

Prices

Introduction	503
Consumer Price Index	503
Index population	503
Conceptual basis	504
Periodic reviews of the CPI	504
Weighting pattern	505
Price collection	505
Price movements by city	506
Price movements by broad commodity group	506
Long-term price series	507
International comparisons	508
Producer Price Indexes	509
Long-term price series	509
Price Index of Materials used in House Building	510
Price Index of Materials Used in Building Other than House Building	511
Price Indexes of Materials Used in Manufacturing Industries	512
Price Indexes of Articles Produced by Manufacturing Industry	512
Foreign trade price indexes	513
Import Price Index	514
Export Price Index	515
Bibliography	517

Prices

Introduction

Prices are a key factor in the operation of an economy, and the indexes which provide summary measures of the movements in various categories of prices are used extensively to analyse and monitor price behaviour, and to adjust government payments such as pensions.

This chapter provides an outline of the major price indexes, their history, and their underlying concepts and methodology. More detailed information is contained in the source publications referred to throughout the chapter and in the bibliography.

Consumer Price Index

The description of the Consumer Price Index (CPI) commonly adopted by users is in terms of its perceived uses — hence the frequent references to the CPI as a measure of inflation, a measure of changes in purchasing power, or a measure of changes in the cost of living. None is strictly correct. In objective statistical terms the most appropriate general description is: a measure of changes, over time, in retail prices of a constant basket of goods and services. As such, the CPI is a general indicator of the rate of change in prices paid by household consumers for the goods and services they buy.

The simplest way of thinking about the CPI is to imagine a basket of goods and services of the kind bought by Australian households. As prices vary, the total price of this basket will also vary. The CPI is simply a measure of the changes in the price of this basket as the prices of items in it change.

The price of the CPI basket in the base period is assigned a value of 100.0 and the prices in other periods are expressed as percentages of the price in the base period. For example, if the price of the basket had increased 35% since the base year, then the index would read 135.0. Similarly, if the price had fallen by 5% since the base year, the index would stand at 95.0.

For practical reasons, the CPI basket cannot include every item bought by households, but it does include all the important kinds of items. It is not necessary to include every item that people buy since many related items are subject to similar price changes. The idea is to select representative items so that the index reflects price changes for a much wider range of goods and services than is actually priced.

The total basket is divided into the following eight major commodity groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation and education. These groups are divided in turn into 35 subgroups and the subgroups into 107 expenditure classes.

In addition to the aggregate All Groups index, indexes are also compiled and published for each of the groups, subgroups and expenditure classes for each State capital city, Darwin and Canberra. 'National' indexes are constructed as the weighted average of the indexes compiled for each of the eight capital cities.

The CPI is the latest of a number of retail price indexes which have been constructed for various purposes by the Australian Bureau of Statistics. The history of retail price indexes in Australia is published in *Year Book Australia 1995* (1301.0).

Index population

The CPI measures price changes relating to the spending pattern of a large proportion of metropolitan employee households. This group is termed 'the CPI population group'. For this purpose employee households have been defined as those households which obtain at least three-quarters of their total income from wages and salaries excluding the top 10% (in terms of income) of such households. Metropolitan means the State capital cities, Darwin and Canberra.

However, the exclusion of particular subgroups of the Australian population from the CPI population group does not necessarily mean that the CPI does not provide a suitable measure of price change for all household types. For example, a study

undertaken by the ABS in 1992 (and updated in 1995) showed that an experimental index constructed to reflect the expenditure patterns of age pensioner households displayed little variation from the CPI over a period of nearly eleven years, although there were some differences in index movements when shorter periods were examined.

Conceptual basis

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 any other quarter.

In measuring price changes, the CPI aims to measure only pure price changes (that is, it is concerned with isolating and measuring only that element of price change which is not brought about by any change to either the quantity or the quality of the goods or services concerned). In other words it aims to measure, each quarter, the change in the cost of purchasing an identical basket of goods and services. This involves evaluating changes in the quality of goods and services included in the index and removing the effects of such changes from the prices used to construct the index.

The CPI is also a measure of changes in 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).

Although the CPI is often loosely called the 'cost-of-living index' this is not strictly correct. A true cost-of-living index would, among other things, need to be concerned with changes in standards of living and with the substitutions that consumers make in order to maintain their standard of living in the face of changing market conditions (for instance, buying chicken rather than beef when beef prices are high).

The CPI basket includes goods and services ranging from steak to motor cars and from dental fillings to restaurant meals. The items are chosen not only because they represent the spending habits of the CPI population group but also because the items are those whose prices can be associated with

identifiable and specific commodities and services. While government taxes and charges which are associated with the use of specific goods and services (such as excise duty, sales taxes, local government rates, etc.) are included, income taxes and the income-related Medicare levy are excluded because they cannot be clearly associated with the purchase or use of a specific quantity of any good or service.

