects only price variations and not differences in costs of the old and new baskets.

Some additional information about the CPI is contained in a booklet entitled A Guide to the Consumer Price Index (6440.0). A detailed and comprehensive description of the CPI is published in The Australian Consumer Price Index: Concepts, Sources and Methods (6461.0).

### CONSUMER PRICE INDEX—ELEVENTH SERIES: WEIGHTING PATTERN AT DECEMBER QUARTER 1986 WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES

Groups and sub-groups	Percentage contribution to the all groups CPI
FOOD	. 19.013
Dairy products	. 1.536
Cereal products	. 1.978
Meat and seafoods	. 3.495
Fresh fruit and vegetables	. 1.921
Processed fruit and vegetables	. 0.852
Soft drinks, ice cream and confectionery	. 2.829
Meals out and take away foods	. 4.671
Other food	. 1.731
<b>CLOTHING</b>	
Men's and boys' clothing	. 1.952
Women's and girls' clothing	. 3.102
Fabrics and knitting wool	. 0.499
Footwear	. 1.107
Dry cleaning and shoe repairs	. 0.238
HOUGING	1400
HOUSING	. 14.062
Rents	. 4.450
Home ownership.	. 9.612
HOUSEHOLD EQUIPMENT AND OPERATION .	. 18.429
Fuel and light	. 2.442
Furniture and floor coverings	4.115
Appliances	. 1.535
Household textiles	. 0.690
Household utensils and tools	. 1.748
Household supplies and services	. 3.918
Postal and telephone services	. 1.478
Consumer credit charges	2.503
Consumer order ondiges	. 2,000
TRANSPORTATION	. 17.025
Private motoring	. 16.069
Urban transport fares	. 0.956
TOBACCO AND ALCOHOL	. 8.173
Alcoholic drinks	. 5.955
Cigarettes and tobacco	. 2.218
HEALTH AND PERSONAL CARE	. 5.596
Health services	. 2.992
	. 1.943
Personal care products	. 0.661
Transfersing scrylets	. 0.001
RECREATION AND EDUCATION	. 10.804
Books, newspapers and magazines	. 1.229
Recreational goods	. 2.877
Holiday travel and accommodation	. 3.135
Recreational services	. 2.305
Education and child care	. 1.258
TOTAL ALL GROUPS	. 100.000

### CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS

(Base of each index: Year 1980-81 = 100.0) (a)

Year	-		Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobarı	Canberra	Darwin	Weighted average of eight capital cities
1977-78			75.8	77.0	77.1	77.5	77.8	77.1	76.1		(b)76.7
1978-79			82.4	83.1	83.4	83.2	84.1	83.1	82.3		(b)83.0
1979-80			91.1	91.4	91.5	91.6	91.9	91.6	91.1		(b)91.4
1980-81			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981-82			110.2	110.4	110.7	110.5	111.2	110.0	110.7	111.1	110.4
1982-83			123.4	122.8	122.9	123.5	122.5	121.8	124.0	123.1	123.1
1983-84			130.9	132.1	131.7	132.3	131.0	129.9	132.3	130.2	131.6
1984-85			136.0	138.1	137.9	138.7	136.1	136.1	138.8	135.1	137.2
1985-86			147.5	149.8	149.0	150.2	147.1	147.9	150.8	146.2	148.7
1986-87			161.4	163.9	161.8	164.0	161.8	162.5	163.4	159.3	162.6

<sup>(</sup>a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities. (b) Prior to 1980-81 index numbers are for weighted average of six State capital cities.

# CONSUMER PRICE INDEX: GROUP INDEX NUMBERS WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES

(Base of each index: Year 1980-81 = 100.0 unless otherwise noted)