Items are not excluded from the CPI basket on the basis of moral or social judgements. For example, some people may regard the use of tobacco and alcohol as socially undesirable, but these commodities are included in the CPI basket because they are significant items of household expenditure and their prices can be accurately measured. However, to assist in understanding the effect that major item groups have on the CPI, the ABS publishes a range of supplementary indexes which exclude, in turn, each of the eight major commodity groups. These supplementary indexes can also be used in their own right for evaluating price changes or for indexation purposes.

Periodic reviews of the CPI

Like any other longstanding and important statistical series, the CPI is reviewed from time to time to ensure that it continues to be relevant to current conditions. Over time, household spending habits change and the range of available goods and services also changes. The CPI needs to be updated to take account of these changes.

Since its inception in its current form in 1960, CPI reviews have usually been carried out at approximately five-yearly intervals. Following each review, which involves revising the list of items and their weights, the new series are linked to the old to form continuous series. This linking is carried out in such a way that the resulting continuous series reflects only price changes and not differences in the prices of the old and new baskets.

The latest revision of the CPI was concluded in the September quarter 1992. In addition to revising weights to reflect new expenditure patterns (based on the 1988-89 ABS Household Expenditure Survey) and re-referencing the index to the 1989-90 base period, the review also considered a number of conceptual and methodological issues, including the treatment of home ownership costs.

Weighting pattern

Between periodic reviews of the CPI, each of the 107 expenditure classes has a fixed weight (that is, the measure of its relative importance). Details of the weighting pattern for the current (12th series) CPI are shown in the following table.

19.1 Consumer Price Index — weighted average of capital cities, weighting pattern at June 1992

Groups & subgroups	% contribution to the All Groups CPI
Food	
Dairy products	1.463
Cereal products	2.097
Meat & seafoods	3.001
Fresh fruit & vegetables	1.417
Processed fruit & vegetables	0.829
Soft drinks, ice cream & confectionery	2.890
Meals out & take away foods	4.959
Other food	1.668
Total	18.324
Clothing	
Men's & boys' clothing	1.686
Women's & girls clothing	2.545
Fabrics & knitting wool	0.746
Footwear	1.063
Dry cleaning & shoe repairs	0.224
Total	6.264
Housing	
Rents	4.865
Home ownership	11.035
Total	15.900
Household equipment & operation	
Fuel & light	2.339
Furniture & floor coverings	4.344
Appliances	1.538
Household textiles	0.754
Household utensils & tools	1.212
Household supplies & services	3.970
Postal & telephone services	1.715
Consumer credit charges	2.498
Total	18.370
Transportation	
Private motoring	14.755
Urban transport fares	1.212
Total	15.967

...continued

19.1 Consumer Price Index — weighted average of capital cities, weighting pattern at June 1992 — continued

Groups & subgroups	% contribution to the All Groups CPI
Tobacco & alcohol	
Alcoholic drinks	5.061
Cigarettes & tobacco	2.414
Total	7.475
Health & personal care	
Health services	3.961
Personal care products	2.097
Hairdressing services	0.792
Total	6.850
Recreation & education	
Books, newspapers & magazines	1.146
Recreational goods	2.564
Holiday travel & accommodation	2.349
Recreational services	2.852
Education & child care	1.939
Total	10.850
Total All Groups	100.000

Source: The Australian Consumer Price Index 12th Series Review (6450.0).

Price collection

Since the CPI is designed to measure the impact of changing prices on metropolitan employee households, information about prices is collected in the kinds of retail outlets or other places where these households normally purchase goods and services. Prices are collected 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 and airlines, bus operators, electricians and plumbers. Items like rail fares, electricity and gas charges, telephone charges and local government rates are collected from the authorities concerned. Information on rents is obtained from property management companies and from government housing commissions. In total, around 100,000 separate price quotations are collected each quarter.

The collection of prices in each capital city is carried out by trained ABS field staff.

The prices used in the CPI are those that any member of the public would have to pay to purchase the specified good or service. Any sales or excise taxes attached to goods 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 (that is, not damaged or shopsoiled), and are offered for sale in reasonable quantities. To ensure that the

price movements reflect the buying 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.

Price movements by city

Table 19.2 presents All Groups index numbers for each of the eight capital cities and for the weighted average of the eight capital cities together with percentage changes.

19.2 Consumer Price Index — All groups index numbers(a)
(Reference base year 1989-90 = 100.0)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Canberra	Darwin	Weighted average of eight capital cities
Index no.									
1989-90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990-91	104.9	105.8	104.9	106.2	105.1	104.9	105.1	105.7	105.3
1991-92	106.7	108.1	107.0	108.9	105.9	107.1	107.8	108.0	107.3
1992-93	107.7	108.9	108.5	111.2	106.2	108.5	109.5	109.5	108.4
1993-94	109.2	111.1	110.6	113.4	108.5	111.7	111.4	111.5	110.4
1994-95	113.0	114.1	114.7	116.9	112.3	115.2	115.1	114.7	113.9
% change from previous year									
1989-90	8.1	8.3	7.5	7.2	8.3	7.0	7.4	6.2	8.0
1990-91	4.9	5.8	4.9	6.2	5.1	4.9	5.1	5.7	5.3
1991-92	1.7	2.2	2.0	2.5	0.8	2.1	2.6	2.2	1.9
1992-93	0.9	0.7	1.4	2.1	0.3	1.3	1.6	1.4	1.0
1993-94	1.4	2.0	1.9	2.0	2.2	2.9	1.7	1.8	1.8
1994-95	3.5	2.7	3.7	3.1	3.5	3.1	3.3	2.9	3.2

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Source: Consumer Price Index (6401.0).

The capital city indexes measure price movements over time in each city individually. They do not measure differences in retail price levels between cities. For example, the index for Adelaide in 1994-95 of 116.9 compared with the corresponding index for Sydney of 113.0 does not mean that prices in Adelaide are higher than those in Sydney. It simply means that, since the base period (1989-90), prices in Adelaide have increased by a greater percentage than those in Sydney (16.9% compared with 13.0%).

Price movements by broad commodity group

Table 19.3 presents, for the weighted average of the eight capital cities, index numbers for each of the eight major commodity groups and for the All Groups together with percentage changes.

19.3 Consumer price index — group index numbers, weighted average of capital cities (Reference base year 1989–90 = 100.0)

	Food	Clothing	Housing	Household equipment & operation	Transportation	Tobacco & alcohol	Health & Personal care	Recreation & education	All groups
	Index no.								
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	103.3	104.6	103.5	105.1	106.9	108.8	109.6	105.0	105.3
1991–92	105.8	106.4	98.9	107.5	108.8	115.0	121.3	106.9	107.3
1992–93	107.4	107.5	94.6	107.3	111.3	124.4	124.0	109.1	108.4
1993–94	109.4	106.7	94.2	107.8	113.8	133.7	129.0	111.9	110.4
1994–95	112.1	106.7	100.0	109.2	117.5	141.0	135.5	114.6	113.9
	% change from previous year								
1989–90	7.1	5.2	15.1	5.5	8.1	8.2	7.2	6.2	8.0
1990–91	3.3	4.6	3.5	5.1	6.9	8.8	9.6	5.0	5.3
1991–92	2.4	1.7	-4.4	2.3	1.8	5.7	10.7	1.8	1.9
1992–93	1.5	1.0	-4.3	-0.2	2.3	8.2	2.2	2.1	1.0
1993–94	1.9	-0.7	-0.4	0.5	2.2	7.5	4.0	2.6	1.8
1994–95	2.5	—	6.2	1.3	3.3	5.5	5.0	2.4	3.2

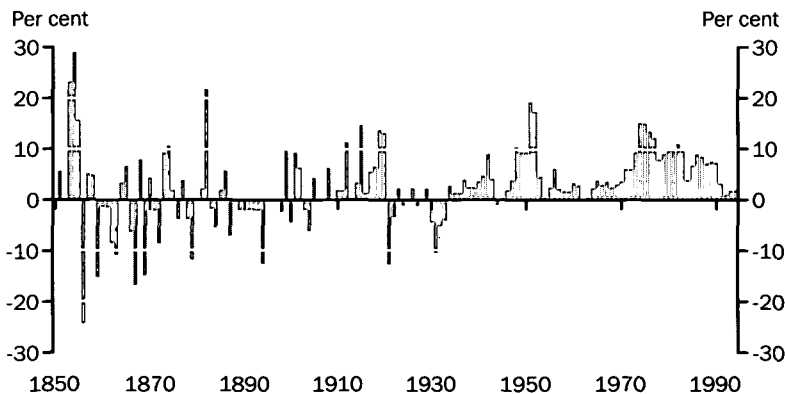
Source: Consumer Price Index (6401.0).

Long-term price series

Although the CPI has only been compiled from 1948, an approximate long-term measure of retail price change has been constructed by linking together other selected retail price index series. The index numbers are expressed on a reference base 1945 = 100, 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 1850 to 1901, Sydney Retail Price Index;
- 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; and
- from 1948–49 onwards, the CPI.