Year	Food	Clothing	Housing	Household equipment and operation	Transport- ation	Tobacco and alcohol	Health and personal care	Recreation and education(a)	All groups
1977-78(b)	71.3	81.4	79.5	78.4	73.9	74.7	88.0		76.7
1978-79(b)	79.5	87.3	84.7	83.3	80.9	86.4	83.4		83.0
1979-80(b)	90.6	93.3	91.0	90.0	91.3	93.6	91.1		91.4
1980-81	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
1981-82	108.6	107.1	111.1	110.6	110.3	109.2	124.2		110.4
1982-83	118.5	114.2	122.8	123.8	124.2	124.1	153.2	107.7	123.1
1983-84	127.7	120.9	131.5	132.6	134.8	139.6	146.5	114.5	131.6
1984-85	134.4	128.4	141.4	138.9	143.4	151.3	121.8	118.9	137.2
1985-86	144.7	139.0	153.4	150.2	155.5	165.1	133.0	129.5	148.7
1986-87	156.3	152.3	164.8	161.2	172.9	182.5	154.4	141.5	162.6

<sup>(</sup>a) Base March quarter 1982 = 100.0. Group index not compiled for earlier quarters. (b) Prior to 1980-81 index numbers are for weighted average of six State capital cities.

### CONSUMER PRICE INDEX NUMBERS: AUSTRALIA AND OTHER COUNTRIES (a)

(Base of each index: Year 1980 = 100.0)

Period	Australia (b)	Canada	Federal Republic of Germany	Indonesia	Japan	New Zealand	United Kingdom	United States of America
Yеаг—								
1981 .	110	113	106	112	105	115	112	110
1982 .	122	125	112	123	108	134	122	117
1983 .	134	132	116	137	110	144	127	121
1984 .	140	138	118	152	112	153	133	126
1985 .	149	143	121	159	114	176	142	131
1986 .	163	149	121	168	115	200	146	133
Quarter— 1985—								
Sept.	151	144	121	160	114	180	143	131
Dec	154	145	121	161	116	181	143	132
1986								
March	157	147	121	164	115	188	144	133
June .	160	148	121	166	116	193	146	132
Sept	164	150	120	168	115	200	146	133
Dec.	169	151	120	175	115	218	148	134

<sup>(</sup>a) The composition of these indexes varies considerably in the various countries. The index numbers show changes in prices in each country over time and do not measure relative price levels between countries.

(b) Consumer Price Index (All Groups) converted to base: 1980 = 100.0.

Source: Monthly Bulletin of Statistics of the Statistical Office of the United Nations

# Average retail prices

Average retail prices for a range of selected (mainly food) items have been published regularly since 1901. Since 1962, data on average retail prices in each of the capital cities have been published quarterly in *Average Retail Prices of Selected Items* (6403.0). Prior to that date information was published annually in the annual *Labour Report* (now discontinued).

# Experimental indexes of relative retail prices of food

Since 1962 the ABS has conducted an annual survey of food prices in approximately 200 cities and towns throughout Australia. Information from this survey is used to compile index numbers measuring the relative levels of food prices in the different localities at the time the survey is conducted (currently in May each year). The index numbers are produced by combining the prices for the selected food items using a common set of weights (derived from the weighting pattern of the CPI Food Group). The resulting index numbers are expressed on the base: Weighted Average of Eight Capital Cities=100.

Index numbers for Queensland localities are published by the ABS Queensland office (6401.3). Index numbers for localities in other States are available from the ABS on request.

# PRODUCER AND WHOLESALE PRICE INDEXES

# Historical perspective

The first price index of this kind compiled by the ABS was the Melbourne Wholesale Price Index which was introduced in 1912 with index numbers compiled back to 1861 from prices extracted from newspapers and trade publications. Index numbers were compiled up to 1961. The index related chiefly to basic materials and foods weighted in accordance with consumption in about the year 1910 and neither the list of items nor the weighting was varied during the life of the index. A description of the index and a list of the commodities included was last published in *Labour Report* No. 38, 1949.

The next index published was the Wholesale Price (Basic Materials and Foodstuffs) Index which was introduced in 1939; index numbers are available for the period 1928 to 1970. The index related to commodities in their basic or primary form and prices were obtained as near as possible to the point where they made their first effective impact on the local price structure. With few exceptions, prices were obtained from Melbourne sources. The weights were based on estimates of the average annual consumption of the commodities in Australia during the period 1928-29 to 1934-35 inclusive. A list of the commodities and other information concerning the index was last published in Labour Report No. 53, 1967.