19.4 Retail Price Index - % change from previous year



Source: Australian Bureau of Statistics.

19.5 Retail price index numbers(a) (Reference base year 1945 = 100)

Year	Index no.	Year	Index no.	Year	Index no.
1850	53	1900	43	1950	140
1851	56	1901	47	1951	167
1852	56	1902	50	1952	196
1853	69	1903	49	1953	205
1854	89	1904	46	1954	206
1855	103	1905	48	1955	211
1856	78	1906	48	1956	224
1857	82	1907	48	1957	229
1858	86	1908	51	1958	233
1859	73	1909	51	1959	237
1860	72	1910	52	1960	245
1861	71	1911	53	1961	252
1862	65	1912	59	1962	251
1863	58	1913	59	1963	252
1864	60	1914	61	1964	258
1865	64	1915	70	1965	268
1866	60	1916	71	1966	276
1867	50	1917	75	1967	286
1868	54	1918	80	1968	293
1869	46	1919	91	1969	302
1870	48	1920	103	1970	313
1871	47	1921	90	1971	332
1872	43	1922	87	1972	352
1873	47	1923	89	1973	385
1874	52	1924	88	1974	443
1875	53	1925	88	1975	510
1876	51	1926	90	1976	579
1877	53	1927	89	1977	650
1878	51	1928	89	1978	702
1879	45	1929	91	1979	766
1880	45	1930	87	1980	844
1881	46	1931	78	1981	926
1882	56	1932	74	1982	1 028
1883	55	1933	71	1983	1 132
1884	52	1934	73	1984	1 177
1885	53	1935	74	1985	1 257
1886	56	1936	75	1986	1 370
1887	52	1937	78	1987	1 487
1888	52	1938	80	1988	1 594
1889	51	1939	82	1989	1 714
1890	51	1940	85	1990	1 839
1891	50	1941	89	1991	1 898
1892	49	1942	97	1992	1 917
1893	48	1943	101	1993	1 952
1894	42	1944	100	1994	1 989
1895	42	1945	100	..	..
1896	42	1946	102	..	..
1897	42	1947	106	..	..
1898	41	1948	117	..	..
1899	45	1949	128	..	..

(a) The index numbers relate to Sydney from 1850 to 1900; from 1901 to 1980 they relate to the weighted average of six State capital cities and from 1981 to the weighted average of eight capital cities.

Source: Australian Bureau of Statistics.

International comparisons

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.'

Table 19.6 presents indexes for selected countries on a basis consistent with the above resolution and comparable with the Australian series 'All Groups excluding housing'.

19.6 Consumer price index — international comparisons(a)

	United States of America	Japan	Germany(b)	Canada	United Kingdom	Hong Kong	Republic of Korea	Taiwan	Australia	New Zealand(c)
Index no.										
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	105.5	103.4	102.7	105.6	107.7	110.8	109.1	104.0	105.6	104.0
1991–92	108.7	105.9	106.9	109.0	115.0	121.7	117.9	107.6	108.8	106.5
1992–93	112.1	106.8	110.5	110.9	118.6	130.8	123.5	111.4	111.0	108.7
1993–94	114.8	107.9	113.9	112.0	122.0	140.1	130.4	114.2	113.5	109.4
1994–95	118.0	107.8	116.4	113.4	124.8	151.4	138.0	119.1	116.5	110.5
% change since previous year										
1989–90	4.7	2.9	2.6	4.8	5.8	10.1	6.7	3.1	6.7	7.5
1990–91	5.5	3.4	2.7	5.6	7.7	10.8	9.1	4.0	5.6	4.0
1991–92	3.0	2.4	4.1	3.2	6.8	9.8	8.1	3.5	3.0	2.4
1992–93	3.1	0.8	3.4	1.7	3.1	7.5	4.7	3.5	2.0	2.1
1993–94	2.4	1.0	3.1	1.1	2.9	7.1	5.6	2.5	2.3	0.6
1994–95	2.8	-0.1	2.2	1.3	2.3	8.1	5.8	4.3	2.6	1.0

(a) All groups excluding housing. (b) The statistics for Germany refer to Western Germany (Federal Republic of Germany before the unification of Germany). (c) From March quarter 1994 the statistics for New Zealand refer to 'all groups excluding housing and credit services'.

Source: Consumer Price Index (6401.0).

Producer Price Indexes**Long-term price series**

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.

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 present range of producer price indexes was developed and produced progressively from the 1960s. The current indexes relate to the building industry, manufacturing industry, and (not included in this chapter) the mining industry.

Table 19.7 contains the linked wholesale price indexes from 1861 to 1867–68 and the producer price index for manufacturing from 1968–69 onwards.

**19.7 Producer and wholesale price
indexes
(Reference base year 1968–69 = 100.0)**

	Producer Price Indexes
Melbourne Wholesale Price Index (All Groups)	
1861	24.2
1871	19.3
1881	17.6
1891	14.9
1901	15.3
1911	15.7
1921	30.0
1925–26	29.7
Wholesale Price (Basic Materials & Foodstuffs) Index (All Groups)	
1930–31	25.4
1935–36	23.9
1940–41	29.3
1945–46	36.5
1950–51	62.7
1955–56	85.9
1960–61	92.5
1961–62	86.4
1962–63	87.4
1963–64	90.0
1964–65	91.3
1965–66	95.4
1966–67	98.4
1967–68	99.7

...continued

19.7 Producer and wholesale price indexes — *continued*
(Reference base year 1968–69 = 100.0)

	Producer Price Indexes
Price Index of Articles Produced by Manufacturing Industry	
1968–69	100.0
1969–70	103.9
1970–71	108.5
1971–72	113.9
1972–73	120.7
1973–74	134.6
1974–75	158.1
1975–76	177.8
1976–77	196.9
1977–78	213.8
1978–79	237.4
1979–80	274.9
1980–81	305.2
1981–82	328.9
1982–83	360.2
1983–84	382.8
1984–85	404.8
1985–86	430.3
1986–87	458.5
1987–88	492.1
1988–89	526.0
1989–90	559.9
1990–91	584.6
1991–92	586.7
1992–93	600.9
1993–94	607.3
1994–95	620.9

Source: Labour Report; Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

Price Index of Materials used in House Building

The Price Index of Materials Used in House Building measures changes in prices of selected materials used in the construction of houses in each capital city Statistical Division. It was first compiled on a reference base of 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.

The current indexes for the six State capital cities were introduced in October 1986 on a reference base of 1985–86 = 100.0 and were linked to the previous series. The items were selected and allocated weights on the basis of the estimated values of each material used in a sample of representative houses constructed in 1985–86.

19.8 Price Index of Materials Used in House Building
(Reference base year 1985–86 = 100.0)

Year	Weighted average of six State capital cities	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart
1989–90	135.8	139.1	133.5	134.1	129.7	140.8	128.0
1990–91	142.1	145.7	138.1	141.9	136.2	148.7	134.2
1991–92	142.4	146.1	137.3	144.7	135.5	149.3	138.3
1992–93	145.2	148.5	141.1	147.8	137.8	150.5	140.7
1993–94	152.1	154.8	149.6	152.2	151.8	153.5	144.3
1994–95	156.7	160.0	154.7	155.4	154.1	158.7	150.2

Source: Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0).

Price Index of Materials Used in Building Other than House Building

The Price Index of Materials Used in Building Other than House Building measures changes in prices of selected materials used in the construction of buildings other than houses in metropolitan areas. The types of building directly represented in the index are:

- flats and other dwellings;
- hotels, motels and hostels;
- shops;
- factories;
- offices;
- other business premises;
- education buildings;
- health buildings; and
- other non-residential buildings.

The index was first compiled on a reference base of 1966–67 = 100.0 using a weighting pattern derived from estimated materials usage in 1966–67. Since its introduction the index has been reviewed and its weighting pattern updated on two occasions.

Rebased indexes for the six State capital cities were introduced in February 1981 on a reference base of 1979–80 = 100.0. The composition of these indexes reflected the usage of materials in the three years ending June 1977.

The current indexes were introduced in October 1993 on a reference base of 1989–90 = 100.0. The composition of these indexes reflects the usage of materials in the five years ending June 1992.

19.9 Price Index of Materials used in Building other than House Building - six capital cities(a) (Reference base year 1989-90 = 100.0)

Year	Weighted average of six State capital cities	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart
1989-90	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990-91	105.1	105.6	104.5	104.8	105.3	105.5	103.9
1991-92	105.7	107.1	103.4	107.4	105.4	105.2	107.1
1992-93	106.0	106.5	104.4	108.9	105.1	105.7	108.2
1993-94	107.5	107.0	106.7	110.1	107.9	107.1	110.1
1994-95	110.4	110.3	108.9	112.9	110.9	110.1	112.2

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Source: Price Index of Materials Used in Building Other than House Building, Six Capital Cities (6407.0).