During the 1960s the ABS began producing a range of price indexes covering materials used and articles produced by defined sectors of the Australian economy. The following indexes are now published monthly:

- Price Index of Materials Used in House Building
- Price Index of Materials Used in Building Other than House Building
- Price Indexes of Materials Used in Manufacturing Industries
- Price Indexes of Articles Produced by Manufacturing Industry.

Prices are collected from representative suppliers or manufacturers of the materials or articles included in the indexes. Mid-month prices are generally used to compile the two building materials indexes and the Price Indexes of Articles Produced by Manufacturing Industry. Average monthly prices are mainly used to compile the Price Indexes of Materials Used in Manufacturing Industries.

A table giving a broad indication of long-term price changes, drawing on the producer and wholesale price indexes available, is given below on a common reference base: Year 1968-69 = 100.0. The Melbourne Wholesale Price Index and the Wholesale Price (Basic Materials and Foodstuffs) Index have been linked at 1928-29 to provide a continuous series.

#### PRODUCER AND WHOLESALE PRICE INDEXES

(Reference base: Year 1968-69 = 100.0)

						Melbourne Wholesale Price Index (All Groups)	Wholesale Price (Basic Materials and Foodstuffs) Index (All Groups)	Price Index of Materials used in House Building (All Groups)	Price Index of Materials used in Building other than House Building (All Groups)	Price Indexes of Materials used in Manufacturing Industries (Manu- facturing Division)	Price Indexes of Articles Produced by Manufacturing Industry (Manu- facturing Division)
1861 .				,		24.2					
1871 .						19.3					
1881 .						17.6					
1891 .						14.9					
1901 .						15.3					
1911 .						15.7					• •
1921 .						30.0					• •
1928-29						28.3	28.3				• •
		•	•	•	•	20.5	24.4		••		• •
	•	•	•	•	•	••	25.5	••		• • • • • • • • • • • • • • • • • • • •	• •
	:	•	•	٠	•	•••	31.9	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• •
		•	•	•	•	• • • • • • • • • • • • • • • • • • • •	37.0	••	•••		•
	:	•	•	•	•	•••	76.4		• • • • • • • • • • • • • • • • • • • •		•
		:		÷	:	• • • • • • • • • • • • • • • • • • • •	88.4	•	•••	•••	
960-61							92.5				
		•	•	•	•		86.4	•	• • • • • • • • • • • • • • • • • • • •		
				Ċ	Ċ	• • • • • • • • • • • • • • • • • • • •	87.4	•••		• • • • • • • • • • • • • • • • • • • •	•
_			Ċ				89.0		•••		•
1964-65		•	·	•	•	•••	91.3				
				•	•	• •	95.4				
				•	·		98.4	94.1	94.7		
					Ċ		99.7	96.6	96.8		
							100.0	100.0	100.0		
1969-70							101.3	104.3	104.6		
1970-71								108.8	109.4	100.1	108.5
1971-72					Ċ			115.4	116.5	102.6	113.9
1972-73								123.3	122.1	113.9	120.7
								142.3	138.1	134.7	134.6
1974-75								172.5	169.7	145.1	158.1
1975-76								195.8	195.3	158.6	177.8
1976-77							•••	219.1	218.1	182.2	196.9
1977-78								237.1	236.5	198.5	213.8
1978-79								252.2	253.9	248.8	237.4
1979-80								284.9	286.9	321.8	274.9
1980-81								323.6	323.9	353.2	305.2
1981-82								355.3	359.8	358.9	328.9
1982-83								389.0	400.6	388.0	360.2
1983-84								419.2	422.7		
1984-85								452.4	446.2		
1985-86								484.6	481.8		

# Price Index of Materials Used in House Building

The Price Index of Materials Used in House Building was first compiled on a reference base 1966-67 = 100.0, using a weighting pattern derived from estimated material usage in 1968-69. Monthly index numbers on a 1966-67 = 100.0 reference base are available for the period July 1966 to September 1986. A detailed description of the first series, including its composition and weighting pattern, is given in the September 1970 issue of the publication *Price Index of Materials Used in House Building* (6408.0) and in *Labour Report* No. 55, 1970.

The current Price Index of Materials Used in House Building, on a reference base 1985-86 = 100.0, was introduced in October 1986 and linked to the previous series. The items included, and their weights, were derived from reported values of each material used in selected representative houses constructed in 1985-86. Further information concerning the method of compiling the index, including details of its composition and weighting pattern, is given in the October 1986 issue of the publication *Price Index of Materials Used in House Building* (6408.0).

# PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING —SIX STATE CAPITAL CITIES (g)

(Base of each index: Year 1985-86=100.0)

Year(b)			Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted average of six State capital cities
1977-78			50.5	47.6	48.7	44.5	51.3	48.6	48.9
1978-79			54.2	50.2	51.7	48.0	54.3	51.8	52.0
1979-80			61.5	56.5	57.9	55.7	60.6	57.6	58.8
1980-81			69.1	64.8	66.9	63.5	68.4	64.0	66.7
1981-82			75.2	70.8	74.9	70.2	75.5	70.4	73.3
1982-83			81.0	78.2	82.2	79.0	82.5	76.7	80.2
1983-84			86.0	85.8	88.7	85.4	87.9	83.1	86.5
1984-85			93.1	93.3	94.6	92.7	93.4	92.5	93.4
1985-86			100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>(</sup>a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities. (b) The index series for years prior to 1985-86 are based on the series previously published on a reference base 1986-67 = 100.0 b. They have been converted to reference base 1985-86 = 100.0 by linking the old and new series at September 1986.

# Price Index of Materials Used in Building Other than House Building

The Price Index of Materials Used in Building Other than House Building was first compiled on a reference base 1966-67 = 100.0, using a weighting pattern derived from estimated materials usage in 1966-67. Monthly index numbers on a 1966-67 = 100.0 reference base are available for the period July 1966 to January 1981. A description of the first series, including its composition and weighting pattern, is given in the publications *Price Index of Materials Used in Building Other than House Building*, January 1969 (6407.0) and *Labour Report* No. 54, 1969.

The current Price Index of Materials Used in Building Other than House Building for the six State capital cities was introduced in February 1981 on reference base 1979-80 = 100.0. The index for Darwin was published for the first time in September 1982 on a reference base 1981-82 = 100.0.

This index measures changes in prices of selected materials used in the construction of buildings other than houses. Its composition reflects the usage of materials in the construction of buildings (other than houses) commenced in the three years ending June 1977.

Further information concerning the method of compiling the index, including details of its composition and weighting pattern can be obtained from the February 1981 and the September 1982 issues of the publication *Price Index of Materials Used in Building Other than House Building—Six State Capital Cities and Darwin* (6407.0).

The tables below show annual 'All groups' index numbers for each State capital city and Darwin and index numbers for selected building materials for the weighted average of six State capital cities. Monthly index numbers for selected materials and special combinations of materials are shown in each issue of the monthly price index publication *Price Index of Materials Used in Building Other than House Building—Six State Capital Cities and Darwin* (6407.0).

# PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING ALL GROUPS SIX STATE CAPITAL CITIES AND DARWIN (a)

			•	Weighted average of six State capital cities	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
Base Year						1979-80	1981	-82 = 100.0			
1976-77(b)		_		76.0	75.5	76.6	77.0	74.5	76.0	77.8	n.a.
1977-78(b)				82.4	81.8	83.0	83.2	80.9	83.4	84.1	n.a.
1978-79(b)				88.5	88.3	88.5	88.9	87.3	89.4	89.6	n.a.
1979-80 .				100.0	100.0	100.0	100.0	100.0	100.0	100.0	n.a.
1980-81 .				112.9	113.1	112.7	113.2	113.8	112.2	111.6	n.a.
1981-82 .				125.4	126.6	123.5	126.3	127.3	123.8	122.9	100.0
1982-83 .				139.6	141.1	135.9	141.4	143.9	138.4	135.9	111.2
1983-84 .				147.3	148.1	143.4	151.7	152.6	145.4	145.7	118.3
1984-85 .				155.5	r 155.5	152.8	159.4	160.8	153.2	153.5	122.0
1985–86 .				167.9	167.4	165.2	169.6	174.9	168.1	167.1	131.1

<sup>(</sup>a) The seperate city indexes measure price movements within each city individually. They do not compare price levels between cities.