19.10 Price Index of Materials Used in Building Other than House Building (Reference base year 1989-90 = 100.0)

Material	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
Structural timber	100.0	102.6	100.3	107.1	127.1	128.3
Clay bricks	100.0	103.5	105.0	106.2	107.8	111.0
Ready mixed concrete	100.0	109.4	106.0	103.5	106.7	112.4
Steel decking cladding & sheet products	100.0	105.2	106.6	108.4	107.5	108.9
Structural steel	100.0	102.0	100.7	101.2	104.3	105.3
Reinforcing steel bar fabric & mesh	100.0	106.4	105.8	109.2	112.7	111.5
Aluminium windows	100.0	101.8	99.5	99.1	99.7	105.4
Conductors (mains cable & circuitry)	100.0	114.3	113.6	109.2	99.2	114.2
Lamps & light fittings	100.0	99.9	100.8	101.0	102.7	104.2
Non-ferrous pipes & fittings	100.0	102.0	100.8	104.6	102.4	118.1
Builders' hardware	100.0	104.9	109.8	112.6	115.3	116.6
Paint & other coatings	100.0	108.5	116.7	118.2	119.9	123.3

Source: Price Index of Materials Used in Building Other Than House Building, Six State Capital Cities and Canberra (6408.0).

Price Indexes of Materials Used in Manufacturing Industries

These indexes measure changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC), 1983 edition.

Separate price indexes are published for materials used in Manufacturing Industry as a whole, for 14 separate Manufacturing sectors (defined in terms of ASIC subdivisions or ASIC groups) and for selected groups of materials classified according to whether the material is home produced or imported.

The indexes are compiled and published on a net sector basis, that is, each index includes only those materials which are used in the

defined sector of Australian manufacturing industry and which have been produced by establishments outside that sector.

The indexes were first compiled on a reference base of 1968–69 = 100.0, using a weighting pattern derived from estimated manufacturing usage in 1971–72. Monthly index numbers for this first series are available for the period July 1968 to November 1985.

The current indexes were introduced in December 1985 on a reference base of 1984–85 = 100.0. 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.

19.11 Price Indexes of Materials Used in Manufacturing Industries(a)
(Reference base year 1984–85 = 100.0)

	1989–90	1990–91	1991–92	1992–93	1993–94	1994–95
Imported materials						
Agricultural	85.5	83.5	85.0	89.6	92.7	128.1
Mining	66.1	79.7	70.2	72.5	63.1	65.4
Manufactured	139.5	140.3	141.3	150.2	154.4	158.5
Total imported materials	121.1	124.7	123.3	130.6	131.7	136.5
Home produced materials						
Agricultural, forestry & fishing	134.0	126.9	128.7	135.2	141.9	146.8
Mining	103.5	119.1	108.7	113.6	100.4	102.2
Electricity	123.6	128.9	133.0	133.2	132.8	130.7
Total home produced materials	117.9	123.3	119.3	124.6	120.9	123.7
All materials	119.0	123.8	120.7	126.6	124.6	128.1

(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.

Source: *Price Indexes of Materials Used in Manufacturing Industries, Australia* (6411.0).

Price Indexes of Articles Produced by Manufacturing Industry

These indexes measure movements in the prices of articles produced by manufacturing industry. For the purpose of the index, manufacturing industry is defined to be establishments classified to the Manufacturing Division of the ASIC, 1983 edition.

The indexes are constructed on a net sector basis. This approach means that:

- The All Manufacturing Industry Index represents price movements of goods which are produced by establishments in the Manufacturing Division, for sale or transfer to establishments outside the Manufacturing Division, for export, or for use as capital

equipment. Articles which are sold or transferred to other establishments within manufacturing industry for further processing or for use as inputs are excluded.

- The net subdivision indexes for each of the manufacturing subdivisions represent movements in prices of goods produced by establishments in the respective subdivisions, for sale or transfer to other subdivisions within manufacturing or to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Sales or transfers to establishments within the subdivision are excluded.

The indexes were first published in June 1976 on a reference base of 1968–69 = 100.0, with indexes compiled retrospectively to July 1968. The composition and weighting patterns of the indexes were based on the value of production in 1971–72.

The current indexes were introduced from May 1990. The composition and weighting pattern are based on the value of production in 1986–87 and the indexes are on a reference base of 1988–89 = 100.0.

19.12 Price Indexes of Articles Produced by Manufacturing Industry(a)
(Reference base year 1988–89 = 100.0)

Industry	1989–90	1990–91	1991–92	1992–93	1993–94	1994–95
All Manufacturing Industry Index	106.5	111.2	111.6	114.3	115.5	118.1
Food, beverages & tobacco	106.9	109.5	112.3	116.2	120.5	123.0
Textiles	103.2	103.4	102.9	101.8	102.2	105.6
Clothing & footwear	107.3	112.0	114.9	116.1	117.1	118.3
Wood, wood products & furniture	107.6	112.7	114.2	116.5	122.5	126.1
Paper, paper products & printing	104.3	111.0	117.3	119.9	122.0	125.2
Chemicals & chemical products	104.4	109.3	109.9	111.1	110.3	113.6
Petroleum products	118.4	150.1	134.3	143.9	127.2	120.9
Non-metallic mineral products	108.7	117.2	119.3	119.3	120.8	124.2
Basic metal products	105.6	106.2	99.9	100.6	99.8	107.2
Fabricated metal products	107.9	113.7	114.3	114.7	114.8	116.2
Transport equipment	105.6	109.9	112.7	116.0	119.1	120.7
Other machinery & equipment	104.2	107.0	107.0	109.3	109.9	111.2
Miscellaneous manufacturing products	103.7	106.4	107.8	109.6	112.4	116.1