(b) The index series for years prior to 1979-80 are based on the series previously published on a reference base 1966-67=100.0. They have been converted to the reference base 1979-80=100.0 by linking the old and new series in the year 1979-80.

# PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING INDEX NUMBERS FOR SELECTED BUILDING MATERIALS WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(Base of each index: Year 1979-80=100.0)

			Structural timber	Clay bricks	Ready mixed concrete	Galvanised steel decking cladding and sheet products	Structural steel	Reinforcing steel bar fabric and mesh
1980-81 .			113.5	114.2	113.2	113.4	114.5	114.6
1981-82 .			123.3	127.4	123.7	127.3	128.1	126.4
1982-83 .			133.8	142.6	143.3	138.7	138.8	138.9
1983-84 .			144.9	151.6	149.6	145.3	141.4	148.6
1984-85 .			160.6	162.9	158.6	150.8	147.6	148.2
1985-86 .			172.2	173.7	162.6	157.1	158.0	156.8

	Aluminium windows	Conductors (mains cable and circuitry)	Lamps and light fittings	Non-ferrous pipes	Builders' hardware	Paint
1980–81	112.5	105.2	109.6	95.4	113.6	118.9
1981-82	126.3	115.6	122.8	95.2	127.6	129.9
1982-83	136.2	135.2	137.8	106.0	143.9	149.5
1983-84	144.2	150.3	145.1	113.7	154.8	162.2
1984–85	152.7	171.9	151.0	122.1	163.8	177.0
1985–86	162.4	196.9	164.0	134.5	182.2	189.3

# Price Indexes of Materials Used in Manufacturing Industries

The Price Index of Materials Used in Manufacturing Industry was first compiled on a reference base 1968-69=100.0, using a weighting pattern derived from estimated manufacturing usage in 1971-72. Monthly index numbers on a 1968-69=100.0 reference base are available for the period July 1968 to November 1985. A description of the first series, including its composition and weighting pattern, is given in the April 1975 issue of the publication *Price Index of Materials Used in Manufacturing Industry* (6411.0).

The current Price Indexes of Materials Used in Manufacturing Industries were introduced in December 1985 on a reference base 1984-85=100.0. Details of their composition and weighting pattern are given in the December 1985 issue of the publication *Price Indexes of* 

Materials Used in Manufacturing Industries (6411.0). With a few exceptions the items included in the indexes were allocated weights in accordance with the estimated value of manufacturing usage in 1977-78.

These indexes measure changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification 1983 (ASIC). The indexes are on a net 'sector' basis; that is, each relates only to those materials which are used in the defined sector of Australian manufacturing industry and which have been produced by establishments outside that sector. The following sector price indexes are published:

- (i) a net index for the Manufacturing Division of ASIC; and
- (ii) net indexes for ten sub-divisions and four groups within the Manufacturing Division.

In addition, indexes are published for selected categories of materials, some of which are presented below.

PRICE INDEXES OF MATERIALS USED IN MANUFACTURING INDUSTRIES (a): SELECTED CATEGORIES OF MATERIALS

(Base of	each index:	Year 19	984-85 =	100.0) (b)
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				1	mported n	naterials		Hon	is			
			•	Agricul- tural	Mining j	Manu- facturing		Agricul- tural, forestry and fishing	Mining	Elec- tricity	Total home produced mater- ials	All mater- ials
1976-77 .			•	69.8	34.4	51.3	45.3	48.6	33.5	41.1	42.1	43.2
1977-78.				81.9	37.0	56.8	49.9	51.4	37.4	44.5	45.6	47.0
1978-79.				77.0	39.0	62.6	53.5	71.5	49.9	48.0	61.6	58.9
1979-80.				88.8	65.5	73.8	71.1	87.5	71.3	51.6	78.7	76.2
1980-81.				79.2	82.3	78.5	80.2	92.6	80.4	58.1	85.4	83.7
1981-82.				71.4	89.6	81.9	84.6	88.5	83.6	70.0	85.3	85.0
1982-83.				81.9	94.7	87.5	90.2	90.6	95.8	92.3	92.8	91.9
1983-84.				92.8	92.5	91.2	91.8	98.0	95.3	97.1	96.9	95.3
1984-85.				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1985-86.				117.3	91.5	117.7	111.8	100.6	101.4	102.9	101.2	104.9

<sup>(</sup>a) The index is on a net basis and relates in concept only to materials that enter Australian manufacturing industry from other sectors of the Australian economy or from overseas. (b) The index series for years prior to 1984-85 are based on the series previously published on reference base 1968-69 = 100.0. They have been converted to reference base 1984-85 = 100.0 by linking the old and new series in the year 1984-85.

# Price Indexes of Articles Produced by Manufacturing Industry

These indexes measure changes in the prices of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). Indexes are on a 'net basis', i.e. they relate in concept only to those articles which are produced in defined sectors of Australian manufacturing industry for sale or transfer to other sectors or for export or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing as materials, components, fuels, etc. are excluded.

The following sector price indexes are published:

- (i) a net index for the Manufacturing Division of ASIC (known as the All Manufacturing Industry Index), and
- (ii) a net index for each of the twelve sub-divisions within the Manufacturing Division.

The reference base of the indexes is the year 1968-69 = 100.0. Their composition and weighting reflect estimated net sector production in the year 1971-72.

The items included in the indexes are combined for publication purposes using the structure of ASIC.

Further information concerning the method of compiling monthly index numbers for each index, including details of their composition and weighting, is shown in the June 1976 issue of the publication *Price Indexes of Articles Produced by Manufacturing Industry*, Australia (6412.0). Further information about the indexes is also shown in *Year Book* No. 62.

#### PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY (a)

(Base of each index: Year 1968-69=100.0)

					N	Net subdivision indexes (b)						
Year					All Manu- facturing Industry Index (c)	Food. beverages and tobacco Textiles (21-22) (23)		Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products and printing (26)	Chemical, petroleum and coal products (27)	
1976-77					196.9	180.0	178.6	208.1	246.8	212.8	182.4	
1977-78					213.8	195.6	193.3	225.2	264.0	231.7	200.7	
1978-79					237.4	226.4	205.1	238.4	280.4	245.0	233.1	
1979-80					274.9	266.5	228.8	255.3	315.5	269.6	307.4	
1980-81					305.3	290.9	252.7	276.5	357.3	304.2	366.8	
1981-82					328.9	301.9	270.6	298.1	388.4	346.0	400.9	
1982-83					360.2	328.2	286.7	316.0	424.9	390.4	442.4	
1983-84					382.8	355.5	305.8	333.2	455.4	413.6	456.8	
1984-85					404.8	377.0	322.6	352.1	494.3	442.2	480.8	
1985-86					430.3	399.1	348.2	376.7	530.4	472.4	499.9	

Year			Glass, clay and other non- metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	a Transport equipment (32)	Other industrial machinery nd equipment and household appliances (33)	Miscellan- eous manu- facturing products (34)
1976-77 .	 		202.5	200.6	244.9	195.0	199.4	176.0
1977-78 .			219.8	214.0	268.7	211.6	215.3	192.4
1978-79 .			236.8	237.2	287.7	230.2	232.2	209.8
1979-80 .			265.2	282.7	323.9	252.2	261.3	252.5
1980-81 .			300.2	297.8	371.6	275.7	289.7	273.9
1981-82 .			337.2	315.3	414.2	303.2	320.7	289.5
1982-83 .			382.1	345.5	452.5	335.4	353.1	313.4
1983-84 .			404.0	365.5	480.1	358.9	372.6	342.1
1984-85 .			429.2	381.0	505.3	378.7	390.2	361.4
1985-86 .			449.8	396.4	534.4	417.5	417.6	388.1

<sup>(</sup>a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division, see Australian Standard Industrial Classification (ASIC), Preliminary Edition, 1969. (b) These indexes are on a net subdivision basis; the index for each subdivision relates in concept to articles which are produced in that subdivision for sale or transfer outside the subdivision. (c) This index is on a net division basis and relates in concept only to articles which are produced in the Manufacturing Division of ASIC for sale or transfer outside the Division.

# FOREIGN TRADE PRICE INDEXES

## Historical perspective

### **Export Price Index**

An index of export prices has been published by the ABS since 1901. The first index was compiled annually from 1901 to 1916-17 as a current weighted unit value index.