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division, see *Australian Standard Industrial Classification (ASIC) (1201.0)*, 1983 edition.

Source: *Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)*.

Foreign trade price indexes

The first index of export prices 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, applied to the average unit values of each export in successive years. This index was published for the years 1897 to 1929–30.

Two new series of monthly export price indexes were published in 1937, compiled back to 1928. One index used fixed weights and the other used changing weights. The methodology was changed and actual export prices were used instead of unit values. The indexes were compiled until 1962.

In 1962, a fixed weights index on the reference base of 1959–60 = 100.0 was introduced. A new interim series was linked to this index, still with a reference base of 1959–60 = 100.0, but from July 1969 with updated weights. The interim index was replaced in 1979 by an index on a reference base of 1974–75. In 1990, the current index with a reference base of 1989–90 = 100.0 was released.

The first import price index produced by the ABS covered the period from September quarter

1981 to June quarter 1991 on a reference base of 1981–82 = 100.0. This index replaced an index previously published by the Reserve Bank of Australia on a reference base of 1966–67 = 100.0. The Reserve Bank's import price index was published from 1928 until September 1982.

The latest Import Price Index series was introduced in December 1991 with monthly index numbers compiled from April 1991 onwards, on a reference base of 1989–90 = 100.0.

To give a broad indication of long-term changes, table 19.13 draws on the available foreign trade indexes.

The indexes were first published in June 1976 on a reference base of 1968–69 = 100.0, with indexes compiled retrospectively to July 1968. The composition and weighting patterns of the indexes were based on the value of production in 1971–72.

The current indexes were introduced from May 1990. The composition and weighting pattern are based on the value of production in 1986–87 and the indexes are on a reference base of 1988–89 = 100.0.

19.13 Foreign trade price indexes (Reference base year 1968-69 = 100)

Year	Export Price Index (All Groups)	Import Price Index (All Groups)
1901	15	..
1911	17	..
1921-22	25	..
1931-32	18	22
1936-37	29	21
1941-42	27	35
1946-47	53	51
1951-52	123	92
1956-57	115	91
1960-61	93	95
1961-62	94	94
1962-63	99	94
1963-64	112	96
1964-65	103	97
1965-66	105	99
1966-67	103	100
1967-68	98	99
1968-69	100	100
1969-70	101	103
1970-71	99	108
1971-72	102	114
1972-73	131	113
1973-74	157	131
1974-75	177	189
1975-76	193	214
1976-76	216	246
1977-78	227	278
1978-79	256	307
1979-80	309	403
1980-81	328	450
1981-82	332	458
1982-83	360	506
1983-84	369	524
1984-85	396	580
1985-86	417	659
1986-87	430	731
1987-88	469	742
1988-89	501	694
1989-90	527	729
1990-91	501	752
1991-92	472	749
1992-93	493	817
1993-94	484	843
1994-95	501	837

Source: The sources used for the Import Price Index are the Reserve Bank of Australia Bulletin up to and including 1981-82, and the ABS Import Price Index, Australia (6414.0) thereafter. The source used for the Export Price Index is the ABS Export Price Index, Australia (6405.0).

Import Price Index

The Import Price Index measures changes in prices of imports of merchandise into Australia on a free-on-board, country of origin basis. The index numbers for each month relate to prices of imports landed in Australia during the month.

The Import Price Index was first published in May 1983 on a reference base of 1981-82 = 100.0. Quarterly index numbers are available from the September quarter 1981 to the June quarter 1991.

A review of the index was completed in December 1991. The resulting index is on a reference base of 1989-90 = 100.0 and uses a weighting pattern based on the pattern of Australian imports during 1988-89 and 1989-90. Monthly index numbers are available from April 1991.

Prices of individual shipments are obtained from major importers of the selected items.

Index items have been grouped according to four different classifications:

- the Standard International Trade Classification;
- the Combined Customs Tariff and Statistical Nomenclature;
- on an industry of origin basis defined in terms of the Australian and New Zealand Standard Industrial Classification (ANZSIC); and
- the United Nations Classification by Broad Economic Categories.