The method of calculation was changed in 1918 to incorporate fixed weights. Weights for all principal exports were calculated based on the average quantities of exports for the period January 1897 to June 1916. These weights were applied to the average unit values of each export in successive years, and a weighted average index of 'price' movements was derived. This index was published for the years 1897 to 1929-30.

An index of export prices was not published again until 1937 when two new series of monthly export price indexes were published, compiled back to 1928. One index used fixed weights and the other used changing weights. The most important methodological change introduced with these indexes was the use of actual export prices in place of unit values. The indexes were compiled until 1962.

The next index was introduced in August 1962 with index numbers compiled back to July 1959. This was a fixed weights index with reference base 1959-60 = 100.0. The weights

were based on the average annual value of exports during the five years 1956-57 to 1960-61. By 1969-70 there had been a substantial shift in the relative importance of commodities exported and from July 1969 a new interim series was linked to this index, still with reference base 1959-60 = 100.0, but using weights based on the annual value of exports in 1969-70. Four new commodities iron ore, bauxite, alumina and mineral sands were included. The interim index was published until June 1979 when it was replaced by the current Export Price Index.

# Import Price Index

The first issue of the Import Price Index produced by the ABS was released in May 1983 with index numbers compiled from September quarter 1981 onwards, on a reference base 1981-82 = 100.0. This index replaced an import price index previously published by the Reserve Bank of Australia on a reference base 1966-67 = 100.0. The Reserve Bank's import price index was published from 1928 until September 1982.

A table giving a broad indication of long term price changes, drawing on the foreign trade price indexes available, is given below.

FOREIGN TRADE PRICE INDEXES (Reference base: Year 1968-69=100)

Year	Export Price Index (All Groups)	Import Price Index (All Groups)	Year	Export Price Index (All Groups)	Import Price Index (All Groups)
1901	. 15	••			
1911	. 17		1970-71	99	108
1921-22	. 25		1971–72	102	114
1931–32	. 18	22	1972–73	131	113
			1973–74	157	131
1936–37	. 29	21	1974–75	177	189
1941-42	. 27	35	1975–76	193	214
1946-47	. 53	51	1976-77	216	246
1951-52	. 123	92	1977-78	227	278
1956-57	. 115	91	1978-79	256	307
1960-61	. 93	95	1979-80	309	403
1961-62	. 94	94	1980-81	328	450
1962-63	. 99	94	1981-82	332	458
1963-64	. 112	96	1982-83	360	506
1964-65	. 103	97	1983–84	369	524
1965–66	. 105	99	1984–85	396	580
1966–67	. 103	100	1985–86	417	659
1967–68	. 98	99	1,00 00	71,	037
1968-69	. 100	100			
		-			
1969-70	. 101	103			

Source: The sources used for the Import Prices Index are the Reserve Bank of Australia Bulletin up to and including 1981-82, and the ABS Import Price Index (6414.0) thereafter.

### **Current indexes**

The ABS compiles price indexes for merchandise imported into and exported from Australia. The Export Price Index is compiled and published monthly while the Import Price Index is compiled and published quarterly. Both indexes are calculated using fixed weights. Prices are collected from representative importers or exporters of the goods included in the indexes. Average monthly prices are used to compile the Export Price Index and average quarterly prices are used to compile the Import Price Index. Published index numbers for financial years are simple averages of the relevant monthly or quarterly index numbers. Annual index numbers for these indexes are shown below.

# Import Price Index

The Import Price Index measures changes in prices of 'imports of merchandise' into Australia. The index numbers for each quarter relate to prices of imports landed in Australia during the quarter.

The commodities directly represented in the index were selected on the basis of their import values and were allocated weights in accordance with the average value of imports for each commodity over the three years ended June 1981.

The selected commodities are combined for publication purposes into broad index groups using three different classifications:

(i) Australian Import Commodity Classification (AICC) 1980-81 (1204.0) (ii) Australian Standard Industrial Classification (ASIC) 1978 (1201.0) (iii) United Nations Classification by Broad Economic Categories (BEC) 1976

In addition, BEC categories have been rearranged to form the broader end use classes: Capital goods, Intermediate goods and Consumption goods. Index numbers based on AICC

and BEC are presented below.