**19.14 Import Price Index — index numbers based on the Standard International Trade Classification (SITC)
(Reference base year 1989–90 = 100.0)**

SITC section	1992–93	1993–94	1994–95
Food & live animals chiefly for food	104.7	106.8	116.6
Beverages & tobacco	121.8	111.5	106.6
Crude materials, inedible, except fuels	101.1	116.3	121.9
Mineral fuels, lubricants & other related materials	100.1	93.5	90.1
Animal & vegetable oils, fats & waxes	126.6	120.9	140.4
Chemicals & related products n.e.s.	106.2	103.3	108.8
Manufactured goods classified chiefly by material	109.3	112.1	110.4
Machinery & transport equipment	116.8	123.1	121.1
Miscellaneous manufactured articles	114.9	117.0	113.4
Commodities & transactions n.e.c.	98.7	110.4	104.4
All groups	112.1	115.6	114.8

Source: Import Price Index, Australia (6414.0).

**19.15 Import Price Index — industry of origin index numbers based on the Australian Standard Industrial Classification (ASIC)
(Reference base year 1989–90 = 100.0)**

ASIC Division	1991–92	1992–93	1993–94	1994–95
Agriculture, forestry & fishing	99.7	102.6	107.3	141.7
Mining	105.5	113.7	97.8	102.5
Manufacturing	102.6	111.7	115.5	113.8

Source: Import Price Index, Australia (6414.0).

**19.16 Import Price Index — index numbers for Broad Economic Categories (BEC) and End Use Classes
(Reference base year 1989–90 = 100.0)**

Categories/classes	1992–93	1993–94	1994–95
Broad Economic Categories			
Food & beverages	108.0	107.8	119.5
Industrial supplies n.e.s.	104.1	105.0	106.6
Fuels & lubricants	103.2	95.4	93.0
Capital goods & parts & accessories thereof	110.9	114.0	110.0
Transport equipment & parts & accessories thereof	124.6	135.9	136.8
Consumer goods n.e.s.	114.6	117.7	114.0
End Use Classes			
Capital goods	117.0	122.8	119.8
Intermediate goods	105.1	106.6	107.6
Consumption goods	116.9	121.1	119.2

Source: Import Price Index, Australia (6414.0).

Export Price Index

The Export Price Index measures changes in the prices of all exports of merchandise from Australia, including re-exports (that is, goods which are imported into Australia and exported at a later date without physical alteration). The index numbers for each month relate to prices of exports actually shipped during that month.

The current Export Price Index is a fixed weights index compiled on a reference base of 1989–90 = 100.0, with the weights based predominantly on Australian exports for 1988–89.

In general, prices are obtained from major exporters of the selected commodities included in the index.

The commodities included in the current index have been combined into broad index groups in three ways. Index numbers are

produced for groupings defined in terms of the Australian Harmonised Export Commodity Classification, on an industry of origin basis defined in terms of the Australian Standard Industrial Classification and for selected sections of the Standard International Trade Classification.

19.17 Export Price Index: index numbers based on the Australian Harmonized Export Commodity Classification (AHECC)
(Reference base year 1989-90 = 100.0)

	1990-91	1991-92	1992-93	1993-94	1994-95
All groups	95.0	89.6	93.5	91.8	94.7
AHECC sections					
Live animals, animal products	96.1	97.6	105.1	110.3	105.9
Vegetable products	77.9	83.1	94.3	88.6	82.7
Prepared foodstuffs	91.8	87.9	94.9	102.3	104.6
Mineral products	108.3	103.1	108.2	100.9	95.1
Products of chemical or allied industries	100.2	89.6	90.1	87.5	84.4
Wool & cotton fibres	77.8	66.6	60.9	59.0	80.8
Gold, diamonds & coin	96.6	91.8	99.6	110.4	104.0
Base metals & articles of base metals	92.6	79.7	81.0	76.3	96.8
Machinery & mechanical appliances	97.8	94.8	98.2	97.5	97.2
Motor vehicles, aircraft & vessels	100.0	100.4	105.0	109.3	108.2

Source: *Export Price Index, Australia* (6405.0).

19.18 Export Price Index — index numbers based on Australian Standard Industrial Classification (ASIC)
(Reference base year 1989-90 = 100.0)

Year	ASIC Divisions		
	Agriculture	Mining	Manufacturing
1989-90	100.0	100.0	100.0
1990-91	77.2	106.5	96.9
1991-92	72.9	103.5	89.8
1992-93	74.6	108.0	94.1
1993-94	72.2	101.0	95.2
1994-95	83.4	94.2	98.6

Source: *Export Price Index, Australia* (6405.0).

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