Further information concerning the method of compiling the index, including details of its composition and weighting pattern, can be obtained from the December quarter 1982 issue of the publication *Import Price Index* (6414.0). More detailed index numbers are shown in the quarterly publication Import Price Index, Australia (6414.0).

# IMPORT PRICE INDEX INDEX NUMBERS BASED ON THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION (AICC)

(Base of each index: Year 1981-82=100.0)

		AICC Sect	ions							
Year	All groups	Food and live animals chiefly for food (0)	Beverages and tobacco (1)	except fuels	lubric- ants and	Animal and vegetable oils fats and waxes (4)	related products	Manufac- tured goods classified chiefly by material (6)	and transport	Miscellaneous manufactured articles and non- monetary gold (8 & 9 part)
1983-84 1984-85r 1985-86	114.4 126.5 143.8	123.0 139.2 157.2	128.9 139.8 164.8	121.0	104.2 117.4 101.0	135.9 146.5 110.9	106.7 115.4 132.8	114.4 127.4 151.0	118.6 130.2 157.5	118.9 130.9 155.5

# IMPORT PRICE INDEX INDEX NUMBERS FOR BROAD ECONOMIC CATEGORIES (BEC) AND END USE CLASSES

(Base of each index: Year 1981-82=100.0)

	Broad eco	nomic catego	ories				End use classes			
Year	Food and beverages	Industrial supplies not elsewhere specified	Fuels and lubricants	and parts and	Transport equipment and parts and accessories thereof	Consumer goods not elsewhere specified	Capital goods	Inter- mediate s goods	Con- cumption goods	
1983-84	122.9	110.8	104.2	116.9	123.8	116.8	116.6	111.5	118.9	
1984-85r	137.6	123.2	117.4	127.5	137.4	127.4	127.7	124.2	130.1	
1985-86	152.5	142.3	101.0	152.7	171.2	150.9	154.9	134.9	154.0	

# **Export Price Index**

The current Export Price Index was introduced in July 1979. It relates to 'all exports of merchandise' from Australia. The index numbers for each month relate to prices of those exports of merchandise that are physically shipped from Australia during that month.

The reference base of the index is the year 1974-75 = 100. The commodities directly represented in the index were selected on the basis of their export values and were allocated weights in accordance with the average value of exports for each commodity over the three years ended June 1977.

The selected commodities are combined for publication purposes into broad index groups using two different classifications:

(i) Australian Export Commodity Classification (AECC) 1978-79 (1203.0)

(ii) Australian Standard Industrial Classification (ASIC) 1978 (1201.0)

Further information concerning the method of compiling the index, including details of its composition and weighting pattern, can be obtained from the July 1979 issue of the publication *Export Price Index* (6405.0). More detailed index numbers are shown in the monthly publication *Export Price Index*, Australia (6405.0).

# EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN EXPORT COMMODITY CLASSIFICATION (AECC) (Base of each index: Year 1974-75 = 100)

		AECC Section	ions			
Year	All groups	Food and live animals (0)	Crude materials inedible (except fuels) (2)	Mineral fuels and lubricants (3)	Animal and vegetable oils and fats (4)	Chemicals and other manufactured exports (5, 6, 7 and 8)
1976–77	122	98	141	156	117	118
1977-78	128	100	149	167	136	125
1978-79	144	119	162	170	157	146
1979-80	174	145	191	198	169	188
1980-81	185	162	202	217	145	181
1981-82	187	147	219	247	139	178
1982-83	203	152	242	287	138	191
1983-84	208	163	242	269	168	203
1984-85	223	171	264	288	211	216
1985-86	235	180	277	308	183	229

# EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC) (Base of each index: Year 1974-75 = 100)

	ASIC Divisions			
Year	Agriculture, forestry, fishing and hunting (A)	Mining (B)	Manufacturing (C)	
1976-77	106	148	119	
1977-78	105	159	127	
1978-79	114	163	150	
1979-80	137	180	190	
1980-81	150	191	199	
1981-82	153	221	191	
1982-83	158	262	202	
1983-84	169	244	212	
1984-85	182	265	226	
1985-86	184	290	237	

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Price Indexes of Articles Produced by Manufacturing Industry (6412.0)

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